Proceedings 2022

e-ISBN: 978-974-692-445-0

IHUSOC III

The 3rd International Conference on Humanities and Social Sciences

&

NIVCMR (The 5th National and International Virtual Conference on Multidisciplinary Research)

25 April 2022

Faculty of Humanities and Social Sciences, Buriram Rajabhat University, Thailand

คณะมนุษยศาสตร์และสังคมศาสตร์

มหาวิทยาลัยราชภัฏบุรีรัมย์

First Published in April 2022 by:
Faculty of Humanities and Social Sciences, Buriram Rajabhat University
439 Jira Road, Muang District, Buriram Province 31000, Thailand
Tel:+6644-611-221 ext. 4001
Fax: +6644-612-858
Email:i-husoc2022@bru.ac.th

คณะกรรมการผู้ทรงคุณวุฒิพิจารณากลั่นกรองคุณภาพบทความวิจัยและบทความ (Peer reviewer) ระดับชาติและนานาชาติ (National and International level)

ศาสตราจารย์ ดร. ประยงค์ แสนบุราณ มหาวิทยาลัยมหามกุฏราชวิทยาลัย วิทยาเขตอีสาน

ศาสตราจารย์ ดร.วัชระ งามจิตรเจริญ	มหาวิทยาลัยธรรมศาสตร์
ศาสตราจารย์ ดร.บุญทัน ดอกไธสง	มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย
รองศาสตราจารย์ ดร.เอกฉัท จารุเมธีชน	มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย
รองศาสตราจารย์ ดร.อัญชลี วรรณรักษ์	มหาวิทยาลัยเทคโนโลยีสุรนารี
รองศาสตราจารย์ ดร. ชลวิทย์ เจียรจิตต์	มหาวิทยาลัยศรีนครินทรวิโรฒ
รองศาสตราจารย์ ดร.ประสาท เนืองเฉลิม	มหาวิทยาลัยมหาสารคาม
รองศาสตราจารย์ ดร.ประยงค์ จันทร์แดง	มหาวิทยาลัยพะเยา
รองศาสตราจารย์ ดร.ประกาศิต สิทธิ์ธิติกุล	มหาวิทยาลัยธรรมศาสตร์
รองศาสตราจารย์ ดร. โกวิทย์ พิมพ์พวง	มหาวิทยาลัยเกษตรศาสตร์
รองศาสตราจารย์ ดร.ศุภกรณ์ ภู่เจริญศิลป์	มหาวิทยาลัยธรรมศาสตร์
รองศาสตราจารย์ ดร.กิ่งแก้ว ปะติตังโข	มหาวิทยาลัยราชภัฏบุรีรัมย์
รองศาสตราจารย์ ดร. อัครพนท์ เนื้อไม้หอม	มหาวิทยาลัยราชภัฏบุรีรัมย์
รองศาสตราจารย์ ดร.สุนันท์ เสนารัตน์	มหาวิทยาลัยราชภัฏบุรีรัมย์
รองศาสตราจารย์ ดร. ประดิษฐ์ นารีรัตน์	มหาวิทยาลัยราชภัฏกำแพงเพชร
รองศาสตราจารย์ ดร. ธีรวิทย์ ภิญโญณัฐกานต์	มหาวิทยาลัยชินวัตร
ผู้ช่วยศาสตราจารย์ ดร.กรัณศุภมาส เอ่งฉ้วน	มหาวิทยาลัยมหิดล
ผู้ช่วยศาสตราจารย์ ดร. นวมินทร์ ประชานันท์	มหาวิทยาลัยราชภัฏบุรีรัมย์
ผู้ช่วยศาสตราจารย์ ดร. ชูเกียรติ จารัตน์	มหาวิทยาลัยราชภัฏบุรีรัมย์
ผู้ช่วยศาสตราจารย์ ดร. คำภีรภาพ อินทะนู	มหาวิทยาลัยราชภัฏบุรีรัมย์
ผู้ช่วยศาสตราจารย์ ดร. อนิวัช แก้วจำนง	มหาวิทยาลัยทักษิณ
ผู้ช่วยศาสตราจารย์ ดร. สุรชัย ปิยานุกูล	มหาวิทยาลัยราชภัฏบุรีรัมย์
ผู้ช่วยศาสตราจารย์ ดร. สหัทยา สิทธิวิเศษ	มหาวิทยาลัยราชภัฏเชียงราย

ผู้ช่วยศาสตราจารย์ ดร.สิปปีย์ ชยานุสาสนี จันทร์ดอน มหาวิทยาลัยราชภัฏมหาสารคาม

ผู้ช่วยศาสตราจารย์ ดร.สุชาติ บุษย์ชญานนท์	มหาวิทยาลัยราชภัฏอุบลราชธานี
ผู้ช่วยศาสตราจารย์ ดร. ฉลอง สุขทอง	มหาวิทยาลัยราชภัฏสุรินทร์
ผู้ช่วยศาสตราจารย์ ดร.ณัฐพัชร สายเสนา	มหาวิทยาลัยราชภัฏจันทรเกษม

ผู้ช่วยศาสตราจารย์ ดร.เมธาวี ยุทธพงษ์ธาดา	มหาวิทยาลัยเกษตรศาสตร์
ผู้ช่วยศาสตราจารย์ ศุภกิจ ภูวงค์	มหาวิทยาลัยราชภัฏบุรีรัมย์
อาจารย์ ดร.สิงห์คำ รักป่า	มหาวิทยาลัยพะเยา
อาจารย์ ดร.รุจิรา เส้งเนตร	มหาวิทยาลัยเกษตรศาสตร์
อาจารย ดร.ณัฐวุฒิ สุขประสงค์	มหาวิทยาลัยอุบลราชธานี
Professor Dr. R. Michael Smith	Niagara University, U.S.A.
Professor Dr. Walter S. Polka	Niagara University, U.S.A.
Professor Dr. Willy A. Renandya Nanyang	Technological University, Singapore
Professor Ni Ni Hlaing	University of Distance Education, Mandalay, Myanmar
Professor Dr. Will Barratt	University of Malaya, Malaysia
Professor Dr. Leslie Barratt	Professor Emerita of Linguistics at Indiana State University
Professor Dr. Nilima Nilima Bhagabati	Gauhati University, India
Professor Dr. Manish Pokharel	Kathmandu University, Nepal
Professor Dr. Ted Yu-Chung Liu	National Pingtung University, Taiwan
Professor Dr. Khin Mar Mar	Mandalay University, Myanmar
Professor Dr. Saw Pyone Naing	Sagaing University of Education, Myanmar
Professor Dr. Zaw Win	Sagaing University, Myanmar
Professor Dr. Kyi Shwin	Yangon University of Foreign Languages, Myanmar
Professor Dr. Aung Swe Htun	Department of Higher Education, MOE, Myanmar
Professor Dr. Mg Mg Oo	Mandalay University of Foreign Languages, Myanmar
Professor Dr. Zaw Tun	Mandalay University of Foreign Languages, Myanmar

Professor Dr. Thanda Soe	Mandalay University, Myanmar
Professor Dr. Nang Aye Aye Thein	Myitkyi University, Myanmar
Professor Dr. Ohnmar Than	Taungyi University, Myanmar
Professor Dr. Moet Moet	Mandalay University of Distance Education, Myanmar
Professor Dr. Tin Tin Wai	Mandalay University of Distance Education, Myanmar
Professor Dr. Ni Ni Lwin	Mandalay University of Distance Education, Myanmar
Professor Dr. Mya Ohn	Mandalay University of Distance Education, Myanmar
Professor Dr. Win Swe	Mandalay University of Distance Education, Myanmar
Professor Dr. Khin Swe Oo	Mandalay University of Distance Education, Myanmar
Professor Dr. Zaw Naing	Mandalay University of Distance Education, Myanmar
Professor Dr. Mu Mu Aye	Taungyi University, Myanmar
Professor Dr. Ashok R. Thorat	Institute of Advanced Studies in English, India
Professor Dr.Madhuri Gokhale	Fergusson College, India
Professor Dr. Himadri Sekhar Roy	Shahjalal University of Scieence and Technology, Bangladesh
Professor Dr. Mario P. Obrero	University of Northern Philippines, Philippines
Professor Dr. Irom Gambhir Singh	Manipur University, India
Associate Professor Dr. Barbara F. Turnage	Middle Tennessee State University, U.S.A.

Associate Professor Dr. Patricia Briscoe	Niagara University, U.S.A.
Associate Professor Dr. Lisa Kilanowski	Niagara University, U.S.A.
Associate Professor Dr. Pham Thi Hong Nhung	Hue University College of Foreign Languages, Vietnam
Associate Professor Dr. David Hayes	Brock University, Canada
Associate Professor Dr. Arshad Abd Samad	Universiti Puttra Malaysia, Malaysia
Associate Professor Dr. Tin Moe Yi	Loikaw University
Associate Professor Dr. Myint Htway	Kyaingtong University
Associate Professor Dr. Justin Bucchio	Fairleigh Dickinson University, USA
Dr. Phanhpakit Onphanhdla	The National University of Laos, Lao PDR
Dr. Abu Bakar Razali	Universiti Putra Malaysia, Malaysia
Dr. Truong Bachle	Hue University College of Foreign Languages, Vietnam
Dr. Pham Anh Tu	Hue University College of Foreign Languages, Vietnam
Dr. Mok Sarom	Ministry of Education, Youth and Sport, Cambodia
Dr. Nguyen Thi Thuy Loan	Vass College of Vocational Education, Australia
Dr. Bao Kham	Hue University, Vietnam

Message from the President of Buriram Rajabhat University

It is my personal appreciation to realize that the Faculty of Humanities and Social Sciences, Buriram Rajabhat University has hosted the IHUSOC III: The 3rd International Conference on Humanities and Social Sciences under the theme "Roles of Humanities and Social Sciences in SDGs via Community Engagement" online on 25 April 2022. The conference emphasized the trendy theme that goes line with the Sustainable Development Goals (SDGs) of the United Nations (UN), and also accords with the missions of Buriram Rajabhat University (BRU), an educational institution for local development. The BRU missions are definitely carried out according to the policies of the Ministry of Higher Education, Science, Research and Innovation (MHESI).

This conference is also co-hosted by the well-known institutes, including Niagara University, USA, Manipur University, India, Mandalay University of Distance Education, Myanmar, National Pingtung University, Taiwan, University of Foreign Languages, Hue University, *Vietnam,* University of Northern Philippines, Philippines, Institute of Advanced Studies in English, India, and Political Science Association of Kasetsart University, Thailand The IHUSOC III is, therefore, the academic event for strengthening academic collaborations with BRU's academic partners.

It is highly hoped that the IHUSOC III: The 3rd International Conference on Humanities and Social Sciences will contribute to the application of academic and research works on Humanities and Social Sciences in all aspects of social and local development and also
the 17 Sustainable Development Goals (SDGs) based on the framework of the United Nations such as No Poverty, Zero Hunger, Good Health and Well-being, and Quality Education, etc.

I, a president of Buriram Rajabhat University, warmly welcome co-hosts, experts, researchers, scholars, lecturers, students and participants to this symposium. Moreover, I would like to express my sincere thanks to a keynote speaker, Professor Dr.Kriengsak Chareonwongsak, and distinguished featured speakers from different well-known universities both in Thailand and overseas.

Last but not least, I wish this the IHUSOC III ever success in all objectives set.

Malinee Chutopama

(Associate Professor Malinee Chutopama)
President of Buriram Rajabhat University

Message from the Dean of Faculty of Humanities and Social Sciences

"Roles of Humanities and Social Sciences in SDGs via Community Engagement" is the main theme of the IHUSOC III: The 3rd International Conference on Humanities and Social Sciences because the SDGs is the hot issue that should be taken into serious consideration so as to preserve our world in the right and appropriate ways. The Sustainable Development Goals (SDGs) of the United Nations (UN) consists of the 17 items as the following: 1) No Poverty, 2) Zero Hunger, 3) Good Health and Well-being, 4) Quality Education, 5) Gender Equality, 6) Clean Water and Sanitation, 7) Affordable and Clean Energy, 8) Decent Work and Economic Growth, 9) Industry, Innovation and Infrastructure, 10) Reduced Inequality, 11) Sustainable Cities and Communities, 12) Responsible Consumption and Production, 13) Climate Action, 14) Life Below Water, 15) Life On Land, 16) Peace, Justice, and Strong Institutions, and 17) Partnerships for the Goals.

.The IHUSOC III conference is co-organized by well-known Thai and foreign universities with the following purposes of publicizing research, creative and innovative works on Humanities and Social Sciences relevant to SDGs of lecturers, students, educators, and researchers from both national and international institutions, and providing a platform for exchanging experiences and wisdom on Humanities and Social Sciences and also SDGs among national and international educators and researchers.

On behalf of the IHUSOC III symposium organizing committee, I would like to sincerely thank Associate Professor Malinee Chutopama, President of Buriram Rajabhat University for her support and useful advice. My special thanks go to a keynote speaker, Professor Dr.Kriengsak Chareonwongsak, and distinguished featured speakers for different partner institutes, I also would like to express my sincere thanks to both Thai and foreign co-hosts, journal editorial board, peer reviewers, commentators, researchers and all participants. It is highly hopes that this symposium will be beneficial to the participants to apply the obtained knowledge and experience in Humanities and Social Sciences and SDGs to their academic and professional works.

A. Nuemaihom

(Associate Professor Dr. Akkarapon Nuemaihom)
Dean of Faculty of Humanities and Social Sciences
Buriram Rajabhat University
Conference Secretariat

I-HUSOC III: The 3rd International Conference on Humanities and Social Sciences

under the theme

"Roles of Humanities and Social Sciences in SDGs via Community Engagement"

Date: 25th April 2022

Venue: Online via ZOOM Meeting

Rationale

Buriram Rajabhat University (BRU) is an educational institution for local development. BRU is categorized in the strategic group so called Area-based and Community of which its missions are carried out according to the policies of the Ministry of Higher Education, Science, Research and Innovation (MHESI). Moreover, the university must follow the Re-Inventing University policy set by the MHESI, and the missions also go in line with the Sustainable Development Goals (SDGs) of the United Nations (UN). Faculty of Humanities and Social Sciences is one of the seven faculties under Buriram Rajabhat University. The faculty, therefore, projects and activities must be carried out in accordance with the policy framework of the university.

University-Community Engagement is relevant to the projects and activities co-hosted and co-carried out by an educational institutes and a local community and society in the forms of academic services and volunteer works. This will lead to collaboration or engagement with "Local Parties" through the "Long-term Partnership" with the expectation that the "University" is a true stakeholder of the local community or society. Moreover, this will be a link between the "main missions" of the "University", covering graduate production, research doing, academic service, and preservation of arts and culture, by integrating these four missions together in a "strategic" and "systematic" process through various creative projects and activities.

Faculty of Humanities and Social Sciences, Buriram Rajabhat University possesses the aims to produce graduates with a comprehensive knowledge of humanities and social sciences, and to support and encourage students to become social engineers and volunteer to work together with villagers to develop local communities in all dimensions. This will help the faculty and communities achieve the 17 Sustainable Development Goals (SDGs) based on the framework of the United Nations as the following: 1) No Poverty, 2) Zero Hunger, 3) Good Health and Well-being, 4) Quality Education, 5) Gender Equality, 6) Clean Water and Sanitation, 7) Affordable and Clean Energy, 8) Decent Work and Economic Growth, 9) Industry, Innovation and Infrastructure, 10) Reduced Inequality, 11) Sustainable Cities and

Communities, 12) Responsible Consumption and Production, 13) Climate Action, 14) Life Below Water, 15) Life On Land, 16) Peace, Justice, and Strong Institutions, 17) Partnerships for the Goals.

For extending a body of knowledge of the University-Community Engagement towards Sustainable Development Goals (SDGs) through academic and research works, Faculty of Humanities and Social Sciences, Buriram Rajabhat University organizes the IHUSOC III: The 3rd International Conference on Humanities and Social Sciences under the theme “Roles of Humanities and Social Sciences in SDGs via Community Engagement” online on 25 April 2022. This IHUSOC III will open a platform for institutions, organizations, researchers, academics, and the general public to attend the conference and present academic and research works. They will also have a good opportunity to share their knowledge and experiences in the humanities and social sciences for contributing to sustainable development based on the United Nations’ goals.

Conference Purposes

1. To publicize research, creative and innovative works on Humanities and Social Sciences of lecturers, students, educators, and researchers from both national and international institutions;

2. To promote their research potentiality, and creative and innovative works on Humanities and Social Sciences;

3. To promote and develop quality and standardization of research, creative and innovative works on Humanities and Social Sciences in order to benefit the sustainable development of locality, society, and nation as a whole;

4. To be a platform for educators, researchers, lecturers, and students both inside the country and abroad to present their quality academic and research work in on Humanities and Social Sciences that can lead to local and national development; and

5. To be a platform for exchanging experiences and wisdom on Humanities and Social Sciences among national and international educators and researchers.

Target Groups/ Participants

1. 100 lecturers and personnel of Faculty of Humanities and Social Sciences, and from others faculties of Buriram Rajabhat University

2. 100 educators and researchers from both national and international universities where the MoUs have already been signed with Buriram Rajabhat University, and others persons who are interested in the conference.

Venue

Online via ZOOM Meeting

Conference Schedule and Venue

25th September 2019 Opening ceremony/ Keynote speech/ Featured speech/ oral and poster presentation

I-HUSOC III Sub-themes

Oral and poster presentations of academic and research papers cover the following themes and sub-themes:

1. Language, Linguistics, and Literature
2. Philosophy and Religion
3. Ethnics
4. Folklore
5. Library and Information Science
6. Music and Performance Arts
7. Fine and Applied Arts
8. Tradition and Culture
9. Tourism
10. History and Archaeology
11. Law and Politics
12. Social Development and Social Studies
13. Education, Technology and Learning Innovation
14. Other fields related to the conference theme

Co-Hosts

Buriram Rajabhat University, Thailand / Mandalay University of Distance Education, Myanmar / Council of Faculty of Humanitis and Social Sciences Dean of Rajabhat University, Thailand / Niagara University, U.S.A. / Middle Tennessee State University, U.S.A / National Pingtung University (NPTU), Taiwan / Institute of Advanced Studies in English, India / University of Northern Philippines, the Philippines / Shangrao Normal University, the People's Republic of China / Hue University College of Foreign Languages, Vietnam / Savannkhet Teacher Training College, Lao PDR / Royal University of Phnom Penh, Cambodia

Journals Joined in I-HUSOC III

1. **The conference proceedings**

2. Thai journals joined in the I-HUSOC III:

2.1 LEARN Journal: Language Education and Acquisition Research Network (TCI 1, ACI, SCOPUS), Thammasat University

2.2 Journal of Humanities & Social Sciences (JHUSOC) (TCI 2)

2.3 Academic Journal of Humanities and Social Sciences Buriram Rajabhat University (TCI 2)

2.4 Journal of Research and Development Buriram Rajabhat University (TCI 2)

2.5 Journal of Graduate Studies Buriram Rajabhat University

2.6 Interdisciplinary Management Journal

2.7 Music and Culture Journal

2.8 Journal of Education Mahasarakham University (TCI 2)

2.9 International Journal of Crime, Law and Social Issues (TCI 1)

2.10 PSAKU International Journal of Interdisciplinary Research (TCI 2)

2.11 Asian Administration and Management Review (TCI 2)

2.12 Asian Political Science Review

2.13 Journal of Interdisciplinary Research: Graduate Studies

3. Foreign journals joined in I-HUSOC III:

3.1 Asian Journal of English Studies (UGC), India

3.2 An International Journal of Contemporary Issues (UGC), India

3.3 Current Pediatric Research (SCOPUS Q3)

3.4 Journal of Positive Psychology and Wellbeing (SCOPUS Q2)

3.5 Central Asia and the Caucasus (SCOPUS Q3)

3.6 HIV Nursing (SCOPUS Q3)

3.7 International Journal of Special Education (SCOPUS Q3)

3.8 International Journal of Mechanical Engineering (SCOPUS Q3)

3.9 Theory and Practice in Language Studies (SCOPUS Q4)

3.10 International Journal of Health Sciences (SCOPUS Q4)

Remark: The manuscript edited according to peer reviewers will be publicized in the proceedings in the form of CD-ROM. The excellent research papers will be considerably publicized in the journals joined in this conference.

Consideration of Research Paper

1. Research paper selection presented in the conference and publicized in the proceedings will be according to the announcement of criteria for consideration of research and academic paper presentation and publication in NIC-HUSOC II: The 2nd National and International Conference on Humanities and Social Sciences, and the Faculty of Humanities and Social Sciences' Order of Appointing Editor-in-Chief Committee.

2. The research paper will be disqualified in the following cases:

2.1 Abstract, research articles, and posters are not in line with the conference's submission format or the researchers do not edit the paper according to the peer reviewers' comments and suggestions.

2.2 Late and/or incomplete registration and payment

3. The final consideration and decision of paper acceptance and rejection will be made by the appointed conference committee.

IHUSOC III Program

IHUSOC III: The 3rd International Conference on Humanities and Social Sciences

"Roles of Humanities and Social Sciences in SDGs via Community Engagement"

And

NIVCMR (The 5th National and International Virtual Conference on Multidisciplinary Research)

25 April 2022

Online via Zoom Meeting

****

08.45-09.20 am.	- Opening ceremony by Associate Professor Malinee Chutopama, President of Buriram Rajabhat University - Reported speech by Associate Professor Dr. Akkarapon Nuemaihom, Dean, Faculty of Humanities and Social Sciences - Introducing the conference co-hosts and invited Speakers
09.20-10.10 am.	Keynote address on "University-Community Engagement Leading to Achievement of SDGs" by Professor Dr. Kriengsak Chareonwongsak Senior Fellow at Harvard University, USA; President of the Institute of Future Studies for Development (IFD), Thailand
10.10-10.45 am.	Keynote speech on "Teacher Belief and Technology integration Practice of EFL Classrooms in Myanmar" by Professor Ni Ni Hlaing, Mandalay University of Distance Education (MUDE), Myanmar

10.45-11.20 am.	Keynote speech on "Meeting the Demands of the 21st Century: How the Social Work Profession is Uniquely Positioned to Lead Necessary Change" by Associate Professor Dr. Justin Bucchio Fairleigh Dickinson University, USA
11.20-11.50 am.	Keynote speech (Thai version) on "Decentralization for the People Sector Sustainability" by Associate Professor Dr.Thanaporn Sriyakul, Decentralization to the Local Government Organization Committee, Mahanakorn University of Technology
12.00-01.00 pm.	Lunch break
01.00-04.00 pm.	- Featured speech by invited speakers from different institutes - International poster and oral presentations via a video clip

N.B.: The program is subject to change as appropriate.

Featured Speaker, Commentator and Paper Presenter

IHUSOC III: The 3rd International Conference on Humanities and Social Sciences

under the theme

"Roles of Humanities and Social Sciences in SDGs via Community Engagement"

Date: 25 April 2022 / Venue: Online via Zoom Meeting

---------------------------&&---------------------------

No.	Featured Speaker & Commentator 1	Commentator 2	Presenters	Paper Title	MC.
1	Prof. Dr. R. Michael Smith Niagara University, USA	Assoc.Prof.Dr.Akkarapon Nuemaihom Buriram Rajabhat University	*1. Prof. Dr. R. Michael Smith (Featured speaker)	Ranking Sustainability Development Goals according to Leadership Positions and Organization	Ms. Thitaporn Putklang
			2. Khoi Tuan Tran	Aspergillus species, the opportunistic fungal pathogen colonizing electric fans and air conditioners in human resident areas	
			3. Thint Myat Thu	The Evaluation of the Effectiveness of Disinfectant Wipes and the Prevalence of Nosocomial Pathogens in Medical Intensive Care Unit (MICU) of Tertiary care Hospital in Khon Kaen, Thailand	
			4. Archie N/A Martinez	Compliance to the DAR Rationalization Program (EO 366): The Ilocos Sur Philippines Experience	

			5. Kanakorn Sawangcharoen	Using fuzzy logic in preventive.maintenance scheduling for metal stamping machines with ERP systems	
			6. Zin Mar Tun	A Survey on Optimality Control for Buying Sugar-cane Stalks and Its Related Tasks	
			7. Prof. Dr. Madhuri Gokhale	Literature for life: A journey towards sustainable development	
2	Prof. Dr. Irom Gambhir Singh Manipur University, India	Prof. Saw Pyone Naing Retired Rector Sagaing University of Education, Myanmar *Assistant Commentator: Asst. Prof. Suphakit Phoowong Buriram Rajabhat University	*1a. Prof. Dr. Irom Gambhir Singh (Featured speaker) 1b. Prof. Saw Pyone Naing	Pending - Environmental Images and Perception in the Environmental Awareness of Rural People, Myanmar (Prof. Saw Pyone Naing)	Ms.Tatiya Tanuanram
			2. Protiva Rani Karmaker	Futuristic Education based on Humanities and Social Science for Sustainable Development	
			3. Umarin Ratree	Factors influencing the decision to purchase local souvenirs in lower northeastern region, Thailand	
			4. Su Mon Aung	Reading Comprehension Difficulties among EFL Learners at Universities	
			5. Su Mon Aung	Beliefs and Vocabulary Learning Strategies Adopted by EFL Learners at Myanmar Universities	

			6 . Minh Nhat Tran Viet	Investigating the mental health status of collegiate students during Covid-19 pandemic: A case study of Burapha University International College	
3	Prof. Dr. Ted Yu-Chung Liu National Pingtung University, Taiwan	Assoc. Prof. Dr. Justin Bucchio Fairleigh Dickinson University, USA	*1a. Prof. Dr. Ted Yu-Chung Liu *1b. Assoc. Prof. Dr. Justin Bucchio (Featured speakers)	-Meeting the Demands of the 21stCentury: How the Social Work Profession is Uniquely Positioned to Lead Necessary Change (Assoc.Prof. Dr.Justin) - (Prof. Dr. Ted)	Ms. Pallapa Lertcharoen wanich
			2. Kamolchanok Kanharin	Factors Affecting Online Purchase Decision of College Students in Ubon Ratchathani Province during COVID-19 Pandemic	
			3. Kamonthip Torsabsinchai	User Interface Design and Developing Prototype: The Information Event Website of Media and Design Contest for Undergraduate Student	
			4. Boosayamas Chuenyen	Marketing Factors Influencing on Purchasing Decisions in Environmental Friendly Products of Generation Y Consumer in Ubon Ratchathani Province	
			5. Mya Thet Mon	Chemistry Education: Enhancing Students Chemical Literacy and Transferable Skills	
			6. May Thu Htun	Study on Feeding Habits of Oreochromis niloticus and Mystus vittatus at Sittaung Segments between Myot Gyi and Pauk Taw Village, Taungoo Township	

4	Dr. Bao Kham University of Foreign Languages, Hue University, Vietnam	Prof. Ni Ni Hlaing Mandalay University of Distance Education, Myanmar	*1. Bao Kham (Featured speaker)	Social Presence in Learning Management System: Experience Can't Be the Best Teacher	Ms. Soranee Nielsen
			2. Paranyoo Janhom	Academic Leadership of School Administrators under Office of the Basic Education Commission	
			3. Khaing Zin Thant	Students Perceptions of the Impact of the TOEFL vs IELTS on their English-learning Practices	
			4. Mya Thet Mon	Context-based Approach in Chemistry Teaching	
			5. Than Than Win	Academic Achievement and Computer Attitudes among Myanmar University Students	
			6. Sudarat Sombat	How to Measure a Value of Brand to Make Business Survive	
			*7.Ni Ni Hlaing *Already presented in the morning session as a keynote speech	Teachers Beliefs, Barriers, and Classroom Practices towards Technology Integration in EFL Classrooms of Myanmar	
5	Prof. Dr. Mario P. Obrero University of Northern Philippines, Philippines	Asst.Prof.Dr.Nawamin Prachanant Buriram Rajabhat University	*1. Prof. Dr. Mario P. Obrero (Featured speaker)	Revisiting the Use of Statistics in the Social Sciences	Ms. Jansuda Boontree
			2. Wichuda Sawatdee Sangthonglang	Ethics of the Press in Online Social Media	
			3. Malinee Srimaitree	Human Resource Management Satisfaction	

				in Warin Chamrap Municipality, Ubon Ratchathani Province	
			4. Preeyaphatsanakorn Summart	Academic Leadership of School Administrators in Digital Era under Roi Et Primary Educational Service Area Office 3	
			5. Akaranun Asavarutpokin	A Study on the Creation of Close-Die Forging Molds of Industrial Components Manufacturers	
			6. Yoyok Amirudin	Understanding the construction of Pesantren at Indonesian Islamic Education from the perspective of social construction	
			7. Khaing Zin Thant	Postgraduate Student Gender Equality in Myanmar University Context	
6	Prof. Dr. Ashok Thorat Institute of Advanced Studies in English, India	Asst.Prof. Dr.KampeeraphabIntanoo Buriram Rajabhat University	*1. Dr. Ashok Thorat (Featured speaker)	Digital Humanities - A Reversal of the Process of Segmentation of Knowledge	Ms. Waridtha Rattanawaropas
			2. Dongdong Qin	Exploration of the Chinese Phonetics Project-Based Learning Mode	
			3. Ohnmar Win	On-site vs Online EFL Teaching: Challenges and Coping Strategies	
			4. Kyaw Sein	Value of Impromptu Talk Activity at Tertiary Level in Myanmar	
			5. Zarni Mar	The Use of Information and Communication Technology in the EFL Classrooms in Myanmar University Context	
			6. Zarni Mar	The Use of L1 in the EFL Classrooms of Myanmar	

7	Dr. Nguyen Thi Thuy Loan VASS College of Vocational Education	Asst.Prof. Dr. Chookiat Jarat Buriram Rajabhat University	*1. Dr. Nguyen Thi Thuy (Featured speaker)	Becoming a Teacher Researcher: Why & How?	Asst.Prof. Rungnapa Moendee
			2. Wai Hnin Ei	Learning Styles of Chinese Students in Universities of Foreign Languages of Myanmar	
			3. Yee Mon Cho	Preparing English Teachers for Global Citizenship Education in Terms of Experiential Learning Cycle (ELC) Model	
			4. Aye Aye Mar	Undergraduate Students Perception towards Grammar Assessment in the EFL Classroom	
			5. Wint Khin Sandar Chit	Incorporation of Global Citizenship Education into ELT: Myanmar Context	
			6. Soe Darli Wai	Improving Cooperative Behavior using Social Skills Instruction in English Language Classrooms	

NB: The Zoom link together with the Meeting ID and the Passcode for all presenters.

https://us02web.zoom.us/j/82143945145?pwd=RXg3Qzkxczh0U296YjZNUk0yQTNtZz09

Meeting ID: 821 4394 5145

Passcode: 99999

Featured Speaker, Commentator and Paper Presenter

IHUSOC III: The 3rd International Conference on Humanities and Social Sciences

under the theme

"Roles of Humanities and Social Sciences in SDGs via Community Engagement"

And

NIVCMR (The 5th National and International Virtual Conference on Multidisciplinary Research)

Date: 25 April 2022 / Venue: Online via Zoom Meeting

----------------------------&&----------------------------

No.	Commentator 1	Presenters	Paper Title	MC.
1	Associate Professor Dr.Thanaporn Sriyakul	ดนัยกฤต อินทุฤทธิ์ Danaikrit Inthurit	ตัวแบบพยากรณ์การออมและการลงทุนของคนกลุ่มเจนเนอเรชันวายในสถานการณ์โรคระบาด: กรณีศึกษา การออมและการลงทุนของคนที่คนกลุ่มเจนเนอเรชันวาย ในสถานการณ์การระบาด Covid-19 คนในกรุงเทพมหานครฯ Forecasting Model for Saving and Investment for Generation Y in the Pandemic: Case Studies Saving and Investment of Ganeration Y People in the Situation of the Covid-19 Virus Pandemic in Bangkok	Prapakorn Mankhong

		คนัยกฤต อินทุฤทธิ์ Danaikrit Inthurit	ปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์รถยนต์ไฟฟ้าแบตเตอรี่ BEV Factors Effecting towards Purchase of The Battery Electric Vehicle	
		วริสรา เลิศไพฑูรย์พันธ์ / สุรพันธ์ สันติยานนท์ Warisara Lertpaitoonpan / Suraphan Santiyanon	ปัจจัยที่มีอิทธิพลต่อการเกิดขยะก่อสร้างในโครงการก่อสร้างอาคาร: แนวทางการวิเคราะห์เส้นทาง Factors Influencing Construction Waste Generation in Building Construction Project: A Path Analysis Approach	
		สิรินทร์นดา ฉัตรโพธิ์สกุล / เทียน เลรามัญ Sirinnada Chatposkool / Taien Layraman	ความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด Expectations and Satisfactions of Chinese Tourists toward Service of Chiangmai Twinzy Travel Company Limited	
		ขวัญเรือน ลิ้มสกุล / ปรเมษฐ์ แสงอ่อน / วิไลลักษณ์ รักบำรุง Kwanruan Limsakul / Poramet Sang – on / Wilailuk Rakbumrung	ปัจจัยที่ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) Factors affecting the acceptance of the PacD application for communication and learning among employees of LH Financial Group Public Company Limited	

		ขวัญเรือน ลิ่มสกุล / ปรเมษฐ์ แสงอ่อน / วิไลลักษณ์ รักบำรุง Kwanruan Limsakul / Poramet Sang – on / Wilailuk Rakbumrung	โมเดลการยอมรับเทคโนโลยี : การประยุกต์ใช้สำหรับพัฒนาแอปพลิเคชัน Technology adoption model: applied for application development	
		ภัคพล จันทร์แพง / ปรเมษฐ์ แสงอ่อน / ศุภรา เจริญภูมิ	นวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการ บริษัท โอ เอส การาจ จำกัด Service Innovation Affecting of Customer Loyalty to The OS Garage Company Limited	
		ภัคพล จันทร์แพง / ปรเมษฐ์ แสงอ่อน / ศุภรา เจริญภูมิ	นวัตกรรมการบริการซ่อมบำรุงรถยนต์ The Service Innovation for Car Maintenance	
		คุณา ญาณสาร / ปรเมษฐ์ แสงอ่อน / วิไลลักษณ์ รักบำรุง Khuna Yanasarn / Poramet Sang-on / Wilailuk Rakbumrung	นวัตกรรมการตลาดที่ส่งผลต่อความภักดีของลูกค้าในกลุ่มบริษัทโลจิสติกส์ Marketing innovation affecting to customer loyalty of logistic company group	

		คุณา ญาณสาร / ปรเมษฐ์ แสงอ่อน / วิไลลักษณ์ รักบำรุง Khuna Yanasarn / Poramet Sang-on / Wilailuk Rakbumrung	คุณภาพการบริการที่ส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกลบอล จำกัด Service quality affecting to customer loyalty of BD Plus Global Company Limited	
		จิดาภา ผริตาฤทธิ / ปรเมษฐ์ แสงอ่อน / ทวีป พรหมอยู่ Jidapa Pharitharich / Poramet Saeng-on / Taweep Promyoo	ปัจจัยที่ส่งผลต่อความภักดีของธุรกิจร้านกาแฟ: การทบทวนวรรณกรรม Factors Affecting Loyalty Coffee Shop: Literature Review	
		วิธิญญา ศรีดี / ปรเมษฐ์ แสงอ่อน / วิไลลักษณ์ รักบำรุง Witinya Sridee / Poramet Sang-on / Wilailuk Rakbumrung	กระบวนการวิเคราะห์และออกแบบแอปพลิเคชัน: การประยุกต์ใช้การออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีน Application analysis and design procedure: Applied application design for management of products import from China	

		วิรัช วัฒนกิตติคุณ / ปรเมษฐ์ แสงอ่อน / ศุภรา เจริญภูมิ	นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจซื้ออาหารโฮมเมด Service Innovation Affecting Decision to Purchase Homemade Food	
		นิชานาถ อมรกิติพล / ทวีป พรหมอยู่ Nichanath mornkitiphon / Taweep Promyoo	นวัตกรรมบริการที่ส่งผลต่อการตัดสินใจเลือกใช้บริการ บริษัทจัดสวน Service innovation that affects the decision to use a gardening company	
		อรพิมล ณ นคร / ปรเมษฐ์ แสงอ่อน / ศุภรา เจริญภูมิ	นวัตกรรมการตลาดสำหรับการให้บริการติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม Marketing Innovation for Solar Rooftop Installation Service in Factory	
		ณัชทิชา อมรกิติพล / ทวีป พรหมอยู่	นวัตกรรมบริการกับการตัดสินใจซื้อ การประยุกต์กับธุรกิจประกัน The Service Innovation and Purchasing Decisions Application to Insurance Business	
		ทวีนันท์ ช่วยนา / ทวีป พรหมอยู่ Thaweenan Chuayna / Taweep Promyoo	นวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ Marketing innovations that affect the purchasing decision of herbal health supplements	

		ชิดชนก ลิ้มวัฒนะ	การตัดสินใจที่มีอิทธิพลต่อการเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ในเขตกรุงเทพมหานคร Decisions that influence the purchase dietary supplement Proflex Whey Protein in Bangkok	
		สถาพร ถาวรนุรักษ์ / นิตยา สินเธาว์ Sathaporn Thawornnurak / Nittaya Sintao	ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ Effectiveness of the Elderly Allowance Policy of the Pak Phraek Subdistrict Administration Organization, Bang Saphan Noi District, Prachuap Khiri Khan Province	
		จิราภรณ์ เพ็ญสุข Jiraporn Pensuk	แนวทางการลดค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนา: กรณีศึกษา สภาเกษตรกรจังหวัดปราจีนบุรี Guidelines for reducing expenses in organizing training and seminars: A case study of Prachinburi Farmers Council	
		กมลทิพย์ ต่อทรัพย์สินชัย Kamonthip Torsabsinchai	รูปแบบตัวอักษรในการออกแบบสื่อประสานกับผู้ใช้บนอุปกรณ์พกพาสำหรับผู้ใช้งานที่มีอายุตั้งแต่ 50 ปีขึ้นไป Font Styles in the Design in Mobile User Interfaces for Users Aged 50 and Over	

		รุ่งนภา ทิพย์รัตนมงคล / ปราณี เอี่ยมลออภักดี Rungnapa Thiprattanamongkol / Pranee Eamlaorpakdee	กลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณา: กรณีศึกษา ศูนย์การค้า ก. ในจังหวัดขอนแก่น The Pricing Strategics Affecting the Decision Making in Purchasing Digital Advertising Media: Case study of Shopping Center KOR in Khon Kaen Province	
		ธงชัย เหลืองทอง / ปณิชา พรประสิทธิ์ / วิเชียร อ่อนละมูล / Tongchai Luangtong / Panicha Ponprasit / Vichian Onlamoon	ปัจจัยที่มีผลต่อความสำเร็จและสมรรถนะของนักดนตรีมืออาชีพ Factors Affecting the Success and Competencies of Professional Musicians	

NB: The Zoom link together with the Meeting ID and the Passcode for all National presenters.

https://us02web.zoom.us/j/83417203315?pwd=cXdqV0lJYWdEU3dydFdqY3ZyK0lEZz09
Meeting ID: 834 1720 3315
Passcode: 2525

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

TABLE OF CONTENTS (cont.)

TABLE OF CONTENTS (cont.)

Page

Other fields related to the conference theme (cont.)

สารบัญ

การนำเสนอแบบบรรยาย

สารบัญ

การนำเสนอแบบบรรยาย

สารบัญ

การนำเสนอแบบบรรยาย

สารบัญ

การนำเสนอแบบบรรยาย

สารบัญ

การนำเสนอแบบบรรยาย

Keynote Speech / Feature Speech

University-Community Engagement Leading to Achievement of SDGs

Kriengsak Chareonwongsak[1]
[1]Professor Dr., Former Prime Ministerial Advisor of Thailand,
Senior Fellow: Harvard University
Chairman: Nation-Building Institute
Email: kriengsak@kriengsak.com

Part 1: Analysis of the University-Community Engagement's current situation

1. Needs and expectations of the university and community are not aligned

- Most of the cooperation is set up by the university
- The needs and interests of personnel in the university differ
- People in the community also have different needs and expectations
- Results of cooperation do not always apply to, or are unsuitable for the community

2. Objectives and plans do not converge

- Work separately
- Fail to grasp the big picture

3. The allocation of benefits is unclear and unattractive

- Unclear in the determination of mutual benefits
- Some stakeholders in the community do not participate and feel it is unfair

4. Limitations of Budget and Resources

- University: Facing financial constraints
- Lower birth rate → A decrease in the number of students
- Need to survive and to compete in educational management

Community:

- Financial support from the government, university or private sector, etc.
- Limitation on funding – get funding only for small projects

5. The procedure for working together is unclear and Ineffective

- Ineffectiveness
- Tension
- Confliction

6. The community makes little contribution

- University = Senior Partner / Main Operators
- Community = Junior Partner

7. Distrust between the university and community

The community

- does not trust recommendations from the university
- does not provide sensitive information for the projects

The university

- displays hostile, distorting, and concealing attitudes towards the community

8. Ineffective communication

Language barriers

University: using academic language

Community: using parochial language

Communication lacks continuity

9. Coordination within the university creates tension

- The cooperation with the community is complex, requiring a variety of disciplines
- Working together across faculties/disciplines is stressful.

10. Attitudes of university personnel are not conducive to cooperation

The difference in work between 2 groups

university personnel → smaller, homogenous, academically interested

community people → more numerous, diverse

View the community as a needy agency

View cooperation with the community as a charity

University – Donor / Community - Recipient

11 Lack of assessment of the effectiveness and impact

- Lack of evaluation from both parties
- The university uses an academic assessment
- Evaluate output, do not outcome

Part II: Guidelines for the University-Community Engagement Leading to Achievement of SDGs

1. Focus

The project has clear focus:

• Area-based
• Issue-based
• People-based*

Thailand's SDG Dashboards and Trends 2021

Source: Sustainable Development Report 2021

Major challenges of Thailand (2021)

SDG2 – Zero Hunger Issues with Major challenges:
- Sustainable Nitrogen Management Index and
- Exports of hazardous pesticides (tonnes per million population)

SDG3 – Good Health and Well-Being Issues with Major challenges:
- Incidence of tuberculosis (per 100,000 population) and
- Traffic deaths (per 100,000 population)

SDG10 – Reduced Inequalities Issues with Major challenges:
- Gini coefficient adjusted for top income and
- Palma ratio

SDG14 – Life Below Water Issues with Major challenges:
- Mean area that is protected in marine sites important to biodiversity (%),
- Ocean Health Index: Clean Waters score (worst 0–100 best) and
- Fish caught from overexplolted or collapsed stocks (% of total catch)

SDG15 – Life on Land Issues with Major challenges:
- Mean area that is protected in freshwater sites important to biodiversity (%) and
- Red List Index of species survival (worst 0-1 best)

2. Niches

For example; Thailand
- “Jasmine Rice University”
- “World Jasmine Rice Community”

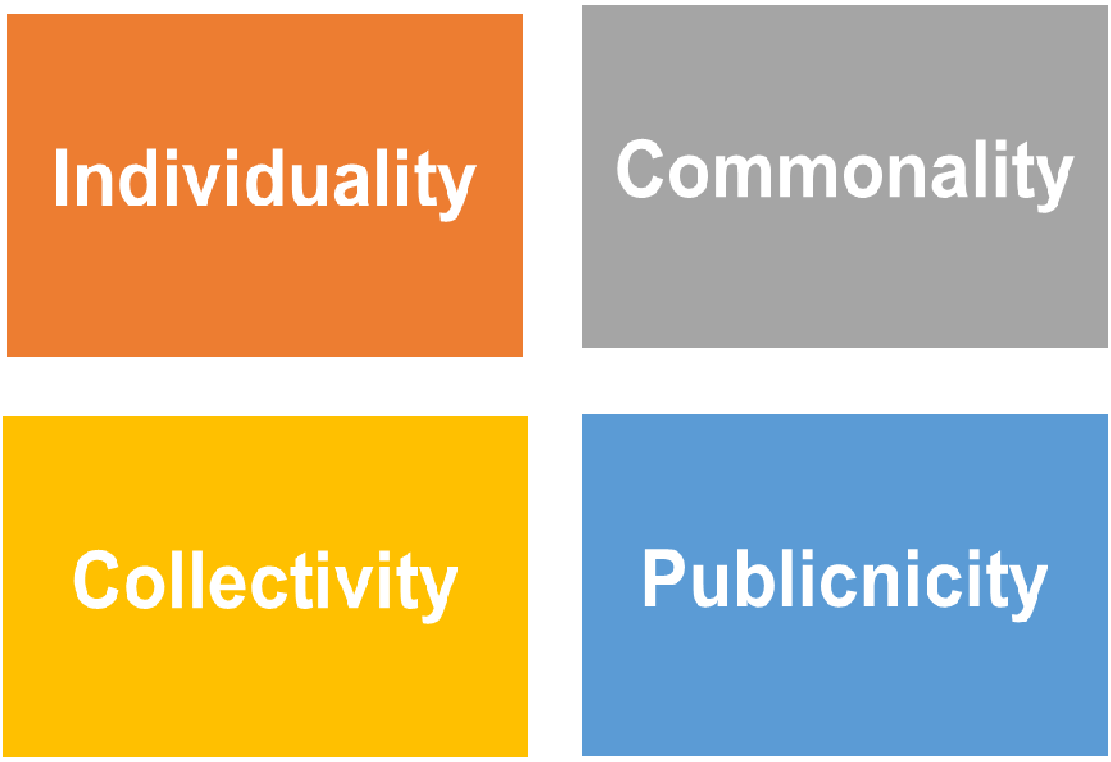
3. Tri-Sectoral Integration

Tri-Sectors: Public-Private-People Sector*

- Defining the problem together
- Set objectives and a clear plan together
- Clearly define contributions of all parties
- Identify the best representative of each party to support coordination

Source: Kriengsak Chareonwongsak. (2017). Virtuous Men Can be Developed: The Integrity Model, Bangkok: Success Publishing, p 165-166.

4. "4 WINs" Model*



Dr. Dan Can Do "4 WINs" Model

Source: Kriengsak Chareonwongsak. (2014). Siam Arayanusati: Civilized Patriotism, Bangkok: Success Publishing.

5. Cap-Corner Stone Project (CCS)*

- ✓ 3I: Ideation, Implementation & Impact**
- ✓ Small, but High Impact

Source: Kriengsak Chareonwongsak, "Harvard trains people to create innovations 1," Siamrath Weekly Review 60, 31 (2013 April 19-25): 37. and Kriengsak Chareonwongsak, "Harvard trains people to create innovations 2," Siamrath Weekly Review 60, 32 (2013, April 26 – May 2): 37.

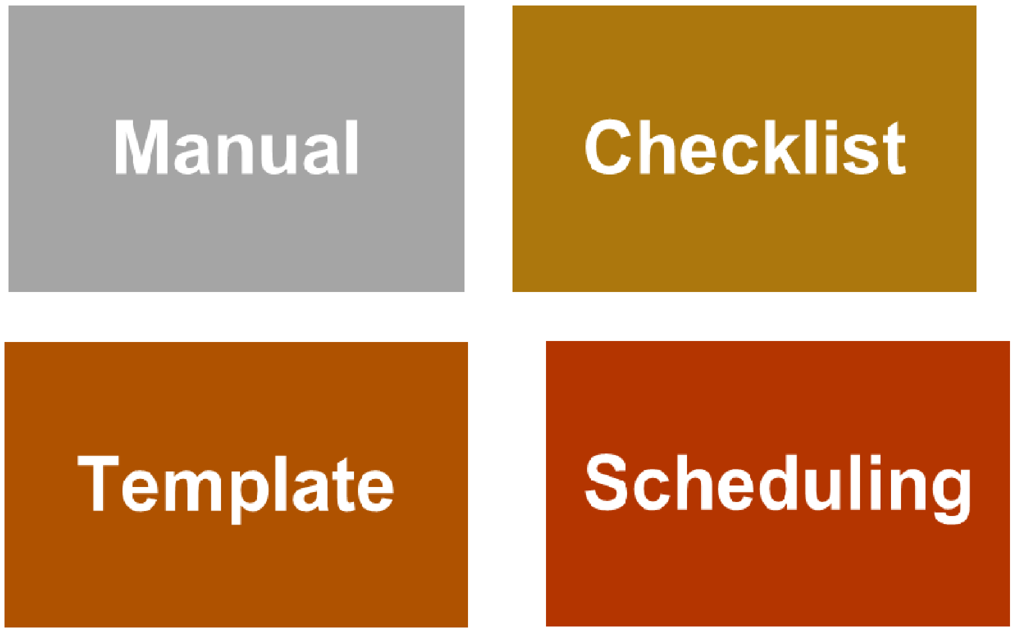
6. Best Practices

Dr. Dan Can Do's 5 Stages of Innovation Development

Source: Kriengsak Chareonwongsak. Speech, Roles and challenges of humanities and social science education in ASEAN, Faculty of Humanities and Social Sciences, Khon Kaen University. 2014 September, 5.

7. Standardization

- Set standard procedure for cooperation
- MCTS*:



Source: Kriengsak Chareonwongsak. (2021). Leading and Managing in Times of Crisis: Lessons
from COVID-19, Bangkok: Success Publishing.

8. Create trust

Personal Trust

- Knowing - Take time to know each other
- Understanding - What does each party like or dislike
- Loving - Start the cooperation with love

Conclusion

Head : University
Heart : Bridge (Missing)
Hand : Community

Ranking Sustainability Development Goals according to Leadership Positions and Organization

Professor Dr. R. Michael Smith
Niagara University, USA

Abstract

In 2015, the United Nations initiated the 17 Sustainability Development Goals (SDG's) for its 193 country members to achieve worldwide by 2030. Interestingly, the goals are based on the sustainability philosophy developed and practiced by Thailand's King Rama IX a number of years earlier. This paper will provide an overview of the current country rankings for achieving the 17 SDG's, and then discuss a survey sample that ranks the top 8 SDG's from a sampling of various business and educational leaders enrolled in a PhD program at Niagara University.

Meeting the Demands of the 21st Century: How the Social Work Profession is Uniquely Positioned to Lead Necessary Change

Associate Professor Dr.Justin Bucchio
Department Chair & MSW Program Director, School of Pharmacy & Health Sciences, Fairleigh Dickinson University, USA

Abstract

Many challenges have surfaced during the 21st century requiring innovative problem-solving approaches to achieve resolution. Issues such as social and racial injustice, violence, health disparities, substance dependency, environmental changes, and homelessness continue to greatly impact the United States and societies around the world. This presentation will focus on the profession of social work and how the field is equipped to promote strategies of change related to major social problems.

Emergence of Digital Humanities: A Reversal of the Process of Segmentation of Knowledge

Professor Dr.Ashok Thorat
Founder-Director, IASE, Pune, India

Abstract

Human history is marked by a phenomenal growth of knowledge. The speed got accelerated with the introduction of printing press, several phases of industrial revolution, and finally the digital turn. It is estimated that there are about fifty billion pages in print form and more than ten trillion pages on the Internet today.

This exponential growth is both an advantage and a challenge. Knowledge management has growingly become a huge task and segmentation or compartmentalization has become the norm. The first division between natural sciences and the humanities that occurred in the fourteenth century paved way for further divisions and sub-divisions. Today, we have several disciplines, departments, subjects, and innumerable specializations that often function in isolation. Contrary to this, no human problem is monodisciplinary. Each seemingly single problem is actually a cluster of problems belonging to different subjects and/or disciplines. This has given rise to a holistic approach that fosters combining disciplines and various factors in the contexts in which knowledge is created and used.

Digital humanities, an emerging discipline, supports the anti-segmentation process by imbibing multidisciplinary, collaborative, and democratic approach. Basically, a project-based and production-oriented discipline, digital humanities demands bringing together experts or researchers from different disciplines who bring a variety of experience and expertise together for addressing human problems. In its latest form, ie. after the year 2004 when it was christened as ‘Digital Humanities’, this discipline has been trying to break the walls between subjects and to crossing the boundaries set by disciplinary identities. This marks the beginning of reversal of the process of segmentation of knowledge.

Becoming a Teacher Researcher: WHY & HOW?

Dr. Nguyen Thi Thuy Loan
VASS College of Vocational Education, Australia

Abstract

Educational research has generally attracted negative criticisms for its generalisability, contextual independence and inadequacy in addressing teachers' practical problems in their own educational settings. Moreover, as classrooms are always complicated, teachers are therefore encouraged to become active researchers of their own classrooms in order to maximize their instructional performance and provide optimal learning opportunities for their students within their particular context. To promote teachers' self-inquiry into their own practices, this presentation will first define what teacher research is, followed by the arguments for its need and significance in the teaching profession. Suggestions to help teachers become engaged into classroom inquiry are provided after difficulties commonly reported to be encountered by teacher-researchers are reviewed. This talk is thus expected to provide some considerable insights for classroom-teachers as well as school administrators in their search for practical, concrete and contextually-rich knowledge.

Environmental Images and Perception in the Environmental Awareness of Rural People, Myanmar

Professor Dr.Saw Pyone Naing
Rector (retired), Ministry of Education

Abstract

The study villages included different geographical and ecological zones of Myanmar which are representing delta area, dry zone area and inland fresh water lake area respectively. The study in these rural areas showed that environmental images of villagers are mainly related to their intimate physical environment and social environment very well. Although types of occupation and level of education are important for environmental perception and environmental images of rural people, some basic systems such as belief, tradition and culture are strongly related to villagers' cognition processes. In this way, traditional practice of conservation of villagers usually associated with their images on environment as well. Conservation on physical environment is interdependently related to the use of land for various economic activities.

Keywords: Environmental images, environmental perception, physical environment, social environment, environmental awareness, conservation

Introduction

Mental images are the basis of human behaviour. They are personal representations based on observations and past experiences. Each individual has a personal image of the world, and each share all or part of that image with members of a social group. This image tends to be centred on the individual or the group. Of many types of images, geographers are primarily concerned with images of the environment. In analysing human behaviour in the natural environment, geographers are concerned with tangible elements that are bases for images. An image may be nothing more than an inventory of these elements; however, if decisions are to be made, a quality of appraisal must be added, a finding that something is beneficial or harmful, beautiful or ugly, desirable or undesirable.

Mental images are the individual's or group's constructs of phenomena that have been experienced either directly or indirectly. Images are constructed outwardly from features or locations most important to the observer. Although the scale varies from a few square kilometres to the entire earth, the image is clearest for those areas considered to be the most important. As an individual matures or a social group becomes larger and more sophisticated, the area encompassed by the clear image is enlarged.

A psychological turn in human geography in the late 1960s directed attention to the central role of perception as mediation between the environment and human action. To specify a key role for cognition was also to relax the determinism of locational analysis with its assumption of fully rational spatial behaviour. Research led to proliferation of terms describing mental configurations of space. The most influential research was Peter Gould's innovative experiments exploring the content of what he called mental maps.

Decision-makers operating in an environment base their decisions on the environment, as they perceive it, not as it is. The action resulting from decisions is played out in the real environment. The study of environmental perception in geography focuses on the ways in which the actors` understanding of their surroundings conditions their behaviour within their surroundings. (Figure 1)

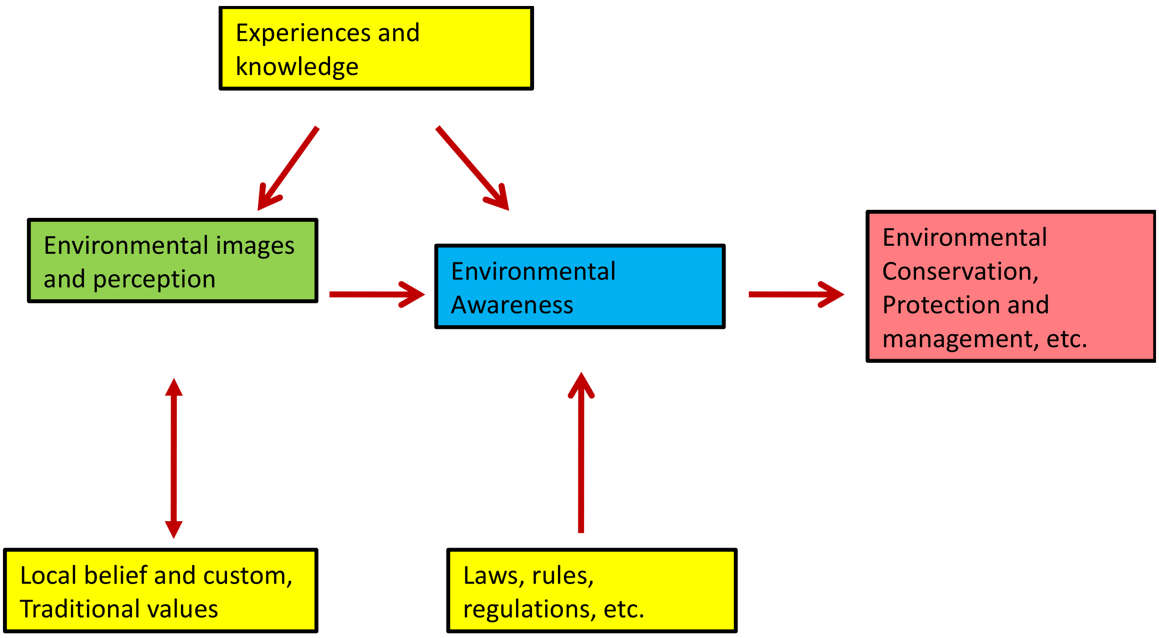


Figure 1 The links among environmental images, environmental awareness, and environmental conservation (based on field survey)

Study Areas

Study areas are selected as 2 villages of Maubin Township which is located in Ayeyarwaddy Delta, one village of Poppa which is located in Central Dry Zone and 5 villages of Inle lake which is located in Shan State.

Maubin, Ayeyarwaddy Delta Area

Central Dry zone Area

Inle Lake Area

Figure 2. Study areas in Myanmar

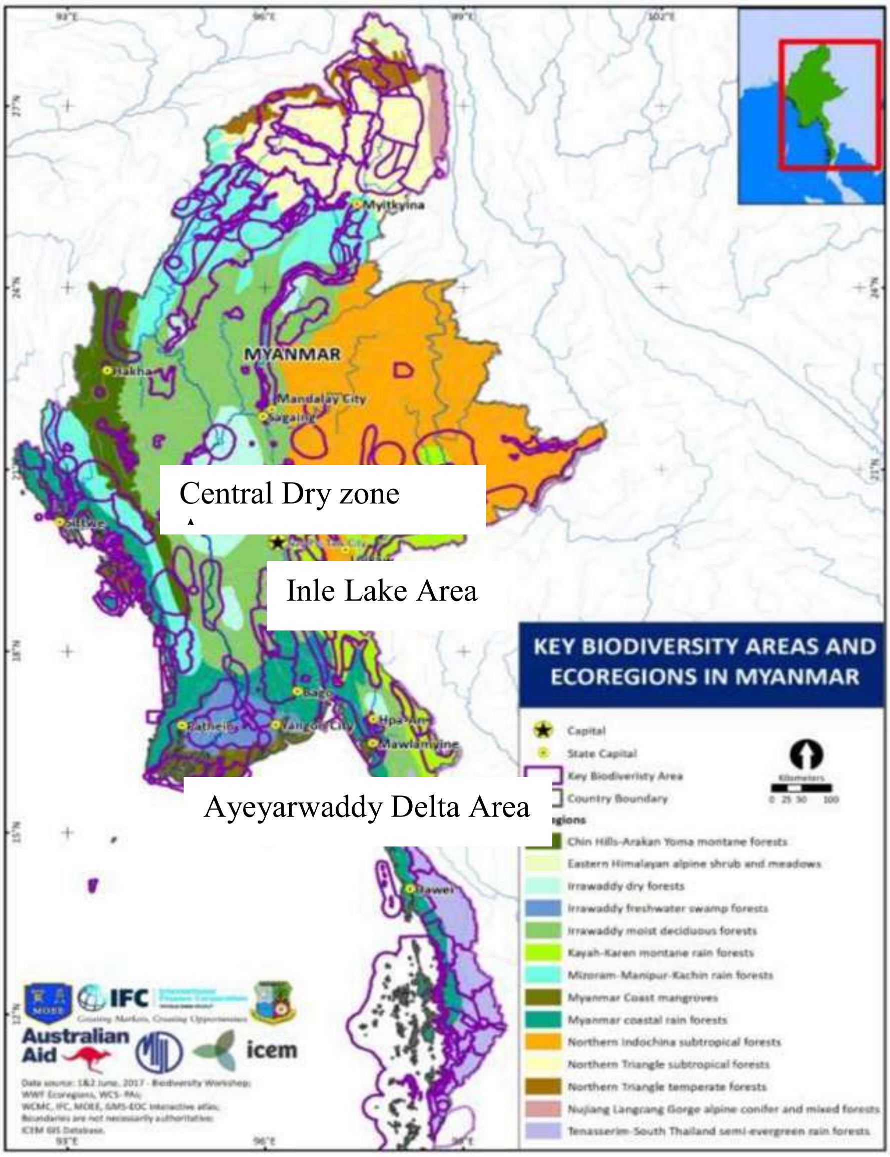


Figure 3. Key biodiversity areas and ecoregions in Myanmar

The study areas also represented three of the key biodiversity areas and ecoregions in Myanmar. (Figure 2 and 3)

Methodology

This study mainly used primary data collection and field observations. Environmental images and perception of the villagers are defined by the data from questionnaire and interviews and sketches of mental maps drawn by the villagers. Images and perception on changes in the environment, awareness on natural hazards and disasters, and awareness on conservation are also analyzed from these primary data sources. (Figure 4)

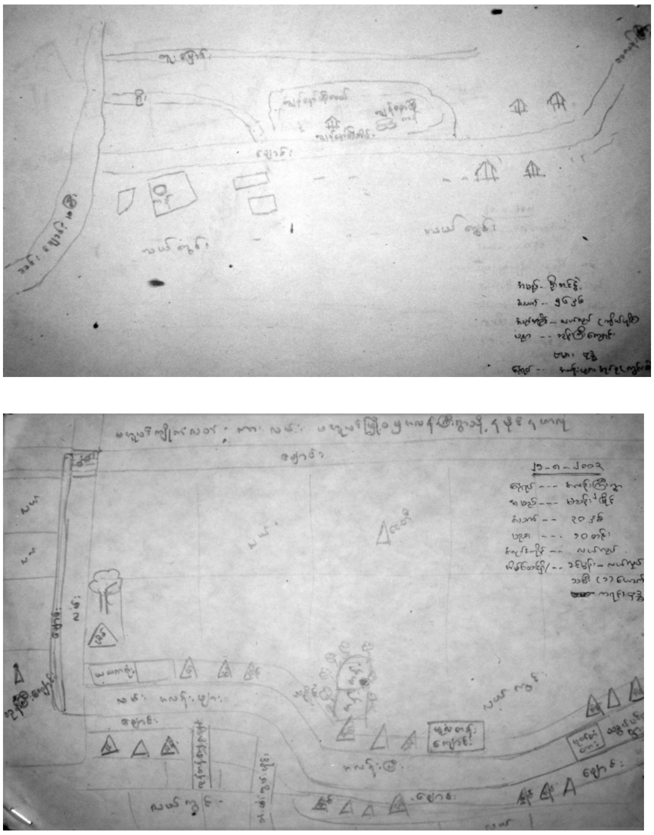


Figure 4. Example of mental map sketches drawn by villagers

Results

Changes in environment

Although all respondents, who are villagers from three different ecological zones, showed their images and perception that most of the environmental conditions are changed. However, when the study focused on the values above 70 percent among 10 variables, villagers from Inle Lake mentioned the highest images on changes with five variables and villagers from dry area focused on only two variables. (Table 1) All villagers from these three zones mentioned that rain condition and life style of the people are quite noticeable. Change of water level is main concern for the villagers in Inle Lake whereas changes in stream and aquatic life are main issues for the villagers from the delta area. Villagers from dry zone area mentioned that agriculture and life style of the people are the most significant changes.

Sr.	Type	Inle Lake	Delta	Dry Zone
1	Flora	67	34	54
2	Fauna	53	6	46
3	Temperature	80	83	47
4	Rain	93	83	68
5	Stream	67	77	31
6	Water level	87	Nil	Nil
7	Soil	33	Nil	Nil
8	Aquatic life	60	88	46
9	Agriculture	73	33	79
10	Life style	80	67	74

Table 1 Changes in the environment (in percentage)

Awareness on hazards and disasters

The result for awareness on hazards and disasters significantly and spatially different from one area to another. (Table 2)

Sr.	Type	Inle Lake	Delta	Dry Zone
1	Strong wind and tornado	50		
2	Flood	28	30	
3	Erosion		16	
4	Fire		9	
5	Earthquake		2	
6	Storm		14	
7	Diseases		2	
8	Poisonous animals		2	
9	Drinking water		23	4

Table 2. Awareness on hazards and disasters

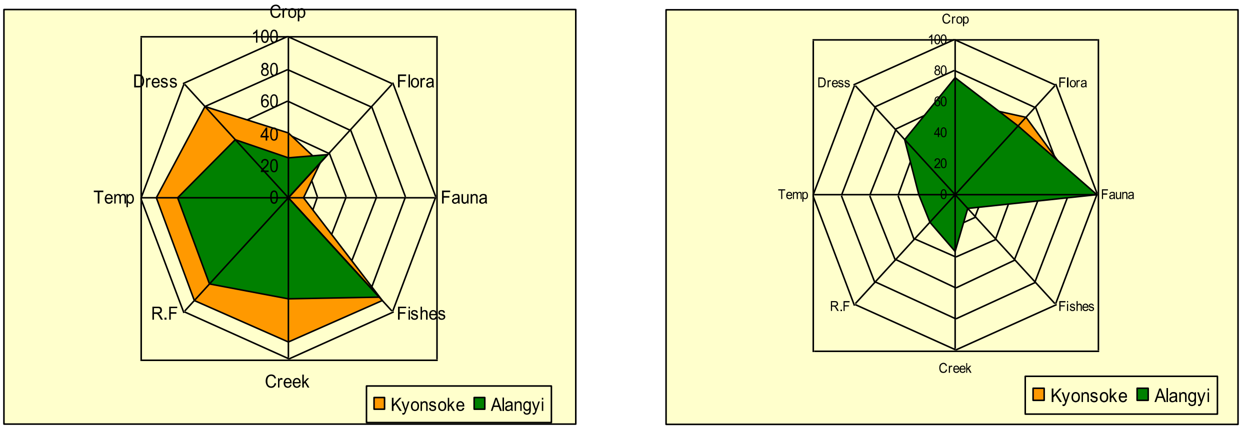
Type of natural hazards and disasters aware of in the delta area is more complex and complicated due to the nature of the deltaic area. It is quite significant that the villagers in the delta area had very little awareness on strong wind and storm. Therefore, several years ago, when the big storm passed through the delta area, the villagers had no preparations for the impact of the storm.

Only 2 types of natural hazards and disasters were aware of in the Inle Lake but these are strong and the villagers face with these problems every year. Therefore, the villagers in Inle Lake usually build the houses in relation to these problems.

Very limited hazards and disasters were aware of the villagers in the dry zone. However, some of them are facing with drinking water problem.

Recognition of environmental condition in the same ecological zone

The results showed that even in the same ecoregion, Ayeyarwaddy Delta in this case, recognitions of villagers on environmental conditions are different from one village to another. The images and perception are influenced by the unique characteristics of the village. In the case study, the two villages located in the same township but one village, Kyonsoke, is located on the river bank and another village, Alangyi, is located along the small creek. Recognition of changes in environmental condition by the villagers from Kyonsoke is wider and more complex than that of the villagers from Alangyi Village. (Figure 5)



Recognition of *changes* in environmental condition

Recognition of *no changes* in environmental condition

Figure 5. Recognition of changes and no changes in each village

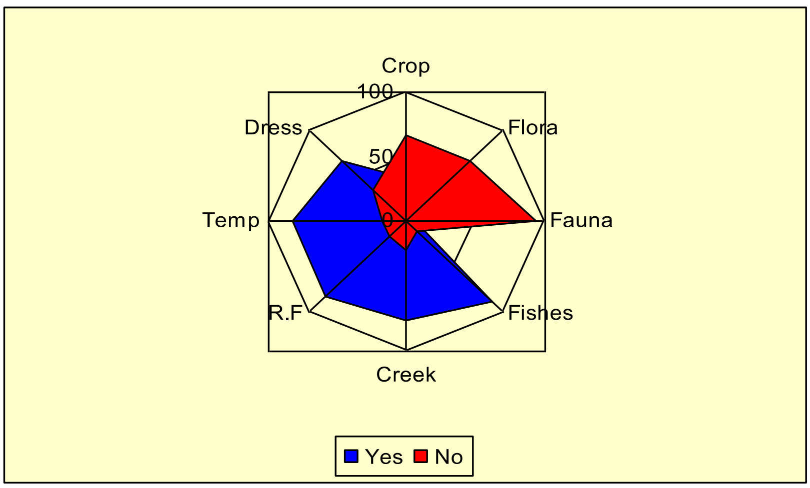


Figure 6. Recognition of changes and no changes in both villages

There is quite significant difference between recognition of changes and no changes in their environment for both villagers. (Figure 6)

Images on environmental hazard in the same ecological zone

Images of the villagers in the case study area on natural hazards and disasters are also different from one village to another. The high percentage of villagers for Alangyi Village is drinking water problem. Therefore, the villagers thought drinking water was a kind of hazard for them. (Figure 7)

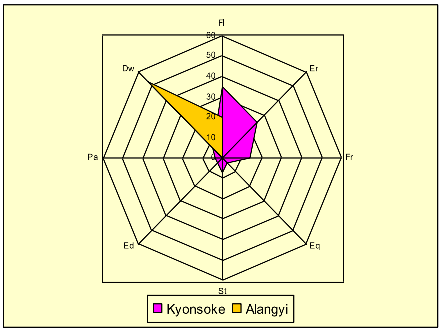


Image on environmental hazard in Kyonsoke and Alangyi

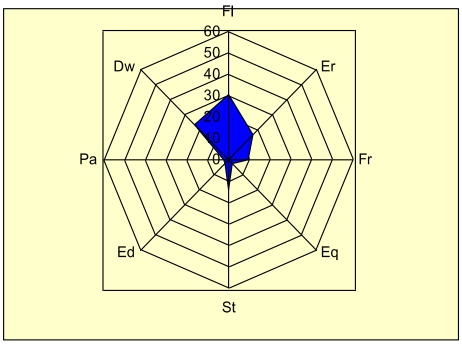
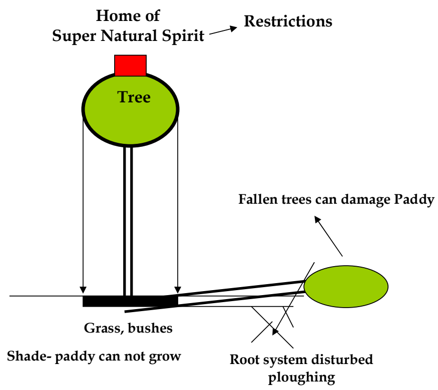


Image on environmental hazard in both villages

Figure 7. Images on environmental hazards and disasters

Awareness on conservation of trees

Awareness on conservation trees in the study area is very similar due to the custom, culture and religious belief. The awareness is usually based on value system such as usefulness and aesthetic value, and fear based traditional belief and religion. There are negative images and positive images on the existence of trees. (Figure 8 and 9)



Negative images on isolated big tree in the field

Figure 8. Negative images on tree

Usefulness of big trees

Tree stem used for carrying seedlings

Figure 9. Positive images on trees

Villagers usually think and feel about trees form the aesthetic point view also. If the village is surrounded by many trees that village is calm and beautiful. If there are less trees around the village, that place is dry and not so happy to live there. This kind of image and perception is very similar in all rural areas of Myanmar. (Figure 10)

Aesthetic value of trees

Figure 10. Image on aesthetic value of trees

Awareness on conservation of ponds

Awareness on conservation of ponds is mainly depends on

1. Local restrictions,
2. Fear based on belief, and
3. Cooperative works he villagers.

Ponds are very significant environmental conditions in the rural areas because ponds are main source of drinking water. Therefore, conservation and maintenance of the pond are important works for all villagers. Figure 11 shows the significant relationship between conservation of ponds and local rules and regulations, management system, and fear of the people on bad fortunes due to misuse and breaking the local restrictions.

Awareness on ponds

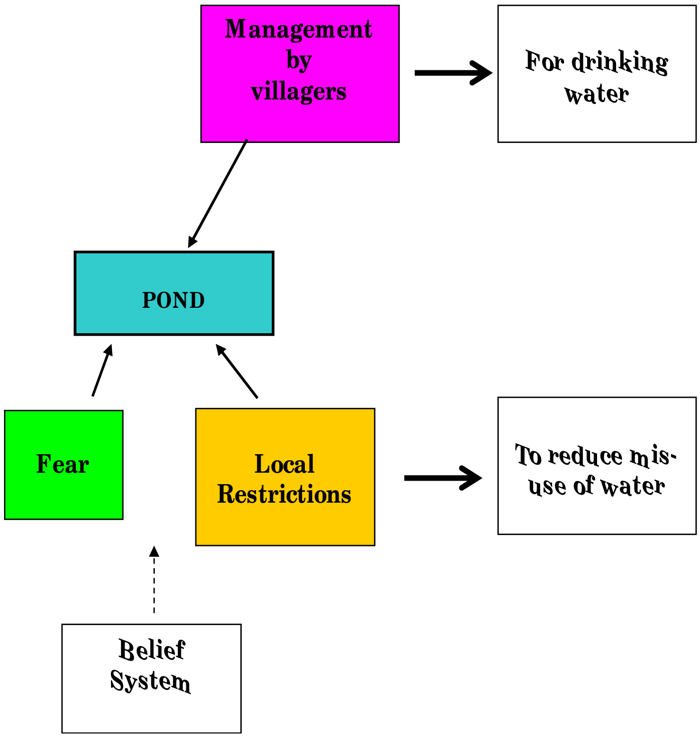


Figure 11. Awareness on ponds

Awareness and images on forest, land and mountain

The results of this study showed that awareness and images of rural villagers on forest, land and mountain are mainly controlled by

1. Religious belief,
2. Local customs, and
3. Sources of knowledge such as elderly persons.

These factors influenced on the conservation and protection of natural environment, and environmental management system of rural areas in Myanmar. Therefore, it is important to know "how the villager perceived on their environment and what are their images" when the awareness programs and land use plans are implemented.

Conclusion

The study showed different images of rural people in similar environmental conditions. Although average images of villagers are similar, detail images of intimate or close environment are different from village to another.

Environmental images and perception are the link between environmental awareness and education and effective environmental planning.

Without peoples' participation, it is difficult to success certain objectives of regional development planning in the long-term conditions.

Recommendation

Local land use planning or conservation practice should consider the images of the local
residents for better and effective implementation in planning.

There is a causal relationship between planning, environmental awareness, environmental education, and environmental perception for sustainable development of a region.

References

Saw Pyone Naing (2006): *Environmental Images Rural People: The Case of Kyonesoke and Alangyi Villages*, Maubin Township, research paper presented at SEAMEO, Yangon.

Saw Pyone Naing (2007): *Environmental Images and Indegenous Conservation Methods of Rural People in the Inle Lake*, research paper, Research Project of University of Yangon.

Saw Yu May (2007): *Changes of Water Quality and Water Surface Area in Inle Lake: Facts and Perception*, Unpublished PhD thesis, Department of Geography, University of Yangon.

Focus on Sustainable Development Goals: Teacher Belief and Technology Integration Practice of EFL Classrooms

Professor Ni Ni Hlaing
Retired Head of Department of English, Mandalay University of Distance Education, Ministry of Education, Myanmar
E-mail: ninihlaing59@gmail.com

Abstract

The purpose of this research was to describe teachers' beliefs about technology in the EFL classrooms and identify the barriers they faced when integrating technology at universities in Myanmar. The critical need everywhere in the world is for education to prepare students to lead successful, fulfilling lives. In today's world, this means providing them with relevant educational experiences that nurture their passions, problem-solving abilities, and higher level thinking skills, including critical thinking and creativity. The best solutions involve teachers, students, universities, and whole communities. Additionally, online learning has become a viable option for students, and the novel Coronavirus forced many teachers and students into this environment during the 2020 academic year. Despite increased access to technology, higher-level uses have not followed, and many teachers at the universities continue to struggle integrating technology in their classrooms. Quantitative data were collected through a questionnaire survey administered to English language teachers at selected universities in order to gain descriptive information about how technology was being used throughout the university. From this sample, 26 participants were selected for follow-up interviews. Qualitative data was collected from these participants through interviews in order to provide additional descriptive data to answer the research questions. It has been found that Myanmar EFL teachers encounter both first-order barriers and second-order barriers when trying to integrate technology. However, second order barriers play a significant role in technology integration. Additionally, steps to reduce first-order barriers identified in the study are suggested.

Keywords: Teachers' beliefs, Barriers, Classroom practices, Technology integration, EFL Classrooms, Myanmar

Social Presence in Learning Mangement System: Experience Can't Be the Best Teacher

Dr.Bao Kham
Faculty of English, University of Foreign Languages, Hue University, Viet Nam
E-mail: baokham@hueuni.edu.vn

Abstract

Social presence can be seen as a predictor of student satisfaction and retention as well as quality learning in online learning environments. Based on the framework of a Community of Inquiry, this case study aimed to investigate how EFL tertiary teachers perceived and adapted social presence in their LMS courses in the context where they have very limited experience of online teaching. With the purposive sample of one case, the study used the biographical narrative as its main research approach. The findings indicated that tertiary teachers, guided by their subjective educational framework and instructional experience, managed to capture the nature of some fundamental constructs of the concept and to establish some basic guiding principles for their online course design and delivery. The results also showed that despite their great efforts to implement social presence in practice, they were unable to implement the concept as it was as they lacked a repertoire of tools to realize the perceived social presence. The study suggests significant implications for staff training to ensure their comprehensive understandings of and full awareness of social presence as well as their repertoire of tools to realize it in practice.

Keywords: social presence, learning management system, instructional design and delivery

Oral Presentation

Language, Linguistics and Literature

Literature for Life: A Journey towards Sustainable Development

Madhuri Gokhale
Professor Dr., Department of English, Fergusson College, Pune, India
E-mail: madhuripune@yahoo.com

Abstract

Dr. Radhakrishnan, a well-known Indian philosopher and educationist stated, 'Literature has a supreme function of raising the quality of human life'. Literature is taught for a variety of reasons, like enriching linguistic competence, enhancing cultural understanding, providing exposure to varieties of English and for the purpose of edutainement. However, it is felt that one of the prime reasons for the teaching of literature should be to transform individuals and contribute to their holistic development. This study aims at understanding a very close relationship between literature and life and it argues that literature could be looked upon as one of the best resources for sustainable development.

Education is essentially a process of inculcating the right values among the learners and making value education a part of the curriculum is one of the ways to protect society from getting degraded. The present study sheds light on the fact that values are not always 'caught', but they have to be 'taught'. Sustainable development is an organizing principle for meeting human development goals. This study demonstrates how literature could be used as one of the significant tools to achieve goals of sustainable development like good health and well being, quality education, gender equality, peace and justice and sustainable communities. The present study provides examples from poems, plays, novels and short stories and suggests that to meet this goal, it is important to make a journey from 'teaching about literature' to the 'teaching of literature' and it is necessary to emphasize on collaborative learning, participatory learning and the learner centric approach. The study also presents some of the experiments carried out by the researcher in her under-graduate classes. It is hoped that this study would provide insights to the practicing teachers for using literature as a resource for learners' personality development.

Keywords: literature, sustainable development, life, value education

Exploration of the Chinese Phonetics Project-Based Learning Mode

Dongdong Qin
International College, Sripatum University, Thailand
E-mail: whajm@hotmail.com

Abstract

The object of this fundamental study will be to explore the teaching of Chinese phonetics based on a project-based learning mode. This is a working theory that is based on project-based learning and is combined with Bloom's taxonomy of educational objectives. The results of the exploration indicate that a project-based learning mode may improve students' motivation and participation in Chinese phonetic learning. Teachers and students may work together to track the whole teaching process, optimize the teaching and learning effect, and ensure that students have a complete understanding of Chinese phonetics. According to the findings of the study, boring courses may be matched with practice to stimulate students' interests and encourage them to actively engage in the learning process by completing practical projects.

Keywords: Chinese phonetics, Project-based learning, Bloom's taxonomy of educational objectives

Introduction

Research on Chinese phonetic teaching has a long tradition. For decades, a common strategy used to study Chinese phonetic teaching is to look for the causes and then improve teaching methods for teachers. The notion that teachers do not employ adequate teaching approaches to teach Chinese phonetic courses is one of the most popular ideas in Chinese phonetic teaching research. This seems to be a common problem in Chinese phonetic teaching.

Many researches have looked into how to improve Chinese phonetic teaching methodologies. They looked into the reasons of the difficulty in Chinese phonetics in a variety of methods, including comparing Chinese and native phonetics, as well as the prejudice of students' pronunciation. Cai L. (2020) studied the reasons behind Thai students' adoption of Thai phonetics when learning Chinese phonetics and devised techniques for teachers to help students overcome their phonetic bias. Feng B. (2020) compared Chinese and Tswana phonetics and developed classroom teaching methods and tactics to assist students in achieving their aim of learning Chinese phonetics. Jin K. (2020) analyzed features of Korean high school students' Chinese learning and phonetics training methodologies for phonetic difficulties and summarized phonetic teaching strategies. And some researchers focused on phonetic error analysis. Potier N. (2021) identified the different common mistakes of French beginners in Chinese phonetics, sought and analyzed the underlying reasons, and recommended French Chinese teachers emphasize the teaching of sounds which constitute biased errors. Jiang H. (2021) compared classroom observation, phonetic recognition, and phonetic distinction in order to find and conclude students' difficulties in Chinese phonetic learning and their common errors, and then analyzed their causes. Zhao S. & Duan S. (2019) collected the corpus of international students to summarize the most common errors in Chinese phonetics, found the reasons for the errors, and put forward teaching strategies. However, there is a further problem with Chinese phonetic courses. The students' learning methods are also the source of the problem. These studies have failed to focus on ways to improve students' learning methods.

As far as we know, there has been little previous study on the students' Chinese phonetic learning methods. According to the chapter "studies" of the "Book of Rites", the earliest book devoted to education and teaching in Chinese history: "After learning, you will know your inadequacies, and then you will know your difficulties. You will be able to self-reflect if you are aware of your shortcomings, you will be able to improve yourself if you are aware of your difficulties. As a result, teaching and learning reinforce each other." Education is not taught just by the teacher, but rather by both teachers and students working together to educate and learn. As a result, how a student learns is important. The goal of education is to enable students to not only acquire knowledge, but also to solve real-world problems. Designing a mode that covers both teaching and learning approaches is one way to tackle these problems.

Project-based learning (PBL) is a teaching method in which students learn by actively engaging in real-world and personally meaningful projects. In Project Based Learning, teachers make learning come alive for students. Students work on a project over an extended period of time – from a week up to a semester – that engages them in solving a real-world problem or answering a complex question. They demonstrate their knowledge and skills by creating a public product or presentation for a real audience. As a result, students develop deep content knowledge as well as critical thinking, collaboration, creativity, and communication skills. Project Based Learning unleashes a contagious, creative energy among students and teachers.[1]

Project-based learning has been proved in a number of studies to be an effective way to build a mode that encompasses both teaching and learning techniques. We discovered that project-based Chinese phonetic courses mode may theoretically also be used to overcome these problems. It is of interest to know how to teach Chinese phonetics based on a project-based learning still hold true.

With this aim in mind, in this study we present a new method for teaching of Chinese phonetics based on a project-based learning. In comparison with other strategies, this method has the advantage of allowing teachers and students to monitor the learning process throughout the course, continue to deepen discussion research, and continuously improve teaching and learning techniques. This methodology can effectively promote students' excitement for autonomous learning, engagement, teamwork, and practical Chinese pronunciation skills. The study should be of wide interest.

Research Methodology

Teachers traditionally have struggled with issues and concerns pertaining to education, teaching, and learning. Here are four of the most important organizing questions:

1. what is important for students to learn in the limited school and classroom time available? (The learning question)
2. how does one plan and deliver instruction that will result in high levels of learning for large numbers of students? (The instruction question)
3. how does one select or design assessment instruments and procedures that provide accurate information about how well students are learning? (The assessment question)
4. how does one ensure that objectives, instruction, and assessment are consistent with one another? (The alignment question) (Lorin, 2001:6)

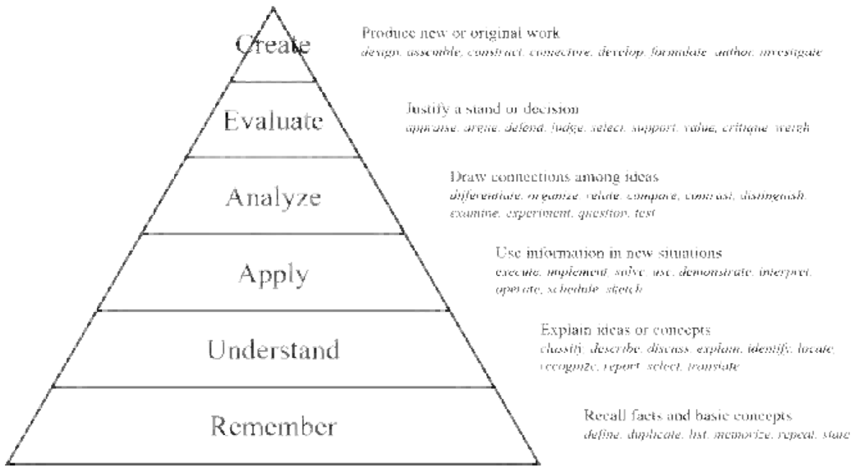
These four questions, we discovered, are primarily concerned with three aspects: instructional objectives, instructional activities, and instructional assessments, as well as ensuring that the three are consistent. As a result, creating a complete project-based learning mode also includes instructional objectives, instructional activities, and instructional assessments. To maximize teaching effectiveness, the three should complement each other, maintain a degree of consistency with each other, and emphasize consistency.

Project-based learning is a student-centered education technique based on the actual world that consists of a set of problem-oriented teaching strategies that construct learning situations. It has three characteristics: first, it incorporates learning content into the process of students completing the project, which is at the heart of project-based learning; second, it highlights the entity's learning output; and third, it stresses students' active engagement. Students must learn knowledge, master processes, and improve talents by completing actual, tangible tasks under this instructional paradigm.

Bloom's taxonomy is a categorization system created by American educational psychologist Benjamin Samuel Bloom at the University of Chicago in 1956. It categorizes educators' instructional objectives in order to more effectively fulfill each aim. When the taxonomy is used in conjunction with project-based learning, it may help instructors make sense of the curriculum, organize instruction, and create assessments that are aligned with the curriculum's objectives, thereby increasing teachers' teaching quality and students' learning outcomes.

Instructional objectives are especially important in teaching because teachers teach for a specific purpose, which is to help students learn, or to hope that students will achieve corresponding learning results through instructional activities, which is the intended teaching goal. Bloom's taxonomy of educational goals is a useful tool for categorizing instructional objectives from simple to complex, and for improving the quality of teachers' instruction and students' learning. As a result, these standards will not become classroom reality unless teachers accept, understand, and enforce them.

According to the revised Bloom's taxonomy, the framework has two dimensions, they are cognitive process and knowledge. Remember, Understand, Apply, Analyze, Evaluate, and Create are the six categories that make up the cognitive process dimension.



1.1 The Cognitive Domain of Bloom's Taxonomy

Factual, Conceptual, Procedural, and Metacognitive knowledge are the four types of knowledge. These categories are thought to be on a scale of concrete to abstract.

Major Types and Subtypes	Examples
A. Factual Knowledge - The basic elements students must know to be acquainted with a discipline or solve problems in it.	
A_A. Knowledge of terminology	Technical vocabulary, music symbols
A_B. Knowledge of specific details and elements	Major natural resources, reliable sources of information
B. Conceptual Knowledge - The interrelationships among the basic elements within a larger structure that enable them to function together.	
B_A. Knowledge of classification and categories	Periods of geological time, forms of business ownership
B_B. Knowledge of principles and generalizations	Pythagorean theorem, law of supply and demand
B_C. Knowledge of theories, models, and structures	Theory of evolution, structure of Congress
C. Procedural Knowledge - How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods.	
C_A. Knowledge of subject-specific skills and algorithms	Skills used in painting with water colors, whole-number division algorithm
C_B. Knowledge of subject-specific techniques and methods	Interviewing techniques, scientific method
C_C. Knowledge of criteria for determining when to use appropriate procedures	Criteria used to determine when to apply a procedure involving Newton's second law, criteria used to judge the feasibility of using a particular method to estimate business costs
D. Metacognitive Knowledge - Knowledge of cognition in general as well as awareness and knowledge of one's own cognition.	

D_A. Strategic knowledge	Knowledge of outlining as a means of capturing the structure of a unit of subject matter in a text book, knowledge of the use of heuristics
D_B. Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge	Knowledge of the types of tests particular teachers administer, knowledge of the cognitive demands of different tasks
D_C. Self-knowledge	Knowledge that critiquing essays is a personal strength, whereas writing assays is a personal weakness; awareness of one's own knowledge level

1.2 Bloom's Knowledge Dimension (Lorin, 2001:29)

The cognitive process dimension is represented by the columns in the table below, while the knowledge dimension is represented by the row.

Knowledge Dimension	Cognitive Process Dimension					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
A. Factual Knowledge						
B. Conceptual Knowledge			Objective			
C. Procedural Knowledge						
D. Metacognitive Knowledge						

Key.
Objective = the objective, "students should learn to use laws of electricity and magnetism (such as Lenz' law and Ohm's law) to solve problems."

1.3 Placement of the Objective in the Taxonomy Table (Lorin, 2001:98)

The examples in Table 1.3 can help teachers gain a better understanding of the instructional objectives so that they can use the taxonomy table to better decide how to conduct instructional activities and assessments in relation to the objectives, as well as to help teachers determine the meaning of objectives, instructional activities, and assessments. And usage is in sync with one another.
After defining the desired instructional objectives, the instructional activities are designed. The instructional activities should be designed to fully reflect the instructional objectives, to reflect and integrate the knowledge that students will need to learn in the class, and to stimulate students' motivation to learn. A scientifically designed project can ensure that the students' learning process and path are maintained in the teacher's teaching, the teacher planning project process should provide clear guidance for students to complete the project smoothly and with high quality. The teacher can break down the project into sub-tasks, confirm the specific output of each sub-task, and set a deadline for each sub-completion. Teachers can also

create corresponding instructional activities for each teaching goal to ensure that the two are consistent. As shown in Table 1.4's example.

Knowledge Dimension	Cognitive Process Dimension					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
A. Factual Knowledge						
B. Conceptual Knowledge		*Activity 1*	Objective	*Activity 2*	*Activity 7*	
C. Procedural Knowledge			*Activity 3*		*Activity 6*	
D. Metacognitive Knowledge	*Activity 4*		*Activity 5*			

Key.
Objective = the objective, "students should learn to use laws of electricity and magnetism (such as Lenz' law and Ohm's law) to solve problems."
Activity 1 = activities intended to help students classify types of problems
Activity 2 = activities intended to help students select appropriate laws
Activity 3 = activities intended to help students implement proper procedures
Activity 4 = activities intended to help students recall metacognitive strategies
Activity 5 = activities intended to help students implement metacognitive strategies
Activity 6 = activities intended to help students check their implementation of the procedure
Activity 7 = activities intended to help students critique the correctness of their solution

1.4 Placement of the Objective and Instructional Activities in the Taxonomy Table (Lorin, 2001:100)

All the instructional activities are all assessed based on whether the instructional objectives have been met. This can be done through measurement and non-measurement, systematic collection of data and information, and other feasible methods. Activities for determining whether or not the implementation and teaching goals have been met. Daniel Stufflebeam, founder of the CIPP evaluation model, pointed out that the evaluation's most important purpose is not to prove, but to improve (Thomas, 2003:31). Benjamin Bloom divides instructional assessment into two categories: formative and summative assessments (Lorin, 2001:101).
Formative assessment provides feedback on whether each learning goal and existing problems have been met, and it occurs throughout the teaching process to assist students in making continuous improvements to improve the quality of teaching and learning at this stage, which is also a key point of the Project-based learning model. Each learning objective, as well as the criteria for achieving it, is shared and understood by teachers with students. Students should conduct self-evaluation, peer evaluation, check and fill gaps, self-reflection, and teachers provide suggestions for improvement in addition to teacher evaluation. Teachers and students can continuously and effectively monitor the situation of teaching and learning in order to

be able to respond. To meet the needs of students, feedback is adjusted on a regular basis.
The summative assessment is a one-time assessment of the learning at the stage. Traditional education frequently employs summative assessments such as knowledge point tests, examinations, papers, summary reports, product models, and so on.

Research Results

Teachers expect students to learn to spell all Chinese syllables quickly and accurately as a result of their Chinese phonetic knowledge learning. To achieve this expected instructional objective, the author works backwards from the students' future life and work scenarios, or the application scenarios of the knowledge described in the course. The expected instructional objectives are classified using Bloom's knowledge dimension and cognitive process dimension to make them more detailed, concrete, observable, and expressive so that more targeted instructional activities can be designed.

Knowledge Dimension	**Cognitive Process Dimension**					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
A. Factual Knowledge	A1	A2		A4		
B. Conceptual Knowledge	B1	B2				
C. Procedural Knowledge			C3	C4	C5	
D. Metacognitive Knowledge		D2		D4		

key.
A1: Recognize Chinese initials, finals, and tones;
B1: Recall the phonetic rules in Chinese;
A2: Divide the initials and finals into subcategories and summarize the characteristics of each;
B2: Demonstrate how to apply Chinese phonetic rules;
D2: Examine how Chinese and native language phonetics are similar;
C3: To read and spell syllables, apply Chinese phonetics rules;
A4: Differentiate between Chinese phonetics and writing differences between similar pronunciations in Chinese phonetics, as well as writing the same syllables with different pronunciations;
C4: Integrate essentials of pronunciation and analyze skills like tone sandhi, neutral tone, and retroflex final;
D4: Acknowledge the differences in pronunciation between Chinese and native languages;
C5: Discuss how Mandarin Chinese and Chinese phonetics are compatible.

1.5 Bloom's Taxonomy Table in Chinese Phonetics

The instructional objectives of the Chinese phonetic course are listed in the table above, as determined by the result shown in table 1.5: All Chinese phonetics initials, finals, tones, and spelling rules will be memorized, and the rules will be used to spell Chinese syllables. They'll also be able to compare Chinese phonetics to their native language, differentiate between homophones and heteronyms in phonetics, master pronunciation skills like tone sandhi, neutral tone, and retroflex final, and evaluate the consistency of daily Chinese pronunciation using Phonetics, as well as the differences in pronunciation between Chinese and native speakers.

Teachers can ask students to use their own native language to explain the knowledge of Chinese phonetics fluently, accurately, and completely for the teaching items that need to be designed in the Chinese phonetics course. Students can learn about their own flaws, self-reflection, and continuous improvement through this type of training. As a result, students must be as familiar as possible with each knowledge point, they have learned from the start, and they must try to repeat these contents as many times as possible in order to gain a deeper understanding of their own deficiencies and mastery of knowledge, as well as to constantly revise them to be more thorough. To gain a solid foundation for future Chinese learning by understanding phonetic knowledge. Though since Chinese phonetics is the first content that all foreign students learn when learning Chinese, all students begin with no prior knowledge of the language. The author implies that as the final work of this teaching project, each student should record a five-minute video about the overall introduction of Chinese Phonetics in their native language. Teachers can set the project as "How to teach your siblings/friends to use Chinese Phonetics" or "How to remember Chinese Phonetics more easily" to make it more motivating.

The reason why the author chose this project is that, first of all, the actual needs of students for Chinese phonetics are to understand the rules of phonetics, and to listen, speak, read and write accurate syllable; second, modern social networks, computers, cell phones, etc. are all necessities of life. Shooting and editing a video is a piece of cake for students, and the feasibility is very high; thirdly, communication, recording, and creation on social media platforms has now become a major way of people's expression. Teachers can use this to spark students' Interest in learning phonetics. Finally, making such a video can cover all knowledge points, and let students explain in their native language, which can be suitable for students' knowledge and ability levels in terms of difficulty and complexity. The author created corresponding instructional activities, or sub-tasks, for each instructional objective listed in Table 1.5.

Instructional objectives	Instructional Activities
A1: Recognize Chinese initials, finals, and tones	Students practice pronunciation while watching training videos; Teachers correct pronunciation and give audios, films, or webpages that are relevant.
B1: Recall the phonetic rules in Chinese	Students view videos before writing reports and summarizing the regulations; Teachers supply students with reference materials.
A2: Divide the initials and finals into subcategories and summarize the	Students classify initials, finals, and tones into categories and explain it.

characteristics of each;	
B2: Demonstrate how to apply Chinese phonetic rules;	Teachers demonstrate phonetic rules; Students discuss the characteristics of phonetics in groups.
D2: Examine how Chinese and native language phonetics are similar;	Students compare and contrast Chinese and native phonetics.
C3: To read and spell syllables, apply Chinese phonetics rules;	Students practice how to spell phonetics; Teachers take dictations.
A4: Differentiate between Chinese phonetics and writing differences between similar pronunciations in Chinese phonetics, as well as writing the same syllables with different pronunciations	Students identify homophones and heteronyms before debating the differences in groups.
C4: Integrate essentials of pronunciation and analyze skills like tone sandhi, neutral tone, and retroflex final	Students analogize and demonstrate pronunciation skills; Teachers demonstrate pronunciation methods and summarize pronunciation essentials.
D4: Acknowledge the differences in pronunciation between Chinese and native languages	Students work in groups to find and report on comparable pronunciations.
C5: Discuss how Mandarin Chinese and Chinese phonetics are compatible	Students observe Chinese people's pronunciation and produce a case study report.

1.6 Objective and Instructional Activities of Chinese Phonetics in the Taxonomy Table

All of the instructional objectives are covered by the activities listed above. Students may gradually master Chinese phonetics knowledge through these instructional activities, laying a solid foundation for the final video presentation.
Teachers can concentrate on creating classes that use a mix of formative and summative evaluations. Recording a five-minute video of the overall introduction of Chinese phonetics in their home language as the student's final presentation is a summative evaluation in the design of Chinese phonetics project-based learning, and each stage's knowledge point examination is a summative evaluation. Students' comprehension of initials, finals, tones, and spelling norms is the emphasis of the project. The work can be evaluated by mastery, instructors, and other experts. Teachers might have students read aloud syllables, natural paragraphs, and dictation to assess the accuracy of their spelling, spelling, and pronunciation. These are the formative assessments. The author will create teaching assessments for these instructional activities based on the instructional activities that correspond to each instructional objective listed in Table 1.6.

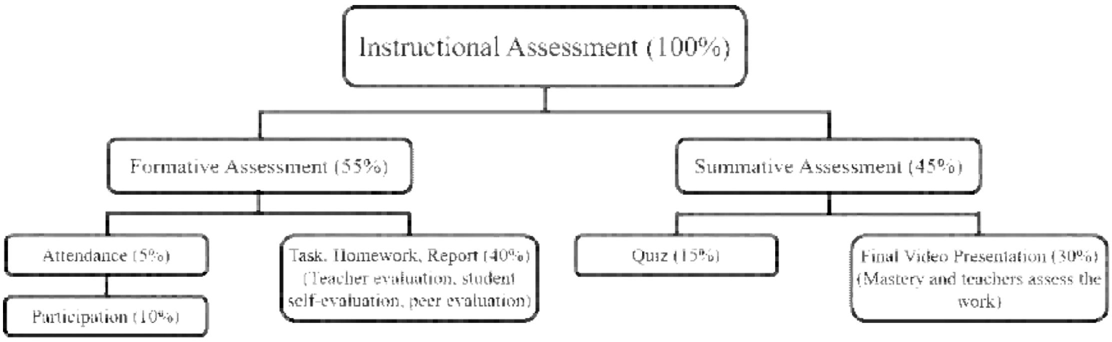
Instructional objectives	Instructional Activities	Instructional Assessments
A1: Recognize Chinese initials, finals, and tones	Students practice pronunciation while watching training videos; Teachers correct pronunciation and give audios, films, or webpages that are relevant.	Teachers' evaluation; Students' self-evaluation; Peer evaluation; Students take dictations.
B1: Recall the phonetic rules in Chinese	Students view videos before writing reports and summarizing the regulations; Teachers supply students with reference materials.	Teachers' evaluation; Peer evaluation; Students take quizzes; Students make reports.
A2: Divide the initials and finals into subcategories and summarize the characteristics of each	Students classify initials, finals, and tones into categories and explain it.	Teachers' evaluation; Peer evaluation; Students make reports.
B2: Demonstrate how to apply Chinese phonetic rules	Teachers demonstrate phonetic rules; Students discuss the characteristics of phonetics in groups.	Teachers' evaluation; Peer evaluation; Students take quizzes; Students make reports.
D2: Examine how Chinese and native language phonetics are similar	Students compare and contrast Chinese and native phonetics.	Teachers' evaluation; Peer evaluation; Students make reports.
C3: To read and spell syllables, apply Chinese phonetics rules	Students practice reading and spelling phonetics; Teachers take dictations.	AI evaluation; Peer evaluation; Teachers' evaluation; Students take dictations.
A4: Differentiate between Chinese phonetics and writing differences between similar pronunciations in Chinese phonetics, as well as writing the same syllables with different pronunciations	Students identify homophones and heteronyms before debating the differences in groups.	Teachers' evaluation; Peer evaluation; Students make reports.
C4: Integrate essentials of pronunciation and analyze skills like tone sandhi, neutral tone, and retroflex final	Students analogize and demonstrate pronunciation skills; Teachers demonstrate pronunciation methods and summarize pronunciation essentials.	Teachers' evaluation; Peer evaluation; Students make reports.

D4: Acknowledge the differences in pronunciation between Chinese and native languages	Students work in groups to find and report on comparable pronunciations.	Teachers' evaluation; Peer evaluation; Students make reports.
C5: Discuss how Mandarin Chinese and Chinese phonetics are compatible	Students observe Chinese people's pronunciation and produce a case study report.	Teachers' evaluation; Peer evaluation; Students make reports.

1.7 Objective, Instructional Activities and Instructional Assessments for Chinese Phonetics in the Taxonomy Table

Teachers can allow students to submit multiple times for some of the above formative assessment tasks, and use detailed rubrics to evaluate students. At the same time, they should create rubrics for peer evaluation and student self-evaluation, so that students can continue to improve and teachers can keep track of their progress.

Since the main objective of Chinese phonetics instruction is for students to be able to spell syllables correctly and quickly, it is extremely practical, so the standard phonetic training is especially important, and the formative assessment that runs throughout the entire lesson accounts for the majority of the curriculum. Although the proportion of formative evaluation should be somewhat high due to the requirement to pay attention to the normal pronounce training. The following table 1.8 shows how the course's



weights are divided:

1.8 The Chinese Phonetic Course Proportion

Discussion and Conclusion

It can be concluded that a Chinese phonetics project-based learning mode allows teachers and students to monitor the learning process throughout the course, continue to deepen discussion research, and continuously improve teaching and learning techniques. This methodology can effectively promote students' excitement for autonomous learning, engagement, teamwork, and practical Chinese pronunciation skills. These findings suggest that project-based learning has a positive impact on the teaching of Chinese phonetics and is suitable for all kinds of students. In the Chinese phonetics project-based learning mode, teaching strategies from other research, such as exaggeration, gesture, overall recognition and reading, and tongue twister training, may fully accommodate the strengths of each strategy and guide students to learn to achieve the expected instructional objectives.

The advantage of this study is that it offers the first look at a Chinese phonetics course in conjunction with project-based learning. It is still in its early stages, and the material has to be developed in all areas. As a result, future experiments are required in order to determine where changes and revisions are required.

References

Anderson, L. W. (2009). *A Taxonomy for Learning, Teaching, and Assessing (A Revision of Bloom's Taxonomy of Educational Objective) (Chinese Version).* Beijing: Foreign Language Teaching and Research Press.

Buck Institute for Education. (2022). What is PBL. *Buck Institute for Education PBLWORKS Website*. Retrieved March 7, 2022, from http://www.pblworks.org./

Cai, L. (2020). *The Study on the Phenomenon that Thai Students Use Phonetic Notations in Thai to Learn Chinese and Strategies in Primary Chinese Phonetics Teaching.* Masters' Thesis, Lanzhou Jiaotong University.

Chen, K., Li, H. (2012). "计算机基础"项目化教学模式探索. *China Educational Technology*, 2012(3), 116–119.

Daniel, L. S., George F. M., Thomas, K. (2000) *Evaluation Models Viewpoints on Educational and Human Services Evaluation (Second Edition).* New York: Kluwer Academic Publishers.

Lorin, A., David, K., Peter, A., Kathleen, C., Richard, M., Paul, P., James R. and Merlin, W. (2001). *A Taxonomy for Learning, Teaching, and Assessing (A Revision of Bloom's Taxonomy of Educational Objective).* New York: Addison Wesley Longman, Inc..

Thomas, K., Daniel, L., and Lori, A., (2003). *International Handbook of Educational Evaluation Part One: Perspectives.* The Netherlands: Kluwer Academic Publishers.

Thom, M. (2003). *Project Based Learning Handbook: A Guide to Standards-Focused Project Based Learning for Middle and High School Teachers.* California: Quinn Essentials Books And Printing, Inc..

Feng, B. (2020). *Research and design of Chinese phonetics teaching in Confucius Institute of the university of Botswana.* Masters' Thesis, Shanghai Normal University.

Jiang, H. (2021). *Phonetic Errors by Chinese Beginners in Azerbaijan and Their Teaching Strategies – Take Confucius Institute at AUL for Example.* Masters' Thesis, Xi'an Shiyou University.

Jin, K. (2020). 协同教学模式下韩国高中生的汉语语音教学策略. *Modern Business Trade Industry*, 2020(10), 190–192.

Kuhn, L. (2008). Complexity and Educational Research: A critical reflection. *Educational Philosophy and Theory*, 40(1), 177–189.

Li, D. & Liu, X. (2001). 教学评价的世纪反思与前瞻. *教育研究*, 2001(2), 44–49.

Lin, X. (2019). 留学生汉语语音教学方法略述. *教学·教法·反思*, 2019(04), 106–107.

Mason, M. (2008). Complexity Theory and the Philosophy of Education. *Educational Philosophy and Theory*, 40(1), 4–18.
Potier, N. (2021). *Analysis of French Students Biased Errors in Chinese Phonetics and Teaching Tactics.* Masters' Thesis, Qingdao University.
Wang, N. (2018). *Book of Rites*. Beijing: The Commercial Press.
Yin, P. (2022). The important and difficult Chinese pronunciation for Kachin people. *Journal of Honghe University*, 2022(20), 87–91.
Zhao, S., Duan, S. (2019). 对外汉语语音偏误分析. *Wenjiaoziliao*, 2019(26), 34–36.

The Use of L1 in the EFL Classrooms of Myanmar

Zarni Mar
Assistant Lecturer, English Department, Myitkyina University, Myanmar
E-mail: zarnimarzarnimar@gmail.com

Abstract

These days, increasing numbers of teachers and researchers are questioning the validity of the assumption that limited mother tongue (MT) usage hinders successful second language (L2) learning. The relationship between teacher beliefs and student preferences for L1 support has not received much attention in the medium of instruction (MOI) literature. Common sense suggests that proficiency in a target language (TL) may affect student preferences for L1 support. The researcher aims to clarify student preferences and teacher beliefs regarding teacher use of the L1 in the EFL classroom in Myanmar context. This study focused on student preferences for, and teacher beliefs regarding teachers' use of L1 (Myanmar language) in the EFL classroom. The research objectives were: (i) to explore the student preferences regarding their English teachers' use of Myanmar language in the EFL classroom and (ii) to investigate pedagogical beliefs of Myanmar teachers of English (MTEs) regarding the use of L1 (Myanmar language) in the EFL classroom. The participants in this study were 87 Myanmar students of non-English major undergraduate students, and 24 MTEs in English departments of universities in Myanmar. Participants' questionnaire responses support that their preferences for teachers' use of Myanmar language differs at varying students' L2 proficiency levels. Pedagogical implications and recommendations are explored.

Keywords: The use of L1, EFL classrooms, Myanmar

Introduction

There is a widespread belief that English is best taught through English alone, without the mediation of the L1. Many educational institutions may have many reasons for a strict English-only policy. The situation has changed dramatically over the last ten years, of course. Without research in support of an English-only policy, a large number of research findings indicating that occasional use of L1 may be beneficial has led to new interest in the role of L1 in learning a target language, or L2. It is known of course that there are 135 ethnic groups in Myanmar. University classrooms, especially in States in Myanmar, contain students with very varied language backgrounds and learning needs. For example, the first language that they acquired as a baby may not be the same as the language that they feel most comfortable with now, and neither of these may be the same as the shared language of the classroom in which they are learning English. The rising global popularity of Content and Language Integrated Learning (CLIL) also requires teachers to rethink their policies on the language of instruction. CLIL, where school subjects and an additional language are taught in a quintessentially bilingual approach. There are many different models of CLIL, but code-switching (switching from one language to the other) and translanguaging (the process of using all one's language resources to achieve communicative goals) are standard features. In the light of these changes, it is not surprising that English-only policies in English language classrooms are being rethought now. EFL students generally begin L2 study after acquiring their L1. Thus, they can use their L1 to assist in learning the L2, particularly during early vocabulary acquisition. L1 support is not only beneficial but also essential to the acquisition of the L2 (Kroll & Tokowicz, 2001). Several studies have attempted to elucidate the pedagogical uses to which L1 support can be applied to maximize L2 acquisition (e.g., Burden, 2000; Prodromou, 2002), but results differ even among studies using similar instruments.

1.2. Research Objectives

The research objectives were: (i) to explore the student preferences regarding their English teachers' use of Myanmar language in the EFL classroom and(ii) to investigate pedagogical beliefs of Myanmar teachers of English (MTEs) regarding the use of L1 (Myanmar language) in the EFL classroom.

Method

The researcher used a questionnaire that was distributed to 87 Myanmar students of non-English major undergraduate students; the statements of the questionnaire were designed to answer the research questions. Also, the researchers conducted interviews with 24 instructors and asked them questions regarding the use of L1 (Myanmar language) in the EFL classroom. After that, the researchers analyzed the questionnaire and discussed the results of both, the questionnaire, and the interviews.

2.1 Participants

The participants were 87 Myanmar students of non-English major undergraduate students, and 24 MTEs in English departments of universities in Myanmar.

2.2 Questionnaire

The researcher adapted a questionnaire from Schweers (1999) by adding a question asking if teachers should know the students' L1 (Burden, 2001), adding a question about students' English and teachers' language proficiency, and providing a bilingual version to all participants to avoid misunderstandings. Participation was anonymous and voluntary.

2.3 Procedure

Student participants took an average of 15 minutes in class to answer the yes/no and multiple-choice questions. Teachers answered their questionnaires on the same day.

Results

To explore the student preferences regarding their English teachers' use of Myanmar language in the EFL classroom, five research questions and six questionnaire items were used.

3.1 Student Preferences

Research Question 1

The study focuses on students' preferences regarding English teachers' use of Myanmar language in the EFL classroom. Responses to the questionnaire items were shown in tables.

Phase 1: Student Questionnaire – Part I

Table 1:

Responses of the students towards questionnaire item 1

Question item1: Should the L1 be used in class? (n=87)

Sr No	Question	Responses		Calculation	
		No	Yes	Mean	SD
1.	Should the L1 be used in class?	35%	65%	1.65	0.48

It was found that students (65%) agreed that Myanmar language should be used in the English language classroom and they valued L1 use for telling jokes to be helpful.

Table 2:

Responses of the students towards questionnaire item 2

Question item 2: Should Myanmar language be used in the EFL classroom? (n=87)

Sr No	Question	Responses		Calculation	
		No	Yes	Mean	SD
2.	Should Myanmar language be used in the EFL classroom?	46%	54%	1.54	0.50

Students believed that L1 support should be used (54%) while some students disagreed (46%).

Table 3:

Responses of the students towards questionnaire item 3

Question item 3: Do you like, or would you like your teacher to use Myanmar language in the EFL classroom? (n=87)

Sr No	Question	Responses		Calculation	
		No	Yes	Mean	SD
3.	Do you like, or would you like your teacher to use Myanmar language in the EFL classroom?	40%	60%	1.60	0.49

Student (60%) preferred the opportunity to hear Myanmar language and these numbers might reflect the low proficiency levels.

Table 4:
Responses of the students towards questionnaire item 4

Question item 4: When do you think it is appropriate to use Myanmar language in the EFL classroom? (Please circle all the relevant items below.) (n=87)

Sr No	Question: When do you think it is appropriate to use Myanmar language in the EFL classroom?	Responses		Calculation		Interpretation
		No	Yes	Mean	SD	
a.	To explain difficult concepts	29%	71%	1.71	0.45	Appropriate
b.	To introduce new material	35%	65%	1.65	0.48	Appropriate
c.	To summarize material already covered	66%	34%	1.34	0.47	Inappropriate
d.	To Test (e.g., translating from English into Myanmar in a test)	76%	24%	1.24	0.43	Inappropriate
e.	To joke around with students	36%	64%	1.64	0.48	Appropriate
f.	To help students feel more comfortable and confident	76%	24%	1.24	0.43	Inappropriate
g.	To check for comprehension	66%	34%	1.34	0.47	Inappropriate
h.	To carry out small-group work	72%	28%	1.28	0.45	Inappropriate
i.	To explain the relationship between English and Myanmar	69%	31%	1.31	0.46	Inappropriate
j.	To define new vocabulary items	59%	41%	1.41	0.49	Inappropriate
Average		58.40%	41.60%	1.42	0.49	Inappropriate

NOTE:
1.00-1.50=Inappropriate
1.51-2.00=Appropriate

It has been found that students (71%) agreed that Myanmar language should be used in the classroom. Students preferred more L1 support for explaining difficult concepts (71%), to introduce new material (65%) and to joke around with students (64%).

Table 5:

Responses of the students towards questionnaire item 5

Question item 5: What percent of the time do you think Myanmar language should be used?
(Please circle the relevant percentage.) (n=87)

Sr No	Options	Responses		Calculation	
		No	Yes	Mean	SD
a.	0%	77%	23%	1.23	0.42
b.	10%	64%	36%	1.36	0.48
c.	20%	66%	34%	1.34	0.47
d.	30%	34%	66%	1.66	0.47
e.	40%	51%	49%	1.49	0.50
f.	50%	94%	6%	1.06	0.24
g.	60%	97%	3%	1.03	0.17
h.	70%	100%	0%	1.00	0.00
i.	80%	100%	0%	1.00	0.00
j.	90%	100%	0%	1.00	0.00
Average		78.30%	21.70%	1.22	0.41

According to the results, the students prefer L1 support by 30% (Mean=1.66). Second to this is by 49% (Mean=1.49). The results reveal that the more L1 is used, the more the students dislike it.

Phase 2: Student Questionnaire – Part II

Table 6:

Responses of the students towards student questionnaire item 6

Sr No	Items	Responses			Calculation		Interpretation
		Disagree	Don't know	Agree	Mean	SD	
1.	Students are better at communicating if teachers use L2.	32%	22%	46%	2.14	0.87	Considered of moderate demand
2.	There are no situations for L1 use.	53%	35%	12%	1.59	0.69	Considered of low demand
3.	Teachers should use L2 at all times.	57%	20%	23%	1.66	0.83	Considered of low demand
4.	Teachers should use L1 if students do not understand.	30%	21%	49%	2.19	0.87	Considered of moderate demand
5.	Teachers can use L1 as a last resort.	14%	14%	72%	2.58	0.72	Considered of huge demand

6.	Students feel relaxed when L1 is used.	43%	2%	55%	2.12	0.98	Considered of moderate demand
	Average	38.17%	19.00%	42.83%	2.05	0.90	Considered of moderate demand

NOTE:
1.00-1.66=Considered of low demand
1.67-2.33=Considered of moderate demand
2.34-3.00=Considered of huge demand

Table 6 exhibits several important results regarding students' perceptions. Specifically, some students believe that there are situations where L1 should be used in the classroom whereas others report that if teachers use more L2, students will communicate better in the L2. Some students report that they feel more comfortable and relaxed when teachers use the L1 in class. An outstanding percentage of students 49% believe that L1 should be used in instances where students do not understand what is being said. Even though students report that the L2 should be the primary means of communication in the classroom, they seem to favour L1 use when difficulties arise.

Phase 3: Teacher Questionnaire – Part III

The attitudes of teachers towards the use of L1 in the English language classroom will be shaped by a number of factors, including their own experience as language learners, the pre-service and in-service training that they experience, the institutional policies in which they are working, and their experience as teachers. Their attitudes are reflected in their teaching practices. So, their attitudes need to be explored.

3.2 Teacher Beliefs

1. How often do you think Myanmar language should be used in the EFL classroom? (Please circle the relevant item.)

Table 7:
Responses of the teachers towards teacher questionnaire item 1

Sr No	Question	Responses			
		Never	Very rarely	Sometimes	Fairly frequently to aid comprehension
1.	How often do you think Myanmar language should be used in the EFL classroom?	42%	23%	13%	22%

Students (42%) think that Myanmar language should be never used in the EFL classroom.

2. If you prefer the use of Myanmar language in your EFL classroom, why? (Please circle the relevant item.)
a) It's more comfortable
b) I am less tense
c) I feel less lost
Table 8: Responses of the teachers towards teacher questionnaire item 2

Sr No	Question	Responses		
		I feel less lost.	I am less tense.	It's more comfortable.
8.	If you prefer the use of Myanmar language in your EFL classroom?	56%	23%	21%

Student participants (56%) feel less lost regarding the use of Myanmar language in EFL classroom.

3. Do you believe using Myanmar language in the EFL classroom helps you learn more?
(Please circle the relevant item.)
a) no
b) a little
c) fairly much
d) a lot

Table 9:
Responses of the teachers towards teacher questionnaire item 3

Sr No	Question	Responses			
		No	A little	Fairly much	A lot
3.	Do you believe using Myanmar language in the EFL classroom helps you learn more?	42%	23%	23%	12%

According to the responses, 42% of the teachers don't believe that using Myanmar language in the EFL classroom helps them learn more.

Discussion

In this study comparing non-English major Myanmar-speaking students and EFL teachers in Myanmar, it has been found that students want L1 support in their EFL classroom, rather than pure direct method. The only pedagogical use for the L1 clearly favored by the students was explaining difficult concepts, mismatching with teacher perceptions. Few students saw a need for L1 support for helping students to feel comfortable or less tense; they don't like L1 support in checking for comprehension, and in defining new vocabulary items. The high desire for some Myanmar support, mainly for difficult concepts and to help students when they feel lost, and the otherwise low response rates for all other pedagogical L1 uses, may be due to the status of English as an official second language. It does not seem that an

English-only policy will lead to more English language use in the classroom. If learners at a lower level are struggling to understand instructions or explanations in English, they will not produce much English. Similarly, a speaking task that is inappropriate for a group of learners, because of its language demands or its lack of relevance to their lives, will not be successful if English-only is insisted on. Silence is a probable outcome. A small number of classroom management techniques that make limited use of the L1 can (1) facilitate more extended opportunities to use English in both speaking and listening, (2) provide useful opportunities for English language learning, and (3) be reassuring to the learners. On my opinion, as if our tongue prefers our traditional foods, our ears prefer hearing our native language. English-mainly is better than English-only. I make much greater use of the L1 with classes of students at lower levels, depending on the specializations of the students. At my university, the students majoring in philosophy and psychology obviously have lower proficiency level of English. We, the teachers, must and need to modify the use of L1 for the benefit of the whole class.

Conclusion

The issue of the use of students' first language (L1) in the second language (L2) classroom has been debated for many years. Students learn their second language much in the same way that they learn their first, and that L2 is best learned through massive amounts of exposure to the language with limited time spent using L1 (Tang, 2002). However, in recent years, focus has been shifting towards inclusion of L1 in the language classroom. Research has shown that the occasional use of L1 by both students and teachers increases both comprehension and learning of L2. From the findings reported above, the researcher has concluded that students prefer having the option of L1 support. Most students prefer L1 support for difficult concepts and for comparing the L1 with the L2. Finally, it is agreed that teachers should know the L1 and students should use the L1 in class. In conclusion, the use of L1 in the L2 classroom by both teachers and students can be beneficial in the language learning process and may even be necessary for increased comprehension and acceptance of the new language by the language learners. This use of L1 is for clarifying purposes and should not be the primary mode of communication either by the students or teacher(s) in the L2 classroom. Once an appropriate balance is achieved, the use of L1 will enhance an L2 classroom.

Limitations

Four limitations exist in the present research. First, a low number of teachers participated. Second, self-reported proficiency scores were used to group student participants. Third, the researcher did not consider factors such as students' major, experience overseas, or experience with language learning outside of school. Finally, teacher proficiency levels in both of the languages were not examined. These issues could be the focus for future study.

References

Auerbach, E. R. R. (1993). Reexamining English only in the ESL classroom. *TESOL quarterly*, *27*(1), 9–32.

Burden, P. (2000). The use of the student's mother tongue in monolingual English "conversation" classes at Japanese universities. *The Language Teacher, 24(6)*, pp. 5-10.

Burden, P. (2001). When do native English-speaking teachers and Japanese college students disagree about the use of Japanese in the English language classroom? *The Language Teacher, 25(4)*, pp. 5–10.

Cook, V. (2001). Using the first language in the classroom. *Canadian Modern Language Review/ La Revue canadienne des langues vivantes*, *57(3)*, 402–423.

Cook, V. (2012). Some issues for SLA research. In L. Pedrazzini & A. Nava (Eds.), *Learning and Teaching English: Insights from Research* (pp. 39–68). Monza, Italy: Polimetrica.

Duff, P. A., & Polio, C. G. (1990). How much foreign language is there in the foreign language classroom? *The Modern Language Journal*, *74(2)*, 154–166.

Kroll, J. F., & Tokowicz, N. (2001). The development of conceptual representation for words in a second language. In J. Nicol (Ed.), *One mind, two languages: Bilingual language processing* (*Vol. 2*, pp. 49–71). Malden, MA: Blackwell Publishers.

Pacek, D. (2005). Personality not Nationality`: Foreign Students` Perceptions of a Non- Native Speaker Lecturer of English at a British University. In E. Llurda (Ed.), *Educational Linguistics: Non-Native Language Teachers, 5*, pp. 243-262). New York, NY: Springer.

Schweers, C. J. (1999). Using L1 in the L2 classroom. *English Teaching Forum, 37 (8)*, pp. 13-17.

Şenel, M. (2010). Should foreign language teaching be supported by mother tongue? *Journal of Language and Linguistic Studies*, *6(1)*, 110–119.

Tang, J. (2002). Using L1 in the English classroom. *English Teaching Forum, 40 (1)*, 36–43.

Turnbull, N., and Arnett, K. (2002). Teachers` uses of the target and first language in second and foreign language classrooms. *Annual Review of Applied Linguistics, 22,* 204-218.

Students' Perceptions of the Impact of the TOEFL vs IELTS on their English-learning Practices

Khaing Zin Thant[1] / Professor Jasmine Kong-Yan Tang[2]
[1]Library Assistant-3, Mandalar University, Mandalay, Ministry of Education, Myanmar
E-mail: khaingzint96@gmail.com
[2]Languages and Literature Department, SUNY Geneseo, USA
E-mail: tangj@geneseo.edu

Abstract

The decision to take the TOEFL vs IELTS will ultimately depend on a number of factors. TOEFL vs IELTS is regarded as the most influential English test in Myanmar. This study investigates students' perceptions of the impact of the TOEFL vs IELTS on their English-learning practices and their affective conditions. A survey was administered to 116 undergraduate students at selected universities in Myanmar. It was found that students perceived the impact of the TOEFL vs IELTS to be pervasive. In particular, the majority of the respondents indicated that the TOEFL vs IELTS had a greater impact on what they studied than on how they studied. Most of the students surveyed felt that TOEFL vs IELTS had motivated them to make a greater effort to learn English. Many students seemed to be willing to put more effort on the language skills most heavily weighted in the TOEFL vs IELTS. About half of the students reported a higher level of self-efficacy in regard to their overall English ability and some specific English skills as a result of taking or preparing for the TOEFL vs IELTS. However, many students also reported experiencing increased pressure and anxiety in relation to learning English. This study provides important evidence about how the TOEFL vs IELTS influences university students' English learning in Myanmar, and directions for further research are also suggested.

Keywords: Students' perceptions, Impact, TOEFL vs IELTS

Introduction

The TOEFL vs IELTS is standardized tests designed to measure the English proficiency of undergraduate students and to determine whether their English-language ability meets the requirements of the University English curriculum. Traditionally, the TOEFL vs IELTS consisted of five sections: listening, reading, vocabulary and structure, cloze (error-correction and/or question answering), and writing. TOEFL vs IELTS scores have even been used to determine whether University students are eligible for residence permits in some major cities (Jin, 2008). Overall, the TOEFL vs IELTS has had a far reaching educational and social impact in Myanmar, and its impact has become a correspondingly important and highly contentious issue not only in academia but also in society. Most of the studies on the impact of the TOEFL vs IELTS (e.g., Chen, 2007; Gu, 2005; Hua, 2006; Wang, Wang, & Liu, 2005) have focused on teachers. Overall, there is a lack of empirical evidence regarding the impact of the TOEFL vs IELTS on students; and, in particular, data is scarce in regard to their affective conditions, such as feelings, attitudes, and moods. Thus, the present study investigates students' perceptions of the impact of the TOEFL vs IELTS on their English-learning practices and on their affective conditions to enable school administrators, teachers, parents, test designers, and policy makers, as well as students, to become better informed about how the TOEFL vs IELTS influences students.

The Impact of TOEFL vs IELTS Tests

In the past several decades, the impact of TOEFL vs IELTS tests has been the subject of considerable attention from educators and researchers—especially in the field of language testing. According to Hughes (1993), a test will first influence the participants' perceptions and attitudes, then how they perform, and finally the learning outcomes. Language testing researchers have conducted numerous studies examining the nature of washback, how it works, and its effects. As Wall (2000) observed, most studies have focused on how testing influences classroom teaching, whereas studies on how testing influences students' learning and their behaviors are relatively few. Students are actually the primary stakeholders in testing situations, as it is the student "whose status in school and society is determined by test scores and the one whose self-image, motivation, and aspirations are influenced" (Kirkland, 1971, p. 307). Rea-Dickins (1997) also contended that students are perhaps the most important stakeholders and "their views are among the most difficult to make sense of and to use" (p. 306). Furthermore, most studies have focused on academic factors, whereas students' affective conditions have been neglected. It is, therefore, important to directly assess how students feel about the impact of the TOEFL vs IELTS, both in terms of their English-learning practices and affective conditions. In an extensive literature review, Kirkland (1971) concluded that tests could influence factors such as a student's self-concept, motivation, level of aspiration, study practices, and anxiety. First, test scores influence a student's self-concept. In particular, Harlen and Deakin-Crick (2003) reviewed the impact of tests on student motivation, finding a complex interaction between motivation and other factors, such as effort, goal orientation, locus of control, self-efficacy, sense of self as a learner, self-esteem, self-regulation, and interest.

Aim of the Study

The TOEFL vs IELTS impacts students in two ways: academic and affective. The academic impact refers to the TOEFL vs IELTS's influence on students' English-learning behavior, as this pertains to learning content (i.e., what students study) and learning methods (i.e., how they study), whereas affective impact refers to the TOEFL vs IELTS's influence on students' affective conditions, such as goal orientation, motivation, self-efficacy, and anxiety. Based on the literature, we aim to explore the students' perceptions of the impact of the TOEFL vs IELTS on their English-learning practices.

Methods

This research employed a quantitative method. The data collection was conducted in selected universities of Myanmar. However, these universities do not require students to achieve a certain score on the TOEFL vs IELTS in order to receive a bachelor's degree. The survey was conducted in 2020-2021 academic year. The teachers involved were 31 to 55 years old and has been teaching in the university for 6 to 28 years. In May 2020, a few weeks before the TOEFL vs IELTS was scheduled, 116 students completed a questionnaire that asked them how they felt about the impact of the TOEFL vs IELTS. To understand the general perceptions of the impact of the TOEFL VS IELTS, we recruited participants from different levels at university.

Context and Participants

Of the students who provided demographic data, 85 were female and 31 were male; there were 19 first year students, 26 second year students, 31 third year students, and 40 fourth year students. At the time of the survey, the third-year and fourth-year students had already taken the TOEFL vs IELTS, the second year students were scheduled to take the TOEFL vs IELTS in a few weeks, and the first year students would not take the TOEFL vs IELTS until a year later.

Instrumentation and Data Collection

A questionnaire was constructed to solicit students' perceptions of the impact of the TOEFL vs IELTS. First, we drafted items under the categories as set out in the previous literature review (e.g., Alderson & Wall, 1993; Gu, 2005; Huang & Yang, 2002; Kirkland, 1971), such as learning content, learning methods, goal orientation, motivation, self-efficacy, and anxiety. Second, two outside experts were invited to comment on whether the questionnaire statements examined students' perceptions of test impact as informed by the literature. The first part of the questionnaire comprised demographic information, whereas the second part comprised 5 option Likert-type items asking students to select whether they strongly agreed, agreed, neutral, disagreed, or strongly disagreed with each statement about the impact of the TOEFL vs IELTS. Copies of the questionnaire were distributed to 150 undergraduate students with the help of their English instructors. All the 116 students completed and returned the questionnaires to the researchers.

Results and Discussion

Learning Content and Learning Methods

Five items related to students' perceptions of how the TOEFL vs IELTS impacted their English study behavior. Table 1 shows the percentage of the students who strongly agreed (SA), agreed (A), disagreed (D), or strongly disagreed (SD) with each item.

Table 1:
Students' perceptions of how the TOEFL vs IELTS impacted their English study behavior regarding learning content (n=116)

SN	Statement	Responses					Calculation		Interpretation
		Strongly disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly agree (SA)	Mean	SD	
1	I will work hard to practice English speaking if it is required on the TOEFL vs IELTS.	4%	7%	7%	48%	34%	4.01	1.02	Very positive
2	I will spend more time practicing English listening if listening gets heavier weight in the TOEFL vs IELTS.	6%	6%	10%	52%	26%	3.86	1.06	Very positive
3	I am more attentive in the class if the teacher lectures on contents related to the TOEFL vs IELTS.	5%	10%	11%	41%	33%	3.87	1.13	Very positive
4	I pay more attention to the content that is related to the	14%	30%	5%	30%	21%	3.14	1.41	Positive

	TOEFL vs IELTS.								
5	I pay more attention to the words that are labeled as TOEFL vs IELTS vocabulary.	11%	20%	9%	33%	27%	3.45	1.36	Very positive
Average		8.00%	14.60%	8.40%	40.80%	28.20%	3.67	1.25	Very positive

NOTE:
1.00-1.80=Slightly positive
1.81-2.60=Moderately positive
2.61-3.40=Positive
3.41-4.20=Very positive
4.21-5.00= Completely positive

It can be seen that 48% of the students agreed and 34% strongly agreed that they would work hard to practice English speaking if speaking were required on the TOEFL vs IELTS. According to their responses, they will work hard to practice English speaking if it is required on the TOEFL vs IELTS (Mean=4.01). Likewise, over half of students agreed and strongly agreed that they would spend more time if the teacher lectures on contents related to the TOEFL vs IELTS (Mean=3.87). Similarly, the students agreed or strongly agreed that they would be more attentive in class if the teacher were to lecture on content related to the TOEFL vs IELTS (Mean=3.86).

Table 2 summarizes the four items related to learning methods.

Table 2:
Learning Methods (n=116)

SN	Statement	Responses					Calculation		Interpretation
		Strongly disagree (SD)	Disagree (D)	Neutral	Agree (A)	Strongly agree (SA)	Mean	SD	
1	I have taken or will take the TOEFL vs IELTS coaching classes.	5%	7%	10%	49%	29%	3.90	1.05	Very positive
2	I will buy or have bought TOEFL vs IELTS coaching materials.	17%	23%	7%	31%	22%	3.18	1.44	Positive
3	I would like to try any learning methods that can help me perform better on the TOEFL vs IELTS.	21%	25%	9%	25%	20%	2.98	1.46	Positive
4	Taking or preparing for the TOEFL vs IELTS influences the way I learn English.	15%	22%	6%	33%	24%	3.29	1.42	Positive
Average		14.50%	19.25%	8.00%	34.50%	23.75%	3.34	1.40	Positive

NOTE:
1.00-1.80=Slightly positive
1.81-2.60=Moderately positive
2.61-3.40=Positive
3.41-4.20=Very positive
4.21-5.00= Completely positive

Most students agreed and strongly agreed that they had taken or would take the TOEFL vs IELTS coaching classes (Mean=3.90), and they would also buy or had bought the TOEFL vs IELTS coaching materials (Mean=3.18). TOEFL vs IELTS coaching classes not only provide intensive training on how to learn English but more importantly they offer training on test taking strategies. Furthermore, a large number of TOEFL vs IELTS coaching materials are on the market for students to purchase. However, the quality of the TOEFL vs IELTS coaching classes and materials vary greatly, and they also add considerably to the financial burden of university students. Still, the results of this study show that more than half of the participating students would resort to TOEFL vs IELTS coaching classes and/or purchase TOEFL vs IELTS coaching materials. Around 45% of the students agreed or strongly agreed that they would try any learning method that might help them perform better on the TOEFL vs IELTS. Still, only about 57% of the students thought that taking or preparing for the TOEFL vs IELTS influenced the way they learned English.

Goal Orientation and Motivation

Goals provide students with direction and a purpose for engaging in an activity (Pintrich & Schunk, 1996), and goal orientations constitute students' reasons for engaging in academic tasks (Anderman, Austin, & Johnson, 2002). Three items are related to goal orientation.

Table 3:
Goal Orientation (n=116)

SN	Statement	Responses					Calculation		Interpretation
		Strongly disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly agree (SA)	Mean	SD	
1	Taking or preparing for the TOEFL vs IELTS makes me have clearer goals in learning English.	9%	15%	7%	37%	32%	3.68	1.30	Very positively gold oriented
2	To pass the TOEFL vs IELTS is my major driving force in learning English.	17%	22%	5%	30%	26%	3.26	1.47	Positively gold oriented
3	To pass the TOEFL vs IELTS is my major purpose for learning English.	14%	25%	10%	22%	29%	3.27	1.46	Positively gold oriented
Average		13.33%	20.67%	7.33%	29.67%	29.00%	3.40	1.43	Very positively gold oriented

NOTE:
1.00-1.80=Slightly gold oriented
1.81-2.60=Moderately gold oriented
2.61-3.40=Positively gold oriented
3.41-4.20=Very positively gold oriented

As shown in Table 3, over half of the students agreed and strongly agreed that taking or preparing for the TOEFL vs IELTS led them to have clearer English-learning goals (Average mean=3.40). However, about one third of them agreed and strongly agreed that passing the TOEFL vs IELTS was their major driving force for learning English, and only 22% agreed and strongly agreed that passing the TOEFL vs IELTS was their major purpose for learning English (Mean=3.27). Many Myanmar students learn English for the sake of taking the tests instead of for using the language for real purposes. Therefore, for many students, the TOEFL vs IELTS appears to be one of their goals for learning English in University.

Motivation in the present study is mainly operationalized by how much effort the students were willing to make to pass the TOEFL vs IELTS.

Table 4:
Motivation (n=116)

SN	Statement	Responses					Calculation		Interpretation
		Strongly disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly agree (SA)	Mean	SD	
1.	Taking or preparing for the TOEFL vs IELTS makes me more motivated to learn English.	10%	15%	11%	33%	31%	3.60	1.33	Very positively motivated
2.	I spend more time learning English because of taking or preparing for the TOEFL vs IELTS.	9%	19%	10%	32%	30%	3.55	1.33	Very positively motivated

3.	In order to prepare for the TOEFL vs IELTS, I spend more time memorizing English words.	14%	23%	8%	31%	24%	3.28	1.41	Positively motivated
4.	In order to prepare for the TOEFL vs IELTS, I spend more time watching English movies.	14%	25%	13%	27%	21%	3.16	1.38	Positively motivated
5.	In order to prepare for the TOEFL vs IELTS, I spend more time listening to English broadcasts.	15%	16%	12%	30%	27%	3.38	1.41	Positively motivated
6.	In order to prepare for the TOEFL vs IELTS, I spend more time practicing English–Myanmar translation.	20%	24%	11%	25%	20%	3.01	1.45	Positively motivated
7.	In order to prepare for the TOEFL vs IELTS, I spend more time practicing English writing.	7%	8%	13%	37%	35%	3.85	1.19	Very positively motivated
8.	In order to prepare for the TOEFL vs IELTS, I spend more time reading English newspapers.	15%	24%	8%	30%	23%	3.22	1.42	Positively motivated
9.	Taking or preparing for the TOEFL vs IELTS makes me pay more attention to English use in real life.	17%	20%	14%	27%	22%	3.17	1.41	Positively motivated
10.	The TOEFL VS IELTS makes me feel that the English language is a very useful tool.	14%	22%	7%	30%	27%	3.34	1.43	Positively motivated
11.	Taking or preparing for the TOEFL vs IELTS makes me feel that learning English is more important.	5%	13%	5%	41%	36%	3.90	1.17	Very positively motivated
12.	In order to prepare for the TOEFL vs IELTS, I spend more time learning English and American literature.	12%	16%	8%	31%	33%	3.57	1.39	Very positively motivated
Avg		12.67%	18.75%	10.00%	31.17%	27.42%	3.42	1.39	Very positively motivated

NOTE:
1.00-1.80=Slightly motivated
1.81-2.60=Moderately motivated
2.61-3.40=Positively motivated
3.41-4.20=Very positively motivated
4.21-5.00= Completely motivated

According to the data, the students reported that they were motivated to learn English by the TOEFL vs IELTS (Average mean=3.42); also, they felt that taking or preparing for the TOEFL vs IELTS makes me feel that learning English is more important (Mean=3.90), and most were motivated to improve their English language abilities to prepare for the TOEFL vs IELTS in practicing English writing.

3.3 Self-Efficacy and Anxiety

Self-efficacy is defined as how people feel about their ability to produce designated levels of performance that exercise influence over events that affect their lives (Bandura,1994). As shown in Table 5, about half the students agreed or strongly agreed that they felt more confident about their English reading and listening ability as a result of taking or preparing for the TOEFL vs IELTS,

Table 5:
Self-Efficacy (n=116)

SN	Statement	Responses					Calculation		Interpretation
		Strongly disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly agree (SA)	Mean	SD	
1	I feel more confident about my English-reading ability as a result of taking or preparing for the TOEFL vs IELTS.	8%	10%	10%	31%	41%	3.87	1.27	Very effective
2	I feel more confident about my English-listening ability as a result of taking or preparing for the TOEFL vs IELTS.	10%	17%	10%	30%	33%	3.59	1.36	Very effective
3	I feel more confident about my overall English proficiency as a result of taking or preparing for the TOEFL vs IELTS.	5%	13%	8%	30%	44%	3.95	1.22	Very effective
4	I feel more able to use English in real situations as a result of taking or preparing for the TOEFL vs IELTS.	16%	15%	11%	27%	31%	3.42	1.46	Very effective
5	I feel more confident about my English-speaking ability as a result of preparing for the TOEFL vs IELTS.	10%	13%	10%	30%	37%	3.71	1.34	Very effective
6	I feel more confident about my English-writing ability as a result of taking or preparing for the TOEFL vs IELTS.	19%	21%	10%	25%	25%	3.16	1.48	Effective
Avg		11.33%	14.83%	9.83%	28.83%	35.17%	3.62	1.38	Very effective

NOTE:
1.00-1.80=Slightly effective
1.81-2.60=Moderately effective
2.61-3.40= Effective
3.41-4.20=Very effective
4.21-5.00= Completely effective

According to the data, students feel more confident about their overall English proficiency as a result of taking or preparing for the TOEFL vs IELTS (Mean=3.95). They may have put more effort into reading (Mean=3.87) and they feel more confident about my English-speaking ability as a result of preparing for the TOEFL vs IELTS.

Anxiety, defined as the "subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the automatic nervous system" (Spielberger, 1983, p. 1), is also an important aspect of the test's impact.

Table 6:
Anxiety

SN	Statement	Responses					Calculation		Interpretation
		Strongly disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly agree (SA)	Mean	SD	
1	I am under greater pressure to learn English because of taking or preparing for the TOEFL vs IELTS.	11%	18%	10%	30%	31%	3.52	1.37	Very anxious
2	Taking or preparing for the TOEFL vs IELTS makes me feel more anxious about learning English.	20%	12%	11%	30%	27%	3.32	1.48	Anxious
3	Taking or preparing for the TOEFL vs IELTS makes me feel that I have failed in my efforts to learn English.	23%	15%	18%	20%	24%	3.07	1.49	Anxious
4	Taking or preparing for the TOEFL vs IELTS makes me more frustrated with learning English.	30%	18%	11%	20%	21%	2.84	1.55	Anxious
5	I am more afraid of learning English because of taking or preparing for the TOEFL vs IELTS.	31%	13%	15%	20%	21%	2.87	1.55	Anxious

6	I feel more confident about my English-writing ability as a result of taking or preparing for the TOEFL vs IELTS.	3%	7%	10%	35%	45%	4.12	1.04	Very anxious
Avg		19.67%	13.83%	12.50%	25.83%	28.17%	3.29	1.49	Anxious

As shown in Table 6, most of the students agreed or strongly agreed that they were under greater pressure because of taking or preparing for the TOEFL vs IELTS (Average mean=3,29), and some agreed or strongly agreed that they were experiencing more anxiety in terms of taking or preparing for the TOEFL vs IELTS (Mean=3.52). A certain level of anxiety may promote learning, though too much may function as an obstacle in this regard (Kirkland, 1971). Thirty-eight percent of the students agreed or strongly agreed that taking or preparing for the TOEFL vs IELTS made them feel that they had failed in their efforts to learn English. Around one third of the students agreed or strongly agreed that they felt more frustrated with learning English and had become more afraid of learning English. This is somewhat in contrast with the increasing self-efficacy they reported in terms of their English ability. This contrast may represent the actual situation regarding students' perceptions of the impact of the TOEFL vs IELTS. On the one hand, students felt more confident about their English ability as a result of putting more effort into preparing for the TOEFL vs IELTS. On the other hand, the test preparation put them under great pressure, such that they became more anxious about and frustrated with learning English.

Discussion

Based on evidence from the questionnaire survey, the TOEFL vs IELTS seems to have had a pervasive impact on the participating students in this study. First, the TOEFL vs IELTS has a greater impact on learning content than on learning methods. The TOEFL vs IELTS seems to be effective in directing students' attention to what they need to learn in order to pass it. This finding is consistent with previous literature showing that tests have a greater impact on the content taught than on the methods used to teach it. Second, over half of the students felt that the TOEFL vs IELTS had caused them to clarify their English learning goals, and most of the students were more motivated to make a greater effort to learn English. Therefore, many students were willing to put more effort into listening and reading and less effort into writing and speaking. Third, about half the students reported a higher level of self-efficacy in regard to their overall English ability and to different English skills as a result of preparing for or taking the TOEFL vs IELTS. Despite the increasing self-efficacy, however, students reported that they felt more pressure and anxiety as a result of preparing for or taking the TOEFL vs IELTS, and around one third of the students felt more frustrated with learning English and became more afraid of learning English. Overall, the findings of this study provide some evidence for the intensity and range of the impact of the TOEFL vs IELTS on students' English learning, both in terms of their English-learning practices and affective conditions. The current study has found that students seem to be sensitive to what is assessed in the TOEFL vs IELTS and the weight it gives to different language skills. Given the TOEFL vs IELTS's powerful impact on University English education, it is important that the TOEFL vs IELTS committee keep reforming the test and adopt more authentic measures of English-language ability in order to encourage students to take more interest in English-language use in real-world contexts. As described by Shohamy (2001, p. 113), high-stakes tests can have detrimental effects on individuals "as they can create winners and losers, successes and failures, rejections and acceptances." In the present study, most of the students were motivated to learn English as a result of preparing for or taking the TOEFL vs IELTS, yet the TOEFL vs IELTS also made many of them feel more anxious about and frustrated with their efforts to learn English.

Conclusion

Based on the questionnaire survey data, it has been concluded that the TOEFL vs IELTS had great influence on teaching content, teaching pace, and teachers' attitudes towards teaching as well as on the teaching methods in Myanmar. Further, the TOEFL vs IELTS was important in motivating to adhere to the national curriculum and induced administrators to attach greater importance to English courses. In addition, Li (2009) examined the impact of the TOEFL vs IELTS writing section on the teaching of writing at a university. She observed that the TOEFL vs IELTS did not change the way teachers taught English writing, probably due to the relatively low requirement of the TOEFL vs IELTS writing section, its restrictive testing format, teachers' lack of training on how to teach writing, and the large class size.

Recommendations for Future Studies

As the present study collected data from only from selected universities, there is little variation in students' English proficiency. Therefore, it is necessary to expand this research to involve students from different universities with heterogeneous English-proficiency levels and family backgrounds in order to explore individual differences related to their perceptions. Nevertheless, the current study constitutes only a first step in investigating the impact of the TOEFL vs IELTS on students at one university. Additional long-term and follow-up studies at different types of universities are needed in order to learn about the nature of the TOEFL vs IELTS's impact in a variety of settings.

References

Alderson, J. C., & Wall, D. (1993). Does washback exist? *Applied Linguistics, 14*(2), 115–129.

Anderman, E. M., Austin, C. C., & Johnson, D. M. (2002). The development of goal orientation. In A. Wigfield, & J. S. Eccles (Eds.), *Development of achievement* motivation (pp. 197–220). San Diego, CA: Academic Press.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71–81). New York:, NY Academic Press.

Chen, F. (2007). The washback effect of University English Test Band 4 on curricular planning and instruction. *CELEA Journal, 30*(1), 19–29.

Gu, X. (2005). *Positive or negative? An empirical study of TOEFL VS IELT washback on University English teaching and learning in Myanmar* (Unpublished doctoral dissertation). Shanghai Jiaotong University, Shanghai, Myanmar.

Harlen, W., & Deakin-Crick, R. (2003). Testing and motivation for learning. *Assessment in Education, 10*(2), 169–208.

Hua, S. (2006). An empirical study of washback from TOEFL VS IELTS-4 on University English teaching and learning. *CELEA Journal, 29*(1), 54–59.

Huang, D., & Yang, L. (2002). Analyzing the problems of the University English Test based on a survey. *Foreign Language Testing and Research, 4*, 288–293.

Hughes, A. (1993). *Backwash and TOEFL* (Unpublished manuscript). University of Reading, England. International Language Testing Association. (2000). *Code of ethics*. Retrieved June 1, 2011 from http://www.iltaonline.com/images/pdfs/ILTA_Code.pdf

Jin, Y. (2008). Powerful tests, powerless test designers? Challenges facing the University English test. *CELEA Journal, 31*(5), 1–11.

Kirkland, M. C. (1971). The effect of tests on students and schools. *Review of Educational Research, 41*(4), 303–350.

Li, H. (2009). Are teachers teaching to the test? A case study of the University English Test (TOEFL VS IELTS) in Myanmar. *International Journal of Pedagogies and Learning, 5*(1), 25–36.

Pintrich, P., & Schunk, D. (1996). *Motivation in education: Theory, research & applications*. Englewood Cliffs, NJ: Prentice-Hall.

Rea-Dickins, P. (1997). So, why do we need relationships with stakeholders in language testing? A view from the UK. *Language Testing, 14*(3), 304–314.

Wall, D. (2000). The impact of high stakes testing on teaching and learning: Can this be predicted or controlled? *System, 28*(4), 499–509.

Wang, X., Wang, J., & Liu, F. (2005). TOEFL VS IELTS validity: An analytical study based on the feedback from the questionnaires. *Journal of Heibei Institute of Architectural Science and Technology (Social Science Edition), 22*(1), 109–110.

Value of Impromptu Talk Activity at Tertiary Level in Myanmar

Kyaw Sein
English Teacher, Manaw Yadana Private High School, Myitkyina,
Kachin State, Ministry of Education, Myanmar
E-mail: kyawseinsasankhar@gmail.com

Abstract

This study explores the student feedback regarding how certain speech activities were perceived by English specialization students at selected Universities in Myanmar. In detail, the study will share the results of student surveys which show the student's feedback and perceptions of impromptu talk activity. Moreover, the aim of the research was to determine what activities were genuinely helpful to the students and to identify which activities students had found particularly engaging. The research questions are: (i) how important it is that students enjoy the impromptu talk activity; (ii) how well students gauge the effectiveness or usefulness of this activity; (iii) whether student enjoy it and their perception of usefulness/effectiveness related to this activity. The value of classroom impromptu talk as well as the importance of this perceived value by the English specialization students have been explored. The information and analysis in this study was done for the purpose of improving coursework and student experiences in the classroom. The methodology employed was intended to capture what the students found effective about the activity, as well as whether or not they had enjoyed it. According to the data, impromptu talk activity was consistently rated highest on the Likert scale as a useful task and was often cited as "most useful". At the same time, this activity was rated by the majority of students as "difficult" and not particularly enjoyable. So, in the midst of tasks that were generally seen as both useful and at least somewhat enjoyable, one task that stands out as being considered by English specialization students as more useful, but less enjoyable has been found in this research.

Keywords: Value, Impromptu talk activity, Tertiary level, English specialization students Myanmar

Introduction

Being an accomplished oral communicator is recognized as the hallmark of competent EFL tertiary students. Yet, many students after their graduation, especially from open access colleges with large cohorts, fail to be equipped with adequate oral communication competencies. Oral communication skills are primordial for English as a Foreign Language (EFL) tertiary students to succeed in their academic as well as professional life (Hetherington 1980, Mahmud 2014, Tsang 2017). For this reason, being an accomplished oral communicator remains for them a top priority. However, when students graduate, they oftentimes find difficulties to express their ideas clearly, select proper vocabulary, pronounce well, listen effectively, and use their body language correctly. Furthermore, they constantly undergo speech apprehension and lack of self-confidence.

Majority of students did not experience standing in front of their peers and communicate in English. Universities should provide undergraduates with insufficient or no speaking practice and limit instructors' ability to monitor practice through individualized attention. In view of this, individual impromptu speech is suggested as a strategy for improving students' oral communication skills.

Oral Communication Skills

Oral communication skills stand pivotal for EFL tertiary students (Hetherington 1980, Tsang 2014, Mahmud 2017). They inevitably help them operate in the real world. They effectively impact on their level of success as they provide confidence in a wide range of situations--personal, academic, and professional ranging from informal exchanges between friends and family members to formal speeches such as lectures and conference papers. Oral communication commonly refers to a two-way process between speaker and listener, incorporating, therefore, the productive skill of speaking and the receptive skill of listening (Byrne 1986, Alwright 1994, Brown 1994). Speaking, which involves the construction and delivery of information through the mouth, is described by Syakur (1987: 5) as a complex skill since it necessitates not less than the components of four skills. These skills, according to him, are grammar, vocabulary, pronunciation, and fluency; they undoubtedly help speakers to express their thoughts clearly and therefore be understood easily. Listening, on the other hand, is the ability to accurately receive and understand messages. It is a critical skill that necessitates "paying a close attention to a speaker's accent, grammar, and vocabulary to understand their message" (Sekkal 2020: 37). It is thanks to it that human relationships are underpinned. Both speaking and listening, thus, stand as "lifelong activities and [are] probably our most important communication tool" (Staab 1992: 6) as they energize participating in discussions, exchanging information, expressing thoughts, and interacting with different people. Effectiveness in oral communication depends not only on being an active listener or a competent speaker displaying fluency, appropriate command of vocabulary and syntactic forms, as well as proper pronunciation, but also on using adequate "symbols and gestures that accompany the spoken words" (Rahman 2010: 3). Oral communication is never isolated but always adjunct to nonverbal communication.

Research Objectives

To test the efficiency of students' oral strategy, this research tries to give detailed answers to the following questions: (i) Is impromptu speech an effective strategy for enhancing students' oral competencies in open access large classes? (ii) Does it display students' abilities most? (iii) Are EFL learners more actively engaged through impromptu talks? The present study suggests individual impromptu talks as a strategy for improving students' oral communication skills in large classes. To test the efficiency of this strategy, a questionnaire survey was conducted at selected universities, involving 46 students in the experimental class and 45 students in the control class. Treatment was done using impromptu speech technique for the experimental group (Group 1) and the conventional teaching method using oral presentations technique for the control group (Group 2).

Method

Research Setting

Presentation and public speaking skills were a recurring theme upon which most of the activities were based. Students would acquire the public speaking skills required to be successful in university classes.

Data Collection

Data were collected from a total of two classes over two semesters. Students (n=were given a list and a short reminder/explanation about every activity completed in the class over the semester. Then, the students were asked a questionnaire about each of the activities, using a simple 1 to 3 Likert scale for their response.

Results

Phase 1: Effective strategies of impromptu speech for enhancing students' oral competencies

Table 1:

Effective strategies of impromptu speech for enhancing students' oral competencies **(n=46)**

Sr No	Items	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
1	Impromptu speech is an effective strategy for enhancing students' oral competencies in open access large classes.	2%	4%	94%	2.92	0.34	Considered of highly motivated
2	It displays students' abilities most.	1%	2%	97%	2.96	0.24	Considered of highly motivated
3	EFL learners are more actively engaged through impromptu talks.	2%	2%	96%	2.95	0.24	Considered of highly motivated
Average		1.33%	2.67%	96.00%	2.95	0.28	Considered of highly motivated

NOTE:
1.00-1.66=Considered of lack of motivation
1.67-2.33=Considered of moderately motivated
2.34-3.00=Considered of highly motivated

According to the data, while a student was delivering their spontaneous speech, others actively listened to them and eagerly provided feedback. They actively involved in and enjoyed different speaking activities. Accordingly, all the students in the class, be they regular attendees or not, were given more chances to speak and more individualized attention. Students were more likely to organize and deliver cogent opinions supported by facts, listen actively to their classmates' viewpoints, develop culturally appropriate use of eye contact and body language and reduce speech apprehension. Students significantly showed great motivation, engagement, and commitment to learn and hone their oral communication skills as they took their instructor's as well as their classmates' comments and remarks into account (Mean=2.96). Consequently, the atmosphere in the whole class became alive and conducive. Speaking became fun and less difficult to them. Accordingly, students, who did not regularly attend oral communication course, including some students of Group 2, preferred to attend Group 1. It is worth noting that at the beginning of the semester, students were too nervous and sometimes shocked when appointed to give an off-the-cuff speech as they were not accustomed to speaking spontaneously in English. Afterwards, they became relatively more confident in delivering their speech, could speak better in a real-life conversation, elaborated the topic in a good way, and became more confident after experiencing impromptu talks several times (Mean=2.95). It was thanks to impromptu speech that students could successfully develop and display their competencies as good oral communicators (Mean=2.92).

Phase 2: Usefulness of Impromptu Talk

Another consideration for the research is to see how the students perceive the usefulness of impromptu talk, whether it is an enjoyable activity and the difficulties students might face were investigated for the sake of accurate analysis. Also, what considerations are students making when they consider an activity to be "enjoyable?" For example, the possibility exists that students might enjoy the impromptu speeches if they were done in a different format, or with different topics. The lack of enjoyment may not actually be due to the difficulty, but rather some other factor. Without collecting some student definitions of usefulness and enjoyment, this is difficult to answer adequately.

Table 2:
Students' experiences towards impromptu speech activities (n=46)

Sr No	Items	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
1	We found impromptu speech activities are very useful.	8%	11%	81%	2.73	0.60	In practice, it is clearly considered valuable by students
2	We rated impromptu speeches as an enjoyable language activity.	10%	12%	78%	2.68	0.65	In practice, it is clearly considered valuable by students
3	Impromptu talk is a very difficult activity.	12%	0%	88%	2.76	0.65	In practice, it is clearly considered valuable by students
Average		10.00%	7.67%	82.33%	2.72	0.63	In practice, it is clearly considered valuable by students

NOTE:
1.00-1.66=In practice, it is never considered valuable by students
1.67-2.33=In practice, it is often considered valuable by students
2.34-3.00=In practice, it is clearly considered valuable by students

The answers given in the Likert scale survey found that student opinions tended to show that, impromptu speech was consistently rated highest as a useful task and was often cited as most useful (Mean=2.73). At the same time, this activity was rated by the majority of students as difficult but particularly enjoyable (Mean=2.68). So, in the midst of tasks that were generally seen as both useful and at least somewhat enjoyable, we have one task that stands out as being considered by students as more useful, but less enjoyable.

Discussion

The results show that students using impromptu talks are far better than those using the conventional method of teaching oral communication skills. These students have considerably succeeded in maintaining constant, coherent talks featured by correct pronunciation, appropriate vocabulary, and well-formed sentences. They have also acquired how to be good listeners and sensible users of non-verbal communication. The study, therefore, underlines the efficiency of impromptu talks for honing EFL students' oral communication skills at open access colleges. Student perceptions of classroom tasks and what those perceptions might mean for motivation and learning. The data may be linked to some theories of motivation. Until recently motivation was primarily identified as two different categories, extrinsic motivation and intrinsic motivation (Dev, 1997; Pintrich & Schunk, 1996). Furthermore, if students understand that poor performance at the task is related to lack of skill (or experience) then they are more likely to engage in the task (Brewster & Fager, 2000). From this data, students value impromptu speech activities and although they rate it as difficult, they apparently see the outcome as achievable. There has yet to be a single instance of a student failing to make any effort whatsoever in an impromptu speech. If they combine the ideas of self-efficacy and expectancy theory, they can then achieve a model that appears applicable to the students in this study. The process happens as such; the students see the value of impromptu speeches, they recognize their own lack of ability, yet they believe that through trying they can successfully perform an impromptu speech. Therefore, they have a reasonable explanation as to why the students believe the activity is useful. However, when they apply the more recent model of motivation, the idea of an ideal L2 self it appears that we have an even more likely synthesis of the ideas above and therefore a better explanation for the perceived usefulness of impromptu speeches by the students. The "ideal self" is an individual's image of the person they would like to become when speaking an L2, and this becomes a powerful motivator because of the "desire to reduce the discrepancy between our actual and ideal selves" (Dornyei, 2011, p. 86). So, students can easily identify the gap between what they are capable of with impromptu speeches and their ideal L2 ability needed in order to speak on a topic with little or no preparation. This ideal L2 self-motivates them and helps create their perception of impromptu speech activity value. One question remains. Can the impromptu speech activity really be "useful" when it is not actually enjoyable for the students? In other words, is it possible to explain why students find impromptu speeches useful but not enjoyable? In Caulfield's 2010 study, he found something very similar in his data to the responses in my own data, namely, that student value and effort were highly predictive of student engagement in the task, particularly adhering to the student's idea of value. However, the study has found that students also performed more favourably in assignments that they identified as enjoying the most. The most frequently cited reason for disliking assignments was that the assignment could have been valuable but was very difficult and therefore the actual value was "ambiguous." This does not align with the students in my course who found the impromptu speeches to be quite difficult or often "most difficult", yet who still held strongly to believing in the usefulness of the task. What may be at work here however is that despite the difficulty, the students found the impromptu speeches very applicable to their growth as English speakers and to potential future situations where they might be "put on the spot" so to speak. This was not the case for students, who have confirmed that they could imagine situations where impromptu speaking skills are applicable to their lives. Finally, it has been concluded that if the assignment was both perceived as valuable and challenging, it was engaging for the students. This conclusion seems to concur with the students' perceptions of impromptu speeches. It is important for teachers to explain the value of their assignments so that students can better relate the task to their lives to feel a stronger motivation to perform. Students could not agree with this assertion more.

Conclusion

According to the findings, one of the activities in class, impromptu talk was consistently rated highest on the Likert scale as a useful task and was often cited as most useful. At the same time, this activity was rated by the majority of students as difficult and not particularly enjoyable. So, in the midst of tasks that were generally seen as both useful and at least somewhat enjoyable, we have one task that stands out as being considered by students as more useful, but less enjoyable. From the data and the literature reviewed, the conclusion is that impromptu speeches are clearly considered valuable by students, despite their also being perceived as a difficult task. Furthermore, this perceived value maintains the activity as a strong motivator for students whether they enjoy the impromptu speech activities. Thus, impromptu speeches will therefore remain a core component of academic speaking activities.

References

Dev, P.C. (1997). Intrinsic motivation and academic achievement: What does their relationship imply for the classroom teacher? Remedial and Special Education, 18(1), 12-19.

Hetherington, M.S. (1982). "The Importance of Oral". College English, 44 (6), 570-574.

Alwright, D. (1994). "The Importance of Interaction in Classroom Language Learning". Applied Linguistics, 5 (2), 156-171.

Brown, H.D. (1994). Teaching by Principles: An Interactive Approach to Language Pedagogy. The United States of America: Tina Carver.

Bryrne, D. (1986). Teaching Oral English. 2 nded., London: Longman.

Hetherington, M.S. (1982). "The Importance of Oral". College English, 44 (6), 570-574.

Mahmud, M. M. (2014). "Communication Aptitude and Academic Success". Procedia - Social and Behavioral Sciences, 134, 125-133.

Rahman, M. (2010). "Teaching Oral Communication Skills: A task-based Approach". English for Specific Purposes World, 9 (1), 1-11.
Staab, C. (1992). Oral Language for Today's Classroom. Toronto: Pippin Publishing.
Sekkal, K. (2020). "Listening Comprehension for "Business English" Students; Obstacles, Needs, and Strategies". International Journal of Linguistics, Literature and Translation, 3 (1), 36-46.
Tsang, A. (2017). "Enhancing Learners' Awareness of Oral Presentation (Delivery) Skills in the Context of Self-regulated Learning". Active Learning in Higher Education, 21 (1), 39-50

Beliefs and Vocabulary Learning Strategies Adopted by EFL Learners at Myanmar Universities

Su Mon Aung
Lecturer, English Department, Yadanarbon University, Mandalay
Ministry of Education, Myanmar
E-mail: sumonpinma@gmail.com

Abstract

Learning and memorizing words in a foreign language is both challenging and essential. Thus, the aim of the research was to find out the beliefs about vocabulary learning and vocabulary learning strategies among Myanmar EFL learners at selected universities in Myanmar. A questionnaire developed by Gu (2018), which contains four components: beliefs about vocabulary learning, metacognitive regulation of vocabulary learning, cognitive strategies of vocabulary learning, and affective strategies of vocabulary learning—was administered to 205 undergraduate students (40 males and 165 females). The data were analysed using the Statistical Package for Social Science (SPSS 20). The results of the study revealed that: (i) learners preferred learning words through use (contextual learning) rather than memorization; (ii) learners had the ability to identify, select, and understand essential words; (iii) learners preferred more readings in addition to feedback they received; (iv) learners mostly relied on a dictionary, guessing, repetition, and auditory encoding in learning vocabulary and (v) learners were less capable of managing and controlling their emotions, both external and internal and positive and negative, in learning vocabulary.

Keywords: Belief, Vocabulary learning strategies, EFL learners, Myanmar Universities

I. Introduction

In Myanmar, English language is taught in schools and universities under the supervision of department of basic education and department of higher education as a curriculum subject. Learners are required to master the language in order to help them achieve the required standards. In learning a language, comprehension is necessary for it to be useful and meaningful to learners and to ease the process of acquisition. For comprehending oral and written materials, vocabulary is an essential skill that must be mastered by the learners. It is vital because without sufficient vocabulary, it would be difficult to comprehend the inputs learners receive (Alqahtani, 2015). Therefore, vocabulary has a significant role in language learning, and unlike grammar, which is a system of a limited numbers, vocabulary is an open set of many thousands of items. Hence, it is considered as one of the most important skills in language learning. On the other hand, belief refers to learners' intuitive knowledge of their second language learning, which is influenced by their interaction with the outside world (Barcelos, 2003). Beliefs, like other learner variable, has a great impact on learning process. Beliefs facilitate the way to take necessary steps in the process of L2 learning by learners. So, vocabulary learning beliefs, another learner variable, influences vocabulary learning, and greatly influence vocabulary learning strategies. "Beliefs are halfway between information and activity; between people and their performance (Alarcón Hernandez, Ortiz Navarrete, & Díaz Larenas, 2015, cited in Jahangir Mardali & Masood Siyyari, 2019).

1.1 Learning Vocabulary

Brown and Payne (1994, as cited in Hashimi & Hadavi, 2015) identify fives steps in learning vocabulary. The steps are identifying new words, understanding the words form and meaning, retaining the form and meaning of words in memory, and use the words in real circumstances. The findings reveal that picking up new words and retaining the forms and meaning only will not help in increasing vocabulary. Instead, using the words in real situation will help learners to retain words in a long-term memory. Brenda D. Smith (2008) identifies seven essential steps in learning and remembering new words. Those are "rhyming words, association and organization, understanding the structure of words, using a dictionary, recognizing word families (prefixes, roots, and suffixes), understanding word's origin, and using analogies".

1.2. Definition and Classification of Vocabulary Learning Strategies

Schmitt (1997) Hadi & Guo, Cogent Education (2020), defines vocabulary learning strategies as the process by which an EFL learner obtains, stores, retrieves, and uses vocabulary items when encountering a word for the first time. O'Malley and Chamot (1990) classify learning strategies into metacognitive, cognitive and socio-affective strategies. Nation (2001) classifies into three categories: (1) planning (2) source, and (3) processes. Nation also proposed that in vocabulary learning the following items also play a crucial role: "context, word parts, dictionary, learning from cards, and finding and learning "multiword units" (Gu, 2018). Schmitt's (1997) vocabulary learning taxonomy is divided into two categories: (i) discovery strategies and (ii) consolidation strategies. Discovery includes determination and social strategies. Consolidation includes social strategies, memory strategies, cognitive strategies, and metacognitive strategies (Gu, 2018). Gu's (2013) taxonomy includes three components: beliefs, metacognitive and cognitive. The metacognitive includes selective attention and self-initiation. The cognitive includes inferencing, using dictionary, note-taking, rehearsal, encoding, and activation (Gu, 2018).

1.3 Vocabulary Learning in Second Language (L2)

Vocabulary learning in second language (L2) is hard to remember because of its size and quantity and learners need to use deliberate learning strategies. Deliberate learning in this sense means an appropriate use of learning strategies. According to Gu (2018), learning vocabulary for L2 learners is a challenge that requires a more demanding workload. Meara (1996) stated that once learners have got over the initial stages of second language acquisition, vocabulary is the greatest source of problems for them. Several studies have shown that language learning "requires learners to actively assimilate new information into their existing mental structures, thus creating increasingly rich and complex structures" (Oxford, 1989). The learning process taking place in the L2 classroom, learners' learning styles, the shifting of goal of teaching and learning from teaching methods toward getting learners to demonstrate the ability of achieving their goals (effective learning), and the information processing model have made researchers interested in empirical research, which aims to confirm the usefulness of learning strategies (Krashen, 1989, and Schmitt & Schmitt, 1993). Oxford (1986 as cited in O'Malley & Chamot, 1990) concludes that learning strategies "improve language performance, encourage language autonomy, are teachable, and expand the role of teacher in significant ways".

1.4 Vocabulary Learning Beliefs

Learners' beliefs may, however, interact with their vocabulary learning strategies to become reflective learners. Learners' beliefs about vocabulary may have some consequences on applying vocabulary learning strategies in effective way. The stronger their beliefs, the better consequences, which may lead to their best use of strategies in vocabulary learning practices. Unfortunately, no studies have been carried out on vocabulary learning strategies in Myanmar.

1.5 Aims of the Research

This paper is an attempt to investigate vocabulary learning strategies EFL learners adopted at University. There are two research questions: (i) What are the EFL learners' beliefs about vocabulary learning? (ii) What are the most and least common strategies for learning vocabulary utilized by EFL learners at university?

II. Methodology

The researchers used a questionnaire that was distributed to 205 students at the English Department at University; the statements of the questionnaire were designed to answer the research questions. Also, the researchers conducted interviews with 12 instructors and asked them four questions regarding teaching novels at selected Universities. After that, the researchers analysed the questionnaire and discussed the results of both, the questionnaire, and the interviews.

2.1 Data

The data were gathered from EFL learners majoring in English from universities. The data were analysed using the Statistical Package for Social Science (SPSS 20).

2.2 Piloting the Questionnaire

The questionnaire was piloted with a group of students for additional feedback on the clarity of the items. The participants were selected randomly and consisted of 48 (39 males and 9 females) EFL learners studying in the Department of English at different levels of language proficiency. The participants were asked to mark the strategies use on a 3-point Likert scale: (1) Disagree, (2) Not decided and (3) Agree. Following Gu (2018), the items were grouped in logical sequence (Beliefs, Metacognitive, Cognitive, and Affective). They were required to mark these items regarding wording, format, and content. After collecting the questionnaire, the researcher had an open discussion with the students, hearing their responses and concerns, resulting in the questionnaire increasing to 65 items.

2.3 Instrument

A questionnaire (VLQ) developed and validated by Gu (2018) was carried out to elicit learners' responses about the vocabulary learning strategies and their beliefs about vocabulary learning. The questionnaire had two parts: (i) belief about vocabulary learning and (ii) learning strategies. The learning strategies included three parts: (i) metacognitive (ii) cognitive and (iii) affective. Belief section contained (10 items), metacognitive strategies contained (7 items), cognitive strategies contained (42 items), and affective contained (6 items). The frequencies were measured by 3-point Likert-scale from 1 (Disagree) to 3 (Agree).

2.5 Data Analysis

The data collected were analysed quantitatively. The author first obtained descriptive statistics from the questionnaire to examine the state of participants' use of vocabulary beliefs and vocabulary strategies adopted by them. The data obtained from the questionnaire were analysed using Statistic Package for Social Science (SPSS 20) by the author. The main methods were analysis of variance. Specific work included: overall descriptive statistics of all the strategies used (Means).

2.6 Participants

The participants of the study were 205 students in different EFL classes at various levels of instruction to complete the questionnaire. The participants represented the population of all 13 regions and states in Myanmar. A majority of participants (72%) were L1 speakers of Myanmar, and the rest (28%) were other minority groups who speak different languages. Participants ranged in age from 21 to 32 years. Vocabulary was being learned implicitly in reading, listening, and speaking. No explicit teaching of vocabulary was taken place. The participants were all undergraduate students who had almost 8–10 years' experience of learning the English language.

II. Results

Survey findings, as well as both students and teachers' responses, confirm that good knowledge of vocabulary can significantly influence the ability of studying and using English language effectively. Both students and teachers assert that inappropriate learning and use of language is due to the poor knowledge of the English vocabulary. Poor knowledge of vocabulary can cause many problems in communication, and learners will not be able to study and learn the language well. In order to be able to learn, study and use English language more appropriately or native-like, learners need effective vocabulary learning strategies.

3.1 Learners' Beliefs

In this section, the overall patterns of beliefs will be discussed. Item 1-6 belong to Words Should Be Memorized (M=1.43, SD= 0.75) and item 7- 10 belong to Words Should Be Learned Through Use (M= 2.18, SD= 0.92). The results point out that learners strongly believe that words should be learned through use, or they mostly believe that words should be acquired carefully and used properly (contextual learning).

3.1.1 Words Should be Memorized

Table 1 describes the descriptive statistics about "Words should be memorized".

Table 1:
Words should be memorized (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
1	Once the English words of all my native language meanings have been remembered, English is learned.	47%	23%	30%	1.83	0.86	Not decided
2	The best way to remember words is to memorize word lists or dictionaries.	63%	12%	25%	1.62	0.86	Disagree
3	The purpose of learning a word is to remember it.	81%	7%	12%	1.31	0.67	Disagree
4	A good memory is all you need to learn a foreign language well	92%	3%	5%	1.13	0.46	Disagree

5	Repetition is the best way to remember words.	74%	9%	17%	1.43	0.76	Disagree
6	You can only learn a large vocabulary by memorizing a lot of words.	85%	7%	8%	1.23	0.58	Disagree
Average		73.67%	10.17%	16.17%	1.43	0.75	Disagree

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

As shown in Table 1, the responses of these components demonstrate two trends such as not decided and disagree. From this data, it could clearly be seen that item 1 (M= 1.83, SD=0.86) was ranked higher with "Not decided" response, item 2 (M=1.62, SD=0.86) comes second with "Disagree" response and item 5 (M=1.43, SD=0.76) comes third with "Disagree" response. From Table 1, we can infer that the total mean and standard deviation of words memorization is (M = 1.43, SD= 0.75), proving that students have a negative attitude and image of words memorization.

3.1.2 Words should be Learned through Use

Table 2 presents descriptive statistics about "Words should be learned through use."

Table 3:
Words should be learned through use (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
7	The meanings of a large amount of words can be picked up through readings.	20%	13%	67%	2.47	0.81	Agree
8	Learners should pay attention to expressions (e.g., pick up) and collections (e.g., heavy rain; strong wind) that go with a word.	20%	9%	71%	2.51	0.81	Agree
9	Learners can learn vocabulary simply through reading a lot.	22%	13%	65%	2.43	0.83	Agree
10	The least a learner should know about a word is its spelling, pronunciation, meaning and its basic usage.	80%	11%	9%	1.29	0.62	Disagree
Average		35.50%	11.50%	53.00%	2.18	0.92	Agree

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

Based on this table above, item 8 (M=2.51, SD=0.81) was ranked higher with "Agree" response, item 7 (M=2.47, SD=0.81) comes second with "Not decided" response and item 9 (M=2.43, SD=0.83) comes third with "Agree" response. Therefore, it can be inferred from Table 2 that the total mean and standard deviation of words learning through use is (M = 2.18, SD= 0.92), proving that students have a positive attitude and image of words learning through use.

3.2 Vocabulary Learning Strategies

3.2.1 Metacognitive strategies

Metacognitive strategies are essential strategies for leaners because they help them to understand and control their own performances. These strategies guide learners toward their own learning. Overall, these strategies help learners in generating ways of learning and evaluation. There are two strategies which were given to the learners for the evaluation: selective attention (Table 3) and self-initiation (Table 4). Self-attention was ranked higher (M=1.87, SD=0.94), and self-initiation was ranked second (M=1.68, SD=0.90). According to the analysis, learners feel comfortable in selecting and picking up relevant words.

(a) Metacognitive Selective Attention

Table 3 presents descriptive statistics of metacognitive selective attention.

Table 3:
Means and standard deviation of each item of metacognitive (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
11	I know whether a new word is important in understanding a passage.	32%	7%	61%	2.29	0.92	In practice, it is often applied.
12	I know which words are important for me to learn.	48%	9%	43%	1.95	0.95	In practice, it is often applied.
13	When I meet (see) a new word or phrase, I know clearly whether I need	75%	13%	12%	1.37	0.69	In practice, it is sometimes applied.
Average		51.67%	9.67%	38.67%	1.87	0.94	In practice, it is often applied.

NOTE:
1.00-1.66= In practice, it is sometimes applied.
1.67-2.33= In practice, it is often applied.
2.34-3.00= In practice, it is always completely applied.

As it is stated in Table 3, item 11 (M=2.29, SD=0.92) was often applied practically by the learners, after which item 12 (M=1.95, SD= 0.95) was often applied practically by the learners and item 13 (M= 1.37, SD= 0.69) was sometimes applied practically by the learners. From Table 3, we can state that the total mean and standard deviation of Metacognitive selective attention is (M = 1.87, SD= 0.94), proving that students often applied this in practice.

(b) Self-Initiation Readings

Table 4 shows the descriptive statistics of self- initiation readings.

Table 4:

Means and standard deviation of each item of self-initiation readings (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
14	Besides textbooks, I look for other that fall under my interest.	69%	8%	23%	1.54	0.84	Disagree
15	I wouldn't learn what my English teacher doesn't tell me to learn.	71%	7%	22%	1.51	0.83	Disagree
16	I only focus on things that are directly related to examinations.	60%	9%	31%	1.71	0.91	Not decided
17	I wouldn't care much about vocabulary items that my teacher does not explain in class.	49%	7%	44%	1.95	0.96	Not decided
Average		62.25%	7.75%	30.00%	1.68	0.90	Not decided

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

According to Table 4, item 17 (M=1.95, SD=0.96) was ranked higher with "Not decided" response, item 16 (M=1.71, SD=0.91) comes second with "Not decided" response and item 14 (M=1.54, SD=0.84) comes third with "Disagree" response. Therefore, it can be inferred from Table 4 that the total mean and standard deviation of Self- Initiation readings is (M = 1.68, SD= 0.90), proving that students have neither a positive attitude nor negative attitude and image of Self- Initiation readings.

3.2.2 Cognitive Strategies

Cognitive strategies are the strategies which learners adopt in order to make their learning process more successful and controllable. Cognitive strategies involve deliberate manipulation of learning strategies to improve learning performance. Cognitive strategies involve 6 strategies: inferencing, dictionary, note-taking, rehearsal, encoding, and activation. Among them inferencing was ranked higher (M=2.51, SD=0.90); dictionary (M=2.16, SD= 0.94) comes second; activation (M=2.12, SD=0.94) comes third; notetaking (M=1.63, SD=0.86) comes fourth; encoding (M= 1.53, SD= 0.81) comes fifth; and rehearsal (M= 1.49, SD=0.83) comes sixth. Rehearsal is never or the least common strategies adopted by learners.

(a) Cognitive Inferencing

Table 5 illustrates the descriptive statistics of cognitive inferencing.

Table 5:

Means and standard deviation of each item of cognitive inferencing (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
18	I make use of the logical development in the context (e.g., cause and effect) when guessing the meaning of a word.	24%	7%	69%	2.45	0.85	In practice, it is always completely applied.
19	I check my guessed meaning in the paragraph or whole text to see if it fits in.	28%	7%	65%	2.37	0.89	In practice, it is always completely applied.
20	When I don't know a new word in reading, I use my background knowledge of the topic to guess the meaning of the new word.	18%	5%	77%	2.59	0.78	In practice, it is always completely applied.
21	I look for explanations in the reading text that support my guess about the meaning of a word.	23%	14%	63%	2.40	0.84	In practice, it is always completely applied.
22	I make use of the grammatical structure of a sentence when guessing the meaning of a new word.	39%	11%	50%	2.11	0.94	In practice, it is often applied.
23	I make use of the part of speech of a new word when guessing its meaning (e.g., noun, verb, adjective, etc.)	47%	10%	43%	1.96	0.95	In practice, it is often applied.
Average		29.83%	9.00%	61.17%	2.31	0.90	In practice, it is often applied.

NOTE:
1.00-1.66= In practice, it is sometimes applied.
1.67-2.33= In practice, it is often applied.
2.34-3.00= In practice, it is always completely applied.

As illustrated in Table 5, item 20 (M=2.59, SD=0.78) was always completely applied in practice by the learners, after which item 18 (M=2.45, SD= 0.85) was always completely applied in practice by the learners and item 21 (M= 2.40, SD= 0.84) was always completely applied in practice by the learners. From Table 5, we can infer that the total mean and standard deviation of cognitive inferencing is (M = 2.31, SD= 0.90), proving that students often applied this in practice.

(b) Using Dictionary

Table 6 represents the descriptive statistics of using dictionary.

Table 6:

Means and standard deviation of each item of using dictionary (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
24	When I see an unfamiliar word again and again, I look it up.	29%	12%	59%	2.30	0.89	Agree
25	When not knowing a word that prevents me from understanding a whole sentence or even a whole paragraph, I look it up.	35%	10%	55%	2.20	0.93	Not decided
26	I look up words that are important to the understanding of the sentence or paragraph in which it appears.	44%	11%	45%	2.01	0.94	Not decided
27	I pay attention to the examples when I look up a word in a dictionary.	29%	10%	61%	2.32	0.89	Not decided
28	When I want to have some deeper knowledge about a word that I already know, I look it up.	49%	6%	45%	1.96	0.97	Not decided
29	When I want to know more about the usage of a word that I know, I look it up.	50%	10%	40%	1.90	0.94	Not decided
30	I check the dictionary when I want to find out the similarities and differences between the meanings of related words (synonyms and antonyms).	26%	6%	68%	2.42	0.87	Agree
Average		37.43%	9.29%	53.29%	2.16	0.94	Not decided

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

Based on this table above, item 30 (M=2.42, SD=0.87) was ranked higher with "Agree" response, item 27 (M=2.32, SD=0.89) comes second with "Not decided" response and item 24 (M=2.43, SD=0.83) comes third with "Agree" response. Therefore, it can be inferred from Table 7 that the total mean and standard deviation of using dictionary is (M = 2.16, SD= 0.94), proving that students have neither a positive attitude nor a negative attitude and image of using dictionary.

(c) Note taking

Table 7 depicts the descriptive statistics of note taking.

Table 7:
Means and standard deviation of each item of note taking (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
31	I make a note when I think the meaning of the word I am looking up is commonly used.	53%	13%	34%	1.81	0.91	Not decided
32	I make a note when I think the word I am looking up is related to my personal interest.	47%	8%	45%	1.98	0.96	Not decided
33	I make a note when I see a useful expression or phrase.	28%	10%	62%	2.34	0.89	Agree
34	I write down the English explanations of the word I look up.	65%	12%	23%	1.58	0.84	Disagree
35	I write down both the meaning in my native language and the English explanation of the word I look up.	83%	7%	10%	1.27	0.63	Disagree
36	I note down examples showing the usages of the word I look up.	69%	12%	19%	1.50	0.79	Disagree
37	I go through my vocabulary list several times until I remember all of the words on the list.	65%	12%	23%	1.58	0.84	Disagree
38	I make vocabulary cards and take them with me wherever I go	74%	17%	9%	1.35	0.64	Disagree
39	I make vocabulary cards and take them with me wherever I go	78%	20%	2%	1.24	0.47	Disagree
Average		62.44%	12.33%	25.22%	1.63	0.86	Disagree

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

According to Table 7, item 33 (M=2.34, SD=0.89) was ranked higher with “Agree” response, item 32 (M=1.98, SD=0.96) comes second with “Not decided” response and item 31 (M=1.81, SD=0.91) comes third with “Not decided” response. Therefore, it can be inferred from Table 7 that the total mean and standard deviation of note taking is (M = 1.63, SD= 0.86), proving that students have a negative attitude and image of note taking.

(d) Rehearsal

Table 8 expresses the descriptive statistics of rehearsal.

Table 8:

Means and standard deviation of each item of rehearsal (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
40	When I try to remember a word, I say it aloud to myself.	83%	4%	13%	1.30	0.69	In practice, it is sometimes applied.
41	When I try to remember a word, I repeat its pronunciation in my mind.	53%	3%	44%	1.91	0.98	In practice, it is often applied.
42	Repeating the sound of a new word to myself would be enough for me to remember the word.	92%	5%	3%	1.11	0.40	In practice, it is sometimes applied.
43	When I try to remember a word, I write it again and again.	27%	12%	61%	2.34	0.87	In practice, it is always completely applied.
44	I memorize the spelling of a word letter by letter.	91%	5%	4%	1.13	0.44	In practice, it is sometimes applied.
45	I write both the new words and their translations in my native language again and again in order to remember them.	88%	7%	5%	1.17	0.49	In practice, it is sometimes applied.
Average		72.33%	6.00%	21.67%	1.49	0.83	In practice, it is sometimes applied.

NOTE
1.00-1.66= In practice, it is sometimes applied.
1.67-2.33= In practice, it is often applied.
2.34-3.00= In practice, it is always completely applied.

In Table 8, item 43 (M=2.34, SD=0.87) was always completely applied in practice by the learners, after which, item 41 (M=1.91, SD=0.98) was often applied in practice by the learners and item 31 (M=1.81, SD=0.91) was often applied in practice by the learners. Therefore, it can be inferred from Table 8 that the total mean and standard deviation of rehearsal is (M = 1.49, SD= 0.83), proving that students sometimes applied rehearsal in practice.

(e) Encoding

Table 9 provides the descriptive statistics of encoding.

Table 9:
Means and standard deviation of each item of encoding (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
46	I act out some words to remember them better (e.g., jump).	66%	11%	23%	1.57	0.84	Disagree
47	I create a picture in my mind of the new word to help me remember it.	66%	10%	24%	1.58	0.85	Disagree
48	I put words that sound similar together in order to remember them (e.g., write and right).	74%	13%	13%	1.39	0.71	Disagree
49	When words are spelled similarly, I remember them together (e.g., bank “a financial institution” and bank “edge of the river”).	66%	13%	21%	1.55	0.82	Disagree
50	When I learn new words, I pay attention to prefixes, roots, and suffixes (e.g., inter-national).	62%	15%	23%	1.61	0.84	Disagree
51	I intentionally study how English words are formed in order to remember more words (e.g., speaker is a derived form of “speak+er”).	70%	10%	20%	1.50	0.81	Disagree
52	I memorize the commonly used roots and prefixes (e.g., “un” to “do” to form the word “undo”, in which “do” is the root and “un” is a prefix).	66%	11%	23%	1.57	0.84	Disagree
53	When I try to remember a word, I also try to remember the sentence in which the word is used.	66%	10%	24%	1.58	0.85	Disagree
54	I put words in set expressions or sentences in order to remember them.	74%	13%	13%	1.39	0.71	Disagree
55	I remember a new word together with the context where the new word appears.	66%	13%	21%	1.55	0.82	Disagree
Average		67.60%	11.90%	20.50%	1.53	0.81	Disagree

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

According to Table 9, item 50 (M=1.61, SD=0.84) was ranked higher with “Disagree” response, item 47 (M=1.58, SD=0.85) and item 53 (M=1.58, SD= 0.85) come second with “Disagree” response and item 46 (M=1.57, SD=0.84) comes third with “Disagree” response. Therefore, it can be inferred from Table 9 that the total mean and standard deviation of encoding is (M = 1.53, SD= 0.81), proving that students have a negative attitude and image of encoding.

(f) Activation

Table 10 presents the descriptive statistics of activation.

Table 10:
Means and standard deviation of each item of activation (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
56	I make up my own sentences using the words I just learned.	47%	7%	46%	1.99	0.96	Not decided
57	I try to use newly learned words as much as possible in speech and writing.	28%	5%	67%	2.39	0.89	Agree
58	I try to use newly learned words in real situations (e.g., shopping).	42%	11%	47%	2.05	0.94	Not decided
59	I try to use newly learned words in imaginary situations in my mind.	38%	19%	43%	2.05	0.90	Not decided
Average		38.75%	10.50%	50.75%	2.12	0.94	Not decided

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

Based on this table above, item 57 (M=2.39, SD=0.89) was ranked higher with “Agree” response, item 58 (M=2.05, SD=0.94) and item 59 (M= 2.05, SD= 0.90) come second with “Not decided” response and item 56 (M=1.90, SD=0.96) comes third with “Not decided” response. Therefore, it can be inferred from Table10 that the total mean and standard deviation of activation is (M = 2.12, SD= 0.94), proving that students have neither a positive attitude nor a negative attitude and image of activation.

3.3 Affective Strategies

Table 11 provides the descriptive statistics of affective strategies.

Table 11:
Means and standard deviation of each item of affective strategies (n=205)

SN	Item	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
60	If I feel bored or frustrated while learning vocabulary, I give up.	79%	8%	13%	1.34	0.70	Disagree
61	If I feel bored or frustrated while learning vocabulary, I take a break or I remind myself that vocabulary is important, and then I go on.	27%	6%	67%	2.40	0.88	Agree
62	I give myself a reward or treat when I do well on vocabulary learning.	87%	8%	5%	1.18	0.50	Disagree
63	I encourage myself to speak English using the new learned	73%	13%	14%	1.41	0.72	Disagree

	words even when I am afraid of making a mistake (usage mistakes).						
64	I notice if I am tense or nervous when I am studying or using words while speaking in English with someone else.	37%	8%	55%	2.18	0.94	Not decided
65	I talk to someone else about how I feel when I am learning vocabulary.	80%	14%	6%	1.26	0.56	Disagree
Average		63.83%	9.50%	26.67%	1.63	0.88	Disagree

NOTE:
1.00-1.66=Disagree
1.67-2.33=Not decided
2.34-3.00=Agree

In Table 11, item 61 (M=2.40, SD=0.88) was ranked higher with "Agree" response, item 64 (M=2.18, SD=0.94) comes second with "Not decided" response and item 63 (M=1.41, SD=0.72) comes third with "Disagree" response. Therefore, it can be inferred from Table11 that the total mean and standard deviation of affective strategy is (M = 1.63, SD= 0.88), proving that students have a negative attitude and image of affective strategy.

IV. Discussion

4.1 Discussion on Beliefs

Learners at University believe in the importance of vocabulary learning, as it is regarded as an important part of language learning. However, due to the lack of sufficient knowledge of learning strategies and learning methods, learners have difficulties in learning vocabularies. They cannot apply the words in real situation because they confirmed that they have made about the inappropriate use of learning strategies. The two types of strategies on beliefs point out that both vocabularies should be memorized (M=1.43, SD=0.75) and vocabulary should be learned through use (contextual learning) (M=2.18, SD=0.92). Within the first strategy, learners believed that although they memorize more words in their native languages, the words cannot be retained in their long-term memories. They are forgettable and hard to use in real context. Therefore, they would rather learning words in context than memorizing word lists or dictionary. Within the second strategy, they believed that at least a learner should learn spelling, pronunciation, meaning and basic usage of a word. They favoured the basic usage of vocabulary and mastered the phonology and orthography of the target vocabulary.

4.2. Discussion on the Three Types of Vocabulary Learning Strategies

When analysing the data, we can infer that cognitive strategies are the most frequently used strategies, followed by metacognitive strategies and affective strategies in the three dimensions of vocabulary learning strategies. Cognitive strategies contain six categories, namely inferencing, dictionary, note-taking, rehearsal, encoding, and activation strategies. Among them, contextual guessing (M=2.31, SD=0.90), dictionary strategies (M=2.16, SD=0.94), activation (M=2.12, SD=0.94) and note-taking strategies (M= 1.63, SD=0.86) were the most frequently used strategies, whereas encoding (M= 1.53, SD=0.81) and rehearsal (M=1.49, SD= 0.83) were the least frequently used strategy. From these results, it is clear that they are eager to use guessing extensively by applying background knowledge and linguistic cues, as well as dictionary for checking new words. They can apply various strategies for unlocking the meaning of known and unknown words. Thus, we can say that they might have received a substantial language input and have developed the ability of the strategies, namely, top-down, to comprehend words and phrases in context. This is in accordance with the research finding of Nation (1990), who reported "passage learners can guess unknown words from the context at least around eighty percent". Despite lack of evidence, there is still a link between dictionary use and guessing strategy. In this study, activation is a third frequently used strategy for the learners. It can also be inferred that the learners in this study put their effort and manage their time effectively. Moreover, they prefer using notes for choosing which word to put into notebook what Gu (2013) calls "meaning-oriented" and deciding what information goes into notes what Gu (2013) calls "usage-oriented". They claimed note-taking for keeping the meaning of words and their usage. According to the researchers Hadi & Guo, Cogent Education (2020), one can infer that note-taking might be used to deepen their knowledge of vocabulary meaning, their usage, write their equivalence in the native language, and use it as a reference for later studies. On the other hand, the findings revealed that they were not favouring encoding and rehearsal strategies than the others. In metacognitive strategies, selective attention (M=1.87, SD=0.94) was frequently used strategy than self-initiation (M=1.68, SD=0.90). This can be because they are good enough in selecting and picking up essential words and most of them are aware of the importance of vocabulary learning, and are not more interested in rote learning and short-term retention. As far as affective strategy is concerned, we can infer that the learners in this study were less capable of managing and controlling their emotions, both external and internal and positive and negative, in learning vocabulary.

V. Conclusion

The research paper conveyed the beliefs and vocabulary learning strategies of EFL learners at University. Both major findings of the study and pedagogical implications are addressed. Finally, suggestions for the future research are discussed. After comprehensive analysis of the research mainly through questionnaire, the following findings were drawn: In the two dimensions of beliefs, most EFL learners University preferred for words to be learned through use rather than memorization. However, they still believe in memorization, and the findings of the beliefs are not quite lines with their vocabulary learning strategies. It is still necessary for learners to move from rote learning to meaningful learning as they cannot use words accurately in real practice. These processes indicate that learners need to notice which words are important, how to transfer them from short-term memory into long-term memory to ease the process of retrieval, and how to use them in communication. Therefore, we can conclude that even though learners are more positive toward their learning, but the context of learning needs to be changed as it is based on the lectures, dictionary usage, and teacher cantered. Cohen (2007) states that there are three factors included in language learning: "action, goal and situation". Therefore, from this and other research findings, we can conclude that learners' behaviours, learning strategies, learning styles, and context of learning are essential elements in making the process of learning more fruitful, and learners will be able to develop the habits of autonomous and effective learning.

5.1 Implication for teaching vocabulary to English learners as a foreign language in Myanmar

In Myanmar, English Language is taught in both public and private schools and universities and it forms an integral part of curriculum, but it requires standardized. Standardization is only one of those issues that need to be addressed. The researcher, having witnessed the English language teaching-learning process in his capacity as a student, and finally as a university instructor, found it more or less ineffective. The reasons include the application of traditional methodologies, use of outmoded materials, and lack of well-developed activities. In order to teach effectively, Coady and Huckin (1997, cited in P. Duppenthaler, 2007) four things have great impact on the way teachers teach vocabulary: (1) the teacher's own learning experience, (2) the teacher's metacognitive attitude toward vocabulary learning, (3) the teacher's knowledge of the research in the field, and (4) the effect of experience gained through teaching. Therefore, teachers need to be aware of their teaching styles and should always be willing to try something new. It is crucial for the teachers to have in mind the concept that language learning and the relationship between learning outcomes, the learning process, learners' characteristics, learning conditions, and the context where learning occurs should be fully recognized or learners won't progress, particularly the poor learners (Stern, 1983). Planning and preparation are essential for effective vocabulary teaching. Teachers should also have clear goals of teaching and explain them clearly to students. Teachers require to select an approach that will help students to develop the ability of comprehending and recognising the target words. (Nation and Webb, 2013).

Recommendation

Based on the research findings, it is recommended that teachers use a combination of explicit and implicit techniques to make the acquisition easier and comprehendible for learners. Second, comprehensible inputs are fundamentals in teaching, because they balance strategies for helping the learners, particularly those who are struggling in the process of vocabulary acquisition. Teachers are supposed to provide students comprehensible inputs. Teachers need to be aware of their students' vocabulary levels and design tasks accordingly. In addition, teachers should build a generally positive atmosphere in the class not only for encourage and counsel learners but also for achievable aims and work towards autonomous learning, through personalizing activities, and through pair and group work. For making the teaching process more fruitful, effective and achievable, teachers should try to prepare learning and teaching tasks that are at or below the students' vocabulary level. Teachers should pay special attention to design the course textbook to facilitate students' vocabulary development. Finally, it would be nicer if strategies training were provided, particularly the combination of cognitive, metacognitive and socio/affective training, to be more effective for enhancing learning.

References

Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. International Journal of Teaching and Education, 3(3), 21–34. https://doi.org/10.20472/ TE.2015.3.3.002
Amirian, S. M., & Heshmatifar, Z. (2013). A survey on vocabulary learning strategies: A case of Iranian EFL university students. Journal of Language Teaching and Research, 4(3), 636–641. https://doi.org/10.4304/ jltr.4.3.636-641
Barcelos, A.M.F. (2003). Researching beliefs about SLA: A critical review. In Kalaja, P., & Barcelos, A.M.F (Eds.), Beliefs about SLA (pp 7–33).
Brown, C. & Payne, M.E. (1994). Five Essential Steps or Process in Vocabulary Learning. [Paper presentation].
Coady, T., & Huckin, T. (1997). Second language vocabulary acquisition. Cambridge University Press. [Google Scholar]
Cohen, A. (2007). A handbook of research in second language teaching and learning. Second language learner strategies. Oxford University Press.
Gu, Y. (2013). Vocabulary learning strategies. In C.A. Chapelle (Ed), The Encyclopedia of Applied Linguistics. Blackwell Publishing Ltd. https://doi.org/10.1002/ 97814051984431
Gu, Y. (2018). Validation of an online questionnaire of vocabulary learning strategies for ESL. Studies in Second Language Learning and Teaching, 81, 325– 350. https://doi.org/10.14746/ssllt.2018.8.2.7
Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. The Modern Language Journal, 73(4), 440–464. https://doi.org/10.2307/326879 [Crossref], [Web of Science ®], [Google Scholar]
Meara, P. (1996). Vocabulary acquisition: A neglected aspect of language learning. Language Teaching and Linguistics, 13, 22–46. https://doi.org/10.1017/ S0261444800008879
Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge University Press.
Nation, P., & Webb, S. (2013). Testing and teaching vocabulary. The Encyclopedia of Applied Linguistics, 12–25. https://doi.org/10.1002/9781405198431.wbeal1177 [Google Scholar]
O'Malley, J. M., & Chamot, A. U. (1990). Learning strategies in second language acquisition. Cambridge University Press.
Oxford, R. (1989). Use of language learning strategies: A synthesis of studies with implication for strategy training. System, 17(2), 235–247. https://doi.org/10. 1016/0346-251x (89)90036-5
Schmitt, & Schmitt. (1993). Identifying and assessing vocabulary learning strategies. Thai TESOL Bulletin, 5(4), 27–33. https://doi.org/10.0000/eric.edu.gov/ED380994 Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), Vocabulary: Description, acquisition and pedagogy (pp. 199–227). Cambridge: Cambridge University Press.

Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), Vocabulary: Description, acquisition and pedagogy (pp. 199–227). Cambridge: Cambridge University Press.
Stern, H. (1983). Fundamental concepts of language learning and teaching. Oxford University Press [Google Scholar]

Music and Performance Arts

User Interface Design and Developing Prototype: The Information Event Website of Media and Design Contest for Undergraduate Student

Kamonthip Torsabsinchai[1] / Keereetharn Siriwech[2] / Surin Khaowdee[3]
[1,2,3] Department of Multimedia Technology, Faculty of Mass Communication Technology, Rajamangala University of Technology Thanyaburi, Pathum Thani 12110, Thailand

Abstract

User Interface Design and Developing Prototype : The Information Event Website of Media and Design Contest for Undergraduate Students. Have a purpose 1) to design a user interface and a website prototype which show information about media and design contest projects for undergraduates that matches the user experience. 2) To compare the satisfaction of the elements with that of the site prototype which show information on media and design contest projects for undergraduate students that match the user experience. 3) to assess the quality of the website prototype which show information on media and design contests for undergraduates. 4) To study the satisfaction of the sample group towards the website prototype for public relations of the contest project for students.

The method of the study started with an interview and a survey of the behavior of a sample of users of the public relations contest for students' website in the design fields of 15 students from various universities in the country before designing a website prototype. When the opinions or needs of the sample were known, the study produced the media. After the production of the website has been completed, the website is then tested to compare satisfaction with the elements in the website. Subsequently, the website was used to evaluate the quality of the media by 3 experts, and then tested for satisfaction by 15 students who were interested in the project and who had previously participated in various design contests.

The results of the study concluded that the quality of the website prototype.The overall picture is very good. (Mean = 4.71, S.D. = 0.23). The results of the website prototype satisfaction assessment were overall at the most satisfactory level (Mean = 4.60, SD = 0.69). In conclusion, the design of the user interface and the website prototypes of the media and design contests for undergraduates are effective media.

Keywords: Website, Contest project, User interface

Introduction

The Internet is the primary source of information for students.(Newman, Tabetha; Beetham, Helen ,2017) Adolescents, who are the main group using the Internet according to a survey of Internet use behavior of Thai people aged 15–24 years, use the Internet to study and learn information up to 98.4 percent of the time. (National Statistical Office,2020)

A website is one of the media in the Internet system that plays an important role in user information search. Because of access to information is convenient and quick, the credibility of the information is important. What influences students' access to online information, aside from having to design a website to fit the personality of the user, It also needs to be quality and have the content that they want (Tribukait et al. 2017). Poorly designed websites may frustrate users and result in a high "bounce rate," or the number of people who visit the home page without exploring the rest of the site.(Anon n.d.). A well-designed website with high usability, on the other hand, has been found to positively influence visitor retention (revisit rates) and their behavior.(Bozanis and Houstis 2005)

User interface (UI) design is the process by which designers create user interfaces for software or automated devices, with an emphasis on aesthetics or style. Designers strive to create intuitive and pleasurable user interfaces. (Interaction-design foundation n.d.) A good interface design does not start with a picture. It starts with getting to know people: what they're like, why they use a particular piece of software, and how they might interact with it. (Tidwell et al. 2019)

In a student's academic life, studying in the classroom may not be enough to provide the experience you deserve. As a result, students should create opportunities for themselves by seeking out additional opportunities and experiences outside of the classroom. The contest project is considered another form of non-formal education that aids in the development of students' potential, who have gained experience and demonstrated a variety of skills to benefit. At the moment, the website used to promote the contest project is rarely visited. Existing websites have user interface design flaws that prevent them from serving the intended purpose of the target audience. This causes issues with accessing necessary information or inappropriate information placement, which has an impact on decision-making and interest in participating in the youth student contest. Because websites are not designed with user behavior or needs in mind, they can be a significant waste of an opportunity to provide an excellent student experience.

Based on the origin and significance of the problem, the research team would like to study user interface design as a guideline and develop website prototypes showing media competition project information and design for undergraduate students that meet user needs. For those who want to create a website to promote various projects and tailor the user experience to the target audience.

Materials and Methods

Materials

1. Comparative assessment form for undergraduate students' satisfaction with website prototype elements displaying information about media and design competition projects
2. Website prototype displaying information on undergraduate students' media and design competition projects
3. The website's prototype quality assessment form collected from a specialist
4. The website's prototype satisfaction assessment form collected from a sample

Methods

1. Data planning and analysis procedures

1.1 Analyze and study material from a variety of sources, including books, research, and web sources, which may include the user interfaces of consulting specialists.

1.2 Interviews with sample group representatives.Conduct a sample of 15 people for an interview to determine their level of interest in participating in the contest , conduct a search for contest information on the current contest promotion website and troubleshoot any usage issues, comments on the contest's webpage and further suggestions.

1.3 Gather information from the contest's current website, which collects and presents information on the contest's projects

1.4 Analyses of data prior to the creation of a website

1.4.1 Utilize the collected data to assess the target audience to research and generate customer personas.

1.4.2 Analyze the data gathered to plan the structure and fully specify the details. This is determined by the established objectives.

1.4.3 Analyze user experience and interaction to create designs that consider what the user receives.

1.5 The procedure for structuring and composing a website design

1.5.1 Create a sitemap

1.5.2 Create a wireframe

1.6 The process of designing the website's user interface elements for A/B testing using a sample of 15 people in six issues. The tests were divided into seven topics, which are as follows:

1) The menu bar's layout
2) Search Filters
3) Information placement on banners
4) The layout of the categories
5) The layout of the articles
6) The design of the search filter

1.7 The Procedure for Creating a Website Prototype

1.7.1 Take the analysis conclusions to plan out the website layout (Wireframe)

1.7.2 Determine the concept's and direction's direction

1.7.3 Using the Adobe XD program, create prototypes by incorporating test results into the design. As shown below, The website is divided into seven pages: the home page, a login page, a page for selecting an interest, All Events page, Event Detail page, Awards page, and Award Details page

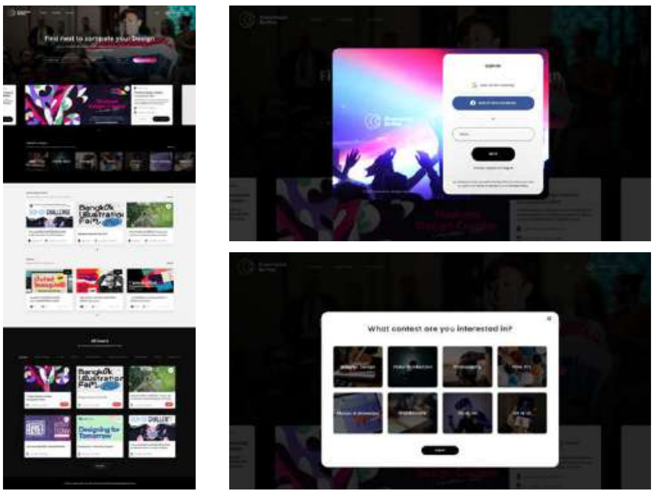


Figure 1 The home page, a login page and a page for selecting an interest

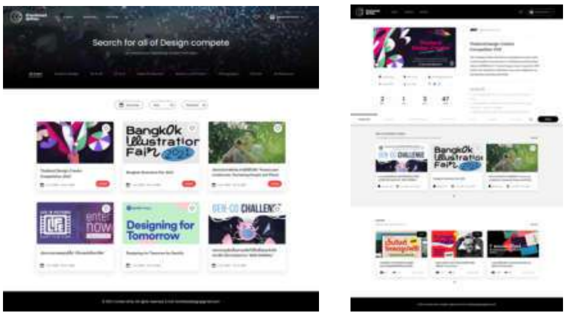


Figure 2 All Events page and Event Detail page

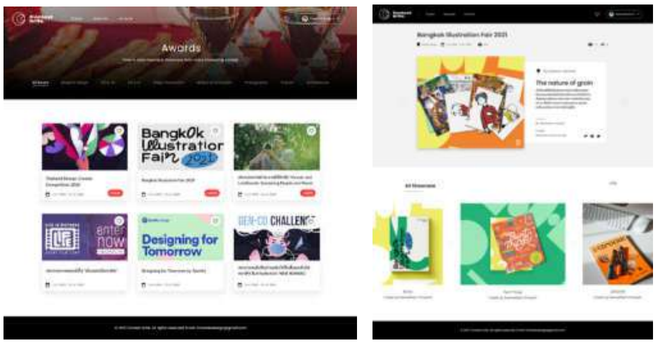


Figure 3 Awards page, and Award Details page

Figure 4 Article Details page

1.7.4 In the prototype, add interaction to create movement and interaction with the user.

1.7.5 Initial testing procedures (Test) to catch weak points. to be improved and corrected before being evaluated for quality by specialists . Following that, the sample group was designed to measure their satisfaction with the website prototype.

Results and Discussion

1.The result of A/B testing with samples prior to prototyping . The following are the results:

1) The menu bar's layout

Option A

Figure 5 The menu bar's layout: Option A

Option B

Figure 6 The menu bar's layout: Option B

There are two different menu bar layouts available. Option A is a menu item in the center of the menu bar. Option B displays the menu items on the left side of the menu bar. Option B is preferred by the sample over Option A. Option B's layout is calculated to be 66.67 percent, while Option A's layout is calculated to be 33.33 percent.

2) Search Filters

Option A

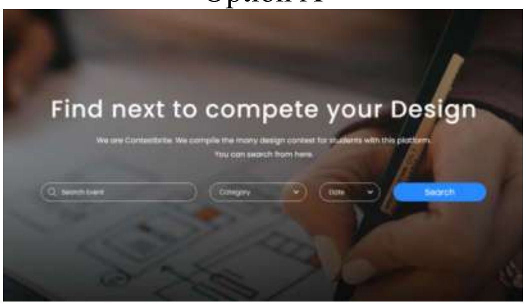


Figure 7 Search Filters : Option A

Option B

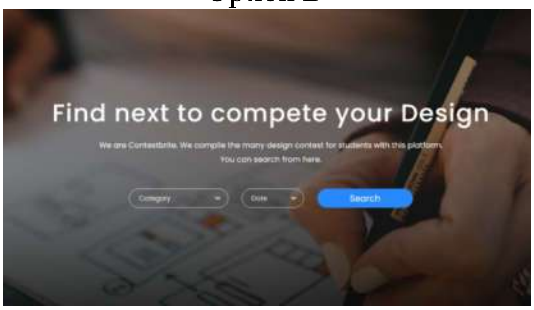


Figure 8 Search Filters: Option B

There are two different types of search filters. Option A is a design that enables users to filter data according to three different criteria: event search, category, and date. Users can filter data in two ways: by category and by date. The samples chose option A over the sample's choice of option B. Option A was calculated to be 86.67 percent, while Option B was calculated to be 13.33 percent.

3) Information placement on banners

Option A

Figure 9 Information placement on banners : Option A

Option B

Figure 10 Information placement on banners : Option B

The banners are designed in two ways: Option A. The banner is designed to separate the image area from the detail information. The image area takes up two-thirds of the space, followed by the contest details. occupying only one space However, in Option B, the entire area is divided into two horizontal sections. The area above contains images, while the area below contains information about the contest. The sample preferred option A over option B. Option A has a value of 60.00 percent, while Option B has a value of 40.00 percent.

4) The layout of the categories

Option A

Figure 11 The layout of the categories : Option A

Option B

Figure 12 The layout of the categories : Option B

There are two design options for a category layout. Option A is laid out in four columns using the image layout of the categories, with all eight category headings arranged in two rows. Option B groups the categories together in a single row. The sample chose option B over option A. Option B was calculated to be 66.67 percent, while Option A was calculated to be 33.33 percent.

5) The layout of the articles

Option A

Figure 15 The layout of the articles: Option A

Option B

Figure 16 The layout of the articles : Option B

6) The design of the search filter

Option A

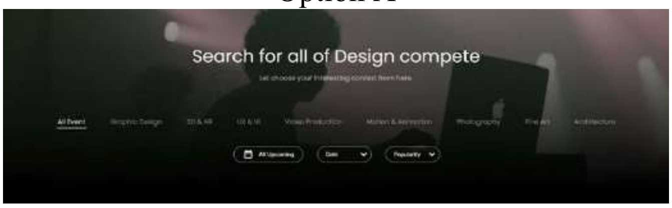


Figure 17 The design of the search filter : Option A

Option B

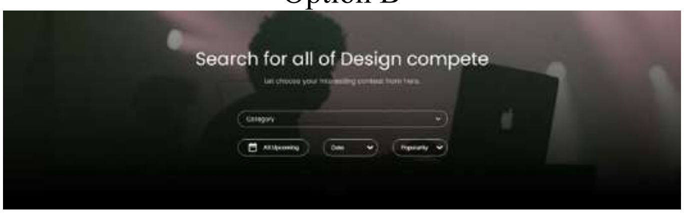


Figure 18 The design of the search filter : Option B

When a user wants to search for contest information, there are two options for creating a pattern for user search filtering. Option A displays the category heading from the previous search. Before searching, the user can choose a category or topic from the top menu. Option B is another option. A dropdown menu allows the user to select a category topic. The sample chose option A over option B. Option A is worth 80.00 percent, while Option B is worth 20.00 percent.

2. The result of quality assessment for website prototypes

To assess the quality of a website, three web design experts evaluate it on six main topics, each of which contains sub-topics relevant to the design of each page, such as the arrangement of the menu bar, the arrangement of the information bar to the search button, the arrangement composition, spacing design, interaction with users, and so on, with the results of the overall assessment of each page as follows:

Table 1
Results of quality assessment for website prototypes

Topic	$\bar{X}$	S.D.	Quality Result
1) Home page	4.74	0.28	Excellent
2) All events page	4.79	0.28	Excellent
3) Event detail page	4.74	0.22	Excellent
4) Award page	4.88	0.17	Excellent
5) Award detail page	4.30	0.29	Good
6) Article detail page	4.78	0.17	Excellent
Total	**4.71**	**0.23**	**Excellent**

Evaluate the quality of the website templates created from the elements of the sample group. With an average of 4.71 and a standard deviation of 0.23, the overall quality result was excellent. Despite the fact that the evaluation results were of high quality, the award details page received a lower quality score than the other pages. The standard deviation is 0.29, and the mean is 4.30. Scores for quality assessment on the following topics: the proportional arrangement of the contest project's details, information about the contest project's composition, and so on. The placement and appropriateness of icons on the award details page. The least evaluated topics have a satisfactory quality level, with an average value of 4.00, the lowest quality value. Following additional consultation with experts, it was discovered that the award details page was extremely detailed. The arrangement of the elements is also poor in comparison to other pages, which should be thoroughly researched in the future.

3. The results of the sample's satisfaction assessment of the website prototype

A satisfaction assessment form with a website prototype was developed after evaluating a sample of 15 students who had previously participated in the contest project or were interested in participating, assessing 14 issues and obtaining the following results:

Table 2
Results of the sample's satisfaction assessment of the website prototype

Topic	$\bar{X}$	S.D.	Result
1) The menu bar's usefulness and suitability	4.67	0.62	very satisfied
2) The position of the search bar	4.73	0.46	very satisfied
3) Banner size and placement	4.87	0.35	very satisfied
4) Button arrangement	4.47	0.92	satisfied
5) Layout of categories	4.47	1.06	satisfied
6) Present of contest project information	4.60	0.74	very satisfied
7) The layout of the contest project's details and content	4.60	0.63	very satisfied
8) Appropriate subject placement	4.40	0.74	satisfied
9) Proportion and spacing	4.53	0.74	very satisfied
10) Interpretation of icons	4.73	0.59	very satisfied
11) The navigation bar's convenience and suitability	4.40	0.83	satisfied
12) The layout of the notification information	4.53	0.64	very satisfied
13) The website's aesthetics and novelty	4.60	0.74	very satisfied
14) Continuity and user convenience	4.73	0.59	very satisfied
Total	**4.60**	**0.69**	**very satisfied**

The satisfaction assessment results for the sample group's website templates indicated that overall satisfaction was very satisfied. The mean score was 4.60, the standard deviation was 0.69, with subjects scoring less satisfaction in the following topics: Appropriate subject placement and the convenience and suitability of the navigation bar resulted in satisfaction at a satisfied level of 4.40 on average. When questioned with the sample, it was discovered that the order of the topics was a little difficult to use and and that the navigation bar needed to be repositioned to create more convenience and suitability for use.

Discussion

User interface design is required to evaluate user requirements and usability. The A/B Testing is one technique that is used. The results in user dissatisfaction emotion and leads to avoidance and prevents revisit to a poorly designed. People who have bad interface design have a lot of arousal and anxiety all the time because they don't have good interaction and experience. (Robert Ward, Phil Marsden, Bernadette Cahill and Clive Johnson, 2002)This makes the user feel bad and causes them to stay away from the bad-designed subject, which stops them from going back to it. website (Gao, n.d.)

The A/B Test results for seven website elements indicate that the majority of website elements selected by the sample are simple organized elements. There is a straightforward structure. As with topic 3, 4 and 5, arrange them in simple, straight columns. Users can concentrate on their own tasks and operate according to their own processes. However, similar to the elements discussed in topics 2 and 6, the sample chose a data-searching and data-selection element that represented a more precise and detailed category of data rather than hiding it. Usability is essential in website design, as in a literature review: Website Design and User Engagement (Garett et al. 2016). Usability is important because it determines how simple or difficult a website is to use. With an easy-to-understand design, users can handle any problem. For effective usability, website design should be tested to match the user experience.

It was discovered that when using A/B Test results to design and build a website prototype, the quality assessment results from experts were superior. The overall quality is very good, and the results of the sample satisfaction assessment are very satisfactory. The experts and the sample group agree that the website can design functional elements that are appropriate and appealing, as well as the arrangement of proportions. It's a good idea to organize information in order to find contest projects. Because there is currently no website that provides information on the contest project specifically for students, the website is suitable for practical use. This website's design also includes a user interface that is appealing to use. For those interested in user interface design and user experience, the findings can be used to further research user interface design.

References

Anon. n.d. "Bounce Rate - Analytics Help." Retrieved January 11, 2022 (https://support.google.com/analytics/answer/1009409?hl=en).

Bozanis, Panayiotis, and Elias N. Houstis. 2005. *Advances in Informatics: 10th Panhellenic Conference on Informatics, PCI 2005, Volas, Greece, November 11-13, 2005, Proceedings*. Springer.

Gao, Xiuyuan. n.d. "The Influence of Mobile Website Quality on Consumer Satisfaction and Behavior." 57.

Garett, Renee, Jason Chiu, Ly Zhang, and Sean D. Young. 2016. "A Literature Review: Website Design and User Engagement." *Online Journal of Communication and Media Technologies* 6(3):1–14.

Interaction-design foundation. n.d. "What Is User Interface Design? | Interaction Design Foundation (IxDF)." Retrieved January 11, 2021 (https://www.interaction-design.org/literature/topics/ui-design).

National Statistical Office. 2020. "A Survey on the Use of Information and Communication Technology in Households in 2020 (Thailand)."

Newman, Tabetha; Beetham, Helen. 2017. "Student Digital Experience Tracker 2017: The Voice of 22,000 UK Learners | VOCEDplus, the International Tertiary Education and Research Database." Retrieved January 11, 2021 (https://www.voced.edu.au/content/ngv:91490).

Robert Ward, Phil Marsden, Bernadette Cahill and Clive Johnson. 2002. "Physiological Responses to Well-Designed and Poorly Designed Interfaces."

Tidwell, Jenifer, Charles Brewer, Aynne Valencia-Brooks, and an O'Reilly Media Company Safari. 2019. *Designing Interfaces, 3rd Edition*.

Tribukait, Maren, Katharina Baier, Hanna Grzempa, Antigoni Loukovitou, Romana Sijakovic, Nadin Tettschlag, and Denis Vuka. 2017. "Digital Learning in European Education Policies and History Curricula."

Social Development and Social Studies

Ethics of the Press in Online Social Media

Wichuda Sawatdee Sangthonglang[1] / Chanikarn Saengsinkaew[2] / Khanittha Moolprom[3] / Taksina Boonlert[4] / Panisaya Atijitta[5]
[1]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, E mail: wichuda.s@ubru.ac.th
[2]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: std.63124460574@ubru.ac.th
[3]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124460631@ubru.ac.th
[4]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: std.63124460258@ubru.ac.th
[5]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: panisaya.a@ubru.ac.th

Abstract

Nowadays, social media have become major channel in communication. It plays significant role as medium in communication because of its convenience, information can be exchange swiftly and instantly via small but high-performance communication devices. Since online media have been growth without any awareness on professional ethics in online media presentations, researchers have conducted this study. Information from this study can be compared and adjusted to create positive change and proper awareness on professional ethics in online media presentations that distributed by the press. In this competitive era, many press have been focusing on fast and fascinating presentation. Their roles are presenting news, knowledge, and entertainment, as well as surveillance and being society's voice. These roles can put the media at risk of conflict of professional ethics. Another thing to consider is this profession is wide opened to people graduated from any field. This may cause a factor that cultivating in different professional ethics and affecting the ethics of media profession.

Keywords: professional ethics, the press, online social media

Professional ethics are important parts in every kind of press including newspaper, radio station, and television network. Professional ethics in online press that consisting new media such as news website and online media have been regulated by society for online news providers association. However, all associated organizations including media profession organizations, academic institutions, and media operators must cooperate in presenting and including professional ethics that online media have been educated. This will lead to more awareness among media profession. By promoting and encouraging their realization especially with the press in operational level. Encouraging the press to be members of professional media organization. Becoming members will make them keep in touch with each other, sharing information according to professional ethics in online media. Most of press have recently been focusing on precious presentation but have not been aware of professional ethics that every press must obtain (Sukanda Woraphanpong (2011). Ethics are philosophy and concept of goodness in people that becoming norms in a society, while Code of Ethics are written ethics that had been recorded to use as guideline and framework of people in the profession. Normally, there are no enforcing in Code of Ethics, only voluntaries. So, dismissing Code of Ethics is not considering against government laws though. People who are failed to follow aren't considered criminals; they will be considered as unethical people instead.

However, all associated organizations including media profession organizations, academic institutions, and media operators must cooperate in presenting and including professional ethics that online media have been educated. This will lead to more awareness among media profession. By promoting and encouraging their realization especially with the press in operational level. Encouraging the press to be members of professional media organization. Becoming members will make them keep in touch with each other, sharing information according to professional ethics in online media. There are many kinds of online social media. For example, separated by type of use. Weblogs (Blogs), Social Networking, Online Video that providing free online video streaming service are becoming very popular and expanding exponentially. Information can be broadly and rapidly circulated, this can benefit our way of communication. On the other hand, if any users lack ethics and cautions in utilization then online media could be a threat to Thai society.

One of the press's duties is to follow their organization's policies. In this competitive era, many press have been focusing on fast and fascinating presentation beyond their competitors. Their roles are presenting news, knowledge, and entertainment, as well as surveillance and being a voice of a society. These roles can put the media at risk of conflict of professional ethics. There were many cases that reflecting media unethical actions. Kanchana Kaewthep (2008) stated about concept of a role of media. Needs and norms in a society will work through organizations that link a society as a network on a same fashion as connected system in a human body. Based on the fact that Lasswell was a political scientist. He compared a system of society to a system of human body, he explained that when human body was encountering with disease that threatening body's health was the same to when societies was threatening from divergent political ideology (during the 1950s, there was cold war era between 2 political camps: Communism and Liberty) that caused each society cautioned another.

Therefore, mass communication system that is the functions of important subsystems in this modern world has been defined based on the above notions.

1. Duty of Surveillance. Mass media has a duty to monitor and inspect any circumstances in a society. Leading to proper response to incidents. There are both good and evil circumstances happening in a society. Mass media should focus on monitoring and inspecting improper circumstances that can sabotage social stability. This kind of idea may make news meaning bad news though.
2. Duty of Correlation. This duty is an addition to regular news reporting. Addition of interpretation, explanation, and suggestion to unite, educate, and conduct unified action in every part of a society that mass media can reach. For example, during SARS epidemic in 2003 that mass media had explained severity of the disease and how to avoid and cure it.
3. Duty of Cultural Transmission. While duty of uniting is focusing on space, people from every group and everywhere will be emphasized on united mind (uniting minds and thoughts). But this last duty will focus on uniting in time aspect. Cultural is a collective property of a society and will be inherited from generation to generation. In

this aspect, mass media has a duty on protecting and preserving legacy of society for many generations to come.

Harold Lasswell (1960) stated 3 duties of mass media to society that mass media as a part in a society system had duties same as organs had duties for a body. To maintain and secure social stabilization as following:

1. Monitoring and inspecting surrounding for society (for members to realize and adapt).
2. Connecting parts and members of society. Uniting their perception together (to realize and understand) their surrounding that occurs in society and unites society.
3. Inheriting social and cultural heritages for generations to come.

Charles Wright (1959) added a fourth duty as:

4. Entertaining and pleasing society with aesthetical pleasure. Creating mental balance and releasing them from stress surrounding society.

Denis McQuail (1987) stated about duty of media in term of goal in many social aspects including information, correlation, continuity, and entertainment. He added a fifth duty as bellowed:

5. Mobilization to make change in society.

McQuail had noticed about meaning of duty of media in society that it can be analyzed from each standpoint at different level. For example, from media standpoint and receiver or dominator standpoint, and from social level or individual level. There are many ways to be mass media profession. Either graduated from communication field or graduated from any other fields can become this profession. This kind of wide-opened can influence cultivating in different professional ethics and affecting the ethics of media profession. Professional ethics are important parts in every kind of press including newspaper, radio station, and television network. This study will focus on professional ethics in online press that consisting new media such as news website and online media have been regulated by society for online news providers association.

Angthida Limppatampani (2015) stated that ethical issues of mass media have been occurring in many dimensions. Occurring in both their practices and presentations, even many of them had tried to be honest to their professional standard and ethics. There are some of them disregarding the professional standard, making vast impact to the whole mass media. Changing in perspective of media can increase critics to be more massive. There are limitations in principles and mechanics that have been using to regulate themselves. This illustrates issues and obstructions in ethics and professional ethics utilization of media. Corresponding to Siriwan Anantho and Santad Thongrin (2016) studied of ethics in mass media profession. Ethical issues and obstacles in professional media have been occurring in every kind of media in every country. Failure caused by medias emphasizing on business result more than public prosperity, interference from politics, and lack of knowledge in operation had conducted professional movement and guided supervision of ethics in media profession in various forms. This reflects their desire to correct their mistake and to earn trust from public. Since professional ethics are matters of inappropriate mind and behavior that differs from breaking government laws, they prioritize self-regulation that preferable to professional over censorship. Tools that can improve self-regulation are code of ethics and code of conducts as guidelines, containing request and request responding mechanism like an ombudsman or a media council. Self-regulation has been used in many countries but might not as effective as expect though. As in Thailand, many organizations that have related obligation in Thailand communication have been creating ethics or professional ethics guideline to supervise and regulate their professional friends.

Professional ethics are important parts in every kind of press including newspaper, radio station, and television network. This study will focus on professional ethics in online press that consisting new media such as news website and online media have been regulated by society for online news providers association.

Maurice Odine (2013) studied on role of social media in building strength in Arab women in Middle East. Lack of freedom in media means people cannot obtain information according to concept of functionalism that can cause analysis and interpretation in media. If Arab Spring is a piloting model, right to access information is important to political participation and economic development. This part had been chosen by many nationalists and lobbyists from Tunisia, Egypt, and Libya. Many movements happened in Bahrain, United Arab Emirates, and even conservative country like Saudi Arabia. It illustrated how unprecedented awakening women have taken to media utilization in fighting against gender discrimination and deeply ingrained inequality in society. Women had realized how tight governments control over state-owned media which has regularly neglected to present issues like education and position about women. Women have had no representative right for so long until they discover virtual media. Women are using Facebook, Twitter, and YouTube to distribute message to encourage them for better education and better occupational chance from once they were marginalized by social inequality. Study aimed to research on media development in Arab from government controlling tools to modern era of virtual media. Focusing on which way that social media will interact, refer, or present information about women right. Studying from secondary sources including books in libraries, online media, newspaper, and articles in magazines. This secondary information help accessing and reviewing literature that researchers worked and lived in Kuwait, Arab Emirates. Researchers had travelled to Oman, Bahrain, and Saudi Arabia and have experienced and directly contacted with primary sources. Researchers want to discuss topic of analyzing activities in advocating for women's rights evident amid new media technologies. And exploring importance of continued use of social media in context of media convergence. Even there are evidence and considering as minor cases in violence and sexual discrimination, women's empowerment is happening through social media.

Women’s empowerments are truly acknowledged all over the world according to Pomed Wire, US Secretary of State: Hillary Clinton, and First Lady: Michelle Obama stated in the International Women of Courage Awards in Washington DC, 2012. This event is to honor person who play important role in empowering women. One of recipients of this award was Samar Badawi, the first Saudi woman to claim the Saudi government's right to choose a mate. Nowadays, number of Arab women using social media has been increasing. Though this reward had been proved in history that Arab women can use social media to flawlessly seek participation in the development of their country, many women aren’t seeking for change because fear of punishment. Some women can express their opinion only with their friend and family. It shows that change cannot happened if needs won't. They become women right support or guide creating group that is fearless and takes pride in taking risks for their rights that have long been abandoned in their culture. This is matched to strategy development in United Arab Emirates and had been passed to Kuwait to create some change. This support had elevated messages design and distributed women empowering. Receivers has passed on the messages of women's liberation at women's conferences held within and outside the Arab region. Women have learned and utilized social media for empowering them. Group of women right and supporters must intrigue higher level of necessary education to make it effective and to ensure that it will be effective in the future.

From the above research, it is important to supervise and regulate social media affecting news sources, those who are presented with false information or causing disgrace to that reputation. These false actions can be easily done and swiftly expanded via current online media even defining practices for online news presenters had been set. Chawarong Limppattamapani (2015) stated that former online news producer club (registered as an association in September 2010) consisting of news websites and online media. Members of the National Newspaper Council, members of the Federation of Thai Radio and Television News Professions, or those who are not members of any organization had created guidelines for presenting news and contents by members of the Online News Producer Club to ensure that members of the club will serve to present information under ethical framework of the mass media profession. The essence of the guideline is to provide the operation of the Association of Online News Producers in accordance with the objectives of the establishment, the Association of Online News Producers Guidelines for Presenting News and Images has been developed.

1. This guideline is called "Guidelines for presenting news and contents of members of the Online News Producers Association, 2012"
2. This Code of Practice shall come into force from the date of its publication onwards.
3. In this Code of Practice:

"Member" means a member of the Online News Producers Association.

"News" means information, news content, news documentaries, articles, columns, headlines, images, and captions presented through the member's website or other communication channels.

4. Members must adhere to and abide by the professional ethics regulations of the Newspaper Council.
5. Members should respect and accept news or contents produced by other members.

Presentation redundant contents strictly protected by copyright according to national law and the Federation of Thai Radio and Television News Professions.

Public referred by news or contents under first clause. Members must refer to the source, presenting time and create a link of the news or contents back to the member's website who is news producer or editor.

6. Members must respect and accept information or contents produced by other sources. Copying any text from newspapers, publications or other sources must state the origin of it.

7. Since presentation of news through member's website can be done at any time, so members must use their full discretion in presenting news and contents with caution to prevent serious damage in society.
8. Members must respect for news and contents provided by citizen journalists. Whether news or contents are presented directly to members or through various social network channels.
9. Failure to comply with this Code May lead to termination of membership of the member according to Article 9.4 of the Online News Producer Club Regulations, 2009.

This code of practice had been created for regulate professional in online media only. For those who are not affiliated with any media organization who currently turn to the media themselves. There are regulations of the Computer Crime Act 2016 that governs but not universality, so news presenters are facing violation. Major reason that people are pay attention to online media is convenience and ease of use. It becomes more popular among Thai people lifestyles. Using for communication in their family, between colleagues, students, or even the country's executives.

According to the report of the National Reform Council for Mass Communication and Information Technology Reform Commission about media reformation. Recent media regulations aren't effective in both ethical regulation of the media profession and the regulation of the legal authority. Public sectors have not participated in regulation of media, causing many related problems. Self-regulation of ethics in mass media profession including the main media such as radio, television, and newspapers. They are facing problems of self-regulation under voluntary that are violations of professional ethics standards and issue of enforcement of professional ethics standards. Because professional organizations do not have any status in government law. There is no authority to sanction practitioners who act contrary to professional ethical standards that were established together. Because these organizations are not any professional council or committee authorized by law.

In the seminar "Law, Media Protection or Control", assoc. prof. Jumpon Rodkhamdee stated that the media is responsible for reporting and seeking information for the public. This is Their duty and role. But in the past, media reformations happened for many reasons. It was the work of the media itself that was irresponsible, not in the ethics or professional ethics. There was disinformed and causing violence. There is some truth from his statement. But for media reformation, freedom of the press under the written media ethics must be held responsible. "In the past, the Federation of Media Professions sometimes can't control their own members. By letting members violate the code of professional ethics. Part of the media organization sometimes support those who are not following professional ethics. Therefore, there is an idea of what to direct the Professional Council to be able to take care of members that causing the society to be insecure about work of media" (Law, Media Protection or Control, 2017).

Not only professional association has no power to punish members. Members convicted of violating ethical standards are able to not comply with such judgments and can resign from professional association. Board of professional association have been avoiding judgments because they are all media operators. At the same time, regulation of online content by Internet industry is not yet strong. Website has been developed into the 2.0 era that website users can directly produce content to the website and social networks. This enables decentralization of self-regulation down to the smallest unit, a user.

Professional associations in radio, television, and newspapers also have minor role in protecting their members in benefit, welfare, and channel to expedite complaints about improper media professional aspects. Activities that organizations and media professionals in the community radio media group, local business radio, cable TV, satellite TV, and online media haven't done much yet are receiving complaints from complaints about improper media professional or violation of ethical principles, and activities promoting quality development of mass media.

However, the National Reform Council for Mass Communication and Information Technology Reform Commission stated in the article "Media reform" (2015) that recent media regulations aren’t effective in both ethical regulation of the media profession and the regulation of the legal authority. Public sectors have not participated in regulation of media, causing many related problems.

Self-regulation of ethics in mass media profession including the main media such as radio, television, and newspapers. They are facing problems of self-regulation under voluntary that are violations of professional ethics standards and issue of enforcement of professional ethics standards. Because professional organizations do not have any status in government law. There is no authority to sanction practitioners who act contrary to professional ethical standards that were established together. Because these organizations are not any professional council or committee authorized by law. Not only professional association has no power to punish members. Members convicted of violating ethical standards are able to not comply with such judgments and can resign from professional association. Board of professional association have been avoiding judgments because they are all media operators. At the same time, regulation of online content by Internet industry is not yet strong. Website has been developed into the 2.0 era that website users can directly produce content to the website and social networks. This enables decentralization of self-regulation down to the smallest unit, a user.

Regulations by authorized The National Broadcasting and Telecommunications Commission (NBTC) are facing corporate governance issues about disclosing information, policies, public hearing, complaint management, use of budgets that lack transparency, and decent external social responsibility. The NBTC was questioned about benefiting capital groups and the state, lack of transparency, exclusion, genuine participation from consumers, and interference with media. Public sector is still unable to effectively participate in media regulation. Media Reform Commission defined the driving mechanisms that will lead to structural changes as followed: (Media reform, 2015).

1. Academic law system and mechanism.
2. Self-regulation system and mechanism. Establishing mass media professional association law as a central association for self-regulation that covers all media and is independent from state and capital. Having its own constitution, policy department, fund management department, complaint department with an efficient review system. The system that is transparent and fair, receiving high level of complaints which may be forwarded from professional media association or public sector organizations that cannot handle those cases.

2.1 This mass media professional association must be carefully created in both legal support and selection of people to be members. Proper systems and mechanisms are required in management. Connecting relationships with various organizations to support the role of the association as a dependency of media and people.

2.2 Establishing a mechanism to develop ethical standards for ethical self-regulation of media association and professional media association in accordance with standards of association of mass media profession. Considering differences in dimensions, types or formats of content, media type aspect, and level of enterprise coverage aspect. There should be a mechanism to improve ethical self-regulation of media and professional associations both in Bangkok and other provinces to be more efficient.

3. Government/independent organization regulatory systems and mechanisms. Separating powers and duties between regulator and operator, especially regulation of the current Thai IT business. Regulators must consider allocation and sharing of communication resources so people can broadly access and utilize. Promoting alternative media, community media, diversity in content, diversity in communication channels, and ownership. Improving government media regulator in terms of the use of power. Governance must exercise powers appropriately. Creating participating mechanism by allowing public sector to form a network to monitor domination of state power and capital (Media Watch). Reporting to the association about receiving complaints to the media at every level including media association level, professional media association level and association of mass media profession level.

4. Public sector regulatory systems and mechanisms.

4.1 Establishing an independent organization for participation in media regulation by public sector. Promoting media literacy. This organization can be independent from government. Encouraging people to participate in media regulation including being an intermediary between people and media if there are any problems. Educating people about knowledge in media. Providing opinions on policies to achieve objectives.

4.2 Establishing public opinion polling system on the performance of media. This will reflect performance and self-regulation of the media.

5. Relationship between professional sector, government sector, private sector, and four types of systems and mechanisms mentioned above is required for effective regulation. Association of mass media professions must have a mechanism to coordinate with public sector and government regulator such as the NBTC to integrate cooperation. Protecting the rights of freedom of press and consumers in media and information technology businesses.Government media regulators must encourage public sector in participating. Strengthening people and promoting professional sector to raise standards and to have effective self-regulation. Conducting fund for administrative support and other management of association of mass media professions and public sector organizations that will be established from the treasury of the Public Broadcasting Organization of Thailand or from the Broadcasting Research and Development Fund or other money in right ratio (Media reform, 2015).

However, there are undeniable business benefits that come together with use of social media. In addition, social media is constantly evolving to increase ability in communication. It has been becoming communication tools that even mass media themselves turn to social media to present news because convenience. Therefore, strong regulation is required.

References

Angthida Limppatampani. (2015) Problems and obstacles in the use of ethics and professional ethics in mass media and creative possibilities in media ethics, concepts, theories and case studies. Charansanitwong printing company Bangkok.

Chawarong Limppattamapanee. (2015) “Online Media Ethics” in Media Ethics: Principles Theory and Case Studies Charansanitwong Printing, Isara Institute, Media Development Foundation of Thailand Bangkok.

Danis Mcquil. (1987). Mass communication theory: an introduction, London; Newbury Park: Sage Publications.

Global Media Journal Spring. (2013). Retrieve from https://www.globalmediajournal.com /ArchiveGMJ/global-media-journal-rchive.php?month=June&&year=2013&journal=gmj

Harold Laswell. (1960). Functions of Mass Communication retrieve from https://www.communicationtheory.org/functions-of-mass-communication/

Kanchana Kaewthep. (2008), “Theory of Communication in the Perspective of Popular Front Office” in the content collection. Philosophy of Communication Arts and Communication Theory Unit 5 Pages 264-265 Nonthaburi, Sukhothai Thammathirat Open University Press Communication Arts.

Law, Rule (D) Media, Protection or Regulation. (2017) [online], accessible from https://www.isranews.org/thaireform/thaireform-documentary/53811-law-53811.html.

Maurice Odine. (2013). Role of Social Media in the Empowerment of Arab Women.

Media reform. (2015) Media Threat Surveillance Center [online], accessible from.http://www.tja.or.th/index.php?option=com_content&view=article&id=3812:2015-07-24-07-5537&catid=24:media-center-surveillance-threats&Itemid=24.

Peera Jirasopon. (2008), “Mass Communication Theory” in the collection of Philosophy of Communication Arts and Communication Theory, Unit 10, page 139, Nonthaburi, Sukhothai Thammathirat Open University Press. Communication Arts.

Siriwan Anantho and Santak Thongrin (2016) Supervision of ethics in the media profession in Professional Ethics in Mass Media Mahidol University Press, Nakhon Pathom

Sukanda Woraphanpong (2011) “Ethics and Law of Mass Media” in teaching materials Introduction to Mass Communication, Unit 13, pages (13-6) – (13-8).

Futuristic Education based on Humanities and Social Science for Sustainable Development

Professor Dr. Protiva Rani Karmaker
Professor (English) & Director Institute of Modern Languages Jagannath University, Bangladesh
E-mail: protiva.karmaker@gmail.com

The world is going through uncertainties, pandemics and pitfalls; and with all these, we welcome new phase of life with the hope that our past experiences will rectify our mistakes and will make us more powerful to face strange situation in every arena. During the last two years, amongst the other aspects worst affected by COVID-19, education is markedly the most remarkable one. As quoted by Malcolm X, “Education is the passport to the future, for tomorrow belongs to those who prepare for it today”, to meet the upcoming changes and challenges in the field of education, we can think of having added dimensions like more focus on technological skills, fundamental skills, social skills, thinking skills, personal skills and humanistic skills. The guided YouTube-oriented teaching and learning, and technology-affiliated teaching-learning approaches like blended teaching and flipped classroom may open a new horizon for young learners. The first thing we need here is concentration and positive attachment, not addiction. According to Will Durant, “Knowledge is the eye of desire and can become the pilot of the soul”. So, we need education for revitalizing the global partnership for achieving sustainable development in future. According to the United Nations’ views in 2015, implementation and revitalization of the global partnership is required for reaching the sustainable development goals. The goals include 17 targets to be achieved by 2030, some major of which are related to finance, technology, capacity building, trade and systemic issues. Progress towards targets will be measured by 25 indicators. However, in the recent years, the world has experienced humanitarian crises brought by conflict or natural disasters more critically than ever before. As such, for sustainable goals to be achieved fruitfully, the world needs all inclusive futuristic education based on Humanities and Social Science.

Keywords: Futuristic Education, Humanities, Social Science, Sustainable Development

What I mean by futuristic education

Futuristic learning involves an unceasing headway to higher levels of critical and creative thinking in a cooperative atmosphere of educational liberty which inspires learners to have more rigorous learning and classroom engagement by utilizing modern and advanced approaches of teaching and learning (Mampane, 2020). The academic as well as life skills acquired through education should facilitate students’ intellectual, social, and emotional development. Futuristic pedagogy advocates the acquisition of systematized knowledge and skills and encourages the idea of engaging analytical and practical skills during learning. The traditional form of education should pave way for futuristic pedagogy to allow schools to respond to the learning needs of students (Mampane, 2020). Futuristic education demands the challenge of equipping students for an unknown future, prepares them in the changing learning styles, makes them aware of the risks and rewards of technology in the classroom, cultivates among them life-long learning, offers them with opportunities for the education industry, and raises in them satisfaction with the education sector (McCrindle and Renton, 2018).

SDG and futuristic education

The question of how to improve human existence for all has been at the heart of a global UN- process, that started at the UN Conference on Sustainable Development (Rio+20) in Rio de Janeiro, Brazil, in 2012 (UN, 2012) and involved engaging millions of people and thousands of actors from different stakeholder groups from all over the world. The outcome of this process was the 2030 agenda for sustainable development (UN, 2015), which was adopted by all member states at the UN General Assembly on September 25, 2015. This new global framework aims to be inclusive and transformational in redirecting humanity towards a sustainable path, and at the core of the 2030 agenda are Sustainable Development Goals (SDGs) (Parkes, 2017). Within the 2030 Agenda for Sustainable Development, educational responses are a key to the vision of the SDGs. Education is explicitly formulated as a stand-alone goal (SDG 4), and numerous education-related targets and indicators are also contained within other SDGs. Thus, education is both a goal in itself and a means for attaining all the other SDGs. It is not only an integral part of sustainable development, but also a key enabler for it (UNESCO, 2017). This includes the education of current and future business leaders, as Secretary General, Ban ki Moon stated at the launch of the SDGs in November 2015: “Solutions will involve everything from regulation to disruptive innovation and everyone from world leaders and chief executives, to educators, activists and citizens” (Parkes, 2017).

Accordingly, social sciences and humanities including the concerns covered by the umbrella term, sociology, are ideally suited as a means of teaching the students the concept of ‘sustainability’, for a fundamental component of SSH has been a commitment to progress. While this commitment has taken many forms, such as Marx’s revolutionary praxis and Durkheim’s conservative program of moral education, SSH has been a science discipline that not only sees progress as a defining feature of modern society, but also sees as its goal the creation of solutions to the problems it uncovers (Egan et al., 2004). The disciplines of Social Sciences and Humanities (SSH) include quite a large number of issues and challenges, like national and international conflicts, human rights, ethics, religious traditions of acute contemporary relevance, economic and educational inclusion, institutions and governance networks, social and environmental resilience, changing media, literacy, identities and cultural memories, linguistic diversity, creative industries, cultural heritage, life- long education and learning, developmental disorders, psychopathologies, psychological disorders, addiction, and man-machine interactions. An exhaustive SSH insight into these challenges is as important as contributions from natural-scientific and technological disciplines to the creation, implementation and evaluation of effective public policies and innovative structures underpinning corporate performance (Advice Paper-13, League of European Research Universities, LERU). Humanities and social sciences are, basically, the key elements for the implementation of quality STEM (Science, Technology, Engineering, and Mathematics) education, providing students with the competencies required for a sustainable development agenda. There are multiple elements that are common in STEM education, Education for Sustainable Development (ESD), and Humanities, Arts, and Social Sciences, i. e. STEM education implies that students look for answer to the Why, When, Where, How, and Who; ESD requires a particular approach to education where learning to apply the acquired knowledge to real life situations is as central as the disciplinary knowledge; and, likewise, these are exactly the kind of questions that the social sciences and humanities train students to answer. As a matter of fact, without humanities and social sciences disciplines, the recognition of actors and motivations will be poor, generic, and based on prejudgments, focusing on the concrete and evident and limiting the definition of the problem to only a few dimensions (Marcone, 2022).

The sustainable goals are basically related to poverty, hunger, health, education, gender equality, energy, economic growth, industry, inequalities on all levels, sustainable communities, responsible consumption, climate change, marine life, environment, social justice, and international partnership (SDG17) while the core focus of Humanities is on critically interpreting culture and humanity as well as on languages, literature, philosophy, history, archaeology, antropology, human geography, law, religion etc. All these issues focus on providing a context for initiating new ideas in our culture, politics, and daily lives. As technology has already entered in education both in humanities and social science, we should think of making it more effective for achieving SDGs.

Incorporating Technology into Humanities and Social Science Education

From recent experience in general it is seen that in techno assisted teaching & learning, it is sometimes difficult for young learners to keep the concentration with maximum potential during the class time or learning time at home. Since there may be many distractions in technological tools as from internet, laptops and cell phones that negatively impact students' concentration and prevent optimal learning, family members, teachers and instructors should raise considerable awareness amongst the learners to make the best use of time and technology through digital literacy and aptness. As for teachers there are few recent techno-assisted tools like Socrative what helps in quizzes and questions with real-time grading. Socrative is one of the top-rated assessment tools for teachers according to hundreds of online reviews by educators and professional reviewers alike. It is an interactive digital tool that lets teachers quiz, grade, and assess on-the-fly; "at the speed of learning." Teachers can choose from quick questions for instant feedback, class counts to see who's logged in, or full quizzes for deeper understanding. This versatile tool lets teachers to create polls and activities and shuffle questions, with or without student names attached. Quizzes are graded in real time, and teachers can store them for re-use with other groups. It works on smart phones, tablets, laptops, and other devices on MS Windows, Android, and iOS. It is 100% free for students, and also very simple, flexible, and aligns well with Common Core. Google Forms is another resource. The best reason to use Google Forms as an online assessment tool for education is that it is very easy to use. Moreover, Google Forms is a go-to among teachers because it is quick and simple to create and automatically grade quizzes even if it is your first time using the tool. There are other tools like Mentimeter, Kahoot etc. Mentimeter sky high among assessment tools used in the classroom. It comes pre-loaded with education templates for the classroom like a listening skills assessment, icebreakers, formative assessments, post-lecture surveys, and polls. On the other hand Kahoot is a game-based assessment tool. Students love Kahoot's game-based approach to learning and assessment. There are many more like all these for future techno support in education.

Humanistic Education in future should also make us competent and able to function competently in society. Skills like reading, writing, mathematics and communication should be improved. Moreover, critical thinking skill, problem solving skills, practical skills, mentoring skill will add new dimension. Since in this digital age, things are changing at exponential rates, learners need to learn how to adapt and act accordingly through their adaptive thinking ability. In professional field, there are some social skills which are deemed important as interpersonal skills, teamwork, leadership skills, communication skills, presentation skills, professional verbal and writing skill, entrepreneurship, networking, and civic literacy, honesty/integrity, strong work ethics, motivation and initiative, well mannered, friendly/outgoing personality, creativity, sense of humour, basic common sense, risk management skill, cleanliness and smartness with admirable personality.

On the other hand, we know that social science explores the relationships between individuals and societies, as well as the development and operation of societies, rather than studying the physical world. These academic disciplines rely largely on interpretation and qualitative research methodologies. Such branch of study has impact on improving individuals, families, groups, communities, and society as a whole. Since the core purpose of education lies at the heart of both spiritual, personal, social and community development, not only self-development, we need education based on social science because without individual development community development is quite impossible. We also need to promote understanding to all people for developing their talents fully and to realize their latent potentials including responsibility for their own lives, family as well as society. There may be many unexpected events, but education should make us so strong that nothing will weaken our spirit to go ahead. We need promptness, gravity and the generosity as well as excellence to contribute to society. Education is such a powerful catalyst which should enable us combat poverty and inequality, injustice, and imbalance of any kind in future.

Basic knowledge on health and mental well-being may increase potential. Educational institutes should focus on creative assignment, presentation, fieldwork, and research based on core issues of humanities and social sciences. Without research, being globally competent is difficult and sometimes impossible. We need research in social science to attain SDGs. With increasing urgency, scientists remind us that human survivability is at uncertain risk. There can be environmental degradation, rapid biodiversity loss and climate change. Pragmatic and holistic learning opportunities can play a vital role in the transformation needed to realize more environmentally sustainable societies. Initiatives and investment from government, civil society and the private sector should focus on preparing basic education system. Education shapes human values and perspectives. More stress and examination oriented education sometimes hinders smoothness and depth to realize greater harmony with natural world. Let us study for pleasure not for pressure. We can think of developing vocational skills, creating space for temporary job opportunities at universities, increasing the incomes of the poorest and, if equitably provided, reducing social inequality. Through reducing education disparity, we can increase more access to sound work among disadvantaged groups. UNESCO proposes that if all people completed secondary school, as called for by Sustainable Development Goal 4, world poverty could be cut in half. Futuristic education requires preventing violence and achieving sustainable peace.

In this modern world there is a flowing message to us and it is that we need to keep pace with the ever changing flow of modern time, attain infinite knowledge, strength, vigor, patience, divine power, eternal joy and honesty to adorn our lives with worth and beauty. Education is one of the best platforms to attain that excellence in society. Let futuristic education be an excellent education platform including humanistic and social science issues to avail for our learners and to meet sustainable development goal to create a more engaged and developed community ahead.

Social Science and Humanities (SSH) research is the scholarly discipline which generates new and intrinsically valuable knowledge pertaining to all human aspects of the world, which is why SSH is of vital importance to the future of any nation (Advice Paper-13, League of European Research Universities, LERU). Demographic change as well as the definition and study of wellbeing and the mechanisms of adaptive abilities in humans, in and by themselves, require social sciences. Demographic change, wellbeing and adaptive behaviour are aspects that medical disciplines do not really know how to handle, focused as they are on diseases; moreover, even if there are quantitative approaches in medical sciences such as epidemiology, demographic change is a social issue more than a medical one. Moreover, demographic change as well as wellbeing result from a true interaction of biological (and genetic, but not only), cognitive, social and cultural variables (LERU).

How futuristic education is envisioned to be

According to the Organization for Economic Cooperation and Development (OECD), the shared vision of education in the coming decade projects that education is going to be about helping every learner develop as a whole person, and fulfilling his or her potential and help shape a shared future built on the well-being of individuals, communities and the planet. Children entering school in 2018 will need to abandon the notion that resources are limitless and are there to be exploited; they will need to value common prosperity, sustainability and well-being. They will need to be responsible and empowered, placing collaboration above division, and sustainability above short-term gain (OECD, 2018). In the face of an increasingly volatile, uncertain, complex and ambiguous world, education can make the difference as to whether people embrace the challenges they are confronted with or whether they are defeated by them. And in an era characterized by a new explosion of scientific knowledge and a growing array of complex societal problems, it is appropriate that curricula should continue to evolve, perhaps in radical ways (OECD, 2018).

How humanities and social science education should be in the days to come

Kumar (2014) suggests that as a collection of separate disciplines, social science is unable to implement its principle: a comprehension of the social totality, or ‘society as a whole’, which, if rejected, is vulnerable to create in post-modern literature an additional problematic issue. What is the future of social studies education in schools in the electronic age of knowledge and distributed intelligence?

Research on instructional technology suggests that thoughtful curriculum development and careful instructional design are more likely to enhance learning than the particular delivery medium used. Lack of teacher time and training and lack of money are among the many impediments to improved use of technology in social studies classrooms. If our experience with other technologies in the classroom is any guide, the effects of electronic technology will be minimal. Schools and social studies instruction will continue much as they have for decades (Shaver, 1999). As such, Kumar (2014) advances the conjecture that the social sciences must adopt, in order to overcome their failures, a more systematic interdisciplinary mode of enquiry.

Conclusion

According to Loewenstein, Musante, and Tucker (2019), humanity, at present, faces what The New York Times columnist Thomas Friedman refers to as a “hugely plastic moment” characterized by “four climate changes at once.” The most obvious of these is anthropomorphic changes to the physical environment. Globalization of the world economy, the rapid ascension of artificial intelligence, and changes in communication technology associated with the cloud and smart phones are the other three changes. Although largely technological in origin, these developments, occurring at unprecedented speed, are leading to disruptions of the world economy, mass migration (with diverse consequences), changes in social interactions, and political upheavals, with impacts that extend from the daily experiences of individuals to the planetary ecosphere (Loewenstein, Musante, and Tucker, 2019). A good portion of the scientific enterprise is devoted to developing technological solutions to these challenges (e.g., climate science and artificial intelligence approaches to detecting fake news). But, the processes that unleash these changes and mediate their consequences are inherently social, and their consequences unfold at a human scale. Among scholars, social scientists, uniquely, possess the expertise, theoretical perspectives, and research tools to make sense of these developments, as well as, potentially, to propose policies to manage them. As a methodologically diverse grouping of academic disciplines, including anthropology, economics, political science, psychology, and sociology, the social sciences are broadly concerned with the scientific study of humans as individual agents, as well as with social, economic, and political interactions (Loewenstein, Musante, and Tucker, 2019). While each discipline can illuminate dimensions of problems, no one social science can do justice to phenomena of the magnitude and complexity of those currently facing the world—hence, the need for interdisciplinary research. Loewenstein, Musante, and Tucker, (2019) highlight the tremendous gains that can be realized by blurring the boundaries between disciplines, by expanded cross-disciplinary exchanges of ideas and collaborations, and by larger laboratory-style approaches to research and education in the humanities and social sciences. Only by integrating these disparate Social Science perspectives can we hope to obtain a more complete educational as well as promising developments that could enable learners to predict the course they take and—ultimately—provide the future generations with tools for addressing problems that they are going to encounter in the post-modern setting (Loewenstein, Musante, and Tucker, 2019).

References

Advice Paper-13, League of European Research Universities

Marcone, G. (2022). Humanities and Social Sciences in Relation to Sustainable Development Goals and STEM Education. *Sustainability, 14*, 3279. https://doi.org/10.3390/su14063279

Parkes, C. (2017). How social science is driving a sustainable future (with special issue). https://www.elsevier.com/connect/how-social-science-is-driving-a-sustainable-future-with-special-issue

Egan, D., Gray, V., Kaufman, W., and Montrie, C. (2004). Education for Sustainable Development: The Role of the Humanities and Social Sciences. *The Declaration*, 7 (1).

Kumar, A. (2014). The Future of Social Science in Higher Education. *Journal of Social Enquiry, 15* (1), pp. 2-18.

Shaver, James P. (1999). Electronic Technology and the Future of Social Studies in Elementary and Secondary Schools. *Boston University Journal of Education, 181* (3), pp. 13-41.

McCrindle, M., Renton, S. (2018). The Future of Education. Conference paper. https://www.researchgate.net/publication/335159813

Mampane, S.T. (2020), "Futuristic Learning: Improving Classroom Engagement and Learning in a Distance Higher Education Institution", Sengupta, E., Blessinger, P. and Makhanya, M. (Ed.) Improving Classroom Engagement and International Development Programs: International Perspectives on Humanizing Higher Education (*Innovations in Higher Education Teaching and Learning, Vol. 27*), Emerald Publishing Limited, pp. 189-204. https://doi.org/10.1108/S2055-364120200000027015

Organization for Economic Cooperation and Development (OECD). (2018). The future of education and skills: Education 2030. https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf

Loewenstein, G., Musante, K., Tucker, J. A. (2019). Future Directions in Social Science: A Workshop on the Emergence of Problem-based Interdisciplinarity. https://basicresearch.defense.gov/Portals/61/Future%20Directions%20in%20Social%20Science_Final%20Report_12%20Aug%202019.pdf?ver=2019-09-24-114011-603

Compliance to the DAR Rationalization Program (EO 366): The Ilocos Sur Philippines Experience

Archie Martinez
University of Northern Philippines, Vigan City, Ilocos Sur, Philippines

Abstract

The Department of Agrarian Reform Province of Ilocos Sur (DAR Ilocos Sur) implemented Executive Order No. 366 otherwise known as the Rationalization Program on August 1, 2013. This study looked into the DAR Ilocos Sur compliance to the executive order as a very important basis of DAR and other government agencies for public administration and legislation. It is a mixed qualitative and quantitative research with six initial respondents, one key informant and 118 employees and retirees who answered a validated questionnaire. It revealed the following: 1) The DAR provincial management strictly complied with the rationalization program. However, the existence of 3 invalidated and 3 vacant positions are beyond their control; 2) The DAR employees and retirees posted a "satisfactory" extent of dissemination; 3) The retirees showed a "very satisfactory" while the employees exhibited a "satisfactory" extent of compliance; 4) The retirees and employees posted the same extent of dissemination; 5) The retirees exhibited a higher extent of compliance than the employees; and 6) To the employees, the extent of dissemination significantly influenced the extent of compliance.

Keywords: agrarian reform, rationalization program, employees, retirees

Introduction

To be a part of the Philippine civil service is a rare privilege. One undergoes a rigid screening process before obtaining a permanent appointment and to remain is an everyday battle. With the changing times, there was an increasing demand for more manpower in the bureaucracy until it surfaced that overlapping functions of government offices exist. To address this, Executive Order No. 366 (EO 366) dated October 4, 2004, entitled, "Directing a Strategic Review of the Executive Branch and Providing Options and Incentives for Government Employees Who May Be Affected By the Rationalization of the Functions of the Executive Branch," was issued by President Gloria Macapagal-Arroyo, with the purpose of streamlining the bureaucracy and improve the delivery of services. This law directed agencies to prepare a rationalization plan to identify posts that are redundant, outdated or no longer relevant to the accomplishment of the major final outputs of the particular agency. The respective plans were submitted to the Department of Budget and Management (DBM) for review and approval.

The Department of Agrarian Reform, an agency under the executive branch of the government, started its rationalization efforts in 2005 by creating the Change Management Team (CMT) and conducted a thorough review of the department's mandate, core functions and services with the end view of designing an organizational structure and staff complement which is more responsive to the demands of its clienteles. The proposal was submitted to DBM on May 6, 2012. It was approved by

DBM on August 1, 2013 and like those agencies whose plans were approved, DAR was given two months to implement it.

This study looked into the compliance of DAR Province of Ilocos Sur to EO 366, a very important basis of DAR and other government agencies for public administration and legislation. Specifically, it dealt with: a) the chronology of activities undertaken to comply with the executive order; b) the extent of dissemination of EO 366; c) the extent of compliance; d) the significant difference in the mean extent of dissemination and compliance between the two groups of respondents; and e) the regression equation applied for the two groups in predicting the extent of compliance given the extent of dissemination.

Objectives of the Study

This study dealt with the compliance of DAR Province of Ilocos Sur to EO 366, a very important basis of DAR and other government agencies for public administration and legislation. Specifically, it determined the:

1. chronology of activities undertaken to comply with the executive order;
2. extent of dissemination of EO 366;
3. extent of compliance;
4. significant difference in the mean extent of dissemination and compliance between the two groups of respondents; and
5. regression equation applied for the two groups in predicting the extent of compliance given the extent of dissemination.

Review of Related Literature

The Rationalization Program officially started upon the effectivity of the Implementing Rules and Regulations (IRR) of EO 366 dated October 4, 2004. It covers all departments of the executive branch and their units/bureaus, including all corporations, boards, councils, commissions, task forces and all other agencies attached to or under their administrative supervision (Primer on the Program on Rationalizing and Improving Public Service Delivery).

According to the above-mentioned primer, the rationalization program is a move to transform the executive branch into a more effective and efficient government. This program will make the government more effective by eliminating redundancies in its operations and focus its resources on its vital functions. The bureaucracy can concentrate on work that must be done by government. It will also make the government more efficient by minimizing, if not eliminating, overlaps and duplications, and improve on its systems and procedures.

In the same primer, it mentioned the need to rationalize government operations. The government has to put its house in order. Over the years, government had the tendency to over-expand and self-perpetuate in almost every area of need of society. These areas have become regular government priorities and responsibilities. This situation results in a thin spread of government resources to a variety of concerns, especially in areas where government support is highly desirable, such as peace and order, national security and social services, among others. Government also has to keep pace with changing demands and technologies. What may have been a relevant undertaking for the government a number of years ago may no longer be necessary at the present time. Moreover, global and private sector developments may now require different regulatory frameworks. Some areas may need new regulations while other existing regulations have become counterproductive to sector growth. Hence, government has to review its operations to remove redundancies/overlaps/duplication and improve its operations. In addition, the people are demanding better public services and more value for their money.

Through rationalization program, the following are expected to be achieved: 1) strengthened vital government functions; 2) more resources to fund priority programs and projects of the government; 3) improved and faster service delivery; 4) more satisfied clients of government services; and 5) increased morale among government employees. The savings that may be generated from the effort would also be retained in the departments/agencies to fund additional maintenance and other operating expenditures for their operations. In some cases, the program may result in redeployment of government personnel from redundant to vital functions.

Rationalizing the bureaucracy is not only the solution. There are other strategies being pursued to improve the quality of government service delivery. Some of these are the institutionalization of a performance-based management system, streamlining of systems and procedures, and further improvement of the governance of the government corporate sector. However, the rationalization program is a refocusing and strengthening effort to transform the bureaucracy into a government that works for the people.

In 2009, the Civil Service Commission (CSC) rationalization plan was approved by DBM following its implementation on that same year. Historically, it was the agency that first implemented the rationalization program. The Department of Public Works and Highways (DPWH) and the Philippine Charity Sweepstakes Office (PCSO) followed on July 21, 2011 and April 1, 2013, respectively. On November 15, 2013, DBM approved the rationalization plan of the Department of Education (DepEd) and after a month, Department of Environment and Natural Resources (DENR) rationalization plan was also approved. As provided in EO 366, each agency was given two months from the date of its approval to place the existing positions in the indicative staffing pattern approved by the DBM.

The Department of Agrarian Reform has the following legal bases: 1) RA 3844 also known as the Agricultural Land Reform Code dated August 8, 1963 that created Land Authority. It also created the National Land Reform Council; 2) RA 6389 (Code of Agrarian Reforms of the Philippines dated September 10, 1971 created DAR with the authority and responsibility to implement government policies on agrarian reform; it likewise abolished the National Land Reform Council and the Land Authority, and transferred their functions to DAR; 3) PD 2 dated September 26, 1972 declared the whole country as a land reform area to accelerate the implementation of the agrarian reform program of the government; 4) PD 27 dated October 21, 1972 ordered the emancipation from the bondage of the soil of all tenant farmers of private agricultural lands primarily devoted to rice and corn who are under a system of sharecrop or lease tenancy. It specifically indicated that the tenant farmers shall be deemed owner of a portion constituting a family-size farm of five hectares if not irrigated and three hectares if irrigated; 5) EO 228 dated July 17, 1987 declared full land ownership to qualified farmer beneficiaries covered by PD 27; said EO also provided that the valuation or rice and corn lands covered by PD 27 shall be based on the average production determined by the Barangay Committee on Land Production;

6) Proclamation No. 131 dated July 22, 1987 established the implementation of the Comprehensive Agrarian Reform Program (CARP) which shall cover, regardless of tenurial arrangement and commodity produced, all public and private agricultural lands as provided in the Constitution, including whenever applicable in accordance with law, other lands of the public domain suitable to agriculture; the Agrarian Reform Fund was also created to cover the estimated cost of implementing the program from 1987 to 1992; 7) EO 229 dated July 22, 1987 provided a mechanism for the implementation of the CARP such as administrative procedures and mechanisms on the manner of payment by the farmer beneficiaries and mode of compensation to the landowners; 8) EO 129 dated January 30, 1987 reorganized organizationally and functionally the DAR into a Ministry of Agrarian Reform to ensure the effective implementation of CARP. However, the implementation of said EO was suspended by then President Corazon C. Aquino, as provided under EO 129-A dated July 26, 1987; 9) EO 129-A reorganized and strengthened DAR providing its mandated organizational structure and the functions of each office under it; 10) RA 6657 also known as Comprehensive Agrarian Reform Law of 1988) dated June 10, 1988 mandated DAR, in coordination with PARC, to plan and program the acquisition and distribution of agricultural lands in a period of 10 years from the effectivity of the Act; it also provided DAR with quasi-judicial powers to determine and adjudicate agrarian reform matters; 11) RA 8532 dated February 23, 1998 extended the implementation of the CARP Law up to 2008; and 12) RA 9700 otherwise known as CARP Extension with Reforms (CARPER) dated August 7, 2009 strengthened the implementation of CARP and extended the acquisition and distribution of all agricultural lands until June 30, 2014.

The DAR rationalization plan was submitted to DBM on May 6, 2012 and was approved by DBM on August 1, 2013. As provided by the approved plan, the regional offices were classified into high, medium and low depending on the Land Acquisition and Distribution (LAD) balance of the provinces under their jurisdiction. Region I was classified as “low.” However, DAR did not adopt a similar categorization for its provincial offices but instead developed a different set of criteria per functional area to categorize the divisions under a provincial office. DAR Ilocos Sur was classified as “low” in LAD, “medium” in agrarian justice and PBD, constituting only 34 human resources.

DAR Memorandum Circular No. 14, Series of 2013 Re: Guidelines in the Implementation of the DAR Rationalization Plan provides the timetable for the implementation procedure as follows: 1) Information dissemination from August 1 to 9; 2) Identification of and notice to employees holding rationalized positions from August 12-16; 3) Filing of applications and submission of reply forms from August 12-23; 4) Deliberations to select, promote and place officials and employees from August 15-28; 5) Filing and resolution of appeals from September 2-12; 6) Validation of personnel actions by CMT from September 16-20; 7) Final notice to personnel and confirmation of options from September 23-26; 8) Submission of staffing pattern to DBM on September 30, 2013. Upon submission of the resulting staffing pattern, DBM will issue the Notice of Organizational, Staffing and Compensation Action (NOSCA). The NOSCA provides the legal basis in filling up the newly-created positions.

Guided by the timetable, the compliance of DAR Ilocos Sur to EO 366 was anchored on the issuances of the Department of Budget and Management (DBM) and DAR Central Office. The chronology of events were hereby enumerated:

August 1, 2013 – Letter from DBM informing DAR of the approval of its Rationalization Plan (RP) submitted pursuant to EO No. 366 dated October 4, 2004 was received by DAR Central Office.

August 12, 2013 – DAR Memorandum Circular No. 14, s. 2013 Re: Guidelines in the Implementation of the DAR Rationalization Plan was issued by Secretary Virgilio delos Reyes.

August 22, 2013 – DAR Special Order No. 478, s. 2013 Re: Partial List of Designation and Assignments of Third Level Officials to act as chairpersons/members of the selection and promotions board for purposes of the implementation of the DAR rationalization plan.

August 23, 2013 – DAR Memorandum No. 285 Re: Consolidation of Issues and Concerns re: DAR Rat Plan IRR

August 23, 2013 – DAR Memorandum No. 287 Re: New Schedule for the Deliberation of Division Chiefs by CMT Chair

August 29, 2013 – Letter from Usec. Laura Pascua of DBM re: approval on the extension of appointments/contracts of DAR's casual/contractual personnel in view of the barangay election on October 23, 2013 was received by DAR.

August 30, 2013 – DAR Memorandum No. 16, s. 2013 Re: Supplementary Guidelines in the Implementation of the DAR Rationalization Plan was issued by the Secretary.

August 30, 2013 – DAR Memorandum No. 290 Re: Preparation of Appointment Papers/Contracts for Temporary and Contractual Personnel.

September 2, 2013 – DAR Memorandum No. 293 Re: Revised Timetable of the Implementation of the approved DAR Rationalization Plan.

September 2, 2013 – DAR Memorandum No. 294 Re: Order of Preference in Selection and Placement of Personnel to Positions in the Approved DAR Rationalization Plan.

September 04, 2013 – DAR Memorandum No. 304 Re: Documents Required for the Availment of Retirement Packages under EO 366.

September 5, 2013 – DAR Memorandum No. 306 Re: Submission of Deliberation Results and Other Documents

September 6, 2013 – DAR Memorandum No. 305 Re: Submission of Present Field Organizational Structures

September 10, 2013 – DAR Memorandum Order No. 310 Re: Reiterating Submission of Reply Forms with Option to Retire.

September 28, 2013 – DAR Memorandum No. 334 Reminding Submission to DBM on or before 12 noon of September 30, 2013 as follows: 1) list of retained employees after the old plantilla is matched with the indicative staffing pattern; 2) list of retirees; and 3) revised/corrected/cleansed list of retirees; and 4) profile of the retirees.

October 7, 2013 – Special Order No. 531, s. 2013 Re: Workshop for the Preliminary Processing of Regional and Provincial Indicative Staffing Pattern under the DAR Rationalization Plan.

October 8, 2013 – DAR Memorandum No. 345 Re: Agreements Reached and Actions to be taken as discussed during the conference of the 3rd level officials held on October 2-4, 2013 for smooth implementation of the rationalization plan.

October 9, 2013 – DAR Memorandum No. 342 Re: Additional Administrative and Financial Arrangements congruent to the provisions of EO 366 IRR.

October 21, 2013 – DAR Memorandum No. 356 Re: Report on Employees who opted CSC pool placement procedures.

October 25, 2013 – Special Order No. 555, s. 2013 Re: Attendance to the Terminal Pay and EO 366 Package Mass Processing Activity

November 7, 2013 – DAR Memorandum No. 374 Re: Payment of Yearend Bonus for DAR employees who opted to retire under the approved DAR rationalization plan.

November 15, 2013 – DAR Memorandum No. 397 Re: Conduct of Retirees' Recognition and Awarding Ceremonies.

Methodology

The researcher made use of both qualitative and quantitative methods of research. Six initial respondents, three of whom were retirees and three were remaining employees. An open-ended question was administered to them regarding the compliance of the province to DAR rationalization program in the province. From their responses, a questionnaire was constructed to generate data for quantitative analysis. Complete enumeration was employed for the employee-respondents. However, Lynch, et. al. formula was used to determine the number of sample retiree-respondents. The distribution of the respondents is presented in Table 1.

Table 1
Distribution of Respondents

Respondents	N	n
Retirees	64	55
Employees	63	63
Total	127	118

The key informant was the Chief Administrative Officer of the provincial office.

.

Data Collection

The responses of the six initial respondents were encoded in the MS Word and were transported to the ATLAS.ti software for qualitative analysis. After the analysis, a questionnaire was constructed for validation. Its contents were validated by the Chief Administrative Officer, one retiree, and the Vice President of DAR Employees Association of Ilocos Sur, with a mean of 4.79 that corresponds to a very high level of content validity.

Part I asked the extent of dissemination containing 14 items while Part II wanted to know the extent of implementation as perceived by the respondents, consisting of 8 items for the retirees and 12 items for the employees. Respondents were asked to use a five-point rating scale per item as: 5 – Excellent, 4 – Very Good, 3 – Good, 2 – Fair, and 1 – Poor.

The questionnaire was administered to the two groups of respondents on May 9-13, 2016 while the interview for the key informant was conducted on May 18, 2016.

Data Analysis

Mean was used to determine the extent of dissemination and extent of compliance. The range of values were arbitrarily set to describe the extent of dissemination and compliance; t-test for independent samples were used to determine whether or not there is significant difference in the mean extent of dissemination and compliance between the two groups of respondents; and simple linear regression was utilized to know if there is a significant influence of the extent of dissemination on the extent of compliance. The results also showed the regression equation necessary for prediction.

Results and Discussion

Part 1: The Chronology of Activities undertaken by the DAR Provincial Office in Compliance to EO 366

In an interview with Castaneda (2016), the Provincial Chief Administrative Officer (PCAO) of DAR provincial office Ilocos Sur, she revealed the following activities conducted by the provincial office in compliance to DAR Rationalization and are presented in Table 2. She reiterated that the actions undertaken by the provincial office were anchored on the central office directives.

Table 2

Chronology of Activities undertaken by DAR Ilocos Sur in Compliance to EO 366

Inclusive Dates	Activities	Remarks
August 1 – 16, 2013	Information Dissemination about the approved DAR Rationalization Plan and its Institutional Guidelines by the conduct of General Assembly meeting	This was in compliance to DARCO Memo Circular No. 14, s. 2013.
August 19-23, 2013	Distribution of letters for those affected employees issued by DAR Central Office (DARCO) through the DAR Regional Office (DARRO)	There were only 9 employees who were not affected holding the following positions: PARPO II – 1 CARPO for Finance and Administrative Division – 1 Trial Attorney V – 1 SARPO - 1 AO IV – 1 ARPO II – 2 ARPO I - 2

	Submission of application forms for transfer or for retirement to those affected employees	This was in strict compliance to DARCO MC 14, s.2013.
	Posting of Vacant Positions under the new indicative staffing pattern (ISP) of the province in conspicuous places at the provincial office	The vacant positions were: CARPO BDCD – 1 (But there was a full-fledged CARPO presently assigned as OIC-PARPO II at Ilocos Norte) SARPO – 1 Attorney II - 1 AO IV (Personnel Officer) -1 AO III (Cashier) – 1 Planning Officer II -1 AO IV (Budget) -1 ARPO II – 2 Attorney I - 4 ARPO I – 8 Stenographic Reporter II - 1 Admin Aide VI – 1 Admin Aide IV (Driver) - 1
	Submission of application letters for the vacant positions in the provincial ISP	The applicants and those who did not apply for any position in the ISP are considered as co-terminus with the incumbent (CTI).
August 26-28, 2013	Deliberation of applicants at the provincial level	This was conducted to meet deadlines set by DARCO.
	Submission of results of provincial deliberation at the regional level	Overtime services in the Administrative Division were done to come up with the results on time.
August 29, 2013	DARCO Special Order No. 478, s. 2013 was received by the provincial office	PARO II of Ilocos Sur was reassigned to Ilocos Norte. PARO II is now called as PARPO II.
September 5-6, 2013	Provincial deliberation of applicants by the newly reassigned PARPO II	Overtime services in the Administrative Division were again done to come up with the new results.

September 10-15, 2013	Submission of reply forms for those who opted to retire	There were 64 employees who applied for retirement.
September 20, 2013	Submission of the results of provincial deliberations at the regional office	This is in compliance to DARCO Memo No. 306.
September 21, 2013 - April 30, 2014	Submission of letter of appeal in the deliberation results to the Change Management Team at DARCO and DARRO	There were 4 employee-applicants who forwarded letters of appeal to DARCO and were acted upon accordingly by the DARRO.
October 9, 2013	DARPO Memorandum was issued by the PARO II re: the “no work, no pay” scheme for employees who applied for retirement	This was in compliance to the agreements made during the conference of third level officials on October 2-4, 2013.
October 7-12, 2013	Attendance of the DARPO personnel officer to the Workshop for the preliminary processing of the regional and provincial ISP	This was in compliance to DARCO SO No. 531, s. 2013.
November 4-9, 2013	DARPO personnel officer and accountant attended the terminal pay and EO 366 package mass processing activity	This was in compliance to DARCO SO No. 555, s. 2013
November 7, 2013	Processing of vouchers for yearend bonus for those who opted to retire	DARCO Memo No. 374 was issued in answer to querries whether or not they are still entitled to receive their yearend bonus.
December 19, 2013	Conduct of a simple retirees’ recognition and awarding ceremonies	This was in compliance to DARCO Memo No. 397 because of the tragedy brought by super typhoon Yolanda.
January – May, 2014	The release of the terminal pay and EO 366 package incentives for the retirees by the DARCO	The payments were not released on time because of the number of retirees nationwide.

May 22-23, 2014	Another regional deliberations was conducted for the applicants for vacant positions in the provincial ISP	
September 2014	The office was informed that appointments of CARPO BDCD; SARPO and Stenographic Reporter II were invalidated by CSC	To date, this has not been resolved. Technically, they are neither permanent nor CTI employees (because they are reported as permanent but were invalidated).
December 3, 2014	The provincial office was informed that the Attorney II and Attorney I positions in the ISP were modified as SARPO and ARPO II positions, respectively.	These positions were only open to legal officer-applicants.
December 12, 2014	Qualifying examination for the modified ARPO II position at the Legal Division was conducted by the regional office	To date, there are still 3 ARPO II (Modified) vacant positions at the Legal Division.
January 26, 2015	First batch of appointees were confirmed by the Civil Service Commission	The filled-up positions were as follows: SARPO (Modified) – 1 ARPO II – 2 ARPO I – 8 Admin Aide VI - 1
February 1, 2015	Second batch of appointees were confirmed by the Civil Service Commission	The filled-up positions were: AO IV (Personnel Officer) -1 AO III (Cashier) – 1 ARPO II (Modified) - 1
September 16, 2015	Admin Aide IV (Driver) was appointed and confirmed by the CSC	This position is coterminous with the PARPO II
November 9, 2015	Two appointees were confirmed by CSC	The filled-up positions are: Planning Officer II -1 AO IV (Budget) -1

Based on the chronology of events, DAR Ilocos Sur was not able to meet the timetable as stipulated in DAR MC No. 14, S. 2013. According to the informant, "Along the way, the DAR provincial and regional offices were given more days to accomplish the requirements set by DBM. The deadlines were infeasible. Since this was the concern of all field offices nationwide, DAR asked DBM to extend the deadlines. We were glad that the DARPO (provincial office) submitted all the requirements. To date, in essence, DAR Ilocos Sur has not yet fully implemented the rationalization program as there are still 3 vacant positions and 3 invalidated appointments by the CSC. My only consolation is that the incentive packages for all the retirees of the province were already released and were received by them."

In summary, from 127 permanent human resources before EO 366 was implemented, employees were trimmed down to 27 with permanent status and 36 with co-terminus with the incumbent (CTI) status. For the 27 permanent employees, the breakdown are as follows: 9 with retained positions (including the PARPO II as a presidential appointee); and 18 newly-appointed as indicated in the ISP.

From the initial respondents, Respondents 2 and 4, claimed, *"Nagbassit iti tiempo nga inted ti DBM nga ipatungpal iti rationalization iti DAR. No panpanunotenmi idi, kasla agkurang iti dua a bulan tapno makumpleto dagiti nailanad iti executive order."* (DBM did not give an ample time for DAR to implement the rationalization plan. When we were pondering about it, it seemed that two months was not enough to comply with the provisions of the executive order.) Respondent 3 also opined that the DAR provincial office were compelled by the orders issued by the central and regional offices since these were provided in the approved plan (*Napilitan ti DAR provincial office nga suruten ken ipatungpal dagiti orders nga naggapu iti central ken regional office maibatay iti naaprobaran nga plano*.) Moreover, Respondent 3 also said that, "I was just wondering how the deliberation results were carried out. If I remember it right, there were 3 rounds of deliberations, two were conducted at the provincial office and one from the regional office. The presence of invalidated appointments showed some violations or misinterpretations of the guidelines set by DAR in filling up the vacant positions."

On the other hand, Respondent 5 mentioned that "DBM gave a reasonable and a feasible time to implement the plan. Though DAR was not the very first agency to implement EO 366, there was no problem with the deadline set by DBM. If CSC and DPWH were able to comply, why not DAR?" Also, Respondent 1 added that, "*No haan met nga aramiden ti probinsya dagiti inpaulog dagiti central ken regional office, baka madaksan dagiti opisyal ti probinsya ken agresulta iti panangikaso kaniada iti insubordination"* (If DAR provincial office will not comply with central and regional office directives in relation to the rationalization plan, the provincial management might be charged with insubordination).

Part 2: Extent of Dissemination of DAR Ilocos Sur to Executive Order No. 366

The extent of dissemination of EO 366 is exhibited in Table 3.

Table 3
Extent of Dissemination of DAR Ilocos Sur to EO 366

Groups.	Mean.	Description
Retirees	2.73	Satisfactory
Employees	2.81	Satisfactory
As a Whole	2.77	Satisfactory

Legend:

Range of Values	**Over-all Descriptive Rating**
4.21 – 5.00	Outstanding
3.41 – 4.20	Very Satisfactory
2.61 – 3.40	Satisfactory
1.81 – 2.60	Fair
1.00 – 1.60	Poor

As a whole group, the extent of dissemination about EO 366 obtained an over-all mean rating of 2.77 described as "satisfactory." With this result, an interview with Castaneda (2016) was done where she revealed that since the office has limited time, she directed the provincial personnel officer to inquire at the Civil Service Commission about their interpretation of the rationalization program, most especially on the concept of (coterminous with the incumbent (CTI) status, for re-echo during the information dissemination activities in the province but some of the employees remained disoriented and confused.

In summary, the satisfactory level of dissemination was attributed to the fact that the provincial management had no enough time to conduct a series of dissemination activities because of the deadlines set by the central office to submit deliberation results at the regional office on the last week of August 2013.

Part 3: Extent of Compliance of DAR Ilocos Sur to Executive Order No. 366

Table 4 shows the extent of compliance of DAR Ilocos Sur to EO 366 by the retiree- and employee- respondents.

Table 4
Extent of Compliance of DAR Ilocos Sur to EO 366

Groups	Mean	Description
Retirees	4.18	Very Satisfactory
Employees	2.76	Satisfactory
As a Whole	3.74	Very Satisfactory

Legend:

Range of Values	**Over-all Descriptive Rating**
4.21 – 5.00	Outstanding
3.41 – 4.20	Very Satisfactory
2.61 – 3.40	Satisfactory
1.81 – 2.60	Fair
1.00 – 1.60	Poor

The table presents that DAR Ilocos Sur complied with EO 366 very satisfactory ($\bar{x}$=4.18) according to the retirees while satisfactory ($\bar{x}$=2.61) according to the retained employees.

Part 4: Significant Difference in the Mean Extent of Dissemination Between the Two Groups

Table 5 reveals that there is no significant difference in the mean extent of dissemination between the responses of the employees and retirees as evidenced by the computed t-value of -0.5330 with a probability level of 0.5950. This means that the two groups of respondents are statistically equal in the mean extent of dissemination. The mean extent of dissemination is the same with both groups.

Table 5

Significant Difference in the Mean Level of Dissemination between the Two Groups of Respondents

Groups	Mean	Mean Difference	t-value	p-level
Employees	2.73	0.08	-0.5330	0.5950
Retirees	2.81			

Part 5: Significant Difference in the Mean Extent of Compliance Between the Two Groups

Table 6 presents that there is a significant difference in the mean extent of compliance between the retiree- and employee- respondents as backed up by a computed t-value of -11.2952 with probability level of 0.0000. This means that the retirees posted a higher mean level ($\bar{x}$=4.18) than the employees ($\bar{x}$=2.76) with a mean difference of 1.42. This result can be brought about by the preferential treatment of the management for the retirees than those remaining employees as they gave more positive accounts or observations than negative statements. It could also be because there were more negative accounts or observations from the employee-respondents as compared to the retiree-respondents.

Table 6

Significant Difference in the Mean Extent of Compliance between the Two Groups of Respondents

Groups	Mean	Mean Difference	t-value	p-level
Employees	2.76	1.42	-11.2952	0.0000*
Retirees	4.18			

*significant at 0.05 level

Part 6: Regression equation for the employee-respondents to predict the extent of compliance given the extent of dissemination

Table 7 exhibits that a statistically significant regression was obtained when the extent of compliance was regressed on the extent of dissemination as backed up by the computed F-value of 226.16 with probability level of 0.0000. It means that the extent of dissemination has a significant influence on the extent of compliance (t=15.0386).

Table 7

Summary of Regression from the Employee-Respondents of the Extent of Compliance on the Extent of Dissemination

	Beta	t-value	p-level
Intercept	0.1769	0.9861	0.3280
Dissemination	0.9468	15.0386	0.0000*

*significant at .05 level

R = 0.8874; R-square = 0.7875; F-value = 226.16; p<0.0000

Based on the table, the regression equation to predict the mean extent of compliance given the mean extent of dissemination is:

Y = 0.1769 + 0.9468X

where Y is the mean extent of compliance by the employees and X is the mean extent of dissemination.

The regression equation shows that there is an increase of 0.9468 for every unit increase in X. The computed R value was 0.8874 which indicates a very high positive correlation between the extent of dissemination and compliance. This implies that as the extent of compliance goes high, the extent of compliance also tends to go high. The computed coefficient of determination (R^2) was 0.7875 which indicates that 78.75% was accounted for the variation of the extent of dissemination on the extent of compliance while 21.25% was accounted for by other variables not considered in the study. Hence, the regression equation is adequate to make predictions over a period of time for the employee-respondents.

Part 7: Regression equation for the retiree-respondents to predict the extent of compliance given the extent of dissemination

The table shows that a statistically insignificant regression was obtained when the extent of compliance was regressed on the extent of dissemination as evidenced by a computed F-value of 1.8961 with probability level equal to 0.1735. This means that the extent of dissemination has no significant influence on the extent of compliance (t=-1.3770).

Based on the table, the regression equation obtained is:

Y = 4.4679 - 0.1034X

where: Y is the mean extent of compliance by retiree-respondents and X is the mean extent of dissemination. The computed R value of 0.1723 means a negligible relationship and the computed R^2 tells that only 2.97% was accounted for the variation of the extent of dissemination on the extent of compliance. Hence, the regression equation is not adequate to make predictions over a period of time for the retiree-respondents.

Table 8
Summary of Regression from the Retiree-Respondents of the Extent of Compliance on the Extent of Dissemination

	Beta	t-value	p-level
Intercept	4.4679	20.4048	0.0000*
Dissemination	-0.1034	-1.3770	0.1735

*significant at .05 level
R = 0.1723; R-square = 0.0297; F-value = 1.8961; p<0.1735

The computed R value of 0.1723 means a negligible relationship and the computed R^2 tells that only 2.97% was accounted for the variation of the extent of dissemination on the extent of compliance. Hence, the regression equation is not adequate to make predictions over a period of time for the retiree-respondents.

Recommendations

Based on the conclusions, the researcher recommends the following: 1) The records and communications flow at the provincial office should be maintained to ensure prompt compliance to the issuances from higher level offices. Since the document tracking system is already in place, sustainability and upgrading of the system is a must. This can be done through the assistance of the planning office personnel, both from the regional and provincial offices, who take the lead in information technology systems management; 2) DAR provincial information office as a separate unit, although not indicated in the new organizational structure, is recommended to take charge of information dissemination activities of the office. While there are designated information officers (IOs) at the regional and provincial offices, their existence and their functions must be upheld as their role is very crucial in the office. To address this, the management may reduce some of their regular functions of their plantilla positions and include the required functions in their respective Individual Performance Commitment Review (IPCR); 3) The regional and central offices should have conducted a feedback mechanism for all the employees at the provincial offices on their extent of satisfaction on the EO 366 implementation. This could be spearheaded by the Support to Operations Division (STOD) chief and staff by conducting a survey from the retirees and remaining employees. Data-gathering from the retirees could be done during follow-up visits, which is a regular activity of the employees union and ladies' association; 4) The management should give no preferential treatment for the prospective retirees and remaining employees since both groups are internal clients of the department. This could be done by the office through a strict reiteration of employees' compliance and adherence to RA 6713, otherwise known as the Code of Conduct and Ethical Standards for Public Officials and Employees, and RA 9485 also known as the Anti-Red Tape Act of 2007; 5) The regression equation by the employee-respondents is recommended for use by the office and national agencies that complied with EO 366 in forecasting the mean extent of dissemination and compliance. The results of this forecasting technique can be used by the management to craft office plans and policies; 6) A copy of this research output may be given to the provincial office as reference in future rationalization efforts of the department. With this, the office will be guided on the concerns that need to be improved and the good practices that need to be sustained; and 7) A similar study may be conducted in other national agencies considering some variables such as the profile of the respondents, extent of satisfaction, leadership and management capabilities, among others, to come up with a more comprehensive analysis.

References

Castaneda, MV. (2016, May 28). Personal Interview.. DAR Provincial Ofice, Vigan City, Ilocos Sur, Philippines.

Department of Agrarian Reform (DAR) Memorandum Circular No. 14, Series of 2013. Retrieved March 14, 2016, from www.dar.gov.ph.

Department of Agrarian Reform (DAR) Rationalization Plan (RP); Retrieved March 14, 2016, from www.dar.gov.ph.

Implementing Rules and Regulations (IRR) of EO 366, Retrieved March 14, 2016, from www.dar.gov.ph.

Primer on the Program on Rationalizing and Improving Public Service Delivery; Retrieved March 15, 2016, from http://www.dbm.gov.ph/wp-content/OPCCB/new_search/primer.htm

Education, Technology and Learning Innovation

Academic Leadership of School Administrators in Digital Era under Roi Et Primary Educational Service Area Office 3

**Preeyaphatsanakorn Summart[1] / Sommye Thongphoo[2] /
Phanuphong Samorchai[3] /Canthasap Chomphupart[4] / Kriangsak Srisombut[5]/
Wichit Khammantakhun[6] / Yuvatida Chapanya[7]**
[1,2,3] Students, Doctor of Philosophy Program in Educational Administration, Roi Et Rajabhat University
[4,5,6,7] Lecturers, Doctor of Philosophy Program in Educational Administration, Roi Et Rajabhat University

Abstract
The purposes of this study were 1) to study current and desired academic leadership of school administrators in the digital era and 2) to examine needs for development of the academic leadership of the school administrators in the digital era. The population included 426 directors, deputy directors, and heads of academic affairs departments of the schools under Roi Et Primary Educational Service Area Office 3. Simple random sampling was administered to draw 201 sample informants from 51 schools. This sample size was determined by Krejcie and Morgan (1970). This study was survey research. The research instrument was 5-scale rating questionnaire with a reliability by Cronbach's Alpha Coefficient of 0.930. Statistics used in data analysis were percentage, mean, standard deviation, Modified Priority Needs Index (PNI), T-test, and F-test. The findings revealed six components of the academic leadership. Both the current and desired academic leadership in the digital era was found at a high level. Visions for the digital era was the first priority component for development. This study implies that Roi Et Primary Educational Service Area Office 3 should apply the desired academic leadership and the priority needs to its policies for staff development. Further research is recommended in this paper.

Keywords: academic leadership, academic affairs, school administrators, digital era

Academic Leadership of School Administrators under Office of the Basic Education Commission

Paranyoo Janhom[1] / Suthida Saenvang[2] / Panya Janhom[3] / Canthasab Chomphupart[4] / Thanyaporn Nualsingh[5] / Pattarawan Kamplae[6] / Chaiyon Paophan[7]

[1,2,3] Students, Doctor of Philosophy Program in Educational Administration, Roi Et Rajabhat University
[4,5,6,7] Lecturers, Doctor of Philosophy Program in Educational Administration, Roi Et Rajabhat University

Abstract

The purposes of this study were 1) to examine academic leadership levels and 2) to compare academic leadership levels. The population included 1,540 administrators under the Office of the Basic Education Commission in the academic year 2021. The sample was consisted of 400 administrators. The sampling method was stratified random sampling (Cohen, Manion, & Morrison, 2011). The research instrument was a questionnaire. The data was analyzed through percentage, mean, standard deviation, and T-test. The findings are as follows. 1) the academic leadership of the school administrators under the Office of the Basic Education Commission was at a high level in both overall and separated aspects. The aspect with the highest level was creating learning atmosphere and culture. 2) The school administrators of different genders had no differences in the overall and separated aspects of academic leadership. The school administrators of different work experiences showed no differences in the overall and separated aspects of academic leadership. The school administrators whose school sizes were different had differences in the aspects of learning management and creating learning atmosphere and culture.

Keywords: academic leadership, school administrators, basic education

Coping Strategies for On-site and Online EFL Teaching

Ohnmar Win[1] / Nawamin Prachanant [2] / Saowarot Ruangpaisan [3]
[1]First Year Ph.D. Student, English Language Teaching Program, Buriram Rajabhat University, Thailand
E-mail: 640427092008@bru.ac.th
[2]Asst.Prof. Dr., English Language Teaching Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat University, Thailand
E-mail: nawamin.pc@bru.ac.th
[3]Lecturer, Dr., English Language Teaching Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat University, Thailand
E-mail: saowarot.rp@bru.ac.th

Abstract

In this study, the relationship between the demands of the teaching profession and the teachers' coping strategies is activated in on-site and online teaching. The participants (N=122) were a convenience sample of Myanmar EFL teachers and 15 teachers are conducted semi-structure interview. Specifically, it has been found that the teaching demands are perceived as being more challenging in an online environment when teaching involves interacting with students. English teachers from universities perceive the online teaching of students as more demanding than on-site teaching. These findings are discussed to develop strategies to enhance the quality of EFL teaching practices. These results show that new pedagogical guidelines are needed and that the teachers should receive support from a methodological and professional point of view. The methodological standards need to be adapted to the changes brought about by the pandemic context. This study highlights several online teaching issues compared to the situation of on-site teaching.

Keywords: EFL, On-site and online teaching, Coping strategies

Introduction

Teaching is seen as both a highly demanding and highly rewarding profession. Teachers' working conditions are mostly to blame for the high degree of reported stress. Teachers' perceptions of excessive workload are linked to low professional motivation, emotional weariness, and abandoning the field. When educational activities must be tailored to online specifics, these high levels of workload experienced in typical teaching situations have become substantially more challenging and complicated. High task complexity necessitates a significant quantity of personal resources due to multileveled behavioral and processing demands.

The Covid 19 pandemic crisis has also increased the psychological stress in the education system. With the release of Covid-19, the reasons of teacher stress have grown. Workloads that were once considered heavy have been exacerbated by a quick shift to online delivery, for which many language teachers were unprepared but whose consequences are expected to continue for years. Many teachers struggle to balance personal and professional obligations, but online delivery of courses with work-at-home regulations and omnipresent online work-related activity blurs the physical, temporal, and/or psychological lines between school and home. Teachers had to deal with considerable changes in the teaching and organization of classroom management. University closures, switching to online education without prior training, and mandatory restrictions have been factors that have increased psychological stress for teachers. In the context of these drastic changes, teachers in Myanmar have had to face the challenge of fully transferring all the lessons into the online system and finding appropriate coping strategies.

Coping is a multi-step process that enables people to cope with stressful events. The demands on the environment and the resources available are weighed against personal preferences. Monat and Lazarus (1991) define coping strategies as an individual's efforts to master demands (injury, threat, or challenge) that are assessed as exceeding or exhausting one's resources. This study explores the teachers' coping strategies activated in on-site and online teaching.

Challenges of Online Teaching

Teaching and learning in an online setting differ from teaching and learning in a traditional classroom, according to Clark and Mayer (2016), and can pose problems to both instructors and students. Sun (2011) believes that the way people learn has changed drastically as a result of online learning. Time zones, Internet access and bandwidth, technology breakdowns, and individual student schedules (work vs. study) are all genuine issues that both teachers and students confront in online classes. Even if an instructor succeeds to get all students to virtual classrooms at the same time, things like lack of lip coordination and verbal signals, time lags, terrible sound and graphics, turn-around, and so on, become big challenges, according to Coverdale-Jones (2000) and Hampel & Stickler (2005). Martin (2009) also considers student motivation to be one of the issues that E-instructors confront. There is a lack of teacher presence, face-to-face connection, and tech support in today's online contexts." Even the most well-thought-out and properly laid-out online teaching environment is insufficient to maintain learner attention or encourage intrinsic motivation. According to Archambault (2010), a major difficulty for teachers is not spending enough time producing online courses that include new content, new technology, and new ways of engaging online learners.

Coping Strategies

Coping is a complex process that allows individuals to deal with stressful situations. The teacher's appraisal of the demands determines the activation of coping strategies to maintain a sense of self-efficacy (Lambert et al., 2009, Admiraal et al., 2000, Clipa, 2017) and activate professional well-being. Coping strategies are considered by Monat and Lazarus (1991) as being the individual's efforts to master demands (conditions of harm, threat, challenge) that are appraised (or perceived) as exceeding or taxing one's resources. In their seminal article, Folkman and Lazarus (1984) proposed the transactional model of stress and behavioral self-regulation that distinguishes two types of coping strategies: problem-focused strategies, aiming to solve the perceived problem or alter the source of stress, and emotion-focused strategies pursuing to manage the emotional stress associated with the situation. While early studies emphasized the problem-focused strategies as being more functional, further research recognizes that combining the two coping strategies is more beneficial (Carver et al., 1989). The widely used Folkman and Lazarus' two-dimensional coping model was completed by a multidimensional model developed by

Carver et al. (1998) that proposed fourteen strategies grouped in three main behavioral factors: approach strategies, avoidant strategies, and neither approach nor avoidant strategies. Garnefski et al. (2002) underlined that "the regulation of emotions through cognitions is inextricably associated with human life." They emphasized the necessity to differentiate cognitive coping from behavioral coping. Cognitive emotions regulation is considered a broad process that includes nine cognitive strategies. These strategies were divided into two separate types: the theoretically "more adaptive" strategies (positive refocusing, positive reappraisal, putting into perspective, refocus on planning, and acceptance), and the theoretically "less adaptive" strategies (rumination, self-blame, blaming others, and catastrophizing) (Garnefski et al., 2002).

Objectives of the Present Study

While wide literature focuses on teacher stress and coping behavioral strategies, limited research has explored the cognitive coping strategies in online teaching tasks. The main purpose of this study is to investigate the teachers' coping strategies activated in on-site and online teaching demands. This study contributes to the existing literature by expanding the knowledge about the teaching demands and the emotional coping methods used by the teacher in both classical and online systems. As far as the researcher knows, this is the first Romanian research that highlights the differences between online and on-site teaching in terms of how teachers feel the demands of their profession and the strategies of emotional coping. The present research aims to answer the following research problems:

(1) Are there differences in the demands of the online teaching profession compared to the on-site teaching situation?
(2) What coping strategies do Myanmar EFL teachers use in online and on-site teaching situations when they encounter different demands?

In the present study, the researcher intends to investigate the relationship between the demands of the teaching profession and coping strategies in online and on-site situations. Firstly, our study objective is to investigate the differences between the demands that teachers perceive in on-site activities and the situation of online activities. Secondly, the researcher aims to investigate the demands perceived by teachers and their coping strategies.

Method

This research employed a quantitative method. The data collection was conducted in selected universities in Myanmar. The survey was conducted in the 2020 academic year. The teacher involved was 35 to 58 years old and taught in the university for 9 to 33 years. The instruments used in this study were a questionnaire and semi-structured interviews. The questionnaire data are collected by using Google Form. Semi-structured interview is conducted by using Zoom video conferencing software. The collected data are analyzed by using SPSS version 25.0.

Procedure and Participants

The present study is investigative research based on questionnaires. In the first half of May 2020, a set of online questionnaires was applied to 122 university English teachers in the form of a snowball. 15 English teachers form universities of Myanmar are requested to participate in semi-structured interview. Subjects participated voluntarily in this study. Most of them are female (n=113) and the other 9 are male, between 35 and 58. Seventy-three of them came from urban areas and 49 from rural areas. The teaching experience ranged from less than a year to 31 years. Participating teachers are currently working in universities. Data were collected using a web-based questionnaire posted in targeted Facebook groups by using Google Form. Several rounds of questionnaire distributions were necessary to increase the response rate. All participants have received and given their online informed consent. They were also informed that they could exit from the study. Subjects participated voluntarily in this study.

Instruments

Participants completed demographic information regarding age, gender, work experience, and the university where they teach. They also completed a series of tools for assessing the demands of the teaching profession and coping strategies for both online and on-site teaching. To investigate the coping strategies of teachers have applied the Romanian version of the Cognitive Emotional Regulation Questionnaire - CERQ (Perte & Miclea, 2011, Garnefsky et al., 2002), which is a self-report questionnaire measuring coping/emotion regulation strategies. The question has 31 items and concludes with the demographic profile of the teachers, the common barriers of online and on-site teaching, demands in online and on-site activities, and teachers' coping strategies.

Cognitive Emotional Regulation Questionnaire (CERQ)

The Cognitive Emotion Regulation Questionnaire (CERQ) is a multidimensional questionnaire constructed to identify the cognitive emotion regulation strategies (or cognitive coping strategies) someone uses after having experienced negative events or situations. Contrary to other coping questionnaires that do not explicitly differentiate between an individual's thoughts and actual actions, the present questionnaire refers exclusively to an individual's thoughts after having experienced a negative event. The CERQ is very easy to administer, a self-report questionnaire consisting of 31 items. The questionnaire has been constructed on a theoretical and empirical basis and measures nine different cognitive coping strategies. The CERQ makes it possible to identify individual cognitive strategies and compare them to norm scores from various population groups. In addition, the questionnaire offers the opportunity to investigate relationships between the use of specific cognitive coping strategies, personality variables, psychopathology, and other problems. The CERQ can be administered in normal and clinical populations in different age groups. The CERQ can be used to measure someone's general cognitive style and cognitive strategy after having experienced a specific event. Separate versions for adults, adolescents, and children and a short 18-item version have been developed. All of these versions are available in Dutch and English. The CERQ can be used for research and diagnostic purposes.

The researcher used SPSS version 20 for descriptive statistics, mean, and SD for paired samples.

Results

The preliminary analyses evaluated three demographic variables: the teachers' residence environment (rural or urban), the teachers' school location (rural or urban), and the teachers' seniority. The mean and SD demonstrate no significant differences between participants teaching in urban areas compared to those teaching in rural areas in terms of classroom demands, both in the online and on-site contexts.

Table 1:

Demographic variables (n=122)

SN	Demographic variables		Responses		Calculation	
			%	Total	Mean	SD
1	The teachers' environment of residence	Rural	21%	100%	1.79	0.41
		Urban	79%			
2	The university location	Rural	3%	100%	1.97	0.17
		Urban	97%			
3	The teachers' seniority	Experienced	49%	100%	1.51	0.50
		Less experienced	51%			

For the demographic profile of the participants, 21 percent of teachers live in rural while 79 percent are in urban (Mean=1.79, SD=0.41). The university location of the participated teachers is 3 percent of the universities are located in rural. In comparison, the other 97 percent are located in urban (Mean=1.97, SD=0.17). For the seniority of the teachers who are participated in this study are, 49 percent of the sample are experienced, and 51 percent are less experienced (Mean=1.51, SD=0.50).

Common barriers by Teachers

Table 2:

Common barriers (n=122)

SN	Common barriers	Responses			Calculation		Interpretation
		Disagree	Not Decided	Agree	Mean	SD	
1	Access to technology	33%	24%	43%	2.10	0.87	Considered moderate barrier
2	Lack of knowledge and skills relating to technology	32%	13%	55%	2.23	0.90	Considered moderate barrier
3	Time to plan and implement technology-rich lessons	25%	12%	63%	2.38	0.86	Considered high barrier
4	Teachers' beliefs about the importance of technology use for learning	14%	7%	79%	2.65	0.71	Considered high barrier
	Average	26.0%	14.0%	60.0%	2.34	0.86	Considered high barrier

NOTE:
1.00-1.66=Considered low barrier
1.67-2.33=Considered of moderate barrier
2.34-3.00=Considered of high barrier

Four options of common barriers are used to study the common barriers to online teaching situations. Access to technology can consider a moderate barrier to online teaching (Mean=2.10, SD=0.87). A lack of knowledge and skills relating to technology can also be considered a moderate barrier (Mean=2.23, SD=0.90). Time to plan and implement technology-rich lessons has a high barrier for online teaching teachers (Mean= 2.65, SD 0.71). Teachers' beliefs about the importance of technology use for learning are also a high barrier for online teaching teachers (Mean= 2.34, SD 0.86).

Demands felt by teachers in an on-site situation

Hypothesis 1: Teachers felt significantly **more demands in the online** teaching situation than in the on-site situation.

To test the first hypothesis, teachers will perceive more demands in online activities than on-site activities. The researcher applied the Mean and SD of SPSS version 25.0 for paired samples.

(Research Question 1: Are there differences in the demands of the online teaching profession compared to the on-site teaching situation?)

Table 3a:

Demands felt by teachers in an on-site situation (n=122)

SN	Teachers felt significantly more demands in the on-site teaching situation than in the online situation under the following conditions:	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
1	when the number of students is high	25%	14%	61%	2.36	0.85	Considered huge demand
2	when students come from different ethnic communities	25%	20%	55%	2.30	0.84	Considered moderate demand
3	when students have different levels of development	49%	11%	40%	1.91	0.94	Considered moderate demand
4	when there is a large number of students in the classroom with grades below the passing level	27%	12%	61%	2.34	0.87	Considered huge demand
5	when there are students with different talents	45%	22%	33%	1.88	0.87	Considered moderate demand
Average		34.2%	15.8%	50.0%	2.16	0.90	Considered moderate demand

Note:

1.00-1.66=Considered low demand

1.67-2.33=Considered moderate demand
2.34-3.00=Considered huge demand

Five questions are used to investigate the demands felt by teachers in on-site situations. The statement that teachers felt significantly more demands in the on-site teaching situation than in the online situation is used to study five situations. When the number of students is high, the demand for teaching on-site can consider as huge demand (Mean= 2.36, SD 0.85). When students come from different ethnic communities, the demand for teaching on-site can consider as moderate demand (Mean= 2.30, SD 0.84). When students have different levels of development, the demand for teaching on-site can consider as moderate demand (Mean= 1.91, SD= 0.94). When there are many students in the classroom with grades below the passing level, the demand for teaching on-site can be considered a huge demand (Mean= 2.34, SD= 0.87). And when there are students with different talents, the demand for teaching on-site can consider as moderate demand (Mean= 1.88, SD= 0.87). An average of the demands felt by teachers in the on-site situation can consider moderate demand (Mean= 2.16, SD= 0.90).

Table 3b:

Demands felt by teachers in the online situation (n=122)

SN	Teachers felt significantly more demands in the online teaching situation than in the on-site situation under the following conditions:	Responses			Calculation		Interpretation
		Disagree	Not decided	Agree	Mean	SD	
1	when the number of students is high	15%	11%	74%	2.59	0.74	Considered huge demand
2	when students come from different ethnic communities	32%	23%	45%	2.13	0.87	Considered moderate demand
3	when students have different levels of development	26%	13%	61%	2.35	0.86	Considered huge demand
4	when there is a large number of students in the classroom with grades below the passing level	13%	3%	84%	2.71	0.68	Considered huge demand
5	when there are students with different talents	25%	20%	55%	2.30	0.84	Considered moderate demand
Average		22.2%	14.0%	63.8%	2.42	0.83	Considered huge demand

Note:
1.00-1.66=Considered low demand
1.67-2.33=Considered moderate demand
2.34-3.00=Considered huge demand

Five questions are used to investigate the demands felt by teachers in the on-line situation. The statement that teachers felt significantly more demands in teaching online than in the on-site situation is used to study five situations. When the number of students is high, the demand for teaching online can consider as huge demand (Mean= 2.59, SD 0.74). When students come from different ethnic communities, the demand for teaching online can consider as moderate demand (Mean= 2.13, SD= 0.87). When students have different levels of development, the demand for teaching online can consider as huge demand (Mean= 2.35, SD= 0.86). When there are many students in the classroom with grades below the passing level, the demand for teaching online can be considered a huge demand (Mean= 2.71, SD= 0.68). And when there are students with different talents, the demand for teaching online can consider as moderate demand (Mean= 2.30, SD= 0.84). An average of the demands felt by teachers in an on-site situation can consider a huge demand (Mean= 2.42, SD= 0.83).

Table 4:

Differences between the demands felt by teachers in on-site teaching compared to online teaching (n=122)

SN	The demands felt by teachers	On-site			Online		
		Mean	SD	Interpretation	Mean	SD	Interpretation
1	when the number of students is high	2.36	0.85	Considered of huge demand	2.59	0.74	Considered huge demand
2	when students come from different ethnic communities	2.30	0.84	Considered of moderate demand	2.13	0.87	Considered moderate demand
3	when students have different levels of development	1.91	0.94	Considered of moderate demand	2.35	0.86	Considered huge demand
4	when there is a large number of students in the classroom with grades below the passing level	2.34	0.87	Considered of huge demand	2.71	0.68	Considered of huge demand
5	when there are students with different talents	1.88	0.87	Considered of moderate demand	2.30	0.84	Considered moderate demand
Average		2.16	0.90	Considered of moderate demand	2.42	0.83	Considered huge demand

Note:
1.00-1.66=Considered low demand
1.67-2.33=Considered moderate demand
2.34-3.00=Considered huge demand

For testing the first hypothesis, the demands perceived by teachers online and on-site have been compared in Table 3. The results showed that teachers felt significantly more demands in the online teaching situation than in the on-site situation under the following conditions. Specifically, they perceive more demanding online situations when the number of students is high (Mean= 2.59, SD= 0.74), When students have different levels of development (Mean= 2.35, SD= 0.86) and when there is a large number of students in the classroom with grades below the passing level (Mean= 2.71, SD= 0.68) (Table 2b.). In these conditions, the first hypothesis is completely confirmed.

Coping Strategies Encountered by Myanmar EFL Teachers in Online and On-site Teaching Situations

Hypothesis 2: Some demands felt by teachers in online situations correlate significantly with certain coping strategies.

Research Question 2: What coping strategies do Myanmar EFL teachers use in online and on-site teaching situations when encountering different demands?

Table 5a:

Coping strategies Myanmar EFL teachers use in on-site teaching situations (n=122) (Research Question 2: What coping strategies do Myanmar EFL teachers use when they encounter different demands in on-site teaching situations?)

SN	Types of coping strategies		Responses			Calculation		Interpretation
			Disagree	Not decided	Agree	Mean	SD	
1	Problem-focused strategies	The researcher usually solves the perceived problem or adjusts the source of stress.	18%	12%	70%	2.52	0.78	Strategies that were used more frequently
2	Emotion-focused strategies	The researcher usually manages the emotional stress associated with the situation.	19%	24%	57%	2.38	0.78	Strategies that were used more frequently
3	The mixture of problem-focused strategies and emotion-focused strategies	The researcher usually combines the two coping strategies.	1%	11%	88%	2.87	0.36	Strategies that were used more frequently
Average			12.67%	15.67%	71.67 %	2.59	0.70	Strategies that were used more frequently

Note:

1.00-1.66=Strategies that were used rarely

1.67-2.33=Strategies that were used frequently

2.34-3.00=Strategies that were used more frequently

The teachers are responded as they used more frequently all the coping strategies which are problem focused strategies (Mean= 2.52, SD= 0.78), emotion focused strategies (Mean= 2.38, SD= 0.78), and mixture of problem focused strategies and emotion focused strategies (Mean= 2.87, SD= 0.36).

Table 5b:

Coping strategies Myanmar EFL teachers use in online teaching situations (n=122) (Research Question 2: What coping strategies do Myanmar EFL teachers use in ***online*** *teaching situations when encountering different demands?)*

SN	Types of coping strategies		Responses			Calculation		Interpretation
			Disagree	Not decided	Agree	Mean	SD	
1	Problem-focused strategies	The researcher usually solves the perceived problem or adjusts the source of stress.	10%	10%	80%	2.70	0.64	Strategies that were used more frequently
2	Emotion-focused strategies	The researcher usually manages the emotional stress associated with the situation.	14%	20%	66%	2.52	0.73	Strategies that were used more frequently
3	The mixture of problem-focused strategies and emotion-focused strategies	The researcher usually combines the two coping strategies.	7%	10%	83%	2.76	0.57	Strategies that were used more frequently
Average			10.33%	13.33%	76.33 %	2.66	0.66	Strategies that were used more frequently

Note:
1.00-1.66=Strategies that were used rarely
1.67-2.33=Strategies that were used frequently
2.34-3.00=Strategies that were used more frequently

The results obtained showed that some demands felt by teachers in on-line situations correlate significantly with certain coping strategies. The teachers are responded as they used more frequently all the coping strategies which are problem-focused strategies (Mean= 2.70, SD= 0.64), emotion-focused strategies (Mean= 2.52, SD= 0.73), and mixture of problem-focused strategies and emotion-focused strategies (Mean= 2.76, SD= 0.57).

Table 6:
Differences between the coping strategies used by teachers in ***on-site*** *teaching compared to* ***online*** *teaching (n=122)*

SN	Types of coping strategies	On-site			Online		
		Mean	SD	Interpretation	Mean	SD	Interpretation
1	Problem-focused strategies	2.52	0.78	Strategies that were used more frequently	2.70	0.64	Strategies that were used more frequently
2	Emotion-focused strategies	2.38	0.78	Strategies that were used more frequently	2.52	0.73	Strategies that were used more frequently
3	The mixture of problem-focused strategies and emotion-focused strategies	2.87	0.36	Strategies that were used more frequently	2.76	0.57	Strategies that were used more frequently
Average		2.59	0.70	Strategies that were used more frequently	2.66	0.66	Strategies that were used more frequently

Note:
1.00-1.66=Strategies that were used rarely
1.67-2.33=Strategies that were used frequently
2.34-3.00=Strategies that were used more frequently

To test the second hypothesis, coping strategies that correlate with the demands perceived by teachers both online and on-site are compared in table 5. The results showed that some demands felt by teachers in both online and on-site situations correlate significantly with certain coping strategies of problem-focused strategies, emotion-focused strategies, and the mixture of problem-focused strategies and emotion-focused strategies. In these conditions, the second hypothesis is also completely confirmed.

Interview for Coping Strategies for On-site and Online EFL Teaching

According to the interview responses, it was found that most of the teachers prefer onsite teaching with the highest percentage because they found some difficulties in teaching online and in handling the problems with their students, instead of it, it is more suitable to teach their students onsite. They faced many challenges in teaching onsite especially for larger class size and some faced in problem in doing lesson plan and time limit in teaching in their classroom. But some are because of the problems with participating in classroom activities while they are teaching. Likewise, most of the teachers are challenging in online teaching because of electricity breakout, internet connection problems, preparing PowerPoint and taking notes. Although there are many challenges for them in teaching, it has been found that they can handle these problems with the pedagogical skills and teaching aids. In considering the coping strategies to solve their problems, the results show that most of the teachers prefer mixed-methods and a few use the method of problem-based coping strategies. According to the teachers' perception for their teaching in the classroom with the highest number of students, most of the teachers still want to teach onsite in the future though technology is important in this era, only a small amount of number show their favor in online teaching. It may be concluded that all these challenges in online teaching are because of the current problems of electricity, internet connection and insufficient knowledge in technology in Myanmar.

Discussions

Our study results show the relationship between the demands of the teaching profession and coping strategies in online and on-site situations. In this study, it has been found that online activities increase the perceived difficulty of teaching tasks in the case of managing a large number of students in the class, in the case of students with limited abilities to use the English language, when students come from different ethnic communities or have different levels of development, and with the number of students with grades below the passing level. The teaching demands are also perceived as more challenging in an online environment when teaching involves relating with talented students with behavioral problems. These results suggest reconsidering the educational strategies activated in online education when the mentioned situations are involved. Teachers' discomfort would decrease if they perceived some applied educational management strategies aiming to sustain teachers' efforts. The demographic variables such as teachers' seniority and the environment in which the university is located (rural or urban) must be considered important landmarks in designing these educational management interventions.

Along with other studies on teachers conducted in Romania during the same period of the pandemic (Obrad, 2020; Pânișoară et al., 2020), the current study highlights specific elements that create additional challenges for the teacher's profession, both in the context of online teaching (number of students, different ethnic communities of students, different levels of students' development, students with grades below the passing level, talented students, etc). (when students have low abilities to use the Romanian language, when students disturb the activity and when students have behavioural problems). The current study is one of the first to use a comparison analysis to show the differences in dynamics between the demands of the teaching profession as experienced by teachers in an online and on-site setting. We can deduct from these findings that new pedagogical principles are required, and that teachers should be provided with methodological and professional assistance. The methodological criteria must be adjusted to reflect the changes brought on by the pandemic, and this study reveals various concerns with online teaching as compared to on-site teaching.

In these challenging situations, our study highlighted the relationship between the perceived difficulty of the demand and the activated coping strategies. Therefore, in online situations, teachers who perceive the different levels of students' development as challenging tend to activate the positive review coping strategy to a greater extent. Then, there is a tendency to activate the acceptance strategy in the case of teachers who resent an increase in teaching workload due to students who disturb the activity in the classroom or those who need more time and energy. These results reinforce the idea of the teacher's capacity to activate adaptative cognitive coping strategies (Garnefski et al., 2002). Teacher training for online education must include the teachers' personal development involving flexibility and coping strategies as a necessary goal.

According to the findings of the study, the teachers felt significantly more demands in the online teaching situation than in the on-site situation, specifically when the number of students is high, when students have different levels of development and when there is a large number of students in the classroom with grades below the passing level. The teachers in both online and on-site situations correlate significantly with certain coping strategies of problem-focused strategies, emotion-focused strategies, and a mixture of problem-focused and emotion-focused strategies. According to the interview responses, the majority of teachers prefer onsite teaching, with the biggest percentage preferring it since they found it difficult to teach online and deal with their students' problems.

Conclusions

The objectives of this study are: are there differences in the demands of the online teaching profession compared to the on-site teaching situation and what coping strategies do Myanmar EFL teachers use in online and on-site teaching situations when they encounter different demands. We created several suggestions for educational policy concerning teacher training for online environments based on our findings about these topics, which may equip instructors with adequate resources and positively impact their professional growth. Assuming that our findings are non-inferential, we anticipate that they will provide information for future research and applications in this field.

Recommendation

Further research should look into further coping methods and the obstacles and barriers that English language teachers have while teaching online and on-site. In associated with other studies conducted on teachers in Myanmar during the same pandemic period, the present study identifies specific elements that pose additional challenges to the teaching profession, both in the context of online teaching and in the context of on-site teaching. The findings of this study are discussed in more detail below (when students have low abilities to use the English language, when students disturb the activity and when students have behavioral problems). As a result of this comparative research, the current study is among the first to explicitly point out the differences in dynamics between teachers in the online and on-site environments in terms of the demands of the teaching profession as experienced by them.

References

Admiraal, W. F., Korthagen, F. A., & Wubbels, T. (2000). Effects of student teachers' coping behaviour. *British Journal of Educational Psychology*, *70*(1), 33–52. https://doi.org/10.1348/000709900157958

Boniwell, I., & Tunariu, A. D. (2019). Positive psychology: Theory, research and applications. Open University Press.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*(2), 267–283. https://doi.org/10.1037/0022-3514.56.2.267

Clipa, O. (2017). Teacher stress and Coping strategies. In Studies and Current trends in Science of Education (pp. 120-128). Editura Lumen, Asociatia Lumen

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. Journal of Applied psychology, 86(3), 499.

Garnefski, N., van den Kommer, T., Kraaij, V., Teerds, J., Legerstee, J., & Onstein, E. (2002). The relationship between cognitive emotion regulation strategies and emotional problems: comparison between a clinical and a non-clinical sample. *European Journal of Personality*, *16*(5), 403–420. https://doi.org/10.1002/per.458

Gustems-Carnicer, J., Calderón, C., & Calderón-Garrido, D. (2019). Stress, coping strategies and academic achievement in teacher education students. *European Journal of Teacher Education*, *42*(3), 375–390. https://doi.org/10.1080/02619768.2019.1576629

Lambert, R. G., McCarthy, C., O'Donnell, M., & Wang, C. (2009). Measuring elementary teacher stress and coping in the classroom: Validity evidence for the Classroom Appraisal of Resources and Demands. *Psychology in the Schools*, *46*(10), 973–988. https://doi.org/10.1002/pits.20438

Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping* (1st ed.). Springer Publishing Company.

MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, *94*, 102352. https://doi.org/10.1016/j.system.2020.102352

Obrad, C. (2020). Constraints and Consequences of Online Teaching. *Sustainability*, *12*(17), 6982. https://doi.org/10.3390/su12176982

Perrin, S. (1993). Stress and coping: An anthology. *Journal of Anxiety Disorders*, *7*(1), 93. https://doi.org/10.1016/0887-6185(93)90023-e

Reyes Pérez, V., Cruz Torres, C. E., & Alcazár-Olán, R. J. (2021). Validación del Cognitive Emotion Regulation Questionnaire kids (CERQ-k) en niños mexicanos. *Nova Scientia*, *13*(26). https://doi.org/10.21640/ns.v13i26.2794

Schipor, M. D., & Vatavu, R. D. (2017, June). Coping strategies of people with low vision for touch input: A lead-in study. In 2017 E-Health and Bioengineering Conference (EHB) (pp. 357-360). IEEE.

Stoeber, J., & Rennert, D. (2008). Perfectionism in school teachers: Relations with stress appraisals, coping styles, and burnout. Anxiety, stress, and coping, 21(1), 37-53.

Learning Styles of Chinese Students in Universities of Foreign Languages in Myanmar

Wai Hnin Ei
Associate Professor, English Department, Yangon University of Foreign Languages, Myanmar
E-mail: eiwaihnin2020@gmail.com

Abstract

If one has never lived in another culture, they are oblivious of the significant dis tinctions that exist and effect every aspect of life. Foreign language teachers from University of Foreign Languages find many Chinese students well-travelled to Myanmar for their Myanmar language studies. The students bring with them the beliefs and expectations they have formed from their own life experiences. They also bring their language and their beliefs about education based on their native culture. This study includes a discussion of East Asian learning styles and some prescriptions concerning their practice. According to the data, it has been found that Chinese students moderately follow the assumptions and rules from their respective cultures to govern the aspects of communication. Moreover, a careful observation of the aspects of communication by the researcher and lecturers in the classrooms lead to the conclusion that Chinese students led to East Asian learning styles as they have experienced a long influence of a stable cultural milieu in East Asia.

Keywords: Learning styles, Chinese students, East Asian learning styles, University of Foreign Languages of Myanmar

Reading Comprehension Difficulties among EFL Learners at Universities

Su Mon Aung
Lecturer, English Department, Yadanarbon University, Mandalay
Ministry of Education, Myanmar
E-mail: sumonpinma@gmail.com

Abstract
Reading is one of the four basic skills in language teaching and learning. It enables learners to acquire knowledge and understand different subjects. As well as it is very important not only as a language skill but also as a language input for other skills to develop. For these reasons, it is very important for EFL learners to have not the ability to read written materials, but also the ability to understand what they have read. This study aims to investigate reading comprehension difficulties faced by EFL students at selected universities in Myanmar higher education institutions. Data were collected using questionnaires which were distributed to 200 students at university. The questionnaire consists of two parts: the first part contains demographic information about the participants and the second part includes two sections: the students' preferences and the students' reading difficulties. Findings indicate that reading comprehension difficulties faced by Myanmar EFL learners in the selected institutions could affect their English language proficiency and academic performance. The findings also reveal that they face several problems in the reading process, such as ambiguous words, unfamiliar vocabulary, and limited available time to cognitively process the text. The findings of this study may be useful to policy makers and EFL instructors to improve the leaners' reading experience.

Keywords: Reading comprehension, reading difficulties, EFL learners, Universities

I. Introduction
EFL learners are in need to be aware of reading strategies to help them increase their reading comprehension. This chapter is divided into two sections. The first section will be devoted to the nature of reading including: notion of reading, definitions of "reading" and "reading comprehension" from different point of views. Besides, it tackles teaching reading comprehension EFL classes. In addition to that, it deals with "the reading models and types of reading as well as essentials of reading, reading techniques. Whereas the second section concerns with reading comprehension difficulties and the factors behind those difficulties. The ability to read is highly valued and important for social and economic advancement. Reading is the most important skill among the four language skills as it can improve the overall language proficiency (Snow, Burns & Griffin, 1998; McDonough & Shaw, 1993; Krashen & Brown, 2007). Even though one may have reading difficulties in his or her mother tongue, the problems get worse when reading is applied to a second language, as students might be lagging behind in a number of reading components, including accuracy, comprehension, and speed. Lagging behind is a cognitive difficulty associated with the process of reading in another language (Alsamadani, 2008). In

other words, these difficulties are more likely to be associated with the nature of the language pragma linguistic or even sociocultural aspects. Most researchers agree that reading comprehension is not simply recognizing individual words, or even understanding each individual word as our eyes pass over it. All models of comprehension recognize the need for readers to build up a mental representation of text, a process that requires integration across a range of sources of information, from lexical features to knowledge concerning events in the world (e.g., Garnham, 2001; Gernsbacher, 1990; Kintsch, 1998). For this reason, the Simple View of Reading, which could be seen as the first endeavour to describe the "balanced literacy", suggests that reading comprehension results from developing skills in the areas of decoding and linguistic comprehension (Kirby & Savage, 2008)

1.1 Mastering Reading Skill

Mastering reading skill requires interaction between the reader and the text. The reader has to decode the meaning of the written words to be able to understand the writer's point of view. Rivers (1981) said that "reading is the most important activity in any language class, not only as a source of information and a pleasurable activity, but also as a means of consolidating and extending one's which are knowledge of the language" (p. 147). Readers must use their prior knowledge while reading in order to construct meaning. Goodman (1973) declares that the learner "interacts with a message encoded by the writer. He concentrates his total prior experience and concepts he has attained, as well as the language competence he has achieved" (p. 162).

1.2 Different Types of Comprehension

Comprehension of language does not only involve the understanding of individual words but also active engagement with the content to create a mental representation (Rashid, 2012). Successful comprehension requires coordination of skills at many levels to extract and construct meaning. The level of difficulty associated with comprehension of certain content depends on the complexity of the language used. There are important differences between the language that we use in everyday conversations and the language used, where everyday conversations are originally used to achieve daily tasks and share personal information. Academic language includes a different set of words, more complex grammatical structures and different text organization to express content which describes complex relationships (Zwiers, 2008).

1.3 Reading Comprehension Difficulties

Before coming to assess learners' reading comprehension and give them feedback to their performance, assessors must determine what are the difficulties and obstacles that prevent students to understand the written text very well. Thus, scholars and researchers of reading comprehension state that EFL learners face some struggles when they answer the questions which are related the comprehension part. Actually, the major problem that most of the English foreign learners suffer from is vocabulary. The students cannot understand the written words, expressions, phrases that is why they are unable to understand the reading comprehension questions. Moreover, the learners may find some difficulties during the exam, they may confuse between

Words which are like each other such as homophones and homonyms, are words that have the same spelling whereas meaning is different. So, they are similar in terms of sound no more. So, it's not a matter of just knowing the meaning but also, he must be on the look out of the foreign language culture. The learner may face a problem in understanding the proverbs and idioms even if he knows the literary meaning. In this regard, most of EFL learners confirm that vocabulary is the main reason behind their comprehension difficulties i.e., learners with strong vocabulary rarely face the problem of comprehension because they have already learned the words and expressions mentioned either in the text or through the question itself.

1.4 Statement of the Problem

Reading comprehension is crucial for the reading process as it helps student to comprehend, criticize and interact with the text. It also improves their critical thinking and self-monitoring during while reading. Thereby, it helps them to get involved in the reading process actively and effectively. However, reading comprehension can be accomplished merely when students are able to use appropriate and adequate reading strategies and knowing how and when to use them. Accordingly, most learners can read, but unfortunately, they always failed in the accomplishment of comprehension in reading. As a result, they spend a lot of time and effort without achieving the meaning of the intended text, because they are unable to use certain effective reading strategies or lack of comprehending these strategies that help them to access comprehension. The motive behind selecting the learners was the fact that students and according to an investigation of the scores obtained in the preceding years, it is noticed that learners got the least scores in the first part of the exam (comprehension) compared to the remaining parts. The researchers had concluded, according to the formers' statements, that 4th year middle school learners face some difficulties in comprehending the written materials.

1.5 Aims of the Study

This study aims: to find out the difficulties by the learners during the reading process; to search for effective techniques to help teachers to enhance the learners' reading comprehension level.

1.6 Research Questions

The current study focuses mainly on the following stated questions: the students' language preferences

(i) What kind of difficulties do the learners suffer from?

(ii) What strategies can be adopted by the teachers to help learners to minimize and overcome their reading problems?

II. Methodology

A questionnaire was designed as a research tool to gather data from 121 students who are studying at selected universities during the academic year 2019-2020 and 12 instructors. In addition to demographic profile, the questionnaire consists of two sections: the students' language preferences and the students' reading difficulties, with four questions in each section. The questionnaire was validated by a group of professionals from the English department at university. This questionnaire was adopted from a previous study conducted by Medjahdi (2015). As for reliability, SPSS version 20 was used to test the consistency of the data collected which is acceptable.

2.1 Demographic Profiles

SN	Field of Study	Percent	Gender	Percent
1	Arts	53.72%	Male	18.18%
2	Science	46.28%	Female	81.82%
Total		100%	Total	100%

The data collected shows that among the 121 student participants in this study, 81.82% were females and 18.18% were males and 46.28% were from the scientific field and 53.72% were studying in the field of arts.

2.2 Procedures of the Study

The researchers used a questionnaire that was distributed to 121 students at the English Department at University; the statements of the questionnaire were designed to answer the research questions. The researchers conducted interviews with 12 instructors and asked them four questions regarding teaching novels at selected Universities. After that, the researcher analysed the questionnaire and discussed the results of both the questionnaire and the interviews.

III. Results

3.1 Learners' Questionnaire Survey

The responses of the participants show that 32% of them prefer listening skill, 30% prefer reading, 26% prefer writing, 12% prefer speaking, as shown in Table 2.

3.1.1 Preferred Language Skills

Table 2:
Preferred language Skill (n=121)

SN	Item	Options			
		Listening	Speaking	Reading	Writing
1	Preferred language Skill	32%	12%	30%	26%

As shown in Table 1, students' first preference is listening. This may include listening for entertainment, such as listening to music. Listening can improve reading comprehension in many ways. For instance, students may encounter new words when they listen to others. Low preference to reading stated by the respondents reflects that student face reading difficulties and they may not do well in their academic achievement, since they do not prefer to read.

3.1.2 Language of the Reading Materials

The majority of students (43%) prefer Myanmar language, 22% prefer English language while 49% prefer both Myanmar and English, as shown in Table 3.

Motivation to read English materials is considerable. However, motivation alone is not enough. The students need to be exposed to effective reading strategies and this is rarely emphasized in EFL classrooms in Myanmar.

Table 3:
Language of the reading materials

SN	Item	Options			
		English	Myanmar	Both	Others
2	Language of the reading materials	22%	43%	33%	2%

3.1.3 Types of Preferred Reading Materials

A total of 12% of the respondents choose newspapers, 32% prefer short stories, 37% choose reading novels and 12% choose reading books, as shown in Table 4.

Table 4:
Preferred reading materials (n=121)

SN	Item	Options			
		Newspapers	Books	Novels	Short Stories
3	Preferred reading materials	12%	19%	37%	32%

3.1.4 Primary Goal of Reading

Purpose of Reading

Some participants (22%) said that their purpose from reading is to enrich their general knowledge, only 6% state that their objective from reading is to increase their vocabulary knowledge, 46% reads for their academic needs and 26% claim that they read for pleasure, as shown in Table 5.

Table 5:
Purpose of reading (n=121)

SN	Item	Options			
		Knowledge	Pleasure	Enrich vocabularies	Academic needs
4	Purpose of Reading	22%	26%	6%	46%

3.1.5 Strategies to Aid Reading Comprehension

A total of 46% respondent state that they translate what they do not understand to their mother tongue, 31% carry on reading without understanding, 10% used dictionaries, where the remaining 13% choose to stop reading, as shown in Table 6.

Table 6:
Strategies to aid reading comprehension (n=121)

SN	Item	Options			
		Translate	Open dictionary	Carry on	Stop reading
5	Strategies to aid reading comprehension	46%	10%	31%	13%

3.1.6 Reading Difficulties

A total of 38% respondents agree that they have problems with ambiguous words, 37% have troubles with new words, and 25% have problems to guess the meaning, as shown in Table 7.

Table7:
Sources of reading difficulties (n=121)

SN	Item	Options		
		Ambiguous words	New words	The meaning of words
6	Reading difficulties	38%	37%	25%

3.1.7 Reasons for Not Reading

A total of 33% agreed that they do not have the habit to read, 41% blamed limited available time, 12% associated reading difficulty to the kind of texts that they read and the remaining 13% agree on the difficulty of the reading skill itself (poor mastery of reading skill), as shown in Table 8.

Table 8:
Reasons for not reading (n=121)

SN	Item	Options			
		Lack of time	Lack of reading habit	The difficulty of the reading skill itself	The difficulty of the kind of texts
7	Reasons for not reading	41%	33%	14%	12%

3.1.8 Time Devoted for Reading

A total of 59% respondents stated that the time devoted for the reading session is insufficient, while 41% informed that the time devoted for reading is sufficient, as shown in Table 9.

Table 9:
Time Devoted for Reading

SN	Item	Options	
		No	Yes
8	Enough time allocation for reading	59%	41%

3.2 Teachers' Interview Survey

The following interview results depict that reading level differs from one learner to another and the teachers have to determine each one's level, it is their responsibility to know learners' strengths and weaknesses too.

Question item 1: Do you think that reading is an important skill for language teaching? If yes, why?

As for the informants' answers to this question, reading skills is considered as an essential receptive skill in which the learners should acquire and master as well. All the teachers who have answered this questionnaire stressed the importance of reading skill. Two respondents did not share any clarification for this question, unlike others provided arguments for the importance of reading skill. Their clarification is quoted as follow:

Interviewee 1:

"Reading offers students a wider range of vocabulary and grammar, it essentially supports and feeds the brain with the correct language structures. As learning is facilitated by visual cues, reading helps the brain to remember these language structures as the learner will connect an image to the word it represents." "In order to accomplish success, one needs to have good reading and comprehension skills. Without these skills learners will struggle to grow academically as reading is the foundation to all reading subjects." " Active reading is a crucial skill that teachers should develop among their learners because it helps promote learners' writing and reading." "Reading is a salient skill for language teaching since it goes hand in hand with the other skills. Without reading, writing could not be mastered." " It helps them develop speaking habits and boost their confidence even if they mispronounce." " Good reader is a good writer. " " Reading gives you an opportunity to learn new things and explore new ideas."

Question item 2: Do you use various techniques and strategies in the class?

This question was set to know whether teachers teach reading techniques in the class or not. We got the same response. They all teach the learners various techniques to improve their reading skills. Some teachers answer with just yes; and others provide clarifications as the following:

Interviewee 2:

"Of course, I use technique of cooperative learning to encourage the students of mixed abilities to work together by promoting small group or whole class activities." " I do varieties of techniques to prevent boredom and kindle learners' motivation." " Relying on one strategy does not help." " I vary from time to time. I usually use skimming, scanning and in-depth reading for them. " "Especially, I use the 4 major reading techniques such as skimming, scanning, intensive and extensive for my students."" Extensive and intensive reading are helpful."

Question item 3: Which reading technique do you often ask learners to use when giving them a text?

Most teachers informed that they often ask the learners to use the following techniques when giving them a text.

Interviewee 3:
1. Skimming (-reading quickly in order to find out what the text is about)
2. Scanning (- to locate specific information, making use of key words)
3. Detailed reading (- reading carefully to aid understanding)
4. Intensive reading (- learners reading in detail with specific learning aims and tasks)
5. Extensive reading (- learners reading texts for enjoyment and to develop general reading skills)

IV. Discussion

The purpose of the study was to find out the difficulties that teachers suffer with their learners during the reading process and to search for effective techniques to help teachers to enhance the learners' reading comprehension level. In a more recent study, Hartney (2011) investigated reading difficulties in English as a second language learners in Namibia. Hartney used mixed methods approach in the case study which reveals that many students lack proper reading skills, and they cannot read properly. Moreover, Raihan and Nezami (2012) conducted a study on comprehension strategies and general problems in reading faced by Arab EFL learners at Najran University in Saudi Arabia. According to them, students face spelling and pronunciation problems to a great extent. However, in current research, respondents encounter mainly ambiguous words because it maybe they need strong vocabulary and they have potential for multiple interpretations of spoken or written language that renders it difficult or impossible to understand without some additional information. In 2013, Mohd Mahibur Rahman and Eid Alhaisoni discuss the present status of education and ELT in Saudi Arabia. They highlight various challenges in teaching English, such as students' poor proficiency and lack of good learning materials. They call for active participation from the policy makers, syllabus designers, textbooks writers, teachers and students to address the challenges. In line with previous studies, the respondents in this study prefer Myanmar language to English language because they tend to have limited exposure to English. In addition to that, motivation to read English materials is a concern because they do not have enough exposure to effective reading strategies and this is rarely emphasized in EFL classrooms in Myanmar. Elwér (2014) examined the cognitive and language profiles in children with poor reading comprehension using a longitudinal perspective. Elwér found high levels of instability in compromised oral language skills, such as vocabulary, grammar and verbal memory across all test occasions for the poor oral comprehends. By comparing the previous results, we hope to determine they face several problems in the reading process, such as ambiguous words, lack of reading habit, and limited available time to cognitively process the text. In 2015, Rajab and Al-Sadi identified certain habits and preferences of EFL learners regarding various personal practices of the reading process in the first language (L1) as well as in second language (L2) by using 10-item questionnaire on a Likert scale format. The students' responses indicated the lack of interest as well as the lack of motivation towards 'academic reading' in both L1 and L2. This is consistent with our results which show respondents have less preference to reading, compared to listening and so they face reading difficulties and they may not do well in their academic achievement.

According to the answers compiled from the survey questions, we can infer that the respondents suffer from reading difficulties because of low preference to reading, limited available time, issues with ambiguous words and just reading for academic needs. To overcome these problems, teachers should (1) emphasize the importance of relevance of reading materials to learners' reading preferences;(2) use timed repeated readings for monitoring students' fluency development ;(3) teach students how to come up with their own topics and do their own research and (4) help students improve their daily reading habits.

V. Conclusion

Reading is an important skill that learners need to master in learning any language. This paper reveals that EFL learners face difficulties in their reading comprehension where they encounter ambiguous words, unfamiliar vocabulary, and limited available time to cognitively process the text. Thus, policymakers and teachers need to find effective ways to tackle this problem in order to engage learners in a meaningful reading experience.

VI. Recommendation

To enhance the learners' reading comprehension level, these suggestions should be made. First, teachers should rule out problems at more basic levels of reading, such as phonological awareness and decoding. Second, teachers should ensure that students have the proper background knowledge to make sense of the text before they assign readings. Therefore, they should train students to be able to highlight important background concepts and vocabulary words. Finally, they should not only pay special attention on readings, especially those that are long in length but also, they should highlight key points for students to look out for. In addition to that, it is recommended that future research employs a qualitative approach to observe EFL classrooms in Jordan and explore how reading lessons are conducted. The close observations of the classroom will be useful in identifying the barriers faced by the teachers in teaching reading besides providing insights into the current practices in the classroom. Future research should also examine the students' reactions to the approaches employed by teachers in order to understand their coping strategies in dealing with reading difficulties.

References

Alsamadani, H.A. (2008). The relationship between Saudi EFL college-level students' use of reading strategies and their EFL reading comprehension. (*Unpublished doctoral dissertation*). Ohio University.

Elwér, Å. (2014). Early predictors of reading comprehension difficulties. Linköping University: Department of Behavioural Sciences and Learning.

Garnham, A. (2001). Mental models and the interpretation of anaphora. *Hove, UK: Psychology Press.*

Gernsbacher, M.A. (1990). Language comprehension as structure building. Hillsdale, NJ: Erlbaum.

Goodman, K. (1973). Analysis of reading miscues. In Smith, F. Psychologist and Reading. New York: Rinhast and Winson.

Hartney, R. (2011). Investigating reading difficulties in English second language of Grade 3 learners in one primary school in the Khomas education region of Namibia. (Unpublished master thesis). The University of Namibia.

Kintsch, W. & Rawson, K.A. (2005). Comprehension. In M. J. Snowling & C. Hulme (Eds.), *The Science of Reading: A handbook* (pp. 211-226). *Oxford, UK: Blackwell.*

Kirby, J.R. & Savage, R.S. (2008). Can the simple view deal with the complexities of reading? *Literacy, 42,* 75-82.

Krashen, S. & Brown, C.L. (2007). What is academic language proficiency? *STETS Language and Communication Review, 6(1)*, 1-4.

McDonough, J. & Shaw, C. (1993). Materials and methods in ELT. *Oxford: Blackwell*.

Rahman, M.M. & Alhaisoni, E. (2013). Teaching English in Saudi Arabia: Prospects and challenges. *Academic Research International, 4(1),* 112-118.

Raihan, S. & Nezami, A. (2012). A critical study of comprehension strategies and general problems in reading skill faced by Arab EFL learners with special reference to Najran University in Saudi Arabia. *International Journal of Social Sciences & Education, 2(3)*, 306-316.

Rajab, H. & Al-Sadi, A. (2015). An empirical study of reading habits and interests of Saudi University EFL learners. *International Journal of Linguistics, 7(2)*, 1-17.

Rashid, R.A. (2012). Vocabulary learning among less proficient young adults using children's stories. *Mextesol Journal, 35(1)*, 15-28.

Rivers, W. (1981). Teaching foreign language skills. *Chicago: University of Chicago Press.*

Snow, C.E., Burns, M.S., & Griffin, P. (1998). Preventing reading difficulties in young children. *Washington, DC: National Academy Press.*

Zwiers, J. (2008). Building academic language: Essential practices for content classrooms, grades 5-12. San Francisco, Calif.: Jossey-Bass.

Improving Cooperative Behavior using Social Skills Instruction in English Language Classrooms

Soe Darli Wai
Lecturer, Department of English, Myitkyina University, Ministry of Education, Myanmar
E-mail: soedarliwai89@gmail.com

Abstract

University students often exhibit a lack of social skills that interferes with positive classroom interaction. This research examined the impact of an intervention for improving respect for others, self-control, and listening to increase cooperative behavior in students. Some university students often show a lack of social skills that interferes with positive classroom interaction. This research aims to examine the students' problem presently exists within the targeted classrooms and teachers' views on improving students' cooperative behavior using Social Skills Instruction in English language classrooms. The data were collected through teacher observation, teacher checklists and student surveys of 11 English language teachers and 149 English specialization students from selected universities. Findings indicate that majority of student responses were in favor of working in cooperative groups. Results of this study show that the students favor the social skills instruction to improve cooperative behavior. Social skills instruction has proven to be beneficial to the students who lack these skills which are necessary to be successful in today's language classrooms.

Keywords: Cooperative behavior, Social Skills Instruction, Language classrooms

I. Introduction

Non-cooperative behavior in Myanmar university language classes is quite often distinct from misbehavior both in form and motivation. This research began by treating non-compliance as a set of learning/interaction habits rather than expressions of a student's character or moral identity. Qualitative and quantitative data were gathered on: (a) students' views on their place in the classroom community, (b) students' opinions on certain behaviors, and (c) teachers' reflections on their relationships with their classes. Participants were then asked to reflect on which learning habits might be opened to change. The problem of lack of social skills among students has generated a larger concern about the social well-being of society on a national level. The index is based on measures such as teenage suicide, dropout rates, drug abuse, and homicide. It ranges from 0 to 100, with 100 being the best. Garbarino (1997) urges the public to take action as he explains his definition of a socially toxic environment as: the social world of students, the social context in which they grow up, has become poisonous to their development, just as toxic substances in the environment threaten human well-being and survival. The nature of physical toxicity is a matter for public policy and private concern. (pp. 13- 14) This problem of lack of social skills is usually identified as an emotional or behavioral problem among students. Evidence of this problem is shown in a study done by Achenbach and Howell (as cited in Garbarino, 1997).

1.1 Facing a Challenging Environment

Berreth and Berman (1997) discussed how today's students face a very challenging environment. They explained how students feel hopeless, powerless, and helpless which undermine their ability to trust and help others, as well as see any meaningful point to their own future. Educators must help nurture empathy and self-discipline in our students, as these two skills have been identified as prerequisites for character development by Amitai Etzioni, a George Washington University sociologist (as cited in Berreth & Berman, 1997). Grim ley, Zucker, Fakouri, and Thompson (1991) discussed the need for developing prosocial behaviors in students as they extend this problem to a much larger context than that of a national one. They explained how the invention of the light bulb, radio, telephone and other technological advances have caused the nations of the world to become more and more interdependent. Students are exposed to the many material goods our society offers through television, radio, and computers. Our society has become very competitive, whereas measuring success by how many material goods one owns. After much research on this topic, one realizes that this is a prevalent problem throughout our nation. Many factors such as the dissolution of the traditional family (Bellanca, 1992), inappropriate TV models (Bellanca, 1992), the decrease in society's well-being (Garbarino, 1997), growing economic disparity (Berreth & Berman, 1997), and an increased emphasis on self-interest and material goods (Berreth & Berman, 1997) have all contributed to the lack of social skills in our society's students today.

1.2 Social Skills and Prosocial Behavior amongst Students Today

The literature suggests several causes for the lack of social skills and prosocial behavior amongst children today. One such cause, as described by Bellanca (1992), is the "dissolution of the traditional family" (1992, p. 201). This includes single parents, dual-working parents, and no-parent families. Sociologists have determined that in our society today, we have more single parents and dual-working parents than ever before. Because of this, the parent(s) have much less time to spend with their children. In turn, the students do not have the positive role models they need to learn basic social skills, appropriate behavior, and moral and ethical values (Bellanca, 1992). This has become a serious problem which affects the social well-being of students today. This does not necessarily make present-day parents "bad", as today's society often requires both parents to work in order to provide for their children what their parents were able to provide for them with only one parent supporting the family. The 1990's have shown some of the highest percentages of teenage suicide, unemployment, drug abuse, dropout rates, and poverty (Garbarino, 1997). With so many changes in our society, we need to prepare our students for the future. Some believe this to mean that our students must become knowledgeable of the ways of the world at a much younger age. Because of this, children today are losing what should be treasured; their student life. The pressures and demands placed on students today are very different from what their parents experienced as students. Garbarino (1997) feels this is due to a greater awareness of society's problems. As Garbarino (1997) reflects on his student years, he admits that children were kidnapped, young girls got pregnant, teenagers were using drugs and alcohol, and student abuse did exist, but most students did not know about it. Today's students are much more aware of the possible dangers around them.

1.2 The Solution Strategy

Many solutions to this problem of lack of social skills development in students were found after reviewing the literature. One such solution is integrating social and emotional learning into the classroom environment (Long, 1995; Rimm, 1997; Salkowski, 1994). Through this model, social and emotional learning should be presented in the classroom in manageable components. The teacher will constantly model successful performances of skills, while giving opportunities for the students to practice. In this type of classroom environment, the students are always given feedback and reinforcement from their teacher. Along the same lines as the previous solution strategy, another belief in the remediation of lack of social skills development is to simply teach social skills in the classroom (Berreth & Berman, 1997; Cummings & Haggerty, 1997; Ostlund, 1992). "Social skills do not develop for the class as a whole without deliberate, specific and repeated attention to them" (Bellanca & Fogarty, 1991, p. 50). Bellanca and Fogarty (1991) discuss the five crucial steps in teaching social skills effectively to children. Those steps include: hook, teach, practice, observe, and reward. The hook lesson focuses the students' attention onto the targeted social skill. While actually teaching the skill, a t-chart should be used to help students generate specific behaviors of the social skill.

1.4 Problem Statement and Context

The students of the targeted class exhibit a lack of social skills development that interfere with positive interaction among peers in the classroom. Evidence for the existence of the problem includes teacher observation, teacher checklists, and student surveys. Myanmar university classes have a natural mix of students: some are sociable, and others are quieter. Teachers sometimes comment that academic or practical ability does not necessarily predict how smoothly a class will run; moreover, it is sometimes the “shy” students who appear to engage in the class more than their “extrovert” peers. There seems to be a set of behaviors (or strategies) which is employed by many students which hinders a group in proceeding through their lesson. Typically, these behaviors are seen when students do not wish to answer a question from the teacher, complete an assigned task, or when they express low levels of motivation.

1.5 Related Study

In the study of “Cooperative learning and social skills” by the authors Masoud Gholamali Lavasani, Leila Afzali and Farokhlagha Afzali (2011), the aim was to determine effectiveness of cooperative learning on the social skills of first grade elementary school girl students. For this, 74 students of first grade elementary school (37 students in an experimental group and 37 students in a control group) were selected by random sampling. The method of this study is quasi-experimental one by pretest-posttest with control group. It measured the rating social skills in children. Dependent sample t-test on gain scores was employed for analyzing the data. The findings presented that the experimental group enjoys a significantly higher level of social skill than the control group. The results indicate that cooperative learning method in comparison with traditional method is of a much higher effectiveness on the social skills of students.

1.6 Aims of the Study

This study aimed to examine the students' problem presently exists within the targeted classrooms and to find out teachers' views on improving students' cooperative behavior using Social Skills Instruction in English language classrooms.

II. Methodology

Data for this research were collected from 149 students (they were between 17 and 24 years of age) who were from English language classrooms at tertiary level and 11 English language teachers were conducted from the selected universities in Myanmar, initially involving one interview with the teachers, and recorded, unscripted interviews with the students in small groups of up to six as part of their regular teacher-student feedback meetings. Purposive sampling technique was used which allowed the researchers to collect data from key informants. A mixed methods approach was adopted in this study. A questionnaire with predominantly closed ended questions was used to collect quantitative data. Qualitative data were collected by conducting follow-up interviews with some academic staff. The Statistical Package for the Social Sciences (SPSS) was used to analyze quantitative data from both students and academics. Some frequencies and percentages generated using SPSS were exported to MS Excel to produce charts and MS Word to produce tables. Interviews were recorded using recording applications on Iphone 5 smartphones. The recorded interviews were then transcribed using the Trancribe© software into MS word. Qualitative data were analyzed thematically. The strength of this study is the use of a mixed methods approach which allowed the researchers to triangulate the results. In this context, data collected using questionnaires from students and academic staff were used to confirm each other, and we drew the conclusions of the study based on the findings that were supported most by data sources. To ensure that the questionnaire was free from errors, its content was subjected to pretesting in two ways. First, we asked experts in research in higher education to comment on the questionnaire focusing on clarity, question wording, validity and order of the questions. Second, we piloted the questionnaire with 10 postgraduate students and 2 lecturers at the University. Postgraduate students and lecturers were used in the pilot study because they were similar to the target population of our study. Feedback from education experts and the pilot study was used to make corrections on the questionnaire. Ethical issues were addressed in two ways in this study. First, we sought and were granted permission by the Rectors of selected universities. We sought permission to conduct this study through the university research ethics committee. Second, before taking part in the study, participants were informed through a consent letter that they were taking part in the study voluntarily. The consent letter further informed participants that even if they had accepted to participate in the study, they were at liberty to withdraw at any stage of the study without giving reasons. The participants signed the consent letter to show that they had read the content and that they were taking part in the study voluntarily. As a result of the responses, a series of lesson plans was created which included activity types which suggested themselves based on the data collected. Several weeks later in the semester, the classes were run, and afterward, one final interview was conducted with the participating students.

2.1 Data Collection

Data collection to assess effectiveness of interventions, student surveys, teacher checklist and teacher observation/anecdotal records have been applied in this research.

2.2 Methods of Assessment

To determine the extent to which the problem presently exists within the targeted classrooms and to determine the effects of the intervention, the teacher-researcher designed an assessment plan consisting of three key components. These components include teacher checklists, teacher anecdotal records, and student surveys.

III. Results

This action research takes place in EFL classrooms of selected universities in Myanmar. Social skills are learned and accepted behaviors that bring about an interactive relationship and lead to providing positive answers and avoiding the negative ones. According to the table (1), the

results of student surveys showed that most of the students respect other's opinion (Mean=2.34) but they rather work alone (Mean=2.32) and they listen only some of the time (Mean=2.28). Most of the students disagree in groups and don't want to talk much. Therefore, it can be seen that students have moderate exposure to social skills instruction. According to the table (2), some students lack listening skills (Mean=1.94) and some students showed deficits in personal commitment to rules (Mean=1.96). Sometimes, some students rely on teachers (Mean=2.01). Therefore, it can be seen that results of teacher checklist have moderate exposure to social skills instruction.

3.1 Results of Student Survey

The following table shows the results of student survey which were collected from selected universities in Myanmar.

Table 1:
Results of student survey (n=149)

Sr No	Item	Response			Calculation		Interpretation
		Never	Sometimes	Always	Mean	SD	
1	I like cooperative groups.	25%	40%	35%	2.10	0.77	Having moderate exposure to social skills instruction
2	I rather work alone.	19%	30%	51%	2.32	0.77	Having moderate exposure to social skills instruction
3	I rather work in groups.	30%	37%	33%	2.03	0.79	Having moderate exposure to social skills instruction
4	I disagree in groups.	27%	52%	21%	1.94	0.69	Having moderate exposure to social skills instruction
5	My group gets work done.	33%	24%	43%	2.10	0.87	Having moderate exposure to social skills instruction
6	My group accomplish tasks.	31%	31%	38%	2.07	0.83	Having moderate exposure to social skills instruction
7	I talk, others listen.	16%	72%	12%	1.96	0.53	Having moderate exposure to social skills instruction

8	Others talk, I listen.	21%	30%	49%	2.28	0.79	Having moderate exposure to social skills instruction
9	I respect other's opinion.	22%	22%	56%	2.34	0.82	Having appropriate exposure to social skills instruction
10	Others respect my opinion.	13%	65%	23%	2.10	0.59	Having moderate exposure to social skills instruction
Average		23.70%	40.30%	36.10%	2.12	0.76	Having moderate exposure to social skills instruction

NOTE:
1.00-1.66=Lacking exposure to social skills instruction
1.67-2.33=Having moderate exposure to social skills instruction
2.34-3.00=Having appropriate exposure to social skills instruction

According to the table (1), the students appreciate cooperative groups (Mean=2.10) and they rather work in groups (Mean=2.03). Sometimes, they disagree in groups (Mean=1.94). Moreover, their groups can get work done (Mean=2.10) and accomplish their tasks (Mean=2.07). But they like to work alone most of the time (Mean=2.32). The survey showed that they were listened to only some of the time, while 23% (Mean=2.10) felt that their opinions shared with the group were respected only some of the time. Students have appropriate exposure to social skills instruction in giving respect other's opinion (Mean=2.34). Another method of documenting the problem at the targeted site was a teacher checklist which was completed by the researcher during the initial cooperative group experience. This checklist shows the deficit area(s) of social skills for each student in the targeted classroom. The researcher will continue to use the checklist as documentation throughout the duration of the research process. After analyzing the data, it revealed that students today have only moderate exposure to social skills instruction.

3.2 Results of Teacher Checklist

The following table illustrates the results of teacher checklist which were collected from selected universities in Myanmar.

Table 2:

Results of teacher checklist (n=11)

Sr No	Item	Response			Calculation		Interpretation
		Never	Sometimes	Always	Mean	SD	
1	Students lack turn taking skills.	25%	40%	35%	2.10	0.77	Having moderate exposure to social skills instruction
2	Students lack defending skills.	19%	30%	51%	2.32	0.77	Having moderate exposure to social skills instruction
3	Students lack responsibility.	30%	37%	33%	2.03	0.79	Having moderate exposure to social skills instruction
4	Students lack listening skills.	27%	52%	21%	1.94	0.69	Having moderate exposure to social skills instruction
5	Students lack independence.	33%	24%	43%	2.10	0.87	Having moderate exposure to social skills instruction

6	Students lack self-control.	31%	31%	38%	2.07	0.83	Having moderate exposure to social skills instruction
7	Students lack personal commitment to rules.	16%	72%	12%	1.96	0.53	Having moderate exposure to social skills instruction
8	Students seek power over the teacher.	21%	30%	49%	2.28	0.79	Having moderate exposure to social skills instruction
9	Students seek attention over the teacher.	22%	22%	56%	2.34	0.82	Having appropriate exposure to social skills instruction
10	Students seek attention over other students.	13%	65%	22%	2.09	0.58	Having moderate exposure to social skills instruction
11	Students lack confidence (rely on teacher).	38%	23%	39%	2.01	0.88	Having moderate exposure to social skills instruction
Average		25.00%	38.73%	36.27%	2.11	0.77	Having moderate exposure to social skills instruction

NOTE:
1.00-1.66=Lacking exposure to social skills instruction
1.67-2.33=Having moderate exposure to social skills instruction
2.34-3.00=Having appropriate exposure to social skills instruction

The students in the targeted class were observed during the cooperative activity. According to the table (2), most students worked well together in the activities. Some of the students (Mean=1.94) showed deficits in listening skills. They often had to be reminded by the classroom teacher and their group members to allow others to speak (Mean=2.10). The next largest problems sited are a lack of personal commitment to rules (Mean=1.96) and lack confidence and rely on the teacher (Mean=2.01). The students who were cited as lacking responsibility (Mean=2.01) often did not take ownership in the group's final product. They also were not able to explain parts or all of the finished product when asked. Several students wanted excessive attention from the teacher. Many of these students would ask the teacher a question simply for the sake of asking a question. The students were instructed to ask members of their group or the "checker" for clarification. Students who sought attention from the teacher did not follow these instructions and often asked questions or wanted clarification about instructions that were just stated to the entire class. The final method of documentation for evidence of the problem is anecdotal records. These records are kept by the researcher and the classroom teacher and will document any lack of prosocial behaviors among students in the targeted classroom, such as disagreements and/or arguments, physical fights, discipline referrals to the office, and disrespect towards another peer and/or adult. These observations will be recorded throughout the duration of the research process. It should be noted that the researcher is not the classroom teacher. The researcher will be coming into the targeted classroom once a week to give the social skills instruction. The classroom teacher will then use cooperative groups throughout the week for content instruction. Both the researcher and the classroom teacher will keep these anecdotal records.

IV. Discussion

The socialization of students is a complex interpersonal process in which the parents and other significant adults try to pass on their values and beliefs to the next generation. The use of prosocial signs in the language classroom promotes a positive attitude towards oneself, learning, and others. It also promotes self-control and positive behavior. EFL classroom is where the students learn how to listen when the others are speaking. Also, they learn when to start talking and not to interrupt the others. Moreover, they learn to speak slowly, how to encourage the others to speak, how to ask for help and when to do it and make eye contacts with the others. Then, they learn to listen to the others' views and respect them. Besides, they are taught to respect the others' opinions and they learn to view the problems from the others' viewpoints. Moreover, they are taught to accept the criticisms and tolerate the opponents' views. Finally, they are also taught how to divide the tasks and work cooperatively for achieving a very common goal. All of the above-mentioned skills are taught practiced in groups and are gradually internalized in the individuals.

While the students are practicing the skill, the teacher watches for positive examples of the desired social skill. By doing this, the teacher is able to recognize the positive use of the skills and encourage all students to continue practicing it. Finally, the students should be rewarded in some way for using the social skills they have been taught in a positive manner. According to the teachers' responses, the social skills like personal commitment to rules, listening skills and attention over other students should be emphasized on a basis. In order to accomplish the objective described above, the following suggestions are necessary and selection of activities to be included in the action plan.

i Classroom environment should be designed to foster prosocial behavior.
ii Direct instruction of social skills should be implemented.
iii Teacher should devise a series of cooperative learning activities that foster prosocial behavior.

V. Conclusion

The results of this study show favorable results to social skills instruction positively impacting cooperative group behavior. As a cooperative behavior creates non-stressful atmosphere both for practicing and learning English, it facilitated students to learn in collaboration, have entertaining and progress their language skills in an integrated way. It was observed that student-student interaction allowed them to build healthy relationships with each other and take more responsibility. This kind of understanding in learning and relaxed atmosphere encourages students to practice the language in a communicative way. While studying in groups, they have the chance to make suggestions, request, agree/disagree and clarify meaning which exists in real life. Thus, this integration of the skills ensured the opportunity for practicing all the skills and language learning. This is a topic which needs to be addressed more and more in our universities today. For various reasons, the family structure is changing from earlier this century, which in turn places a new demand on the educators of today. Not only there is more information to teach to students than there was 100, or 50, or even 20 years ago, but the universities now see the need to implement some social skills training into the classroom, therefore students can be better prepared for their future. Educators are more likely to place importance on this essential component of education if they see can see positive results from their efforts. This research can be one such piece of evidence in favor of social skills instruction. It can be concluded that the cooperative behavior is particularly relevant for the development of university students' interpersonal, social, and teamwork competences; professional competences which will be decisive for their social and professional success. Based on the results of this research project, in order to design a social skills program that is most effective, the researcher feels certain areas must be considered a priority. The parts of the research project that deviated from the original action plan are some of those vital areas. Time is one of the most essential factors of any curriculum implementation. While the students seemed to enjoy the variety, it seems logical that it would be more effective for the classroom teacher to give the social skills instruction. This way, he/she could monitor the transfer of the skills taught throughout the day.

VI. Recommendation

The classroom teacher could also remind students of what social skills they need to be using when necessary. This was the original intention of the researcher. However, because of the limited amount of time spent in the target classrooms, this was very difficult. While the assessment instruments used were valid, it seems that it would be easier to assess the effectiveness of the social skills instruction implemented if the researcher was able to remain in the classroom for a longer period of time or at different instructional times. The social skills that were left without instruction were important and probably would have impacted more the improved cooperative behavior. The information presented in this research shows favorable results for social skills instruction as it improves cooperative behavior. Also, this research has shown that students today lack the social skills which are necessary to become successful members of the working world. The changes in the traditional family structure dictates that universities need to place importance on social skills instruction. Social skills instruction needs to become a part of the mandatory curriculum in universities across the country. To do this, educators must sense the importance of social skills training, and see the positive results that can come of it.

References

Bellanca, J. (1992). *Building a caring, cooperative classroom*. In A. Costa, J. Bellanca, & R. Fogarty (Eds.), If minds matter, A forward to the future, Volume II: Designs for change (pp. 201-208). Palatine, IL: IRI Skylight Publishing.

Bellanca, J. & Fogarty, R. (1991). *Blueprints for thinking in the cooperative classroom*. Arlington Heights, IL: IRI Skylight Publishing. Berliner, D. & Casanova, U. (1989). Creating better school citizens. Instructor 49 (2), 24-25.

Berreth, D. & Berman, S. (1997). *The moral dimensions of schools*. Educational leadership, 54 (8), 24-27.

Cummings, C. & Haggerty, K. P. (1997). *Raising healthy children*. Educational leadership, 54 (8), 28-30. Department of Community Development. (1992, July). City of Detailed socio-economic characteristics 1990 U.S. census report. Author. District School Report Card, 1996-1997.

Elias, M. J. & Branded-Muller, L. R. (1994). *Social and life skills development during the middle school years*: An emerging perspective. Middle School Journal, 25 (3), 3-7.
Fad, K. S. & Ross, M. (1995). *Using cooperative learning to teach social skills to young children*. Teaching Exceptional Children, 27 (4), 28-34.
Garbarino, J. (1997). *Educating children in a socially toxic environment*. Educational Leadership, 54 (7), 12-16.
Grim ley, L. K., Zucker, K. B., Fakouri, M. E., & Thompson, M. W. (1991). *Developing a prosocial orientation in children: A proactive prescription for perestroika. School Psychology Review*, 20 (3), 401-407.
Jalongo, M. R. (1988, May). `*Can't you be nice?' Teaching children to get along with others*. PTA Today, 4-6.
Long, N. J. (1995). *Prosocial signs and sayings*. Reclaiming Children and Youth 4 (3), 42-46. 4 6 42.
Masoud, G.L, Leila. A, Farokhlagha, A. (2011). Cypriot Journal of Educational Sciences. 4 (2011) 186-193.
McCafferty, W. D. (1990). *Prosocial influences in the classroom.* The Clearing House 63 (8), 367-370.
Miller, D. (1991). *Do adolescents help and share? Adolescence*, 26 (102), 450- 456.
Neel, R. S. & Cessna, K. K. (1993). *Replacement behaviors: A strategy for teaching social skills to children with behavior problems*. Rural Special Education Quarterly, 12 (1), 30-35.
Ostlund, K. L. (1992). *Sizing up social skills*. Science Scope, 15 (6), 31-33.
Rimm, S. B. (1997). *An underachievement epidemic. Educational Leadership*, 54 (7), 18-22.
Salkowski, C. J. (1994). *Peacemaking: Establishing the potential for a peaceful society by achieving community in the elementary classroom*. Montessori LIFE, 6 (1), 32-39.

Chemistry Education: Students' Confidence Levels of Chemical Literacy and Transferable Skills

Mya Thet Mon
Associate Professor, Department of Chemistry, Mandalay University of Distance Education, Ministry of Education Myanmar
E-mail: drmyathetmon@gmail.com

Abstract

In the field of science education, including chemistry education, its aim is to develop students to become educated citizens who have the ability and skills such as knowledge in the field of study (content knowledge), learning skills and thinking skills and the realization of a society with scientific literacy. Generally, in some traditional classrooms, chemistry is taught by memorization of definitions and solving algorithmic type problems and the teachers rely most on the chemistry textbook. In order to develop scientific/chemical literacy of students, teaching approach should be active learning that use open-ended challenges requiring application of chemistry concepts and problem solving. However, there are some challenges faced by chemistry education, such as lack of transferable skills of chemistry graduates and interest of young people in science. Enhancing scientific literacy skills, transferrable skills and young students' interest towards science is important for chemistry education. The aim of this study was to capture the students' confidence levels in these skills. The result showed positive attitude of most respondents that chemistry graduates should have all skills including theoretical, transferrable, and practical skills. The study also provided evidence to suggest that students have high confidence levels in these skills as they considered the skills development as an important aspect in chemistry education. Moreover, according to the interview survey, a learning context is needed for application of concepts and problem-solving activity. Teacher participants considered that chemistry education has tasks to guide students to be future employment within the field of science and to provide societies with many opportunities for chemistry-related careers. Thus, the positive attitude of scientific literacy in students and teachers has become a top priority in the field of science education in Myanmar universities.

Keywords: Chemistry education, Students' confidence levels, Chemical literacy, Transferable skills

Introduction

Chemistry is the study of matter and its properties, the changes that matter undergoes, and the energy associated with those changes (Silberberg, 2010). It is essential for many aspects in daily lives and has many unexpected potential benefits for our future. An understanding of chemistry allows us to make sense of and explain phenomena happened around us. Through chemistry, we need to develop basic knowledge of how to live in this world, how to cope with daily life issues and how to act as individuals. For examples: how metal destroys when it exposes into air; how we can identify, choose, and use materials with respect to their properties; how we understand any potentials and risks of many modern chemistry related products and technologies. Furthermore, contemporary societies are increasingly challenged with questions underpinned by science (chemistry) with associated benefits, uncertainties, and risks. For example: how to use wisely energy resources, how to secure sustainability in drinking water supply, how to deal with climate change challenges. It is obvious, then, these developments are significant to modern societies. They, in the future, individually or in groups will be asked critically to reflect upon these issues, to contribute to societal debate related, and to make important scientifically based decisions. Such issues that involve a science (including chemistry) dimension and that also raise a wide range of societal, political, economic, and ethical considerations are often termed socio-scientific issues (SSI) (Ratcliffe & Grace, 2003).

Chemistry Education

Chemistry also provides societies with many opportunities for chemistry-related career. Therefore, chemistry education should guide students to reach potential future employment within the field of science and engineering. Students need to have good knowledge in chemistry and about current trends in chemistry. Chemistry subject is not just important for careers within the field of science and engineering, but also for people who are working in law, economy, or trade, who often deal with the issues of chemistry and its relationship to ecology, economy, or society (Eilks, et.al., 2013). However, there are some challenges faced by chemistry education. The first challenge is that a growing body of evidence has shown that most chemistry graduates lack of generic/transferable skills that are essential for being efficient and productive members of the workplace. These set of skills may include such as: problem solving, critical thinking, communication, team working, time management, independent learning (Dearing, 1995). Furthermore, there has been little studies conducted on the development of these skills within the chemistry curriculum although the fact that these issues have been well known for many years. Much of the chemistry education research literature still focuses on enhancing the knowledge and understanding of chemistry itself rather than developing those skills through the study of chemistry (Overton & Mcgarvey, 2017). The second challenge is related to the widespread reform on science education in general and chemistry teaching in particular. The goals of such reform are the need for scientifically literate citizens and for reducing the shortage in participation and interest of young people in science and engineering. According to Eilks & Hofstein (2013), learning in chemistry allows for the development of a lot of general (transferable) skills and the chemistry itself should be taught in the best way possible to all students at secondary school level and at university level at the end.

The Importance of Transferrable Skills in Chemistry Education

The Importance of transferrable skills in chemistry education can be defined as capabilities that individual should master for in a particular occupation or activity. There are many different kinds of skills needed in the 21st century. Leitch (2006) categorize those skills into Basic skills (e.g., literacy and numeracy) and Generic/Transferable skills (e.g., team working and communication). A study was conducted at the Year one and two chemistry undergraduate students (N=119) of university on the perceptions of transferable and workplace skills development. The result showed that over half of respondents agreed that chemistry graduate should have all skills included in the questionnaire (i.e., the skills consisted of 20 skills divided of theoretical, practical & transferrable skills). Students believed that most developed skills were problem solving, time management, working in a team and oral communication. The study also provided evidence to suggest that students believe that the "contextualized, real-world" problem was considered as an important aspect in determining the skills development (Williams & Handa, 2016). Therefore, a contextualized and real-world problem is necessary to be included in any chemistry instruction that is intended to develop those generic/transferable skills.

Chemical Literacy as the Goal of Chemistry Education

Education is an activity that is oriented towards the future. One of the education aims in the 21st century is to prepare individuals to live better and to become future workers. Regardless the fact that the practice of science learning in various countries ignores the social dimension of science education and the promotion to develop skills needed by the students to be able to participate actively in society (Hofstein, et ai., 2011). In general, the descriptions of scientific literacy cover three domains, namely: (i) knowledge about concepts and scientific ideas, (ii) understanding of the process of scientific inquiry and the nature of knowledge produced (nature of science), (iii) awareness of the influence of scientific activities on the social context in which the activity is carried out, and vice versa, the effects of everyday life, personal and social decisions on scientific ideas and practices (Ratclifee M, Millar, 2009). Chemical literacy is part of scientific literacy. Shwartz, Ben-Zvi, and Hofstein (2006a, 2006b) define chemical literacy through the domains of content, context, skills, and attitudes. They describe that chemically literate individuals should understand:

i. General Scientific Ideas: Chemistry is an experimental discipline in which chemists conduct
scientific inquiry and provides knowledge used to explain phenomena in other areas.

ii. Characteristics of Chemistry: a) explains phenomena in terms of macroscopic, sub-microscopic and symbolic representations; b) investigates the dynamics of processes & reactions and the energy changes during a chemical reaction; c) aims to understand and explain life in terms of chemical structures and processes of living systems; d) use a specific language.

iii. Chemistry in Context: a) understand the importance of chemical knowledge in explaining everyday phenomena and relationship between chemistry innovations and sociological processes; b) use their understandings of chemistry in their daily life, in decision-making, and in participating in a social debate regarding chemistry-related issues.

iv. High-Order Learning Skills: able to raise a question, searching information, analyze the advantages and disadvantages associated with a position in any debate. These skills are similar to inquiry skills.

v. Affective Aspects (e.g., curiosity, leadership, social and cultural awareness) Scientific/chemical literacy provides aspirations for curriculum development, teaching materials and assessment practices, so that if materials and science/chemistry learning are facilitated with the domains mentioned above, students' scientific/chemistry literacy will develop (Roberts, 2007). Within the domains, there are some transferable skills students should master to be a scientific literate citizen in the future, for example: inquiry skill, critical thinking skill, oral and written communication skill (argumentation, scientific explanation), problem solving skill, team working skill.

Objective of the Study

Therefore, to address the need for transferable skills, scientific literacy citizen and interest of young people in science and engineering, we could maximize the chemistry in the classroom. This study aims to explore the strength of connection to improve scientific literacy, transferable skills, and affective dimension and for meeting its challenges.

Methodology

This research employed a quotative method. The data collection was conducted in selected universities of Myanmar. The survey was conducted in 2019. The teacher involved was 25 to 59 years old and has been teaching in the universities for 1 to 30 years. The instrument used in this study was a questionnaire for students and interview for the teachers. The initial phase of this study took place during the 2019 and 2020 academic years at the selected universities.

Procedures of the Study

The study group included the students in first year to fourth year of the undergraduate chemistry specializations. All student participants on these undergraduate degree programs have experienced chemistry integrated modules throughout the degree program. The researcher used a questionnaire that was distributed to students at the chemistry Department at universities; the statements of the questionnaire were designed to answer the research questions. Also, the researchers conducted interviews with 12 instructors and asked them three questions regarding teaching chemistry at selected universities. After that, the researchers analyzed the questionnaire and discussed the results of the interviews.

Results

Questionnaire–Student Attitudes towards Skills Development

Questionnaire was used to measure the student attitudes towards a range of transferable and subject-specific skills. Students were asked to rate how important each skill was on a five-point scale (very important, important, neutral, unimportant, and very unimportant). In order to maximize response rate, questionnaires were distributed in teaching laboratory sessions which all students were required to attend. Students were also provided with a description of the details of the ethical approval of the research. Reasonable response rates were achieved from year one, two, and year three groups.

Students' Attitudes towards a Range of Subject-specific Skills

Students were asked to rate how important each subject-specific skill were on a five-point scale (very important, important, neutral, unimportant, and very unimportant).

Table 1:
Students' attitudes towards a range of subject-specific skills (n=42)
(Please rate how important you believe the following subject-specific skills to be for a chemistry graduate.)

Item No	Name of skill	Responses					Calculation		Interpretation
		Very unimportant	Unimportant	Neutral	Important	Very important	Mean	SD	
1	Analytical techniques	3%	10%	13%	33%	41%	3.99	1.10	Very important
2	Chemical terminology	3%	6%	11%	37%	43%	4.11	1.02	Very important
3	Fundamental chemical principles	10%	11%	5%	38%	36%	3.79	1.31	Very important
6	Inorganic compounds and reactions	7%	8%	6%	33%	46%	4.03	1.21	Very important
8	Kinetics of chemical change	4%	7%	22%	27%	40%	3.92	1.12	Very important
12	Principles of thermodynamics	10%	13%	5%	31%	41%	3.80	1.36	Very important
15	Organic compounds and reactions	5%	4%	10%	38%	43%	4.10	1.06	Very important
	Average	6.00%	8.43%	10.29%	33.86%	41.43%	3.96	1.18	Very important

NOTE:
1.00-1.80=Slightly important
1.81-2.60=Moderately important
2.61-3.40=Just important
3.41-4.20=Very important
4.21-5.00=Completely important

According to Table 1, respondents state that discipline-specific skills and/or knowledge were very important for chemistry graduates.

Students' Confidence Levels in Transferable Skills

In this phase, students were asked to rate how important transferable skill was on a five-point scale (very confident, confident, neutral, not very confident, and skills not used). Data were collected at the end of the activities which take place at the start of the academic year of the chemistry degree programs. The aim of this questionnaire was to attempt to capture the impact on student confidence levels in these skills. This questionnaire was deployed online as a Google Form in the 2019 and 2020 academic years. The response rate for the questionnaire was reasonable (42 students responded out of a total of 100 across the two academic years).

Table 2:
Students' confidence levels in transferable skills
(Please rate how confident toward the following transferable skills to be for a chemistry graduate.)

Item No	Name of skill	Responses					Calculation		Interpretation
		Skills not used	Not very confident	Neutral	Confident	Very confident	Mean	SD	
4	Independent learning ability	5%	6%	6%	39%	44%	4.11	1.09	Very confident
5	Information retrieval skills	8%	10%	11%	31%	40%	3.85	1.27	Very confident
9	Numeracy and computational skills	2%	2%	17%	34%	45%	4.18	0.92	Very confident
10	Oral presentation skills	1%	2%	10%	39%	48%	4.31	0.81	Completely confident
11	Problem-solving skills	3%	5%	8%	38%	46%	4.19	0.99	Very confident
13	Report Writing Skills	4%	10%	4%	38%	44%	4.08	1.11	Very confident
19	Team-working skills	5%	8%	6%	37%	44%	4.07	1.12	Very confident
20	Time management and organizational skills	3%	6%	7%	36%	48%	4.20	1.01	Very confident
Average		3.88%	6.13%	8.63%	36.50%	44.88%	4.12	1.06	Very confident

NOTE:
1.00-1.80=Slightly confident
1.81-2.60=Moderately confident
2.61-3.40=Just confident
3.41-4.20=Very confident
4.21-5.00=Completely confident

Students were asked to rate how important each transferable skill was on a five-point scale (very confident, confident, neutral, not very confident and skills not used). According to Table 2, respondents state that chemistry graduates were very confident with their transferable skills.

Students' Confidence Levels in Practical Skills

The questionnaire included a Likert-type scale question which asked students to rate their confidence levels in a number of core practical skills based on their experience on a five-point scale (very confident, confident, neutral, not very confident and skills not used).

Table 3:
Students' confidence levels in practical skills
(Please rate how confident toward the following practical skills to be for a chemistry graduate.)

Item No	Name of skill	Responses					Calculation		Interpretation
		Very unimportant	Unimportant	Neutral	Important	Very important	M	SD	
7	Interpretation of experimental data	3%	7%	10%	33%	47%	4.14	1.05	Very confident
14	Manipulative practical skills	8%	11%	7%	33%	41%	3.88	1.27	Very confident
16	Planning and design of experiments	4%	8%	6%	39%	43%	4.09	1.08	Very confident
17	Safe handling of chemical materials	7%	6%	4%	38%	45%	4.08	1.16	Very confident
18	Chemical instrumentation skills	3%	8%	8%	39%	42%	4.09	1.04	Very confident
	Average	5.00%	8.00%	7.00%	36.40%	43.60%	4.06	1.13	Very confident

NOTE:
1.00-1.80=Slightly confident
1.81-2.60=Moderately confident
2.61-3.40=Just confident
3.41-4.20=Very confident
4.21-5.00=Completely confident

Students were asked to rate how important each practical skill was on a five-point scale (very important, important, neutral, unimportant, and very unimportant). According to Table 3, respondents state that chemistry graduates were very confident with their practical skills.

Interview- Considering Students' Experience

Question 1: Considering students' experience to date, how do you think?

Teacher participants were asked to rate the confidence levels in a variety of transferable skills based on their experience in semester one of year one at the University. Most participants agreed that the experience had left them feeling very confident in all skills listed on the questionnaire.

Question 2: Which three skills did they develop the most by doing?

Teachers were invited to nominate the three skills which their students felt they had developed the most from the experience in a free text question. The responses were analyzed using text analysis to identify common themes and phrases. The responses support the staff observations that the experience helps improve complex problem solving, oral communication skills, teamwork and time management.

Interviewee 1

They developed time management skills in a different way than I have ever used them, as it has been important to not only ensure that I meet deadlines, but the rest of the group as well" and "Working in a group and sticking to our schedule"

Teachers were also invited to make general comments about their personal development throughout the component of the course. The comments defined some of the experiences which appeared to be most productive in terms of skills development such as the context of the problem and the use of authentic assessment

Interviewee 2
The subject helped me develop my problem-solving skills as the problems which were given were similar to real life problems as well as working with a team to meet to deadlines.

It has developed my time management skills in a different way than I have ever used them, as it has been important to not only ensure that I meet deadlines, but the rest of the group as well" and "Working in a group and sticking to our schedule. Responses to this questionnaire seem to support previous observations at Leicester that C/PBL learning experiences play an important part in the development of students' transferable skills.

Interviewee 3
Through several phases of the classroom experience, students will be required to work individually, in small groups, and interact as a whole class. Their challenges will be in the form of reading articles with contradictory evidence from diverse sources, identifying crucial data and arguments, ranking the prominent of evidence, form group consensus positions, debate of positions, and evaluating other groups' presentation of positions and evidence. The transferable skills involve in this phase will be inquiry skills (asking question, collecting data and evidence, analyzing data, making conclusion), critical thinking, team working, communication (argumentation/scientific explanation), problem solving. Other skills could be used and developed such as independent learning and time management. Affective dimension use and develop could be curiosity, interest, moral awareness.

According to the interviewee 3, a learning context is needed for application of concepts and problem-solving activity. Chemistry education has tasks to guide students to be future employment within the field of science and also to provide societies with many opportunities for chemistry-related careers.

Interviewee 4
Students start to study chemistry at secondary school level. However, there is a common criticism on the lack of connectedness of chemistry with the real world and the lives of the learners and this situation is reinforced by the traditional chemical content and teaching approaches that are resistant to change.

Chemistry is basically about the abstract concept of the atomic theory of matter. A student has to portray the concept at various levels of representations (macroscopic, submicroscopic, and symbolic representations) and this multi-representational structure is very important in studying chemistry. Furthermore, the involvement in classroom debates and discussion encouraged students to deal with their beliefs about the benefit use of sodium benzoate as preservatives and their personal danger. In this kind of activity, students will actively involve in finding credible sources. They will read and evaluate critically conflicting evidence from credible sources and negotiating their conclusions within and against other groups of students. This type of activity also provides chance to observe the criteria students use in their selection of credible evidence.

Interviewee 5
A chemistry teacher has competencies of subject matter and pedagogical content knowledge and multidisciplinary life experiences. Transferable skills that could be used and developed in that learning context, for example: team working, oral & written communication (scientific explanation and argumentation), critical thinking, inquiry skills, problem solving.

Therefore, it is found from the interview responses that educational practices must focus on efforts to improve student skills in scientific literacy and identify the various capabilities needed by students in facing 21st century challenges such as challenges in the economic, social, technological and health fields.

Discussion

Although no distinction was made between theoretical chemical skills (Average Mean=3.96), transferable skills (Average Mean=4.12), and practical skills (Average Mean=4.06) in the questionnaire, we have chosen to categorize the skills in these groups for the purpose of this analysis (Table 1 to 3). In general, it is worth noting that no skill was rated as slightly or moderately or just important/confident in either year group. All theoretical skills, all transferable skills and all practical skills were rated as very important. It is possible that the increase in perceived importance of all skills may be due to the student participants recognizing the fact that they want to follow a career path not related to the subject, greater levels of student awareness of employer expectations and a better appreciation of the importance of transferable skills in chemical problem solving. However, we should continue measuring responses to these questions at all academic years in order to verify whether student attitudes towards these skills vary gradually over time or, whether there is a sudden change in student perceptions, possibly due to a transformative experience.

Conclusions

Enhancing scientific literacy skills, transferrable skills and young students' interest towards science is a challenge for chemistry education. A study suggests the need to include a contextualized and real-world problem in any chemistry instruction that is intended to develop those skills and affective dimension. By drawn upon competencies and experiences a chemistry teacher could facilitate socio-scientific issues related chemistry to students in the classroom. The socio-scientific issues itself use appropriate scientific chemistry content that must be embedded in scientific and social context. The student, then, investigates personally relevant socio-scientific issues and discuss, debate or construct argument/explanation to solve the issues. The mechanism used to deploy questionnaire 1 led to a good response rate. The responses to the questionnaires showed that many respondents in both year groups rated all skills as being important or very important to chemists. The importance of most skills does not vary much between years one and two but there are small (non-statistically significant) increases in the levels of importance that students place on most transferable skills. Responses to questionnaire 2 helped identify the skills which respondents believed were developed the most from the experience ("problem solving", "time management", "working in a team” and "oral communication") and establish the fact that students believe specific aspects of the approach contribute to this skills development (i.e., authentic assessment, contextualized “real-world” problems, group work and working to deadlines).

References

Dearing R. (1995). *Skills For Graduates In The 21st Century.* Cambridge: The Association of Graduate Employers; 1995.

Eilks I, Rauch F, Ralle B, Hofstein A. (2013**).** *How to allocate the chemistry curriculum between science and society* (p. 1- 36). In Ingo Eilks, I & Avi Hofstein (Eds.). *Teaching Chemistry –A Studybook: A Practical Guide and Textbook for Student Teachers, Teacher Trainees and Teachers*. Rotterdam: Sense publishers; 2013.

Hofstein A, Eilks I, Bybee R. (2011). *Societal Issues and their importance for contemporary science education: a pedagogical justification and the state of the art in Israel, Germany and the USA*.Int J Sci Math Educ 2011; 9:1459-1483. doi:10.1007/s10763-010-9273-9.

Leitch, S. (2006) *Leitch Review of Skills: Prosperity for all in the Global Economy – World Class Skills.* London: Crown; 2006.

Overton T, Mcgarvey DJ. (2017). *Development of Key Skills and Attributes in Chemistry.* Chem Educ Res Pract;18: 401-402. doi:10.1039/C7RP90006F

Ratclifee M, Millar R (2009). *Teaching for understanding of science in context: Evidence from the pilot trials of the Twenty First Century Science courses.* J Res Sci Teach 2009; 46:945-959 doi:10.1002/tea.20340

Roberts D. (2007). *Scientific literacy/science literacy: threats and opportunities*. in Abell S. K. and Lederman N. G. (Eds), Handbook of research on science education. New Jersey: Lawrence Erlbaum Associates; 2007.

Shwartz Y, Ben-Zvi R, Hofstein A (2006). *Chemical literacy: what it means to scientists and school teachers?* J Chem Educ 2006a; 83:1557-1561. doi: 10.1021/ed083p1557.

Silberberg MS. (2010). *Principles of General Chemistry*.2nd ed. New York: McGraw-Hill.

Ratcliffe M, Grace M. (2003). *Science Education for Citizenship*. Milton Keynes: Open University Press

Williams DP, Handa S (2016). *Chemistry Student Perceptions of Transferable & Workplace Skills Development New Directions in the Teaching of Physical Sciences.* University of Leicester 2016; 11:1-7. doi: doi.org/10.29311/ndtps. v0i11.584

Context-based Approach in Chemistry Teaching

Mya Thet Mon
Associate Professor, Department of Chemistry, Mandalay University of Distance Education, Ministry of Education Myanmar
E-mail: drmyathetmon@gmail.com

Abstract

Context-based approach in chemistry teaching presents scientific concepts by establishing contexts and relationships selected from daily life events. It has come into wide use recently with the aim of bridging the gap between students' daily life experiences and the content of the chemistry course. It is along this line that the researcher motivated to evaluate the effectiveness of context-based teaching approach towards students learning, their motivation to learn chemistry, their attitudes towards chemistry lessons and their level of success in understanding the concepts that were taught. The study made use of an experimental research method involving students from chemistry classes at selected universities in Myanmar. The Context-based Chemistry Motivation Scale (CBCMS) was used as data gathering instruments. The means and standard deviations were used to calculate the data. The study concluded that context-based learning improved students' motivation in learning chemistry in the subject.

Keywords: Context-based approach, Chemistry teaching, Attitudes towards Chemistry, Motivation to learn

Introduction

Context-based approach in chemistry teaching has come into wide use recently especially in other countries like the United States of America, United Kingdom, the Netherlands, and Canada, with the aim of bridging the gap between students' daily life experiences and the content of the chemistry course (Acar and Yaman, 2011). Generally, most students perceived chemistry as difficult subject despite of being the most industrially relevant science that features every aspect of human endeavor and natural phenomena. These perceptions may be attributed by the abstract conceptions of chemistry which they think unrelated by many students to the world they live in. According to Espinosa, Monterola and Punzalan, (2013) chemistry students find chemistry too abstract and mathematical. Brickhouse and Carter, (1989) also pointed that many students get lost the concepts in chemistry if they missed to interpret the correct idea. Instructional approaches to chemistry also contribute to the negative perception of the students to the subject. In teaching, especially chemistry subject, it is not enough to simply give facts, figures, theories, laws, and other ideas in verbatim without representations the image or application in the real –life situation. Teachers should integrate new teaching pedagogies through different hands-on activities connecting to the experiences of the learners (Reyes, Espana and Belecina, 2014). Students' perception could possibly be changed, and chemistry achievement can be improved if teachers make chemistry more relevant to the students' experiences by connecting the subject to everyday experiences. Johnson (2002) emphasized that teaching and learning will become meaningful if the teachers engage contextual teaching. Context-based method helps the teachers relate the concept being thought to the students into real world situations leading to student's motivation to learn the concepts by connecting it to their day-to-day experiences. Context-based approaches try to cope with the highly theoretical nature of the chemistry subject by introducing everyday contexts. In teaching context, the personal, peers, and environmental, experiences of the learners must be included. The teaching-learning in this setting could enhance students thinking skills and appreciate the value and importance of learning concepts in chemistry (Campbell, Lazonby, Millar, Nicolson, Ramsden, and Waddington, 1994)

Functions of Contexts

Contexts from daily life are presented as the starting points for teaching concepts which are then followed by other contexts. Thus, contexts' functions include orientation, motivation, illustration, and application (De Jong, 2006). The aim of context-based instruction in chemistry is to create teaching –learning pedagogy that will cater the physical counterparts of each concept through real-life applications. In this way, the chemistry course is related to the daily life events of students with the help of contexts. During the establishment of links and contexts, students' experiments involving materials that are commonly available are utilized (Gilbert, 2006). Selection of appropriate contexts must be in accordance with student's everyday lives and teaching through these contexts would help maintain the students' attention in the lessons (Unal, 2008). In addition, making the content structure more relevant to students' everyday lives were seen as a way to raise interest levels and foster learning. Learning in context is one of the instruments that motivate and encourage students to learn the concepts meaningfully and develop positive attitudes towards it (Bennett, Campbell, Hogarth & Lubben, 2007). With the advantages enumerated under the context-based approach, several studies on its effects to students' attitudes and understanding of scientific ideas have been conducted. Meta-analysis studies on the effects of context-based approach by Bennett, Hogarth and Lubben (2003) emphasized the positive effects of context-based approach especially in affective domain. Ramsden (1997) compared evaluated the performance of students on a context-based approach and in the traditional approach in teaching chemistry. Based on his findings he concluded that only a little difference existed between the group in terms of the level of understanding, but context-based approach stimulates students' interest in science compared to the traditional approach. Other research, however, show that context-based learning generally affects positively on students‟ interests, attitudes, motivation and success in the field of science (Ulusoy & Onen, 2014).

Effectiveness of Context-based Teaching

Gutwill-Wise (2001) also conducted a parallel study regarding the effectiveness of context-based teaching. Results showed students exposed to context-based have better understanding in chemistry concepts compared to the students exposed in the traditional method of teaching. Ceyhan Çiğdemoğlu (2012) also found out that context-based approach is very effective in improving students understanding, achievements, and literacy especially in the chemical reactions and energy concepts. Furthermore, it also develops student's intrinsic motivation to learn chemistry. Thus, a chemistry teacher, the researcher was motivated to explore and evaluate how effective the context-based approach among Filipino learners. Students" comments on chemistry being difficult, complaints regarding this subject and personal experience and observations of students' attitudes toward chemistry prompted the researcher to conduct this investigation.

Method

This research employed a quantitative method. The data collection was conducted in selected universities in Myanmar. The researcher together with the teachers from Chemistry department designed the lesson plan and test sheet. The teacher involved was 30 to 57 years old and has been teaching in the university for 4 to 32 years. The instrument used in this study was questionnaire survey.

Participants

The study involved 99 students from **two undergraduate chemistry** classes. Each class has 50 and 49 students. All participants for the study were chemistry students who were taking the course as their degree program for the academic year 2019-2020. They were selected on the basis of class membership as enrolled at the registrar's office. Prior to the study, one class was assigned as experimental group and one as the control group through a coin toss.

Design

Experimental and control group design was used in this study. The experimental group was exposed to context-based method of teaching while the control group was exposed to the usual /traditional method of teaching. The groups were given the same set of questionnaires before and after context-based method of teaching and usual /traditional method of teaching.

Materials

Context-based Chemistry Motivation Scale (CBCMS) of control group and experimental group were administered both prior to and after the experimental process. CBCMS was used to measure students' motivation levels towards their learning of chemistry using a context-based approach. The scale consisted of 20 items within a 3-factor structure, and it is rated through Likert–type Scale.

Procedure

Two units from the inorganic chemistry syllabus namely, Matter and Chemical Reactions were chosen by the researcher for this study. Before the start of each of the said units, both groups were pretested to determine how much they already know about the lessons using the developed achievement tests. Both groups were also pretested before the start of the treatment to determine their motivation levels towards their learning of chemistry using a context-based approach and their attitude level towards chemistry prior to the experiment. The treatment group was then taught using the context-based approach. At the beginning of the lessons, real world contexts were introduced, and the chemistry concept needed to better understand the context was presented afterward. Actual life events or circumstances were given to students to arouse their curiosity. For instance, the formation of rust in iron nails and the bubbling of hydrogen peroxide when used to clean cuts and wounds were used to introduce the unit on chemical reactions. Questions on how and why such circumstances happen were asked and discussed with the students. Experiments using common and available materials in the community were also performed and the observations and conclusions of the students were discussed after. Many different examples and applications of such concepts in everyday life were then determined. Problems selected from daily life events related to the topics were solved by the students using the knowledge they have acquired. On the other hand, control group was taught the same topic but in the traditional approach enhanced with PowerPoint presentations and questions and answers technique. Duration of lessons was for one-hour periods, three times a week. Lessons in Classifying matter lasted for 5 lecture hours and 30 laboratory hours while those for chemical reactions lasted for six lecture hours and 12 laboratory hours. The two classes were taught by the researchers themselves. After the duration of the experiment and the retrieval of needed data the scores of the students in the pre-tests and post-tests were gathered for statistical analysis. All data gathered in the study were statistically analyzed using Microsoft Excel.

Procedures of the Study

The researchers used a questionnaire that was distributed to 99 students at the English Department at University; the statements of the questionnaire were designed to answer the research questions. Also, the researchers conducted interviews with 12 instructors and asked them questions regarding teaching at selected Universities. After that, the researchers analyzed the questionnaire results.

Results

Findings of the study were limited only on answering the statement of the problem investigated stating: what is the effect of context-based learning activities on students' motivation towards context-based chemistry learning?

Table 1:

Control group's level of motivation before it was exposed to the usual /traditional method of teaching (n=55)

The following table represents control group's level of motivation before it was exposed to the usual/traditional method of teaching.

SN	Theme	Sub-theme	Responses					Calculation		Interpretation
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	SD	
I	Enthusiasm	1. I feel enthusiastic about observing chemical events occurring in the flow of life.	16%	39%	23%	12%	10%	2.61	1.18	Moderately motivated
		2. With the help of my knowledge in chemistry, I am able to interpret the events	25%	29%	22%	15%	9%	2.54	1.26	Just motivated

		happening around me (effects of the toothpaste, whitening effect of the bleacher.								
		3. I like using my knowledge in chemistry outside the classroom.	32%	20%	15%	20%	13%	2.62	1.43	Moderately motivated
		4. Chemistry becomes important to me when I am able to attribute scientific meanings to the chemical events I come across in my daily life.	17%	21%	26%	21%	15%	2.96	1.30	Moderately motivated
		5. I would like to give scientific explanations for chemistry related events with which I encounter in everyday life.	26%	34%	19%	13%	8%	2.43	1.23	Just motivated
		6. I wish the topics in chemistry would help me in solving the problems I came across in my life.	21%	20%	10%	30%	19%	3.06	1.45	Moderately motivated
		7. I would like to carry out the experiments that I learnt from chemistry lessons at home with the equipment used in daily life.	16%	26%	11%	26%	21%	3.10	1.41	Moderately motivated
		8. The more chemistry is related to the daily life, the more meaningful it becomes for me to explain the events I come across.	11%	25%	18%	24%	22%	3.21	1.33	Moderately motivated
		9. The science of chemistry is important to me as long as I am able to	20%	20%	17%	25%	18%	3.01	1.40	Moderately motivated

		attribute meanings to the events I come across in my daily life.								
II	Efficacy	10. I like this subject; because chemistry topics include events that I come across in my daily life.	12%	34%	12%	22%	20%	3.04	1.36	Moderately motivated
		11. I can relate the daily events which I hear from the media and internet with the chemistry.	21%	35%	22%	13%	9%	2.54	1.21	Just motivated
		12. I am interested in chemistry; because the development is chemistry contributes to the development of technology.	28%	40%	13%	11%	8%	2.31	1.21	Just motivated
		13. I can explain chemical reasons of the events which I encountered everyday life with my chemistry knowledge.	28%	38%	12%	13%	9%	2.37	1.26	Just motivated
		14. I am able to keep the chemistry topics in my mind through relating each of them with the events I come across in my daily life.	32%	39%	13%	10%	6%	2.19	1.16	Just motivated
		15. My knowledge in chemistry allows me to interpret the daily life from various perspectives.	27%	38%	13%	17%	5%	2.35	1.19	Just motivated
III	Performance	16. I understand the chemistry subjects more quickly when the teacher	26%	40%	12%	14%	8%	2.38	1.23	Just motivated

		tells these subjects by linking them with everyday life.								
		17. Teaching of chemistry through giving examples from daily life would be interesting for me.	21%	25%	12%	23%	19%	2.94	1.44	Moderately motivated
		18. Chemistry classes are fun if I am able to relate the chemistry topics with my life.	19%	29%	11%	23%	18%	2.92	1.41	Moderately motivated
		19. Performing experiments in the classroom with materials from daily life (glass, teaspoon, etc.) would increase the level of my interest towards the lesson.	22%	41%	11%	14%	12%	2.53	1.30	Just motivated
		20. I would like the questions of the chemistry test to be prepared using the real-life events.	27%	41%	8%	13%	11%	2.40	1.30	Moderately motivated
Average			22.35%	31.70%	15.00%	17.95%	13.00%	2.68	1.34	Moderately motivated

NOTE:
1.00-1.80=Less motivated
1:81-2.60=Just motivated
1.61-3.40=Moderately motivated
3.41-4.20=Well-motivated
4.21-5.00=Highly motivated

According to the participants' respondents, among the 9 items of enthusiasm, just item 5 "I would like to give scientific explanations for chemistry related events with which I encounter in everyday life" is just motivated (Mean=2.43). All the items except 5 of enthusiasm are moderately motivated. Items 10 to 15 of the Efficacy, only no 10 "I like this subject; because chemistry topics include events that I come across in my daily life" is moderately motivated. All the rests are found as just motivated. Items 16 to 20 of Performance, item no 16 "I understand the chemistry subjects more quickly when the teacher tells these subjects by linking them with everyday life" and item no 19 “Performing experiments in the classroom with materials from daily life (glass, teaspoon, etc.) would increase the level of my interest towards the lesson” are found as just motivated.

Table 2:

Control group’s level of motivation after it was exposed to the usual/traditional method of teaching (n=55)

SN	Theme	Sub-theme	Responses					Calculation		Interpretation
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	SD	
I	Enthusiasm	1. I feel enthusiastic about observing chemical events occurring in the flow of life.	20%	36%	20%	12%	12%	2.60	1.26	Just motivated
		2. With the help of my knowledge in chemistry, I am able to interpret the events happening around me (effects of the toothpaste, whitening effect of the bleacher.	29%	25%	20%	15%	11%	2.54	1.34	Just motivated
		3. I like using my knowledge in chemistry outside the classroom.	32%	20%	15%	21%	12%	2.61	1.42	Neither agree nor disagree
		4. Chemistry becomes important to me when I am able to attribute scientific meanings to the chemical events I come across in my daily life.	17%	21%	25%	21%	16%	2.98	1.32	Neither agree nor disagree
		5. I would like to give scientific explanations for chemistry related events with which I encounter in everyday life.	26%	34%	17%	13%	10%	2.47	1.28	Just motivated
		6. I wish the topics in chemistry would help me in solving	21%	20%	10%	27%	22%	3.09	1.48	Neither agree nor disagree

		the problems I came across in my life.								
		7. I would like to carry out the experiments that I learnt from chemistry lessons at home with the equipment used in daily life.	16%	26%	13%	25%	20%	3.07	1.39	Neither agree nor disagree
		8. The more chemistry is related to the daily life, the more meaningful it becomes for me to explain the events I come across.	12%	25%	18%	20%	25%	3.21	1.37	Neither agree nor disagree
		9. The science of chemistry is important to me as long as I am able to attribute meanings to the events I come across in my daily life.	16%	20%	17%	29%	18%	3.13	1.35	Neither agree nor disagree
II	Efficacy	10. I like this subject; because chemistry topics include events that I come across in my daily life.	11%	34%	12%	22%	21%	3.08	1.35	Neither agree nor disagree
		11. I can relate the daily events which I hear from the media and internet with the chemistry.	21%	35%	20%	15%	9%	2.56	1.23	Just motivated
		12. I am interested in chemistry; because the development is chemistry contributes to the development of technology.	27%	42%	13%	10%	8%	2.30	1.20	Just motivated
		13. I can explain chemical	28%	38%	12%	14%	8%	2.36	1.25	Just motivated

		reasons of the events which I encountered everyday life with my chemistry knowledge.								
		14. I am able to keep the chemistry topics in my mind through relating each of them with the events I come across in my daily life.	27%	39%	10%	13%	11%	2.42	1.31	Just motivated
		15. My knowledge in chemistry allows me to interpret the daily life from various perspectives.	17%	38%	13%	15%	17%	2.77	1.36	Neither agree nor disagree
III	Performance	16. I understand the chemistry subjects more quickly when the teacher tells these subjects by linking them with everyday life.	28%	40%	12%	12%	8%	2.32	1.22	Just motivated
		17. Teaching of chemistry through giving examples from daily life would be interesting for me.	24%	25%	15%	20%	16%	2.79	1.42	Moderately motivated
		18. Chemistry classes are fun if I am able to relate the chemistry topics with my life.	20%	26%	11%	25%	18%	2.95	1.42	Neither agree nor disagree
		19. Performing experiments in the classroom with materials from daily life (glass, teaspoon, etc.) would increase the level of my interest towards the lesson.	22%	40%	12%	15%	11%	2.53	1.28	Just motivated

		20. I would like the questions of the chemistry test to be prepared using the real-life events.	27%	41%	6%	14%	12%	2.43	1.34	Just motivated
Average			22.05%	31.25%	14.55%	17.90%	14.25%	2.71	1.36	Moderately motivated

NOTE:
1.00-1.80=Less motivated
1:81-2.60=Just motivated
2.61-3.40=Moderately motivated
3.41-4.20=Well-motivated
4.21-5.00=Highly motivated

Results revealed that both groups showed almost the same motivation level. Although experimental group showed higher mean than the control group, still the difference shows no significant since the mean value (Mean=2.71) is >than the mean value (Mean=2.68). Prior to the conduct of the experiment, that is, the use of context-based teaching approach, both groups have almost the same level of motivation towards context-based learning.

To evaluate the effects of context-based approach in teaching chemistry towards student's achievement, the mean scores were statistically calculated using SPSS version 22.

Table 3:
Experimental group's level of motivation before it was exposed to context-based method of teaching (n=49)

This table illustrates experimental group's level of motivation before it was exposed to context-based method of teaching.

SN	Theme	Sub-theme	Responses					Calculation		Interpretation
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	SD	
I	Enthusiasm	1. I feel enthusiastic about observing chemical events occurring in the flow of life.	22%	35%	23%	10%	10%	2.51	1.22	Disagree
		2. With the help of my knowledge in chemistry, I am able to interpret the events happening around me (effects of the toothpaste, whitening	20%	28%	22%	18%	12%	2.74	1.29	Neither agree nor disagree

		effect of the bleacher.								
		3. I like using my knowledge in chemistry outside the classroom.	30%	20%	18%	20%	12%	2.64	1.40	Neither agree nor disagree
		4. Chemistry becomes important to me when I am able to attribute scientific meanings to the chemical events I come across in my daily life.	17%	23%	20%	25%	15%	2.98	1.33	Neither agree nor disagree
		5. I would like to give scientific explanations for chemistry related events with which I encounter in everyday life.	20%	31%	19%	17%	13%	2.72	1.31	Neither agree nor disagree
		6. I wish the topics in chemistry would help me in solving the problems I came across in my life.	20%	20%	10%	31%	19%	3.09	1.44	Neither agree nor disagree
		7. I would like to carry out the experiments that I learnt from chemistry lessons at home with the equipment used in daily life.	20%	23%	11%	25%	21%	3.04	1.46	Neither agree nor disagree
		8. The more chemistry is related to the daily life, the more meaningful it becomes for me to explain the events I come across.	15%	25%	15%	23%	22%	3.12	1.39	Neither agree nor disagree
		9. The science of chemistry is important to me as long as I am able to attribute meanings to the events I come across	20%	21%	19%	23%	17%	2.96	1.39	Neither agree nor disagree

		in my daily life.								
II	Efficacy	10. I like this subject; because chemistry topics include events that I come across in my daily life.	11%	34%	12%	21%	22%	3.09	1.36	Neither agree nor disagree
		11. I can relate the daily events which I hear from the media and internet with the chemistry.	30%	30%	20%	10%	10%	2.40	1.28	Disagree
		12. I am interested in chemistry; because the development is chemistry contributes to the development of technology.	30%	40%	12%	10%	8%	2.26	1.21	Disagree
		13. I can explain chemical reasons of the events which I encountered everyday life with my chemistry knowledge.	30%	34%	14%	12%	10%	2.38	1.29	Disagree
		14. I am able to keep the chemistry topics in my mind through relating each of them with the events I come across in my daily life.	33%	41%	10%	10%	6%	2.15	1.16	Disagree
		15. My knowledge in chemistry allows me to interpret the daily life from various perspectives.	20%	33%	13%	19%	15%	2.76	1.36	Neither agree nor disagree
III	Performance	16. I understand the chemistry subjects more quickly when the teacher tells these subjects by linking them	25%	40%	15%	12%	8%	2.38	1.21	Disagree

		with everyday life.								
		17. Teaching of chemistry through giving examples from daily life would be interesting for me.	20%	25%	13%	25%	17%	2.94	1.41	Neither agree nor disagree
		18. Chemistry classes are fun if I am able to relate the chemistry topics with my life.	20%	25%	11%	27%	17%	2.96	1.41	Neither agree nor disagree
		19. Performing experiments in the classroom with materials from daily life (glass, teaspoon, etc.) would increase the level of my interest towards the lesson.	19%	41%	13%	15%	12%	2.60	1.28	Disagree
		20. I would like the questions of the chemistry test to be prepared using the real-life events.	29%	41%	8%	11%	11%	2.34	1.30	Disagree
Average			22.55%	30.50%	14.90%	18.20%	13.85%	2.70	1.36	Neither agree nor disagree

NOTE:
1.00-1.80=Less motivated
1:81-2.60=Just motivated
1.61-3.40=Moderately motivated
3.41-4.20=Well-motivated
4.21-5.00=Highly motivated

Table 4:
Experimental group's level of motivation after it was exposed to context-based method of teaching (n=49)

SN	Theme	Sub-theme	Responses					Calculation		Interpretation
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	SD	
I	Enthusiasm	1. I feel enthusiastic about observing chemical events occurring in the flow of life.	15%	22%	10%	23%	30%	3.31	1.47	Moderately motivated
		2. With the help of my knowledge in chemistry, I am able to interpret the events happening around me (effects of the toothpaste, whitening effect of the bleacher.	11%	19%	12%	24%	34%	3.51	1.40	Well-motivated
		3. I like using my knowledge in chemistry outside the classroom.	10%	20%	10%	22%	38%	3.58	1.42	Well-motivated
		4. Chemistry becomes important to me when I am able to attribute scientific meanings to the chemical events I come across in my daily life.	10%	17%	10%	24%	39%	3.65	1.40	Well-motivated
		5. I would like to give scientific explanations for chemistry related events with which I encounter in everyday life.	10%	14%	10%	33%	33%	3.65	1.33	Well-motivated
		6. I wish the topics in chemistry would help me in solving the problems I came across in my life.	18%	10%	10%	30%	32%	3.48	1.47	Well-motivated
		7. I would like to carry out the	14%	16%	10%	23%	37%	3.53	1.47	Well-motivated

		experiments that I learnt from chemistry lessons at home with the equipment used in daily life.								
		8. The more chemistry is related to the daily life, the more meaningful it becomes for me to explain the events I come across.	5%	15%	10%	35%	35%	3.80	1.21	Well-motivated
		9. The science of chemistry is important to me as long as I am able to attribute meanings to the events I come across in my daily life.	10%	10%	15%	35%	30%	3.65	1.28	Well-motivated
II	Efficacy	10. I like this subject; because chemistry topics include events that I come across in my daily life.	6%	24%	11%	22%	37%	3.60	1.35	Well-motivated
		11. I can relate the daily events which I hear from the media and internet with the chemistry.	10%	15%	10%	34%	31%	3.61	1.33	Well-motivated
		12. I am interested in chemistry; because the development is chemistry contributes to the development of technology.	17%	10%	10%	38%	25%	3.44	1.40	Well-motivated
		13. I can explain chemical reasons of the events which I encountered everyday life with my chemistry	10%	13%	10%	38%	29%	3.63	1.29	Well-motivated

		knowledge.								
		14. I am able to keep the chemistry topics in my mind through relating each of them with the events I come across in my daily life.	11%	19%	10%	26%	34%	3.53	1.40	Well-motivated
		15. My knowledge in chemistry allows me to interpret the daily life from various perspectives.	10%	16%	10%	29%	35%	3.63	1.36	Well-motivated
III	Performance	16. I understand the chemistry subjects more quickly when the teacher tells these subjects by linking them with everyday life.	14%	10%	10%	38%	28%	3.56	1.36	Well-motivated
		17. Teaching of chemistry through giving examples from daily life would be interesting for me.	10%	13%	10%	35%	32%	3.66	1.31	Well-motivated
		18. Chemistry classes are fun if I am able to relate the chemistry topics with my life.	10%	12%	8%	35%	35%	3.73	1.32	Well-motivated
		19. Performing experiments in the classroom with materials from daily life (glass, teaspoon, etc.) would increase the level of my interest towards the lesson.	19%	11%	10%	24%	36%	3.47	1.53	Well-motivated
		20. I would like the questions of the chemistry test to be prepared using the	9%	21%	9%	33%	28%	3.50	1.33	Well-motivated

		real-life events.								
Average			11.45%	15.35%	10.25%	30.05%	32.90%	3.58	1.38	Well-motivated

NOTE:
1.00-1.80=Less motivated
1:81-2.60=Just motivated
1.61-3.40=Moderately motivated
3.41-4.20=Well-motivated
4.21-5.00=Highly motivated

Context-based method helps the teachers relate the concept being thought to the students into real world situations leading to student's motivation to learn the concepts by connecting it to their day-to-day experiences. As shown in Table 4, experimental group motivation mean score increases from 2.70 to 3.58 while the control group motivation mean score remains almost the same. Statistically, the mean difference between groups obtained mean value 2.71 which is less than the mean value of 3.58; thus, these results indicated that there is a significant difference on motivational attitudes of the students between experimental and control group in favor of the experimental group. This further means that the students who were taught with the context-based approach had a significantly higher motivation towards context-based learning than those students who were taught the same lessons in the traditional way.

Table 4 reveals that after the intervention used in the experimental group, the group mean scores in the achievement test increases from -- (Table 3) to -- as compared to the control group mean score that increases from -- to --. Indeed, the control group achievement mean scores also increased after teaching the chemistry lesson. However, results prove that the experimental group performed better compared to the control group showing a mean value = -- which is smaller than the --. This result indicates that the there is a significant difference on students' performance after the treatment as measured by the achievement test. This significant difference could be claimed as the effects of context-based approach in teaching which was used in teaching the students in the experimental group. Results also show that contextual learning activities increased students' achievement through increased cognition of chemistry concepts. The findings further show that better learning took place when students were given contexts from everyday life as basis for the discussions of chemistry concepts.

Discussion

Higher attitudinal rating is indicative of favorable motivation towards chemistry as a subject. The finding implies that there were quite a number of the students who favorably changed their motivation towards chemistry, thus the higher motivational rating. For the experimental group, their mean post-motivational rating shows that the use of the contextual teaching approach contributed to their positive outlook towards the subject. It was observed that the students in the experimental group got more motivated and excited as they tried to relate contexts based on community-based materials, processes and everyday applications to chemistry concepts which helped develop students' motivation towards chemistry lessons.

Conclusion

Contextual teaching of chemistry makes the contents of the subject more relevant to students' lives as it connects everyday life activities to chemistry concepts. By linking the macroscopic level that is, the students' everyday experiences and the microscopic level in terms of the general content of the course, students' appreciation of the contribution of chemistry to their lives are enhanced. Students" perceptions of chemistry being too abstract and difficult are then gradually changed to more of interest, excitement and attention towards the lessons which motivates and encourages them to develop positive attitudes towards chemistry. Motivation and positive attitudes foster learning thereby increasing the achievement level of students in chemistry. A gradual shift of chemistry teachers' teaching styles from the traditional lecture method towards the use of context-based approach in their chemistry teaching may be considered for the improvement of chemistry education in the country. Based on the findings of the study it is hoped that innovation on different teaching pedagogies like context-based approach could make positive contributions to the chemistry teaching process. Therefore, it can be concluded that the use of the context-based approach in the teaching of Inorganic Chemistry has brought about significant positive changes in the achievement level, attitudes, and motivation levels of students toward chemistry lessons. The use of contexts based on locally available and observable community resources and processes, and which integrate real-life examples provide learning experiences that increase students' achievement through increased cognition of chemistry concepts as well as develop students' positive attitude and motivation levels towards chemistry.

References

Acar, B., & Yaman, M. (2011). The effects of context-based learning on students" levels of knowledge and interest. *Hacettepe University Journal of Education, 40, 1-10***.**

Bennett, J., Campbell, B., Hogarth, S., & Lubben, F. (2007). A systematic review of the effects on high school students of context-based and science-technology (STS) approaches to the teaching of science. York, UK: Department of Educational Studies the University of York. Retrieved June 12, 2007, from http:// www.york.ac.uk/depts/educ/projs /EPPI/ bennettsaarmste.pdf.

Bennett, J., Hogarth, S. & Lubben, F. (2003). *A Systematic Review of the Effects of Context-Based and Science – Technology - Society (STS)* Approaches in the Teaching of Secondary Science. In: Research Evidence in Education Library. London: EPPI-Centre

Brickhouse, N., and Carter, C. (1989). What Makes Chemistry Difficult? Alternative Perceptions, Journal of Chemical education, Vol. 66. No.3 pp.222-225.

Campbell, B., Lazonby, J., Millar, R., Nicolson, P., Ramsden, J., and Waddington, D. (1994). *Science: The Salters' Approach: A Case Study of the Process of Large-Scale Development*. Science Education, 78(5), 415-447

Ceyhan Çiğdemoğlu (2012). *Effectiveness of Context-Based Approach Through 5e Learning Cycle Model on Students' Understanding of Chemical Reactions and Energy Concepts, and Their Motivation to Learn Chemistry*. Retrieved June 6, 2015, from https://Etd.Lib.Metu.Edu.Tr/Upload/12614466/Index.pdf.

Cheung, D. (2007). *Developing an instrument to measure students' attitudes toward chemistry lessons for use in curriculum evaluation*. Paper presented at the 38th annual conference of the Australasian Science Education Research Association, Fremantle, Australia.

De Jong, O. 2006 (2006). *Context-based Chemical Education: How to Improve it.* A Paper based on the Plenary Lecture Presented at the 19th ICCE, Seol, Korea, 12-17 August 2016.

Espinosa, A., Monterola, S. and Punzalan, A. (2013). *Career-oriented Performance Tasks in Chemistry: Effects on Students' Critical Thinking Skills. Education Research International*. Volume 2013 (2013), Article ID 834584. Retrieved November 5, 2015, from http://dx.doi.org/10.1155/2013/834584.

Gilbert, J. K. (2006). *Context based chemistry education on the nature of "context" in chemical education.* International Journal of Science Education, 28 (9), 957-976. GutWill-Wise, J., P., (2001). *The İmpact of active and context-based learning in introductory chemistry courses: an early evaluation of the modular approach.* Journal of Chemical Education, 78 (5), 684–690

Johnson, E. (2002). *Contextual teaching and learning*. Thousand Oaks, CA: Corwin Press.

National Academy of Science. (2009). *Strengthening High School Chemistry Education Through Teacher Outreach Program: A Workshop Summary to the Chemical Sciences RoundTable*. "Retrieved June 6, 2015, from http://www.nap.edu/openbook.php?record.id=12533.

Ramsden, J. M., (1997). *How does a context-based approach influence understanding of key chemical ideas at 16+?* International Journal of Science Education, 19 (6), 697–710

Reyes, P., Espana, R. and Belecina, R. (2014). *Towards Developing a Proposed Model of Teaching-Learning Process Based on the Best Practices in Chemistry Laboratory Instruction*. International Journal of Learning, Teaching and Educational Research. Vol. 4, No. 1, pp.83-166.

Ulusoy, F. and Onen, A. (2014). *Developing the Context-based Chemistry Motivation Scale: Validity and Reliability*. Journal of Baltic Science Education, Vol. a3. No. 6, 2014.

Ünal, H. (2008). *Researchıng the effects of conductıng the prımary school scıence and technology lesson accordıng to context-based approach on the matter-heat subject.* Master's Thesis, Atatürk University, Erzurum, Turkey.

Preparing English Teachers for Global Citizenship Education in Terms of Experiential Learning Cycle (ELC) Model

Yee Mon Cho[1] / Akkarapon Nuemaihom[2] / Kampeeraphab Intanoo[3]
[1]Ph.D. Student, English Language Teaching Program, Buriram Rajabhat University, Thailand
E-mail: 640427092011@bru.ac.th
[2]Assoc.Prof.Dr., English Language Teaching Program, Faculty of Humanity and Social Sciences, Buriram Rajabhat University, Thailand
E-mail: akkarapon.nm@bru.ac.th
[3]Asst.Prof.Dr., English Language Teaching Program, Faculty of Humanity and Social Sciences, Buriram Rajabhat University, Thailand
E-mail: kampeeraphab.it@bru.ac.th

Abstract

The aim of this study is to explore how English teachers' views and experience are involving in preparing for global citizenship education (GCE) in terms of the Experiential Learning Cycle (ELC) model. This study focused on English language teachers, to explore how their students participated in ELC model and how the teachers engaged in preparing GCE. The purposeful or purposive sampling was employed, through a questionnaire that was distributed to 45 teachers and an interview survey with 12 teachers at different universities of Myanmar. According to the findings, teacher participants expressed their views that Experiential Learning Cycle (ELC) model allows the development of citizenship, especially in concrete experience and reflective observation stages within the Myanmar community. Moreover, the lack of knowledge about integrating global citizenship education into ELT courses was also articulated by the teachers themselves. It may be helpful to provide ELT educators at all levels with in-service training on integrating global citizenship education into ELT so that they can organize the teaching-learning environment according to global citizenship education. This study highlights the need for more researches on global citizenship education, global studies trainings and programs in Myanmar.

Keywords: English Teachers, Global Citizenship Education, Experiential Learning Cycle (ELC) Model, ELT

Introduction

As the world becomes more interdependent, scholars and practitioners have increasingly recognized the imperative for an interdisciplinary program that explores a range of pressing global citizenship-related issues from the environment to education, security, and human rights (Huitt, 2013. Reimers et al., 2016). Our world is becoming increasingly complex and intricate—humans have never been more connected or interdependent. These changes have brought life to the concept of Global Citizenship, or the idea that we are one global community, and therefore, our choices and actions may affect people and communities locally, nationally or even internationally. Researches on experiential learning cycle that has focused on English language teachers themselves have mostly looked at the effect from an academic standpoint and have not addressed the global citizenship education. Furthermore, many studies have examined service-learning projects conducted by university students and with elementary students as the more passive "recipients." Hsiu-Lien and colleagues (2018) and Lindo and colleagues (2018) both found that elementary students experienced positive academic outcomes as a result of participating in service-learning projects conducted by university students. Despite these studies and concerns, some steps have been taken to further the goals of global citizenship education and related fields of study. Brunell (2013) emphasizes, in particular, that the pedagogical method of experiential learning (learning through experience) elicits student interest in global issues, builds global civic skills, and helps groom global citizens. Scholars and practitioners have called for updating curricula (Waks, 2003) and additional ways to address insufficient training and lack of teacher professional development (Levine, 2010). The lack of teacher's capacity has been identified as one of the barriers to global citizenship education. As key actors in ensuring quality education, teachers face a lot of pressure and they are required to deepen their knowledge base and pedagogic skills in response to new demands and changing curriculum. Great teaching needs practice and teachers must be nurtured through high-quality training and continuous learning. According to a recent UNESCO report, many countries have not made global citizenship education as a mandatory part of their traditional teacher education programs (McEvoy, 2016). Some studies have addressed specific curricular topics and teaching methods in global citizenship education. At the same time, more studies must examine how teachers can prepare students to think critically on controversial global issues particularly through experiential learning.

Experiential Learning Cycle (ELC) Model

The theory of experiential learning helps students learn about relevant global issues through civic participation (Brunell, 2013). He argues that the goal of education is to prepare students to function as active and participatory citizens within a democratic society (Dewey, 1916). Along these lines, Dewey (1938) expressed his support for experiential civic education, which allows for the development of citizenship through experiences and interactions within the community. Kolb's (1984) Experiential Learning Cycle (ELC) model proposes that learning occurs in four stages: concrete experience (CE), reflective observation (RO), Abstract Conceptualization (AC), and active experimentation (AE) (Kolb, 1984). Under this model, the learner:

(i) actively participates in an activity (Concrete experience);
(ii) reflects on that experience (Reflective observation);
(iii) conceptualizes a theory based on his or her observation (Abstract conceptualization); and
(iv) tests the theory or plan for an imminent experience (Active experimentation).

Concrete experiences are vital in experiential learning, as a central tenet is that students learn best by engaging in concrete experiences. These experiences should be relevant to students' own lives and experiences (Wehbi, 2011). Learners must reflect upon their ideas and their experiences (Reflective Observation) before experimenting with what they have taken from the three previous stages of the cycle (their ideas, experiences, and reflections) (Kolb, 1984; Pugh, 2014). Once learners are exposed to an abstract idea or concept (Abstract Conceptualization), they learn more about that idea through meaningful and concrete experiences. In this stage, learners attempt to conceptualize a theory or model of what is observed focusing on the reflection questions: “What? So What? Now What?” (Eyler et al., 1996). Active experimentation completes the experiential learning cycle (Kolb, 1984). In this stage, learners are given the chance to test their newly acquired ideas or experiences (Kolb, 1984; Pugh, 2014).

This study was informed by the work of Dewey and a model of experiential learning that is based on Kolb’s work. The experiential learning cycle is the most widely recognized and used concept in Experiential Learning Theory (ELT) (Kolb 2015; Kolb & Kolb 2017). Important in Kolb’s conception is that experiential learning is cyclical— an individual can begin at any stage. Kolb and Kolb (2005) insisted that the ELC should not be viewed as consisting of distinct steps, but as a, “learning cycle or spiral where the learner ‘touches all the bases’— experiencing, reflecting, thinking and acting—in a recursive process that is responsive to the learning situation and what is being learned”.

Preparing Teachers for Global Citizenship Education

Global Citizenship Education (GCED) aims to empower learners of all ages to assume active roles, both locally and globally, in building more peaceful, tolerant, inclusive and secure societies. GCED is based on the three domains of learning - cognitive, socio-emotional and behavioral (UNESCO). Teachers can support the students’ voice and active engagement with global issues. Teachers might provide safe spaces for the students to develop and voice their ideas and opinions. They might provide spaces and opportunities for informed action on a local or global issue which is of concern to them. Being a globally competent teacher requires embracing a mindset that translates personal global competence into professional classroom practice. It is a vision of equitable teaching and learning that enables students to thrive in an ever-changing world (Ariel Tichnor-Wagner, Hillary Parkhouse, Jocelyn Glazier, J.Montana Cain (2012). In the previous studies, it was examined that how the United States and other countries have promoted global citizenship education through teacher preparation (pre-service and professional development programs), and active learning. However, there is little scholarship addressing American pre-service and in-service high school teacher training in global citizenship education and it is still in continuous need to research more areas with different contexts in other countries. As such, this strand primarily examines how other countries have trained English teachers in this discipline.

Pre-Service Training

Pre-service training is the training that teachers and other educators receive before they actually begin teaching in a classroom. What this pre-service training looks like will vary from country to country – and the requirements for pre-service training may be very different from community to community (UNESCO). Pre-service training is vital because adequately-prepared teachers contribute to better student performance, higher school effectiveness, and the efficiency of an entire system of education in a country. If teachers do not meet expectations, educational activities in a school may not be successful. Several scholars have stressed that increased content knowledge and pedagogical training are necessary to prepare prospective educators for global citizenship (Carr, Pluim, & Howard, 2014; Gallavan, 2008; Howe, 2013; Rapoport, 2013). Gallavan (2008) adds that teacher candidates must be competent, confident, and ready to share the complexities associated with world citizenship (p. 252). Proficiency in global citizenship education also requires competency. To prepare teachers for this field, universities and education departments have begun to incorporate global components into general education courses connecting global citizenship education (GCE) to university curricula.

In-Service Professional Development

Effective professional development is "structured professional learning that results in changes in teacher practice and improvements in student learning outcomes" (Darling Hammond, Hyler, & Gardner, 2017, p. v). The idea is that professional development improves teachers' ability to make decisions that will positively impact student achievement (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Training that is concurrent with official teaching responsibilities to improve teachers' qualifications and skills. In-service training can be compulsory relating to official professional development activities to maintain or upgrade professional qualifications or it can also be optional with the sole purpose to improve skills (UNESCO). New forms of technology and online resources offer ways for teachers to educate for global citizenship (Johnson, Boyer, & Brown, 2011; Lim, 2008; Maguth, 2012). While educators in social studies have not always embraced the "educative potential of technology" in the digital age (Maguth, 2012, p. 70), one study out of Singapore shows how technology can help educators grow as global citizens (Lim, 2008). After all, the advent of the Internet has transformed the way that teachers instruct their students (Luan, Fung, Nawawi, & Hong, 2005). Furthermore, a study on the impact of the Internet on International Baccalaureate teachers across more than 30 countries shows how online discussion forums empower them to formulate diverse beliefs (Harshman & Augustine, 2013).

Active Learning

To create "an active global citizen and worker capable of taking on a new global identity and responsibility" (Vásquez, 2006, p. 48), some studies have shown that a more inclusive global curriculum helps students better understand other countries and cultures along with their place in the world (Johnson, Boyer, & Brown, 2011; Myers, 2010). As students engage in "active learning" and consider "diverse perspectives," they can become more globally aware citizens (Johnson, Boyer, & Brown, 2011, p. 513). According to Oxfam (2006), global citizens of all ages should actively engage in and learn about issues that have varying and contentious opinions. Niens and Reilly (2012) agree that students should study controversial issues, particularly with regard to their country's history. For instance, a study of students from nine schools across Northern Ireland shows that global citizenship education may help students begin to repair fractured local identities (Niens & Reilly, 2012). In some cases, however, teachers have shown reluctance to address these "complex contemporary issues" (e.g., war and conflict) (Yamashita, 2006, p. 38) in the classroom, highlighting the challenges confronting students and teachers in this endeavor. Finally, to cultivate engaged, active learners in the study of global citizenship education, it can be helpful to create a student-centered learning environment outside and inside the classroom (Reimers et al., 2016). Teachers, for instance, need to integrate more field experiences (e.g., service-learning, community initiatives, and special out-of-school projects), and travel outside the community to another state or country (Gallavan, 2008). Classroom instructions, along with field experiences, service-learning, cultural activities, and study abroad programs, also help foster global values and attitudes (Gallavan, 2008; Wynveen, Kyle, & Tarrant, 2012).

Research Objectives

This study will extend the answers concerning with English language teachers'perspectives and their training experience at Myanmar universities. The objectives are as the following:

(i) To investigate the teachers' views on how the stage of experiential learning occurs in the English language classrooms in terms of Experiential Learning Cycle (ELC) model
(ii) To explore how English teachers engage their training in preparing for Global Citizenship Education

Methodology

This presents the route by which the study was conducted to present a detailed description of research methodologies. The qualitative phenomenological study was conducted to address the research participants, the research instruments and the procedures of the study for data collection and analysis.

Participants

This study took place at different universities in Myanmar, with 45 English language teachers. Like the sample size of other studies, this study included interviews of 12 participants. The participants were aged 35-56 from the English departments of different universities. Most of the participants identified as female and only with a small number for male.

Table 1:
Demographic Information of Participants (n= 45)

No.	Participants	Total No	Male	Female	Age Range
1	Teachers	45	5	40	35-56

Research Instruments

The research has been done through structured questionnaires based on the four stages in terms of Experiential Learning Cycle (ELC) model which filled up by English language teachers from different universities of Myanmar and followed by open-ended interview questions concerning with their experience on pre-service training and in-service professional development. The statistics was used to analyze the data. Through mixed-method approach, this study researched the following:

(i) How do the teachers perceive on the four stages where English language learning in the undergraduate course occurs in terms of Experiential Learning Cycle (ELC) model?

(ii) What are the teachers' perspectives of global citizenship regarding the stages of experiential learning occurs in the English language classrooms in a global society?
(iii)What trainings do the teachers currently engage in preparing for Global Citizenship Education?

Procedures of the Study

The researchers used a questionnaire that was distributed to 45 teachers at the English Department at different universities; the statements of the questionnaire were designed to answer the research questions. Also, the researchers conducted interviews with 12 instructors and asked them four questions at selected Universities. After that, the researchers analyzed the questionnaire and discussed the results of both, the questionnaire, and the interviews. The first phase of questionnaires focused on the participants' academic background, teaching experience on four stages where learning occurs in terms of Experiential Learning Cycle (ELC) model. The second phase of the data collection process included interviewing 12 English teachers in the study. The data analysis process included the use of multiple sources of evidence (triangulation), through a case study database. Before interviewing the participants, I obtained each interviewee's consent and assured confidentiality to the greatest extent possible. I also described the purpose of the study, noted that the interview would be recorded, and detailed other procedures related to the study. I conducted one-on-one interviews (ranging from 45 minutes to an hour) with teachers after school. The interviews included open-ended questions designed to elicit wide-ranging, personal responses about their trainings in preparing for Global Citizenship Education. Then, the participants were asked to describe the role of experiential learning in their course and how, if at all, the course fosters civic engagement through academic and extracurricular activities. At the end of each interview, I thanked the participants for sharing their perspectives, reiterated that confidentiality will be maintained to the greatest extent possible, and offered to provide them with a summary of the results. Interviews were recorded using recording applications and the recorded responses were then transcribed the recordings of the interviews and memorialized the findings by using the Transcribe software into MS word. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data from the responses. Some frequencies and percentages generated using SPSS were exported to MS Excel to produce charts and MS Word to produce tables.

Results

This research study explored how the teachers perceive on the four stages where English language learning in the undergraduate course occurs in terms of Experiential Learning Cycle (ELC) model. Results from the study will be presented mainly on two main areas in relation to the teachers' perspectives regarding the stages of experiential learning in the English language classroom and their training experience in preparing Global Citizenship Education.

Questionnaire Survey towards Teachers' views on Four Stages where Learning Occurs in Terms of Experiential Learning Cycle (ELC) Model

In the following table 1, English language teachers are selected from different universities in Myanmar to collect the data how they perceive on four stages where learning occurs in terms of Experiential Learning Cycle (ELC) model.

Table 2:

Teachers' Views on Four Stages where Learning occurs in terms of Experiential Learning Cycle (ELC) model (n=45)

SN	Stages	Statements	Theme	Responses					Calculation		Interpretation
				Never	Rarely	Sometimes	Often	Always	Mean	SD	
1	Concrete experience	My students actively participate in classroom activities.	experiencing	5%	4%	6%	13%	72%	4.43	1.10	Completely positive
2	Reflective observation	My students reflect on that experience.	reflecting	1%	6%	10%	20%	63%	4.38	0.96	Completely positive
3	Abstract conceptualizatior	My students conceptualize a theory based on their observation.	thinking	17%	17%	20%	13%	33%	3.28	1.49	Positive
4	Active experimentation	My students test the theory or plan for an imminent experience.	acting	17%	24%	21%	17%	21%	3.01	1.39	Positive
	Average			10.00 %	12.7 5%	14.25%	15.7 5%	47.2 5%	3.78	1.41	Very positive

NOTE:

1.00-1.80=Slightly positive

1.81-2.60=Moderately positive

2.61-3.40=Positive

3.41-4.20=Very positive

4.21-5.00= Completely positive

As seen in Table 1, teachers' views on four stages where learning occurs in terms of Experiential Learning Cycle (ELC) model were presented. The first category that emerged with respect to the concrete experience as most of the participants addressed as the highest stage. According to the data, the learners actively participate in an activity (concrete experience) (Mean=4.43); they reflect on that experience (reflective observation) (Mean=4.38) conceptualizes a theory based on his or her observation (abstract conceptualization) (Mean=3.28); and they test the theory or plan for an imminent experience (active experimentation) (Mean=3.01). According to the findings, teacher participants expressed their completely positive views on Experiential Learning Cycle (ELC) model allows the development of citizenship through experiences and interactions especially in concrete experience and reflective observation stages within the Myanmar community. Survey findings perceived the data from the English language teachers' views on four stages of learning in terms of experiential learning cycle (ELC).

Interview Responses

Through the interview, this study researched the following questions to explore what trainings the teachers are currently engaging in preparing for Global Citizenship Education.

Interview Questions

i. Can you please describe any previous experiences that prepared you to teach a undergraduate course?
ii. What pre-service (teacher education programs) or in-service opportunities (professional development workshops) in global citizenship education (content knowledge and pedagogical training) should be offered to prepare prospective or current university teachers for teaching global studies?
iii. What professional development opportunities (e.g., seminars, workshops) have you attended inside or outside this school that assisted you in implementing the curriculum and teaching the course?

Interview data in preparing English teachers for Global Citizenship Education (n=12)

The following statements from the interview transcripts extend how English teachers engage their training in preparing for Global Citizenship Education. To express the findings, the first theme concerned their experience about pre-service training and the second theme concerned with their in-service professional development. A majority of the participants (10 out of 12) stated that there have been repeated concerns about the lack of globally relevant skills among the teachers in preparing global citizenship education, along with the challenges of course books and insufficient training experience including mainly dominant cultures to enhance global education in the Myanmar. For the questions concerning with the pre-service training experience, some participants (2 out of 12) stated that they attended pre-service training (teacher education programs) which included teaching pedagogies and classroom management but they lacked of the training for teaching global studies to prepare prospective or current university teachers. The results showed that there has been unsatisfactory level and insufficient training courses in teaching the curriculum and in preparing global citizenship education at all levels. Through the responses of 12 participants, it may be summarized that greater emphasis on global citizenship education at the undergraduate level helps teaching students increase interest in learning, improve analytical skills, appreciate multiple perspectives and diversity, and commit to action. But, still one of them added the point that postgraduate programs which focus on global citizenship issues (e.g., cultural diversity, social justice, etc.) can be effective as well by mentioning the fact that a master's degree can help teachers learn about this important field of study. Concerning with in-service professional development, all the participants revealed the importance of professional development and all the individual participants attended professional development training courses, seminars and workshop officially offered by Ministry of Education in Myanmar. The result showed that the categories reached from the responses of other ten participants (10 out of 12) expressing that they still have the challenges in implementing the curriculum and teaching the course though they had attended some seminars, workshops for professional development opportunities that assisted them in implementing the curriculum and teaching the course. One of the participants (1 out of 12) suggested that online discussion forums can bring global citizenship educators together to share professional and pedagogical teaching practices not only for professional growth, but also for personal reflection. Finally, all the participants except one suggested that they need more effective professional development training courses, workshops, seminars and conferences for their effective teaching in global needs and trends and for their practical knowledge and understanding to address issues, phenomena and catastrophes in preparing global citizenship education. Interview findings perceived the data from the pre-service training and in-service professional development of ELT Teachers in preparing global citizenship education.

Discussion

One of the recurring themes of the previous studies is the need for pre-service teachers to gain more exposure to global issues before entering the classroom (Ferguson-Patrick, Macqueen, & Reynolds, 2014). However, too often teacher education programs in the United States fail to impart the relevant knowledge, skills, and values (e.g., lack of teacher capacity) needed to teach global citizenship education (Myers & Rivero, 2019; O'Meara, Huber, & Sanmiguel, 2018). As a result, too many teachers are ill-prepared to discuss basic multicultural or global concepts in the classroom (Gayle-Evans & Michael, 2006), while others feel ill-equipped to apply such content to their classroom lessons or unit plans (Brown & Kysilka, 1994). And while there are some colleges and universities that offer majors, concentrations, or certificate programs in global studies or global citizenship education related content (Kopish, 2017), there are not enough opportunities. Colleges and universities need to offer more of these programs and courses to create the conditions for global citizenship education to succeed. Recently, the ministry of education, local and organizational entities, and the private sectors have made efforts to refocus the curricula and training programs in Myanmar.

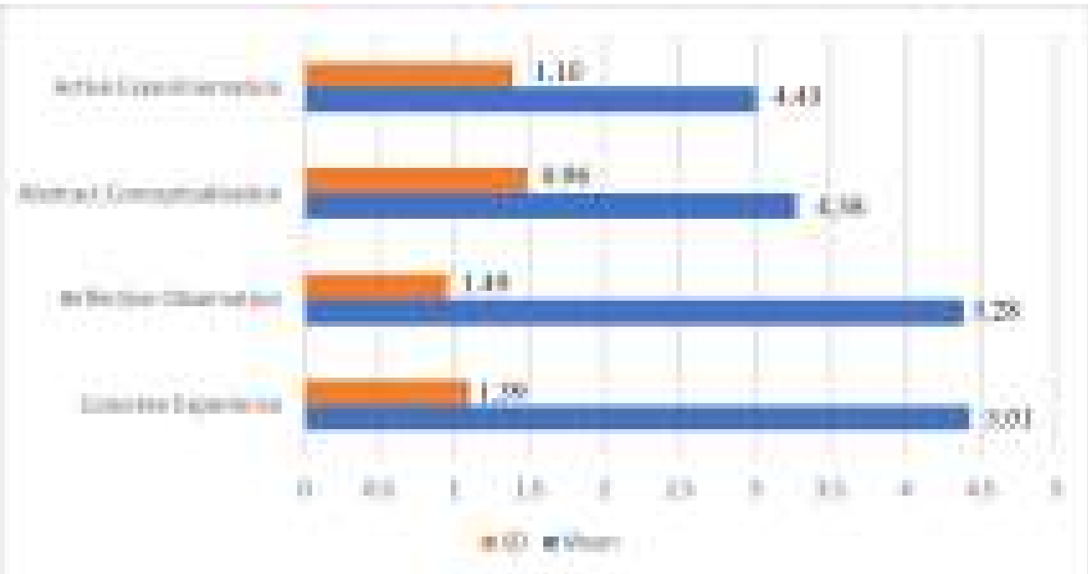


Figure 1:
Experiential Learning Cycle (ELC) model (n=45)

Throughout the findings of questionnaire and interview, the results expressed the teachers' positive views on four stages where learning occurs in terms of Experiential Learning Cycle (ELC) model and how to incorporate their experiential learning practices in implementing global citizenship education into the English language classroom. This study advances two primary findings through the first phase of questionnaires and second phase of interview. First, the importance of experiential learning, among other forms of pedagogy and instructional practices, in furthering the goals of global citizenship education was explored through the questionnaires survey. According to the findings, teacher participants expressed their positive views that Experiential Learning Cycle (ELC) model allows the development of citizenship especially in concrete experience and reflective observation stages within the Myanmar community. Although they showed that they are positive on other two learning experiential learning: abstract conceptualization and active experimentation, there still need to practice more than before. In Myanmar, the university students still need to be practiced and trained to be active global citizens on their learning process at undergraduate level according to the data that perceived from the survey. In doing so, the role of teachers plays a vital role and it still needs to prepare them for global citizenship education. Second, the need for pre-service and in-service training for teachers of global studies related courses, including teacher education and professional development programs and the need for class projects, international education programs, and other experiential learning opportunities (such as training courses, workshops, seminars, national and international conferences or community programs) to cultivate the teachers' progress and to prepare the teachers for global citizenship education. Upon reflection, this study also highlights the need for global studies related courses to explore the connection between liberal democratic values and the goals of global citizenship education.

Finally, all the individuals emphasized that schools should offer more effective pre-service or in-service opportunities in global citizenship education to prepare global studies teachers. To teach a global studies course, it helps to have a social science background in subjects like history, geography, philosophy, sociology, or economics and it also finds it helpful for other global studies teachers to attend the national and international conferences. To teach global citizenship effectively, all the respondents agreed that teachers should be well-versed in various subject areas, and should receive appropriate training and professional development. It has been concluded from the study that ELT teachers have insufficient levels of knowledge, skills, attitude and action related with global citizenship education. It may be helpful to provide ELT educators at all levels with in-service training on integrating global citizenship education into ELT so that they can organize the teaching-learning environment according to global citizenship education. This study highlights the continuing need for increased pre-service and in-service training opportunities for teachers of global studies related courses, including teacher education and professional development programs.

Recommendations

This study highlights the need for more researches within the field of global citizenship education. First, more researchers should conduct studies related to the development and design of global studies curricula and courses. This would help practitioners enhance curricular standards to better reflect current and topical global content. In addition, administrators would benefit from more literature when making the case to education committees or local district boards of education to offer global studies related courses. However, it should be remembered that this study was carried out through interviews with 45 English language teachers working at different universities in Myanmar. Similar studies with larger samples with mixed methods can provide significant contributions in terms of clarifying the subject in global citizenship education. In addition, other qualitative studies to be carried out at primary, secondary and high school level can be useful in explaining the issue in depth. Empirical studies, case studies and action research that integrate global citizenship education with ELT courses will also make a great contribution to the field.

References

Acharya, A. (Ed.) (2012). Citizenship in a globalizing world. New Delhi: Pearson Education.

Burnouf, L. (2004). Global awareness and perspectives in global education. Canadian Social Studies, 38(3), 1-12.

Burnside, D., & Mackesy, B. L. (2015). Global citizenship in a time of standards-based assessment: US K-12 Teachers' Perspectives. Journal of Education & Social Policy, 2(3), 29-36.

Bertoni, M., & Bertoni, A. (2019). *Measuring experiential learning: An approach based on lessons learned mapping*. Blekinge Institute of Technology, Department of Mechanical Engineering, 37179 Karlskrona, Sweden. Educ. Sci. 2020, 10, 11; doi:10.3390/educsci10010011.

Davies, I., Evans, M., & Reid, A. (2005). Globalising citizenship education? A critique of 'global education' and 'citizenship education'. British Journal of Educational Studies, 53(1), 66- 89. 126

Davies, I., Gorard, S., & McGuinn, N. (2005). Citizenship education and character education: Similarities and contrasts. British Journal of Educational Studies, 53(3), 341-358.

Deeley, S. J. (2010). Service-learning: Thinking outside the box. Active Learning in Higher Education, 11(1), 43-53.

Guo, L. (2014). Preparing teachers to educate for 21st century global citizenship: envisioning and enacting. University of Prince Edward Island. Journal of Global Citizenship & Equity Education, Vol 4, No 1.

Kolb, D. A., & Fry, R. (1975). Toward an applied theory of experiential learning. In C. Cooper (Ed.), Studies of group process (pp. 33–57). New York: Wiley.

……….. (1984). Experiential learning: Experience as the source of learning and development. (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.

Kolb, Alice Y. and Kolb, David A. (2017). "Experiential Learning Theory as a Guide for Experiential Educators in Higher Education," Experiential Learning & Teaching in Higher Education: Vol. 1: No. 1, Article 7. Available at: https://nsuworks.nova.edu/elthe/vol1/iss1/7.

Kolb,A. & Kolb,D. (2018). Eight Important Things to know about The Experiential Learning Cycle. Australian Educational Leader. Volume 40, Issue 3.

Kolb,D. (2015). *Experiential Learning: Experience as the Source of Learning and Development*. Second Edition. |Pearson FT Press. ISBN-13: 9780133892406.

Miles, M. B., & Huberman, A. B. (1994). Qualitative data analysis (2nd Ed.). Thousand Oaks, CA: Sage Publications, Inc.

Ros, B. D. (2020). Service learning and the experiential learning cycle in elementary school. University of Virginia A Dissertation Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy Curriculum and Instruction Old Dominion University.

Oxfam. Global citizenship in the classroom: A guide for teachers. Education for Global Citizenship (Retrieved from the www.oxfam.org.uk/gcguides)

Saperstein, E. S. (2019). Perceptions and experiences of global citizenship education. The School of Education In partial fulfillment of the requirements for the degree of Doctor of Education in the field of Education College of Professional Studies Northeastern University Boston, Massachusetts.

……….. (2020). Global citizenship education starts with tTeacher tTraining and professional development. Journal of Global Education and Research, 4(2), 125-139. https://www.doi.org/10.5038/ 2577-509X.4.2.1121.

Schattle, H. (2008). The practices of global citizenship. Lanham, MD: Rowman & Littlefield.

________ . (2009). Global citizenship in theory and practice. In R. Lewin (Ed.), The Handbook of Practice and Research in Study Abroad: Higher education and the quest for global citizenship (pp. 3-20).

UNESCO Asia-Pacific Regional Bureau for Education. (2017). Preparing teachers for global citizenship education: A template. Bangkok, Thailand. (A project supported by the Korean Funds-in-Trust).

Undergraduate Students' Perception towards Grammar Assessment in the EFL Classroom

Aye Aye Mar
Tutor, Banmaw University, Ministry of Education, Myanmar
E-mail: maraye644@gmail.com

Abstract

This study aimed to explore how grammar assessment in the EFL classroom was implemented at the English Department of the selected universities in Myanmar. The researcher investigated learners' perspectives regarding the congruence of the grammar assessment with the planned learning, assessment authenticity, transparency, and their capability in the classroom. A total of 69 fourth-year students of the English specialization responded to the questionnaire with 24 five-point Likert scale items. The quantitative data of Students' Perceptions of Assessment Questionnaire (SPAQ) items were descriptively analysed using the SPSS 16.0 program. The result offers significant insights into the ways students viewed classroom-based grammar assessments. It was shown that students perceived a similarity between grammar assessment and planned learning, as well as adequate transparency regarding the purpose, authenticity, and assessment forms. Moreover, the result designates that their perceived capability in taking the assessment was rather satisfactory.

Keywords: Students' Perception, Grammar, Assessment, Language Learning, Classroom Assessment

Introduction

The role of grammar in language acquisition has remained relatively significant. Grammar is deemed to be worthy of study – to the extent that in the Middle Ages in Europe, it was thought to be the foundation of all knowledge and the gateway to sacred and secular understanding (Hillocks and Smith, 1991). Black and William (1998) reviewed more than 250 articles and books to examine the effect of formative assessment on students' performance. They found that employing different methods to assess students during the course would enhance students' success. As it notably contributes to the success of language learning program, classroom-based grammar instruction must be taken into serious account with regard to its task design, teaching process and most importantly, classroom assessment. Purpura (2004) stated that the grammar-translation approach which was included in a summative assessment had become more about learning a set of linguistic rules than about learning to use the language for a communicative. This type of assessment regularly asks students to choose correct grammatical forms by answering multiple-choice questions. Such tests can be useful for measuring students' knowledge of language forms. However, instructors need to revisit and consider the goal of language learning, in which learners should aspire to be fluent communicators by displaying authentic language use. Students should be ready to use their English to communicate in a real-life situation and perform superb communication skills. Therefore, an appropriate grammar assessment will significantly influence the favourable target of language learning. The works on formative assessment suggest that new approaches to increase valuable feedback will change classroom practices and bring adjustment in learning and teaching. At the English Department, the lecturers had a wide variety of grammar assessments. Some lecturers provided authentic material and delivered precious feedback to the students, while others still performed a grammar-translation method and designed a dysfunctional evaluation in the classroom. This distinction reflects the assumption on whether the assessment is used to improve language instructions or maintain the repeated latent routines. Struyven, Dochy & Janssens (2005) claimed that the experience of learning that was diminished by assessment methods were perceived to be inappropriate. Hence, students' perceptions need to be investigated, especially on whether the assessment forms are congruent with the validity, authenticity and transparency of the test. Further, students' awareness of their capabilities is also needed to design better grammar teaching and learning instruction.

It is clear that students' perception is relevant to the success of classroom assessment. There are different perceptions about the roles of grammar. Some have positive perceptions and some have negative perceptions. Basically, Perceptions refers to the ability to choose something through the senses such as smelling, hearing, seeing and touching. Perceptions is the process of interpreting and recognizing sensory stimulation. Ronald (2008) suggested that perception is an important process that covers the selection, organization, and interpretation of sensory data which help other people define their world and influence their behaviour. It also includes how to respond to the information, information something meaningful.

Thus, pointing to gain insights into the perspectives of English specialization students of Myanmar University on their grammar assessment is quite significant. Additionally, the information gained from students' perception about grammar assessment will not only encourage and accommodate teachers to demonstrate appropriate classroom assessment activities but also boost students' achievement. Further, students' perceptions of assessments will affect their learning approach and will change the extent to which they are successful in their classrooms (Mussawy, 2009). Moreover, classroom assessment holds an essential part in language teaching and learning. Assessment, defined as "a systematic process for gathering data about student achievement," is an integral component of education (Dhindsa, Omar, and Waldrip, 2007, p.1261

Based on the explanation that this study tries to investigate students' perceptions toward grammar in English classroom, this research focuses on about perceptions student's grammar at Myanmar universities.

Grammar

Grammar is famous to be enormously vital in language, but many students are stressed to learn it. So, if the students do not get the results they really want, they may be disappointed. Grammar learning needs a broad commitment and practice to retain its mastery. Obliviously, any English student should understand that the essence of oral and written discourse is grammar as the English language is based on grammar. Besides, both students and teachers accept that grammar study is not sufficient, whereas for the real-life communication grammar is also important and is a valuable aspect for oral or written communication. There is no doubt that Grammar is very important and may affect one's success in English. Grammar has a big role in the teaching of English as a foreign language. The most obvious thing related to this study is that grammar is one of the factors that determine students' success in study English. The description of grammar is the learning of how words and component parts combine to sentences. It is sometimes described grammar as the "rules" of a language. Although grammar is important, there are many types of difficulties faced by students on the effect of grammar instruction in the ESL/EFL context. Although grammar is important, there are many types of difficulties faced by students on the effect of grammar instruction in the ESL/EFL context. Haudeck in Sani (2016), many learners have difficulty in internalizing grammar rules, although these have been taught intensively.

Grammar Assessment

There are numerous reasons why students' perception is of great significance for classroom assessment. First, evaluating assessment procedures is one viable way to determine the right path to the goal of the teaching-learning process. Since students are the primary information source for evaluating assessment procedures, thus the quality of assessment methods implemented in the classroom can be observed from their attitudes and viewpoints. As quoted from Rowntree's (1987, p.1) work, if "we wish to discover the truth about an educational system, we must first look to its assessment procedures". Second, students' involvement in classroom assessments makes the learning process more meaningful. For instance, if students are aware that the assessments given to them are not congruent to the goal of language learning, they will supposedly speak up their voice to the teachers. As Dhindsa, Omar, and Waldrip (2007) noted, by examining students' perceptions of the assessment, it stimulates teachers to develop an authentic and realistic approach for evaluation in the future. Additionally, the information gained from students' perception about grammar assessment will not only encourage and accommodate teachers to demonstrate appropriate classroom assessment activities but also boost students' achievement. Further, students' perceptions of assessments will affect their learning approach and will change the extent to which they are successful in their classrooms (Mussawy, 2009). For example, the empirical research done by Alkharusi, Aldhafri, Alnabhani & Alkalbani (2014) has proved that students' perceptions towards classroom assessment practices can be associated with students' academic progression on self-efficacy. By collecting data from 1,457 students and 99 teachers, their research has gained pleasant collaboration between the teaching staff and students to improve the quality of teaching-learning.

Objectives of the Study

The significance of the present research relies on learners' perceptions towards the implementation of grammar assessment, which are expected by educational authorities and instructors to indicate the quality of grammar teaching and learning. It is no doubt that students' perception is relevant to the success of classroom assessment. Thus, the objective of the research is to gain insights into the students' perspectives of the English Departments of universities on their grammar assessment.

Method

Research design prior to undertaking the investigation, ethical clearance was obtained from fourth-year English specialization students at the university. This study employed total sampling. The participants were selected because they had been taught by and acquainted with more grammar lecturers in the department than their juniors. Seventy-four students who were divided into three groups were given a questionnaire. Sixty-nine of them returned the questionnaire. The participants were assisted by the researcher in order to avoid any misconception or misunderstanding of the questions, when filling in the questionnaire. The Student Perceptions of Assessment Questionnaire (SPAQ) was selected as the instrument of the research. It was adopted from the questionnaire developed by Dorman and Knightley's (2006) Perceptions of Assessment Tasks Inventory (PATI), with 24 items included. The instrument was used to inquire about students' perceptions in five dimensions (scales). The questionnaire was divided into five subscales. The five subscales and their respective descriptions are: Scale 1 (Items 1-5) measures the element of congruence with planned learning; Scale 2 (Items 6-10) measures authenticity; Scale 3 (Items 11-15) measures student consultation; Scale 4 (Items 15-20) measures transparency; and Scale 5 (Items 21-24) measures student capabilities. A quantitative method was used to investigate the learners' perceptions of grammar assessment at the English Department of University. The instrument investigated both students' perceptions and opinions. More specifically, with 24 five-point Likert scale items, it was used to investigate learners' perspectives regarding the congruence of the teaching-learning plan, assessment authenticity, transparency, consultation, and students' capability in the classroom. The items on the scale were coded as Strongly Disagree, Disagree, Undecided, Agree, and Strongly Agree. The questionnaire was distributed in three different classes. All classes were provided with the same instructions by the researcher to avoid error and misunderstanding. Statistical significance was analysed using the SPSS 16.0 program. This research aims to address one main research question: How do students in the English Department of selected Universities perceive their classroom-based grammar assessment with regard to the congruence with the planned learning, assessment authenticity, transparency, students' consultation, and their capability in the classroom?

Results

The data were analysed using descriptive statistics to demonstrate the overall perception of students based on the five-scale (24 items) assessment questionnaire. Those five scales were: congruence with planned learning, assessment authenticity, students' consultation about assessment, transparency of assessment, and students' capabilities.

Table 1 shows congruence with planned learning items on questionnaire SPAQ. It clearly states between grammar assessment and planned learning.

Table 1:
Congruence with Planned Learning Items on Questionnaire (n=69)

Sr No	Item	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
1	My assessment in grammar class tests what I memorize.	4%	10%	11%	34%	41%	3.98	1.13	Very similar
2	My assessment in grammar class tests what I understand.	7%	9%	12%	32%	40%	3.89	1.22	Very similar
3	My assignments are about what I have done in class.	2%	5%	11%	31%	51%	4.24	0.97	Completely similar
4	How I am assessed is similar to what I do in class.	1%	1%	10%	34%	54%	4.39	0.79	Completely similar
5	I am assessed on what the teacher has taught me.	2%	4%	8%	33%	53%	4.31	0.92	Completely similar
	Average	3.20%	5.80%	10.40%	32.80%	47.80%	4.16	1.04	Very similar

On congruence with planned learning items on questionnaires, item 4 is found the highest value (Mean= 4.39). The second highest mean value is found as item 5 “I am assessed on what the teacher has taught me”. (Mean= 4.31). The third highest mean score is item 3 “my assignments are about what I have done in class”. (Mean=4.24)

NOTE:
1.00-1.80=Slightly similar
1.81-2.60=Moderately similar
2.61-3.40= Similar
3.41-4.20=Very similar
4.21-5.00= Completely similar

From Table 1, students’ responses to the item 1 and item 2 show a slight variance. The mean value for question 1 (‘what students memorize’) is a little bit higher than ‘what students understand’ in question 2, with the mean score comparison of 3.98 > 3.89. It indicates that students perceived the assessment given in the classroom as only a measure of memorization rather than a measure of understanding. Interestingly, there was no significant difference between item 4 and item 5. In other words, students admitted that they were assessed based on what teachers had taught them and given similar tasks in accordance with what they had done in the class. It is strong evidence to show that students indeed learn strategically in order to maximize their chances of obtaining good grades.

Table 2 represents the authenticity items on questionnaire. The responses of the participants indicate that the grammar assessment was not authentic for students.

Table 2:
The Authenticity Items on Questionnaire (n=69)

Sr No	Item	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
6	I am asked to apply my learning to real life situations.	4%	10%	11%	34%	41%	3.98	1.13	Very transparent
7	My grammar class assessment tasks are useful for everyday life.	7%	9%	12%	34%	38%	3.87	1.21	Very transparent
8	I find my grammar class tasks are relevant to what I do outside of class.	2%	5%	11%	31%	51%	4.24	0.97	Completely transparent
9	Assessment in grammar class tests my ability to apply what I know to real-life problems.	1%	1%	10%	34%	54%	4.39	0.79	Completely transparent
10	Assessment in grammar class examines my ability to answer everyday questions	2%	4%	8%	33%	53%	4.31	0.92	Completely transparent
11	I can show others that my learning has helped me do things.	7%	7%	5%	30%	51%	4.11	1.21	Very transparent
	Average	3.83%	6.00%	9.50%	32.67%	48.00%	4.15	1.07	Very transparent

NOTE:
1.00-1.80=Slightly transparent
1.81-2.60=Moderately transparent
2.61-3.40=Transparent
3.41-4.20=Very transparent
4.21-5.00= Completely transparent

According to table 2, it was found that the highest mean score was (M=4.39) from item number 9, which indicates that the assessment given in the classroom was to examine students' ability to apply what they know to real-life problems. The second highest mean score was item 10 which means Assessment in grammar class examines their ability to answer everyday questions. Further, statistical tests revealed that Item 7 was the one having the lowest score (M=3.87). This implies that little of the grammar assessment was viewed to bring benefits to students' daily communication. This particular item investigates whether students were facilitated by the assessment to use correct grammar in productive skills like speaking and writing. The real purpose of studying grammar was somewhat damaged if the students perceived that the test given was not authentic. It shows the design of tests need to highlight realistic (but fair) complexity.

Table 3 illustrates student consultation items on questionnaire. It shows students participation on grammar classroom assessment.

Table 3:
Student Consultation Items on Questionnaire

Sr No	Item	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
12	In grammar class I am clear about the types of assessment being used.	4%a	10%	11%	34%	41%	3.98	1.13	Very satisfactory
13	I am aware how my assessment will be marked.	7%	9%	14%	32%	38%	3.85	1.22	Very satisfactory
14	My teacher has explained to me how each type of assessment is to be used.	2%	5%	11%	31%	51%	4.24	0.97	Completely satisfactory
15	I can have a say in how I will be assessed in grammar class Valid N (listwise)	1%	1%	10%	34%	54%	4.39	0.79	Completely satisfactory
	Average	3.50%	6.25%	11.50%	32.75%	46.00%	4.12	1.06	Very satisfactory

NOTE:
1.00-1.80=Slightly satisfactory
1.81-2.60=Moderately satisfactory
2.61-3.40=Satisfactory
3.41-4.20=Very satisfactory
4.21-5.00= Completely satisfactory

Table 3 shows a narrow rate of students' consultation in the grammar classroom assessment. The mean scores of items 12 (Mean=3.98) and 13 (Mean=3.85) hint that students were not aware of the types of assessment being used by the teachers and how they would be graded. Meanwhile, the other two items marginally averaged higher at M=4.24 and M=4.39. This means that teachers had given students little chance to decide how they would be assessed, and they had limited participation in grammar classroom assessment.

Table 4 shows items represented "Transparency "on questionnaire SPAQ.

Table 4:
Transparency Items on Questionnaire

Sr No	Item	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
16	I understand what is needed in all grammar class tasks.	5%	10%	10%	33%	42%	3.97	1.17	Very transparent
17	I am told in advance when I am being assessed.	5%	9%	12%	34%	40%	3.95	1.15	Very transparent
18	I am told in advance on what I am being assessed.	2%	5%	1%	21%	71%	4.54	0.90	Completely transparent
19	I am clear about what my teacher wants in my assessment tasks.	1%	1%	4%	30%	64%	4.55	0.71	Completely transparent
20	I know how a particular assessment task will be marked.	5%	10%	2%	32%	51%	4.14	1.17	Very transparent
	Average	3.60%	7.00%	5.80%	30.00%	53.60%	4.23	1.07	Completely transparent

NOTE:
1.00-1.80=Slightly transparent
1.81-2.60=Moderately transparent
2.61-3.40=Transparent
3.41-4.20=Very transparent
4.21-5.00= Completely transparent

Overall, the transparency of grammar classroom assessment in the English Department was rather unsatisfactory. All of the questionnaire items of transparency were rated below average. One positive point was gained from item 18, which somewhat became the most striking one. Item 19 I am clear about what my teacher wants in my assessment tasks is found completely transparent. The item's mean score indicates that the students were informed about what they were being assessed. However, item 20 tells us that students barely knew how specific assessment tasks would be graded.

The study suggests that a shared understanding exists among the faculty members and students concerning the primary purpose of classroom assessment, improving instruction and increasing learning. Classroom assessment holds an essential part in language teaching and learning. Assessment, defined as "a systematic process for gathering data about student achievement," is an integral component of education (Dhindsa, Omar, and Waldrip, 2007, p.1261). Udoukpong and Okon (2012) explained that information gathered in assessments and evaluations is used to shape strategies for improvement at each level of the education system. Specifically, at the classroom level, teachers may collect information on students' understanding of the instruction and adjust teaching to meet identified learning needs. On the other hand, Black and William (1998) asserted that assessment is more of collaborative activities between teachers and students. They defined assessment broadly as a term which includes all activities teachers and students undertake to get information that can be used analytically to alter teaching and learning. This definition considers proper assessment that involves continuing preparation, practice, and evaluation to be an essential component of language learning. A related study was conducted by Cheng, Wu, and Liu (2015) by involving 620 university students from three universities to investigate the relationship between students' perceptions of assessment tasks and classroom assessment environment within the context of teaching English as a foreign language (EFL) in China. The instrument that was used to measure students' perceptions of the classroom assessment environment was designed based on Dorman and Knightley's (2006) Perceptions of Assessment Tasks Inventory (PATI) and Alkharusi's (2011) scale. From the results, it can be inferred that there was a match between assessment and learning from these students' point of view. Yet, the students were scarcely involved in determining the criteria of evaluation which led to the performance-based assessment. Another research on students' perceptions of assessment was investigated by Al Kadri, Al-Moamary, Magzoub, Roberts, and van der Vleuten (2011).

Table 5 characterizes students' responses of capabilities items on questionnaire.

Table 5:
Students Capabilities Items on Questionnaire

Sr No	Item	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
21	I can complete the assessment tasks by the given time.	2%	3%	10%	24%	61%	4.39	0.93	Completely prudent
22	I am given a choice of assessment tasks.	9%	12%	12%	32%	35%	3.72	1.30	Very prudent
23	I am given assessment tasks that suit my ability.	3%	4%	7%	25%	61%	4.37	0.99	Completely prudent
24	When I am confused about an assessment task, I am given another way to answer it.	8%	14%	20%	32%	26%	3.54	1.24	Very prudent
	Average	5.50%	8.25%	12.25%	28.25%	45.75%	4.01	1.19	Very prudent

NOTE:
1.00-1.80=Slightly prudent
1.81-2.60=Moderately prudent
2.61-3.40= prudent
3.41-4.20=Very prudent
4.21-5.00= Completely prudent

Table 5 presents the information related to students' capabilities in the grammar class. It can be seen from the low mean scores of items 24, 22, and 23 (that the students were hardly given choices of assessment tasks suitable with their ability. Also, there were limited options for students to accomplish the tasks when they faced difficulties during the grammar teaching-learning process. However, a slightly higher mean score in item 21 suggests that students may be able to finish the tasks and homework given at a proper time even though the teachers gave them few choices of tasks in the grammar class.

In this study, it can be concluded that cultural differences and emotions can affect students' perceptions towards the implementation of assessment in the classroom and their learning styles. In addition to those previous studies, this research aims to explore the perceptions of undergraduate students in the English Department of the State Islamic University of Ar-Raniry on the grammar assessment given by their lecturers. This research, further, investigates the students' awareness of the grammar teaching-learning process and how the experiences led to their successful language learning.

Table 6 shows averaged mean scores of overall students' responses on 5-Scale assessment questionnaire which can be seen the results of the whole study.

Table 6:
Averaged Mean Scores of Overall Students' Responses on 5-Scale Assessment Questionnaire

Sr No	Item	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
1	Congruence with Planned Learning	3.20%	5.80%	10.40%	32.80%	47.80%	4.16	1.04	Better
2	Authenticity of Assessment	3.83%	6.00%	9.50%	32.67%	48.00%	4.15	1.07	Better
3	Student Consultation about Assessment	3.50%	6.25%	11.50%	32.75%	46.00%	4.12	1.06	Better
4	Transparency of Assessment	3.60%	7.00%	5.80%	30.00%	53.60%	4.23	1.07	Best
5	Students' Capabilities	5.50%	8.25%	12.25%	28.25%	45.75%	4.01	1.19	Better
	Average	3.93%	6.66%	9.89%	31.29%	48.23%	4.13	1.09	Better

Based on the averaged mean scores of overall students' responses on five-scale assessment questionnaire in Table 6, none of them reaches a maximum averaged score of 5. However, the study shows that students perceived 'transparency of assessment' to have the highest mean (M =4.23) compared to the other four scales. Students in this case realized that the purposes and forms of assessment tasks are well-defined and clear to the learner. When students become aware that what they are learning in the class will be tested on assessment tasks, they become more enthusiastic about investing time and energy in teaching-learning activities (Brookhart & Bronowicz, 2003; McMillan, 2000). Besides, drawn from table 6, students perceived the 'authenticity of grammar assessment' (M=4.15) to be comparatively lower in score than 'transparency of assessment'. In other words, they were tested in accordance with what they had understood and learnt. However, the usefulness of grammar learning for everyday life was still lacking. Therefore, it is imperative that teachers and staff who are involved in the assessment decision process understand what real-life situations students are really concerned with. In terms of student consultation, the scale was marked as having the second lowest averaged score (M=4.12). This suggests that students viewed rather negatively the types of assessment being used in their class and indicates that they could barely have a say in how they would be assessed in their classes. Struyven, Dochy, and Janssens (2005) reported that there is a strong relationship between student perceptions of assessments and how they approach learning. In addition to that, they also highlighted the significance of focusing more on students' role because when students feel included in the decision making of assessment modes, they become more eager to participate in the teaching-learning activities. Regarding the capabilities of students in performing in the assessment tasks, students perceived their assessment tasks to be strictly lower than student consultation (M=4.01). This implies that a few students may probably finish their assessment tasks at the given time. Yet, they were less likely to be given the choices of assessment formats and alternatives to approach a question when they were confused. Finally, the authenticity was perceived to be a little more favourable (M=4.15) compared to consultation and student capabilities, despite the fact that it was still far from the maximum score. Thus, it is important to attribute more information about how the assessments were designed and how teachers marked them.

Discussion

By examining students' views on grammar assessment by using the SPAQ, the result of this quantitative research presents considerable insights into the ways students distinguish grammar in the classroom assessments. This study helps readers appreciate not only the prominent character of classroom-based grammar assessments but much more beyond that through separating the multi-dimensional nature of student perceptions. The findings conclude that, while grammar assessments demonstrated congruence with planned learning and transparency, there was still a long way to go for further development, for example by increasing the authenticity of assessment tasks and involving students in the decision process. However, due to the cross-sectional data and geographically homogeneous student sample, the result of the current study should be interpreted with carefulness.

Recommendations

Future researchers are suggested to build a complete picture of student perceptions of language assessments, especially grammar assessments by trying to obtain a larger sample of students from various levels and regions

References

Al Kadri, H., Al-Moamary, M., Magzoub, M., Roberts, C., & van der Vleuten, C. (2011). Students' perceptions of the impact of assessment on approaches to learning: A comparison between two medical schools with similar curricula. International Journal of Medical Education, 44–52. DOI: 10.5116/ijme.4ddb.fc11. Retrieved from http://search.proquest. com/docview/870646470/

Alkharusi, H. (2011). Teachers' classroom assessment skills: Influence of gender, subject area, grade level, teaching experience and in-service assessment training. Journal of Turkish Science Education, 8(2), 39-48.

Alkharusi, H., Aldhafri, S., Alnabhani, H., & Alkalbani, M. (2014). Classroom assessment: Teacher practices, student perceptions, and academic self-efficacy beliefs. Social Behavior and Personality: An International Journal, 42(5), 835-856.

Black, P., & William, D. (1998). Inside the black box: Raising standards through classroom assessment. Phi Delta Kappan, 80(2), 139–144.

Brookhart, S. M., & Bronowicz, D. L. (2003). 'I don't like writing. It makes my fingers hurt': Students talk about their classroom assessments. Assessment in Education: Principles, Policy & Practice, 10(2), 221–242. Retrieved from https://doi.org/10.1080/ 0969594032000121298

Cheng, L., Wu, Y., & Liu, X. (2015). Chinese university students' perceptions of assessment tasks and classroom assessment environment. Language Testing in Asia, 5(1), 1–17. Retrieved from https://doi.org/10.1186/s40468-015-0020-6

Dhindsa, H. S., Omar, K., & Waldrip, B. (2007). Upper secondary Bruneian science students' perceptions of assessment. International Journal of Science Education, 29(10), 1261– 1280. Retrieved from https://doi.org/10.1080/09500690600991149

Mussawy, S., A., J. (2009). Assessment practices: Students and teachers' perceptions of classroom assessment. (Master's thesis, University of Massachusetts).
Purpura, J. E. (2004). Assessing grammar. Cambridge: Cambridge University Press. Rowntree, D. (1987). Assessing students: How shall we know them? (Rev. ed.). New York: K. Page; Nichols Pub. Co.
Ronald, A. B. (2008). Business Law E-Commerce.
Sani, H. K. (2016). Senior High School Students' Perceptions Towards Grammar. English Language Education Program Faculty of Language and Arts Universitas Kristen Satya Wacana2016.http://repository.uksw.edu/bitstream/123456789/9438/2/T1_112011087_Full text.pdf
Struyven, K., Dochy, F., & Janssens, S. (2005). Students' perceptions about evaluation and assessment in higher education: A review. Assessment & Evaluation in Higher Education, 30(4), 325–341. Retrieved from https://doi.org/10.1080/02602930500099102
Udoukpong, Bassey, E., and Cecilia, O. (2012). Perception of formative evaluation practices and students' academic performance in junior secondary certificate examination in social studies. International Journal of Business and Social Science, 3(15).

Academic Achievement and Computer Attitudes among Myanmar University Students

Dr. Than Than Win
Associate Professor, History Department, Myitkyina University, Myanmar
Email: tt398735@gmail.com

Abstract

In Myanmar, like any other parts of the world, the government has enormously been enthusiastic supporter of technology to uplift the education quality. However, without students' positive computer attitudes, students will not be successful nor will be prepared to acquire new knowledge to achieve good results. To this end, the present survey identifies the computer enjoyment (CE), explores the computer anxiety (CA), examines the computer utility (CU), and finally investigates the computer familiarity (CF) among Myanmar university students. Therefore, the questionnaire data are interpreted quantitatively, whereas the semi-structured interview data are treated qualitatively. The statistical tools are used in order to help analyze and interpret data by making use of percentages, frequencies, mean and standard deviation. As a case in point, questionnaire data are analyzed quantitatively using different statistical tools assisted by the Statistical Package of the IBM statistics program (SPSS), version 22. According to the findings, learning with technology has positive effects on students' motivation and enjoyment.

Keywords: Academic achievement, Computer attitudes, University students, Myanmar

I. Introduction

Technology has become a significant means for the uplifting of educational quality. In Myanmar, like any other parts of the world, the government invested efforts to establish policy frameworks that would help Myanmar to be capable of managing its moves into knowledge-based society. The country tries to institutionalize a reliable policy to benefit from the opportunities offered by technological advancements for the purpose of restructuring the objectives, and content of education. Otherwise stated, researchers like Alexander and McKenzie (1998) pinpoint that while implementing the new technology into the process of teaching and learning, educators stress the paramount importance of how this new technology can influence learning. To be clear, exploring students' computer attitudes, namely computer enjoyment, computer anxiety, computer utility, and computer familiarity, helps students to learn in different ways. In such types of learning, ICT is considered as the glue that binds the learning achievement.

1.1 Students' Attitude towards the Acceptance of Computers in the Field of Educational Technology

Students' attitude is a critical factor in enhancing the acceptance of computers in the field of educational technology. In their cross-cultural technology training and education program, Chisholm, Irwin and Carey (1998) explore computer training preferences, computer attitudes, and computer access among Chinese, Ghanaian, and

American college students. The results exhibit that the Chinese and Ghanaian students have positive attitudes towards computers, though they have no prior computer experience, and training. Along the same line of thought, Staehr, Martin and Byrne (2001) examine attitudes to computers among students enrolled in an introductory computing course. The results reveal that ownership of a computer at home has a positive impact on computer attitude subscales as anxiety and computer confidence. Shaw and Marlow (1999) assess students' initial attitudes towards the use of technology in which about ninety-nine university science students participated. Learning style questionnaire (Honey & Mumford, 1986) and attitude questionnaire including six dimensions as 'comfort', 'interactivity', 'self-satisfaction', 'value new technology', 'experience' and 'context' are used. The findings reveal that the participants exhibit low scores in their attitude dimensions of 'value new technology', 'interactivity' and 'context' indicating discomfort with computers, and lack of personal contact. The results also report a significant correlation between the 'theorist', the 'interactivity', and 'context' attitudes. In the same vein, Shaw *et al.* (1999) evidence that first year students show more positive attitudes towards ICT-based learning than second- or third-year students. The researchers conclude that technology-aided learning may be limited by negative attitudes toward a style of teaching which is not consistent with students' past learning experiences. Computer Attitude Scale (CAS) is mainly used to measure students' components of computer attitudes such as anxiety, confidence, liking, and usefulness. The findings demonstrate that respondents' computer usefulness is more positive than their computer anxiety, confidence, and liking. More importantly, the findings display that computer experience, degree of access, and computer ownership have significant effects on computer anxiety, computer confidence, computer liking, computer usefulness, and overall computer attitude, while age and class standing are found to be ineffective on any of the computer attitude scales. The number of computer courses and higher-grade point average significantly affect computer confidence, computer usefulness, and overall attitude scales. The researchers conclude that computer attitudes are a very significant factor in educational technology.

1.2 Research Objectives

The present study primarily has the purposes to explore students' computer attitudes within a Moroccan institution of higher education. Inspired by computer attitudes as highlighted in the review of the literature, the present study is designed to address the following objectives:

Research objective 1: To explore the students' computer attitude

Research objective 2: To investigate the students' computer enjoyment

Research objective 3: To examine the existing type of computer utility and computer familiarity adopted by the students

As a matter of fact, the sequential quantitative method research design is adopted in this study. phenomenon under study" (Patton, 2002, p. 248). The respondents of the current investigation are non-randomly 81 university students within the department of undergraduate studies. They are targeted on the basis of 1) their availability and willingness, and 2) the researcher of the present study has a specific group of students in mind with the expectation that they will give unique and rich information of value to the study.

II. Research Methodology

2.1 Participants

This research employed a qualitative method. The data collection was conducted in selected universities of Myanmar. The survey was conducted in November 2021. The students involved was 17 to 22 years old (n=81) and has been learning in the university for 1 to 4 years.

2.2 Research Instruments

In this research, questionnaires are used as the main instruments which are based on the Computer Attitude Scale (CAS), Computer Enjoyment Scale (CES), Computer Utility Scale (CUS) in the field of educational technology. According to Christensen & Knezek (2000), the Computer Attitude Questionnaire (CAQ) is reported to be a sound, efficient and outstanding theoretical tool to explore students' computer attitudes. Therefore, the questionnaire is used to measure three dimensions: (a) Computer Attitude (CA), (b) Computer Enjoyment (CE), and (c) Computer Utility (CU). Furthermore, the questionnaire also allows the participants to choose from 1 to 3 point on a scale which ranges from "disagree" to "agree". To achieve the research purposes in terms of interpretation of the data obtained, two different types of data analysis are used. The questionnaire responses are analyzed quantitatively using statistical tools assisted by the Statistical Package of the IBM statistics program (SPSS), version 22. Descriptive statistics such as frequencies, means, and standard deviations are also calculated for all scales and statements.

III. Research Findings

The computer attitude questionnaire (CAQ) has been used to measure students' attitudes towards computers. In order to draw a detailed profile of students' attitude towards computer, it is essential to pinpoint their position on the basis of the four major categories. The responses are calculated after having reversed the negatively worded items. The findings refer to the number of responses to each of the three options of every item in the Likert scale.

3.1 Findings of the Computer Attitude Scale (CAS) Questionnaire

Computer attitude scale consists of four dimensions: CAS, CES, CUS, and CFS (Items 1 through 20). The results are reported in Table 1. The findings with CE dimension demonstrating the highest mean score, and the CA scale representing the lowest mean. This is followed by both the CF and CU scales with mean and mean, respectively.

Principal Components' Analysis for the Computer Attitude Scale (CAS)
Data were gathered using a 3-point rating scale of 1=Disagree to 3=Agree.
Table 1:
Student participants 'responses towards the Computer Attitude Scale (CAS)

SN	Components	Responses			Calculation		Interpretation
		Disagree	Neutral	Agree	Mean	SD	
1	Computers intimidate me because they seem so complex.	27%	35%	38%	2.11	0.80	Considered of moderate attitude
2	I feel intimidated by computers.	28%	31%	41%	2.13	0.82	Considered of moderate attitude
3	Computers make me uncomfortable because I do not understand them.	30%	30%	40%	2.10	0.83	Considered of moderate attitude
4	Computers are difficult to understand and frustrating to work with.	33%	30%	37%	2.04	0.84	Considered of moderate attitude
5	The overuse of computers may be harmful and damaging to humans.	29%	30%	41%	2.12	0.83	Considered of moderate attitude
6	Computers are dehumanizing to society.	57%	23%	20%	1.63	0.80	Considered of negative attitude
7	Computers are lessening the importance of too many jobs now done by humans.	49%	30%	21%	1.72	0.79	Considered of moderate attitude
8	People are becoming slaves to computers.	39%	21%	40%	2.01	0.89	Considered of moderate attitude
9	Computers turn people into just another number.	27%	51%	22%	1.95	0.70	Considered of moderate attitude
10	Computers are responsible for many of the good things we enjoy.	26%	24%	50%	2.24	0.84	Considered of moderate attitude
11	The use of computers is enhancing our standard of living.	11%	23%	66%	2.55	0.68	Considered of positive attitude
12	Life will be easier and faster with computers.	22%	6%	72%	2.50	0.83	Considered of positive attitude
13	Computers are a fast and efficient means of getting information.	13%	1%	86%	2.73	0.68	Considered of positive attitude

14	Soon our lives will be controlled by computers.	8%	3%	89%	2.81	0.56	Considered of positive attitude
15	Soon our world will be completely run by computers.	9%	2%	89%	2.80	0.58	Considered of positive attitude
16	Computers will replace the need for working human beings.	9%	15%	76%	2.67	0.63	Considered of positive attitude
17	Computers are bringing us into a bright new era.	3%	1%	96%	2.82	0.58	Considered of positive attitude
18	Computers will never replace human life.	60%	21%	19%	1.59	0.79	Considered of negative attitude
19	Computers can eliminate a lot of tedious work for people.	13%	22%	65%	2.52	0.71	Considered of positive attitude
Average		26.26%	21.00%	52.74%	2.26	0.85	Considered of moderate attitude

NOTE:

1.00-1.66=Considered of negative attitude

1.67-2.33=Considered of moderate attitude

2.34-3.00=Considered of positive attitude

The present study has demonstrated that the majority of the students show moderate computer attitude (CA) (Average=2.26). As expected, not only are the respondents aware that computers cannot replace the teacher's job or face-to-face interaction, but they are also determined not to let the computer spoil their traditional learning, "computer is addictive and enslaving". This is also confirmed by the second rated item, "Soon our lives will be controlled by computers.", and third rated item, "our world will be completely run by computers". Findings prove that students with high CA may support their learning of language and increase their learning achievement. The mean scores for item 17 reveal that the respondents are aware of the utility of the computer in their current practices as computers are bringing them into a bright new era (Mean=2.82). Therefore, there is awareness among university students that the computer has been invented to make education easier, by relieving them of some routine, time-consuming learning duties so that their lives will be controlled by computers (Mean=2.81). By the moderately positive responses registered, they also say that the world will be completely run by computers soon as computers are a source of impetus to double students' efforts in learning (Mean=2.80). It is no doubt that the respondents have positive attitude towards computers due to technology utility and its usefulness. The finding goes in line with EFL learners in other studies who have positive computer attitudes.

3.2 Findings of the Computer Enjoyment Scale (CES) Questionnaire

Focus on Enjoyment of Computers, the findings are reported in detail in Table 2. The computer enjoyment scale is composed of the five items. Data were gathered using a 3-point rating scale of 1=Disagree to 3=Agree.

Table 2:

Student participants' responses towards the Computer Enjoyment Scale (CES) (n=81)

SN	Components	Responses			Calculation		Interpretation
		Disagree	Neutral	Agree	Mean	SD	
1	I enjoy doing jobs which use a computer.	27%	24%	49%	2.13	0.80	Enjoyable
2	I am tired of using the computer.	29%	30%	41%	2.12	0.83	Enjoyable
3	I enjoy lessons on the computer.	10%	30%	60%	2.50	0.67	Completely enjoyable
4	I enjoy computer games very much	39%	30%	31%	1.92	0.83	Enjoyable
5	I concentrate on a computer when I use one.	29%	30%	41%	2.12	0.83	Enjoyable
Average		26.80%	30.80%	42.40%	2.16	0.82	Enjoyable

NOTE:

1.00-1.66=Not enjoyable

1.67-2.33=Enjoyable

2.34-3.00=Completely enjoyable

Computer Enjoyment is also reported as one of the central features in educational software (Kerawalla & Crook, 2005), and contributes to students' experience in any technology learning environment (Finneran & Zhang, 2005). According to the data, students feel that the computer helps them improve the productive as well as receptive skills, i.e., writing/speaking, and reading/listening, through developing their way of thinking and motivating them for more interaction (Mean=2.50). The findings of the present study also reveal similar results to a few previous studies. In that, Cazares (2010) finds no significant relationship between proficiency and attitude towards computer technology concluding that achievement level is not predicted by attitude, be it negative or positive. Nevertheless, students' positive attitude towards computers motivates them to approve of learning and teaching strategies exploited, and thus achieve more in the exams (Mean=2.13). Smith, Caputi and Rawstorne (2000) examine students' positive or negative responses to computers as a language learning approach. They conclude that there is a significant relationship between students' attitude toward the type of teaching/learning and their attitude toward a particular computer-based activity.

3.3 Findings of the Computer Utility Scale (CUS) Questionnaire

For each statement, decide whether students disagree or agree with the statement using the following 3-point scale ranging from strongly disagree to strongly agree. In the box to the right of each statement, they fill in the number on the 3-point scale that best describes their level of disagreement or agreement.

Table 3:
Student participants' responses towards the Computer Utility Scale (CUS) (n=81)

SN	Components	Responses			Calculation		Interpretation
		Disagree	Neutral	Agree	Mean	SD	
1	I feel insecure about my ability to interpret a computer printout.	23%	35%	42%	2.19	0.78	Useful
2	I look forward to using a computer in my job.	30%	20%	50%	2.20	0.87	Useful
3	I do not think I would be able to learn a computer programming language.	30%	24%	46%	2.16	0.86	Useful
4	The challenge of learning about computers is exciting.	35%	20%	45%	2.10	0.89	Useful
5	I am confident that I can learn computer skills.	29%	20%	51%	2.22	0.87	Useful
6	Anyone can learn to use a computer if they are patient and motivated.	13%	7%	80%	2.67	0.69	Very useful
7	Learning to operate computers is like learning any new skill – the more you practice, the better you become.	9%	11%	80%	2.71	0.62	Very useful
8	I am afraid that if I begin to use computers, I will become dependent upon them and lose some of my reasoning skills.	57%	23%	20%	1.63	0.80	Not useful
9	I am sure that with time and practice I will be as comfortable working with computers.	17%	31%	52%	2.35	0.75	Very useful
10	I feel that I will be able to keep up with the advances happening in the computer field.	26%	14%	60%	2.34	0.86	Very useful
11	I dislike working with machines that are smarter than I am.	59%	25%	16%	1.57	0.75	Not useful
12	I feel apprehensive about using computers.	52%	26%	22%	1.70	0.81	Useful
13	I have difficulty in understanding the	33%	41%	26%	1.93	0.76	Useful

	technical aspects of computers.						
14	It scares me to think that I could cause the computer to destroy a large amount of data by hitting the wrong key.	58%	23%	19%	1.61	0.79	Not useful
15	I hesitate to use a computer for fear of making mistakes that I cannot correct.	69%	22%	9%	1.40	0.65	Not useful
16	You have to be a genius to understand all the special keys contained on most computer terminals.	59%	25%	16%	1.57	0.75	Not useful
17	If given the opportunity, I would like to learn about and use computers.	8%	2%	90%	2.82	0.55	Very useful
18	I have avoided computers because they are unfamiliar and somewhat intimidating to me.	61%	20%	19%	1.58	0.79	Not useful
19	I feel computers are necessary tools in both educational and work settings.	3%	22%	75%	2.72	0.51	Very useful
Average		35.32%	21.58%	43.11%	2.08	0.88	Useful

NOTE:

1.00-1.66= Not useful

1.67-2.33=Useful

2.34-3.00=Very useful

The data findings to determine the computer utility (CU) among university students have been found to be significant (Average mean=2.08). In other words, since computers play a very useful part of language learning at different language levels, they have potential effect on students' achievement. Besides, the most important criterion for students to yield positive achievement results is learning about and using computers according to its pedagogical use and integrating it successfully in the curriculum (Mean=2.82). It has been also discovered that a great number of the students favor in both educational and work settings (Mean=2.72). This is further confirmed by the second rated item among respondents. This illustrates that the respondents can learn more from computers than from books, which is a restatement of the positive attitude to computers as a major competitor of the book. The third item is "Learning to operate computers is like learning any new skill – the more you practice, the better you become" (Mean=2.71) while the last used item concerns "I hesitate to use a computer for fear of making mistakes that I cannot correct" (Mean=1.40).

Table 4:
Internal Consistency/Reliability for CA Scale (n=81)

SN	Components	Responses			Calculation		Interpretation
		Disagree	Neutral	Agree	Mean	SD	
1	Computer Attitude Scale (CAS)	26.26%	21.00%	52.74%	2.26	0.85	Considered of moderate attitude
2	Computer Enjoyment Scale (CES)	26.80%	30.80%	42.40%	2.16	0.82	Enjoyable
3	Computer Utility Scale (CUS)	35.32%	21.58%	43.11%	2.08	0.88	Useful

As previously stated, the study has been designed to assess three computer attitude dimensions. As suggested by Table 1, 2 and 3, the respondents' mean scores on the three scales range from the CAS with the average mean (2.26), CES (average mean=2.16), and CUS (average mean=2.08) are scored in the respected order. The results of the analysis demonstrate that the majority of the respondents express their satisfaction on overall items among participants of the computer potentials and their importance for educational purposes. According to the data, for the respondents, computers are highly important and useful. Additionally, the participants are motivated to engage in computer-based learning.

IV. Discussion

This study demonstrates that computer attitudes have a crucial role in determining the extent to which students accept the computer as a learning tool. A sample of 81 undergraduate students is examined for their computer attitudes using a Likert-type questionnaire with three subscales: Computer attitude, computer enjoyment, and computer utility. The results reveal that participants have positive attitudes towards computers. This is evidenced that the majority of the students who enjoy computer technology gain confidence in their learning process. In other studies, investigations have been conducted to examine students' enjoyment toward computers and learning language skills. For example, Gunn and Brussino's (1997) study investigates participants' attitudes towards technology-supported learning for specific language skills. First, the findings demonstrate that students exhibit positive attitudes toward technology-based learning in general, but computers in specific are found to be preferred, namely for listening and writing. This is followed by speaking and reading skills. Similar findings have been revealed by Lasagabaster and Sierra (2003) when they discover that participants favor computer software for listening purposes. Undoubtedly, it can be concluded that positive attitudes are attributed to high levels of motivation and negative attitudes are associated with lack or low levels of motivation. It is acknowledged by several scholars (Teo, 2008) that Computer Enjoyment plays a key role in influencing students' acceptance of computers, and their willingness to use them for future learning. Thus, according to Garcia (2001), students prefer to use computers in language learning because computer tools can help them search information related to their studies. Learners can also develop their listening, speaking, reading, and writing English through real-world situations (Yang & Chen, 2007). This is supported by research studies

(Cybinski & Selvanathan, 2005) where learning with technology has positive effects on students' motivation and enjoyment.

V. Conclusions

The ultimate purpose of the present investigation is to examine the students' computer attitude and their level of scholastic achievement in ICT-based environment. This study examines the students' attitude to technology for specific language skills and their level of achievement. The findings reports that student who make use of multimedia enhancement excel significantly compared to the traditional ways of learning. The present study is an attempt to explain and make a better use of respondents' existing types of Computer Attitude and fix any flaws affecting their academic achievement. Among its top implications, attitude towards computers constitutes an important factor in determining the failure or success of ICT use in education. Finally, ICT is not an independent technological tool; rather it integrates a number of technologies that can be incorporated in a discrete or integrative manner.

References

Cazares, A. (2010). Proficiency and attitudes toward information technology use in psychology undergraduates. *Computers in Human Behavior, 26*, 1004-1008. (doi:10.1016/jchb2010.02.015).
Chisholm, I. M., Irwin, L., & Carey, J. M. (1998). Perceptions and attitudes toward computers
across continents. In S. McNeil. *et al.* (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 1998* (pp. 494-497).
Cybinski, P., & Selvanathan, S. (2005). Learning experience and learning effectiveness in
undergraduate statistics: Modelling performance in traditional and flexible learning environments decision sciences. *Journal of Innovative Education, 3*(2), 251-271.
Finneran, C. M., Zhang, P. (2005). Flow in computer-mediated environments. *Communications*
of the Association for Information Systems, 15, 82-101.
Honey, P., & Mumford, A. (1986). *The manual of learning styles.*Maidenhead: Peter Honey Peter.
Kerawalla, L., & Crook, C. (2005). From promises to practices: The fate of educational software
in the home. *Technology, Pedagogy & Education, 14*(1), 107-125.
Lasagabaster, D., & Sierra, J. (2003). Students' evaluation of CALL softwareprograms.
Educational Media International, 40(3/4),293-304.
Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks,
CA: Sage Publications.
Shaw, G., & Marlow, N. (1999). The role of student learning styles, gender, attitudes and perceptions on information and communication technology-assisted learning. *Computers &*
Education, 33(4), 223-234.

Smith, B., Caputi, P., & Rawstorne, P. (2000). Differentiating computer experience and attitudes
toward computers: An emprical investigation. *Computers in Human. Behavior, 16,* 59-81.

Staehr, L., Martin, M., & Byrne, G. (2001). Computer attitudes and computing career perceptions of first year computing students, Proceedings of Informing Science 2001-Bridging Diverse Disciplines, in A. Harringer (Ed.), *e-Proceedings*, Krakow, Poland (ISSN 1535-0703).

Teo, T. (2006). Attitudes toward computers: A study of post-secondary students in Singapore.
Interactive Learning Environments, 14(1), 17-24.

Teo, T. (2008). Pre-service teachers' attitudes towards computer use: A Singapore survey.
Australasian Journal of Educational Technology, 24 (4), 413-424

Incorporation of Global Citizenship Education into ELT: Myanmar Context

Wint Khin Sandar Chit
English Department, Kalay University, Ministry of Education, Myanmar
E-mail: sandarchit111@gmail.com

Abstract

The aim of this study is to explore the perceptions of ELT teachers working at a higher education institution in Myanmar regarding integrating global citizenship education into ELT courses. The study was carried out by using phenomenological design, which is one of the qualitative studies. The data were collected using interview method and a semi-structured interview form. The participants were selected on the basis of easily accessible sampling method, one of the purposeful sampling methods. The participants comprise of 49 English teachers who work at a higher education institution in the different regions in the academic year 2018-2019. Teachers' opinions were taken regarding (i) how they described global citizenship, what were their (ii) roles and responsibilities in educating students as global citizens, how they (iii) practiced global citizenship education in their classes in ELT courses. Data were analyzed with content analysis technique. Findings revealed that participants mostly focused on the (i) "value" dimension of global citizenship such as respect, sensitivity, sense of belonging, responsibility, openness and humanitarian assistance. The teachers deemed their roles and responsibilities in preparing students as global citizens as (ii) an informer and role model. While most of the participants stated that they did not involve any (iii) specific teaching practices in their classes to educate students as global citizens, as they thought ELT lessons and global citizenship education were irrelevant, addressing global issues in the courses and role modelling were conducted by few teachers to promote global citizenship. As a result, it was concluded that ELT teachers have insufficient levels of knowledge, skills, attitude, and action related with global citizenship education.

Keywords: global citizenship, global education, global issues in ELT

I. Introduction

According to Burrows (2004, p.1), global citizenship refers to realizing the powers and the effects of these powers on human life, understanding cultures and cultural differences, analyzing the problems of the world from different perspectives, and producing new ideas for the world. In Lima and Brown's (2007) study, a global citizen is defined as an individual who: (1) speaks multiple languages; (2) understands about different cultures; (3) has no prejudice and respects diversity; (4) is willing to help those in need; (5) plays important roles in the society; (6) uses technology effectively; and (7) is informed about what is going on in their country and/or the world. Raising individuals as global citizens requires some changes in traditional educational approaches as individuals who are able to adapt to the changing world order and act within those circumstances can only be trained through education and training activities (Topkaya, 2016). In this regard, Akcay (2003) states that education is not only a means of globalization or integration, but it is also a tool for overcoming the problems created by globalization. That's why it is of great importance that the education system must renew itself in this sense and contribute to this process. In this context, global citizenship education has recently gained importance in education systems around the world. Davies (2006) argues that global citizenship education infuses learners the idea of not only belonging to their nation, but also to the world and includes global issues such as democracy, social justice and human rights. According to Cates (2000, p.241), the aims of global education are divided into four as; *knowledge* about world countries and cultures, and about global problems, etc.; *skills* of critical thinking, co-operative problem solving, conflict resolution, etc.; *attitudes* of global awareness, cultural appreciation, respect for diversity, etc.; and *action:* thinking globally and acting locally. Global citizenship can be integrated with many subject areas, and each of them has an important contribution to develop the key elements of active and responsible global citizenship. It would not be wrong to say that one of the areas in which global citizenship education can be effectively implemented is foreign language programs. Indeed, in recent years, many educators in the field of English Language Teaching (ELT) around the world have touched on the importance of global (citizenship) education for English as a Second Language (ESL) and English as a Foreign Language (EFL) (Cates 1997; 2000; 2009; Chowdhury, 2013). According to Cates (1997), there is a certain subject flexibility in foreign language courses which does not exist in others. Pramata and Yuliati (2016) noted that the sole task of foreign language teachers is not to teach vocabulary, grammar, pronunciation, listening, speaking, reading and writing; they have a responsibility to train students who will actively participate in the solution of global issues or at least develop awareness and understanding of these issues. This responsibility may challenge the teacher to be more resourceful and creative on the latest global issues; not only educating students but also conducing teachers' growth (Sato, 1999). For this reason, teachers should have a positive attitude towards global citizenship; be knowledgeable about designing an educational environment that integrates global citizenship education into their courses and arranging the classroom environment to implement these practices. Hosack (2011) suggests that global issues should be addressed in ELT courses as a way of teaching for global citizenship. In this context, many researchers argue that one of the best ways to address global issues in class is content-based / theme-based instruction (Gursoy, 2010; Serrano, 2008). Content based instruction refers to a language teaching approach in which teaching is organized around themes and topics, instead of grammar, functions or situations. Content educators such as Brinton, Snow & Wesche (1989) and Mohan (1986) emphasize that language is an instrument in learning the world and suggest the use of motivational themes and authentic materials in classroom teaching. Even though it is possible to mention a certain level of awareness about integrating global citizenship education and ELT courses around the world, there is limited study on this subject. These studies have revealed that students develop a positive attitude towards the course, learn the foreign language meaningfully and purposefully, and gain awareness of global issues. The general purpose of this study is to examine the perceptions of teachers about integrating global citizenship education into ELT courses. In accordance with this purpose, the answers of the following questions were sought:

1. What does global citizenship mean according to the teachers' perceptions?
2. What are the roles and responsibilities of the ELT teachers in educating students as global citizens as perceived by them?
3. What are the teachers' teaching practices in preparing students for "global citizenship?" (If any)?

II. Research Methodology

This research was carried out by using phenomenological design, which is one of the qualitative studies. Phenomenological studies require careful and detailed comprehension and definition of how individuals perceive, describe, feel, criticize, and understand certain phenomenon (Patton, 2002, p.104). The phenomenon investigated in this study is integrating global citizenship education into ELT courses. By using phenomenological design in the study, perceptions of the teachers about integrating global citizenship education into ELT courses, the practices they perform in their classes, the challenges they encounter during these practices have been tried to examine in depth.

2.2 Participants

The participants of the research consist of 49 English teachers who work at a higher education institution in Myanmar in the academic year 2019-2020. Convenience sampling method, which is one of the purposeful sampling methods was used in the research. The convenience sampling method gives speed and practicality to the researcher because in this method the researcher selects a situation that is close and easy to access (Yıldırım & Şimşek, 2005).

Table 1: Demographic data of the participants (n=49)

SN	Information		Number	Percentage
1	Gender	Male	11	22.45%
		Female	38	77.55%
2	Educational Qualification	Master's degree holders	47	95.92%
		Doctoral degree holders	2	4.08%
3	Seniority	1-5 years	10	20.41%
		6-10 years	22	44.90%
		11-15 years	11	22.45%
		16 years and up of seniority	6	12.24%

Among the participants, only 11 of the teachers are male, 38 of them are female. 47 of the teachers have Master's degree, whereas only 2 are doctoral degree holders. Seniority of the teachers are as follows: two of them have 1-5 years, three of them have 6-10 years, five of them have 11-15 years, and three of them have 16 years and up of seniority.

2.3. Instrument

Semi-structured interview method was used in the research. The semi-structured form used in the interviews was prepared by the researcher through literature review and the opinions of two lecturers who are experts in qualitative research were also benefitted. The questions on the interview form are as follows:

1. How would you define the concept of "global citizenship" in your own words? What characteristics do you think a global citizen should have?
2. How do you define your role and responsibility as an English Instructor in preparing students as "global citizens?"
3. What types of teaching practices do you involve in your classroom in preparing students for "global citizenship?" (If any)?

III. Findings

The data collected through the interview were analyzed with content analysis technique. In addition to this, to reflect the views of the participants, findings were presented without any comment, often with a direct quotation. A voice recorder was used with the permission of the participants to prevent data loss in the study. In qualitative research, the involvement of more than one researcher is a measure taken to increase internal credibility.

3.1 Findings Regarding the Research Question (i)

Research Question (i): How would you define the concept of "global citizenship" in your own words? What characteristics do you think a global citizen should have?

In the concept of global citizenship, three groups of categories namely, values and attitudes, skills, and knowledge and understanding were reached according to the definitions made by the teachers regarding the concept of global citizenship. The first category that emerged with respect to the global citizenship definitions of interviewed teachers is values and attitudes as most of the participants addressed global citizenship in terms of the values and attitudes dimension of the concept. Response examples from the definitions of the categories regarding the perceptions of teachers on the concept of global citizenship are shown as follows.

3.1.1 Category 1: Values and attitudes

When the interviewee was asked about the concept of global citizenship, his answer is concerned with values and attitudes.

Interviewee 1

He said that global citizenship should have concern and a share of responsibility for what is happening to our planet. He also said that global citizen should have values such as respecting human rights, gender equity, cultural and religious diversity, humanitarian assistance, and sensitivity to environmental issues.

According to response of interviewee 2, it was interpreted as respect.

Category 1a: Respect
Interviewee 2

The teacher's response was that global citizenship is a term that asserts there should be no race, religion or other type of discriminations among people. He also thinks that people have barriers in their minds. They behave others according to their religion, hometown, country and race.

Category 1b: Sensitivity
His answer is about **sensitivity** according to his response.
Interviewee 3

The interviewee's answer was that global citizenship refers to a sense of belonging to a broader community and common humanity. Therefore, it was interpreted as sense of belonging.

Category 1c: Responsibility
Interviewee 4

The interviewee 4 believed that the value of a global citizen was responsibility. In his opinion, the responsibilities of global citizens are to protect cultural diversity and make connections and build social and working relationships with people from other countries.

Category 1d: Openness
Interviewee 5

According to her response, she thought that the value of a global citizen was openness. In her view, a global citizen is aware of and understands the world and they take an active role in their community and work with others to make the world peaceful.

Category 1e: Humanitarian Assistance
Interviewee 6

The teacher believed that humanitarian assistance was important in global citizenship. It is intended to save lives, maintain human dignity during and after wars and disasters. When her answer is analyzed, it is interpreted as humanitarian assistance.

Findings of the research revealed that teachers mostly focus on the "values and attitudes" dimension of global citizenship such as respecting diversities, human rights, gender equity and sensitivity to global issues.

The second category found out from the teachers' definitions of global citizenship is skills. The only code reached regarding the skills category was conflict resolution skills and was expressed in terms of finding solutions to global problems such as racial discrimination. According to the findings of the research, although participants included conflict resolution skills within the context of global citizenship, they were not aware that skills such as critical and creative thinking, empathy, cooperation, ability of managing complexity and uncertainty, communication etc. were also included within the concept global citizenship.

3.1.2 Category 2: Skills

Global citizenship requires people to have the ability to resist any kind of inequality for a fairer and more livable world.

The interviewees were asked the concept of global citizenship and what characteristics a global citizen should have. Their answers were seen as follows.

Category 2a: Conflict resolution skill

Interviewee 7

When the interviewees are asked about the skills of global citizenship, most of them answer that conflict resolution skill is required in global citizenship. Their answer is that global citizenship is the ability to find solutions to global problems such as poverty, racial discrimination, wars and conflicts, etc. These problems seriously threaten humanity.

Category 2b: Knowledge and understanding

Interviewee 8

When the interviewee was asked about knowledge and understanding of global citizenship, her answer was that global citizenship means having knowledge about different cultures and countries.

Category 2c: Identity and diversity

A global citizen should be aware of what is happening around the neighborhood and should know that region's culture, habits or customs. Her response was interpreted as identity and diversity.

Category 2d: Global Issues

Interviewee 9

The interviewee 9 thought that global citizenship is about having information about what is happening in the whole world instead of being only limited by one's narrow surrounding. He also believed that it is about improving oneself on global issues such as what is happening in different parts of the world, how other people live, what are their happiness, joy, sorrow, etc. His answer was analyzed as global issues.

3.1.3 Category 3: Identity, diversity and global issues

Interviewee 10

The third category emerged from participants' global citizenship definitions is knowledge and understanding and was expressed as identity, diversity and global issues. This result clearly shows the lack of knowledge of the participants about this topic and is not inexplicable when taking into account that global citizenship has been currently studied in certain subject areas in our country.

3.2 Findings Regarding the Research Question (ii)

Research Question (ii): How do you define your role and responsibility as an English Instructor in preparing students as "global citizens?"

Examples from the categories regarding perceived roles and responsibilities of ELT teachers in preparing students as global citizens are shown as follows.

When the teachers were asked about the roles and responsibilities in preparing students as global citizens, their answers were categorized as an informer and a role model.

3.2.1 Theme 1: Teaching about national and global citizenship
Interviewee 1

The response of the interviewee 1 was concerned with teaching about national and global citizenship. Her answer was that as the native people of this country, her students should know what their national and traditional values are and learn how to preserve them, and then go on with similar universal values: What is being a Myanmar citizen, and a world citizen? What are the differences and connections between them? As they study units, they can discuss relevant global issues considering the above-mentioned questions.

Interviewee 2

The teacher answered that he should inform the students about their country or region. His students should recognize their own life. They should know where they are coming from. He tried to teach from a lot of different cultures and do not stick to one. Therefore, he is an informer for his students in preparing them as global citizens.

3.2.2 Theme 2: Teaching about different cultures
Interviewee 3

When the interviewees teach literature to students, they usually tell students different cultures of the different countries to arouse students' background knowledge. According to their response, they are informers for the students when they teach about different cultures.

Theme 2: Behaving and speaking in a less discriminative manner
Interviewee 4

The interviewee thought that behaving and speaking in a less discriminative manner can contribute building a role model in my students' mind. He also believed that teachers should be role models of the students.

3.2.3 Theme 3: Being conscious about global issues
Interviewee 6

The interviewee's answer was that nowadays, all of the teachers need to be aware of global issues and should try to keep abreast of the current situations. He assumed that teachers need to be role models of the students to be conscious about global issues.

3.2.4 Theme 4: Being respectful of diversities
Interviewee 7

When the interviewee was asked about being respectful of diversities, her answer was that as a teacher, she respected and valued all of the diversities of the students in the classroom. She also agreed that teachers must be role models for students.

Thus, it can be concluded that the categories reached from the responses of other teachers expressing that they have a role and responsibility in preparing students as global citizens were identified as an informer and a role model. It was determined that being an informer was applied by, teaching about national and global citizenship, and teaching about different cultures. Role modelling was practiced by behaving and speaking in a more discriminative manner, being conscious about global issues and being respectful of diversities. Instructors expressed their views on this issue with varieties of statements.

3.3 Findings Regarding the Research Question (iii)

Research Question (iii): What types of teaching practices do you involve in your classroom in preparing students for "global citizenship?" (If any)? Is there anything that you do differently or add to the curriculum at your classes to promote global citizenship?

The categories reached in line with the responses of the participants who said that they integrated global citizenship education with ELT are presented.

Categories regarding the implementation of teaching practices with respect to the integration of global citizenship with ELT, teachers were asked what types of teaching practices with respect to the integration of global citizenship with ELT they used. There are two categories; addressing global issues and role-modelling emerged according to their responses.

3.3.1 Category 1: Addressing global issues

Interviewee 1

The interviewee responded that he used to **make discussions about global issues** when he addressed global issues. He also encouraged his students to discuss global issues such as environmental protection, poverty alleviation, cultural and religious diversity, human rights etc. Therefore, making discussions are need to address global issues.

Interviewee 2

The teacher responded that he used reading passages on global topics that are very useful for students. He assumed that these texts increase the level of their knowledge. According to his response, it is seen that using reading texts about global issues is useful for addressing global issues.

3.3.2 Category 2: Role-modelling

Interviewee 3

This interviewee said that he reflected global citizenship on his behavior**.** According to her response, it was assumed that role-modelling is also useful to prepare students as global citizens.

It can be observed that two categories were reached namely, addressing global issues and role modelling in line with the responses of the five teachers who said that they integrated global citizenship education with ELT courses. It was found out that while addressing global issues were practiced by making discussions about global issues and using reading texts about global issues, role modelling is implemented by reflecting global citizenship on one's behavior. Participants stated that they did not involve any specific teaching practices in their classroom to prepare students as global citizens, and they justified this by stating that English lessons and global citizenship education were irrelevant.

IV. Discussion

This research was conducted by interviewing ELT teachers working at higher education institutions in Myanmar to examine their perceptions regarding incorporation of global citizenship education into ELT. According to Byram (2003), the main task of language educators is not to teach only language; but also, to teach young people the experience of thinking, valuing and behaving in other ways. Likewise, Jacobs and Cates (1999) state that language teachers may play a role in making the world a better place while they develop their students' language competencies. Some teachers who participated in the study, however, stated that they did not think they had a role in preparing students as global citizens. The fact that global citizenship education is a very new concept in the field of ELT corresponds to the other findings of the study. Teachers' lack of knowledge about the skill dimension of global citizenship, lack of awareness of their roles and responsibilities in global citizenship education, and exclusion of activities that contribute to the development of students as global citizens in the lessons can be thought of as a reflection of its being a very recent topic in ELT. It is thought that this stems from teachers' perception of global citizenship as an issue only limited to certain subject areas. The research findings revealed that the teachers who thought that they had a role and responsibility in preparing students as global citizens deemed themselves as informers and role-models. Teaching about national and global citizenship and different cultures, behaving, and speaking in a less discriminative manner, being conscious about global issues and being respectful of diversities were what they did for preparing students as global citizens.

V. Recommendations

The lack of knowledge about integrating global citizenship education into ELT courses was also articulated by the teachers themselves. Other instructor-based challenges were expressed as being obliged to following the syllabus and depending on course books. The teachers were unable to get out of the syllabus and course book because they had to carry out their courses depending on them. The research findings also revealed that according to the participants, students were reluctant to receive global citizenship education and they had some social and cultural barriers about the subject. Another student-based challenge as perceived by the teachers was that students only focused on passing exams regarding English classes. Teachers' lack of awareness about the subject may have caused them not to struggle enough to raise students' awareness on this issue. It is thought that ELT teachers/ teachers have great roles and responsibilities in educating students as global citizens. However, it has been concluded from the study that ELT teachers have insufficient levels of knowledge, skills, attitude, and action related with global citizenship education. It may be helpful to provide ELT educators at all levels with in-service training on integrating global citizenship education into ELT so that they can organize the teaching-learning environment according to global citizenship education.

References

Akçay, R. C. (2003). Küreselleşme, eğitimsel yoksunluk ve yetişkin eğitimi. Milli Eğitim Dergisi, 159. Retrieved from http://dhgm.meb.gov.tr/yayimlar/dergiler/Milli_Egitim_Dergisi/159/ akcay.htm.

Brinton, D. M., Snow, M. A. & Wesche, M. B. (1989). Content-based Second Language Instruction. Boston: Heinle and Heinle Publishers.

Burrows, D. (2004). World citizenship. Paper presented at the American Council on Education Regional Conference on New Directions in International Education, Beloit, Wisconsin. Retrieved from https://www.beloit.edu/oie/assets/Burrows.pdf.

Byram, M. (2003). Teaching languages for democratic citizenship in Europe and beyond. In K, Brown, & M, Brown (Eds.). Reflections on citizenship in a multilingual world,15-24. London: Centre for Information on Language Teaching and Research.

Byram, M., Gribkova, B. & Starkey, H. (2002). Developing the intercultural dimension in language teaching: A practical introduction for teachers. The Council of Europe. Retrieved from http://lrc.cornell.edu/director/intercultural.pdf.

Cates, K. (2000). Entry for global education. In Byram, M. (Ed.). Routledge encyclopedia of language teaching and learning, 241-243. London: Routledge.

Cates, K. A. (1997). New trends in global issues and English teaching. The Language Teacher. Retrieved from http://jalt-publications.org/old_tlt/files/97/may/cates.html onNovember01, 2015.

Crandal, J. (1993). 'Content-centered language learning'. Annual Review of Applied Linguistics, 13, 111126.

Davies, L. (2006). Global citizenship: Abstraction of framework for action? Educational Review, 58 (1), 525

Focho, G. N. (2010). Language as tool for a global education: Bridging the gap between the traditional and a global curriculum. Journal of Research in Innovative Teaching, 3(1), 135-148.

Günay, D. (2012). Perspectives on identity representation in intermediate level English Language Teaching coursebooks used in Myanmar (Unpublished Doctoral Dissertation), Istanbul University Social Sciences Institute, Istanbul, Myanmar.

Gürsoy, E. (2010). Implementing environmental education to foreign language teaching to young learners. Educational Research, 1(8), 232-238.

Gürsoy, E. & Salı, P. (2014). A language course within the scheme of socially responsible teaching: ELT trainees' expectations. Journal of Educational and Social Research, 4(2), 355-365.

Hosack, I. (2012). Citizenship and language education in Japanese high schools. In P, Cunningham & N, Fretwell (Eds.). Creating communities: Local, national and global, 132 – 144. London: CiCe.

Hosack, I. (2011). Foreign language teaching for global citizenship. Policy Science, 18(3), 125-140.

Jacobs, G. M. & Cates, K. (1999). Global education in second language teaching. KATA, 1(1), 1999, 4456.

Jacobs, G. M. & Goatly, A. (2000). The treatment of ecological issues in ELT coursebooks. ELT Journal, 54(3), 256-264.
Jing, H. (2013). Global awareness: Foreign language teachers' beliefs and practices. Intercultural Communication Studies, 22(1), 95-116.
Lima, C.O. & Brown, S.W. (2007). ICT for development: Are Brazilian students well prepared to become global citizens? Educational Media International. 44 (2), 141-153.
Marshal, H. (2007). Global education in perspective in an English secondary school. Cambridge Journal of Education, 37(3), 353–374.
Met, M. (1991). Learning language through content: learning content through language. Foreign Language Annals, 24(4),281-295.
Mohan, B. A. (1986). Language and content. Reading, MA: Addison-Wesley.
Nault, D. (2006). Going global: Rethinking culture teaching in ELT contexts. Language, Culture and Curriculum, 19:3, 314-328, DOI: 10.1080/07908310608668770.
Oxfam (2006). Education for global citizenship: A guide for schools. Retrieved from http://www.oxfam.org.uk/coolplanet/ teachers/ globciti/ down loads /gcguide06.pdf
Patton, M. Q. (2002). Qualitative research & evaluation methods. USA: Sage Publications
Pramata, H. & Yuliati (2016). Global education in English classroom: Integrating global issues into English Language Teaching. International Journal of Social Science and Humanity, 6(9), 719-722.
Richards, J. C., & Rodgers, T. S. (2001). Approaches and methods in language teaching (2nd ed.). Cambridge: Cambridge University Press.
Sato, R. (1999). Global issues: A communicative activity with integrated grammar. Departmental Bulletin Paper of KANAGAWA University Repository, 21, 63-79. Retrieved from http://klibredb.lib.kanagawa-u.ac.jp/dspace/bitstream/10487/3761/1/kana-12-11-0003.pdf.
Serrano, J. R. (2008). ELT and citizenship: Basic principles to raise social awareness through language teaching. HOW, 15(1), 63-82.
Swenson, T. & Cline, B. (1993). Global issues in a content-based curriculum. The Language Teacher, 17(5), 27, 40.
Topkaya, Y. (2016). Sosyal Bilgiler öğretmenlerinin değer aktarım yaklaşımları hakkındaki görüşlerine ait nitel bir çalışma [The opinions of Social Studies teachers regarding value transfer approaches: A qualitative study]. Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD), 17(1), 637-652.
Yıldırım, A. & Şimşek, A. (2005). Sosyal bilimlerde nitel araştırma yöntemleri [Qualitative research methods in the social sciences] (5. Ed.). Ankara: Seçkin Yayınevi.

The Use of Information and Communication Technology in the EFL Classrooms in Myanmar University Context

Zarni Mar
Assistant Lecturer, English Department, Myitkyina University, Ministry of Education, Myanmar
E-mail: zarnimarzarnimar@gmail.com

Abstract

English and ICT have become essential literacy skills for a vast amount of non-native English speakers to ensure full participation in the information society which is directly related to the wide spread of English and ever-growing technological advancements today. The purpose of this research was to shed light on the students' technology usage patterns and levels of ICT skills and the teachers' use of computers and Internet in teaching English in Myanmar university context. The qualitative results from the teachers' interview survey revealed that ICT is definitely a complement to conventional teaching, especially when developing reading, writing, and listening skills in English. According to questionnaire data, the student participants perceived that speaking was the only skill which was not enhanced because of ICT. Finally, some implications in terms of future studies to better understand how to adequately implement and integrate ICT into the English foreign language classroom have been discussed. In conclusion, the data obtained from this study revealed that by using ICT strategically, it would help to improve the teaching and learning process for students learning the L2.

Keywords: Information and Communication Technology,
CALL (Computer Aided Language Learning), EFL Classroom,
Non-Native English Teachers

Introduction

Technology and language learning are not new, this way of thinking has been around for more than forty-five years. CALL (Computer Aided Language Learning) can be organized into three distinct phases which are Behaviorist CALL, Communicative CALL and Integrative CALL (Warschauer, 1996). There were a number of various CALL programs developed during this period. Many of which were centered on paced. The last phase, which concentrates on the past few years can be described as Integrative CALL: Multimedia. Multimedia can be defined as simultaneous, combined use of several media at the same time such as films, slides, flashing lights and music. (Stein, 1982) The internet can be defined as a computer network consisting of a worldwide network of computer networks that use the network protocols to facilitate data transmission and exchange. (Freedman, 1999) There is also hypermedia, which makes the internet and multimedia even more powerful in that multimedia sources are linked together. The mouse only needs to be clicked in order to obtain the information. Overall, the history of CALL shows us that computers can serve a variety of uses in regards to language teaching. It can be a tutor where everything that is heard has to be repeated, practice drills in order to help you perfect the language, as well as a starting point for discussions or a tool for writing and research. The last phase Integrative CALL has given 18 teachers access to an array of authentic information, which in itself is something that has been longed for in language classes around the world (Warschauer 1996).

1.1 ICT in Language Teaching

What is ICT and how can it be used in teaching English as a Foreign Language? ICT stands for Information, Communication and Technology, which emerged in the 1980's. The acronym 'ICT' which is the combination of both terms Information and Communication, were put together in order to emphasize the merging of both technologies. This phrase is also used to describe a range of technologies in order to gather, store, retrieve, process, analyse and transmit information. Student authoring in computer-based material designed for foreign language learning has been shown to enhance vocabulary learning. It has been asserted that on-line debate is an excellent medium for generating social construction of knowledge. Jarvis (1998) believes that by integrating basic IT skills in the EFL classroom, we are developing language skills and equipping learners with technology skills. The applications of these technology skills go beyond the EFL Thesis McDougald Use of ICT & CALL 20 classroom into the workplace and/or subject specific studies at colleges and universities.

1.2 ICT in Myanmar

There have been numerous projects at the University level along with the Myanmar Ministry of Education in terms of implementing ICT into the curriculum. Most of these projects have been done as small-scale projects in order to introduce technology into the classrooms. The intention in Myanmar is not to replace the face-to-face class with a totally online version. The Myanmar Ministry of Communications has invested a great deal of money on technology. There are still regions throughout Myanmar where internet access is still not available, other cases where there is no broad band only a dial up connection. There are projects that are being led by the Myanmar Ministry of Education, The national Project on "Use of New Technologies & Methodologies in Higher Education". As well as private Universities where they have a research centre started in 2005 as a way to support face-to-face classes in higher education, by incorporating ICT in the academic environment, thereby providing alternatives that can accompany teachers in designing virtual environments as support to face-to-face classes

1.3 The General Purpose of the Study

The general purpose of the study was to explore the use of ICT in learning English among undergraduate students in selected universities of Myanmar. More specifically, the current study aimed to illuminate (a) students' technology ownership, usage patterns, and levels of ICT skills; (b) the relationships among learner demographic characteristics (e.g., gender, age) and ICT use and writing skills; (c) their concepts of computers, the Internet, English and learning English; and (d) sociocultural contextual information as to their learning ICT and English. The main objective of the current study is to define how Information and Communication Technology (ICT) can be a complement to conventional teaching in the "New Technology for English Teaching" which is delivered using, Content Based Instruction, to promote L2 (English) among non-native English Teachers. To be in line with the research objectives, research questions have been set as follows:

1. What are the uses of ICT in the EFL classroom in order to be used as a teaching tool to promote L2 (English) among non-native English teachers?
2. What are the different uses (skill development) of Information and Communication Technology (ICT) in the English Teaching classroom among non-native English Teachers?
3. What are the learners' preferences (activities/tasks) when integrating ICT into the classroom?
4. According to the use of ICT, how can writing be improved?
5. How to improve the general use of ICT in the English Teaching class in order to enhance the learners' experience?

Method

The researchers used a questionnaire that was distributed to 115 students at the selected universities; the statements of the questionnaire were designed to answer the research questions. Also, the researchers conducted interviews with 12 instructors and asked them four questions regarding ICT. After that, the researchers analysed the questionnaire and discussed the results of both, the questionnaire, and the interviews.

2.1 Research Design of the Investigation

The study employed a mix of quantitative and qualitative approaches by way of using questionnaires that included both open-ended and closed-ended questions. The investigation design was chosen in order to accommodate the research questions that were addressed in the current study. The current study collected both quantitative and qualitative data simultaneously by using the questionnaire to explore the use of ICT among the students. Furthermore, the analysis of qualitative data from a series of interview questions would further elaborate the findings from quantitative data. Due to the nature of questionnaires, all aspects of the study were able to be explored. Factual questions were asked so that demographic characteristics could be identified such as gender, age and experience.

2.2 Population and Study Sample

This study took place at universities located in Myanmar. The participants were 115 undergraduate students and 12 teachers. This investigation, "The use of Information and Communication Technology (ICT) in the EFL Classroom as a teaching tool to promote L2 (English) among non-native English Teachers", took place between two semesters in 2021 until 2022.

2.3 Participants

The participants used for the current study were undergraduate students. The ages ranged from 17 to 21 years of age. There was a total of 100 question items that were sent out overall. There were first sent out by email, and then there were delivered personally, where students were asked to complete the questionnaires and return them as soon as possible. The students were chosen simply because they were enrolled in the same class.

Results

The results of the research have two parts: one about teachers' interview results and one about students' questionnaire results.

3.1 Interview Results

The purpose of implementing interviews was to expand the obtained data on questionnaires as well as to explore the reasons students proposed for their previous elicited answers. Being in constant contact with the internet and technology in addition to having first-hand knowledge at what Information, Communication and Technology can do; without a doubt it is a tremendous aid in the classroom. (n=12)

Interviewee 1

As an English teacher, I am aware of what I did not have in my movement to learn English. The difference now, is that the internet and modern technology has done a wonderful job in bringing the rest of the world together all in the convenience of your home, office, or classroom. In my years of teaching, the one thing that has been consistent is the importance of communicative language. Having worked in various English departments, technology - ICT is not a replacement for teachers, but it is definitely a plus, if used correctly, in the EFL classroom.

Interviewee 2

I discovered that through the proper use of ICT and modern technology, languages could be learned as a secondary effect. Teachers all around the world are using ICT and bringing languages and culture into the classroom. ICT is just as much or even more a communicative language. However, it is not the last resort or the only resort for language teaching, but if used properly it can be very affective in the EFL classroom.

Interviewee 3

Writing: some ICT tools (i.e. Blogs) provide you with things that ordinary journals don't.
Writing can be improved tremendously by using ICT, students are able to interact with native speakers, emails, blogs, chats and the like are in constant use, Word processors are used on a daily basis in order to perfect writing skills.

Interviewee 4

Listening: You can access real language, and tons of exercises ready to be used form anywhere, anytime. Listening, because if you do not have the opportunity to travel abroad and practice English, you can do so through the use of technology. Listening can also be improved due to technology nowadays, there are news broadcast throughout the world that can be heard, there are sites with authentic audio designed specifically to help L2

Interviewee 4

Reading can be improved, because there are all sorts of interesting things to read at different levels.

Interviewee 5

All of the skills could be improved by proper use and implementation of ICT in the classroom.

According to the interview responses, the interviewees have positive views on the uses of ICT in the EFL classroom. Of course, ICT is not a replacement for teachers, but it is definitely a plus, if used correctly, in the EFL classroom.

3.2 Questionnaire Results

This part will reveal the detailed results of the study.

3.2.1 Different Uses of ICT

Question1: What are the different uses of ICT in the EFL Classroom to develop each skill?

Table 1:
Different uses of ICT in the EFL classroom to develop each skill (n=115)

Sr No	Different uses of ICT	Response			Calculation		Interpretation
		Rarely	Sometimes	Always	Mean	SD	
1	Reading real language	23%	64%	13%	1.90	0.59	Considered of moderate usage
2	Pronunciation	21%	44%	35%	2.14	0.74	Considered of moderate usage
3	Reading comprehension	10%	50%	40%	2.30	0.64	Considered of moderate usage
4	Downloading worksheets	13%	55%	32%	2.19	0.64	Considered of moderate usage
5	Reading software	44%	20%	36%	1.92	0.89	Considered of moderate usage
6	Current events	7%	53%	40%	2.33	0.60	Considered of moderate usage
7	Levelled reading activities	29%	34%	37%	2.08	0.81	Considered of moderate usage
8	Writing Blogs online	74%	23%	3%	1.29	0.52	Considered of low usage
9	Diaries	59%	22%	19%	1.60	0.79	Considered of low usage
10	Collaborative writing drills	36%	33%	31%	1.95	0.82	Considered of moderate usage
11	Worksheets online about the English program "Reading"	48%	30%	22%	1.74	0.80	Considered of moderate usage
12	Developing all activities available in this technology	27%	50%	23%	1.96	0.71	Considered of moderate usage
13	Emails	23%	13%	64%	2.41	0.84	Considered of huge usage
14	Forums	49%	37%	14%	1.65	0.71	Considered of low usage
15	Chats	20%	45%	35%	2.15	0.73	Considered of moderate usage
16	Journals	26%	33%	41%	2.15	0.80	Considered of moderate usage
17	Listening real language	63%	23%	14%	1.51	0.73	Considered of low usage
18	Practice drills	55%	41%	4%	1.49	0.57	Considered of low usage
19	Quizzes	54%	35%	11%	1.57	0.68	Considered of low usage

20	Worksheets online about the English program "Reading"	43%	35%	22%	1.79	0.78	Considered of moderate usage
21	Group tasks	36%	33%	31%	1.95	250.00	Considered of moderate usage
22	Movies	29%	37%	34%	2.05	0.79	Considered of moderate usage
23	Songs	17%	48%	35%	2.18	0.70	Considered of moderate usage
24	Listening exercises online	63%	13%	24%	1.61	0.85	Considered of low usage
25	Using CD's, DVD's, audio & video	20%	45%	35%	2.15	0.73	Considered of moderate usage
26	Live news feeds	14%	39%	47%	2.33	0.71	Considered of moderate usage
27	Speaking exercises	25%	31%	44%	2.19	0.81	Considered of moderate usage
28	Online interviews	62%	21%	17%	1.55	0.77	Considered of low usage
29	Flashcards	81%	18%	1%	1.20	0.42	Considered of low usage
30	Toys & tools for developing the alphabet and spelling	78%	18%	4%	1.26	0.52	Considered of low usage
31	Forums	52%	36%	12%	1.60	0.69	Considered of low usage
32	Panel discussion	84%	12%	4%	1.20	0.49	Considered of low usage
33	Doing activities that are in these programs	75%	22%	3%	1.28	0.51	Considered of low usage
34	Online chats	17%	47%	36%	2.19	0.70	Considered of moderate usage
35	Conferences	47%	31%	22%	1.75	0.79	Considered of moderate usage
36	Video Chat	25%	39%	36%	2.11	0.77	Considered of moderate usage
	Average	40.25%	34.17%	25.58%	1.85	0.80	Considered of moderate usage

NOTE:
1.00-1.66=Considered of low usage
1.67-2.33=Considered of moderate usage
2.34-3.00=Considered of huge usage

The results from the questionnaire indicate that emails (Mean=2.41) and live news feeds (Mean=2.33) were considered of huge usage the most in order to develop language skills in the EFL classroom. However, a larger majority of the students also selected reading comprehension exercises online (Mean=2.30) to enhance writing.

Question 2: What are your favourite activities when integrating ICT into the classroom? Please give reason why?

Table 2:

Favourite activities when integrating ICT into the classroom (n=115)

Sr No	Items	Responses				Calculation		Interpretation
		Not attempted	Totally Not Useful	Useful	Very Useful	Mean	SD	
1	Surfing the Net	0%	7%	30%	63%	3.56	0.62	Very useful
2	Web quest specific learning pages	14%	45%	28%	13%	2.40	0.88	Totally Not Useful
3	News to stay up to date	0%	0%	27%	73%	3.73	0.44	Very useful
4	Networking collaborative work	7%	4%	33%	56%	3.38	0.86	Very useful
5	E-mail	4%	6%	31%	59%	3.45	0.78	Very useful
6	Setting and receiving homework	10%	13%	33%	44%	3.11	0.98	Useful
7	Sending and receiving assignments	12%	13%	38%	37%	3.00	0.99	Useful
8	Used as a peer evaluation as a tool to record and make corrections	10%	16%	40%	34%	2.98	0.95	Useful
9	Thesis matters	1%	3%	26%	70%	3.65	0.59	Very useful
10	Practicing writing	16%	30%	33%	21%	2.59	0.99	Useful
11	Discussing tasks that were not finished in the classroom, kind of like an extension activity	5%	12%	30%	53%	3.31	0.87	Very useful
12	Chat with audio	5%	7%	30%	58%	3.41	0.83	Very useful
13	Practicing pronunciation	6%	40%	31%	23%	2.71	0.89	Useful
14	Because learners have the chance to practice L2 with native speakers	3%	24%	37%	36%	3.06	0.85	Useful
15	Practice pronunciation and conversational skills with peers	7%	27%	28%	38%	2.97	0.96	Useful
16	Chat with audio and video	3%	3%	28%	66%	3.57	0.70	Very useful
17	Improve listening and speaking	15%	20%	39%	26%	2.76	1.00	Useful
18	Discuss specific tasks, not touched	1%	20%	40%	39%	3.17	0.78	Useful

	on in class, seems real, where there is constant interaction and feedback at different levels							
19	Forums	13%	24%	26%	37%	2.87	1.06	Useful
20	The chance to express your opinion (written) using both formal and informal language	7%	10%	36%	47%	3.23	0.89	Useful
21	Portfolio construction	30%	53%	11%	6%	1.93	250.00	Totally Not Useful
22	Spending less time on organization	4%	5%	23%	68%	3.55	0.77	Very useful
23	Word processing	1%	6%	23%	70%	3.62	0.64	Very useful
24	To help write essays and other written documents	1%	3%	24%	72%	3.67	0.58	Very useful
25	There are very convenient to use in process writing at all levels of development	18%	55%	14%	13%	2.22	0.89	Totally Not Useful
26	Web Site construction	29%	56%	13%	2%	1.88	0.70	Totally Not Useful
Average		8.54%	19.31%	28.92%	43.23%	3.07	0.98	Useful

NOTE:
1.00-1.75=Not attempted
1.76-2.50=Totally Not Useful
2.51-3.25=Useful
3.26-4.00=Very useful

According to the results regarding favorite activities, the students (Mean=3.65) find ICT very useful for thesis matters. Second to this is for using for word processing (Mean=3.62) and
the third is for surfing the Net (Mean=3.56).

3.2.2 Learner's Preferences and/or Usefulness

Question 3: How useful have you found the following applications of technology as part of your learning English?

Table 3:

Applications of technology as part of your learning English (n=115)

Sr No	Items	Responses				Calculation		Interpretation
		Not attempted	Totally Not Useful	Useful	Very Useful	Mean	SD	
1	Power Point Presentations	0%	0%	25%	75%	3.75	0.43	Very useful

2	Using MS Office (Word, Excel, Access, etc.) applications	0%	0%	12%	88%	3.88	0.32	Very useful
3	Using Internet to find information	0%	0%	22%	78%	3.78	0.41	Very useful
4	Accessing information from CD-ROMs	5%	20%	42%	33%	3.03	0.85	Useful
5	Accessing information from DVD's	14%	20%	30%	36%	2.88	1.05	Useful
6	Using Emails	0%	8%	25%	67%	3.59	0.63	Very useful
8	Downloading Lecture notes and messages from Intranet	4%	28%	22%	46%	3.10	0.94	Useful
9	Using message boards and chat rooms on Intranet	11%	20%	35%	34%	2.92	0.99	Useful
10	Using Self-assessment tests	64%	24%	7%	5%	1.53	0.83	Not attempted
11	Taking Online tests and quizzes with instant electronic feedback	51%	24%	18%	7%	1.81	0.97	Totally Not Useful
12	Submitting work via email	4%	5%	24%	67%	3.54	0.77	Very useful
13	Following web links provided for extra information	7%	13%	23%	57%	3.30	0.94	Very useful
14	Tracking your own progress on the Internet	3%	7%	44%	46%	3.33	0.74	Very useful
Average		12.54%	13.00%	25.31%	49.15%	3.11	1.05	Useful

NOTE:
1.00-1.75=Not attempted
1.76-2.50=Totally Not Useful
2.51-3.25=Useful
3.26-4.00=Very useful

According to the results regarding the applications of technology as part of learning English, MS office (Word, Excel, Access, etc) applications are the most useful with (Mean=3.88). Using Internet to find information is second to this (Mean=3.78). The third most is for power point presentations (Mean=3.75).

Question 4: Which of the below ICT applications promote and/or support writing in the EFL classroom?

Table 4:

ICT applications that can promote and/or support writing in the EFL classroom (n=115)

Sr No	Items	Responses				Calculation		Interpretation
		Not attempted	Totally Not Useful	Useful	Very Useful	Mean	SD	
1	Emails	1%	1%	31%	67%	3.64	0.56	Very useful
2	Blogs	9%	21%	24%	46%	3.07	1.01	Useful
3	Letters	2%	20%	30%	48%	3.24	0.84	Useful
4	Postcards	11%	24%	35%	30%	2.84	0.98	Useful
5	Articles	19%	27%	31%	23%	2.58	1.04	Useful
6	Reports	0%	1%	31%	68%	3.67	0.49	Very useful
7	Web Log Writing	8%	30%	39%	23%	2.77	0.89	Useful
8	Others	85%	15%	0%	0%	1.15	0.36	Not attempted
Average		16.88%	17.38%	27.63%	38.13%	2.87	1.10	Useful

NOTE:
1.00-1.75=Not attempted
1.76-2.50=Totally Not Useful
2.51-3.25=Useful
3.26-4.00=Very useful

The results from writing indicated that the students are very active in using a wide array of applications to promote their writing. According to the responses, report writing, emails and writing drills work sheets are useful applications and they have become a part of our day to day routine. Emails are used for formal and informal writing, students use it to submit assignments, communicate with peers as well as their instructors; exchange information among themselves, communicate on the go, etc.

Question 5: How could learning L2 be improved in "CALL" using ICT?

Table 5:

Learning L2 be improved in "CALL" using ICT (n=115)

Sr No	Items	Responses				Calculation		Interpretation
		Not attempted	Totally Not Useful	Useful	Very Useful	Mean	SD	
1	Through different strategies using technologies such as internet resources, presentations by video beam encouraging students to the proper use of ICT.	5%	1%	38%	56%	3.45	0.75	Very useful
2	CALL could improve my learning L2 process throughout	10%	12%	31%	47%	3.15	0.98	Useful

	activities that promote interaction among different people and situations that demand writing and understanding process and activities.							
3	CALL lets the students to improve their creativity.	0%	0%	20%	80%	3.80	0.40	Very useful
4	Using more frequently all the equipments and ways that the new technology on computers and internet are available to teach L2.	9%	5%	37%	49%	3.26	0.91	Very useful
5	You can use tools that are provided by ICT that make it easier for students to give feedback to each other, as well as to spend less time on organizing information.	3%	4%	45%	48%	3.38	0.70	Very useful
6	These tools also provide you with an easier way to access real world language (newspaper, magazines, chatting, etc.)	5%	5%	22%	68%	3.53	0.81	Very useful
Average		5.33%	4.50%	32.17%	58.00%	3.43	0.81	Very useful

According to the results, CALL lets the students to improve their creativity (Mean=3.80). ICT is very useful in providing them with an easier way to access real world language (newspaper, magazines, chatting, etc.) (Mean=3.53).

Question 6: Which skills, if any, do you think would be easier learnt by greater use of technology?

Table 6:

Skills that would be easier learnt by greater use of technology (n=115)

Sr No	Items	Responses				Calculation		Interpretation
		Not attempted	Disagree	Not decided	Agree	Mean	SD	
1	Reading	0%	6%	13%	81%	3.75	0.55	Very useful
2	Writing	3%	6%	23%	68%	3.56	0.74	Very useful
3	Speaking	6%	13%	24%	57%	3.32	0.92	Very useful
4	Listening	1%	1%	21%	77%	3.74	0.52	Very useful
5	All of them	5%	4%	23%	68%	3.54	0.79	Very useful
Average		3.00%	6.00%	20.80%	70.20%	3.58	0.74	Very useful

According to the results, the students perceive that reading, writing, listening and speaking could be learned easier by a greater use of technology. The results revealed that ICT is definitively a complement to conventional teaching, especially when developing reading, writing, and listening skills in English. It was also determined by this small-scale study that speaking was the only skill that was not enhanced.

Question 7: The use of ICT has improved my ability in language skills
Table 7:
The use of ICT has improved my ability in language skills (n=115)

Sr No	Items	Responses				Calculation		Interpretation
		Not attempted	Disagree	Not decided	Agree	Mean	SD	
1	Reading	7%	6%	23%	64%	3.44	0.89	Very useful
2	Writing	10%	5%	25%	60%	3.35	0.96	Very useful
3	Speaking	9%	3%	34%	54%	3.33	0.91	Very useful
4	Listening	13%	11%	29%	47%	3.10	1.04	Useful
5	All of them	3%	4%	33%	60%	3.50	0.71	Very useful
Average		8.40%	5.80%	28.80%	57.00%	3.34	0.92	Very useful

The results reveal that the students feel that ICT improved their abilities in English (Average mean=3.34). More specifically, students strongly agree that their reading skills (Mean=3.44) are greatly improved due to ICT.

Discussion

The quantitative results that were taken from the questions of the questionnaire that was applied are discussed. All the research questions will be addressed in detail. There was a total of 115 students that responded to the questionnaire 91 females (79%) and 24 males (21%). This is quite common in the teaching field here in Myanmar to have more female teachers than males. All four skills were analysed in order to determine a connection between skill development and ICT in the EFL classroom. Open ended questions were used in interview survey to establish this connection. In terms of reading, the responses were as follows; real language, pronunciation, reading comprehension, worksheets (downloadable), reading software, current events and levelled reading activities. Surprisingly, reading comprehension was chosen in opportunities. Needless to say, real language, pronunciation and downloadable worksheets had a very low response rate, where each of them was only mentioned twice.

Conclusions and Recommendations

The success of ICT depends on teachers. In addition, it is very important that teachers are well versed in using the tools surrounding ICT in order to fully take advantage of the benefits that ICT offers a conventional classroom. It is widely assumed that technology has enormous potential to improve learners' achievement by expanding students' learning experience, increasing motivation, facilitating collaboration, fostering learner autonomy, and promoting global understanding, not to mention developing language skills if it is used effectively in the context where learning takes place. Furthermore, with all of the technological advances that are presented nowadays, ICT is becoming more important in the teaching learning process in the L2 language classroom. There is no doubt that the role of teachers is of great importance in the process of integrating ICT into the classroom. Moreover, offering constant training to teachers is very crucial in that they should adapt themselves to the changing society, emerging technologies, and new learning and teaching environment. A larger scale project should follow this initial attempt to integrate ICT into conventional foreign language classrooms. It would also be interesting to investigate a correlation between experienced teachers and new teachers in terms of how ICT is implemented into the English foreign language classroom, since the majority of all new teachers have had training in ICT prior to teaching and experienced teachers were introduced to ICT throughout their teaching career. In addition, a comparative study among the different semesters should be done to analyse what tools, applications or activities directly enhanced or improved the progress and proficiency in English. These future studies would be very important in understanding how to adequately implement and integrate ICT into the English foreign language classroom so that local curriculum guidelines and pedagogy can be updated accordingly.

Limitations of the Investigation

First, since the participants of this study came from selected institutions, they cannot be a statistical representation of Myanmar university students. The findings of this study clearly demonstrated university students' learning experiences while using ICT in the capital of Myanmar in which economic, socio-cultural and educational conditions are quite different from other major cities throughout Myanmar. However, it was essential to use a questionnaire for this type of investigation due to the large amount as well as variety of information that was being solicited. Third, the lack of research and literature regarding English language education and ICT overall in Myanmar was not available so it was difficult to get a better understanding of the students and ICT. Nevertheless, my in-depth review of ICT and English language education as a whole, enormously helped me to better understand how other students and similar contexts function with ICT.

References

Freedman, A. Diccionario Bilingüe de Computación: Edición Actualizada. Bogotá: McGraw-Hill Interamericana S. A.

Jarvis, H. A., (1998) A role for Information Technology in the EFL classroom. CALL Review, IATEFL July 1998

Stein, J. (Ed). 1982. The Random House College Dictionary. (Revised ed.) New York: Random House.

Warschauer, M. (1996). Computer-assisted language learning: An introduction. In S. Fotos (Ed.), Multimedia language teaching (pp. 3-20). Tokyo: Logos International. [Online] Available from http://www.gse.uci.edu/markw/call.html

Postgraduate Students Gender Equality in Myanmar University Context

Khaing Zin Thant
Library Assistant-3, Mandalar University, Mandalay, Ministry of Education, Myanmar
E-mail: khaingzint96@gmail.com

Abstract

An online survey, focusing on gender equality issues, was completed by students over a seven-week period January-March 2022. Most students with a view perceived that university promotes gender equality, there were very few instances of perceived gender-based unfair treatment by students or staff and none of gender-based harassment or bullying. Most participants were extremely positive about the gender equality aspects of university. Based on their experience, participants felt that men and women postgraduate students on their university postgraduate program are treated equally in most of the areas such as workload expectations, provision of feedback, academic advice, and support policies as well as procedures, and project or PhD supervision. Regarding participants' positive views and experience of gender equality in university, participants have witnessed no gender discrimination from university staff towards postgraduate students. Moreover, students are treated equally by other postgraduate students regardless of their gender and they have opportunities to become involved in the wider research community. Thoughtful responses provided more detail of particular issues and suggestions which might be a focus of future university.

Keywords: Postgraduate students, Gender equality, Myanmar university context

Introduction

Higher education and research are key instruments for empowerment and social change. Universities can be powerful institutions for promoting gender equality, diversity and inclusion, not only in the higher education context, but also in society at large. Nevertheless, universities remain both gendered and gendering organizations (Rosa, Drew, & Canavan, 2020). The persistence of gender imbalances and pay gaps at both the top and the bottom levels of the academic hierarchy; gender segregation across academic disciplines and activities; the lack of integration of gender perspectives in teaching and research; and the extent of sexual harassment and assault on campuses, largely silenced and denied until the recent movement, reveal the extent to which gender still structures, in very significant ways, the divisions of academic labour and capital (Caprile et al., 2012; Schiebinger, 1999). The discussion about the experiences of tackling gender inequality in higher education and research is timely for two main reasons. First, while men remain at the centre of power in academia, gender binary systems are being politically challenged as never before by the rights of gender minorities, thus subverting hegemonic gender patterns. Moreover, the Covid-19 pandemic and the prevention measures imposed have enhanced existing gendered inequalities and amplified enduring privileges and disadvantages in society at large, including in higher education and research (Gewin, 2020). In fact, both Myanmar girls and boys are getting much more education today than they were 60 years ago. The average level of education among adult men was 4.1 years in 1960 and more than double that—8.6 years—in 2010. The share of men with no formal education dropped from 37 percent to 10 percent over the same period. In the competitive context of the universities, where gender equality policies are routinely jeopardized by a 'merit' system conceptualized as gender-neutral (Rosa & Clavero, 2020), social distancing and strict lockdowns, as well as the closures of educational institutions, can hinder academic careers by reinforcing barriers to combining paid work and private life. Recent studies show that when academics faced a reorganization of working time and space amidst lockdowns, women published fewer papers as first/corresponding authors and co-authors than men (King & Frederickson, 2021; Billings, & Aldape, 2021) and that their voices have been heard less in the scientific response to the pandemic (Saglamer, Drew, & Caglayan, 2021, p. 6).

1.1 Women and Care Practices in Universities

Women and care practices in universities, Gaudet, Marchand, Bujaki and Bourgeault ( ) assess care practices and how they offer a new understanding of equity in academia. Academics are routinely engaged in care activities for their students, colleagues, institutions, and families, yet care is often overlooked in the performance-oriented culture of academia. Drawing on responses of female professors, the study explores the extent, variety, and lived experiences of care practices in academia. It shows how female academics perform caring for undergraduate and postgraduate students and for colleagues through academic tasks. Although these care tasks are at the heart of their daily work at universities, they are invisible. The authors highlight that acknowledging care as a value and practice may reduce gender inequalities within an organization by improving its responsiveness to the needs of different community members, and recommend rethinking how universities, as bureaucracies, develop responsiveness strategies to the vulnerabilities of their employees and students.

1.2 Gender Equality in Myanmar

The status of women in Myanmar is evolving against a backdrop of stark exclusion from public life. Women struggle to secure decision-making positions. Structural (and psychological) impediments block their participation in certain sectors or occupations: for example, until October 2013, women were only allowed entry into entirely feminised roles in the army: secretaries, nurses, and support staff. Women have also not been accepted into the Myanmar Police Force in any significant numbers. Currently women comprise 3.4% of personnel. While the 2008 Constitution positively states that 'The Union shall not discriminate [against] any citizen of the Republic of the Union of Myanmar based on race, birth, religion, official position, status culture, sex and wealth', Section 352 of the Constitution codifies discrimination by stating: "*nothing…shall prevent the appointment of men to the positions that are suitable for men only*." Constitutional change in line with international standards is therefore a priority for many of AGIPP's associate organizations/networks. The reality of overt pervasive gender-based violence (GBV) further undermines women's sustained involvement in public life. The scale of GBV in Myanmar is yet to be fully understood. This in turn is inhibiting evidence-informed policy.

Gendered norms and biases, reinforced by media reporting, inform public perceptions regarding women in politics, and in decision-making more broadly. As Myanmar women involved in the peace processes have noted: “Traditional culture in Myanmar has a significant influence on attitudes towards women in leadership roles”. In Myanmar, women and girls are socially obligated and expected to be in charge of the household, children, elderly relatives, and take on other caring responsibilities. The expectation that males are leaders, combined with the social expectation that women play supportive roles, is entrenched in daily Myanmar life.
Exclusionary policies and practices—spoken and unspoken—undermine women’s capacities, resulting in many women lacking the confidence to claim space and argue their case and cause. It is frequently stated that women are “decorative”. The necessity for women in Myanmar to claim political space cannot be overstated and aims to contribute to this regard. In doing so, we work within established parameters and create new ones.

1.2 Aim of the Research

This research has been done to explore the postgraduate students’ gender equality in Myanmar university context. Since opening its borders in 2010, Myanmar's high levels of gender inequality have begun to be recognized. Statistics indicate that both men and women have equal access to education. However, women have lower labor force participation, leading to weakened long term political and economic empowerment. This research focuses on the experiences of undergraduate students towards gender equality items. The university postgraduate students participated in the questionnaire survey. The questionnaire included:

i. basic demographic and degree descriptor items.
ii. questions about dependents, perceptions of gender equality, discrimination and bullying within university
iii. a series of issues (e.g., ‘assessment’; ‘non-academic advice and support’; ‘access to personal tutor or supervisors’) which participants were asked to rate in respect of whether men and women were treated equally or not.
iv. a series of statements (e.g., ‘I believe university staff act as visible role models for gender equality’; ‘I have opportunities to become involved in the wider research community, beyond university’) to which participants were asked to rate their (dis)agreement.

The survey was administered online for seven weeks, from 15th May to 4th July 2021. Several reminder emails, with brief information, information on the current response and links to the survey were sent to students over this period.

Methodology

According to the data, the experiences of students may be somewhat different, and their data have been analyzed separately. The final response was 84 students (66 females – 79%; 18 males – 21%). Centrally available data suggests that it is also possible to examine responses by degree type: the questionnaire was completed by 66 female and 18 male students.

Respondents' Characteristics

Gender	Male
	Female
Type of Study	Postgraduate
	Research Professional
	Doctorate
Age Group	<=25
	26-30
	31-35
	36-40
	41-45
	46-50
	51-55
	56+
Year of Study	1st year
	2nd year
	3rd year
	4th year

Results

In Myanmar, women and girls are socially obligated and expected to be in charge of the household, children, elderly relatives, and take on other caring responsibilities. The expectation that males are leaders, combined with the social expectation that women play supportive roles, is entrenched in daily Myanmar life. Gender equality involves empowering all students and providing them with the same human rights. It also includes correcting biases students hold about themselves or gender identities other than their own.

3.1 Postgraduate Students' Experience of Gender Equality in University

There are three factors that Contribute to gender inequality in the classroom: Contributing Factor1: Teachers Pay More Attention to Boys; Contributing Factor 2: Interactions with Boys are More Public, Contributing Factor 3: Praise & Criticism Differ Between Boys & Girls. Based on students' experience, postgraduate students feel that men and women on their postgraduate program are treated equally in the following areas.

Table 1:

Postgraduate students' experience of gender equality in university (n=46)

SN	Items	Responses			Calculation		Interpretation
		Disagree	Prefer not to say	Agree	Mean	SD	
1	University staff are visible role models for gender equality.	2%	5%	93%	2.91	0.35	In practice, it is always completely applied.

2	University postgraduate students are given opportunities to represent University regardless of gender.	6%	4%	90%	2.84	0.50	In practice, it is always completely applied.
3	Social activities are welcoming to both men and women.	2%	1%	97%	2.95	0.30	In practice, it is always completely applied.
4	Postgraduate students are treated equally by university staff regardless of their gender.	0%	2%	98%	2.98	0.14	In practice, it is always completely applied.
5	Students are treated equally by other postgraduate students regardless of their gender.	2%	2%	96%	2.94	0.30	In practice, it is always completely applied.
6	Male/female postgraduate students are supported in considering future career options.	3%	1%	96%	2.93	0.35	In practice, it is always completely applied.
7	University is a great place to study for women.	0%	1%	99%	2.99	0.10	In practice, it is always completely applied.
8	University is a great place to study for men.	0%	1%	99%	2.99	0.10	In practice, it is always completely applied.
9	I have opportunities to become involved in the wider research community.	19%	36%	45%	2.26	0.76	In practice, it is often applied.
10	I did not feel discriminated against in the university community.	2%	15%	83%	2.81	0.44	In practice, it is always completely applied.
11	I have never been bullied in the university community.	1%	8%	91%	2.90	0.33	In practice, it is always completely applied.
	Average	3.36%	6.82%	89.82%	2.86	0.43	In practice, it is always completely applied.

NOTE:
1.00-1.66= In practice, it is sometimes applied.
1.67-2.33= In practice, it is often applied.
2.34-3.00= In practice, it is always completely applied.

Differences in education are a type of sex discrimination in the education system affecting both men and women during and after their educational experiences. Men are more likely to be literate on a global average, although higher literacy scores for women are prevalent in many countries. Equality in education is necessary for students to have the same opportunities to start off with positive educational outcomes, and equity helps to make sure those equal opportunities are adjusted to make room for students who might need extra help and attention. However, based on their experience, postgraduate students felt that men and women on their university postgraduate program are treated equally in all areas. Feelings of having been treated less favorably or discriminated against on the basis of gender were reported participants; none reported personal experience of gender-based harassment or bullying while studying within university. Men and women were treated equally in respect of all specified issues (workload expectations; assessment; provision of feedback; academic advice & support; policies & procedures such as reviews; project or PhD supervision; and access to personal tutor or supervisors) except one. Equality simply means everyone is treated the same exact way, regardless of need or any other individual difference. Equity, on the other hand, means everyone is provided with what they need to succeed. In practice, gender equality is always completely applied in universities.

Discussion

The achievement of equality between girls and boys, women and men, of all cultural and ethnic origins, is crucial to the very functioning of democracy, its development and the realization of human rights. Education plays a very basic role in this work. In wider society, the movement towards gender equality began with the suffrage movement in Western cultures in the late-19th century, which sought to allow women to vote and hold elected office. This period also witnessed significant changes to women's property rights, particularly in relation to their marital status. As Table 1 shows, most participants were positive about most aspects of gender equality in university, social activities are welcoming to both men and women, students are treated equally by university staff regardless of their gender, students are given opportunities to represent university regardless of gender, my supervisor helps them identify their training/development needs, students have opportunities to become involved in the wider research community, beyond university and students are treated equally by other students regardless of their gender. Thus, universities are great places to study for gender equality. Only a few reported having witnessed gender discrimination from university students. However, only a few (strongly) agreed 'university staff are visible role models for gender equality' and 'male/female Postgraduate students are supported in considering future career options', 'university makes it clear that unsupportive language is not acceptable' and – importantly, only a quarter that 'part time and full-time students get the same opportunities. Three-quarters (strongly) agreed that 'my program of study fits with my other commitments', but only two-thirds that apart from teaching/supervision, all university meetings, seminars, workshops and social gatherings took place within core hours and half reported 'there is a lot of pressure on me to study late or at weekends to get all my work completed'.

Conclusion

The Ministry of Education has shown strong leadership in their efforts to address the challenges faced by children and young people, such as gender inequalities, and sexual and reproductive health. UNESCO shares this commitment to positively impact young people's lives and look forward to continuing to work in partnership the curriculum core team and the Teacher Education Colleges to integrate CSE into the new curriculum for teacher education," Min Jeong Kim said. Delegates at the policy seminar discussed ways in which to introduce comprehensive sexuality knowledge and related life skills to current and future generations of children and young people in Myanmar. The seminar provided a platform that bridged key stakeholders such as public service providers, development partners and non-Government organizations, with a view to starting a dialogue on comprehensive sexuality education, understanding the gaps and identifying the best way forward for full implementation.

Recommendations

Gender equality is when people of all genders have equal rights, responsibilities, and opportunities. Everyone is affected by gender inequality - women, men, trans and gender diverse people, children, and families. It impacts people of all ages and backgrounds. In many ways, universities have been a positive force in the journey towards gender equality. Academic research has exposed the ways in which girls and women are discriminated against, while the increasing enrolment and recruitment of female students and staff have led to more women in positions of power and more women with agency over their lives. But universities also have a wider role to drive forward gender equality in their communities.

(i) Continued communication and awareness-raising with all university students in respect of gender equality issues both formally within course content and informally, to ensure they understand progress that has been made (e.g. student paternity leave) and that student and staff equality issues are high on university's agenda.

(ii) Ensuring acknowledgement of gender is not done in a tokenistic fashion and that students understand why, for example, mixed-gender groups are required for a particular task.

(iii) Ensuring there is a (well publicized) route for students to report any incidences of gender discrimination and that any student who experiences difficulties in their relationship with, or lack of support from, supervisors *really* feels able to raise this as an issue which will be taken seriously and without impacting on their future degree or career success.

(iv) Considering the balance of men and women within smaller university groups, rather than just across university as a whole.

(v) Ensuring all instances of discriminatory comments or actions are addressed clearly and immediately.

(vi) Ensuring that University works as best it can within the constraints of university and academic career structures so that women at an early stage of their academic careers are not discriminated against in terms of contracts and promotions – but also that, whenever possible, university staff question those structures.
(vii) There might be a need to consider specific issues for DClinPsy students since the vast majority are female, they may perceive themselves as ‘separate’, may be less aware of what is going on in university more generally, and are on a course which is only offered full-time.
(viii) It might be useful to consider practical issues such as the gender-mix of offices and availability of female sanitary products.

References

Aboim, S., & Vasconcelos, P. (2021). What does it mean to be a man? Trans masculinities, bodily practices, and reflexive embodiment. Men and Masculinities, 1097184X2110085. doi:https://doi.org/10.1177/1097184X211008519 [Crossref], [Web of Science ®], [Google Scholar]

Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. Gender & Society, 4(2), 139–158. [Crossref], [Web of Science ®], [Google Scholar]

Barber, B. M., Jiang, W., Morse, A., Puri, M., Tookes, H., & Werner, I. M. (2021). What explains differences in finance research productivity during the pandemic? The Journal of Finance, 76(4), 1655–1697. [Crossref], [Google Scholar]

Caprile, M., Addis, E., Castaño, C., Klinge, I., Larios, M., Meulders, D., Roivas, S. (2012). Meta-analysis of gender and science research. Luxembourg: European Union Publications Office. [Google Scholar]

Gewin, V. (2020). The career cost of COVID-19 to female researchers, and how science should respond. Nature, 583(7818) PMID: 32690964, 867–869. [Crossref], [PubMed], [Google Scholar]

Husu, L. (2020). What does not happen: Interrogating a tool for building a gender-sensitive university. In D. Eileen & S. Canavan (Eds.), The gender-sensitive university. A contradiction in terms? (pp. 52–66). London: Routledge. [Crossref], [Google Scholar]

Woods, D. R., Benschop, Y., & van Den Brink, M. (2021). What is intersectional equality? A definition and goal of equality for organizations. Gender, Work, and Organization, 1–18. doi:https://doi.org/10.1111/gwao.12760 [Google Scholar]

Understanding the construction of *Pesantren* at Indonesian Islamic Education from the perspective of social construction

Yoyok Amirudin[1] / Ted Yu-Chung Liu[2]
[1] Graduate Institute Educational Administration, National Pingtung University, Taiwan
[2] Professor D., Department of Education, National Pingtung University, Taiwan

Abstract

This study aims to understand *why* and *how* the *pesantren,* one unique boarding school system, is constructed in Indonesia particularly in the cultural context of Islamic education. Discourse analysis is conducted in this study to analyze the case of Al Fitrah Surabaya Indonesia, one *pesantren* in the region of East Java, from the perspective of social construction. It is found in this study that the purpose of *pesantren* is built for developing students' character by habituation in their life through whole day staying in *pesantren* for religious, discipline, tolerance, environmental care, and nationalism, and operated via the constitution of *Kyai* (the leader of Pesantren), *pondok* (the habituation space of Pesantren) *, santri* (the calling of the students who study in Pesantren), and *kitab kuning*(yellow book, the textbook of Islamic knowledge). *Pesantren* is the oldest form of institution education in Indonesia and remains active nowadays for Indonesian Islamic education.

Keywords: Pesantren, Social Construction, and Students Character

Other fields related to the conference theme

Investigating the mental health status of collegiate students during Covid-19 pandemic: A case study of Burapha University International College

Minh Nhat Tran Viet [1] / Kasemsri Ittiphong[2]
[1,2] Holistic and Wellness Management Program
Burapha University International College Chonburi 20131, Thailand

Abstract

This paper investigated and assessed the mental health status, such as stress, anxiety, and depression levels of Burapha University International College (BUUIC) students during the Covid-19 pandemic. Besides it also examined the difference between gender and educational levels of BUUIC students experiencing mental distress during the Covid-19 pandemic. An online survey was conducted among BUUIC students via Google Forms. The Coronavirus Anxiety Scale, Zung Self-Rating Anxiety Scale, and Zung Self-Rating Depression Scale were employed to assess the mental health status (stress, anxiety, and depression) of BUUIC students. A total of 370 collegiate students took part in the study, among which 25 students (11 male and 14 female - 6.8%) showed having dysfunctional anxiety associated with the Covid-19 crisis. Moreover, 35 students (11 male and 24 female - 9.5%) showed mild-to-moderate anxiety levels, and one male student (0.3%) showed marked-to-severe anxiety levels. Besides, 26 students (10 male and 16 female - 7%) showed a mildly depressed, and two male students showed a moderately-depressed. There was no significant difference between gender in experiencing mental distress during the Covid-19 pandemic. However, there is a highly significant difference between the educational levels of BUUIC students experiencing mental distress during the Covid-19 pandemic. The proportion of respondents experiencing mental distress during the Covid-19 pandemic is alarming. BUUIC should implement an appropriate psychological skills training program to help students cope with stress, anxiety, and depression during the Covid-19 pandemic outbreak and in a time of uncertainty in their lives.

Keywords: Covid-19; mental distress; collegiate students

Introduction

On 31 December 2019, the new coronavirus infection (Covid-19) has suddenly identified as an outbreak of historical disease pneumonia in Wuhan, China. A few weeks later, more than 100,000 cases and thousands of deaths were increasing rapidly and globally daily (Lee, 2020a; Wang et al., 2021). Many governments had ordered to close their national borders to prevent the outbreak, shut down many activities that gathered many people, banned traveling, and asked their citizens to stay at home for a long, uncertain time (Mukhtar, 2020). Moreover, many universities and colleges worldwide have closed and moved to online classrooms to lower the infectious power of Covid-19 (Murphy, 2020).

With a flood of information in real-time updates from journals and health officers worldwide, people are experiencing mental distress resulting in repeated too much media exposure about the Covid-19 pandemic outbreak (Garfin et al., 2020). As this thing keeps going on, it will also affect people and students' physical and mental health day by day. Mental distress happened because students are familiar with new technology, and global news shows 24/7 can lead them to false news (Murphy, 2020). For this time, many people live in uncertain times with many unknowns about who they are and how they interact in a new post-Covid-19 outbreak time (Charles & Anderson-Nathe, 2020; Torales et al., 2020).

There are many findings pointed out the relationship between pandemic-related anxiety and increasing symptoms of stress, anxiety, depression, contamination concerns, post-traumatic stress, and even suicidality (Chong et al., 2004; Wheaton et al., 2012; Wu et al., 2009; Yip et al., 2010). As a result, seeking the best mental health intervention increases in sequence to cope with stress, anxiety, and depression responses in many people (Garfin et al., 2020).

The need to investigate and assess collegiate students' mental health to address concerns as soon as possible is crucial for protecting their mental health during the Covid-19 pandemic outbreak (Holmes et al., 2020; Zhai & Du, 2020). However, to our awareness, there is limited research conducted on Thailand collegiate students' mental health status during the Covid-19 pandemic outbreak. So, this study aimed to investigate and assess the mental health status (primary outcome), such as stress, anxiety, and depression levels of Burapha University International College (BUUIC) students during the Covid-19 pandemic outbreak. Moreover, it also examined the difference between gender and educational levels of BUUIC students in experiencing mental distress during the Covid-19 pandemic outbreak.

Research Objectives

The purpose of this study was to investigate and assess the mental health status, such as stress, anxiety, and depression levels of Burapha University International College (BUUIC) students during the Covid-19 pandemic outbreak with the following questions:

1. Are there any differences between genders in experiencing mental distress during the Covid-19 pandemic outbreak?
2. Are there any differences between educational levels in experiencing mental distress during the Covid-19 pandemic outbreak?

Literature Review

On 31 December 2019, the new coronavirus infection (Covid-19) has suddenly identified as an outbreak of historical disease pneumonia in Wuhan, China. A few weeks later, more than 100,000 cases and thousands of deaths were increasing rapidly and globally daily (Lee, 2020a; Wang et al., 2021). Many governments had ordered to close their national borders to prevent the outbreak, shut down many activities that gathered many people, banned traveling, and asked their citizens to stay at home for a long, uncertain time (Mukhtar, 2020). Besides, many collegiate students, patients, and healthcare providers are the victims of mental distress such as anxiety, sadness, depression, and fear brought by the Covid-19 pandemic outbreak (Song, 2020)

In response to the Covid-19 pandemic outbreak, several universities and colleges worldwide have closed and moved to online classrooms to lower the infectious power of the Covid-19 virus (Murphy, 2020). Teaching and learning online platforms were challenging for both students and lecturers because they do not have this kind of experience before (Eliyana, 2021; Sahu, 2020). Research conducted by Hasan and Bao (2020) emphasized that both "e-Learning crack-up" and "fear of academic year loss" are the significant factors that influenced student's mental health, while "fear of academic year loss" was responsible for mental distress during the Covid-19 pandemic outbreak. In addition, a report by Savitsky et al. (2020) also showed that collegiate students had higher stress levels than non-students during the last semester examinations of their studies.

With a flood of information in real-time updates from journals and health officers worldwide, people are experiencing mental distress resulting in repeated too much media exposure about the Covid-19 pandemic outbreak (Garfin et al., 2020). As this thing keeps going on, it will also affect people and students' physical and mental health day by day. Mental distress happened because students are familiar with new technology, and global news shows 24/7 can lead them to false news (Murphy, 2020). For this time, many people live in uncertain times with many unknowns about who they are and how they interact in a new post-Covid-19 outbreak time (Charles & Anderson-Nathe, 2020; Torales et al., 2020).

Browning et al. (2021) discovered that spending more time on screens and knowing someone infected with Covid-19 leads to higher stress levels among college students. Consistent with Pramukti et al. (2020), Thai collegiate students are significantly affected by information gathered from the internet. That is why they had very high levels of anxiety but deficient confidence levels in pandemic control and available resources for fighting Covid-19. Additionally, Choompunuch et al. (2021) also found that Thai collegiate students experienced high stress levels during the Covid-19 pandemic outbreak.

There are various findings mentioned about the relationship between pandemic-related anxiety and increasing symptoms of stress, anxiety, depression, contamination concerns, post-traumatic stress, and even suicidality (Chong et al., 2004; Wheaton et al., 2012; Wu et al., 2009; Yip et al., 2010). As a result, seeking the best mental health intervention increases in sequence to cope with stress, anxiety, and depression responses in many people (Garfin et al., 2020). The Coronavirus Anxiety Scale (CAS) was created as a brief mental health screener to identify the Covid pandemic outbreak's dysfunctional anxiety (Lee, 2020a). The CAS is a 5-item Likert scale, ranging from 0 ("Not at all") to 4 ("nearly every day over the last two weeks") with a highly reliable Cronbach alpha coefficient (a = 0.93) and strong psychometric properties. That is why the CAS has used worldwide, such as United States (Lee, 2020a, 2020b; Lee et al., 2020), Bangladesh (Sakib et al., 2020), Turkey (Evren et al., 2020), Canada (Taylor et al., 2020), Mexico (Mora-Magaña et al., 2020), Iran (Ahorsu et al., 2020), Italy (Soraci et al., 2020), and South Korea (Choi et al., 2020). If the total score is equal to or over 9, that person is classified as having dysfunctional anxiety associated with the Covid-19 pandemic outbreak crisis (Lee, 2020a).

The Zung Self-Rating Anxiety Scale (SAS) and the Zung Self-Rating Depression Scale (SDS) were used respectively to measure anxiety and depression levels of collegiate students in this study (Zung, 1965; Zung, 1971). Both of them had 20 items and contained a 4-Likert scale (1 for “a little of the time,” 2 for “some of the time,” 3 for “a good part of the time,” and 4 for “most of the time”). The total raw score is summed up and ranging from 20 to 80. The SAS measures the anxiety feelings while the SDS evaluates the depression degree. For SAS, five items (5, 9, 13, 17, and 19) used the positive words and need to reverse the integration order from 4 to 1. The anxiety levels sort as the following: 20-44 = "Normal range"; 45-59 = "Mild to Moderate"; 60-74 = "Marked to Severe"; and 75 and above = "Extreme". For SDS, ten items (2, 5, 6, 11, 12, 14, 16, 17, 18, and 20) used the positive words and need to reverse the integration order from 4 to 1. The depression levels sort as the following: 25-49 = "Normal range"; 50-59 = "Mild Depressed"; 60-69 = "Moderately Depressed"; and 70 and above = "Severely Depressed".

The need to investigate and assess collegiate students' mental health to address concerns as soon as possible is crucial for protecting their mental health during the Covid-19 pandemic outbreak (Holmes et al., 2020; Zhai & Du, 2020). However, to our best knowledge, there is limited research on Thailand collegiate students' mental health status during the Covid-19 pandemic outbreak. So, this study aimed to investigate and assess the mental health status (primary outcome), such as stress, anxiety, and depression levels of Burapha University International College (BUUIC) students during the Covid-19 pandemic outbreak. Moreover, it also examined the difference between gender and educational levels of BUUIC students in experiencing mental distress during the Covid-19 pandemic outbreak.

The purpose of this study was to investigate and assess the mental health status, such as stress, anxiety, and depression levels of Burapha University International College (BUUIC) students during the Covid-19 pandemic outbreak with the following questions:

1. Are there any differences between gender in experiencing mental distress during the Covid-19 pandemic outbreak?

2. Are there any differences between educational levels in experiencing mental distress during the Covid-19 pandemic outbreak?

This research was the first step of establishing the appropriate psychological interventions for collegiate students in general and for BUUIC students to lessen the mental distress caused by the Covid-19 pandemic outbreak. In the meantime, implementing psychological skills training should help collegiate students regulate and mitigate the mental health problems during the Covid-19 pandemic outbreak.

Research Methodology

An online survey was conducted among BUUIC students via Google Forms from April to May 2021. The Coronavirus Anxiety Scale, Zung Self-Rating Anxiety Scale, and Zung Self-Rating Depression Scale were employed to assess the mental health status (stress, anxiety, and depression) of BUUIC students. By using the non-probability sampling technique, 370 collegiate students (age 18-23) volunteered to participate in this study during that time. The researcher informed the students that they could withdraw from the survey anytime without any penalties. There were more female (n = 229, 61.9%) than male (n = 141, 38.1%). The educational levels were as follows: 50.3% Freshman (n = 186), 21.9% Sophomore (n = 81), 7.3% Junior (n = 27), and 20.5% Senior (n = 76).

Statistical analysis

According to CAS scoring criteria, the data was divided into dysfunctional anxiety and non-dysfunctional anxiety groups. If the total score is equal to or over 9, that person is classified as having dysfunctional anxiety associated with the Covid-19 pandemic outbreak crisis (Lee, 2020a). The anxiety and non-anxiety groups were formed along with the SAS scoring standard (20-44 = "Normal range"; 45-59 = "Mild to Moderate"; 60-74 = "Marked to Severe"; and 75 and above = "Extreme"), while depression and non-depression groups were separated with the SDS scoring conditions (25-49 = "Normal range"; 50-59 = "Mild Depressed"; 60-69 = "Moderately Depressed"; and 70 and above = "Severely Depressed") (Zung, 1965; Zung, 1971).

SPSS 25 was used for all statistical analyses as following:

1. Descriptive analysis was used to measure the demographics such as gender, age, and educational levels.

2. An Independent t-test was applied to measure the differences between gender in experiencing mental distress during the Covid-19 pandemic outbreak.

3. One-way ANOVA with Post Hoc tests was employed to determine significant differences in educational levels experiencing mental distress during the Covid-19 pandemic outbreak.

Results

Table 1. CAS score compared by gender

Gender	Dysfunctional anxiety, n (%)	Normal, n (%)	Total, n (%)
Male	11 (3)	130 (35.1)	141 (38.1)
Female	14 (3.8)	215 (58.1)	229 (61.9)

Table 2. CAS score compared by educational levels

Educational levels	Dysfunctional anxiety, n (%)	Normal, n (%)	Total, n (%)
Freshman	8 (2.2)	178 (48.1)	186 (50.3)
Sophomore	3 (0.8)	78 (21.1)	81 (21.9)
Junior	1 (0.3)	26 (7.0)	27 (7.3)
Senior	13 (3.5)	63 (17)	76 (20.5)

Table 1 and 2 showed that 25 students (11 male and 14 female - 6.8%) had dysfunctional anxiety associated with the Covid-19 crisis classified as freshman (n=8, 2.2%), sophomore (n=3, 0.8%), junior (n=1, 0.3), and senior (n=13, 3.5%).

Table 3. SAS score compared by gender

Gender	Marked to Severe, n (%)	Mild to Moderate, n (%)	Normal, n (%)	Total, n (%)
Male	1 (0.3)	11 (3.0)	129 (34.9)	141 (38.1)
Female	0	24 (6.5)	205 (55.4)	229 (61.9)

Table 4. SAS score compared by educational levels

Educational levels	Marked to Severe, n (%)	Mild to Moderate, n (%)	Normal, n (%)	Total, n (%)
Freshman	0	17 (4.6)	169 (45.7)	186 (50.3)
Sophomore	0	3 (0.8)	78 (21.1)	81 (21.9)
Junior	0	2 (0.5)	25 (6.8)	27 (7.3)
Senior	1 (0.3)	13 (3.5)	62 (16.8)	76 (20.5)

Table 3 and 4 revealed that 35 students (11 male and 24 female - 9.5%) showed mild-to-moderate anxiety levels linked to the Covid-19 crisis classified as freshman (n=17, 4.6%), sophomore (n=3, 0.8%), junior (n=2, 0.5), and senior (n=13, 3.5%). One senior male student (0.3%) showed marked-to-severe anxiety levels.

Table 5. SDS score compared by gender

Gender	Moderately depressed, n (%)	Mildly depressed, n (%)	Normal, n (%)	Total, n (%)
Male	2 (0.5)	10 (2.7)	129 (34.9)	141 (38.1)
Female	0	16 (4.3)	213 (57.6)	229 (61.9)

Table 6. SDS score compared by educational levels

Educational levels	Moderately depressed, n (%)	Mildly depressed, n (%)	Normal, n (%)	Total, n (%)
Freshman	1 (0.3)	9 (2.4)	176 (47.6)	186 (50.3)
Sophomore	0	6 (1.6)	75 (20.3)	81 (21.9)
Junior	0	2 (0.5)	25 (6.8)	27 (7.3)
Senior	1 (0.3)	9 (2.4)	66 (17.8)	76 (20.5)

Table 5 and 6 pointed out that 26 students (10 male and 16 female - 7%) exhibited mildly depressed levels related to the Covid-19 crisis classified as freshman (n=9, 2.4%), sophomore (n=6, 1.6%), junior (n=2, 0.5), and senior (n=9, 2.4%). Two freshman and senior male students (0.5%) showed moderately depressed levels.

Table 7. Summary results of the independent sample test between gender

	Male (n=141)		Female (n=229)		t	P value
	Mean	SD	Mean	SD		
CAS	1.94	3.229	2.10	3.110	-0.461	0.645
SAS	34.39	8.030	35.44	7.582	-1.261	0.208
SDS	40.01	8.279	39.44	7.174	0.700	0.484

There were no significant differences between gender in experiencing mental distress such as CAS, SAS, and SDS during the Covid-19 pandemic outbreak; $t(368) = (-0.461, -1.261, 0.700)$, $p = (0.645, 0.208, 0.484) > 0.05$

Table 8. Summary results of one-way ANOVA and Post Hoc test

	ANOVA		Post Hoc test
	F	Sig	
CAS	5.771	0.001	There was a significant difference in dysfunctional anxiety between educational levels.
SAS	0.941	0.421	There was no difference in anxiety levels between educational levels.
SDS	0.460	0.711	There was no difference in depression levels between educational levels.

Discussion and Conclusion

The results indicated that 6.8% (11 male and 14 female) had dysfunctional anxiety associated with the Covid-19 crisis. This outcome has strongly associated with mental distress due to Covid-19 pandemic outbreak reports by other countries such as United States, Bangladesh, Turkey, Canada, Mexico, Iran, Italy, South Korea, and Thailand (Ahorsu et al., 2020; Choi et al., 2020; Choompunuch et al., 2021; Evren et al., 2020; Lee, 2020a, 2020b; Lee et al., 2020; Mora-Magaña et al., 2020; Sakib et al., 2020; Soraci et al., 2020; Taylor et al., 2020). Also, it has the same conclusion with four studies that women had higher stress than men during the Covid-19 pandemic outbreak (Bitan et al., 2020; Jungmann & Witthöft, 2020; Reznik et al., 2020; Sakib et al., 2020). One possible reason to explain why women had higher stress than men is that women had higher disgust sensitivity and fear of contamination than men (Olatunji et al., 2005). Another explanation is that women tend to increase the risk for mental distress following stressful life events than men (Tolin & Foa, 2008).

9.5% (11 male and 24 female) showed mild-to-moderate anxiety levels, and 0.3% (one senior male student) showed marked-to-severe anxiety levels linked to the Covid-19 crisis. Although the proportion of respondents showing students' anxiety is lower than studies in the United States (71%), Malaysia (29.8%), Ethiopia (27.7%), Bangladesh (33.3%), and China (17.8%), however, this is an alarming sign that requites immediate attention support such as counseling services or a psychological skills training program for students during Covid-19 pandemic outbreak (Alrasheedy et al., 2021; Aylie et al., 2020; Khan et al., 2020; Son et al., 2020; Sundarasen et al., 2020; Wu et al., 2021). Likewise, it is consistent with previous studies that female had suffered more anxiety than male (Gao et al., 2020; Li et al., 2020; Xiao et al., 2020; Zhang et al., 2020). The answer for that reason is that females have more emotional sensitivity than males and tend to think more negatively, especially experiencing mental distress during the Covid-19 pandemic outbreak (Zhan et al., 2021).

In this study, 7% (10 male and 16 female) exhibited mildly depressed levels, and 0.5% (2 male) showed moderately depressed levels related to the Covid-19 crisis. The students' depression levels percentage is not as high as some studies from the United States (48.14%), France (43%), Bangladesh (72%), and China (23.3%) (Chi et al., 2020; Essadek & Rabeyron, 2020; Faisal et al., 2021; Wang et al., 2020). However, this predictive depressive symptom is something that university needs to consider caring for students' mental health. Otherwise, it will lead to a more complicated situation, such as suicide thoughts (18.04%), depression, and self-harm behaviors (Wang et al., 2020). The findings revealed that females also developed depressed levels more than males, which is in line with many previous epidemiological studies (Alonso et al., 2004; Lim et al., 2018; Solomou & Constantinidou, 2020; Vesga-López et al., 2008).

There were no significant differences between gender in experiencing mental distress such as CAS, SAS, and SDS during the Covid-19 pandemic outbreak; $t(368) = (-0.461, -1.261, 0.700)$, $p = (0.645, 0.208, 0.484) > 0.05$. The answer contrasts with four previous studies that women had higher stress than men (Bitan et al., 2020; Jungmann & Witthöft, 2020; Reznik et al., 2020; Sakib et al., 2020), and females also developed depressed levels more than males during the Covid-19 pandemic outbreak

(Alonso et al., 2004; Lim et al., 2018; Solomou & Constantinidou, 2020; Vesga-López et al., 2008). Because the finding contradicts with gender, so more studies need to be conducted to explain why gender has a significant impact on dysfunctional anxiety, stress, and depression during the Covid-19 pandemic outbreak seen in other studies (Atkinson, 2020; Wang et al., 2020; Wang et al., 2021).

There were no significant differences between educational levels in experiencing mental distress such as anxiety and depression during the Covid-19 pandemic outbreak. It is similar to some studies that found no difference in anxiety and depression levels between educational levels and educational disciplines for collegiate students (Ickes et al., 2015; Liu et al., 2019; Saleh et al., 2017). This study explained that educational levels negatively impact BUUIC students' mental health during the Covid-19 pandemic outbreak even though students had to do quarantine, lack physical contact with friends, teachers, and study online (Długosz, 2021). However, there was a significant difference between educational levels in experiencing dysfunctional anxiety during the Covid-19 pandemic outbreak. The discovery supports research conducted by Hasan and Bao (2020) emphasized that both "e-Learning crack-up" and "fear of academic year loss" are the significant factors that influenced student's mental health, while "fear of academic year loss" was responsible for mental distress during the Covid-19 pandemic outbreak. Another explanation is that students had higher stress levels than non-students during the last semester examinations of their studies (Savitsky et al., 2020).

The proportion of respondents experiencing mental distress during the Covid-19 pandemic is alarming. That is why the next phase of this study will conduct the eight weeks psychological skills training programs, including goal setting, imagery, arousal regulation, and positive self-talk for two weeks each. This training will help students cope with stress, anxiety, and depression during the Covid-19 pandemic outbreak and in a time of uncertainty in their lives. Moreover, students will benefit from this research as the psychological skills training program becomes a part of mental training in counseling services provided by BUUIC.

There are some limitations of this research that should be taken into consideration. First, the sample size was collected by the non-probability sampling technique, and therefore, the responses may have chances to contain some biases. Second, this research also did not survey students' existing mental health issues, so the results might not clarify the level of distress from the pandemic or pre-existing one. Lastly, this study focused on BUUIC students as the target group, so the results of this study may be different from other faculties or other universities in different regions.

References

Ahorsu, D. K., Lin, C.-Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 scale: development and initial validation. International Journal of Mental Health and Addiction, 1-9.

Alonso, J., Angermeyer, M., Bernert, S., Bruffaerts, R., Brugha, T., & Bryson, H. (2004). European Study of the Epidemiology of Mental Disorders [ESEMeD] project. Prevalence of mental disorders in Europe: results from the European Study of the Epidemiology of Mental Disorders [ESEMeD] project. Acta Psychiatr Scand Suppl, 420, 21-27.

Alrasheedy, A. A., Abdulsalim, S., Farooqui, M., Alsahali, S., & Godman, B. (2021). Knowledge, attitude and practice about coronavirus disease (COVID-19) pandemic and its psychological impact on students and their studies: a cross-sectional study among pharmacy students in Saudi Arabia. Risk Management and Healthcare Policy, 14, 729.

Atkinson, S. R. (2020). Elevated psychological distress in undergraduate and graduate entry students entering first year medical school. PloS one, 15(8), e0237008.

Aylie, N. S., Mekonen, M. A., & Mekuria, R. M. (2020). The psychological impacts of COVID-19 pandemic among university students in Bench-Sheko Zone, South-west Ethiopia: a community-based cross-sectional study. Psychology Research and Behavior Management, 13, 813.

Bitan, D. T., Grossman-Giron, A., Bloch, Y., Mayer, Y., Shiffman, N., & Mendlovic, S. (2020). Fear of COVID-19 scale: Psychometric characteristics, reliability and validity in the Israeli population. Psychiatry research, 289, 113100.

Browning, M. H., Larson, L. R., Sharaievska, I., Rigolon, A., McAnirlin, O., Mullenbach, L., Cloutier, S., Vu, T. M., Thomsen, J., & Reigner, N. (2021). Psychological impacts from COVID-19 among university students: Risk factors across seven states in the United States. PloS one, 16(1), e0245327.

Charles, G., & Anderson-Nathe, B. (2020). Uncertainty in the time of coronavirus. In: Taylor & Francis.

Chi, X., Becker, B., Yu, Q., Willeit, P., Jiao, C., Huang, L., Hossain, M. M., Grabovac, I., Yeung, A., & Lin, J. (2020). Prevalence and psychosocial correlates of mental health outcomes among Chinese college students during the coronavirus disease (COVID-19) pandemic. Frontiers in Psychiatry, 11, 803.

Choi, E., Lee, J., & Lee, S. A. (2020). Validation of the Korean version of the obsession with COVID-19 scale and the Coronavirus anxiety scale. Death studies, 1-7.

Chong, M.-Y., Wang, W.-C., Hsieh, W.-C., Lee, C.-Y., Chiu, N.-M., Yeh, W.-C., Huang, T.-L., Wen, J.-K., & Chen, C.-L. (2004). Psychological impact of severe acute respiratory syndrome on health workers in a tertiary hospital. The British journal of psychiatry, 185(2), 127-133.

Choompunuch, B., Suksatan, W., Sonsroem, J., Kutawan, S., & In-udom, A. (2021). Stress, adversity quotient, and health behaviors of undergraduate students in a Thai university during COVID-19 outbreak. Belitung Nursing Journal, 7(1), 1-7.

Długosz, P. (2021). The Relationship between Mental Health, Educational Burnout and Strategies for Coping with Stress among Students. A Cross-Sectional Study of Poland.

Eliyana, E. (2021). Students' Perspective: Virtual-Based Learning amid the Covid-19 Pandemic by Pre-Service Teachers in Rural Area, Thailand. Journal of English Teaching, Literature, and Applied Linguistics, 5(1), 46-53.

Essadek, A., & Rabeyron, T. (2020). Mental health of French students during the Covid-19 pandemic. Journal of affective disorders, 277, 392-393.

Evren, C., Evren, B., Dalbudak, E., Topcu, M., & Kutlu, N. (2020). Measuring anxiety related to COVID-19: A Turkish validation study of the Coronavirus Anxiety Scale. Death studies, 1-7.
Faisal, R. A., Jobe, M. C., Ahmed, O., & Sharker, T. (2021). Mental health status, anxiety, and depression levels of Bangladeshi university students during the COVID-19 pandemic. International Journal of Mental Health and Addiction, 1-16.
Gao, W., Ping, S., & Liu, X. (2020). Gender differences in depression, anxiety, and stress among college students: a longitudinal study from China. Journal of affective disorders, 263, 292-300.
Garfin, D. R., Silver, R. C., & Holman, E. A. (2020). The novel coronavirus (COVID-2019) outbreak: Amplification of public health consequences by media exposure. Health psychology, 39(5), 355.
Hasan, N., & Bao, Y. (2020). Impact of “e-Learning crack-up” perception on psychological distress among college students during COVID-19 pandemic: A mediating role of “fear of academic year loss”. Children and Youth Services Review, 118, 105355.
Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., Ballard, C., Christensen, H., Silver, R. C., & Everall, I. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. The Lancet Psychiatry, 7(6), 547-560.
Ickes, M. J., Brown, J., Reeves, B., & Zephyr, P. M. D. (2015). Differences between undergraduate and graduate students in stress and coping strategies. Californian Journal of Health Promotion, 13(1), 13-25.
Jungmann, S. M., & Witthöft, M. (2020). Health anxiety, cyberchondria, and coping in the current COVID-19 pandemic: Which factors are related to coronavirus anxiety? Journal of Anxiety Disorders, 73, 102239.
Khan, A. H., Sultana, M. S., Hossain, S., Hasan, M. T., Ahmed, H. U., & Sikder, M. T. (2020). The impact of COVID-19 pandemic on mental health & wellbeing among home-quarantined Bangladeshi students: a cross-sectional pilot study. Journal of affective disorders, 277, 121-128.
Lee, S. A. (2020a). Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. Death studies, 44(7), 393-401.
Lee, S. A. (2020b). How much “Thinking” about COVID-19 is clinically dysfunctional? Brain, behavior, and immunity, 87, 97.
Lee, S. A., Jobe, M. C., & Mathis, A. A. (2020). Mental health characteristics associated with dysfunctional coronavirus anxiety. Psychological medicine, 1-2.
Li, X., Lv, S., Liu, L., Chen, R., Chen, J., Liang, S., Tang, S., & Zhao, J. (2020). COVID-19 in Guangdong: immediate perceptions and psychological impact on 304,167 college students. Frontiers in Psychology, 11.
Lim, G. Y., Tam, W. W., Lu, Y., Ho, C. S., Zhang, M. W., & Ho, R. C. (2018). Prevalence of depression in the community from 30 countries between 1994 and 2014. Scientific reports, 8(1), 1-10.
Liu, X., Ping, S., & Gao, W. (2019). Changes in undergraduate students’ psychological well-being as they experience university life. International journal of environmental research and public health, 16(16), 2864.

Mora-Magaña, I., Lee, S. A., Maldonado-Castellanos, I., Jiménez-Gutierrez, C., Mendez-Venegas, J., Maya-Del-Moral, A., Rosas-Munive, M. D., Mathis, A. A., & Jobe, M. C. (2020). Coronaphobia among healthcare professionals in Mexico: A psychometric analysis. Death studies, 1-10.

Mukhtar, S. (2020). Psychological health during the coronavirus disease 2019 pandemic outbreak. International Journal of Social Psychiatry, 66(5), 512-516.

Murphy, M. P. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. Contemporary Security Policy, 41(3), 492-505.

Olatunji, B. O., Sawchuk, C. N., Arrindell, W. A., & Lohr, J. M. (2005). Disgust sensitivity as a mediator of the sex differences in contamination fears. Personality and Individual Differences, 38(3), 713-722.

Pramukti, I., Strong, C., Sitthimongkol, Y., Setiawan, A., Pandin, M. G. R., Yen, C.-F., Lin, C.-Y., Griffiths, M. D., & Ko, N.-Y. (2020). Anxiety and suicidal thoughts during the COVID-19 pandemic: cross-country comparative study among Indonesian, Taiwanese, and Thai University students. Journal of medical Internet research, 22(12), e24487.

Reznik, A., Gritsenko, V., Konstantinov, V., Khamenka, N., & Isralowitz, R. (2020). COVID-19 fear in Eastern Europe: validation of the fear of COVID-19 scale. International Journal of Mental Health and Addiction, 1.

Sahu, P. (2020). Closure of universities due to coronavirus disease 2019 (COVID-19): impact on education and mental health of students and academic staff. Cureus, 12(4).

Sakib, N., Bhuiyan, A. I., Hossain, S., Al Mamun, F., Hosen, I., Abdullah, A. H., Sarker, M. A., Mohiuddin, M. S., Rayhan, I., & Hossain, M. (2020). Psychometric validation of the Bangla Fear of COVID-19 Scale: Confirmatory factor analysis and Rasch analysis. International Journal of Mental Health and Addiction, 1-12.

Saleh, D., Camart, N., & Romo, L. (2017). Predictors of stress in college students. Frontiers in Psychology, 8, 19.

Savitsky, B., Findling, Y., Ereli, A., & Hendel, T. (2020). Anxiety and coping strategies among nursing students during the covid-19 pandemic. Nurse Education in Practice, 46, 102809.

Solomou, I., & Constantinidou, F. (2020). Prevalence and predictors of anxiety and depression symptoms during the COVID-19 pandemic and compliance with precautionary measures: Age and sex matter. International journal of environmental research and public health, 17(14), 4924.

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. Journal of medical Internet research, 22(9), e21279.

Song, M. (2020). Psychological stress responses to COVID-19 and adaptive strategies in China. World development, 136, 105107.

Soraci, P., Ferrari, A., Abbiati, F. A., Del Fante, E., De Pace, R., Urso, A., & Griffiths, M. D. (2020). Validation and psychometric evaluation of the Italian version of the Fear of COVID-19 Scale. International Journal of Mental Health and Addiction, 1-10.

Sundarasen, S., Chinna, K., Kamaludin, K., Nurunnabi, M., Baloch, G. M., Khoshaim, H. B., Hossain, S. F. A., & Sukayt, A. (2020). Psychological impact of COVID-19 and lockdown among university students in Malaysia: implications and policy recommendations. International journal of environmental research and public health, 17(17), 6206.

Taylor, S., Landry, C. A., Paluszek, M. M., Fergus, T. A., McKay, D., & Asmundson, G. J. (2020). Development and initial validation of the COVID Stress Scales. Journal of Anxiety Disorders, 72, 102232.

Tolin, D. F., & Foa, E. B. (2008). Sex differences in trauma and posttraumatic stress disorder: a quantitative review of 25 years of research.

Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. International Journal of Social Psychiatry, 66(4), 317-320.

Vesga-López, O., Schneier, F., Wang, S., Heimberg, R., Liu, S.-M., Hasin, D. S., & Blanco, C. (2008). Gender differences in generalized anxiety disorder: results from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). The Journal of clinical psychiatry, 69(10), 1606.

Wang, X., Hegde, S., Son, C., Keller, B., Smith, A., & Sasangohar, F. (2020). Investigating mental health of US college students during the COVID-19 pandemic: cross-sectional survey study. Journal of medical Internet research, 22(9), e22817.

Wang, Y., Di, Y., Ye, J., & Wei, W. (2021). Study on the public psychological states and its related factors during the outbreak of coronavirus disease 2019 (COVID-19) in some regions of China. Psychology, health & medicine, 26(1), 13-22.

Wheaton, M. G., Abramowitz, J. S., Berman, N. C., Fabricant, L. E., & Olatunji, B. O. (2012). Psychological predictors of anxiety in response to the H1N1 (swine flu) pandemic. Cognitive Therapy and Research, 36(3), 210-218.

Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., Liu, X., Fuller, C. J., Susser, E., & Lu, J. (2009). The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk. The Canadian Journal of Psychiatry, 54(5), 302-311.

Wu, X., Tao, S., Zhang, Y., Li, S., Ma, L., Yu, Y., Sun, G., Li, T., & Tao, F. (2021). Geographic distribution of mental health problems among Chinese college students during the COVID-19 pandemic: nationwide, web-based survey study. Journal of medical Internet research, 23(1), e23126.

Xiao, H., Shu, W., Li, M., Li, Z., Tao, F., Wu, X., Yu, Y., Meng, H., Vermund, S. H., & Hu, Y. (2020). Social distancing among medical students during the 2019 coronavirus disease pandemic in China: disease awareness, anxiety disorder, depression, and behavioral activities. International journal of environmental research and public health, 17(14), 5047.

Yip, P. S., Cheung, Y., Chau, P. H., & Law, Y. (2010). The impact of epidemic outbreak. Crisis.

Zhai, Y., & Du, X. (2020). Addressing collegiate mental health amid COVID-19 pandemic. Psychiatry research, 288, 113003.

Zhan, H., Zheng, C., Zhang, X., Yang, M., Zhang, L., & Jia, X. (2021). Chinese college students' stress and anxiety levels under COVID-19. Frontiers in Psychiatry, 12.

Zhang, Y., Zhang, H., Ma, X., & Di, Q. (2020). Mental health problems during the COVID-19 pandemics and the mitigation effects of exercise: a longitudinal study of college students in China. International journal of environmental research and public health, 17(10), 3722.

Zung, W. W. (1965). A self-rating depression scale. Archives of general psychiatry, 12(1), 63-70.

Zung, W. W. (1971). A rating instrument for anxiety disorders. Psychosomatics: Journal of Consultation and Liaison Psychiatry.

How to Measure a Value of Brand to Make Business Survive

Sudarat Sombat[1] / Sreykhouch Dim[2] / Chiranan Kingsathon[3] / Manthana Chaiyama[4] / Boosayamas Chuenyen[5]
[1]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, E-mail:std.63124420207@ubru.ac.th
[2]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124420155@ubru.ac.th
[3]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124420117@ubru.ac.th
[4]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: std.63124420130 @ubru.ac.th
[5]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:Boosayamas.c@ubru.ac.th

Abstract

Measurement of the business brand value there are a number of ways, but not all that suitable for any brand. It is difficult to manage to increase the value of the brand if a business does not know the true potential of its brand. This paper study on how to measure the value of a brand to make business survive which consisting of 2 methods 1) level of attitudes, the study mentions brand dynamics model, conversion model and equitrend model to measure the values in quality, salience and equity by multiplying quality point with salience point. 2) financial aspect methods can be applied to suit any business and creating effective marketing strategy and brand value building that will eventually respond to further demands of customers.

Keywords: measurement, brand value, business survive

Introduction

In current competitive business environment, consumers are not only purchasing products but they are giving more value on a strong brand equity. Strong brand equity needs a lot of time, effort and investment to build to ultimately achieve the brand value. The decent brand value in consumers' perception will represent the products that helps increasing customers' confidents and reducing customers' vulnerable acknowledgement and customers' purchasing experiences will be cherished. This leads to reach consumers satisfaction, willing to pay more, and brand loyalty. Brand value is attracting to new customers, benefiting in long term profit and sustainable development, the value of a brand can be measured from attitudes of customers. In financial aspect measuring, it is the notion that measures the value based on business money flow. For example, the stock price that reflecting brand value transformation which this measuring uses financial factors as indicators such as stock price, market share and profit. There are many techniques in measuring the value of a brand by combining components to encourage the value in consumers' perception is crucial and the marketing teams should always prioritize to the measurement of brand value. Customers always uses the value of a brand as parts of their consideration. They relate the strong point of brand in their experience to quality of products and services whenever customers have enough information about quality of products and services, their purchases will base on the quality. On the other hand, when customers are not certain about quality of different brands or any brand-new products and services, customers will depend on perceived quality of products and services via the value of a brand instead. There are concepts that provide guideline to person in charge to acknowledge any issues in organizations by understanding variables that constructing business brand. They are brand existence, identity, image, loyalty, and quality perception. The author will explain how a brand can change to organization financial value in 2 methods of the value of a brand measurement.

1. Measuring the value of a brand from customers' levels of attitudes, emotion attachments, and perception relationship between customers and brand.
2. Measuring the value of a brand in financial aspect.

The Value of a Brand Measurement from Customers' Levels of Attitudes

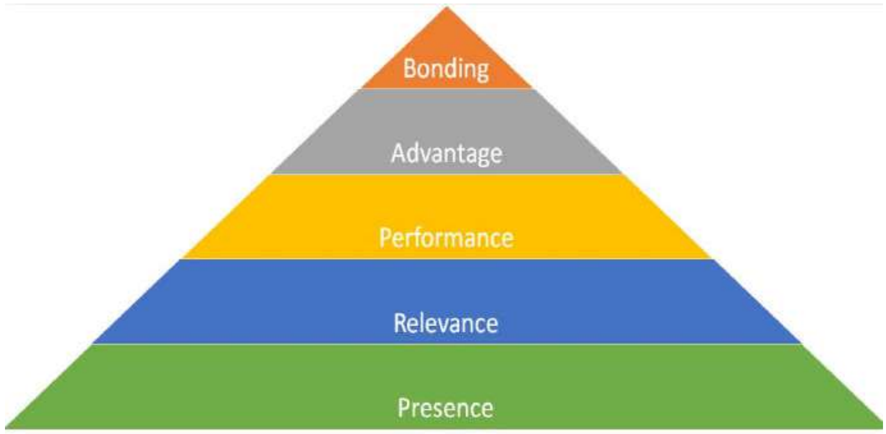
Customers' levels of attitudes have been used for general indicator to measure the value and evaluate individual perception of a brand. The attitudes of customers to a brand depend on brand recognition. This is a strong factor that can illustrate consumers' behaviors (Shimp, 2010). For example, "Jai Craft Design" brand founded by neo elders (the elder with modern life style) that their research the technique to emphasized on measuring knowledge and understanding of target group. These neo elders, who are in love with arts, together composing beautiful print pattern on silk. They have been creating emotional asset to designers, customers, and person who received the products as a gift. Thailand is turning to ageing society, but not so many people know what elders can be capable of and consider elders as takers only. They want to change this kind of perspective, so they had created the term "neo elders" to represent elders in their retirement state that are willing to learn and develop themselves. Neo elders can rely on themselves and use their potential to create timeless products. Every piece of arts at Jai Craft Design has label telling the story of brand and products. When customers know that the products were designed by elders and realize about their intensions, customers will appreciate Jai Craft Design's value. This can present how a brand can be a connection between people from different generation. By combining experience and expertise of elders together with notions of young generation, they have been creating the brand that has emotional asset and business opportunities (Brand Buffet, 2019)

The value of a brand measurement is normally related to quality, characteristic, and information of organization in brand knowledge communication. Even though an attitude evaluation is hard to relate to financial profit, but an attitude evaluation can benefit marketing team for better understanding about how customers' attitudes can boost the value of a brand. Marketing research businesses have developed many tools and methods to evaluate and analyst customers in many aspects to review Brand health, Brand strength, and Brand value. To make readers obtaining better comprehension in perspectives, author would like to explain the most popular 4 models of the value of a brand measurement from customers' levels of attitudes (Don and Heidi, 2003: 321).

1. Brand Dynamics model, the model that measures the value of a brand by 5 levels of relationship with a brand. This model has the most similarity to Hierarchy of effects model among 4 models because it measures relationship between attitudes and a brand. This analysis aims to encouraging organizations to conceive characters and

forms of relationship between target group and their brand. This relationship can be illustrated in Pyramid model.

Figure 1: Brand Dynamics Pyramid Model



Source: Don and Heidi, 2003

Figure 1 has shown relationship between customers and brand on each level.
1.1 Presence, measuring active familiarity of customers to a brand. Customers have no awareness in a brand and cannot recognize a brand. Marketing team must consider about brand communication investment by conducting new information design and communication channel.
1.2 Relevance, measuring a relevant between a brand and customers' needs. If the relevant score appears too low, marketing team must demonstrate products or present product by personal selling that customers can relate.
1.3 Performance, measuring a perception of delivery of acceptable product performance in quality, efficiency, endurance, etc. If target group is perceiving that products cannot deliver what it promised, marketing team must illustrate product performance via demonstration, testing, trial, etc.
1.4 Advantage, measuring a perception of emotional or rational advantage over another brand. Normally consumer products tend to gain low score in this aspect. If a brand has outstanding characteristic, marketing team must communicate with consumers about this point of view.
1.5 Bonding, measuring emotional and rational attachment between customers and a brand. It is the highest level of loyalty with a brand. Marketing team must take good care of customers in this level. Bonding has been discussed that it can indicate customers' behaviors more precious comparing to former methods since former methods were only relying on customers' satisfaction to predict consumers' behaviors. Studies about bonding showed how customer relationship affects their response in loyalty and word of mouth. Bonding has been influencing customers' loyalty which is a goal of organization and leading to word of mouth that will help increasing new customers. Study case of AIS and Starbucks shows the positive relationship with customers' response that reflecting how effective bonding is to customers' response. The relationship simulates relation path between AIS and Starbucks with customers that leading to loyalty pathway. This path is beginning with

brand recognition from its unique. Building brand familiarity. Conducting strategies, sale promotion for example, to encourage customers purchase. If customers receive products and services matched their expectation, customers will be satisfied, repurchase, and eventually gain their loyalty with a brand (Fisher-Buttinger & Chichester, 2008). Customers may start word of mouth as studies show relation between loyalty and word of mouth. Loyalty customers tend to suggest, support, and refer to the brand they trust (Y. K. Lee, K. H. Park, D.H. Park, K. A. Lee & Kwon, 2005)

In essence, the Brand dynamics model can measure movement of a brand and competitor by percentage of target group in each level. This model may consider only one side of customers' perspective about their attitude toward a brand, that isn't related to a brand financial evaluation. Marketing team must propose products/services to target group (Presence) to acknowledge an impact of products/services on them (Relevance). Showing how products/services are working (Performance) and benefitting customers more than others (Advantage). This process will lead to strong relationship between customers and a brand (Bonding) that effecting both emotional and rational consideration whenever customers want to purchase any products/services.

2. Conversion model was developed to measure customer commitment to a brand. Customer commitment can be measured together with classic advertisement and image perception measurement by questioning these 4 factors as followed: 1) Relationship with type of product 2) Satisfaction with a brand 3) Bias on competitor brand 4) Hesitation with a brand. Information from 4 factors displays 8 kinds of relationship as in figure 2.

Figure 2: Relationship of customers in Conversion model

<table>
<tr><td colspan="4">Current customer</td><td></td><td></td></tr>
<tr><td colspan="2">Secure users</td><td colspan="2">Vulnerable users</td><td></td><td></td></tr>
<tr><td>Entrenched</td><td>Average</td><td>Shallow</td><td>Convertible</td><td></td><td></td></tr>
<tr><td></td><td></td><td>Available</td><td>Ambivalent</td><td>Weakly univalent</td><td>Strongly univalent</td></tr>
<tr><td></td><td></td><td colspan="2">Open nonusers</td><td colspan="2">Unavailable nonusers</td></tr>
<tr><td></td><td></td><td colspan="4">Noncustomers</td></tr>
</table>

Source: Don and Heidi, 2003

From figure 2, the first 4 relationships are reflecting current customer and level of commitment that customers have with a brand as per following details.

2.1 Entrenched, customers have extremely committed to a brand. They have very rare potential to change to another brand in near future. Considered that they immune to other brands.

2.2 Average, customers have moderately committed to a brand. They are familiar with a brand and have small chance to change in near future.

2.3 Shallow, customers have loosely committed to a brand. They can always change to other brands. This customer group normally considers other brands as options.

2.4 Convertible, customers have unacceptable experience with a brand or just want to change to something new. They will change to other brands in near future.
The other 4 relationship are reflecting new customers, research tools are focusing on potential that this group will change from other competitor brands.

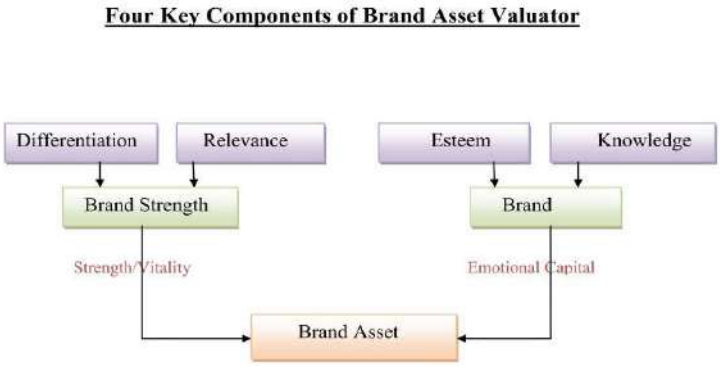
1) Available, customers haven't committed to any brand yet. This group have potential in near future.
2) Ambivalent, customers are using other brands but also equally interesting in our brand.
3) Weakly univalent, customers have committed to other brands. This group needs strong persuasion to change their mind.
4) Strongly univalent, customers have extremely committed to another brand. They have very rare potential to change to other brands in near future.

Conversion models can illustrate marketing team an impact of marketing activities to customers and predict result from marketing activities.

3. Equitrend model, this model has studied more than 1000 brands on every type of products twice a year via online research. Sample group will be asked to rate 100 brands, 20 brands are main subjects and other 80 brands are rotating subjects. Studying on 3 aspects.1) quality, rating from 0-10. 0 is unacceptable quality and 10 is excellent quality. 2) salience, proportion of people that know these brands and have enough information to rate these brands. 3) equity, multiplying Quality with Salience. Equitrend model can measure quality brands known by customers. The customers can rate products/services of these brands and show how decent those brands are.

4. Brand Asset Valuator model is the most famous model among 4 models that collecting information from world-class brands. They collecting data from more than 121 times in 40 countries, having more than 180,000 customers in database. Considering as one of the finest brand measuring models that is most reliable. This model is utilizing 46 indicators to analyze and conclude into 4 keys of brand performance as followed:
4.1 Differentiation, indicating level of impact that a brand can produce comparing to other similar brands.
4.2 Relevance, indicating level of personal influence that a brand has with customers.
4.3 Esteem, indicating level of appreciation that customers enrich and favor a brand.
4.4 Knowledge, indicating level of information that customers acknowledge and understand a brand.
To build up a vigorous brand is never an easy task but proper management in 4 keys of brand performance could improve the value of a brand as per illustrated in figure 3 below.

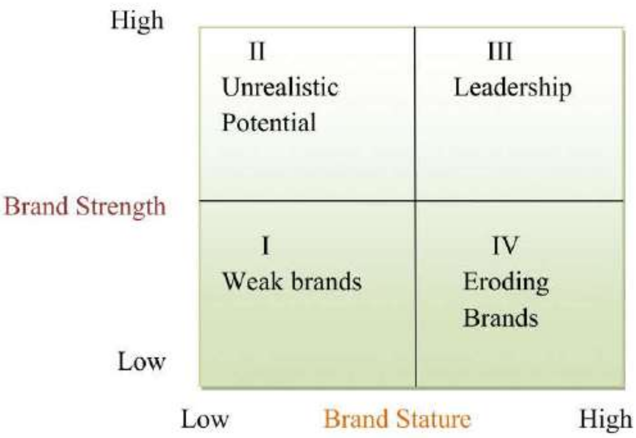
Figure 3: Four Key Brand Asset Valuator Analysis



Source: Don and Heidi, 2003: 330

Figure 3 shows that when combining first 2 keys, Differentiation and Relevance indicates as brand strength. When combining the other 2 keys, Esteem and Knowledge indicates as brand stature. Brand Asser Valuator model is based on structural brand characteristic building. Starting from building up Differentiation, then creating Relevance as a starting point of Brand Strength. Conducting Esteem and developing to pinnacle point that customer are truly acknowledged about a brand. At this point, a brand will achieve Brand Stature. This process uses Differentiation as a primary key to build up other components, though every key is dynamic and can change at any time. A brand can lose value in both Strength and Stature, even not in the same rate.
The Brand Power Grid illustrate provide better understanding and comparing different brands on scoring system.

Figure 4: Brand Power Grid



Source: Don and Heidi, 2003

Figure 4 shows Brand Power Grid that weak brands are on the lower left of the table. These weak brands are normally new or subtle brand that customers don't acknowledge nor understand their point. On the higher left, these brands have Strength but not Stature. They have potential to grow up in near future since their capability is still unknown. On the higher right, they are pinnacle brands such as Starbucks, Sony, Samsung, etc. These brands have high values in both aspects, customers' loyalty and marketing performance. Maintaining Brand Strength requiring proper management system though, improper management system may cause a brand to lose its Differentiation and Relevance.

In conclusion, Brand Asset Valuator model is the tool that can indicate business potential, stop brand regression and encourage marketing team to understand brand value by comparing with other brands in the same tier. Though the model cannot indicate financial value of a brand nor return of investment if a brand can increase Differentiation and Relevance.

How to Measure Financial Value of a Brand

This concept of Financial Value Measurement of a brand aims to indicate money flow within a brand by monitoring the movement of stock price. It will use financial factors (stock price, market share, profits, etc.) as indicators. For example, many mobile operators have been competing in a few aspects. These aspects are communication technology, service pattern, monthly fee, extra service, and additional benefits. Even they are using different terms, but the core service that every operator is providing to customers is identical. In case study of DTAC, AIS, and TRUEMOVE. DTAC has offered Internet Cap Max program that have 1,500 THB monthly fee for unlimited Mobile Internet Service. AIS has offered Internet Worry Free service to its customers. TRUEMOVE had offered the identical service for its customers too. They are using different name for their services, but the essence of services is identical. When one operator has offered another package for mobile Internet for 799 THB monthly fee, other operators immediately offer the same package to their customers while using different name. Because of this situation, many operators will struggle to create differentiation. Therefore, studying financial value of a brand measurement helps understanding component from customers' perspectives that encouraging differentiation and making magnificent brand (Narison Rakwana, 2011: 83). There are many methods that can be used for example, Historic Cost method, Replacement Cost method, Marketing Value method, Royalty Relief method, and Economic Use method that authors are going to explain as followed;

1. Historic Cost method is the whole amount of invested fund that owner had used to create and develop a brand from beginning to present. This number normally includes investments in marketing communication, packaging, logo, symbolic, etc. The brand "Café Amazon" for example, this brand is employing on fresh coffee shop in every PTT gas station in the country. Since Café Amazon has fine taste, proper price, environmentally friendly packaging, and standard services, it has been accepted by customers. The brand becomes famous and remarkable within few years. They promoting the brand equity and brand value both domestic and international investors are interesting in joining with them in ASIAN during AEC era. However, there are some issues according to this method. The difficulty in collecting investment number recorded from long time ago making it almost impossible to identify any expense or investment in current market price. This method isn't reflecting the value of a brand in term of cash flow and legitimate buying price if business wants to sell a brand.

2. Replacement Cost method is an estimation costs of marketing, communication, design, and other funds that organizations require if they want to rebuild the exact

brand that they measure. Though defining related funds and needs in current and future market of a brand can be complicated. This method was borrowed from a classic accountant process that a value of property is tangible and can be estimated by defining expense of property replacement. Even some organizations are adopting this method for the value of a brand measurement, it might not suit for measuring dynamic subject as a brand.

3. Marketing Value method is to define a market price of a brand if organization sell that brand. This method can specify the value of a brand in brand purchaser perspective but is not very useful for organization that want to estimate the value of a brand for benefiting property and resource management for future investment, not actually selling a brand. So Marketing Value method may not benefit organization in term of management and investment even it can define an accurate market price of a brand.

4. Royalty Relief method is defining the value of a brand via franchise cost or royalty fee if others want to use their brand. From the value of a brand measurement perspective, it considers from how much organization can reduce cost if they own that brand comparing to pay royalty fee to other organization to use their brand for example, Black Canyon brand that is café and restaurant located in many locations including department store, modern trade, gas station, commercial airport, and many countries in Asia has been gaining a large amount of licensing fee from franchises. It can be role model for conducting Brand Equity. When measuring the value of Black Canyon brand, it has high value and considered as outstanding Thailand brand. To specify royalty fee, organization can compare it with other company in same business or acquire service from expert. There is a large database that containing tariffs of royalty fee of many organizations. Even with this information, a primary concern or Royalty Relief method is to find a related brand to compare and difficulty in developing transparent and effective definitive structure.

5. Economic Use method is measuring future income that owner of a brand will be received. This method entrusts on structural value measurement can display impact of a brand to whole business model and benefiting organization in term of management.

Financial value of a brand measurement can illustrate value or reputation of organization in financial number based on suitable information, precision, and utilization. These methods help organizations to monitor and analyze status of business, resulting in the most efficient business strategy management.

Conclusion

The precious value of a brand measurement causes efficient value of a brand management. If we cannot reach our genuine target group, then the value of a brand management is meaningless. Many techniques of value measurement have been conducted. They can be separated to 2 major methods as followed:

1. Measuring Levels of Attitudes, Emotion Attachment, and Perception Relationship between customers and a brand. There are 4 models based on customers' perspective.

    1.1 Brand Dynamic model. Measuring value of a brand according to relationship characteristics in 5 levels 1) Presence 2) Relevance 3) Performance 4) Advantage 5) Bonding.

    1.2 Conversion model. Measuring 4 keys 1) Relation 2) Satisfaction 3) Bias toward other brands 4) Hesitation.

1.3 Equitrend model. Measuring 3 keys 1) Quality by scoring 0-10, 0 is unacceptable and 10 is excellent 2) Salience, the proportion of customers that acknowledge and have enough information to score a brand 3) Equity, multiplying Quality with Salience.

1.4 Brand Asset Valuator model. Measuring 4 dimensions of a brand 1) Differentiation, impact level that a brand can create comparing to other similar brands 2) Relevance, level of personal relation with customers 3) Esteem, level of appreciation from customers 4) Knowledge, and level of acknowledgement that customers realize.

2. Financial value of a brand measurement. This concept indicates cash flow of a brand by monitoring stock price movement to measure value of a brand.

1.5 Historic Cost method. Measuring total investment that owner invest to create and develop a brand until current state.

1.6 Replacement Cost method. Estimating cost of marketing, communication, design, and other funds that required if organization wants to rebuild exact same brand.

1.7 Marketing Value method. Defining market price of a brand if organization sell it.

1.8 Royal Relief method. Defining the value of a brand via franchise cost or royalty fee if others want to use their brand. It considers how much organization can reduce cost if they own that brand comparing to pay royalty fee to other organization to use their brand.

1.9 Economic Use method. Measuring future income that owner of a brand will be received.

The more accuracy measurement leads to the more efficient value of a brand management. There are so many methods of measurement that had been invented and developed to suit variable perspective and objective of marketing team. Eventually, maintaining Brand Equity is to discover genuine characteristic of a brand, finding out what customers expect from us and also figure it out what is our strength, weakness, and selling point. The committing brand discovery considering from what is our goal of a brand that we have intended to by comparing with customers' perspective and current market situation. To committing Brand Audit we need to know if our brand meet the expectation to improve what we overlook and listing all important components. The company should clarifying if target group are still interesting in a brand and want to make a purchase. These crucial points will aids the value of a brand measurement to make business survive.

References

Brand Asset Valuation (2016). Retrieve from https://fourweekmba.com/brand-asset-valuator-model/

Brand Buffet (2020). *Jaikraft designs scarves with contemporary art patterns. Create sentimental value from the craftsmanship of the elderly*. Retrieved 29 June 2020, from https://www.brandbuffet.in.th/2018/05/jaicraftdesign-brand.

Don. E Schultz and Heidi Schultz. (2003). *IMC: the Next Generation Five Steps for Delivering Value and Measuring Returns Using Marketing Communication*. New York: McGrew – Hall.

Fisher-Buttinger. C., & Chichester, C. V. (2008). *Connective branding: Building brand equity in a demanding world. West Sussex,* UK: John Wiley &Sons.

Lee, Y. K., Park, K. H., Park, D. H., Lee, K. A., & Kwon, Y. J. (2005). *The relative impact of service quality on service value, customer satisfaction, and customer loyalty in Korean family restaurant context.* International Journal of Hospitality & Tourism Administration, 6(1), 27-51.

Narisorn Rakwanna (2011). *Measuring brand value from the consumer perspective of mobile phone service users. A comparative case study of DTAC, AIS and True Move*. Journal of Communication Arts, 15(2), 38.

Shimp, T. A. (2010). *Advertising, promotion, and other aspects of integrated marketing communications* (8th ed.). USA: Cengage Learning.

Factors Affecting Online Purchase Decision of College Students in Ubon Ratchathani Province during COVID-19 Pandemic

Kamolchanok Kanharin[1] / **Nutcharee Waituk**[2] / **Nuttamon Kaewjinda**[3] / **Arthit Srichandee**[4] / **Pornchai Weeranantavet**[5] / **Adulyadej Tunkaew**[6] / **Wiranya Sutthikun**[7]

[1]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, E-mail:std.6312475525@ubru.ac.th
[2]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124410222@ubru.ac.th
[3]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124410215@ubru.ac.th
[4]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124410244@ubru.ac.th
[5]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: pornchai.w@ubru.ac.th
[6]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: adulyadej.t@ubru.ac.th
[7]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: wiranya.s@ubru.ac.th

Abstract

This research aimed to study factors that affecting online purchase decisions of college students and to study predictor equation of factors that affecting online purchase decisions of college students in Ubon Ratchathani province during COVID-19 pandemic. The sample of this research is college students in Ubon Ratchathani province. The Sample size were 380 students using random sample selection method. Research instrument was questionnaire with 5 level rating scale, content validity index at .91. Using percentage, mean, standard deviation, and multiple regression for data analysis statistics. The research results showed: 1) factors affecting the online purchase decisions of college students in Ubon Ratchathani during COVID-19 pandemic were at high level in every aspects (product, price, promotion, privacy, personalization, place) 2) the multiple regression data analysis showed that factors influencing prediction of the decisions of college students on online purchase during COVID-19 pandemic was 74.40 percent thus were personalization, place, promotion, product, and privacy.

Keywords: Online purchase, Decision of college students, Covid-19 pandemic

Background and Significance of the Research

Since 2019, Thailand has been facing severe circumstance from COVID-19 pandemic. Many regulations had been issued to prevent the COVID-19 pandemic. Since direct contact has been considered as major factor causing the pandemic, online purchase has been encouraged for customers instead. Online purchase is an electronic transaction activity from online store carried out by customers directly through a device that is connected to the internet (Harahap & Amanah, 2018). According to Lee, Park, & Ha (2008), the consumer's pursuit to purchase the product is called with a purchase decision. Therefore, a purchasing decision is a procedure that buyers make by choosing one of the numerous options and then finishing with a real purchase action. The next step is the purchaser to evaluate the purchases and then determine the behavior of satisfied or unsatisfied. Firms need to recognize and implicate the roles for designing products, determining messages and allocating promotional budget costs and creating marketing programs that suit buyers (Swastha & Handoko, 2008). Nowadays, 71 percent of consumers agree that convenient factor is the first priority in shopping. More than 81 percent of consumers demand fluid online shopping experience. The social media has been proved to be efficient sale channel for E-commerce. More than 76 percent of Instagram users have purchased products via social media because its convenience making e commerce an outstanding sale channel. On digital global overview report (2021) survey about internet usage behavior showed that in 2021 Thai people used internet for 8.44 hours/day, most popular activities on internet were gaming at 96.60%, online shopping at 83.60%, social media at 78.70%. Internet user in Thailand from January 2020 to January 2021 connecting via mobile phone was 90.66 million people, considered 129.70% of Thai population. Internet user in Thailand was 48.59 million people in January 2021, increasing by 3.4 million people (7.40%) comparing to 2020. People were able to access Internet for 48.59 million people which was 69.5% of population. The social media users in 2020 were 55 million people or 78.7% of population.

The above information had inspired researchers to study about factors affecting the decisions of college students in Ubon Ratchathani province on online purchase during COVID-19 pandemic since this is a crucial market share of online business and becomes new way of life during the COVID-19 pandemic situation.

Research Objectives

1) To study factors that affecting online purchase decisions of college students in Ubon Ratchathani province during COVID-19 pandemic.
2) To study predictor equation of factors that affecting online purchase decisions of college students in Ubon Ratchathani province during COVID-19 pandemic.

Concept and Related Theories

Online marketing mix is a new marketing component consisting of 6 P's: Product, Price, Place, Promotion, Privacy, and Personalization. These components have correlation and important for online marketing (Wichien Wongnitchakul, 2007).

1. Product presenting to customers for responding demand of target group. There are 3 types of products which is physical goods, digital goods, and services.
2. Price: according to Kotler (2014) "Price is the amount of money that consumers exchange for the benefits of owning or using products and services. also defining value of products in currency term or acceptable exchange amount of offered products to consider while fixing a price are including market price, expense cost, transportation cost, convenience, cheap price doesn't mean big sale and cheap price may come with bulk sale instead.
3. Place or distribution meaning process of product transportation from producers to customers or target group to consider while conducting

website for online distribution channel are including ease of use, fast connection, fast file transfer, outstanding presentation, and data security.

4. Promotion to communicate marketing information between seller and buyer. Prioritizing on reminder, information, persuasion, and affiliation. To advertise, it needs many preparations including proper information, noteworthy user experience that makes users intend to join website activities, considering target group and budget. Advertising is to make customers realize of products and services, to stimulate their demand and purchase. Many types of advertisements are banner, e-mail, paid advertisement with other websites, word of mouth, link exchange, and search engine, for example.
5. Privacy to conduct regulations that a business announce to public how personal information will be kept. This concerns trust issue, so a business must have concrete policy to protect privacy information such as phone number and credit card number.
6. Personalization initiating interactive services between a business and individual customer, as known as One-to-One Marketing to support customers' desire, facilitate and impress them, creating friendliness.

Buyer' Decision Process is decision step of customer consisting of 5 steps (Siriwan Sereerat, 2009)

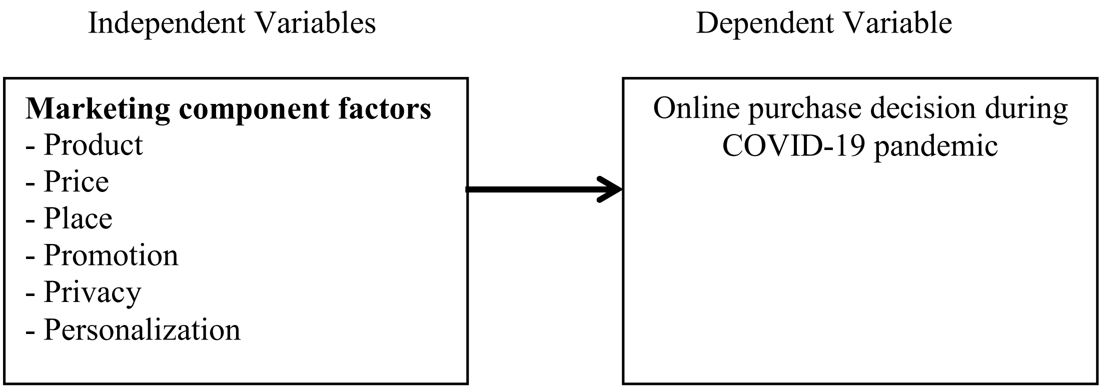
1. Need Recognition is a starting point of purchasing process that customers realize their needs or demand. Customers are comparing their reality to their desiring state. Their desire may occur from Internal Stimuli that arousing ordinary desire like hunger or sexual drive.
2. Information search when consumers already realized their needs, they will harvest information to support their decision. Combining fair amount of information and desire, the decision will be benefited.
3. Evaluation of alternative, consumers use information to examine pros and cons of product properties and price of products.
4. Purchase decision in evaluation state, consumers will prioritize brand, volume, etc. Normally consumers will commit purchase decision on their most favorite brand.
5. Post-Purchase Behavior is the final state after their purchase, consumers will use a product and perceive a product brand by themselves. Repurchase behavior depend on customer perception on a brand.

Online Marketing Motivation is expectation from online customers that are expecting benefit from products. For example, variety products will motivate online customers (Brown, et al., 2003).

Research Methodology

The population of this research was 35,250 college students in Ubon Ratchathani province by Ministry of Higher Education (2021). The sample size comparing to Krejcie and Morgan's table (1970) was 380 people in total. Using random sampling group from higher education institutions in Ubon Ratchathani province. Independent variables were marketing component factors containing product, price, place, promotion, privacy, personalization. Dependent variable was online purchase decision during COVID-19 pandemic.

Figure 1: Conceptual Framework



The research consist 3 parts which are: 1) population information of participant was multiple choice questions. 2) information on marketing component factors effecting online purchase decision in 6 aspects: Product, Price, Place, Promotion, Privacy, Personalization. 3) information on online purchase decision. The questionnaires in part 2 and 3 were Likert scale consisted of 5 level: highest, high, medium, low, and lowest. The questionnaires were validated from 3 experts for Content Validity. Researchers applied untargeted group of 30 students from Sisaket Rajabhat University to validate CVI (content validity index) and analyze CVI by alpha coefficient showed CVI at .96. Data analysis statistic was using mean, percentage, standard deviation, and multiple regression.

Research Result

There were 380 students separated by general information. Most of them were female at 77.63% following by male at 22.37%. Age between 21-22 years at 80.00%, 18-20 years 15.76%, and 23-25 years 4.21%. Most of them were sophomore at 35.79%, junior at 35.00%, senior at 20.00, and first year students was at 9.21%, respectively.

Table1: Marketing component factors affecting online purchase decision

Subject	$\bar{x}$	S.D.	Level of Attitude
Marketing component factors affecting online purchase decision	3.79	.39	high
Product	3.85	.41	high
Price	3.80	.47	high
Place	3.77	.44	high
Promotion	3.79	.47	high
Privacy	3.77	.48	high
Personalization	3.78	.48	high
Online purchase decision during COVID-19 pandemic	3.78	.41	high

Table 1 had shown that marketing component factors affecting online purchase decision had high level of attitude. Descending aspects from mean are Product, Price, Promotion, Personalization, and Privacy equaled to Place. Online purchase decision during COVID-19 pandemic had high level of attitude. Independent variables in these aspects: Product, Price, Promotion, Personalization, Privacy, Place had correlation with dependent variable at significant statically level at 0.01 and correlation coefficient from .634 to .784. Considering correlation between independent variables showed correlation coefficient from .555 to .737. Correlation level between independent variables may not too high (Thongbai Sudcharee, 2006). It should be between .20 - .80 to prevent multicollinearity issue. Therefore, these independent variables were fine and can be used for multiple regression analysis.

Table 2: Multiple Regression Analysis Using Stepwise Method

Prediction variables	VIF	B	Beta	t	P
Personalization aspect	2.549	.290	.342	8.238	.00*
Place aspect	2.856	.144	.155	3.533	.00*
Promotion aspect	2.863	.148	.172	3.908	.00**
Product aspect	1.832	.164	.165	4.706	.00*
Privacy aspect	2.664	.147	.173	4.082	.00*
F = 221.494	Constant = .396	df = 379			SE= .206
R = .865	R^2 = .748	R^2_{adj} = .744	Sig F = .00		

* Statistically significant level at .05

Table 2 had shown that multiple regression analysis using Stepwise method (n = 380) of online purchase decision of college students in Ubon Ratchathani province with 6 independent variables (Product, Price, Place, Promotion, Privacy, Personalization) and dependent variable (Online purchase decision) for 5 aspects personalization aspect, place aspect, promotion aspect, product aspect, privacy aspect) can predict online purchase decision at 74.40 percent (R^2_{adj} = .744) with statistically significant level at .05. Correlation coefficient level at .865 (R - .865). These 5 variables for purchasing prediction products of Giffarine Skyline Unity Company Limited can be put in equation as per below:

Regression Equation in Standard Score Form

$\overline{Z}$ (*Online purchase decision*) = .342(Personalization aspect) + .155(Place aspect) + .172(Promotion aspect) + .165(Product aspect) + .173(Privacy aspect)

Discussion

The study on factors effecting prediction of online purchase decision among college students in Ubon Ratchathani Province during COVID-19 pandemic can be discussed in these major points as followed:

1. In personalization aspect is the highest level that affecting online purchase decision considering on overall attitude, it's on fifth order of studied variables. Personalization had high level. The part that had the most score was seller can answer question and solve problem. The study shows that consumers in generation Y demanding personalization were highly

reflecting consumer characteristic which correlation with concept of Wichian Wongnitchakul (2007) explained personalization was interactive services between business and individual customer, as known as One-to-One marketing to accommodate, comfort, and impress customer offering what customer desires were correlation with Noppawan Meesomboon (2009) studied on marketing factors affecting product and service purchase via online marketing on mobile phone. The case study on students of Dhurakij Pundit University showed that personnel factor was receive high importance level at second order.

2. In place aspect is second level affecting online purchase decision considering on overall attitude, it's on last order of studied variables together with privacy aspect had high level. The part that had the most score was the name of the store that easy to remember. The study showed that store name that was easy to remember can impact students' online purchase decision even it seems to be minor thing which correlation with Wandee Rattanakaikaew (2011) studied online purchase behavior on Facebook. Case study: Bangkok showed that the most influencing marketing mix was Place.
3. Promotion aspect is third level affecting online purchase decision considering on overall attitude, it's on third order of studied variables. The promotion had high level. The part that had the most score was suitable promotional activities. The study showed that students as consumers had been influenced from promotion accordance with Suthamas Chanthaworn (2013) studied Marketing mix effecting Bangkok population online purchase on Facebook. Showing marketing mix factor having most influence is promotional characteristic factor.
4. Product aspect is forth level affecting online purchase decision considering on overall attitude, it's on the first order of studied variables. Product had high level. The part that had the most score was high quality product. Study showed that even students were young, they were demanding products with quality, reputation, branding, and popularity accordance with Noppawan Meesomboon (2009) studied on marketing factors affecting product and service purchase via online marketing on mobile phone of Dhurakij Pundit University students, the study showed personnel factor was receive high importance level at fourth order.
5. Privacy aspect is fifth level affecting online purchase decision considering on overall attitude, it's on the last order of studied variables. The privacy had high level. The part that had the most score was personal data security from the study showed that students as consumers wanted to purchase from shop with high security and clarified privacy policy statement which accordance with Noppawan Meesomboon (2009) studied on marketing factors affecting product and service purchase via online marketing on mobile phone. The case study of Dhurakij Pundit university students showed that personnel factor was receive high importance level at fifth order.

Suggestion

1. Personalization is the most influencing factor to online purchase decision. The Online business must prepare personalized channel for customers from college students in Ubon Ratchathani province to gain large amount of order.
2. Place is second influencing factor to online purchase decision, while participants gave it the last order of importance. The online business must invest in online application that easily access to gain more customer such as Facebook or Instagram.
3. Promotion is third influencing factor to online purchase decision, while participants gave it third order of importance. Online business may not invest too much on promotion, though they can do seasonal promotion instead. Seasonal promotions are beginning of semester, summer semester, welcoming, final exam, etc.
4. Product is forth influencing factor to online purchase decision, while participants gave it the first order of importance. So online business may emphasize on product quality, not product diversity.
5. Privacy is the last influencing factor to online purchase decision, while participants gave it the last order of importance. Online business may prepare security system to protect consumer personal information, but don't invest too much fund.

References

Brown, M., Pope, N., & Voges, K. (2003). *Buying or browsing? An exploration of shopping orientations and online purchase intention*. European Journal of Marketing, 37 (11/12), (2003): 1666-1684.

Harahap, D. A., & Amanah, D. (2018). Perilaku Belanja Online di Indonesia: Studi Kasus. Jurnal Riset Manajemen Sains Indonesia, 9(2), 193–213. https://doi.org/doi.org/10.21009/JRMSI.009.2.02

Kotler, P., & Armstrong, G. (2014). *Marketing : An Introduction (Global edi).* New Jersey: Pearson Education Limited.

Krejcie, R. V. and Morgan, D. W. (1970). *Determining Sample Size to Research Activities.* Educational and Psychological Measurement. 3 (Mach): 607 - 610.

Lee, J., Park, D. H., & Han, I. (2008). *The effect of negative online consumer reviews on product attitude: An information processing view.* Electronic Commerce Research and Applications, 7(3), 341– 352. https://doi.org/10.1016/j.elerap.2007.05.004

Ministry of Higher Education (2021). *Total students all higher education institutions.* Retrieved from http://www.info.mua.go.th/info/table_stat_02.php?id_

Noppawan Meesomboon. (2009). *Marketing Factors Affecting Decision Making in Buying Products and Services Through Online Marketing on Mobile Phones.* Case Study: Dhurakij Pundit University Students. Master's Thesis Dhurakij Pundit University.

Suthamas Chanthavorn. (2013). *Marketing mix factors affecting the decision to shop on Facebook of the population in Bangkok*. Master of Business Administration Thesis Rangsit University.

Thongbai Sudcharee. (2006). Business research: *research practice beyond textbooks. Ubon Ratchathani:* Faculty of Business Administration and Management Ubon Ratchathani Rajabhat University.

Wandee Rattanakaikaew. (2011). *Shopping behavior in social networks Facebook, Bangkok case study.* Master of Business Administration Thesis Silpakorn University.

Wichian Wongnichakul, et al. (2007). *Online marketing mix*. Bangkok: University of Bangkok.

Swastha, B., & Handoko, T. H. (2008). Manajemen Pemasaran, Analisa Perilaku Konsumen (Edisi I). Yogyakarta: BPFE.

Marketing Factors Influencing on Purchasing Decisions in Environmental Friendly Products of Generation Y Consumers in Ubon Ratchathani Province

Boosayamas Chuenyen
Faculty of Business Administration, Siam University, Thailand
E-mail: Boosayamas.c@ubru.ac.th

Abstract

This research aimed to study factors that influencing environmental friendly (eco-friendly) products on Generation Y consumer purchase decision, purchase behavior, and marketing factors in Ubon Ratchathani province. The sample group was people from Generation Y consumers. The study showed that most of consumers were female, marital status was single, education level was at bachelor's degree, the occupation was entrepreneur, monthly income was between 10,001-20,000 THB, purchasing by themselves, the period of purchase was 2-5 years, purchasing products with sustainable packaging, the intension was to save and refine environment, consumer purchase in a department store, the purchase decision impacted by family, obtaining frugality via product utilization, product price was between 201-500 THB. The factors requirement were eco-friendly products had proper price and quality aspect, ease to purchase aspect, and communication aspect was influence the purchase decision. The female had relation with monthly expense behavior to eco-friendly purchase decision. Gender, marital status, education, and monthly income were affecting marketing factors in consumers' perspective at statistically significant level at 0.05.

Keywords: Marketing factors, purchase behavior, environmental friendly products

Introduction

Since the world population has been increasing, economic activities have been rising especially in production sectors that need to fulfill demands of increasing population. The activities in industrial aspect, transportation aspect, and agricultural aspect have been increased. A huge number of resources were consumed, and environment was devaluated. Some resources are exhaustible and cannot be replaced: mineral, coal, and crude oil, for example. The environment had been overwhelmed with wastes and suffered severe damage. This becomes the Global issue. Global warming is one of the major issues that is consequence of many activities that are releasing Greenhouse Gas. Many activities of people such as burning fossil fuel, deforestation, agriculture, and industrials are causing greenhouse gas that stimulated global warming. Many countries are focusing on reducing this greenhouse gas. Nowadays, people are living their life in hurry and emphasize only on their convenience, then sometimes they are neglecting a hidden sabotage. In Generation Y consumers aged between 25-33 years, the environmental trend is becoming popular among them especially on consumer products. This generation is second largest population in Thailand and starting to build their foundation in family (Kanthira Phlaputra, 2020). They have knowledge and full of awareness about environmental marketing. They are ready for any incoming changes that can benefit the society making it easier for them to realize the value of environment, to inherit this thought to the next generation. The benefits of environmental friendly products are 1) new alternative for products and services, stimulating new production and material acquiring process that reducing carbon footprint and having more participation in environmental activities. 2) reducing manufacturer cost and increasing manufacturer efficiency. This phenomenal is happening because people have been unrestricted consuming natural resources. It impacts directly to our earth and environment. To encounter the issues, environmentally friendly product, as known as Green Product, has been produced. Green product has eco-friendly properties consisting of 4Rs: reduce, reuse, recycle, and repair. Green product has potential in global market. The United Nation (UN) are expecting the value of global market of eco-friendly products to be 2,200 million USD in 2020. Displaying the trend of marketing value that will expand to Thailand market (Thai Environment Institute, 2020). Both government and private sectors have been stimulated to protect environment. A lot of evidence has showed that people around the world have been caring and carrying more responsibility toward environment. People prefer to alter their habits if it could help and protect environment.

From aforementioned information, green product purchase behavior of consumers have investigated relation of different variables such as green product marketing, green product purchase intension, environmental consciousness, environmental knowledge and learning. These variables have demonstrated to be dominant in making customers socially and environmentally aware. So researcher had decided to study marketing factors that affecting eco-friendly product purchase decision of Generation Y consumers in Ubon Rathchathani province. This study will be useful to government agencies and related agencies to conduct any appropriated environmental campaign also benefit marketing team and advertisers to have more understanding in this consumers to improve their production and manufacturing processes to create products and services that suit consumers' behaviors.

Research Objectives

1. To study personal factors correlation to purchase decision of eco-friendly products in Generation Y consumers.
2. To Study Gen Y purchase behaviors of eco-friendly products.
3. To study marketing factors that affect eco-friendly product purchase decision of Generation Y consumers.

Methodology

The population of this research was 400 of Generation Y consumers, aged 25-33 years, living in Ubon Ratchathani province (National Statistical Office, 2021). The sample group was chosen by random sampling method. The sampling size was determined by Taro Yamane formula (Yamane, 1973) at reliability level 95%, which was at 400. The studied factors were gender, marital status, education, occupation, and monthly income. The research instrument were analyzed by descriptive statistics, reliability and Pearson's correlation among all understudies factors. Researcher applied SPSS application to measure percentage, frequency, mean, standard deviation, independent sample t-test, and Pearson's product moment correlation coefficient.

Research Result

Most of consumers from GenY were female, single, holding bachelor's degree, occupation was mostly an entrepreneur, and monthly income was 10,001-20,000 THB. The research result can be summarized as followed:

Behaviors of environmentally friendly product consuming of Generation Y

Their behaviors were mostly purchased by themselves, the period of purchase was 2-5 years, they purchased products with sustainable packaging, the reasons of purchase decision were environmental protection and enrichment, they purchased at a department store, their purchase decision based on how eco-friendly products suited their needs, the purchase decision influenced by family, receiving frugality via product utilization, and product price was around 201-500 THB.

Factors affecting eco-friendly product purchase decision of Generation Y

1. The demand of eco-friendly product aspect was at high level. Considering from each topic such as eco-friendly products were protecting actual environment, eco-friendly product were safe to use, eco-friendly products were variety and having many options for purchase were the mean score was at 4.26, 4.25, and 3.99, respectively.

2. The cost of eco-friendly product aspect was at high level. Considering on each topic, eco-friendly products had proper price and quality, willing to pay more to purchase eco-friendly products. Having mean score at 4.27 and 3.87, respectively.

3. The convenience of eco-friendly product aspect was at high level. Considering on each aspect such as eco-friendly products were convenient to purchase, having label to identify eco-friendly product at mean score 4.14 and 4.11, respectively.

4. The communication of eco-friendly products aspect was at high level. Considering on each aspect such as eco-friendly products had been advertised to establish awareness in environment, eco-friendly products had staffs that can inform customers about advice, advantage, and utilization of products, eco-friendly products had marketing promotions, the mean score was at 4.24 and 4.16, respectively.

Table 1: Hypothesis analysis of correlation between personal factors and eco-friendly product purchase behaviors

Eco-friendly product purchase behaviors	Gender	Marital status	Education	Occupation	Monthly income
1. Eco-friendly product purchaser	-	*	-	-	-
2. Period of purchase	-	*	-	-	-
3. Type of eco-friendly product	-	-	-	*	*
4. Reason of purchase	-	*	*	*	-
5. Place of purchase	-	-	-	-	-
6. Purchase method	-	*	-	-	-
7. Participant in purchase decision	-	*	*	*	*

8. Acquisition from purchase	-	*	-	-	-
9. Estimated monthly expense of purchase	*	*	-	-	*

Remarks * having statistically significant correlation level at 0.05, - having no correlation

Table 1 showed that gender, marital status, and monthly income factors had correlation with behavior of estimated monthly expense of purchase at 201-500 THB. Marital status factor had correlation with behaviors of self-purchase, period of purchase, reason of purchase, purchase decision method, participant in purchase decision, acquisition from purchase, and estimated monthly expense of purchase.
Education factor had correlation with behaviors of reason of purchase and participant in purchase decision. Occupation factor had correlation with behaviors of products with sustainable packaging, reason of purchase, and participant in purchase decision. Monthly income factor had correlation with behaviors of products with sustainable packaging, participant in purchase decision, and estimated monthly expense of purchase.

Table 2: Hypothesis analysis of correlation between personal factors and marketing mix in consumer and environment perspective

Marketing factors in consumer perspective	Gender	Marital status	Education	Occupation	Monthly income
Demand of eco-friendly products aspect					
1. Eco-friendly products were protecting actual environment		-	-	-	-
2. Eco-friendly products had equal or better quality comparing to others		-	-	-	-
3. Eco-friendly products were safe to use	-	-	-	-	-
4. Eco-friendly products were variety, having many options for purchase	-	-	-	-	-
Cost of eco-friendly products aspect					
1. Eco-friendly products had proper price and quality	-	-	*	-	-
2. Willing to pay more to purchase eco-friendly products	-	*	*	-	
Convenience of eco-friendly products aspect					
1. Eco-friendly products were convenient to		-	*	-	

purchase					
2. Having label to identify eco-friendly products		-	-	-	*
Communication aspect					
1. Eco-friendly products had been advertised to establish awareness in environment		-	*	-	*
2. Eco-friendly products had been advertised to gain more purchase		-	-	-	-
3. Eco-friendly products had marketing promotions		-	-	-	-
4. Eco-friendly products had staffs that can inform customers about advice, advantage, and utilization of products		-	-	-	-
5. Eco-friendly products had online sale channel via Internet		*	*	-	-

Remarks * having statistically significant correlation level at 0.05, - having no correlation

Table 2 showed gender factor had correlation with marketing mix in communication aspect, eco-friendly products had staffs that can inform customers about advice, advantage, and utilization of products. Marital status factor had correlation with marketing mix in cost of eco-friendly products aspect, willing to pay more to purchase eco-friendly products. Divorced, widowed, and separated status had influenced more on willing to pay more to purchase eco-friendly products than single and married status. In communication aspect, eco-friendly products had online sale channel via Internet. Divorced, widowed, and separated status had influenced more on willing to pay more to purchase eco-friendly products than single and married status.

Education factor had correlation with marketing mix in cost of eco-friendly products aspect. Bachelor' degree level had influenced more on eco-friendly products had proper price and quality and willing to pay more to purchase eco-friendly products than diploma/vocational certificate level. Convenience of eco-friendly products aspect, eco-friendly products were convenient to purchase. Bachelor' degree level had influenced more on eco-friendly product purchase than diploma/vocational certificate level. Convenience of eco-friendly products aspect, eco-friendly products had online sale channel via Internet. Diploma/vocational certificate level had influenced more on eco-friendly product purchase than bachelor' degree level. Occupation factors had no correlation with marketing mix in consumer and environment perspective. Monthly income factor had correlation with marketing mix in cost of eco-friendly products aspect; willing to pay more to purchase eco-friendly products, and communication aspect; eco-friendly products had been advertised to establish awareness in environment. Monthly income 10,001-20,000 THB had influenced more on product aspect; eco-friendly product, that monthly income 20,001-30,000 THB and monthly income more than 30,000 THB.

Discussion

From the result personal factors that have correlation to purchase decision of eco-friendly products in GenY showed that most of participants were female, single, education level was bachelor's degree, occupation mostly was entrepreneur, monthly income was 10,001-20,000 THB. This study have shown that many factors such as had product with proper price and quality aspect, ease to purchase aspect, and communication aspect has positive and significant impact on green purchase decision and green purchase intensions. The results showed that the hypotheses are true. It was hypothesized that helping environmental protection, guide for environmental responsibility, green product understanding, social appeal and environment friendliness significantly influences green product purchase decision and green brand image conciliates their relationship. Which according to Natnicha Naisuk (2016) studied the factors affecting eco-friendly product purchase decision of consumers in Pak Kret District, Nonthaburi province , most consumers were female, aged 25-40 years, bachelor' degree, private sector occupation, monthly income 10,001-30,000 THB, the sample group of consumers were aged 21-20 years, bachelor' degree, monthly income 10,001-39,999 THB. Corresponding to Jariya Sricharoon (2016) studied eco-friendly packaging perception on consumers in Bangkok that most were female, aged 28-30 years, bachelor' degree. On behavior of eco-friendly product consumption in Generation Y showed that most of them purchased by themselves, period of purchase 2-5 years. Which according to study of Pattarawan Ramsut (2016) the participants purchased products with eco-friendly packaging, 1-5 times a year, products had recyclable packaging, reasons of purchase were environment protection and enrichment, purchased at a department store. Corresponding to Pattarawan Ramsut (2016) studied of consumer behavior in eco-friendly packaging, Chiangmai province, the consumers purchased 1-5 times a year, purchased for everyday life, reason of purchase was part of environment protection, will buy again in the future, some customers won't buy because of high price. Accordance with Darika Saenpuang (2021) the studied of factors about perception behavior of eco-friendly marketing affecting marketing mix for online market in Northeastern are the study showed factors on perception behavior affecting marketing mix for online market in Northeastern, consisted of market environment improvement, usability, performance, information, perception, and environmental issue.

The Marketing factors affecting eco-friendly product purchase decision of Generation Y, the result from the study showed demand of eco-friendly product aspect was at high level. Eco-friendly products were variety, having many options for purchase was at high level. Corresponding to Thaweesak Dinprapha (2006) studied the factors affecting green product purchase decision of working age population in Pathumwan district, Bangkok, the study showed that personal factors had correlation to marketing factors in these aspects: quality, size, shape, and variety of green products. According to Phawinee Thongyam (2018) studied of a causal relationship model of factors affecting development of green and environmental marketing among consumers in Chanthaburi province, the study showed that model of green product purchase had causal relationship to green product marketing mix. The model of green product purchase and green product marketing mix factors had causal relationship with development of green and environmental marketing among consumers in Chanthaburi Province at statistically significant level 0.05.

The eco-friendly products had proper price and quality factor was at the highest level. Corresponding to Thaweesak Dinprapha (2006) studied factors affecting green product purchase decision of working age population in Pathumwan District, Bangkok, the study showed that cost factor had high importance level and related to personal factors. Sample group will consider proper price and quality of green product that were comparable to ordinary products.

On the convenience of eco-friendly products factors that had affected purchase decision at high level were eco-friendly products were convenient to purchase and having label to identify eco-friendly products. Corresponding to study of Rahbar and Wahid (2011), eco-friendly brand was a tool that differentiated products and leads to perception, behavior, and awareness of consumers. It influenced consumers' behaviors of eco-friend product purchase. According to the study of Dinuk Arseculeratne and Rashad Yazdanifard (2013), channel of green product purchase factor can stimulate purchase because convenience and timesaving. Showing that consumers want convenience in purchase. Corresponding to study of Boosayamas Chuenyen (2018), the convenient of purchase factors influenced purchase of eco-friendly consumer product. Consumers purchased eco-friendly products that had similar price and distributed near their neighborhood.

On communication factors that affecting eco-friendly product purchase was at high level in total was eco-friendly products had been advertised to establish awareness in environment, eco-friendly products had marketing promotions, and eco-friendly products had staffs that can inform customers about advice, advantage, and utilization of products. Corresponding to Hsuan-Hsuan Ku, et al. (2013) studied of green marketing communication influencing on purchase decision of customers in Taiwan. Products had been separated to 2 groups: environmental concern, and non-environmental concern. Study showed that consumers had prioritized environmental concern product if it was related products. On the other hand, consumers who prioritized promotion over product hadn't considered environmental concern. Corresponding to Naphatsawan Wongktawarin (2561) studied of factors influencing food product with sustainable packaging. In environment trend and COVID-19 crisis aspects. Environment trend had positive influence on relation of environmental protection support to purchase decision and repurchase intention. Environment trend had negative influence on relation of cost factor to word-of-mouth communication. COVID-19 crisis had negative influence on relation of environmental protection support to word-of-mouth communication.

Conclusion

In this paper the relationship of demand of eco-friendly product, eco-friendly products had proper price and quality, the convenience of eco-friendly products and green marketing communication with green product purchase decision by taking green brand image as a mediator was studied. Data was collected through questionnaires which were distributed among 400 of genY consumers completely filled questionnaires, the results were obtained by data processing through SPSS showed positive and significant relationship between the aspects. From the research most of participants were female, single, education level was bachelor's degree, occupation was mostly an entrepreneur, and monthly income was 10,001-20,000 THB. The study on behavior of eco-friendly product purchase decision showed that different population factors (gender, marital status, education, occupation, monthly income) had correlation with eco-friendly product purchase decision at statistically significant level .05. The different population factors (gender, marital status, education, monthly income) had correlation with marketing mix in consumer perspective at statistically significant level at .05. This study will help government agencies and marketing professionals to understand attitude and behavior of GenY consumers related to green product purchase decision and to encourage entrepreneurs to build a green products brand image.

Suggestion

1. Private sectors can utilize research data to conduct marketing strategy that suits their target group. The study showed that female had more eco-friendly product purchase behaviors than male. This can be used to develop products that can respond demands of female customer and younger generation customer to support growth of market for environmentally friendly products. Developing environmentally friendly products that can reach every customer in every economic level. Encouraging all customers to actual commitment to environmentally friendly products. Academics should develop more study in environment and environmental products.
2. Any business can present their image based on environmental issues, using them for CSR tool. By agreeing to voluntarily show cooperate social responsibility and to commit to environmental laws. Consumers always interest in reputation of organizations. This can lead to purchase behavior of eco-friendly products of organizations. Government sectors should support and encourage private sectors to illustrate more responsibility in social and environment.

Suggestions for next research

1. Next study can compare between sample groups from major cities in each region.
2. Structural Equation Modeling (SEM) can be used for studying factors effecting eco-friendly product purchase decision to analyze more complicated issues.

References

Biswas, A. and Roy, M. (2015). Green products: an exploratory study on the consumer behavior in emerging economies of the East. Journal of Cleaner Production, 87(13), 463-468.

Boosayamas Chuenyen. (2018). A Study of Consumer Perception and Factors Affecting Decision to Buy Consumer Products Designed for the Environment in the municipality of Ubon Ratchathani Ubon Ratchathani Province. Ubon Ratchathani Rajabhat University.

Cheng-Jui, T. and Shuo-Chang, T. (2011). Effect of consumer environment attitude on green consumption decision making. Pakistan Journal of Statistics, 27(5), 699-708.

Chutinan Chirawarawong and Danupon Hunsophon. (2015). Attitudes, subjective norms. And the degree of relevance of the product influences consumers' intent to purchase environmentally friendly products. Journal of Management Science, 32(1), 65-90.

Darika Saenpuang. (2021). Causal Factors and Environmental Marketing Recognition Behavior Affecting Marketing Mix in Decision Making for Online Markets in Northeastern Region. Journal of Accounting and Management, Mahasarakham University, 13 (4), 64 – 81.

Dinuk A., and Rashad Y. (2013). How Green Marketing Can Create a Sustainable Competitive Advantage for a Business. International Business Research.

Gadema, Z. and Oglethorpe, D. (2011). The use and usefulness of carbon labelling food: A policy perspective from a survey of UK supermarket shoppers. Food Policy, 36(6), 815-822.

Hsuan-Hsuan K., Chien-Chih K., Ching-Luen W., Chih-Ying W. (2012). Communicating Green Marketing Appeals Effectively. Journal of Advertising, 4(4), 41-50.

International Business Management, 5(3), 129-139.doi:10.3923/ibm.2011.129.139

Kantateera Palabutr. (2020). Strategic Innovation Capabilities Affecting Organization Sustainability: An Empirical Study of Automobile Business in Thailand. Journal of Accounting and Management, Mahasarakham University, 12(3), 109-125.

Kesarin Lilittrakul and Ratchaneewan Yuenyongmongkolchai. (2010). Factors Relating to Consumers' Decision to Buy Environmental Products in Bangkok Province. Master's Thesis, King Mongkut's University of Technology, North Bangkok.

Kim, Y. and Sejung Marina, C. (2005). Antecedents of Green Purchase Behavior: An Examination of Collectivism, Environmental Concern, and PCE. Advances in Consumer Research, 32(1), 592-599.

Lin, P.-C. and Huang, Y.-H. (2012). The influence factors on choice behavior regarding green products based on the theory of consumption values. Journal of Cleaner Production, 22, 11-18. doi:10.1016/j.jclepro.2011.10.002

Natnicha Haasuk. (2016). Factors Affecting Consumers' Buying Behavior of Environmentally Friendly Products. Community Research Journal, Nakhon Ratchasima Rajabhat University, 8(2), 57 -67.

Napatsawan Wongkotawarin. (2561). Factors Affecting the Purchase of Food Products Using Green Packaging. Master of Management, College of Management, Mahidol University.

Nopparat Pornmorn. (2011). Consumer's willingness to pay for carbon labeled products. Master of Economics Thesis, Thammasat University.

Office of Statistics. (2020). Demographic statistics Population and housing. Retrieved June 12, 2020, from http://statbbi.nso.go.th/staticreport/page/sector/th/01.aspx.

Paramee Patadul. (2016). Factors affecting the purchase of production for the environment of consumers. Pak Kret District Nonthaburi Province. Master of Arts Thesis, Silpakorn University.

Pattarawan Ramsut. (2016). Consumer Behavior in Mueang Chiang Mai District in Purchasing Environmentally Friendly Packaging. Business Administration Journal, Chiang Mai University, 2(2), 206 -223.

Phawinee Thongyam. (2018). Causal relationship model of factors affecting the development of green marketing and environmental marketing among consumers. Chanthaburi Province. Journal of Modern Management Science, 11(2), 107-124.

Rahbar, E. and Wahid, N.A. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. Business Strategy Series, 12, 73-83.

Rettie, R., Burchell, K. and Riley, D. (2012). Normalizing green behaviors: A new approach to sustainability marketing. Journal of Marketing Management, 28(3/4), 420-444. doi:10.1080/0267257X.2012.658840.

Sarawut Decharat. (2010). Consumer Behavior towards Green Label Products of New House Residents. A case study of Chang Phueak Subdistrict Chiang Mai Municipality. Master of Arts, Chiang Mai University.

Sinnappan, P. and Rahman, A. A. (2011). Antecedents of green purchasing behavior among Malaysian consumers. International Business Management, 5(3), 129-139. doi:10.3923/ibm.2011.129.139

Thaweesak Dinprapha. (2006). Factors influencing the decision to buy green products of working people in Pathumwan district, Bangkok. Thesis of the Faculty of Social and Environmental Development, National Institute of Development Administration.

Thai Environment Institute. (2020). Carbon reduction label. Retrieved May 18, 2020, from https://goo.gl/g12aSj

Thøgersen, J. and Zhou, Y. (2012). Chinese consumers' adoption of a 'green' innovation – The case of organic food. Journal of Marketing Management, 28(3/4), 313-333. doi:10.1080/0267257X.2012.658834

Wanrub Buntham. (2011). NewBiES 8 new buying group to change the face of Thai marketing. Bangkok: Bangkok Business.

Weerapat Wassara. (2015). A study of consumer perceptions and factors affecting decision-making to purchase consumer products designed for the environment. Master of Business Administration, Thammasat University.

Zhao, R. and Zhong, S. (2015). Carbon labelling influences on consumers' behavior: A system dynamics approach. Ecological Indicators, 51(0), 98-106.

Zhu, Q., Li, Y., Geng, Y. and Qi, Y. (2013). Green food consumption intention, behaviors and influencing factors among Chinese consumers. Food Quality and Preference, 28(1), 279-286. doi:10.1016/j.foodqual.2012.10.005

Aspergillus species, the Opportunistic Fungal Pathogen Colonizing Electric Fans and Air Conditioners in Human Resident Areas

Khoi Tuan Tran [1,2] / Kittipan Samerpitak [3] / Kunyaluk Chaicumpar [3]
[1] Master Student of Medical Microbiology, Faculty of Medicine, Khon Kaen University, Thailand.
[2] Department of Infection Control, Hue University of Medicine and Pharmacy, Hue University, Vietnam, khoitran.med@gmail.com
[3] Assistant Professor of Department of Microbiology, Faculty of Medicine, Khon Kaen University, Thailand, kittipan@kku.ac.th, kuncha@kku.ac.th

Abstract

Aspergillus species are classified in Ascomycota phylum. Aspergillus fumigatus, A. flavus, A. niger and A. terreus, etc. are opportunistic pathogen causing a severe disease called invasive aspergillosis. The disease occurs in respiratory system of patients with weak immune system. Knowing the reservoirs of Aspergillus species in human resident areas may decrease the incidence. Therefore, 56 surface samples of electric fans (30 EF) and air conditioners (26 AC), from 31 different locations, were investigated by mycological cultivation and identification. The result showed that Aspergillus spp. were found in 54 (96.4%) samples (28 EF+26 AC). Aspergillus niger, A. flavus, A. terreus, A. vesicolor, A. nidulans and A. fumigatus were found in a number of samples of 47, 12, 11, 2, 2 and 1, respectively. In conclusion, electric fans and air conditioners were sources of Aspergillus spp., and regular maintenance and cleaning both house appliances might possibly decease the incidence of aspergillosis.

Keywords: Aspergillus, House appliances, Domestic fungi

Introduction

Aspergillus is a genus of hyphomycetes mold that presents with hyaline branching septate hyphae and produces conidia in an asexual state. With DNA analyses, the genus is a member of phylum Ascomycota. Some species of Aspergillus have a sexual state that can produce ascospores confirming the characteristics of the phylum (de Hoog et al., 2000; Raja et al., 2011).

Aspergillus members thrives in indoor and outdoor environments of human such as soil, air, decaying materials, household appliances etc. The genus includes approximately 180 species, but less than 40 are reported to cause infections in humans. Aspergillus spp. are ones of the opportunistic fungal pathogen those can cause many forms of lung diseases in different group of people. Aspergillus fumigatus is the most common cause of human Aspergillus infections. Other common species include A. flavus, A. terreus, and A. niger (Centers for Disease Control and Prevention, 2021; de Hoog et al., 2000).

Aspergillus species cause a disease called aspergillosis. The fungi get into human body via respiration. The disease presents in various forms such as allergic bronchopulmonary aspergillosis (ABPA) in people suffering asthma or cystic fibrosis, aspergillomas in tuberculosis patients, chronic pulmonary aspergillosis in chronic obstructive pulmonary disease (COPD) or sarcoidosis patients, and invasive aspergillosis (IA) in people who have weakened immune system resulted from organ transplantation, chemotherapy cancer or high doses of corticosteroids (Centers for Disease Control and Prevention, 2021).

Invasive aspergillosis is a rare disease but a very severe condition with high morbidity and mortality. It mostly occurs in the lung and spread rapidly to brain, heart, kidney or skin. Aspergillosis of the central nervous system (CNS) is usually the worst manifestation of invasive aspergillosis, comprising about 10-20% of cases (Denning, 2000; Mayo Clinic, 2022). Invasive aspergillosis also has been reported among hospitalized patients with severe influenza (Duan et al., 2021) and COVID 19 (Kuehn, 2021).

Thailand has reported cases of invasive aspergillosis periodically, especially in tertiary-care patients who weakened in immune systems resulted from many underlying diseases such as diabetes mellitus, cancer, autoimmune, COPD, HIV infection etc (Kiertiburanakul et al., 2007; Petchkum & Phuphuakrat, 2017; Pongbhaesaj et al., 2004; Pruksakorn et al., 2020; Thammahong et al., 2015), and might associate to resident areas and working environment (Seehapanya et al., 2021).

Thailand is a hot and humid country where the weather favors growth of many microorganisms. Many house areas with closed, less sunlight and humid such as bathroom, toilet, kitchen etc., are always easily to find the signs of fungal growth. The home appliances made from wood such as wardrobes, shelves and cub boards, and cloths are often covered by molds in rainy season. Aspergillus species are ones of those molds. Because of hot and humid weather, an electric fan and an air-conditioner are common air cooling facilities used in most Thai resident areas. The distribution of molds colonizing inside the house may come from these air cooling machines. Our study is interested to investigate the hypothesis that these air cooling machines may take part in a pathogenesis of aspergillosis. The machines may play a role as a fungal reservoir for growth and colonization, and with function of blowing the air may continuously distribute Aspergillus conidia into domestic air. The amount of dispersing conidia filled and maintained by the machines may increase a chance of the conidia to get into human lung and start the process of infection especially in immune weakened patient. Taking good care of these house appliances may help in decreasing the incidence of aspergillosis.

Objective

To assess Aspergillus species colonizing in electric fans and air conditioners in human resident areas in Khon Kaen municipality, Thailand.

Methodology

1. Samples collection

The samples were visible dust or fungal mycelium on a surface of electric fan compositions such as a propeller fan blade or a cage fan, and a surface of air flow out channel of air conditioner. The samples were collected by the surface swab sampling method using a sterile cotton swab rotating to collect a sample. The samples were collected from surfaces of those house appliances in resident areas at different locations in Khon Kaen municipality, from November 2021 to December 2021.

2. Cultivation of *Aspergillus* species

To isolate the *Aspergillus* species from those samples, each swab sample was applied on two agar plates containing sabouraud dextrose agar (SDA) with 4 mg/L chloramphenicol. Those plates were incubated at 25ºC for up to seven days with daily observation. After the growth of the colonies, the single colony was isolated and transferred to a tube containing SDA and incubated at 25ºC for later identification.

3. Identification of *Aspergillus* species

The identification of *Aspergillus* species was conducted by the conventional methodology, based on macro-morphological characteristics observed from growth on media and micro-morphological characteristics observed from its structures under microscope. Firstly, each colony suspected as *Aspergillus* species was cultivated on SDA plate or potato dextrose agar plate (PDA). The agar plate was incubated at 25ºC for up to two weeks or until mycelium colony and conidia were revealed. The characters of colony and conidia color were noted. The structures of mycelium and conidial formation of each colony were prepared by using tease mount technique or slide culture technique, and they were stained by wet mount technique with lacto-phenol cotton blue. Finally, the conidial characteristics of each *Aspergillus* species were investigated with a light microscope.

Results

1. Samples collection

Total 56 samples were collected from 31 resident houses at different locations in Khon Kaen municipality. These samples were swabbed from 30 electric fans (EF) and 26 air conditioners (AC).

2. Isolation and identification of Aspergillus species

The results showed that all samples harbored many fungal species, both molds and yeast species. However, 54 samples (96.4%) had found the existing colonies of Aspergillus species. These included 28 (93.3%) of electric fan samples and 26 (100%) of air conditioner samples. Two of electric fan samples did not find Aspergillus spp. A total of six Aspergillus species were identified, which were A. niger, A. terreus, A. flavus, A. vesicolor, A. fumigatus, A. nidulans, respectively.

The distribution of airborne Aspergillus spp. isolated from EF and AC samples was showed in Table 1. The most isolated species from all samples was Aspergillus niger, it was found in 47 (83.9%) samples (26 EF, 21 AC) followed by A. flavus in 12 (21.4%) samples (7 EF, 5AC) and A. terreus in 11 (19.6%) samples (5 EF, 6 AC). Aspergillus vesicolor, A. fumigatus and A. nidulans were also detected in less than 4% of samples.

Table 1 Distribution of airborne Aspergillus spp. isolated from EF and AC samples

Type of samples / Isolated Aspergillus spp.	EF (n=30) n (%)	AC (n=26) n (%)	Total number of samples (n=56) n (%)
A. niger	26 (86.7%)	21 (69.2%)	47 (83.9%)
A. flavus	7 (23.3%)	5 (19.2%)	12 (21.4%)
A. terreus	5 (16.7%)	6 (23.1%)	11 (19.6%)
A. vesicolor	2 (6.7%)	0 (0%)	2 (3.6%)
A. fumigatus	0 (0%)	1 (3.8%)	1 (1.8%)

A. nidulans	1 (3.3%)	1 (3.8%)	2 (3.6%)
No Aspergillus spp.	2 (6.7%)	0 (0%)	2 (3.6%)
Found Aspergillus spp.	28 (93.3%)	26 (100%)	54 (96.4%)

Discussion

Several studies have already shown that exposure to indoor airborne fungus might have negative health consequences particularly Aspergillus species (Hedayati et al., 2009; Monteiro et al., 2019).

Aspergillus species can cause a variety of chronic, noninvasive infections with similar symptoms, from the formation of a fungus ball (aspergilloma) to a persistent inflammatory and fibrotic process known as chronic pulmonary aspergillosis (Latgé & Chamilos, 2019). Therefore, a better understanding of their reservoirs will reduce the contact airborne fungus including Aspergillus species.

Aspergillus species was known for a long time for having their reservoirs in domestic environments such as resident house, work place, hospital etc. It is commonly found in the air, floor, ceiling and water systems (Nicolle et al., 2011; Richardson & Rautemaa-Richardson, 2019).

People spend most of their time in indoor environment, so indoor air quality has a major influence on overall health and quality of life especially children, elderly (Cincinelli & Martellini, 2017) and patients suffered from chronic illness (Smith & Schatz, 2010). However, the specific assessment of the surfaces of cooling machines such as air conditioners and electric fans is rarely reported.

In this study, 96.4% of the samples collected from electric fans and air conditioners found a number of Aspergillus species those can cause aspergillosis. The most common species of Aspergillus in our study was A. niger, followed by A. terreus and A. flavus, in contrast, A. vesicolor, A. fumigatus and A. nidulans were less common species. There was no difference of dominant Aspergillus species between EF and AC. Thus, the reason of A. niger, A. terreus and A. flavus were dominant species in the both EF and AC, is supposed to be a positive correlation to the speed of growth and the ability to produce and release their spores as our daily observation.

What's remarkable that also found A. fumigatus, which is the most prevalent and life-threatening airborne opportunistic fungal pathogen in humans, with immunocompromised hosts being particularly vulnerable. In spite of only one sample in an air conditioner, however, that was previously observed to be a reservoir of A. fumigatus that could aggravate ABPA (Agarwal, 2009).

To limit the possibility of an allergy developing, Aspergillus species must not be permitted to overgrowth in indoor environment. The colonization in domestic appliances must be recognized and cleaned, before moisture encourages growth of Aspergillus species.

Humid and dirty are the factors encouraging Aspergillus species to colonize air conditioners and electric fans, and turn them to be their reservoirs. According to several studies, humid has involved in the fungal growth in houses which might affect healthy human respiratory systems (Dannemiller et al., 2016; Kettleson et al., 2015; Pasanen et al., 2000). There was reported that the fungi colonizing particularly in children's beds and rooms where they spent their majority of activities, involved in development of asthma (Dannemiller et al., 2013; Tischer et al., 2011).

Humid is hardly controlled neither by air conditioner mechanism nor by weather, but dirty can be managed. Regular maintenance and cleaning the electric fans and air conditioners in domestic areas such as resident house, working place, public place, etc. must be an effective resolution to decrease a number of Aspergillus species and finally, may reduce an incidence of aspergillosis including many air-born infectious diseases.

Conclusion

Aspergillus species could grow easily and colonize appliances such as electric fans and air conditioners. They also can produce, distribute the fungal spores into the air, and possibly infect the residents especially vulnerable subjects. The regular maintenance and cleaning of both house appliances are suggested, and these can contribute a part to increasing air quality and may probably decrease the incidence of aspergillosis.

Acknowledgements

This works was supported by a Khon Kaen University Scholarship. Khon Kaen, Thailand.

References

Agarwal, R. (2009). Allergic Bronchopulmonary Aspergillosis. *CHEST*, *135*(3), 805–826. https://doi.org/10.1378/chest.08-2586

Centers for Disease Control and Prevention. (2021, January 8). *Where Aspergillosis Comes From*. Retrieved March 15, 2022, from https://www.cdc.gov/fungal/diseases/aspergillosis/causes.html

Cincinelli, A., & Martellini, T. (2017). Indoor Air Quality and Health. *International Journal of Environmental Research and Public Health*, *14*(11), 1286. https://doi.org/10.3390/ijerph14111286

Dannemiller, K. C., Mendell, M. J., Macher, J. M., Kumagai, K., Bradman, A., Holland, N., Harley, K., Eskenazi, B., & Peccia, J. (2013). Next-generation DNA sequencing reveals that low fungal diversity in house dust is associated with childhood asthma development. *Indoor Air*, *24*(3), 236–247. https://doi.org/10.1111/ina.12072

Dannemiller, K. C., Weschler, C. J., & Peccia, J. (2016). Fungal and bacterial growth in floor dust at elevated relative humidity levels. *Indoor Air*, *27*(2), 354–363. https://doi.org/10.1111/ina.12313

de Hoog, G. S., Guarro, J., Gené, J., & Figueras, M. J. (2000). *Atlas of Clinical fungi* (2nd ed.). Centraalbureau voor Schimmelcultures/Universitat Rovira I Virgili.

Denning, D. W. (2000). Aspergillus species. In G. L. Mandell, J. E. Raphael, & R. Dolin (Eds.), *Principles and practice of infectious diseases* (5th ed., pp. 2674–2685). Philadelphia : Churchill Livingstone.

Duan, Y., Ou, X., Chen, Y., Liang, B., & Ou, X. (2021). Severe Influenza With Invasive Pulmonary Aspergillosis in Immunocompetent Hosts: A Retrospective Cohort Study. *Frontiers in Medicine*, *7*. https://doi.org/10.3389/fmed.2020.602732

Hedayati, M. T., Mayahi, S., & Denning, D. W. (2009). A study on Aspergillus species in houses of asthmatic patients from Sari City, Iran and a brief review of the health effects of exposure to indoor Aspergillus. *Environmental Monitoring and Assessment*, *168*(1–4), 481–487. https://doi.org/10.1007/s10661-009-1128-x

Kettleson, E. M., Adhikari, A., Vesper, S., Coombs, K., Indugula, R., & Reponen, T. (2015). Key determinants of the fungal and bacterial microbiomes in homes. *Environmental Research*, *138*, 130–135. https://doi.org/10.1016/j.envres.2015.02.003

Kiertiburanakul, S., Thibbadee, C., & Santanirand, P. (2007). Invasive aspergillosis in a tertiary-care hospital in Thailand. *Journal of the Medical Association of Thailand*, *90*(5), 895–902.

Kuehn, B. M. (2021). Aspergillosis Is Common Among COVID-19 Patients in the ICU. *JAMA*, *326*(16), 1573. https://doi.org/10.1001/jama.2021.17973

Latgé, J. P., & Chamilos, G. (2019). Aspergillus fumigatus and Aspergillosis in 2019. *Clinical Microbiology Reviews*, *33*(1). https://doi.org/10.1128/cmr.00140-18

Mayo Clinic. (2022, January 6). *Aspergillosis*. Retrieved March 15, 2022, from https://www.mayoclinic.org/diseases-conditions/aspergillosis/symptoms-causes/syc-20369619

Monteiro, C., Pinheiro, D., Maia, M., Faria, M., Lameiras, C., & Pinto, E. (2019). Aspergillus species collected from environmental air samples in Portugal—molecular identification, antifungal susceptibility and sequencing ofcyp51Agene onA. fumigatus sensu strictoitraconazole resistant. *Journal of Applied Microbiology*, *126*(4), 1140–1148. https://doi.org/10.1111/jam.14217

Nicolle, M. C., Benet, T., & Vanhems, P. (2011). Aspergillosis: nosocomial or community-acquired? *Medical Mycology*, *49*(S1), S24–S29. https://doi.org/10.3109/13693786.2010.509335

Pasanen, A. L., Kasanen, J. P., Rautiala, S., Ikäheimo, M., Rantamäki, J., Kääriäinen, H., & Kalliokoski, P. (2000). Fungal growth and survival in building materials under fluctuating moisture and temperature conditions. *International Biodeterioration & Biodegradation*, *46*(2), 117–127. https://doi.org/10.1016/s0964-8305(00)00093-7

Petchkum, P., & Phuphuakrat, A. (2017). Rhinocerebral Aspergillosis in an Immunocompetent Patient: A Case Report. *Journal of Infectious Diseases and Antimicrobial Agents*, *34*(2), 51–56.

Pongbhaesaj, P., Dejthevaporn, C., Tunlayadechanont, S., Witoonpanich, R., Sungkanuparph, S., & Vibhagool, A. (2004). Aspergillosis of the central nervous system: A catastrophic opportunistic infection. *The Southeast Asian Journal of Tropical Medicine and Public Health*, *35*(1), 119–125.

Pruksakorn, V., Thithuan, T., & Chaitusaney, T. (2020). An Invasive Aspergillosis with Large Orbital Abscess with Intracranial Extension in HIV Infection: A Case Report. *The THAI Journal of OPHTHALMOLOGY*, *34*(1), 11–17.

Raja, H., Schoch, C. L., Hustad, V., Shearer, C., & Miller, A. (2011). Testing the phylogenetic utility of MCM7 in the Ascomycota. *MycoKeys*, *1*, 63–94. https://doi.org/10.3897/mycokeys.1.1966

Richardson, M., & Rautemaa-Richardson, R. (2019). Exposure to Aspergillus in Home and Healthcare Facilities' Water Environments: Focus on Biofilms. *Microorganisms*, *7*(1), 7. https://doi.org/10.3390/microorganisms7010007

Seehapanya, S., Chaiear, N., Ratanawatkul, P., Samerpitak, K., Intarawichian, P., & Wonglakorn, L. (2021). A Lung Granuloma Case Possibly Associated with a Working Environment: A Case Report. *Safety and Health at Work*, *12*(2), 268–271. https://doi.org/10.1016/j.shaw.2021.03.001

Smith, J. C., & Schatz, B. R. (2010). Feasibility of Mobile Phone-Based Management of Chronic Illness. *AMIA Annual Symposium Proceedings*, 757–761.

Thammahong, A., Thayidathara, P., Suksawat, K., & Chindamporn, A. (2015). Invasive Aspergillus Infections in a Thai Tertiary-Care Hospital during 2006–2011. *Advances in Microbiology*, *05*(05), 298–306. https://doi.org/10.4236/aim.2015.55029

Tischer, C., Chen, C. M., & Heinrich, J. (2011). Association between domestic mould and mould components, and asthma and allergy in children: a systematic review. *European Respiratory Journal*, *38*(4), 812–824. https://doi.org/10.1183/09031936.00184010

The Evaluation of the Effectiveness of Disinfectant Wipes and the Prevalence of Nosocomial Pathogens in Medical Intensive Care Unit (MICU) of Tertiary care Hospital in Khon Kaen, Thailand

Thint Myat Thu [1] / Waewta Kuwatjanakul[2] / Antibordee Meesing[3] / Umaporn Yordpratum[4]

[1]Department of Microbiology, Faculty of Medicine, Khon Kaen University, Thailand
E-mail: thintmyatthu.th@kkumail.com
[2]Clinical Microbiology Unit, Faculty of Medicine, Srinagarind hospital, Khon Kean University, Thailand
E-mail: pwaewt@kku.ac.th
[3]Division of Infectious Disease and Tropical Medicine, Department of Medicine, Faculty of Medicine, Khon Kean University, Thailand
E-mail: atibordee@kku.ac.th
[4]Department of Microbiology, Faculty of Medicine, Khon Kaen University, Thailand
Corresponding author E-mail: umapornyo@kku.ac.th

Abstract

Hospital environment is a significant role in Hospital-associated infections (HAIs) because of the variety of microbial population persist on the hospital environment. This study aimed to determine the prevalence of nosocomial pathogens in Medical Intensive Care Unit (MICU) environment in tertiary care hospital of Khon Kaen province, the antibiotic resistance profiling in Gram negative bacteria (GNB) and the efficacy of disinfectant wipes against MICU environmental isolates on various material surface. Objects around patient beds and fomites in MICU were collected by using normal saline moisten cotton swabs. The bacteria were cultured and identify relied on the morphological and biochemical characteristics, followed by the antibiotic susceptibility test. The efficacy of disinfectant wipes was performed. A total of 104 isolates were obtained from 69 surfaces, Coagulase-negative Staphylococci (CoNS) was the most common prevalence with the range of 76%, followed by A. baumannii (10%), Enterococcus spp. (5%), S. aureus (4%), Enterobacter spp. (4%) and P. aeruginosa (2%), respectively. The most frequently contaminated sites were objects around patient bed rather than fomites. Among Gram-negative bacteria (GNB), all A. baumannii were extremely resistance to most antibiotics but still susceptible to colistin. Most A. baumannii (10/10) and Enterobacter spp. (4/4) have been reported as Extensively drug-resistant bacteria (XDR) and Multidrug-resistant (MDR) bacteria contaminated in MICU environment. All three disinfectant wipes were effectively reduced S. aureus and A. baumannii from the range of 96.7% to 100% on the three different kinds of surfaces. This study has been reported that the most common nosocomial pathogens are contaminated and the MDR bacteria are observed in MICU environment in Tertiary care Hospital. Our data suggested that the hospital should improve of its infectious controlling program.

Keywords: MICU environment isolates, Disinfectant wipe, multidrug resistant

Introduction

Hospital-associated infections (HAIs) have recently been identified as the leading cause of death and morbidity among patients who admitted to intensive care units (ICUs). Patients in ICU are the most common risk for HAIs worthy of invasive medical procedures during their hospitalizations. Various studies suggest that HAIs outbreaks has been possibly related to the dissemination of nosocomial pathogens in the environment (Suleyman et al., 2018). The most prevalence pathogens of HAIs including "ESKAPE" microorganisms (*Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Staphylococcus aureus*, *Enterococcus faecium*, *Pseudomonas aeruginosa* and *Enterobacter* spp.) and *E. coli* are frequently contaminated in ICU environment. Those microorganisms are multidrug resistant bacteria which are responsible for the increasing of HAIs in ICU (Pons & Ruiz, 2019). WHO published Global Priority Pathogens List in 2017, which described 42,136 published articles have been identified as the most serious MDR organisms. Among those, Methicillin-resistant *Sureus aureus* (MRSA) was the most prevalence pathogens, followed by Extended-spectrum β-lactamase *Enterobacteriaceae* (ESBLE), carbapenem-resistant *Pseudomonas aeruginosa*, carbapenem-resistant *Acinetobacter baumannii* and vancomycin-resistant *Enterococcus faecium*, (Asokan et al., 2019). In Thai National Survey 2018, the most common nosocomial pathogens were *K. pneumoniae* (18.1%), *A. baumannii* (17.8%) and *P. aeruginosa* (12.6%) (Moolasart et al., 2019).
Hospital environment is a significant role in Hospital-associated infections (HAIs) because of the variety of microbial population persist on the hospital environment. Several investigations were studied in hospitals where have emphasized the possible place of the inert environment as a contamination reservoir of patients, because of the persistent of MDR bacteria (Caselli et al., 2019). Moreover, various studies proved that hospital-acquired pathogens frequently contaminate in the patient environment, including porous surfaces (e.g., curtains) and nonporous surfaces (e.g., bed rails and medical equipment). Hospital-acquired pathogens can survive on many surfaces in a hospital from a few days to long period that can even go beyond 90 days (Chaoui et al., 2019). Contaminated surfaces serve as source of a reservoir for transmission of pathogens which directly contact with patient and the environment or indirectly cross contamination of health care workers' hands and gloves (Han et al., 2015). Environmental decontamination is important for prevention and controlling of HAIs, especially in ICUs (Oztoprak et al., 2019). Several studies have discovered that reducing environmental contamination may assist the hospital for monitoring the spread of some antibiotic-resistant bacteria (Wong et al., 2018). A valuable practice of cleaning and disinfection, including chemical disinfection, ultraviolet germicidal irradiation, and heat, etc. play a critical role in inhibiting cross-contamination and transmission of HAIs. Among all disinfection strategies, the application of chemical disinfectant is widely applied in hospitals, healthcare centers and food industry because it can easy to use and a wide range of antimicrobial activity. In the implementation of disinfectant, the "ready-to-apply" disinfecting wipes (RDW) are becoming more acceptable for the decontamination of high-touch surfaces because of its easy application and trustworthy implementation. RDW mainly comprise of

towelette and disinfectant that contain different chemical composition. In spite of RDW has been commonly applied in the decontamination of the hospital environment, its efficacy needs to always discuss (Song et al., 2019). The efficacy of RDW which used in this study have been lacked of its antimicrobial sustainability. So, this study aimed to determine the prevalence of nosocomial pathogens in MICU environment in tertiary care hospital; the antibiotic resistance profiling in Gram negative bacteria; and the efficacy of disinfectant wipes against MICU environmental isolates.

Materials and methods

Study design

This study performed at tertiary care Hospital, Khon Kean, Thailand. Two MICUs (6-beds unit and 7-beds unit) environments were focused on this study, where accomplished the sampling procedure once every two weeks during December 2021 to February 2022.

Sample collection

The surface samples were collected by using a sterile cotton swab previously moistened with 0.9% normal saline solution. The swab sampling method performed on objects around patient beds (including bedrail, overbed table, ICU monitor, ventilator, stethoscope, infusion pump, bedside table drawer handle) and fomites (including computer keyboard, telephone reservoir, table, door sensor, sink tap, medication trolly, medical record, mobile phone and tablets, corner of floor and curtain). After sampling, each swab sample were immersed into the 5 ml of sterile tryptic soy broth and transported to the laboratory immediately

Bacterial isolation and identification

The contaminated swabs were incubated at 37°C for 24 h for the pre-enrichment culturing. The enrichment cultural swabs were streaked onto MacConkey agar and 5% sheep blood agar plates by the quadrant streaking method and incubate at 37°C for 24 h. After incubation, the different colonies were selected by size, color and shape of morphology and then performed subculture onto the blood agar to obtain pure culture which were done for the identification of bacteria. The identification carried out based on conventional microbial diagnostic methods as colony morphology, color, the hemolysis and Gram staining. The following biochemical tests were performed by catalase, coagulase, phenol red mannitol test (PR-mannitol), phenol red glucose test (PR-glucose), oxidase, triple iron sugar (TSI), motility, indole, nitrate reduction test, urease, citrate, gelatin liquefaction, lysine decarboxylase test, 10% lactose, phenylalanine deaminase test, oxidation and fermentation glucose test (OF glucose) and oxidation and fermentation maltose test (OF maltose).

Antibiotic susceptibility test

The Gram-negative bacteria (GNB) such as *A. baumannii*, *P. aeruginosa* and *Enterobacter* spp. were cultured at 37°C for overnight. A loop of overnight culture was inoculated into 2 ml of MHB and cultured for 2h at 37°C. The bacterial suspension was adjusted with 0.9% normal saline to maintain the optical density equal to MacFarland no.5. The ready to use 96-wells with antibiotics plates were purchased from the manufacturer to perform Minimal Inhibitory Concentration (MIC) determination. Then, 50 µl of adjusted bacterial suspension were added into each well of the AST kit and incubated into Sensititre Aris 2X for 24 h and interpret the MIC according to breakpoint of Clinical and laboratory standards institute (CLSI).

Determining the efficacy of disinfectants

Three different kinds of surfaces such as stainless-steel plate, plastic and furniture boards were used to evaluate the effectiveness of disinfectant wipes including 75% alcohol wipe pad (Mei Shi Yu alcohol wipe), Quaternary compounds 0.21% (POSEQUAT PAD) and Benzethonium choride 0.28%+Isopropyl alcohol 18% (Clinicare ultra disinfectant wipe). All three wipe pads were tested against on *S. aureus* and *A. baumannii*. Before conducting the experiment, the boards were sterilized in the autoclave at 121°C for 30 minutes under 15 pound per inch square. The optical density of bacterial suspension was adjusted with 0.9% normal saline to equal to 0.5 MacFarland standard. After preparing, bacterial suspension was spread onto the boards (5 cm x 5 cm) and labeled to the applied area and allowed the bacterial colonizing for 24 h. The disinfectant wipes were applied onto the bacterial inoculated area according to the manufacture instruction and swabbed after disinfection 10 mins. After swabbing, each contaminated sample were placed into phosphate buffer saline (PBS) and vortexed the tube for 1min to release the bacteria from the cotton swabs. The two-fold serial dilution was performed and 10 µl of each diluted samples were dropped onto the Mueller–Hinton Agar (MHA). After the plates were incubated at 37°C for 48 h, colonies were counted as CFU/ml and log reduction were performed for determining the efficacy of disinfectants.

Results

Prevalence of nosocomial pathogens in MICU environment

A total of 104 isolates were obtained from 69 surfaces (49 objects around patient bed and 20 fomites) in MICU environment, which were identified as Coagulase Negative Staphylococci (CoNS), *Enterococcus* spp., *S. aureus*, *A. baumannii*, *P. aeruginosa* and *Enterobacter* spp. CoNS was the most common prevalence with the range of 76%, followed by *A. baumannii* (10%), *Enterococcus* spp. (5%), *S. aureus* (4%), *Enterobacter* spp. (4%) and *P. aeruginosa* (2%). **Figure 1** represented for the most frequently contaminated surfaces were objects around patient bed in which overbed table was highly contaminated site with CoNS (15/79) and *A. baumannii* (3/10); stethoscope (CoNS (12/79), *S. aureus* (1/4) and *A. baumannii* (1/10)); ventilator (CoNS (11/79) and *Enterobacter* spp. (1/4)); infusion pump (CoNS (8/79) and *P. aeruginosa* (1/2) and *Enterobacter* spp. (1/4)); bedrail (CoNS (6/79), *S. aureus* (1/4), *A. baumannii* (2/10) and *Enterococcus* spp. (1/4)); bedside table (CoNS (4/79), *S. aureus* (1/4), *A. baumannii* (2/10) and *Enterobacter* spp. (1/4)); and ICU monitor was the lowest contaminated object with CoNS (4/79). Among fomites, the maximum contamination rate with CoNS (4/79) and *A. baumannii* (1/10) was observed on medical record; computer keyboard (CoNS (1/79) and *Enterococcus* spp. (2/4)); door (CoNS (3/79)); mobile phone (CoNS (3/79)); work phone (CoNS (3/79)); medication trolly (CoNS (2/79) and *Enterococcus* spp. (1/4)); curtain (CoNS (1/79) and *Enterococcus* spp. (1/4)); table surface (*S. aureus* (1/4) and *Enterobacter* spp. (1/4)); floor (*A. baumannii* (1/10) and *P. aeruginosa* (1/2)) and no contamination at sink tap.

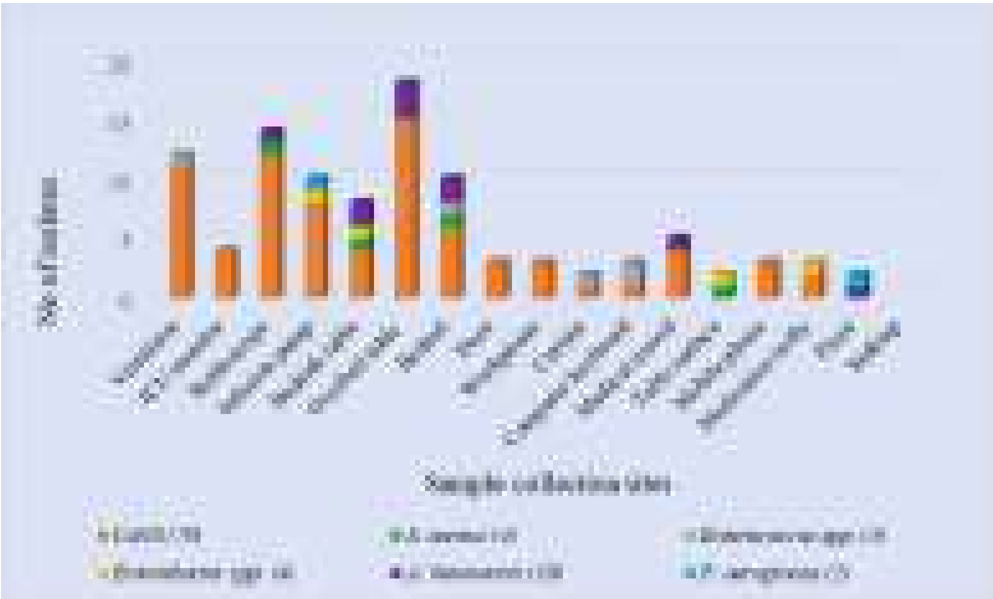


Figure 1 The prevalence of nosocomial pathogens in MICU

Antibiotic resistance profiling

The antibiotic resistance profiling was conducted on 20 different antibiotics under seven classes. Among 16 GNB, all *A. baumannii* were the highest MDR strains that possessed the resistance activity on ampicillin-sulbactam (100%), cefepime (100%), cefotaxime (100%), ceftazidime (100%), ceftriaxone (100%), ciprofloxacin (100%), doripenem (100%), imipenem (100%), gentamicin (90%), trimethoprim-sulfamethoxazole (100%), amikacin (90%) and netilmicin (90%). The antibiotic resistance profiling of *Enterobacter* spp. showed on amoxicillin-clavulanic acid (100%), ampicillin (100%), ampicillin-sulbactam (100%), cefoxitin (100%), ciprofloxacin (50%), levofloxacin (50%), trimethoprim-sulfamethoxazole (50%) and cefuroxime (25%), although *Enterobacter* spp. retained its antibiotic susceptibility to most antibiotics. On other hands, almost antibiotics strongly inhibited *P. aeruginosa* as 100 percent. In contract, all isolates were unable to inhibit the colistin (100%) **Table 1**

Table 1 Antibiotic resistance profile

Antibiotics	MIC interpretation (%)		
	A. baumannii (n=10)	*Enterobacter* spp. (n=4)	*P. aeruginosa* (n=2)
Amoxicillin/Clavulanic Acid	NI	R (100%)	NI
Ampicillin	NI	R (100%)	NI
Ampicillin/Sulbactam	R (100%)	R (100%)	NI
Piperacillin-Tazobactam	NI	S (100%)	NI
Cefepime	R (100%)	S (100%)	S (100%)
Cefotaxime	R (100%)	S (100%)	NI
Cefoxitin	NI	R (100%)	NI
Ceftazidime	R (100%)	S (100%)	S (100%)
Ceftriaxone	R (100%)	S (100%)	NI
Cefuroxime (sodium)	NI	S (50%), I (25%), R (25%)	NI
Ciprofloxacin	R (100%)	R (50%), S (50%)	S (100%)
Levofloxacin	NI	R (50%), S (50%)	S (100%)
Colistin	S (100%)	NI	S (100%)
Doripenem	R (100%)	S (100%)	S (100%)
Ertapenem	NI	S (100%)	NI
Imipenem	R (100%)	S (100%)	S (100%)
Meropenem	NI	S (100%)	S (100%)
Gentamicin	R (90%), S (10%)	S (100%)	S (100%)
Amikacin	R (90%), S (10%)	S (100%)	S (100%)
Netilmicin	R (90%), I (10%)	S (100%)	S (100%)
Trimethoprim/Sulfamethoxazole	R (100%)	R (50%), S (50%)	NI

*R; Resistance; S: Susceptible; NI: Not interpret

Determining the efficacy of disinfectant wipes

The tested organisms were effectively reduced by all disinfectant wipes from the range of 96.7% to 100% on the three different kinds of surfaces (**Table 2**). All disinfectant wipes strongly inhibited to *S. aureus* on plastic surface, whereas *A. baumannii* was completely eradicated on steel surface. Among three disinfectant wipes, 75% alcohol wipe showed the less effective reducing *A. baumannii* on plastic and furniture surfaces than the other type of wipes.

Table 2 Log reduction percentage of different disinfectant wipes on different surfaces (10 min after disinfection)

	Plastic surface		
Test organisms	75% Alcohol	Posequat	Clinicare
S. aureus	100%	100%	100%
A. baumannii	97.5%	99.5%	99.9%
	Furniture surface		
S. aureus	99.9%	100%	99.9%
A. baumannii	96.7%	100%	99.9%
	Steel surface		
S. aureus	100%	99.9%	99.9%
A. baumannii	100%	100%	100%

Discussion and Conclusion

Hospital environment surfaces are provided as the potential source of hospital-acquired pathogens for contamination reservoir and transmission (Sehulster & Chinn, 2003). In the reports of observational studies, the non-invasive ICU devices such as electronic equipment or hard to disinfect surfaces are the majority of contamination (Lestari et al., 2013). MDR bacteria has been frequently contaminated on the surfaces of medical devices and high-touch surfaces (e.g., computer keyboard, telephone and medical charts) in ICU (Russotto et al., 2015). Whittington *et al.* demonstrated that bacteria is largely contaminated from both earpieces (67%) and diaphragms (95%) of stethoscopes utilized in ICU. *S. aureus* and *Acinetobacter* spp. were the leading pathogenic bacteria in which one of *A. baumannii* resistant to antibiotics (Whittington et al., 2009). According to Sui *et al*., 70.6-100 % *S. aureus* and *P. aeruginosa* contaminated on the surface of ventilator (Sui et al., 2012). Teng *et al*. reported that 90% of the surface of medical charts in ICU were contaminated with CoNS, *K. pneumoniae* and *A. baumannii* (Teng et al., 2009). In this study, CoNS were the most commonly found in MICU environment, followed by XDR-*A. baumannii*, *Enterococcus* spp., *S. aureus*, MDR *Enterobacter* spp., and *P. aeruginosa*. All *A. baumannii* were extremely resistant to most antibiotics but except colistin. The surface contamination rate of our study was related with the previous studies because bacterial contamination was highly observed high-touch surfaces of objects around patient bed in which the surface of overbed table was very high number of contaminations. The reason of highly contamination on overbed table may be placing the medications during patient caring; the medications might be transferred from one contaminated area to another. Among fomites, medical record was greatly contaminated with CoNS and *A. baumannii* due to it may be moved to one surface to another surface which might be contaminated with bacteria. Various studies investigated that 80-90% of the surfaces of medical charts/record were observes as the contamination (Russotto et al., 2015).

The "ready-to-apply" disinfecting wipes are becoming more acceptable for the decontamination of high-touch surfaces because of its easy application and trustworthy implementation (Song et al., 2019). So, one object of our study was to determine the efficacy of disinfectant wipes on MICU environmental isolates. The result of this study indicated that all disinfectant wipes were effectively reduced or eradicated the contamination on smooth plastic, steel and furniture surfaces. Our study was demonstrated on the smooth surfaces but not in the real-world clinical settings. The efficacy of disinfectant wipe in real-world clinical settings may not be powerful because hospital environments are composed of dry inanimate surfaces which cause the bacterial survive up to months. Moreover, health care workers' hands serve as a key role of environmental contamination during their patient care (Pittet et al., 2006). Thus, future studies need to determine the efficacy of disinfectant wipes in real-world clinical settings.

Conclusion

This study has been reported that the most common nosocomial pathogens are contaminated and the MDR and XDR bacteria are observed in MICU environment in tertiary care Hospital. Our data suggested that the hospital should improve of its infectious controlling program.

Acknowledgement

This study was supported by GMS scholarship, Department of Microbiology, Faculty of medicine, Khon Kean University and Srinagarind Hospital.

References

Asokan, G. V., Ramadhan, T., Ahmed, E., & Sanad, H. (2019). WHO global priority pathogens list: A bibliometric analysis of medline-pubmed for knowledge mobilization to infection prevention and control practices in Bahrain. *Oman Medical Journal*, *34*(3), 184–193. https://doi.org/10.5001/omj.2019.37

Caselli, E., Arnoldo, L., Rognoni, C., D'Accolti, M., Soffritti, I., Lanzoni, L., Bisi, M., Volta, A., Tarricone, R., Brusaferro, S., & Mazzacane, S. (2019). Impact of a probiotic-based hospital sanitation on antimicrobial resistance and HAI-associated antimicrobial consumption and costs: A multicenter study. *Infection and Drug Resistance*, *12*, 501–510. https://doi.org/10.2147/IDR.S194670

Chaoui, L., Mhand, R., Mellouki, F., & Rhallabi, N. (2019). Contamination of the Surfaces of a Health Care Environment by Multidrug-Resistant (MDR) Bacteria. *International Journal of Microbiology*, *2019*. https://doi.org/10.1155/2019/3236526

Han, J. H., Sullivan, N., Leas, B. F., Pegues, D. A., Kaczmarek, J. L., & Umscheid, C. A. (2015). Cleaning hospital room surfaces to prevent health care-associated infections: A technical brief. *Annals of Internal Medicine*, *163*(8), 598–607. https://doi.org/10.7326/M15-1192

Lestari, T., Ryll, S., & Kramer, A. (2013). Microbial contamination of manually reprocessed, ready to use ECG lead wire in intensive care units. *GMS Hygiene and Infection Control*, *8*(1), Doc07. https://doi.org/10.3205/DGKH000207

Moolasart, V., Manosuthi, W., Thienthong, V., Vachiraphan, A., Judaeng, T., Rongrungrueng, Y., Vanprapar, N., & Danchaivijitr, S. (2019). Prevalence and risk factors of healthcare-associated infections in Thailand 2018: A point-prevalence survey. *Journal of the Medical Association of Thailand*, *102*(12), 1309–1316.

Oztoprak, N., Kizilates, F., & Percin, D. (2019). Comparison of steam technology and a two-step cleaning (water/detergent) and disinfecting (1,000 resp. 5,000 ppm hypochlorite) method using microfiber cloth for environmental control of multidrug-resistant organisms in an intensive care unit. *GMS Hygiene and Infection Control*, *14*, Doc15. https://doi.org/10.3205/dgkh000330

Pittet, D., Allegranzi, B., Sax, H., Dharan, S., Pessoa-Silva, C. L., Donaldson, L., & Boyce, J. M. (2006). Evidence-based model for hand transmission during patient care and the role of improved practices. *The Lancet. Infectious Diseases*, *6*(10), 641–652. https://doi.org/10.1016/S1473-3099(06)70600-4

Pons, M. J., & Ruiz, J. (2019). Current trends in epidemiology and antimicrobial resistance in intensive care units. *Journal of Emergency and Critical Care Medicine*, *3*, 5–5. https://doi.org/10.21037/jeccm.2019.01.05

Russotto, V., Cortegiani, A., Raineri, S. M., & Giarratano, A. (2015). Bacterial contamination of inanimate surfaces and equipment in the intensive care unit. *Journal of Intensive Care*, *3*(1), 54. https://doi.org/10.1186/s40560-015-0120-5

Sehulster, L., & Chinn, R. Y. W. (2003). Guidelines for environmental infection control in health-care facilities. *Morbidity and Mortality Weekly Report*, *52*(RR10), 1–42.

Song, X., Vossebein, L., & Zille, A. (2019). Efficacy of disinfectant-impregnated wipes used for surface disinfection in hospitals: A review. *Antimicrobial Resistance and Infection Control*, *8*(1), 1–14. https://doi.org/10.1186/s13756-019-0595-2

Sui, Y. S., Wan, G. H., Chen, Y. W., Ku, H. L., Li, L. P., Liu, C. H., & Mau, H. S. (2012). Effectiveness of bacterial disinfectants on surfaces of mechanical ventilator systems. *Respiratory Care*, *57*(2), 250–256. https://doi.org/10.4187/RESPCARE.01180

Suleyman, G., Alangaden, G., & Bardossy, A. C. (2018). The Role of Environmental Contamination in the Transmission of Nosocomial Pathogens and Healthcare-Associated Infections. *Current Infectious Disease Reports*, *20*(6). https://doi.org/10.1007/s11908-018-0620-2

Teng, S. O., Lee, W. Sen, Ou, T. Y., Hsieh, Y. C., Lee, W. C., & Lin, Y. C. (2009). Bacterial contamination of patients' medical charts in a surgical ward and the intensive care unit: Impact on nosocomial infections. *Journal of Microbiology, Immunology and Infection*, *42*(1), 86–91.

Whittington, A. M., Whitlow, G., Hewson, D., Thomas, C., & Brett, S. J. (2009). Bacterial contamination of stethoscopes on the intensive care unit. *Anaesthesia*, *64*(6), 620–624. https://doi.org/10.1111/J.1365-2044.2009.05892.X

Wong, S. S., Huang, C. H., Yang, C. C., Hsieh, Y. P., Kuo, C. N., Chen, Y. R., & Chen, L. C. (2018). Reducing health care-associated infections by implementing separated environmental cleaning management measures by using disposable wipes of four colors. *Antimicrobial Resistance and Infection Control*, *7*(1), 1–6. https://doi.org/10.1186/s13756-018-0320-6

Human Resource Management Satisfaction in Warin Chamrap Municipality, Ubon Ratchathani Province

Malinee Srimaitree[1] / Wannaporn Litwan[2] / Nontaya Duangthong[3] / Siwaporn Nilpaka[4] / Sayamon Butburan[5] / Kanchana Sudta[6]

[1]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, E-mail: Malinee.s@ubru.ac.th

[2]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: std.63124460444@ubru.ac.th

[3]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124460131@ubru.ac.th

[4]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail: std.63124460348@ubru.ac.th

[5]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124460138@ubru.ac.th

[6]Faculty of Business Administration and management, Ubon Ratchathani Rajabhat University, Thailand, Corresponding author: E-mail:std.63124460141@ubru.ac.th

Abstract

This research aimed to study human resource management satisfaction and compare different demographic factors and satisfaction of human resource management in Warin Chamrap municipality, Ubon Ratchathani province. The sample group of this research was 227 personnel staffs from Warin Chamrap municipality, Ubon Ratchathani province using questionnaires to collect data. The statistics used for data analysis were descriptive statistics, inferential statistic t-test, and one-way Anova with statistics package for social sciences (SPSS) application. The research showed 1) most of personnel from Warin Chamrap municipality, Ubon Ratchathani province were female, 131 people (57.7%), 108 people aged between 25-35 years (47.6%), 124 people had position in academic personnel (54.6%), 176 people had bachelor's degree (77.5%) and 120 people had more than 5 years in work experience (52.9%). 2) the satisfaction level of human resource management was at high level in total of $\bar{x}$ at 3.71 considering on each aspect, all aspects had high level of satisfaction including personnel right aspect, personal achievement on benefit society to organization aspect, human resource recruitment aspect, human resource development aspect, and human resource strategy aspect, they had $\bar{x}$ value at 3.71, 3.66, 3.65, 3.59, and 3.58, respectively. 3) personnel staff in Warin Chamrap municipality had different gender, age, position, work experience, and education had different level of human resource management satisfaction at statistically significant at 0.05.

Keywords: Human resource management, Satisfaction, Warin Chamrap Municipality

Introduction

The global is encounter tremendous changes with technology, development, organizational practices, market structures and government policies (Collins and Smith, 2006; Lall and Teubal, 1998; Malik and Kotabe, 2009). All fields of production are escalating with competitive, and firms experience intense competition with rival firms in their industry (Coad and Teruel, 2013). At present, a firm unable to succeed and maintain its position in the market if it does not execute strategic planning and resource optimization (Ahlvik et al., 2016). In the worldwide economy, an organization require to strengthen itself through prudent design of commercial policies to attain an accomplishment and sustainability in the industry. Human resources is a vital resource for any corporation, and adequate management of human resource can help corporation attain their goals and ambitions (Abdul-Halim et al., 2016). Science and art in human resource management are becoming crucial skills for every management in every level of any fields. Human resources play important roles and can lead organization to success operation (Wassika Rumakom, 2020). Human resource management satisfaction is positive emotion and attitude towards components in human resource management happened when personnel have been responded to their physical and mental needs. Personnel staff can achieve their work, contributing to objectives of organization (Phornpat Rungmongkolsub 2015). Staff satisfaction is the factor that provide understanding about the emotions of staff related to their workplace and job. Seibert, et al. (2004) describe staff satisfaction as the feeling of the employee related to the job or set of staff 's satisfaction. Human resource management satisfaction can influence work and organization achievements. It can provide happiness to individual too. Many organization has failed to obtain decent human resource management then it will dissatisfy personnel. Dissatisfied personnel will produce less work and lower operation quality. Forcing them to absent, resign, and many more issues in organization operation. Warin Chamrap municipality, Ubon Ratchathani province is government agency that has been focusing on improving quality of life, education, infrastructure, and local cultures of people. Their vision is to make Warin Chamrap a living city with excellent infrastructures, economic, environment, ethics, and local culture preservation. This requires both cooperation from every staff and excellent human resource management to achieve.

From above information, researchers aimed to study the satisfaction of human resource management in Warin Chamrap municipality, Ubon Ratchathani province. The management team can utilize information from this research to define effective management guideline and to enrich human resource management. This will benefit Warin Chamrap municipality to gather further achievements.

Research Objectives

1. To study human resource management satisfaction of Warin Chamrap municipality, Ubon Ratchathani province.
2. To compare different demographic factors and satisfaction of human resource management in Warin Chamrap municipality, Ubon Ratchathani province.

Research Hypothesis

The personnel staff in Warin Chamrap municipality have different demographic factors and different level in human resource management satisfaction.

Research Methodology

The population of this research was 523 personnel staff of Warin Chamrap municipality, Ubon Ratchathani province (Warin Chamrap Municipality, Ubon Ratchathani Province, 2021: Online). The sample group of this research was personnel staff from Warin Chamrap municipality using Taro Yamane (1973) sampling method. The sample size after calculated was 227 people and chose by convenience sampling. The questionnaires distributed by researchers sending to personnel staff from Warin Chamrap municipality, Ubon Ratchathani. The independent variables were demographic factors containing gender, age, position, work experience, education. The dependent variables containing human resource strategy aspect, human resource recruitment aspect, human resource development aspect, personal right aspect, personal achievement on benefiting society to organization aspect. The research consisted 3 parts of questionnaires which were: part 1) information of demographic factors containing gender, age, position, work experience, education with 5 choices of close ended questions. Part 2) information of satisfaction factors consisted of human resource strategy aspect, human resource recruitment aspect, human resource development aspect, personal right aspect, and personal achievement on benefiting society to organization aspect. Part 3) suggestion/opinion according to human resource management satisfaction of Warin Chamrap municipality, Ubon Ratchathani province.

Data analysis

1. Descriptive statistics were used for data analysis.
    1.1 Percentage and frequency were used with demographic factors containing gender, age, position, work experience, education.
    1.2 Mean and Standard Deviation were used with satisfaction factors in human resource management satisfaction of Warin Chamrap municipality, Ubon Ratchathani province containing human resource strategy aspect, human resource recruitment aspect, human resource development aspect, personal right aspect, personal achievement on benefiting society to organization aspect. These were close ended questions with 5 choices.
2. Inferential Statistics were used for data analysis.
    2.1 t-test were applied to divide gender in human resource management satisfaction from Warin Chamrap municipality.
    2.2 One-Way Analysis of Variance: One-Way Anova were used with satisfaction factors in human resource management by gender, age, position, work experience, education.

Research results

The data analysis on demographic factors showed that personnel staffs from Warin Chamrap Municipality, Ubon Ratchathani province were 131 (57.7%) female, 108 people were aged between 25-35 years (47.6%), 124 people had position in academic personnel (54.6%), 176 people had bachelor's degree (77.5%) and 120 people had more than 5 years in work experience (52.9%). Data analysis on satisfaction factors of human resource management in Warin Chamrap Municipality, Ubon Ratchathani province was at high level in total, $\bar{x}$ at 3.71. Considering on each aspect, all aspects had high level of satisfaction. Personel right aspect, personal achievement on benefiting society to organization aspect, human resource recruitment aspect, human resource development aspect, and human resource strategy aspect had $\bar{x}$ at 3.71, 3.66, 3.65, 3.59, and 3.58, respectively.

Table 1: Satisfaction level of human resource management in Warin Chamrap Municipality, Ubon Ratchathani Province

Satisfaction level of human resource management	Mean	S.D	Level
Human resource strategy aspect	3.58	.616	High
Human resource recruitment aspect	3.65	.604	High
Human resource development aspect	3.60	.582	High
Personal right aspect	3.71	.596	High
Personal achievement on benefiting society to organization aspect	3.66	.634	High
Total	**3.71**	**.596**	**High**

Inferential data analysis to test hypothesis

The Results of difference comparison of demographic factors and human resource management by gender, age, position, work experience, and education can be summarized as per below.

Hypothesis 1.1: Personnel with different gender had no different satisfaction level at statistically significant .05.

Hypothesis 1.2: Personnel with different age had different satisfaction level at statistically significant .05. As shown in table 1.2.

Table 1.2: Results of difference comparison of demographic factors and human resource management satisfaction in Warin Chamrap Municipality, Ubon Ratchathani Province by gender, using F-test

Source of variance		SS	df	MS	F	Sig.
Human resource strategy aspect	Difference between group	3.531	3	1.177	3.183	.025*
	Difference in group	82.440	223	.370		
Total		85.970	226			
Human resource recruitment aspect	Difference between group	6.627	3	2.209	6.493	.000*
	Difference in group	75.861	223	.340		
Total		82.487	226			

* Statistically significant level at 0.05

Hypothesis 1.3: Personnel with different position had different satisfaction level in human resource strategy aspect, human resource recruitment aspect, personal right aspect, and personal achievement on benefiting society to organization aspect at statistically significant .05. As shown in table 1.3.

Table 1.3: Results of difference comparison of demographic factors and human resource management satisfaction in Warin Chamrap Municipality, Ubon Ratchathani Province by position, using F-test

Source of variance		**SS**	**df**	**MS**	**F**	**Sig.**
Human resource strategy aspect	Difference between group	5.230	3	1.743	4.815	.003*
	Difference in group	80.740	223	.362		
Total		85.970	226			
Human resource recruitment aspect	Difference between group	4.349	3	1.450	4.137	.007*
	Difference in group	78.139	223	350		
Total		82.487	226			
Personal right aspect	Difference between group	4.795	3	1.598	4.720	.003*
	Difference in group	75.513	223	.339		
Total		80.308	226			
Personal achievement on benefiting society to organization aspect	Difference between group	8.754	3	2.918	7.908	.000*
	Difference in group	82.284	223	.369		
Total		91.038	226			

* Statistically significant level at 0.05

Hypothesis 1.4: Personnel with different work experience had different satisfaction level in human resource strategy aspect, human resource recruitment aspect, human resource development aspect, personal right aspect, and personal achievement on benefiting society to organization aspect at statistically significant .05. As shown in table 1.4.

Table 1.4: Results of difference comparison of demographic factors and human resource management satisfaction in Warin Chamrap Municipality, Ubon Ratchathani Province by work experience, using F-test

Source of variance		**SS**	**df**	**MS**	**F**	**Sig.**
Human resource strategy aspect	Difference between group	4.981	2	2.490	6.888	.001*
	Difference in group	80.990	224	.352		
Total		85.970	226			
Human resource recruitment aspect	Difference between group	10.507	2	5.254	16.349	.000*
	Difference in group	71.980	224	.321		
Total		82.487	226			
Human resource development aspect	Difference between group	4.419	2	2.210	6.854	.001*
	Difference in group	72.214	224	.322		
Total		76.634	226			
Personal right aspect	Difference between group	8.405	2	4.203	13.093	.000*
	Difference in group	71.902	224	.321		
Total		80.308	226			
Personal achievement on benefiting society to organization aspect	Difference between group	7.892	2	3.946	10.630	.000*
	Difference in group	83.147	224	.371		
Total		91.038	226			

* Statistically significant level at 0.05

Hypothesis 1.5: Personnel with different education had different satisfaction level in human resource strategy aspect, human resource recruitment aspect, human resource development aspect, personal achievement on benefiting society to organization aspect at statistically significant .05. As shown in table 1.5.

Table 1.5: Results of difference comparison of demographic factors and human resource management satisfaction in Warin Chamrap Municipality, Ubon Ratchathani Province by education, using F-test

Source of variance		**SS**	**df**	**MS**	**F**	**Sig.**
Human resource strategy aspect	Difference between group	4.271	2	2.136	5.855	.003*
	Difference in group	81.699	224	.365		
Total		85.970	226			
Human resource recruitment aspect	Difference between group	2.209	2	1.104	3.082	.048*
	Difference in group	80.279	224	.358		
Total		82.487	226			
Human resource development aspect	Difference between group	3.969	2	1.985	6.118	.003*
	Difference in group	72.664	224	.324		
Total		76.634	226			
Personal achievement on benefiting society to organization aspect	Difference between group	6.069	2	3.034	8.000	.000*
	Difference in group	84.969	224	.379		
Total		91.038	226			

* Statistically significant level at 0.05

Discussion

The Demographic factors of personnel in Warin Chamrap municipality, Ubon Ratchathani province, mostly were female aged between 25-35 years old, obtain academic personnel staff position, holding bachelor's degree, and had more than 5 years in work experience. In Accordance with Panchok Panchinda (2019) studied work satisfaction affecting performance of staff, case study: Thailand post office at Chiang Rai province. The study showed that most participants were female, aged between 20-29 years, had bachelor's degree, and had more than 5 years in work experience. The satisfaction level of human resource management was at high level in total. Considering on each aspect had high level of satisfaction. These aspects were including personal right aspect, personal achievement on benefiting society to organization aspect, human resource recruitment aspect, human resource development aspect, and human resource strategy aspect. Corresponding to Wassika Rumakom (2020) studied the correlation between private school efficiency in Pathum Thani province and satisfaction level of teachers, the study showed that private school in Pathum Thani province had high efficiency level in total. From the result personnel staffs in Warin Chamrap municipality, Ubon Ratchathani province had different gender, age, position, work experience, and education had different level of human resource management satisfaction at statistically significant 0.05 accordance with Wipawee Rattanakul (2020) studied factors affecting work satisfaction of employees in Pathum Thani province the study showed that personal factors including age, education, work experience, and monthly income, had affected work satisfaction of employees in Pathum Thani province differently.

Suggestion for next research

1. The next research may focus on other factors that affecting satisfaction of human resource management in Warin Chamrap Municipality, Ubon Ratchathani Province. New information could be utilized to create guideline for better human resource management that can respond needs of personnel staffs in Warin Chamrap Municipality, Ubon Ratchathani Province.
2. Conducting more research to study encouragement and motivation of personnel in Warin Chamrap. New information could be utilized to encouragement and motivation that can respond needs of personnel in Warin Chamrap Municipality, Ubon Ratchathani province.

References

Abdul-Halim, H., Che-Ha, N., Geare, A. and Ramayah, T. (2016), "The pursuit of human resource outsourcing in an emerging economy: the effects of HRM strategy on HR labour costs", Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration, Vol. 33 No. 2, pp. 153-168, https://doi.org/10.1002/cjas.1370

Ahlvik, C., Smale, A. and Sumelius, J. (2016), "Aligning corporate transfer intentions and subsidiary HRM practice implementation in multinational corporations", Journal of World Business, Vol. 51 No. 3, pp. 343-355, doi: 10.1016/j.jwb.2015.04.003.

Coad, A. and Teruel, M. (2013), *"Inter-firm rivalry and firm growth: is there any evidence of direct competition between firms?"*, Industrial and Corporate Change, Vol. 22 No. 2, pp. 397- 425, doi: 10.1093/icc/dts018.

Collins, C.J. and Smith, K.G. (2006), "*Knowledge exchange and combination: the ole of human resource practices in the performance of high-technology firms*",Academy of management Journal, Vol. 49 No. 3, pp. 544-560, doi: 10.5465/AMJ.2006.21794671.

Lall, S. and Teubal, M. (1998), "'*Market-stimulating' technology policies in developing countries: a framework with examples from East Asia*", World Development, Vol. 26 No.8, pp. 1369-1385, doi: 10.1016/S0305-750X(98)00071-0.

Malik, O.R. and Kotabe, M. (2009), "Dynamic capabilities, government policies, and performance in firms from emerging economies: evidence from India and Pakistan", Journal of Management Studies, Vol. 46 No. 3, pp. 421-450, doi: 10.1111/j.1467-6486.2008.00817.x

Nuntanap Khemphet and Phopsuk Chamchong. (2018**).** *Motivation of working support staff in the group of Generation Y: A case study of Mahasarakham University*. Journal of Politics and Governance, 8 (1), 40-63.

Seibert, S.E., S.R. Silver and W.A. Randolph, 2004. *Taking empowerment to the next level: a multiple- level model of empowerment, performance and satisfaction*. Academy of Management Journal, 47(3): 332-349.

Pornpat Rungmongkolsub. (2013). *Satisfaction of employees of ABB Company Limited*. Independent research, Master of Business Administration program Graduate School of Management Sripatum University.

Panchok Panchinda, Prapassorn, Wannasathit, Kanphatsawee, Klomthongcharoen and Jirayu Hantrakul. (2019). *Satisfaction with the performance that affects the efficiency of the employees' work: a case study of the Postal Company Limited in Chiang Rai Province.* Business Administration Journal Maejo University, 1 (1), 60–69.

Wassika Rumakom. (2020). *The Relationship Between Effectiveness of Private Schools in Pathum Thani Province and Satisfaction in the Work of Teachers.* Journal of Education Education, Thammasat University, 13 (2), 115-131.

Wipawee Rattanakul. (2020). *Factors Affecting Work Satisfaction of Company Employees in Pathum Thani Province*. Journal of Humanities and Social Sciences Ratchaphruek University, 6 (2), 137-150.

Yamane, Taro. (1973). *Statistics: An Introductory Analysis 3 rd ed.* New York: Harper and Row.

Factors Influencing the Decision to Purchase Local Souvenirs in Lower Northeastern Region, Thailand

Umarin Ratree
Doctoral student, Faculty of Business Administration, Siam University, Thailand
E-mail: umarin.r@ubru.ac.th

Abstract

The purpose of this research is to examine people's behaviors when purchasing local souvenirs and the factors that influence their decision to purchase local souvenirs. The sample group of 1,200 people included tourists who had visited Thailand's lower northeastern region. Use questionnaires as a tool to collect data. Descriptive statistics were used to describe general information and local souvenir-buying behavior, and inferential statistics through the Multinomial Logit Model were used to study the variables influencing the purchase of local souvenirs. The study's findings revealed that the majority of the sample groups were females, between the ages of 31 and 40, with a bachelor's degree and a monthly wage ranging from less than 10,000 to 30,000 Baht. In terms, the perceived value of local souvenirs and attitudes towards local souvenirs, it was at the highest level. The source of information used to search for information on local souvenirs found that most of the samples searched for information from social media. As for the variables influencing the decision to purchase local souvenirs, it was found that age (AGE), income (INC), perceived value of local souvenirs (PER), and attitude towards local souvenirs (ATT), social media (CHAN2) and personal media (CHAN8) were statistically significant ($p \leq 0.05$).

Keywords: decision to purchase; multinomial logit model

Introduction

Tourism is a segment of the Service industry that generates substantial amounts of money for the country and has a strong influence on other industries. Causing new jobs and money circulation in the economy, which is considered to enhance the economic and social prosperity of the country (Department of Tourism, 2015). Tourism is currently slower owing to the spread of the COVID-19 virus. However, according to the Ministry of Tourism and Sports' Tourism Economic Report No. 2, both Thai and international visitors began to return to travel as the coronavirus situation steadily improved. That northeastern region of Thailand is reported to have the fewest tourists (Tourism Authority of Thailand, 2021).

In addition to the visit of tourists who are interested in various attractions, what is likely to grow together with tourism activities is the business of selling souvenirs. Furthermore, the government has a system that supports each region to earn income and employment by producing and distributing souvenirs in the form of local items such as woven fabrics, basketry, earthenware, jewelry, etc. As a result, the souvenir business has increased in popularity and influence (Wongborwornluk et al, 2017)

As just a result, the researcher is curious in the factors that influence people's decisions to purchase local souvenirs in Thailand's lower northeastern region. Because the lower northeastern area has a large center city, such as Nakhon Ratchasima Province. The also intend to enhance tourism in this area, and among the souvenirs to be studied are woven fabrics, basketry, earthenware, and jewelry. Such souvenirs are all made in the region. It will research the factors that influence tourists' decisions to purchase local souvenirs. To develop a plan for stores selling souvenirs in the lower Northeast in order to encourage more visitors to visit the region, as well as to entice tourists to buy more local souvenirs.

Review of Literature

There are 5 main theories for the concepts and theories used in the study, which are as follows: 1. Theories of demographic characteristics. 2. The theory of attitudes 3. Theoretical Consumer Behavior 4. The measurement concept, and 5. Multinomial Logit Model.

1. Theories of demographic characteristics

According to Satawatin (2003), people with various demographic features have distinct psychological qualities. The analysis was based on the following variables: gender, age, education, and socioeconomic status.

2. The theory of attitudes

According to Phanthumnawin (1981), attitude is a psychological variable that influences behavior more than other psychological traits like personality, motivation, and perception, resulting in a person acting adversely or favorably. As a result, a person is more inclined to respond in a specific manner to that person or scenario.

3. Theoretical Consumer Behavior

Solomon (1996) describes consumer behavior as "any activity of a purchaser that is directly connected to the selection, purchase, and usage of products and services." This includes the purchase decision process that directs or prescribes such action to satisfy the demand and needs of consumers.

4. The measurement concepts

The concept of the Likert Scale (Likert, 1932) was used to analyze and measure attitudes. The following are the scoring criteria:

Very Important / Strongly Agree	5 scores
Important / Agree	4 scores
Moderately Important / Undecided	3 scores
Slightly Important / Disagree	2 scores
Unimportant / Strongly Disagree	1 score

5. Multinomial Logit Model

It is a model for studying the effect of an independent variable (X) on a dependent variable (Y), where the dependent variable is a qualitative multiple choice (more than two choices) (McFadden, 1978).

Research Objectives

1. To research the purchase behavior of local souvenirs in Thailand's lower northeastern region.
2. To research the variables influencing the purchase of local souvenirs in Thailand's lower northeastern region.

Research Methodology

This study was survey research, which was subsequently statistically evaluated and presented in a descriptive format. The demographic and sample groups, study instruments, and data analysis are as follows.

Population and sample

The population employed in this study was a group of 3,821,319 visitors that visited the lower Northeastern provinces in 2021 (Tourism Authority of Thailand, 2021). As a result, the researchers employed the Taro Yamane approach (Yamane, 1973) to construct a representative sample size of the population with a 95 percent confidence level. We collected a total of 400 computed samples. However, to confirm the accuracy of the calculations, we employed a total of 1200 samples, and queries were made between October and December 2021.

Collection of data

In this study, a questionnaire was employed as a research technique. The questions were divided into three sections: 1) The sample group's personal information and behavior 2) perceived value of local souvenirs, and 3) attitude towards local souvenirs, That Parts 2 and 3 scored each sub-issue on 5 levels (Likert scale) (Likert, 1932) by picking just one answer. Conduct a validation check to ensure the questionnaire's correctness. The questionnaire's reliability was determined using Cronbach's alpha (Cronbach, 1951), with a confidence level of 0.995.

Data analysis

The descriptive statistics were used to analyze the general data of the samples, and the inferential statistics were used to analyze the factors affecting the purchasing decisions of local souvenirs by using the Multinomial Logit Model. Variables employed in the study and their levels are given in Table 1.

Table 1 The Levels of Variables Used in the Study

Variables		Levels of Variables
Y	Decision to purchase local souvenirs (SOUV)	1: Woven fabric 2: Basketry 3: Earthenware 4: Accessories/ Jewelry
X1	Gender (GEN)	1: Male, 2: Female
X2	Age group (AGE1-6)	1: < 21, 2: 21-30, 3: 31-40, 4: 41-50, 5: 51-60, 6: >60
X3	Education (EDU1-3)	1: Below Bachelor's degree 2: Undergraduate 3: Higher than bachelor's degree
X4	Income (INC)	1: < 10,000 Bath 2: 10,001-20,000 Bath 3: 20,001-30,000 Bath 4: 30,001-40,000 Bath 5: 40,001-50,000 Bath 6: > 50,000 Bath
X5	The perceived value of local souvenirs (PER)	It is an average value in the range of 1 to 5. 1: Strongly Disagree 2: Disagree 3: Undecided

		4: Agree 5: Strongly Agree
Variables		**Levels of Variables**
X6	Attitudes towards local souvenirs (ATT)	It is an average value in the range of 1 to 5. 1: Strongly Disagree 2: Disagree 3: Undecided 4: Agree 5: Strongly Agree
X7	Information acquisition channel (CHAN1-8)	1: Websites related to tourism agencies 2: social media (ex: Facebook, Twitter) 3: Brochure 4: Television media 5: Billboard 6: Guidebooks 7: Exhibition 8: Personal media (ex: friends, parents)

Results

1.The sample's general personal, economic, and social data.

The investigation of the general data of the sample indicated that the majority of the samples were female, accounting for 59.80 percent, and the majority were between the ages of 31 and 40 years old, accounting for 40.80 percent. The majority of the sample group graduated with a bachelor's degree, accounting for 57.80 percent, While the sample's monthly salary was largely in the range of 10,001-20,000 Baht per month, accounting for 27.80 percent, Next is the income range between 20,001-30,000 Baht per month and less than 10,000 Baht per month, representing 25.00 and 21.90 percent, respectively. The perceived value of local souvenirs, it was found that the mean value was 4.30, indicating that the perceived value of local souvenirs among the samples was at the highest level. And finally, the attitudes towards local souvenirs were found to average 4.28, indicating that the attitudes towards local souvenirs was at the highest level.

The sample group's general purchase behavior of local souvenirs found that more than half of them would purchase jewelry the most, accounted for 66.60 percent. The information source used to find information about local souvenirs discovered that the majority of respondents (67.20 percent) sought for information on social media.

2. Factors influencing the decision to purchase local souvenirs.

The Multinomial Logit model was used to estimate the parameters of the factors influencing the purchase decision of local souvenirs. By comparing the decision by pair, the base case for comparison is in the case that the sample group chooses to buy woven fabrics. The results of the study can be shown in the following table.

Table 2 Comparison results by pairs for purchasing local souvenirs. (By using woven fabric as a benchmark for comparison)

Variable	Basketry			Earthenware			Accessories		
	Coef.	S.E.	OR	Coef.	S.E.	OR	Coef.	S.E.	OR
Gender (Male)[1]									
Female	-0.45	0.79	0.63	0.31	0.16	1.37	0.99	0.35	2.69
Age group (< 21)[1]									
21-30	-0.45	1.64	0.62	0.29	0.36	1.34	0.26	0.80	1.30
31-40	-0.17	1.95	0.84	0.41	0.39	1.50	0.31	0.87	1.36
41-50	17.66	0.01	0.03*	0.27	0.48	0.76*	0.11	1.03	0.89*
51-60	2.24	1.72	0.10*	0.17	0.43	1.18*	1.79	1.54	6.03*
> 60	0.98	0.39	2.68	0.64	0.31	1.91	0.90	0.30	2.21
Education (Below Bachelor's degree)[1]									
Undergraduate	-3.25	2.18	0.03	0.19	0.40	1.21	0.68	0.62	1.97
Higher than bachelor's degree	-1.76	2.30	0.17	0.55	0.46	1.74	1.93	0.86	6.91
Income (< 10,000 Bath)[1]									
10,001-20,000	2.04	1.16	0.12*	0.23	0.31	0.78*	0.22	0.58	0.79*
20,001-30,000	3.60	1.47	0.02*	0.01	0.32	0.99*	0.95	0.59	2.59*
30,001-40,000	-20.17	0.03	0.11	0.27	0.37	1.31	2.93	1.19	18.86
40,001-50,000	-2.80	1.75	0.05	0.64	0.42	1.90	1.99	0.97	7.32
> 50,000	-23.09	0.13	0.06	-0.23	0.46	0.79	0.47	0.97	1.60
Perceive	6.04	1.23	0.01	36.61	0.33	1.57	0.13	0.93	1.14
Attitude	18.23	1.56	0.05	0.66	0.48	0.51	1.16	0.77	3.20
Information acquisition channel (Websites related to tourism agencies)[1]									
Social media	4.34	1.72	6.94*	0.28	0.45	1.32*	0.13	0.93	1.14*
Brochure	1.15	1.21	3.18	0.46	0.30	1.59	1.16	0.77	3.20
Television media	0.94	1.48	4.58	0.50	0.29	1.65	2.35	0.62	10.57
Billboard	1.52	1.08	4.58	0.21	0.26	1.23	0.82	0.54	2.28
Guidebooks	1.56	1.63	4.79*	0.19	0.35	1.21*	2.18	0.59	2.87
Exhibition	2.86	1.96	17.55	0.64	0.54	1.90*	2.64	1.31	14.10*
Personal media	2.08	1.54	8.06*	0.17	0.41	1.18*	15.69	0.29	2.02*
Log likelihood function	-496.402								
Pseudo R^2	0.256								

Notes: * indicate significant at the P≤0.05.
[1] is the reference variable (Threshold).

Table 2 shows the estimation results using the Multinomial Logit Model. The factors influencing the decision to purchase local souvenirs in the type of basketry compared to woven fabrics were found to be 41-60 years old (AGE4-5). Group income ranging from 10,000 to 30,000 Baht (INC2-3), the perceived value of local souvenirs (PER), the attitudes towards local souvenirs (ATT), and lastly the three sources of information are social media (CHAN2), Guidebooks (CHAN6), and personal media (CHAN8).

The following factors influence the decision of purchasing local souvenirs in the form of earthenware as compared to woven fabrics: age (41-60) (AGE4-5), income (10,000 to 30,000 Bath) (INC2-3), the perceived value of local souvenirs (PER), the attitudes towards local souvenirs (ATT), and finally, 4 sources of information are social media (CHAN2), exhibitions (CHAN7), Guidebooks (CHAN6), personal media (CHAN8).

Factors influencing the probability of purchasing local souvenirs in the category of accessories compared to woven fabrics were age (41-60) (AGE4-5), income (10,000 to 30,000 Bath) (INC2-3), perceived value of local souvenirs (PER). The attitudes towards local souvenirs (ATT) and finally, 3 sources of information are social media (CHAN2), exhibitions (CHAN7), personal media (CHAN8).

When considering all types of souvenirs, it was found that, Gender (GEN) and educational level (EDU) had no influence on the purchasing of souvenirs. In terms of age, it was found that aged 41 to 60 years (AGE4-5) tended to result in purchasing souvenirs, through terms of income, it was discovered that income range from 10,000 to 30,000 Baht (INC2-3) results in the purchase of all. The perceived value of local souvenirs (PER), as well as the attitude towards local souvenirs (ATT), all influenced the decision of the 3 souvenirs. Finally, the two information sources, social media (CHAN2) and personal media (CHAN8), have an influence on the purchasing of all 3 types of souvenirs. All the above factors were statistically significant ($p \leq 0.05$). In addition, all factors are all positive factors.

Discussion and Conclusion

The purpose of this research is to investigate the factors influencing the decision of local souvenirs from October to December 2021.The sample group was Thai tourists in the lower northeastern region. The study of the general data of the sample indicated that the majority of the samples were female, accounting for 59.80 percent, and the majority were between the ages of 31 and 40, accounting for 40.80 percent. Through education level, the sample group had the largest proportion of bachelor's degree holders, at 57.80 percent, the majority of the samples' monthly incomes varied from less than 10,000 to 30,000 Baht. In terms of perceived value of local souvenirs, the average was 4.30, suggesting that the sample group's value perception of local souvenirs was at the highest level. In terms of attitudes towards local souvenirs, the mean was discovered to be 4.28, suggesting that the degree of social attitude toward local souvenirs was at its height. Finally, it is the data source used to search for information on purchasing local souvenirs. It was found that most of the samples searched for information from social media the most. Accounted for 67.20 percent.

Suggestions for further research

1. This study focuses solely on tourists in the lower northeastern region, Thailand. As a result, in future studies, the scope of the study should be extended and covered, for example, by surveying provincial areas. Tourists in each location may differ in order to learn about the thoughts or attitudes of a wider range of consumers.
2. Additional variables should be investigated. Behavioral variables, for example, may relate to the decision to purchase local souvenirs. Marketing factors, social factors, economic factors, psychological factors, and technological factors must all be considered, and the knowledge gathered must be used to enhance or develop goods or services that better meet the needs of customers.

References

Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika,* 16: 297-334.

Likert, R. (1932). A technique for measurement of attitudes. *Archives of Psychology,* 3(1): 42-48.

Satawatin, P. (2003). *General psychology.* Bangkok: Thaicharoenpress.

Phanthumnawin, D. (1981). *Ethical psychology and Psychology of language*. Bangkok: Watana Panich Publishing Company Limited. 130 p.

Solomon, M. R. (1996). *Consumer Behavior*. Englewood Cliff, NJ.: Prentice-Hall.

Wongborwornluk, K., T. Tresirichod, and S. Chokchaiworarat. (2017). Factors Affecting Buying Decision on Souvenirs of Chinese Tourists Travelling to Pataya, Chonburi Province. *MBA-KKU Journal* 10(2): 134-150.

Department of Tourism. (2015). *Tourism Economics Review No.3.* Retrieved 27 March 2020, from http://www.mots.go.th/ewt_dl_link.php?nid=7622

Tourism Authority of Thailand. (2021). Annual Report 2021. Retrieved 27 March 2020, from https://www.tat.or.th/th/about-tat/annual-report

McFadden, D. (1978). Modeling the Choice of Residential Location. *Transportation Research Record*, 672, 72-77.

Yamane, T. (1973). *Statistics: An Introductory Analysis*. (3nd ed.). New York: Harper and Row

A Study on the Creation of Close-Die Forging Molds of Industrial Components Manufacturers

Akaranun Asavarutpokin
Bachelor of Engineering Program in Electrical-Mechanical Manufacturing Engineering
Bansomdejchaopraya Rajabhat University
E-mail: mr.chira@hotmail.com

Abstract

This research aims to create a close-die forging mold and find the efficiency of a metal mold. The sample group consisted of 3 experts on molds. The research tool was questionnaire consisted of 2 dimensions, including: 1) overall satisfaction; 2) satisfaction towards structure; and 3) satisfaction towards usage. The standard mean was used for analyzing data were standard mean.

The results yielded an attractive standard rectangle close-die forging mold with a width of 120 mm, a length of 200 mm, and a height of 104 mm. Each component was designed by using iron with the appropriate grade, so it had high strength. When testing the mold by pressing metal 500 times, the obtained work pieces met the standard as demanded by customers. Overall satisfaction of users was at its highest level. When considering each dimension, it was found that satisfaction towards structure and usage was at the highest level.

Keywords: forging mold, press machine, standard mean

1.Introduction

The industry sector has been highly developed, leading to high competition on production because customers demand high quality products at a cheap price. Forging is a kind of production process that yields work pieces with higher strength and a cheaper price than those obtained from metal cutting like milling or shaping. Moreover, it could be manufactured more rapidly. The size of the work piece after production was similar or equal to the exact size, so it could manufacture work pieces with a more Near Shape size. Based on the technological advancement of molding that has been highly developed, the creation of forging molds required a shorter period of time. Therefore, demand for product manufacturing through forging was higher for surviving in markets with high competition in this world of borderless trading with rapid product development and changing in order to respond to demands of customers and more serious competition. The current development of the mold industry to support and respond to the demands of the industrial sector makes Thailand’s industrial sector rely on exported components, mainly causing high product costs. Therefore, several industrial companies in Thailand choose to design and create their own molds to reduce the cost of mold exportation and improve industrial capability.

2.Related Concepts, Theories, and Researches

Creation of mold was as follows:

The close-die forging mold made of steel was considered a tool with a high content of carbon and chromium with the JIS SKD11 grade and it was hardened at 60HRC. It was made of SCM435 stainless steel and had a circular shape with a diameter of 20 millimeters and a length of 145 millimeters. The researcher studied variables of mold affecting the wearing out of close-die forging mold. A test on wearing out was conducted directly, i.e., changes occurred at the punch, by measuring forging force and changing weight.

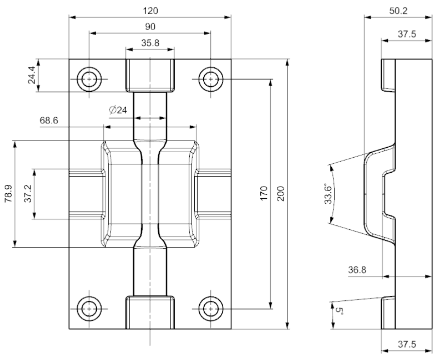


Figure 1: Top Drawing of Lower Mold

3. Methodology

Populations and Sample Group

Populations were close-die forging molds of 1 2 manufacturers from 5 4 9 manufacturers with an assorted manufacturing schedule and a consecutive manufacturing schedule.

The sample group consisted of 49 close-die forging molds from industrial manufacturers and an Assessment Form on the Creation of Mold obtained by using Cluster Random Sampling.

Research Duration

The manufacturing schedule was scheduled for 8 weeks with 3 hours per week, so the total house was 24 hours plus with 2 hours for doing pre-manufacturing and post-manufacturing tests. Therefore, the total research duration was 26 hours.

4. Variables

Independent variable is the study on the creation of close-die forging mold.

The dependent variables are results of manufacturing scheduling on 3 dimensions including: 1) overall satisfaction; 2) satisfaction towards structure; and 3) satisfaction on usage.

Independent Variable
Study on the creation of close-die forging mold.

→

Dependent Variables
Results of manufacturing scheduling on 3 dimensions:
1) overall satisfaction
2) satisfaction towards structure 3) satisfaction on usage

Figure 2: Top Drawing of Lower Mold

5. Research Tools

1) Studied related data, documents, and research as the guidelines for creating a close-die forging mold.

2) Created the questionnaire used in this study and asked for some suggestions from 3 qualified instructors before evaluating the content validity of each question and the objectives of this research.

3) Improved questionnaire based on suggestions of experts before presenting it to the advisor for consideration and approval before using it in the research process.

4) Forwarded a questionnaire that had already been edited and approved by the advisor to the experts for consideration and inspection in order to determine content validity.

5) Based on the results of a three-expert inspection, we discovered an Index of Item Objective Congruence (IOC) between questions and content.

6) Submitted questions and content of the objectives of creation to the experts for scoring and obtaining opinions as follows:

+1 means the experts ensured that questions were consistent with the definition of specific terms.

0 means the experts did not ensure that questions were consistent with the definition of specific terms.

-1 means the experts ensured that questions had no consistency with the definition of specific terms.

7) Gathered and concluded opinions and suggestions of the experts for improving and editing as well as finding consistency as suggested by the experts.

8) Presented the questionnaire to the advisor for self-study as the final inspection before printing.

9) Collected data.

The researcher gave the questionnaires to the sample group for evaluating the created close-die forging mold in order to find efficiency based on the defined questionnaire. Subsequently, gathered questionnaires were operated on according to the following procedures:

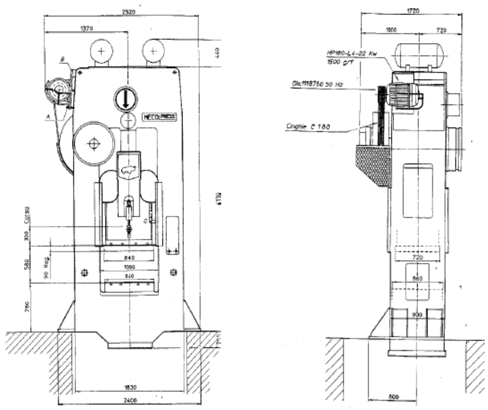


Figure 3: Hot Forging Machine

6. Results

The results of the study conducted to find the efficiency of close-die forging molds revealed that when pressing work pieces with a designed mold, the obtained work pieces have characteristics that meet the demands of customers.

Table 1: Overall Results of Statistical Significance Test from Mean of Close-Die Forging Mold in Pre-Improvement and Post-Improvement Based on Mold Design in 3 Dimensions

Sample Group	n	$\bar{X}$	S.D.	t	df	p
Pre-Improvement	49	11.51	3.93	8.56*	48	0.00
Post-Improvement	49	15.33	2.20			

* Statistical significance of t was .05.

From Table 1, it was found that the experts had a higher average score of post-improvement than the average score of post-improvement by 8.56, with $p<0.05$ which was consistent with the hypothesis. Therefore, it could be concluded that the overall mean of mold design in post-improvement based on mold design was higher than that of pre-improvement with statistical significance on 3 dimensions, including: 1) overall satisfaction; 2) satisfaction towards structure; and 3) satisfaction towards usage.

Table 2 : Overall Results of Statistical Significance Test from Mean of Close-Die Forging Mold in Pre-Improvement and Post-Improvement Based on Mold Design Regarding Satisfaction towards 3 Dimensions

Sample Group	n	$\bar{X}$	S.D.	t	df	p
Pre-Improvement	49	2.80	1.63	8.20*	48	0.00
Post-Improvement	49	4.49	0.74			

* Statistical significance of t was .05.

From Table 2, it was found that the experts had higher average score of post-improvement than that of post-improvement by 1.63. When considering on t, it was found that it was 8.20 with p<0.05 that was consistent with hypothesis. Therefore, it could be concluded that mean of mold design of post-improvement was higher than that of pre-improvement with statistical significance.

Table 3 : Results of Statistical Significance Test from Mean of Close-Die Forging Mold in Pre-Improvement and Post-Improvement Based on Mold Design Regarding Satisfaction towards Structure

Sample Group	**n**	$\bar{X}$	**S.D.**	**t**	**df**	**p**
Pre-Improvement	49	3.65	1.69	5.47*	48	0.00
Post-Improvement	49	4.94	1.46			

* Statistical significance of t was .05.

From Table 3 , it was found that the experts had higher average score of pre-improvement than that of post-improvement by 1 .69 . When considering on t it was found that it was 5.47 with p<0.05 that was consistent with hypothesis. Therefore, it could be concluded that mold design on satisfaction towards structure of post-improvement was higher than that of pre-improvement with statistical significance.

Table 4 : Results of Statistical Significance Test from Mean of Close-Die Forging Mold in Pre-Improvement and Post-Improvement Based on Mold Design Regarding Satisfaction towards Usage

Sample Group	**n**	$\bar{X}$	**S.D.**	**t**	**df**	**p**
Pre-Improvement	49	5.08	1.74	3.56*	48	0.00
Post-Improvement	49	5.90	1.21			

* Statistical significance of t was .05.

From Table 3 , it was found that the experts had a higher average score for pre-improvement than that for post-improvement by 1.69. When considering the t, it was found that it was 5 .4 7 with p<0 .0 5 which was consistent with the hypothesis. Therefore, it could be concluded that mold design on satisfaction towards the structure of post-improvement was higher than that of pre-improvement with statistical significance.

7. Discussion

The result obtained from the creation of a close-die forging mold was an attractive standard rectangle mold with high strength that may be caused by the appropriate grade of steel of each component. When testing the mold with a press machine for pressing work pieces 500 times, it was found that the obtained work pieces met the standards as demanded by customers because the punch and die were properly designed with appropriate shape and molding in each process.

Overall satisfaction of users was at the highest level on both dimensions. For structural dimension, when considering each item in descending order, it was found that the highest level was Item 1: mold structure design, because the mold was properly designed and followed by Item 2: good materials because the designer had high experience in this field, therefore materials could be selected properly. Item 6: low cost because materials were properly selected, therefore the cost was under proper budget. Item 3: appropriateness of mold size because mold size matched with number of procedures, Item 5: convenience of disassembly because the mold size was quite big, therefore it may be difficult to disassemble, and Item 4: convenience for relocation because the mold size was quite big, therefore it must be relocated by using a forklift only.

Overall usage was at the highest level. When considering each item in descending order, it was found the highest level was Item 1: attractiveness of mold because it could be properly designed and manufactured as planned, followed by Item 3: strength of mold because its large size and good materials could make it strong, Item 2: precise work pieces because all processes were properly designed, Item 5: safety of work piece manufacturing because it was safely designed for users, and Item 4: duration of work piece manufacturing because it was quite big, therefore it could not press work pieces rapidly.

8. Conclusion

The results based on records and opinions reflect that the creation of close-die forging molds requires the development of knowledge and analysis. The manufacturer has to utilize knowledge obtained from manufacturing experiences, group members, or existing experience in mold design to compete among groups in order to obtain appropriate learning. It can be seen that the manufacturer has to have actual knowledge with teamwork management, good conceptual system planning, and transfer that meets the objectives.

9. Suggestions

9.1. Suggestions for Further Studies

1) There should be some studies on various types of mold in order to understand each type of mold.

2) There should be some studies on the reduction of the duration of component manufacturing duration of close-die forging molds in pressing work pieces.

References

1. Fang, G., Zeng, P. and Lou, L. (2002). Finite element simulation of the effect of clearance on the forming quality in the blanking process. Journal of Materials Processing Technology, Vol. 122, pp. 249 - 254. Klocke, F. (2013). Manufacturing Processes 4. New York: Springer.
99
2. Hambli, R. and Guerin, F. (2003). Application of a neural network for optimum clearance prediction in sheet metal blanking processes. Finite Elements in Analysis and Design, Vol. 39, pp. 1039 - 1052.
3. Hambli, R., Guerin, F. and Dumon, B. (2003). Numerical Evaluation of the Tool Wear Influenceon Metal-Punching Processes. Advanced Manufacturing Technology, Vol. 21, pp. 483 -493. Hans Weber Maschinenfabrik GmbH. (2019). Fine-blanking part machining. [On-line]. Available:

https://www.metallschleifmaschine.de/en/applications/weber-fine-blanking-partmachining/
4. Hatanaka, N., Yamaguchi, K. and Takakura, N. (2003). Finite element simulation of the shearing mechanism in the blanking of sheet metal. Journal of Materials Processing Technology, Vol. 139, pp. 64-70.
5. Hatanaka, N., Yamaguchi, K., Takakura, N. and Iizuka, T. (2003). Simulation of sheared edge
formation process in blanking of sheet metals. Journal of Materials Processing Technology,
Vol. 140, pp. 628 - 634.
6. Hilditch, T.B. and Hodgson, P.D. (2005). Development of the sheared edge in the trimming of steel and light metal sheet Part 1—Experimental observations. Journal of Materials Processing Technology, Vol. 169, pp. 184- 191.
7. Krinningera, M., Feistlea, M., Gollea, R. and Volk, W. (2017). Notch Shear Cutting of Aluminum Alloys. Procedia Engineering, Vol. 183, pp. 53 - 58.
8. New Swan Pvt. Ltd. (2019).Fine Blanking Parts. [Online]. Available: http://newswan.in/fine %20 blank.htm.
9. Philipfigari. (2019). Steps to Analyzing a Material's Properties from Its Stress / Strain Curve [Online]. Available: https://www.instructables.com/id/Steps-to-Analyzing-a-Materials Proper
ties-from-its/.

Using fuzzy logic in preventive maintenance scheduling for metal stamping machines with ERP systems.

Kanakorn Sawangcharoen[1] / Akaranun Asavarutpokin[2]
[1]Philosophy Program in Management of Information Technology,
Bansomdejchaopraya Rajabhat University
E-mail: Uttweb@hotmail.com
[2]Bachelor of Engineering Program in Electrical-Mechanical Manufacturing Engineering
Bansomdejchaopraya Rajabhat University
E-mail: mr.chira@hotmail.com

Abstract

Many companies have implemented ERP resource planning solutions for organizations in order to maintain their competitiveness. An ERP system is a packaged software system that allows organizations to consolidate their operations, business processes, and functions together through a common database. Anyhow, most ERP systems do not support the preventive maintenance (PM) scheduling process. The objective of a PM is to reduce equipment downtime using the organization's limited resources. Therefore, it is important to prioritize PM activity for equipment. In this study, we proposed a fuzzy logic system for setting PM schedules to interpret character variables extracted from expert knowledge of equipment priorities, which can be integrated into custom-made modules in the ERP system. The system has been tested and proven to be reliable in solving PM scheduling problems.

Keywords: ERP, fuzzy logic, preventive maintenance, scheduling

1. Introduction

The main goal of this article is to use fuzzy logic to prioritize equipment activities for preventive maintenance in the ERP system through recommended custom-made modules. The motivation behind this project is that the ERP system is currently used to support various business processes and administrative work, but most ERP systems do not support maintenance scheduling.

2. ERP and maintenance management

Even though the maintenance is well recognized in the past but the there are not many reviews conducted on the maintenance system. In addition, only a few articles have been written about it. The proposed model focuses on efficient modeling of information systems related to planning and maintenance scheduling.

2. Related theories

2.1 Fuzzy Logic and Maintenance Management

1. Fuzzy Inference Systems

The adaptive fuzzy inference system consists of five function boxes as shown in Figure 1.

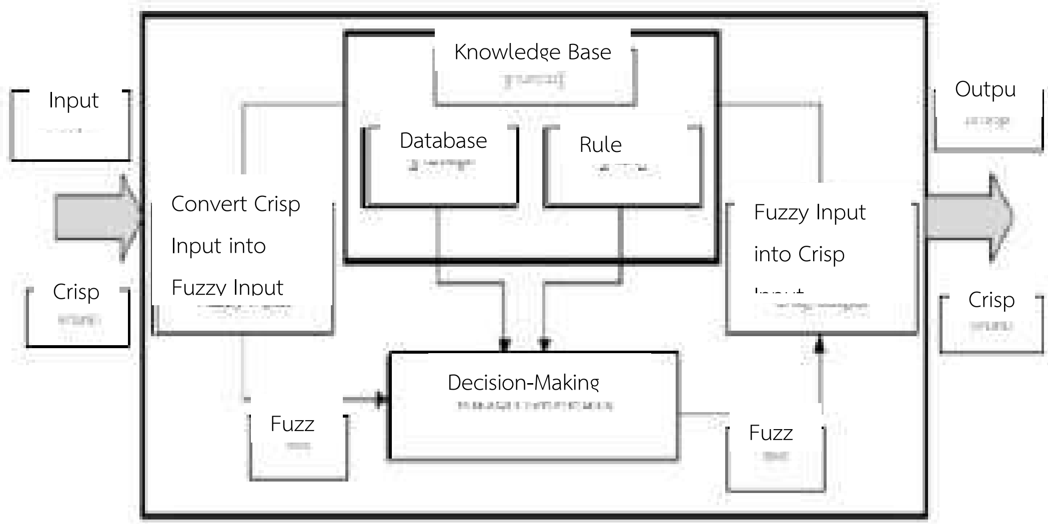


Figure 1: Conclusion Finding System using Fuzzy Logic Processes (January 2019)

2.2 Fuzzy Logic System in Maintenance

The prioritization of the rules together with 6 main criteria through interviews with plant preventive maintenance experts and data collected for 6 sample equipment. The results are then presented to the experts who approved the prioritization.

3. Research Methodology

3.1 ERP Scheduling of fuzzy preventive maintenance in an ERP system

The preventive maintenance program has the objective of reducing equipment downtime and the total cost of repairs and inspections as measured by loss in capacity or reduced product quality. Due to limited and scarce resources, preventive maintenance scheduling is required to ensure proper resource utilization in order to improve equipment availability and reduce operating and maintenance costs, as well as to gain knowledge in presenting a conclusion-finding system utilizing fuzzy logic processes.The structured knowledge base is as follows: There are five key criteria explaining the limitations and conditions of equipment that needs to receive maintenance. These criteria are used as inputs for adaptive fuzzy inferences leading to a single output (i.e. priority). Inference is defined by the rules shown in the second part of the extracted knowledge.

3.1.1 Prioritization Criteria

The main prioritization criteria for preventive maintenance activities are identified as follows:

a. Severity of Failure (SOF)

Severity can be categorized according to ratings using four language terms: very high, high, medium, and low, according to the failure criticality level.

b. Criticality of Operation (COO)

The criticality of operations can be estimated by using the percentage of production loss due to downtime during a specified period.

c. Equipment of Availability (EA)

Equation (1) shows how the EA is calculated:

Equipment of Availability = Time Spent / Total Time = Mean Time Between Failures / (Mean Time Between Failures / Mean Downtime)

Whereas MTBF is Mean Time Between Failures and
MDT is Mean Downtime

d. Craft Utilization (CU)

The minimum use of skilled labor is about 10%, while the maximum use of skilled labor can reach 85% , taking into action to day-off, holiday/sick leave and break time.

e. Availability of Spare Parts (AOSP)

This can be estimated according to equation (2)

OSP = The number of times that spare parts were requested and found to be available / Number of times to request spare parts X 100% X

3.1.2 Guidelines for prioritizing equipment

The above-mentioned criteria differ based on the priority impact of preventive maintenance according to the critical code of machines.

3.2 Conclusion finding system using fuzzy logic processes for maintenance scheduling.

The final fuzzy member functions for input and output variables are shown in Figure (2). The next step in FIS design is to develop a fuzzy rule base.
In theory, there are 324 rules, which are reduced to 44 based on the knowledge gained from the prioritization approach. Only the first six fuzzy rules can be given in Table 2.
A Conclusion Finding System using Fuzzy Logic Processes for prioritizing PM activities is shown in Figure (3). An example of a 10 surface layout resulting from two inputs (such as SOF and COO) versus output P is shown in Figure (4).

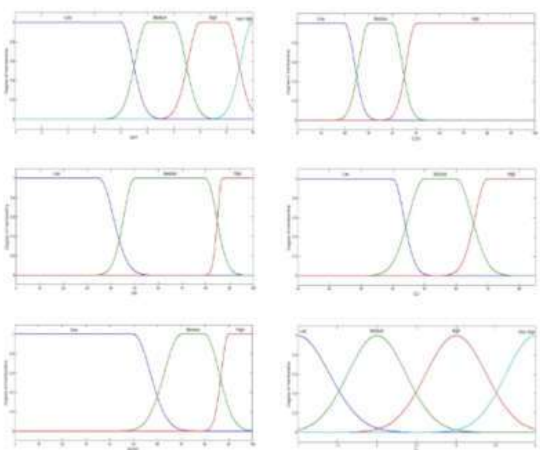


Figure 2: MF of input and output variables.

Table 2: Final extracted rules for the fuzzy maintenance schedule system.

	Inputs					Output
Rule no.	SOF	COO	EA	CU	AOSP	P
1	V. H	_	_	_	_	V. H
2	H	_	_	_	_	V. H
3	M	H	_	_	_	V.H
4	M	M	H	_	_	M
5	M	M	M	_	_	M
6	M	M	L	H	H	H

"If (SOF is L) and (COO is M) and (EA is H) and (CU is H) and (AOSP is H), Therefore, (P is L)."

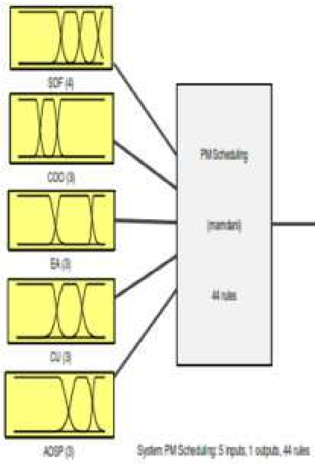


Figure 3: Conclusion finding system using fuzzy logic processes, FIS, for prioritizing preventive maintenance activities.

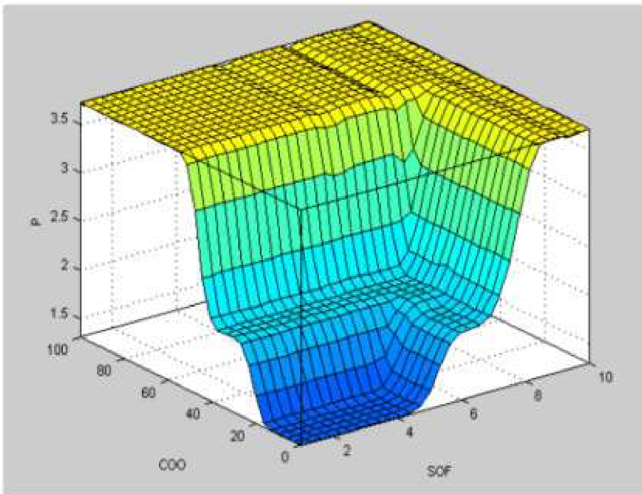


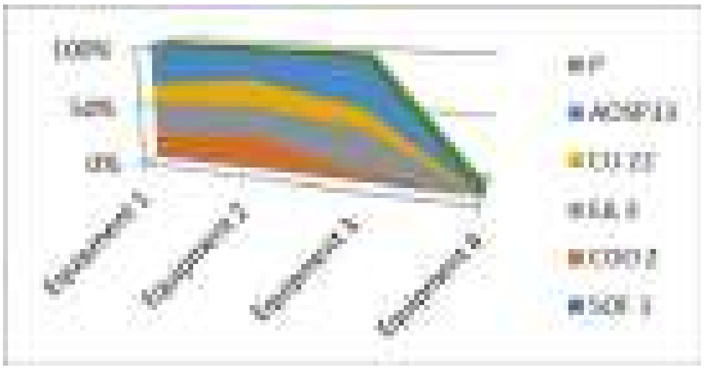
Figure 4: FIS surface diagram (FIS model) of two inputs (COO and SOF) vs. output (P).

4. Research Results

4.1 Validation and Testing

To verify and test the proposed FIS on the quality and reliability of the tables that have been made, therefore, actual datasets relevant to the relevant medium-sized industrial companies were used. Table 3 shows the specified values of the prioritization criteria for the first 3 testing equipment and the resulting priorities, according to the results, Equipment No. 2, Equipment No. 8, Equipment No. 5, Equipment No. 6, Equipment No. 3, Equipment No. 4, Equipment No. 1, Equipment No. 9 and Equipment No. 7 are ranked 9th in priority respectively. Outcomes have been shown to maintenance expert who approves the said priority.

Table 3: Values of Prioritization Variables and Outcome Prioritization Variables for Test Equipment.



To show the logic of the prioritization, there are three scenarios for the equipment (e.g. Equipment No. 5, Equipment No. 6, and Equipment No. 8). It is clear that Equipment No. 8 should be the highest priority since the SOF is high. Both Equipment No. 5 and Equipment No. 6 have low SOF values. Although Equipment No. 6 is more important and has less availability or repair officers, it is more readily available than Equipment No. 5 with lower spare parts. Therefore, it is reasonable that Equipment No. 5 is the second priority, and Equipment No. 6 is the third priority.

4.2 Proposed ERP module for PM scheduling

Advanced modules are offered to achieve integration of the proposed intelligent PM scheduler into the ERP environment. Figure (5) shows the use of module implementation with an example of an ERP module guideline making it easier to prioritize equipment for PM and away from the arbitrary decisions and arbitrary of maintenance workers because this module uses both expertise and scientific knowledge.

Table 4. Equipment Prioritization for Preventive Maintenance

Equipment Prioritization for Preventive Maintenance					
		Equipment No. 1	Equipment No. 2	Equipment No. 3	Additional Equipment
Equipment details and PM	Equipment Number	**Metal stamping machine 01**	**Metal stamping machine 02**	**Metal stamping machine 03**	
	Location	Room 13-Main Factory	Main Production Area	Quality Inspection Department	
	PM task	Filter Replacement	Machine Screw Replacement	Bearing Replacement	

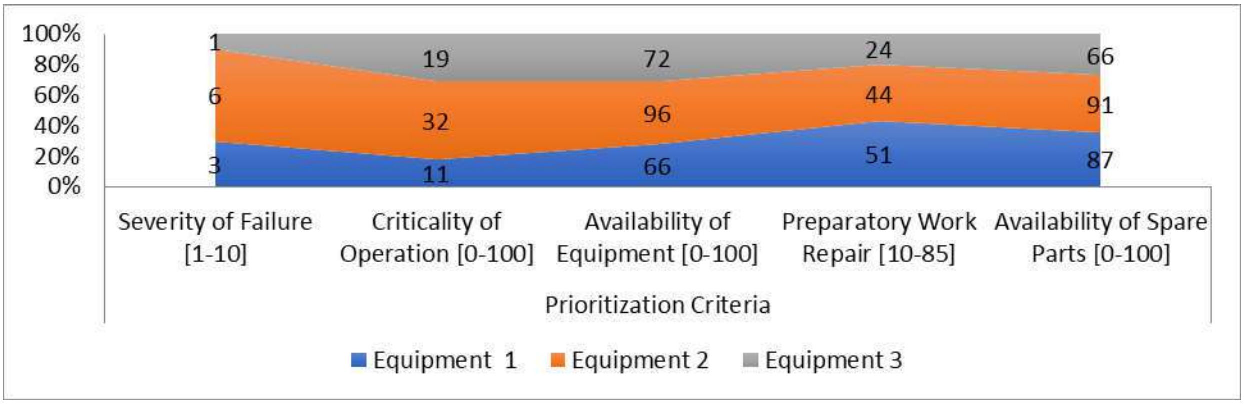


Table 5: Preventive Maintenance Tasks Prioritization

Prioritization Result	**Prioritized Equipment Number**	**10.56**	**10.36**	**10.31**
		Metal stamping machine 01	**Metal stamping machine 02**	**Metal stamping machine 03**
Workflow Table	Work Order Number	106	107	108
	Assigned To	Chaiwat	Pracha	Prasit
	Assigned by	Pracha	Preecha	Pracha
	Waiting Date	9/8/2562	9/8/2562	9/8/2562
	Requesting for Spare Part	8:55 am.	8:55 am.	8:55 am.
	Scheduled Start	9/8/2019	9/8/2019	9/8/2019

	Date			
	Scheduled Start Time	9:00 am.	9:00 am.	9:00 am.
	Estimated time (hours)	13.5	11.5	10.5
	craftsman	Preventive Maintenance	Preventive Maintenance	Preventive Maintenance
	spare parts	Filter	Screw	Control Panel
	comment	-	-	-

5. Summary of Research Results

In this research, there is a proposal and implementation of a fuzzy logic-based maintenance scheduling system (e.g. Smart PM Scheduler) in an ERP environment. The main conclusions from this work can be summarized as follows:

- The scheduling environment has many limitations that are difficult to create in the data system. The new challenge is to apply theoretical research in maintenance scheduling and expand the potential of ERP systems to provide support to customers with maintenance scheduling problems.
- When prioritizing PM activity for scarce resource-related equipment. This special problem arises from the fact that some of the information is insufficiently accurate or uncertain. Such information is often very important for management decisions. The fuzzy inference system (FIS) proposed in this article has been proven to be an innovative and practical solution for the scheduling problem described above, which gives reliable schedules through the proposed ERP module.
- The last FIS based PM scheduler has a Mamdani type with 44 rules and five inputs, Severity of

Failure, Criticality of Operation, Availability of Equipment, Using Difficulty, and Availability Of Spare Part and has one output priority.

- The proposed ERP module has been tested and compared with the reliability and is proven to be very useful in ceasing arbitrary and subjective decision making and based on scientific knowledge in PM tasks The benefits of the proposed ERP modules will be clear through the integration of such modules into the true ERP package, and the success of implementing a fuzzy logic approach for PM scheduling indicates its continual use in maintenance and other industries.

Reference

[1] Beheshti, H. M., “What managers should know about ERP/ERP II”, Management Research News,

[2] Zhao, Y. Research on Machine Tool Electronic Control System Based On Multi-Attribute Decision Making. *Journal of Convergence Information Technology (JCIT)*,2013, 18(8.41), pp. 333-340.

[3] Lee, C. Y., & Chen, Z. L., “Scheduling jobs and maintenance activities on parallel machines”,
[4] Masters, T., Practical Neural Network Recipes in C++, Academic Press, San Diego, CA, 1993.
[5] Masters, T., Advanced Algorithms for Neural Networks: A C++ Sourcebook, Wiley, New York, NY,
[6] Metaxiotis, K., Psarras, J., and Eragazakis, K., “Production scheduling in ERP systems, An AIbased
[7] Nagarur, N. and Kaewplang, J., “An object-oriented decision support system for maintenance
[8] Nikolopoulos, K., Metaxiotis, K., Lekatis, N. and Assimakopoulos, V., “Integrating industrial

A Survey on Optimality Control for Buying Sugar-cane Stalks and It's Related Tasks

Zin Mar Tun
Professor, Department of mathematics Mandalay University of Distance Education Myanmar
E-mail:zinmartun1@gmail.com

Abstract

According to the objective of our country which is to get enough food for the peoples in Myanmar, one of the foods called sugar is needed essentially in manufacturing medicine and fulfilling vitamin in the nutrition of daily food. It can be produced only from sugar-cane stalks in Myanmar. Under the Administration Committee of Myanmar Sugar-cane Enterprise directed, Yedashe Sugar Mill No (6) has drawn a detailed plan of buying sugar-cane stalks and producing sugar for the production period (2020-2021) estimated the demand of sugar-cane stalks and served systematically to buy sugar-cane stalks enough, with the least amount of the charges to carry them and crush them. We did the research by formulating into a mathematical linear programming problem and solving it. We hope the research starting as a local need to remedy the decline of production sugar of Mill will be an advantageous support to Myanmar Sugar-cane Enterprise.

Keywords: Sugar-cane stalks, Transporting Sugar-cane stalks, linear programming problem.

Figure 1

Figure 2

Figure 3

Figure 4

Introduction

For every year, the production period is from November to earlier days of March. Sugar-cane stalks are bought at the beginning of November by apportioning the cultivators. Crushing ability of the mill is 1500 tons of sugar-cane stalks per day, but within the last three years, only 1000 tons could be bought per day. We found the main cause was the costs of cultivating sugar-cane stalks have become larger and larger but the profit become lesser and lesser for the cultivators. So, the population of the cultivators and the acres of sugar-cane stalks farms had also decreased. By the 15 records of production periods from the year 2006-2007 to 2019-2020, the highest amount of sugar production was 17829 tons and the lowest amount was 5086.60 tons. Discussing, persuading with enticements and the loan of expense should be raised to cultivate sugar-cane stalks willingly done to cultivate more than now because sugar-cane stalks is the crop essentially needed for our country. We did the research by accepting the directions of ministries, intending to be able to buy sugar-cane stalks enough and to reduce the transportation charges as possible by formulating into a mathematical linear programming problem and solving it.

Aim and Objective

This research work intends to help the Yedashe Sugar Mill No (6) to be able to buy enough amounts of sugar-cane stalks and to reduce the transportation charges for remedies to the decline of sugar production.

Performance on Field-Work

On 22.11.2021, we went to the mill and interviewed with the head of the mill and other staffs in order to get the detailed facts and data as follows

- The estimated program of production for the production period (2020-2021).
- Yearly records of the facts and data of production, Yedashe Sugar Mill No (6).
- The record of fixing the transportation charges of sugar-cane stalks.
- The program to buy and carry sugar-cane stalks.
- The program of building roads to be used to carry the products of the production period (2020-2021) and tables showing demand of machines and
- Fuel for transporting sugar-cane stalks to the mill.
- The plan for buying and transporting sugar-cane stalks in the producing period (2020-2021) and the state of existence of sugar-cane stalks carriers.

Finding on Field-Work

(a) Table 1 Decline of the Production of Sugar

Production period	Buying sugar-cane stalks (tons)	Crushing sugar-cane stalks (tons)	Producing sugar (tons)	Percentage of production
2006-2007	150876	149463	11927	7.91%
2007-2008	197772	197417	16732	8.46%
2008-2009	200000	197500	17829	8.90%
2009-2010	200338	200000	14125	9.41%
2010-2011	180131	180043	14425	8.01%
2011-2012	190653	184456	16693	8.76%
2012-2013	193852	192388	16930	8.73%
2013-2014	193154	193004	15633	8.09%
2014-2015	100620	100420	8034	8.00%
2015-2016	142223	141655	12749	9.00%
2016-2017	155826	155820	12465	8.00%
2017-2018	104165	103809	8067	7.74%
2018-2019	65802	65802	5086.60	7.73%
2019-2020	90172	90172	7394.15	8.20%

(b) When Studying on Buying Sugar-cane Stalks

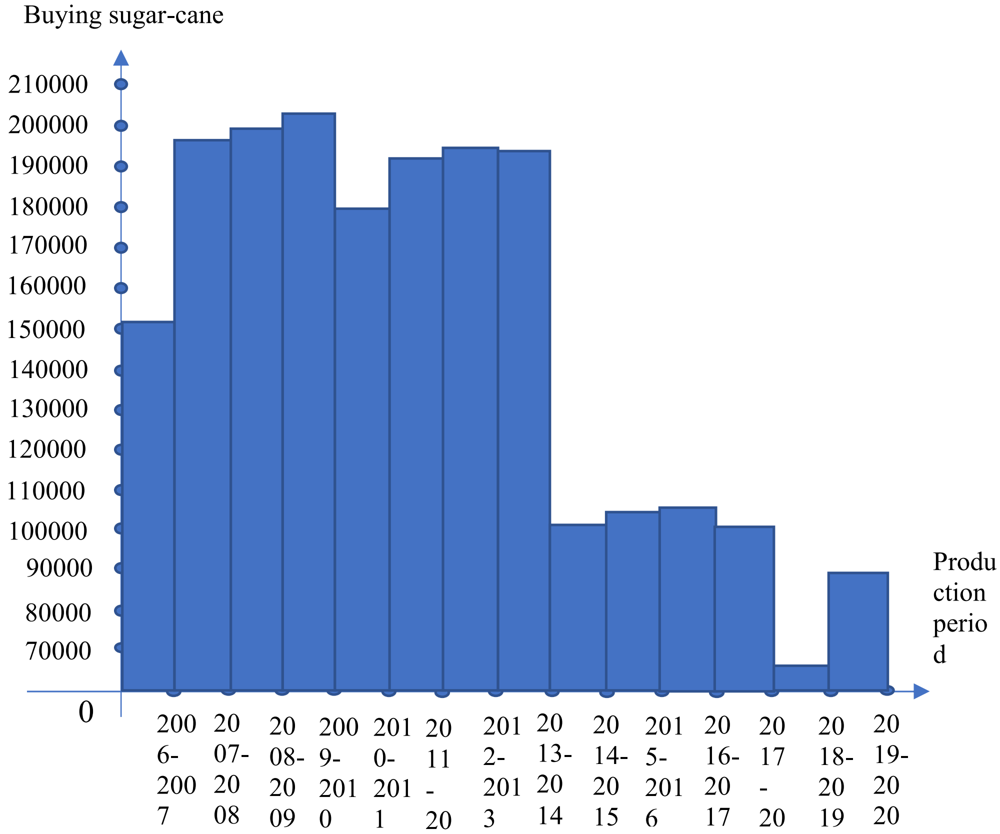


Figure 5

We found the highest amounts were 200338 tons in production period (2009-2010), nearly 200000 tons in the period (2007-2008) and nearly 100000 tons in the period (2014-2015). Not only in the period (2006-2007) but also in the period (2015-2016), about 150000 tons of sugar-cane stalks could be bought. In the periods later than 2018, the amount of buying sugar-cane stalks become less and less. The production rate of sugar was still between 8 to 9 percentages. It shows that the crushing power of the mill has not decreased yet. We know all of the sugar-cane stalks are qualified and only a few was waste. So, their attempts to improve the amount of buying sugar-cane stalks were great and honorable. Sugar production was as less as the number of sugar-cane stalks bought from cultivators. So, to buy enough amount of qualified sugar-cane stalks were the key point to improve the production of sugar.

(c) Performance Before Buying Sugar-cane Stalks

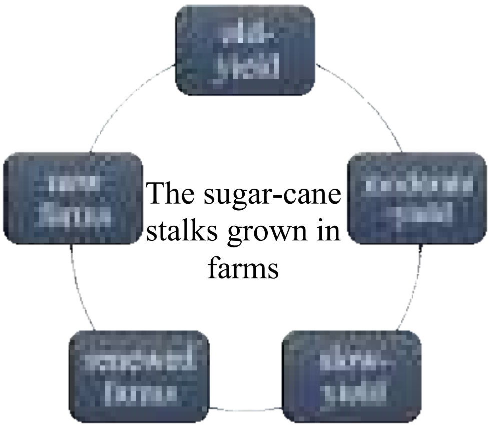


Figure 6

In 27 village, the estimated area of cultivating sugar-cane stalks was 10000 acres, actual cultivating area was 9538, the area of new farms was 6755 acres and the area of renewed farms was 2783 acres.

The staff of Myanmar Sugar-cane

Figure 7

In the period (2020-2021), the first time of above measuring was done from the date (2.5.2020) to (16.5.2020), the second time was from (14.7.2020) to (20.7.2020) and the third time was from (12.8.2020) to (10.9.2020).

The villages they measured were as follows

(1)	Yedashe	(2)	Myohla	(3)	The mill compound
(4)	Ngar Gyi kwayt	(5)	Swar Kar - 1	(6)	Swar Kar - 2
(7)	Thit Yar Kone	(8)	Aye Thar Yar	(9)	Khin Tan Lay
(10)	Tha Phan Sin	(11)	Kun Ohn	(12)	Si Pin Aye
(13)	Doe Tan	(14)	Hnaw Pin	(15)	Kywe Yaing Pyin
(16)	Ohn Pin Kwayt	(17)	Sin Gway	(18)	Pi Tauk San
(19)	Paukchaung	(20)	Ahmat Gyi Khon	(21)	Ke Lin Seik
(22)	Kyoe Pin Htike	(23)	Nan Chun	(24)	Sat Tit
(25)	Pane Hne Pin	(26)	Thitchya Seik	(27)	Swar Wa Pauk.

The measuring sweetness capacity of juice was weekly and monthly done from the day (1.10.2020) to (31.10.2020). When harvesting, the best qualified sugar-cane stalks was harvested first, if all was equal in quality, the sugar-cane stalks in the area which was easy to transport to the mill was chosen first. Charges of harvesting were loaned to cultivators by the mill. In this sector, the function of grouping the areas and lending money were included.

To borrow charges, at first, cultivators had to present the proposals that they would like to cultivate to the mill and their proposals were scrutinized and checked carefully step by step in detail by the officers of The Buying Sugar-cane stalks Department, Account Department. Then, the township officer of The Myanmar Sugar-cane Enterprise gave the permission in time with the direction of head of the mill and regional administration.

The map of some villages they measured were as follows

Figure 8

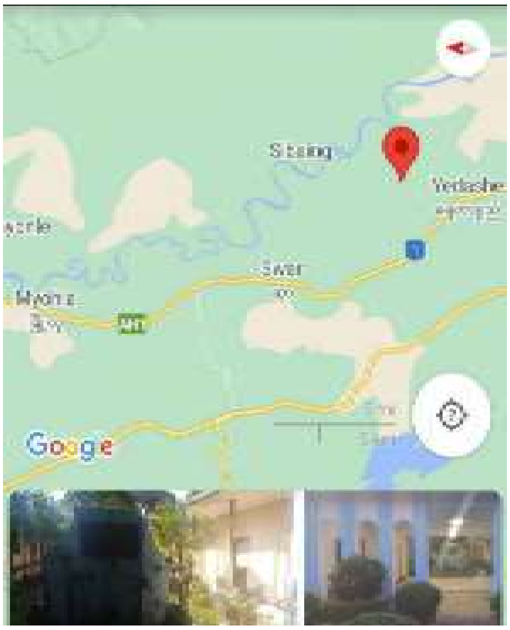


Figure 9

Figure 10

(d) Buying Sugar-cane stalks

The Committee of Administration on buying sugar-cane stalks

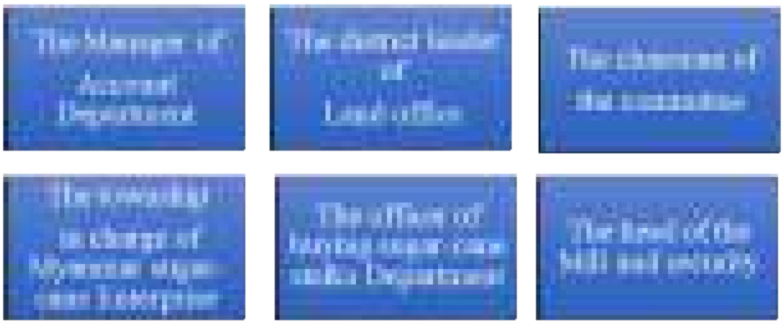


Figure 11

For the period (2020-2021), the qualified sugar-cane stalks were bought in 20 camps to transport by cars, in 5 camps to transport by motor-boats, in 2 camps to transport by trollergies. So, the total number of camps buying sugar-cane stalks was 27.

Roads and bridges in the compound of the mill used in transportation of sugar were repaired and built yearly to be smooth in transportation.

(e) Transporting Sugar-cane stalks

The demands of vehicles and fuel to transport 90000 tons of sugar-cane stalks for the production period (2020-2021) were as follow

(i) The List of transporting Sugar-cane stalks

(a) By cars		53390 tons
(b) By motor-boats		25629 tons
(c) By and trollergies		10981 tons
	Total tons	90000 tons

(ii) The Need of Vehicles

(a) Trucks (RTC)	50
(b) Trucks (Township Trucks Organization)	11
(c) Trucks (Mill)	14
(d) Trucks (cultivators)	2
(e) Trailers (others)	21
(f) Trailers (Rice Mill)	8
(g) Motor-boats	40

(iii) The Need of fuel

(a) For cars		55095 gallons
(b) For motor-boats		20257 gallons
	Total gallons	75352 gallons

(iv) The Charges of Transporting Sugar-cane stalks

(a) Fees of a worker (1 ton)	4000kyats
(b) Fees of car	
1 ton, within 7 miles	16000kyats
1 ton, from 7 miles to 14 miles (1 ton, 1 mile)	4375kyats
1 ton, from 14 miles to 21 miles (1 ton, 1 mile)	4000kyats
1 ton, from 21 miles to 28 miles (1 ton, 1 mile)	3500kyats
1 ton, from 28 miles to 35 miles (1 ton, 1 mile)	3000kyats
1 ton, greater than 35 miles (1 ton, 1 mile)	2000kyats
(c) Fees of motor-boat (1 ton, 1 mile)	2500kyats
(d) Fuel distribution to cars	

8 miles, 6 tons (with goods) 1.0 gallon
8 miles, 6 tons (without goods) 0.75 gallon
One round of 7 miles 2.00 gallons

(e) Fuel distribution to motor-boats
Down-stream (8 tons, 8 miles) 1.00 gallon
Up-stream (8 tons, 8 miles) 1.50 gallons

(v) The Plan of Harvesting and Transporting Sugar-cane stalks

Carrying the sugar-cane stalks bought in camps onto the vehicle was done yearly with the direction of the Committee of Administration on Buying Sugar-cane Stalks in the camps as follows

(a) Harvesting and carrying by cultivators and their families.
(b) Harvesting and carrying by trucks in region of cultivators who possess many acres.
(c) Harvesting and carrying by the plan of the mill as a special case or by negotiating with regional administration, when buying sugar-cane stalks in distant acres.

Mathematical Formulation to a Linear Programming Problem

Transporting Sugar-cane stalks from 15 of 27 camps to Yedashe Sugar Mill No (6) and Myohla Sugar Mill townships were selected as the best qualified and juicy ones. The tons of sugar-cane stalks were denoted as 'variable' and the fixing charges for 129329 tons of transporting sugar-cane stalks were calculated as follows

Let the tons of transporting sugar-cane stalks from

Ngar Gyi kwayt to Yedashe Sugar Mill= x_1, Ngar Gyi kwayt to Myohla Sugar Mill = x_{16},
Swar Kar-1 to Yedashe Sugar Mill = x_2 Swar Kar-1 to Myohla Sugar Mill = x_{17},
Swar Kar-2 to Yedashe Sugar Mill = x_3 Swar Kar-2 to Myohla Sugar Mill = x_{18},
Thit Yar Kone to Yedashe Sugar Mill = x_4,Thit Yar Kone to Myohla Sugar Mill = x_{19},
Aye Thar Yar to Yedashe Sugar Mill= x_5, Aye Thar Yar to Myohla Sugar Mill = x_{20},
Khin Tan Lay to Yedashe Sugar Mill= x_6, Khin Tan Lay to Myohla Sugar Mill = x_{21},
Tha Phan Sin to Yedashe Sugar Mill = x_7, Tha Phan Sin to Myohla Sugar Mill = x_{22},
Kun Ohn to Yedashe Sugar Mill = x_8, Kun Ohn to Myohla Sugar Mill = x_{23},
Si Pin Aye to Yedashe Sugar Mill = x_9, Si Pin Aye to Myohla Sugar Mill = x_{24},
Doe Tan to Yedashe Sugar Mill = x_{10}, Doe Tan to Myohla Sugar Mill = x_{25},
Hnaw Pin to Yedashe Sugar Mill = x_{11}, Hnaw Pin to Myohla Sugar Mill = x_{26},
KyweYaingPyin to Yedashe Sugar Mill= x_{12},KyweYaingPyin to Myohla SugarMill =x_{27}
Ohn Pin Kwayt to Yedashe SugarMill= x_{13}, Ohn Pin Kwayt to Myohla SugarMill = x_{28}
Sin Gway to Yedashe Sugar Mill = x_{14}, Sin Gway to Myohla Sugar Mill = x_{29}
Pi Tauk San to Yedashe Sugar Mill = x_{15}, Pi Tauk San to Myohla Sugar Mill = x_{30}

Each variable could be at least zero. So, we get

$$x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8 + x_9 + x_{10} + x_{11} + x_{12} + x_{13} + x_{14} + x_{15} \leq 71927$$

and

$$x_{16} + x_{17} + x_{18} + x_{19} + x_{20} + x_{21} + x_{22} + x_{23} + x_{24} + x_{25} + x_{26} + x_{27} + x_{28} + x_{29} + x_{30} \leq 57402$$

It was considered that 71927 tons was the most amount of transporting sugar-cane stalks to the Mill and the most amount of transporting sugar-cane stalks to Myohla Sugar Mill was 57402 tons.

Then, the total tons of transporting sugar-cane stalks from

Ngar Gyi Kwayt $= x_1 + x_{16} = 5132$, Swar Kar -1 $= x_2 + x_{17} = 3310$,
Swar Kar -2 $= x_3 + x_{18} = 5772$, Thit Yar Kone $= x_4 + x_{19} = 5422$,
Aye Thar Yar $= x_5 + x_{20} = 7812$, Khin Tan Lay $= x_6 + x_{21} = 19946$,
Tha Phan Sin $= x_7 + x_{22} = 12838$, Kun Ohn $= x_8 + x_{23} = 7714$,
Si Pin Aye $= x_9 + x_{24} = 9574$, Doe Tan $= x_{10} + x_{25} = 7536$,
Hnaw Pin $= x_{11} + x_{26} = 4682$, Kywe Yaing Pyin $= x_{12} + x_{27} = 5266$,
Ohn Pin Kwayt $= x_{13} + x_{28} = 5662$, Sin Gway $= x_{14} + x_{29} = 4756$,
Pi Tauk San $= x_{15} + x_{30} = 4760$.

The charges were calculated with the distances among camps which we had known from the head of the mill. For example, the distance from Ngar Gyi Kwayt to Yedashe Sugar Mill No (6) was 15 miles and for 7 miles between them, the charge was 4000kyats and for another 8 miles, the charge for 1 ton for 1 mile was 4375kyats. So, the charge for carrying 1 ton from Ngar Gyi Kwayt to Yedashe Sugar Mill No (6) was 4000kyats + 8 miles × 4375 = 55000kyats.

(a) The charges of sugar-cane stalks transported for one ton from the camps to Yedashe Sugar Mill No (6) were as follows

The charges of transporting sugar-cane stalks for one ton from
Ngar Gyi Kwayt to Yedashe Sugar Mill = 55000kyats,
Swar Kar -1 to Yedashe Sugar Mill = 28750kyats,
Swar Kar -2 to Yedashe Sugar Mill = 24375kyats,
Thit Yar Kone to Yedashe Sugar Mill = 37500kyats,
Aye Thar Yar to Yedashe Sugar Mill = 37500kyats,
Khin Tan Lay to Yedashe Sugar Mill = 46250kyats,
Tha Phan Sin to Yedashe Sugar Mill = 37500kyats,
Kun Ohn to Yedashe Sugar Mill = 20000kyats,
Si Pin Aye to Yedashe Sugar Mill = 37500kyats,
Doe Tan to Yedashe Sugar Mill = 20000kyats,
Hnaw Pin to Yedashe Sugar Mill = 20000kyats,
Kywe Yaing Pyin toYedashe Sugar Mill = 24375kyats,
Ohn Pin Kwayt to Yedashe Sugar Mill = 28750kyats,
Sin Gway to Yedashe Sugar Mill =37500kyats,
Pi Tauk San to Yedashe Sugar Mill = 24375kyats

(b) The charges of transporting sugar-cane stalks for one ton from the camps to Myohla Sugar Mill were as follows

The charges of transporting sugar-cane stalks for one ton from
Ngar Gyi Kwayt to Myohla Sugar Mill = 24375kyats,
Swar Kar -1 to Myohla Sugar Mill = 46250kyats,
Swar Kar -2 to Myohla Sugar Mill = 37500kyats,
Thit Yar Kone to Myohla Sugar Mill = 28750kyats,
Aye Thar Yar to Myohla Sugar Mill = 28750kyats,
Khin Tan Lay to Myohla Sugar Mill = 20000kyats,
Tha Phan Sin to Myohla Sugar Mill = 28750kyats,
Kun Ohn to Myohla Sugar Mill = 37500kyats,
Si Pin Aye to Myohla Sugar Mill = 28750kyats,
Doe Tan to Myohla Sugar Mill = 46250kyats,
Hnaw Pin to Myohla Sugar Mill = 37500kyats,
Kywe Yaing Pyin to Myohla Sugar Mill = 20000kyats,
Ohn Pin Kwayt to Myohla Sugar Mill = 24375kyats,
Sin Gway to Myohla Sugar Mill = 20000kyats,
Pi Tauk San to Myohla Sugar Mill =55000kyats.

When the results of calculation were added, a formulating of the mathematical linear programming Problem was got as follows:

Minimize P = 55000 x_1 + 28750 x_2 + 24375 x_3+ 37500 x_4+ 37500 x_5+ 46250 x_6+ 37500 x_7 +20000 x_8 + 37500 x_9 + 20000 x_{10} + 20000 x_{11} + 24375 x_{12} + 28750 x_{13} + 37500 x_{14} + 24375x_{15} + 24375 x_{16}+ 46250 x_{17} + 37500 x_{18}+ 28750 x_{19} + 28750 x_{20}+ 20000 x_{21} + 28750 x_{22}+ 37500 x_{23} + 28750 x_{24} + 46250 x_{25}+ 37500 x_{26} + 20000 x_{27} + 24375 x_{28} + 20000 x_{29}+ 55000 x_{30}

subject to

$$x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8 + x_9 + x_{10} + x_{11} + x_{12} + x_{13} + x_{14} + x_{15} \leq 71927$$

$$x_{16} + x_{17} + x_{18} + x_{19} + x_{20} + x_{21} + x_{22} + x_{23} + x_{24} + x_{25} + x_{26} + x_{27} + x_{28} + x_{29} + x_{30} \leq 57402$$

$x_1 + x_2 = 5132,$ $x_2 + x_{17} = 3310,$ $x_3 + x_{18} = 5772,$
$x_4 + x_{19} = 5422,$ $x_5 + x_{20} = 7812,$ $x_6 + x_{21} = 19946,$
$x_7 + x_{22} = 12838,$ $x_8 + x_{23} = 7714,$ $x_9 + x_{24} = 9574,$
$x_{10} + x_{25} = 7536,$ $x_{11} + x_{26} = 4682,$ $x_{12} + x_{27} = 5266,$
$x_{13} + x_{28} = 5662,$ $x_{14} + x_{29} = 4756,$ $x_{15} + x_{30} = 4760,$

$$x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8 + x_9 + x_{10} + x_{11} + x_{12} + x_{13} + x_{14} + x_{15}$$
$$+x_{16} + x_{17} + x_{18} + x_{19} + x_{20} + x_{21} + x_{22} + x_{23} + x_{24} + x_{25} + x_{26} + x_{27} + x_{28}$$
$$+x_{29} + x_{30} \geq 0.$$

Problem Solving and Interpretation of Optimal Solution

When the problem above was solved by the software of TORA, the following results was got

$x_1 = 0$	$x_7 = 0$	$x_{13} = 5662$	$x_{19} = 5422$	$x_{25} = 0$
$x_2 = 3310$	$x_8 = 7714$	$x_{14} = 0$	$x_{20} = 7812$	$x_{26} = 0$
$x_3 = 5772$	$x_9 = 8078$	$x_{15} = 4760$	$x_{21} = 19946$	$x_{27} = 0$
$x_4 = 0$	$x_{10} = 7536$	$x_{16} = 5132$	$x_{22} = 12838$	$x_{28} = 0$
$x_5 = 0$	$x_{11} = 4682$	$x_{17} = 0$	$x_{23} = 0$	$x_{29} = 4756$
$x_6 = 0$	$x_{12} = 5266$	$x_{18} = 0$	$x_{24} = 1496$	$x_{30} = 0.$

P = 2756298750 kyats

According to the result of calculation by the software of TORA, unless the sugar-cane stalks from 14 camps was transported to Yedeshe Sugar Mill No (6) and Myohla Sugar Mill, the charges would be cheapest and estimated amount of sugar-cane stalks could be bought enough. So, the sugar-cane stalks were not needed to be transported from 6 camps, Ngar Gyi Kwayt, Thit Yar Kone, Aye Thar Yar, Khin Tan Lay, Tha Phan Sin, and Sin Gway to Yedashe Sugar Mill. Also, the sugar-cane stalks were not needed to be transported from 8 camps, Swarkar -1, Swarkar -2, Kun Ohn, Doe Tan, Hnaw Pin, Kywe Yaing Pyin, Ohn Pin Kwayt, and Pi Tauk San to Myohla Sugar Mill.

Therefore, the great attempt should be paid to bought enough amounts of qualify and juicy sugar-cane stalks, motivation was needed to do for cultivators to cultivate enough amount of estimated sugar-cane stalks.

Some comment and suggestion

The tasks of Myanmar Sugar-cane Enterprise and Sugar Mills were not completely finishes from the beginning of cultivating sugar-cane stalks to sending sugar-cane stalks to the mills after harvesting. They also provide other need to cultivators. Moreover, the roads and bridges are built along the way of carrying sugar-cane stalks to the mill to be smooth in transportation. All the staff draws the plan systematically for such tasks and supervises and instructs all steps of tasks. So, experts, technicians and the employees who can serves to crush the qualified juicy sugar-cane stalks in time and educate to plant the best qualified sugar-cane stalks are needed much.

On internet, we know that molasses which was a kind of by product by distillation sugar can be manufactured into a kind of fuel, gaseous liquid, in India. Therefore, sugar-cane stalks were not only for producing sugar but also for manufacturing the fuel now. We realized that sugar-cane stalks have become an important project crop for producing sugar but also for manufacturing the fuel for our country.

Therefore, the loan of expense should be raised more and more steadily for the types of farms such as the long- yield, the moderate-yield, the slow-yield, the renewed and the new farms. Unless they were done, the sugar mill will have no sugar-cane stalks to produce sugar in someday. When we studied the main cause was the profit has become so lesser although the cost of cultivating had become more. In cultivating, the bio composer, the mixture of the Urea Super phosphate and natural fertilizer must be used. But, actually, cow-dung is not being used as fertilizer and the mixture of Urea Caustic and Potash are being used now. We think other qualified and cheaper fertilizer should be manufactured and substituted it.

We suggest other subjects should be done as research work. The tittles were as follows

- ❖ The plan to improve the decline of buying sugar-cane stalks.
- ❖ The performance to improve the decline production of sugar.
- ❖ The way of manufacturing gaseous liquid from molasses, a by-product of producing sugar.

Conclusion

We hope the research starting as a local need to remedy the decline of production sugar of Yedashe Sugar Mill No (6) will be an advantageous support to Myanmar Sugar-cane Enterprise.

References

[1] Gass, S.I. "Linear Programming" McGraw Hill, New York, 1958.
[2] The estimated program of production for the production period 2019-2020.
[3] Yearly records of the facts and datas of production, Yedashe Sugar Mill No (6).

Study on Feeding Habits of *Oreochromis niloticus* and *Mystus vittatus* at Sittaung Segments between Myot Gyi and Pauk Taw Village, Taungoo Township

May Thu Htun
Demonstrator, Department of Zoology, Mandalay University of Distance Education, Myanmar
E-mail: maythuhtun101@gmail.com

Abstract

This research aims to investigate the feeding habits of *Oreochromis niloticus* and *Mystus vittatus* from Sittaung Segments between Myot Gyi and Pauk Taw Village, Taungoo. The study period started December, 2019 to August 2020. The gut contents were analyzed using number method based on Hynes (1950). When the food found in the gut of these fish was analyzed, it was found that they were herbivores and carnivores respectively. During this investigation, five genera of zooplankton species comprising two genera of Brachiopoda and three genera of Monogononta were recorded in the gut contents of *Oreochromis niloticus* and *Mystus vittatus*. In particular, twenty-two genera of algae comprising nine genera of Bacillariophyceae, five genera of Chlorophyceae, three genera of Euglenoidea, three genera of Zygnematophyceae, one genera of Euglenophyceae, one genera of Trebouxiophyceae and some diatoms found in *Oreochromis niloticus*. This research could provide valuable information on the diet of fish, which is important in fish farming.

Keywords: Feeding Habits, Oreochromis niloticus, Mystus vittatus

Introduction

Fishes have different food habits for their growth. Fishes feed on a wide range material and obtain their nourishment from plants as well as animals. Fishes directly depend upon their surrounding aquatic environment for their food and feeding habits, using a lot of easily available food. The study of the food and feeding habits of freshwater fish species is a subject of continuous research because it include the basis for the development of a successful fisheries management programme on fish capture and culture. Das and Moitra (1963) classified fishes into herbivores, mainly feed on plant materials, carnivores, feed on animal materials and omnivores, feed on one or more groups of organisms, i.e., plankton, nekton or benthos and/or detritus. In Kenya, Njiru et al., (2004) stated the gut contents of *Oreochromis niloticus* and found to contain insects, algae, plant materials and zooplankton. Arockiaraj et al., (2004) reported that gut content of *Mystus montanus* mostly contained small fishes, cladoceans, molluscs, annelid worms, rotifers, insect larvae, copepods, detritus, crustaceans, fish scales, algae and unknown items as food items. Rosenfeld et al., (2005) reported that gut contents of *Oreochromis niloticus* were consisted of phytoplankton, detritus, zooplankton at all fish sizes. Babare et al., (2013) were studied gut content analysis of *Wallago attu* and *Mystus* (*Sperata*) *seenghala*. They observed the stomach content of fish species varies with the time of the day, size of the fish and season of the year but there was no significant difference in the food items ingested by the juvenile and adult stages. The main objectives of the study are to describe feeding habit, diet, monthly variation of different food classes in the gut, feeding intensity and feeding activity. This research aims to investigate the feeding habits of *Oreochromis niloticus* and *Mystus vittatus*. According to this research, fishes are the most commonly eaten natural algae, so fishermen should feed organic food in addition to around the pond. Growing natural plants can also save on fish feed costs.

Research Objectives

To investigate the feeding habits of the selected fish species for feeding habits, the most frequently consumed food items and the gut contents of freshwater fishes.

Research Methodology

Fish samples were collected *Oreochromis niloticus* and *Mystus vittatus* from Sittaung segments between Myot Gyi and Pauk Taw Village, Taungoo Township. It is located between latitudes 18°55'10"N and 96°28'10"E. The study period started December, 2019 to August, 2020.

Measurement of fish and dissected of the gut and gut content analysis

Measurement of the fishes was recorded as their body weight in kilograms and the total length and standard length were measured to nearest centimeter by digital weighing balance and measuring tape. Each fish was dissected from the mouth to the anus with the help of a pair of fine scissors and forceps.

Sampling of the guts were preserved in 10% formalin for subsequent analysis. The preserved guts were later uncoiled, cleaned off the attached fat. The gut of each fish was weighed by using Electronic balance and the length was recorded. Then, each gut was dissected longitudinally inside a clean petridish; the whole gut content was poured to vial and weighed. And then, gut contents of each fish were preserved in 10% formalin for further analysis.

Identification of phytoplankton and zooplankton species

Zooplankton identification was done by Haney (2013) and Dang *et al*., (2015) and phytoplankton were identified followed after Plamer (1980).

Analyses of Gut contents

The gut contents were identified under compound light microscope (Magnification 4X, 10X, 40X) and stereoscopic microscope (Magnification 0.7X-4.5X). The gut contents were analyzed using number method based on Hynes (1950).

Number Method (Hynes, 1950)

$$\% N_i = \frac{N_i}{N_t} \times 100$$

Where:

$\%N_i$ is the percentage of food items i

N_i is the number of particular food item i

N_t is the total number of food (gut content) items

Materials used

Compound light microscope, stereoscopic microscope, plastic bottle, pipette, cover slide, cotton wool, phone camera, ruler, tape, blue cloth, dissecting set, digital balance and electric balance.

Source: Google Earth, Latitude18°55'10"N, 96°28'10"E.

Fig.1 Location map of the study area



A. Oreochromis niloticus　B. Opening the abdomen　C. Digestive tract



A. Mystus vittatus　B. Opening the abdomen　C. Digestive tract

Plate 1. *Oreochromis niloticus* and *Mystus vittatu*

Results

A total of 66 species of two fish species, including to 19 families and 11 orders were recorded in the present study. Only 36species can be classified down to species level. The remaining of 30 species were classified down to genus level. A total of 58 phytoplankton species including to 15 families and 9 orders were recorded in the present study. A total of 8 zooplankton species belonging to 4 families and 2 orders were recorded in the present study. The study of the food items of *Oreochromis niloticus* revealed algae, insect parts, fish parts, crustaceans, rotifers, molluscs, unidentified and detritus. In December, algae and detritus was 32.52%, insect parts was 18.05%, fish parts was 0.21%, crustaceans was 16.55% and unidentified was 0.14%. In January, algae and detritus was 32.27%, insect parts were 23.09%, fish parts were 0.68%, rotifers were 11.57% and molluscs was 0.11%. In February, algae and detritus was 37.1%, insect parts were 22.26%, crustaceans were 0.35%, rotifers were 2.83% and unidentified was 0.35%. In March algae and detritus was 28.77%, insect parts were 38.59%, fish parts were 0.7%, crustaceans were 1.58%, rotifers were 0.35% and molluscs was 1.23%. The study of the food items of *Mystus vittatus* revealed algae, insect parts, crustaceans, rotifers, unidentified and detritus. In December, algae and detritus was 24.97%, insect parts were 0.13%, crustaceans were 24.97% and rotifers was 24.97%. In January, algae and detritus was 48.84%, crustaceans were 2.28 and unidentified was 0.04%. In February, algae were 34.44%, rotifers were 31.12% and detritus was 34.44%. In March, algae and detritus was 42.01%, insect parts were 0.29%, crustaceans were 10.45%, rotifers were 5.18% and unidentified was 0.05%.

Table1. Occurrence of different food items of *Oreochromis niloticus*

No	Phylum	Class	Order	Family	Genus	Species
1	Chlorophyta	Chlorophyceae	Sphaeropleales	Scenedesmaceae	*Scenedesmus*	*S. acuminatus*
2						*S. obiquus*
3						*S. quadricauda*
4						*S. bijugatus*
5					*Desmodesmus*	*D. communis*
6				Hydrodictyaceae	*Pediastrum*	*P. dupex*
7						*P. simplex*
8				Selenastraceae	*Ankistrodesmus*	*Ankistrodesmus* sp.
9						*O.pulchrum*
10			Oedogoniales	Oedogoniaceae	*Oedogonium*	*O.ahlstrandii*
11						*Oedogonium* sp.
12						*Oocystis* sp.1
13		Trebouxiophyceae	Chlorellales	Oocystaceae	*Oocystis*	*Oocystis* sp.2
14						*Oocystis* sp.3
15						*E. acus*
16						*E. oxyuris*
17	Euglenozoa	Euglenoidea	Euglenales	Euglenaceae	*Euglena*	*E. spirogyra*
18						*E.viridis*
19						*Euglena* sp.
20					*Phacus*	*P. longicauda*
21						*P. triqueter*
22						*Phacus* sp.
23					*Trachelomonas*	*T. armata*
24		Euglenophyceae			*Lepocinclis*	*L. ovum*
25	Charophyta	Zygnematophyceae	Desmidiales	Desmidiaceae	*Cosmarium*	*C.laeve*
26						*C. pericymatium*
27						*C. botrytis*
28						*Cosmarium* sp.1
29						*Cosmarium* sp.2
30						*Cosmarium* sp.3
31					*Staurastrum*	*S. anatinum*
32						*S. arachne*
33						*S. sexangulare*
34						*Staurastrum* sp.
35				Closteriaceae	*Closterium*	*Closterium* sp.

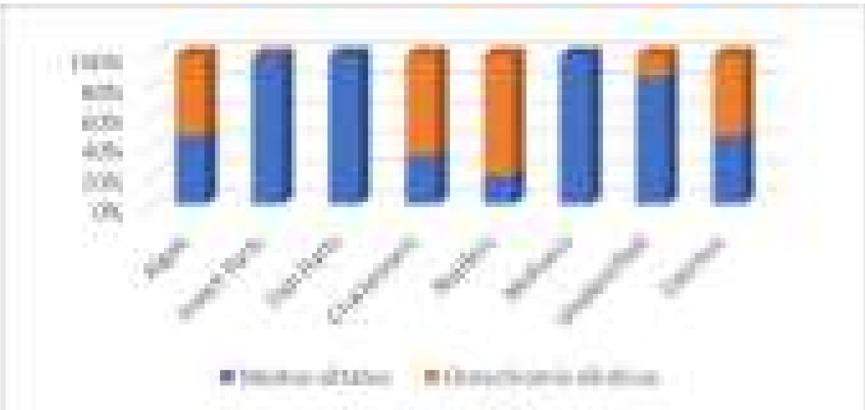
Table 2. Occurrence of different food items of *Oreochromis niloticus* and *Mystus vittatus*

No	Phylum	Class	Order	Family	Genus	Species
1	Ochrophyta	Bacillariophyceae	Thalassiosirales	Stephanodiscaceae	*Cyclotella*	*C. meneghiniana*
2			Naviculales	Pinnulariaceae	*Pinnularia*	*P. microstauron*
3				Pleurosigmataceae	*Gyrosigma*	*Gyrosigma* sp.1
4						*Gyrosigma* sp.2
5						*Gyrosigma* sp.3
6				Naviculaceae	*Navicula*	*Navicula* sp.1
7						*Navicula* sp.2
8						*Navicula* sp.3
9						*Navicula* sp.4
10				Stauroneidaceae	*Craticula*	*Craticula* sp.1
11						*Craticula* sp.2
12					*Stauroneis*	*S. acuta*
13			Bacillariales	Bacillariaceae	*Nitzschia*	*N.sigmoidea*
14						*Nitzschia* sp.1
15						*Nitzschia* sp.2
16						*Nitzschia* sp.3
17			Surirellales	Surirellaceae	*Surirella*	*S.elegans*
18						*Surirella* sp.1
19						*Surirella* sp.2
20						*Surirella* sp.3
21						*Surirella* sp.4
22						*Surirella* sp.5
23						*Surirella* sp.6
24	Arthropoda	Brachiopoda	Cladocera	Bosminidae	*Bosminopsis*	*B. deitersi*
25				Daphniidae	*Daphnia*	*D. longispina*
26	Rotifer	Monogononta	Ploima	Mytilinidae	*Mytilina*	*M.ventralis*
27				Brachionidae	*Keratella*	*K.cochlearis*
28						*K. valga*
29						*K. americana*
30					*Notholca*	*N.acuminata*
31						*N. caudata*

Table 3. Measurement of fish and their mean gut contents and food items of *Oreochromis niloticus* and *Mystus vittatus*

		Oreochromis niloticus	*Mystus vittatus*
Measurement	SL (cm)	3.65	2.79
	TW (kg)	0.04	0.01
	TGL (cm)	158.2	11.53
	TGW(g)	10.31	1.78
	TGCW(g)	7.77	1.1
Food items	Algae	37.56	32.66
	Insect Parts	0.11	25.5
	Fish Parts	-	0.4
	Crustacean	9.43	4.62
	Rotifers	15.32	3.7
	Unidentified	0.02	0.12
	Molluscs	-	0.34
	Detritus	37.56	32.66

SL-Standard length, TW-Total Weight, TGL-Total Gut Length, TGW-Total Gut Weight, TGCW-Total Gut Content Weight



Variation of food items for study fishes during December to March.

Discussions

In the present study, the feeding habits of *Oreochromis niloticus* and *Mystus vittatus* from Sittaung segment between Myot Gyi and Pauk Taw Village near the Law Goke Tayar Monestry. *O. niloticus*, the herbivore, whose gut length is 10 times longer than their standard length and some fish less than 10 times. An analysis of the feeding habits of the *O.niloticus* revealed algae, insect parts, crustaceans, rotifers, unidentified and detritus. The content of algae in five *O.niloticus* was highest in January and lowest in December. Rotifers were the second highest number in February and the lowest in December. Absolutely not found in January due to poor food availability. Mcconnell (1958) said that phytoplankton and diatoms as the major food items in *O. niloticus*. In Egypt, Tawwab and Marakby (2004) suggested that gut contents of *O.niloticus* were consisted of phytoplankton, detritus, zooplankton at all fish sizes. *M.vittatus*, whose gut length is 2 times shorter than their standard length and some fishes less than 2 times. *M.vittatus* the high levels of algae content are found in February due to the mild climate and the low levels of algae in March are due to bad weather and extreme temperatures. The absence of food in the other months mentioned above may also be due to poor food availability. It is also considered possible to break down food. So, the gut content of *M.vittatus* was determined to be the most common algae and the insect parts was the second most abundant. Chaklader (2014) the food and feeding habits of *M.vittatus* was mainly feed on plankton with preference to zooplankton in addition to fed mainly on copepods, cladocerans, rotifers, ostracods, insects, oligochaetes, Chlorophyceae, bascillariophyceae and debris. These finding provided a better understanding of food availability and food intake of freshwater fish in the Sittaung River in Taungoo.

Conclusion

The result of the present study, *Oreochromis niloticus* are herbivorous species, feeding on any available food items such as algae, rotifers, insect parts, crustaceans and diatoms, this makes it suitable for culture in fresh water ponds. The present study, *Mystus vittatus* are carnivorous species, feeding on any available food items in its environment such as algae, insect parts, fish parts, crustaceans.

Recommendation

Comparison of gut length, gut content and dentition of different fish species should be conducted.

References

Abdel-Tawwab, M., & El-Marakby, H. I. (2004). Length-weight relationship, natural food and feeding selectivity of Nile tilapia, *Oreochromis niloticus* L., in Fertilized Earthen Ponds. In R. G. Bolivar, G. C. Mair, & K. Fitzsimmons (Eds.), Proceedings of the sixth international symposium on Tilapia in aquaculture (pp. 500-509). Manila: Bureau of Fisheries & Aquatic Resources.

Arockiaraj, J., Haniffa, M. A. and Seetharaman, S. (2004) 'Food and feeding habits of an endemic catfish Mystus montanus (Jerdon) in River Tambaraparani ', *Indian J. Fish*, 51(1)(June 2014), pp. 107–109. Available at: https://www.researchgate.net/publication/262734278.

Babare R. S., Chavan S. P. & Kannewad P. M., (2013). Gut content analysis of Wallago attu and Mystus (Sperata) seenghal from Godavari river system Maharashtra State, Adv. Biores.4 (2), 123-128.

Chaklader, M. R. et al. (2014) 'Feeding habits and diet composition of Asian catfish Mystus vittatus (Bloch, 1794) in shallow water of an impacted coastal habitat.', World Journal of Fish and Marine Sciences, 6(6), pp. 551–556. doi: 10.5829/idosi.wjfms.2014.06.06.9114.

Das SM, Moitra SK. (1963) Studies on the food and feeding habits of some freshwater fishes of India. IV. A review on the food and feeding habits of 24 freshwater fishes, with general conclusions. Ichthyologica. 2(1-2): 107-115.

Lowe-McConnell, M. (1958). Breeding behaviour patterns and ecological differences between tilapia species and their significance for evolution within the genus Tilapia (Pisces; Cichlidae). Proceedings of the Zoological Society of London 132, 1–31.Wiley Online LibraryGoogle Scholar

Njiru M, Okeyo-Owuor JB, Muchiri M, Cowx IG. Shifts in the food of Nile tilapia, Oreochromis niloticus (L.) in Lake Victoria, Kenya. African Journal of Ecology 2004; 42:163-170.

Rosenfeld, J. S., Leiter, T., Lindner, G., & Rothman, L. (2005). Food abundance and fish density alters habitat selection, growth and habitat suitability curves for juvenile Coho Salmon (Oncorhynchus kisutch). Can. J. Fish. Aquat. Sci., 62, 1691-1701. http://dx.doi.org/10.1139/f05-072

การนำเสนอแบบบรรยาย

ตัวแบบพยากรณ์การออมและการลงทุนของคนกลุ่มเจนเนอเรชันวาย ในสถานการณ์โรคระบาด: กรณีศึกษา การออมและการลงทุนของคนที่คนกลุ่มเจนเนอเรชันวาย ในสถานการณ์การระบาด Covid-19 คนในกรุงเทพมหานครฯ

FORECASTING MODEL FOR SAVING AND INVESTMENT FOR GENERATION Y IN THE PANDEMIC: CASE STUDIES SAVING AND INVESTMENT OF GENERATION Y PEOPLE IN THE SITUATION OF THE COVID-19 VIRUS PANDEMIC IN BANGKOK

ดนัยกฤต อินทุฤทธิ์ / Danaikrit Inthurit
คณะบริหารธุรกิจและเทคโนโลยีสารสนเทศ มหาวิทยาลัยเทคโนโลยีราชมงคลตะวันออก / Faculty of Business Administration and Information Technology Rajamangala University of Technology Tawan-Ok
E-mail: danaikrit_in@rmutto.ac.th

บทคัดย่อ

วัตถุประสงค์ในงานวิจัยครั้งนี้ คือ เพื่อศึกษาองค์ประกอบเชิงยืนยันและพยากรณ์แนวโน้มในการออมเงินและการลงทุนเพื่อการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดโดยกำหนดกรณีศึกษาเป็นการออมและการลงทุนของคนที่เกิดระหว่างปี พ.ศ.2523-พ.ศ. 2540 ในสถานการณ์การระบาด Covid-19 ในเขตพื้นที่กรุงเทพฯ ผ่านการใช้เครื่องมือวิจัยชนิดแบบสอบถามออนไลน์กับกลุ่มตัวอย่างในกรุงเทพมหานครฯ จำนวน 400 คน งานวิจัยนี้จะพิจารณาองค์ประกอบเชิงยืนยันผ่านการวิเคราะห์องค์ประกอบเชิงยืนยันและพยากรณ์แนวโน้มโดยสมการการวิเคราะห์ถดถอยพหุแบบเส้นทาง ผลการวิจัยพบว่าองค์ประกอบเชิงยืนยันต่อการลงทุนที่มีค่าสัมประสิทธิ์การพยากรณ์ สูงสุดเป็น 2 ลำดับแรก ได้แก่ ความหลากหลายของแพลตฟอร์มการลงทุนในระบบออนไลน์และอุปสงค์ต่อการถือเงินเพื่อใช้สอยในชีวิตประจำวัน ในส่วนของการพยากรณ์แนวโน้มการลงทุนพบว่า อุปสงค์ต่อการถือเงินเพื่อใช้สอยในชีวิตประจำวันและรายได้เป็นตัวแปรพยากรณ์ที่มีค่าสัมประสิทธิ์สูงสุด 2 ลำดับแรก ขณะที่องค์ประกอบเชิงยืนยันต่อการออมที่มีค่าสัมประสิทธิ์การพยากรณ์ สูงสุดเป็น 2 ลำดับแรก ได้แก่ นโยบายหรือผลิตภัณฑ์ส่งเสริมการออมจากภาคเอกชนและจำนวนผู้พึ่งพิงรายได้ในครอบครัว ในส่วนของการพยากรณ์แนวโน้มการออมพบว่ารายได้และอุปสงค์ต่อการถือเงินเพื่อใช้สอยในชีวิตประจำวัน

คำสำคัญ: โรคระบาด, การออม, การลงทุน, พฤติกรรม, เจเนเรอชัน วาย

Abstract

This research aimed to study factors effecting and forecast trends in saving and investing for saving and investing of Gen Y people in the epidemic situation by using savings and investment of people born between 1980-1999 In the situation of the Covid-19 pandemic in Bangkok area as a case study. This research examines factors effecting through Second-Confirmatory factor analysis and forecast trends by path analysis with multiple regression analysis by collecting data from questionnaires with a sample of 400 people in Bangkok. The results showed that the number of people who depended on family income and long-term savings policies or products from the private sector were the causal factors for savings with the highest multiple correlation coefficient being the top two. At the same time, the demand for holding money for daily living and the diversification of online investment platforms are the causal factors for investments with the highest multiple correlation coefficients among the top two. While forecasting the trend of savings, it was found that the number of people who depended on family income and the demand for holding money for daily use were the top two predictors with the highest coefficients. Percentage of holding money for daily living and income was the first two predictors with the highest coefficients.

Keywords: Pandemic, Saving, Investment, Behavior, Generation Y

บทนำ

เมื่อเกิดการระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19) ที่มีการระบาดใหญ่ (Pandemic) ไปทั่วโลก ได้ส่งผลกระทบต่อสุขภาพและชีวิตของประชาชนทั่วโลกจำนวนมาก และยังไม่นับรวมถึงมูลค่าความเสียหายทางเศรษฐกิจที่เกิดขึ้นทั่วโลก ขณะที่การระบาดในประเทศไทยมาตั้งแต่ เดือนมกราคม พ.ศ.2563 ซึ่งการระบาดครั้งนี้ส่งผลกระทบกับชีวิตของประชาชนไทยทุกระดับในทุกๆ มิติ โดยเฉพาะอย่างยิ่งมิติทางเศรษฐกิจที่ปรากฏข้อมูลว่าประชาชนชาวไทยเกิดการเปลี่ยนแปลงพฤติกรรมทางด้านการใช้จ่าย การออมและการลงทุนไปอย่างมาก โดยที่ผลสำรวจพบว่าการใช้จ่ายของคนไทยในยุคโควิด-19 มีการใช้จ่ายที่เพิ่มขึ้น และชี้ชัดให้เห็นมากขึ้นว่าคนไทยให้ความใส่ใจในการออมและสะสมทรัพย์มากขึ้นอย่างมาก (สวนดุสิตโพล, 2564) ยิ่งไปกว่านั้นมีงานวิจัยที่ระบุไว้ว่า Gen Y ชี้ชัดว่าในสถานการณ์การระบาดของโควิด-19 ตลอดเวลาที่ผ่านมา Gen Y ให้ความสำคัญกับการลงทุนและสะสมความมั่งคั่งในหลักทรัพย์และสินทรัพย์ดิจิทัลอย่างมาก โดยเกิดการลงทุนในธ

รุกรรมแบบดิจิทัล โดยเฉพาะธุรกรรม Digital lending ที่ทำให้เข้าถึงแหล่งสินเชื่อได้ง่าย (บริษัท ข้อมูลเครดิตแห่งชาติ จำกัด, 2564) ซึ่งข้อมูลดังกล่าวสะท้อนการปรับเปลี่ยนพฤติกรรมการจัดการการเงินส่วนบุคคลทั้งการออมและการลงทุนของคน Gen Y ในภาวะการณ์ที่เกิดโรคระบาด

ดังนั้น ผู้วิจัยจึงมีความสนใจที่จะวิจัยโดยมีวัตถุประสงค์เพื่อเพื่อศึกษาปัจจัยเชิงสาเหตุและพยากรณ์แนวโน้มในการออมเงินและการลงทุนเพื่อการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด โดยกำหนดวัตถุประสงค์การวิจัยไว้เพื่อเพื่อศึกษาปัจจัยเชิงสาเหตุในการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด และเพื่อพยากรณ์แนวโน้มการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด ซึ่งผลที่ได้จากการวิจัยนี้จะเป็นประโยชน์สำหรับหน่วยงานภาครัฐบาล สถาบันทางการเงิน ภาคธุรกิจที่เกี่ยวข้องกับการออมและการลงทุนของประเทศไทยจะเข้าใจปัจจัยเชิงสาเหตุในการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด เพื่อนำมาปรับกลยุทธ์ในการดึงดูดเงินของประชากรกลุ่มนี้ให้อยู่ในระบบเศรษฐกิจ อีกทั้งหน่วยงานภาครัฐบาล สถาบันทางการเงินของประเทศไทยและภาคธุรกิจที่เกี่ยวข้องกับการออมและการลงทุนจะเข้าใจแนวโน้มการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดที่ได้รับจากการพยากรณ์จากผลการวิจัยเพื่อนำไปหาแนวทางป้องกันวิกฤตการณ์การเงินหากในอนาคตเกิดโรคระบาดขึ้นอีก ตลอดจนหน่วยงานภาครัฐบาล สถาบันทางการเงิน และภาคธุรกิจที่เกี่ยวข้องกับการออมและการลงทุนของประเทศไทยสามารถพิจารณาแนวโน้มการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดที่ได้รับจากการพยากรณ์จากผลการวิจัยเพื่อนำไปวิเคราะห์แนวทางในการดึงดูดเงินของประชากรกลุ่มนี้ให้อยู่ในระบบเศรษฐกิจอีกครั้งหากในอนาคตเกิดโรคระบาดขึ้นอีก

การทบทวนวรรณกรรม

แนวคิดเกี่ยวกับการออม สมมุติฐานรายได้สมบูรณ์ได้อธิบายสมมติฐานที่อธิบายถึงความสัมพันธ์ของรายได้ (Income) กับการบริโภค โดยความสัมพันธ์ดังกล่าวเป็นความสัมพันธ์เชิงบวก สรุปได้ว่า เมื่อรายได้เพิ่มขึ้นการบริโภคจะเพิ่มขึ้นด้วยแต่การบริโภคจะเพิ่มขึ้นไม่เท่ากับการเพิ่มขึ้นของรายได้ โดยกำหนดผ่าน ฟังก์ชันการบริโภค (Consumption Function) (อมรทิพย์ แท้เที่ยงธรรม, 2544: 62-108)

แนวคิดเกี่ยวกับการลงทุน การกันเงินไว้จำนวนหนึ่ง ในช่วงระยะเวลาหนึ่ง เพื่อก่อให้เกิดกระแสเงินสดรับในอนาคต ซึ่งจะชดเชยให้แก่ผู้กันเงิน โดยกระแสเงินสดรับนี้ ควรคุ้มกับอัตราเงินเฟ้อและคุ้มกับความไม่แน่นอนที่จะเกิดแก่กระแสเงินสดรับในอนาคต (อมรทิพย์ แท้เที่ยงธรรม, 2544: 62-108)

แนวคิดและเรื่องมือของนโยบายการคลัง เครื่องมือของนโยบายการคลัง ประกอบด้วยนโยบายทางด้านรายจ่ายของรัฐบาล นโยบายทางด้านรายได้ นโยบายด้านหนี้สาธารณะ และนโยบายด้านงบประมาณ ทั้งนี้ นโยบายรายจ่ายเกี่ยวข้องกับการจัดงบประมาณรายจ่ายด้านต่างๆ ของรัฐบาลให้เกิดผลทางเศรษฐกิจไปในทิศทางที่เหมาะสม (วันรักษ์ มิ่งมณีนาคิน, 2546: 115-120)

แนวคิดความต้องการถือเงิน (Demand for Money) หมายถึง แบ่งความต้องการถือเงินออกเป็น 3 ประเภท คือ ความต้องการถือเงินเพื่อใช้จ่ายในชีวิตประจำวัน ความต้องการถือเงินเพื่อใช้จ่ายเมื่อเกิดเหตุการณ์ที่ไม่ได้คาดคิดไว้ล่วงหน้า และความต้องการถือเงินเพื่อแสวงหากำไร จากการที่เคนส์เชื่อว่า คนเราจะถือเงินส่วนหนึ่งไว้เพื่อแสวงหากำไร (วันรักษ์ มิ่งมณีนาคิน, 2546: 59-63)

จากการนำองค์ความรู้ต่างๆ มาสกัดตัวแปรการวิจัยจึงได้โมเดลการวิเคราะห์องค์ประกอบเชิงยืนยันขององค์ประกอบเชิงยืนยันในการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดตามภาพ 1

ภาพที่ 1 โมเดลการวิเคราะห์องค์ประกอบเชิงยืนยันขององค์ประกอบเชิงยืนยันในการออมและการลงทุน

วิธีการวิจัย

พื้นที่เป้าหมาย

พื้นที่ศึกษาอยู่ใน 5 เขตในกรุงเทพฯ ได้แก่ เขตบางเขน เขตจตุจักร เขตบางกะปิ เขตสายไหม และเขตลาดกระบัง จำแนกในการสุ่มด้วยสูตรคำนวณกลุ่มตัวอย่างของยามาเน่ โดยสาเหตุที่เลือกเขตพื้นที่ดังกล่าวเพราะเป็นพื้นที่ที่ประชากรกลุ่ม Gen Y กระจุกตัวอาศัยอยู่มากที่สุด (สำนักงานสถิติแห่งชาติ, 2564)

ประชากรและกลุ่มตัวอย่าง

การกำหนดกลุ่มตัวอย่างนั้นผู้วิจัยได้อาศัยข้อมูลกำหนด เป็นกลุ่มตัวอย่างแบบเจาะจง โดยเจาะจงผู้กลุ่มประชากร Gen Y ที่มีรายได้ทางใดทางหนึ่งและเกิดการออมและการลงทุน โดยประชากรที่ใช้ในการวิจัยครั้งนี้ ได้แก่ ประชากรที่เกิดระหว่างปี พ.ศ.2523-พ.ศ.2540 หรือประชากรอายุระหว่าง จำนวน 1,498,126 คน (สำนักงานสถิติ

แห่งชาติ, 2563) ขณะกลุ่มตัวอย่างสามารถคำนวณได้จำนวน 400 คนจากการแนวคิดการคำนวณของยามาเน่ (Yamane, 1973) ซึ่งกำหนดค่าความคาดเคลื่อนไว้ที่ร้อยละ 5

วิธีการเก็บรวบรวมข้อมูล

ผู้วิจัยใช้แบบการสอบถามเป็นเครื่องมือในการเก็บรวบรวมข้อมูล โดยแบบสอบถามแบ่งเป็น 4 ตอน ได้แก่ ตอนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม ตอนที่ 2 พฤติกรรมการออมก่อนและหลังการระบาดของไวรัสโควิด-19 และตอนที่ 3 พฤติกรรมการลงทุนก่อนและหลังการระบาดของไวรัสโควิด-19 ทั้งนี้ ผู้วิจัยได้ทำการทดสอบความเที่ยงของแบบสอบถามผ่านการทำการทดสอบข้อคำถามก่อนวิจัย (Pre-Test) กับผู้บริโภคจังหวัดนนทบุรี จำนวน 40 คน โดยใช้วิธีการวัดความสอดคล้องภายในแบบ Cronbach's Alpha ข้อคำถามที่มีค่าความเชื่อมั่นตั้งแต่ 0.70 ขึ้นไปซึ่งถือว่ามีความเชื่อถือได้ค่อนข้างสูง (ธานินทร์ ศิลป์จารุ, 2555) จากการทดสอบได้ค่าความเชื่อมั่น เท่ากับ 0.822 ซึ่งถือว่าเชื่อถือได้จึงนำแบบสอบถามไปใช้ในการเก็บรวบรวมข้อมูล

การวิเคราะห์ข้อมูล

การวิเคราะห์สำหรับวิจัยนี้จะแบ่งออกเป็น 3 ส่วน ได้แก่ การวิเคราะห์ในส่วนที่ 1 ได้นำสถิติที่มาใช้ในการวิเคราะห์ข้อมูล ได้แก่ ค่าเฉลี่ยค่าร้อยละ และการตีความแปลผลตามอันตรภาคชั้น โดยข้อมูลที่ใช้มี 3 ด้าน คือ ประชากรศาสตร์ได้แก่ เพศ สถานภาพ อายุ การศึกษา อาชีพ รายได้ต่อเดือน ด้านพฤติกรรมการออมทั้งก่อนและหลังการระบาดของไวรัสโควิด-19 และด้านพฤติกรรมการลงทุนทั้งก่อนและหลังการระบาดของไวรัสโควิด-19 ในส่วนที่ 2 จะทำการวิเคราะห์เส้นทางความสัมพันธ์เชิงเส้นโยงระหว่างตัวแปรโดยใช้โปรแกรมคอมพิวเตอร์สำเร็จรูป AMOS วิเคราะห์องค์ประกอบเชิงยืนยัน (Confirmatory Factor Analysis) ในการหาอิทธิพลในการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดโดยกำหนดโมเดลการวิเคราะห์องค์ประกอบเชิงยืนยันขององค์ประกอบเชิงยืนยันในการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด ในการวิเคราะห์ส่วนที่ 3 จะทำการวิเคราะห์ข้อมูลโดยหาค่าความสัมพันธ์ของปัจจัยที่มีอิทธิพล โดยใช้สมการการวิเคราะห์ถดถอยพหุแบบเส้นทางสัมพันธ์ (multiple regression analysis) ซึ่งจะคัดเลือกเฉพาะตัวแปรที่มีค่า Factor loading จากส่วนที่ 4 ที่มีค่ามากกว่า 0.70 ขึ้นไปมาวิเคราะห์และพยากรณ์เพื่อสร้างตัวแบบการพยากรณ์แนวโน้มการออมและการลงทุนเมื่อเกิดโรคระบาดโดยการวิเคราะห์ในส่วนนี้จะเป็นการสำหรับการวิเคราะห์ข้อมูลเพื่อพยากรณ์แนวโน้มการออมเงินและการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดโดย

ผลการวิจัย

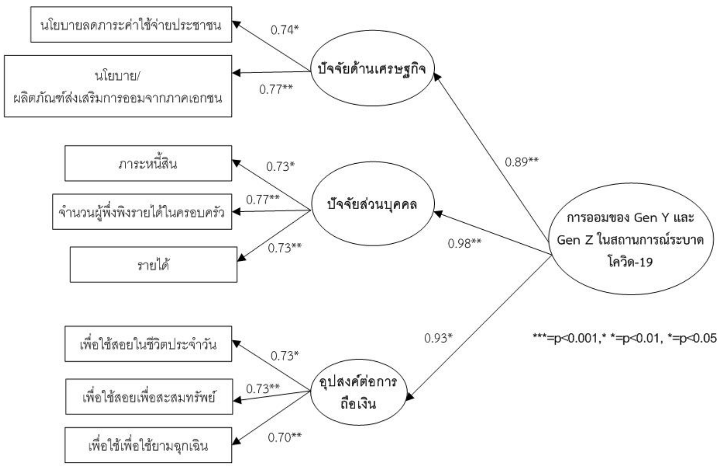
ผลการศึกษาปัจจัยที่มีอิทธิพลและการพยากรณ์แนวโน้มการออมเงินของคนกลุ่ม Gen Y

การวิจัยในส่วนนี้ สามารถอภิปรายผลได้เป็นหัวข้อ ดังนี้

องค์ประกอบเชิงยืนยันต่อการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด

ผู้วิจัยจึงได้ทำการทดสอบโมเดล โดยดูผลจากค่าทดสอบทางสถิติที่ผ่านเกณฑ์ ซึ่งมีเกณฑ์ในการพิจารณาความสอดคล้องกลมกลืนขององค์ประกอบเชิงยืนยัน โดยทำการวัดค่า Chi-square Probability เท่ากับ 0.186 ค่า Chi-square Relative เท่ากับ 1.293 ค่า GFI เท่ากับ 0.987 ค่า CFI เท่ากับ 0.996 ค่า RMR เท่ากับ 0.010 ค่า RMSER เท่ากับ 0.027 จากนั้นจึงแปลความหมายผลการวิเคราะห์ข้อมูลผล (Schumacher, R.

E., & Lomax, R. G. ,2010). ซึ่งทุกค่าผ่านมาตรฐานการตรวจสอบโมเดลซึ่งอธิบายได้ว่าผลการตรวจสอบจะเห็นได้ว่าผ่านเกณฑ์มาตรฐาน แสดงว่าโมเดลมีความถูกต้องของโมเดล จากนั้นจึงทำการศึกษาองค์ประกอบเชิงยืนยันเป็นการวิเคราะห์ข้อมูลจากกลุ่มตัวอย่างเพื่อหา ค่าพารามิเตอร์ โดยใช้วิธีการประมาณค่าแบบวิธีไลค์ลิฮูดสูงสุด (A Maximum Likelihood) ผ่านการกำหนดโมเดลเพื่อทำการวิเคราะห์การออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด โดยการระบุความเป็นไปได้ค่าเดียวของตัวแบบ (Identification of model) ซึ่งระบุว่าตัวแบบสามารถประมาค่าพารามิเตอร์ได้เป็นค่าเดียว จากนั้นจึงทำการประมาณค่าพารามิเตอร์จากตัวแบบ (Parameter estimation from the mode) จากนั้นผู้วิจัยจึงทำการวิเคราะห์องค์ประกอบเชิงยืนยันการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดผ่านการวิเคราะห์ซึ่งสามารถหาแสดงค่าน้ำหนักองค์ประกอบจากการวิเคราะห์เส้นทางความสัมพันธ์เชิงสาเหตุระหว่างตัวแปร โดยที่ได้ทำการตัด Factor loading ที่ต่ำกว่า 0.70 ออกจากโมเดล (Schumacher, R. E., & Lomax, R. G. ,2010). ดังแสดงในภาพที่ 2



ภาพที่ 2 องค์ประกอบเชิงยืนยันการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด

จากภาพ 2 สามารถนำวิเคราะห์องค์ประกอบเชิงยืนยันการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดโดยสังเกตจากค่าน้ำหนักองค์ประกอบของรูปแบบความสัมพันธ์เชิงสาเหตุ จากนั้นจึงนำค่าน้ำหนักองค์ประกอบมาพิจารณาค่าสัมประสิทธิ์การพยากรณ์ (R^2) ซึ่งเป็นการระบุระดับความสัมพันธ์ระหว่างองค์ประกอบเชิงยืนยันว่า และสามารถนำผลการวิจัยดังกล่าวมาอภิปรายถึงผลการวิจัยองค์ประกอบเชิงยืนยันที่ต่อการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด โดยสามารถแสดงค่าน้ำหนักองค์ประกอบและค่าสัมประสิทธิ์การพยากรณ์ ได้ดังแสดงในตาราง 1

ตารางที่ 1 ค่าน้ำหนักองค์ประกอบและค่าสัมประสิทธิ์การพยากรณ์

องค์ประกอบ/ตัวแปร	ค่าน้ำหนักองค์ประกอบ	สัมประสิทธิ์การพยากรณ์
ปัจจัยด้านเศรษฐกิจ	**0.89**	**0.79**
นโยบายลดภาระค่าใช้จ่ายประชาชน	0.74	0.54
นโยบาย/ผลิตภัณฑ์ส่งเสริมการออมจากภาคเอกชน	0.77	0.59

ปัจจัยส่วนบุคคล	**0.98**	**0.96**
ภาระหนี้สิน	0.73	0.53
จำนวนผู้พึ่งพิงรายได้ในครอบครัว	0.77	0.59
รายได้	0.73	0.53
อุปสงค์ต่อการถือเงิน	**0.93**	**0.86**
เพื่อใช้สอยในชีวิตประจำวัน	0.73	0.53
เพื่อใช้สอยเพื่อสะสมทรัพย์	0.73	0.53
เพื่อใช้เพื่อใช้ยามฉุกเฉิน	0.70	0.49

ที่มา: จากการสำรวจและคำนวณ

ตารางที่ 1 สามารถอภิปรายผลการวิเคราะห์องค์ประกอบเชิงยืนยันองค์ประกอบเชิงยืนยันการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด ดังนี้

1) ปัจจัยด้านเศรษฐกิจ ปัจจัยด้านเศรษฐกิจมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.79 โดยมีค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยัน คือ นโยบายลดภาระค่าใช้จ่ายประชาชนเท่ากับ 0.54 และนโยบาย/ผลิตภัณฑ์ส่งเสริมการออมจากภาคเอกชนเท่ากับ 0.59 สามารถอภิปรายได้ว่า สิ่งที่กระตุ้นให้ประชากรกลุ่ม Gen Y เกิดการออมมากขึ้นในสถานการณ์โรคระบาด คือ นโยบายลดภาระค่าใช้จ่ายประชาชน เพราะการช่วยให้ประชาชนมีค่าใช้จ่ายในการบริโภคที่ลดลงก็จะส่งผลให้ประชาชนสามารถมีเงินเกิดได้เยอะมากขึ้น

2) ปัจจัยส่วนบุคคล ปัจจัยส่วนบุคคลมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.96 โดยมีค่าสัมประสิทธิ์การพยากรณ์ขององค์ประกอบยืนยัน คือ ภาระหนี้สินเท่ากับ 0.53 จำนวนผู้พึ่งพิงรายได้ในครอบครัวเท่ากับ 0.59 และรายได้เท่ากับ 0.53 เมื่อพิจารณาจะพบว่าตัวแปรจำนวนผู้พึ่งพิงรายได้ในครอบครัวมีค่าน้ำหนักปัจจัยและค่าสัมประสิทธิ์การพยากรณ์ สูงที่สุดในองค์ประกอบในลำดับที่ 1 ซึ่งนิรนัยได้ว่าการที่มีผู้พึ่งพิงรายได้ของประชากรกลุ่มนี้มากเกินไปจะส่งผลกระทบอย่างสูงกับการพิจารณาออมเงินของกลุ่มประชากร Gen Y

3) อุปสงค์ต่อการถือเงิน อุปสงค์ต่อการถือเงินมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.86 ทั้งนี้มี ค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยัน คือ เพื่อใช้สอยในชีวิตประจำวัน 0.53 เพื่อใช้สอยเพื่อสะสมทรัพย์ 0.53 และเพื่อใช้เพื่อใช้ยามฉุกเฉินเท่ากับ 0.45 ทั้งนี้ องค์ประกอบเชิงยืนยันของอุปสงค์ต่อการถือเงินเป็นองค์ประกอบเชิงยืนยันทั้งสิ้นสามารถนิรนัยได้ว่าการมีกระแสเงินสดไว้กับตนเองมีสัมพันธ์ที่สอดรับในทุกมิติของการออม

การพยากรณ์แนวโน้มการออมในสถานการณ์โรคระบาดของประชากร Gen Y

จากการวิเคราะห์องค์ประกอบเชิงยืนยันต่อการออมของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด ทำให้ได้ทราบองค์ประกอบเชิงยืนยันที่เป็นปัจจัยสำคัญที่ก่อให้เกิดการลงทุนโดยพิจารณาจากการที่ปัจจัยมีค่าองค์ประกอบเชิงยืนยันมากกว่า 0.70 จากนั้นจึงได้ทำการนำปัจจัยดังกล่าวมาพยากรณ์แนวโน้มโดยการใช้โดยใช้สมการการวิเคราะห์ถดถอยพหุแบบเส้นทางสัมพันธ์ โดยผู้วิจัยได้ทำการตรวจสอบค่าความสัมพันธ์ระหว่างตัวแปร (Correlation) พบว่า ไม่มีตัวแปรใดที่มีความสัมพันธ์เกิน 0.8 โดยตั้งค่านัยสำคัญทางสถิติที่ระดับ 0.05 โดยมีค่าความสัมประสิทธิ์สหสัมพันธ์อยู่ระหว่าง 0.381-0.586 จากนั้นจึงนำข้อมูลตัวแปรที่สกัดจาก factor loading ที่มากกว่า 0.70 มาวิเคราะห์ความแปรปรวน โดยจากการตรวจสอบความแปรปรวนในการพยากรณ์

การออมของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดพบว่าค่า P-value มีค่าเท่ากับ 0.00 จากนั้นจึงทำการประมวลผลเพื่อหาค่าสัมประสิทธิ์สหสัมพันธ์ถดถอยพหุคูณของตัวแปรพยากรณ์ที่ใช้พยากรณ์การออมของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด แสดงในตาราง 2

ตาราง 2 ค่าสัมประสิทธิ์สหสัมพันธ์ถดถอยพหุคูณแบบขั้นตอนของตัวแปรพยากรณ์

ตัวแปรพยากรณ์	**b**	**S.E.B**	**B**	**t**	**p**
อุปสงค์ต่อการถือเงินเพื่อใช้ในชีวิตประจำวัน	0.144	0.051	0.135	2.815	0.005
รายได้	0.251	0.051	0.248	4.895	0.000
อุปสงค์ต่อการถือเงินเพื่อสะสมทรัพย์	-0.114	0.051	-0.108	-2.220	0.027
จำนวนผู้พึ่งพิงรายได้ในครอบครัว	0.141	0.028	0.129	3.363	0.043
ภาระหนี้สิน	0.170	0.051	0.164	3.367	0.001
อุปสงค์ต่อการถือเงินเพื่อใช้ยามฉุกเฉิน	0.169	0.050	0.163	3.360	0.001
นโยบายหรือผลิตภัณฑ์ส่งเสริมการออมจากภาคเอกชน	0.126	0.052	0.117	2.422	0.016
นโยบายลดภาระค่าใช้จ่ายประชาชน	0.174	0.050	0.156	3.467	0.001
ค่าคงที่ 0.121					

$^{*}p < 0.05$

จากตาราง 2 แสดงค่าสัมประสิทธิ์สหสัมพันธ์ถดถอยพหุคูณของตัวแปรพยากรณ์ที่ใช้พยากรณ์การออมของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด จากผลวิจัยนี้สามารถเขียนสมการพยากรณ์ในรูปคะแนนดิบ ได้ดังนี้

Y = 0.121 + 0.141 (จำนวนผู้พึ่งพิงรายได้ในครอบครัว) + 0.144 (อุปสงค์ต่อการถือเงินเพื่อใช้ในชีวิตประจำวัน) + 0.251 (รายได้) - 0.114 (อุปสงค์ต่อการถือเงินเพื่อสะสมทรัพย์) + 0.170 (ภาระหนี้สิน) + 0.169 (อุปสงค์ต่อการถือเงินเพื่อใช้ยามฉุกเฉิน) + 0.126 (นโยบาย/ผลิตภัณฑ์ส่งเสริมการออมจากภาคเอกชน) + 0.174 (นโยบายลดภาระค่าใช้จ่ายประชาชน)

จากสมการพยากรณ์แนวโน้มการออม พบว่า รายได้มีค่าสัมประสิทธิ์สูงสุดเท่ากับ 0.251 ซึ่งสามารถอธิบายได้ว่าเมื่อเกิดสถานการณ์โรคระบาดขึ้น หากประชากรกลุ่ม Gen Y มีรายได้ไป 1 หน่วยจะทำการออมเปลี่ยนแปลงไป 0.251 หน่วย

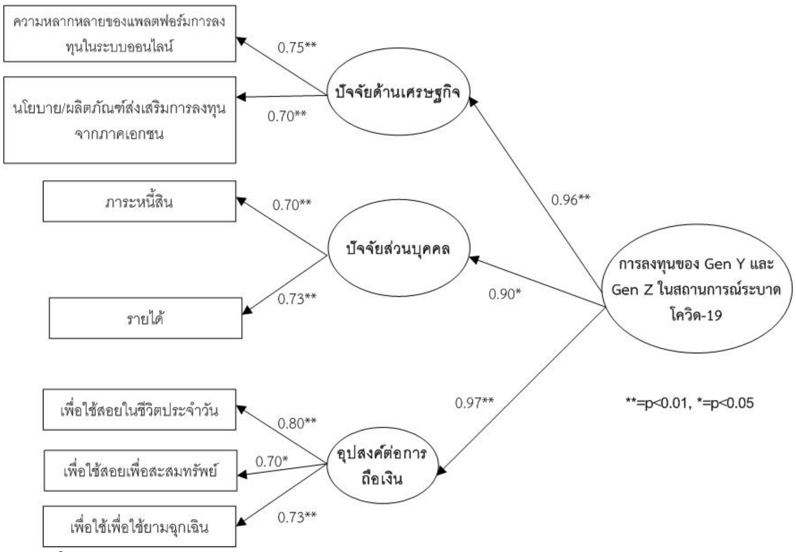
อย่างไรก็ตามตัวแปรพยากรณ์ คือ อุปสงค์ต่อการถือเงินเพื่อสะสมทรัพย์ มีค่าติดลบเท่ากับ -0.114 ซึ่งสามารถอธิบายได้ว่าเมื่อเกิดสถานการณ์โรคระบาดขึ้น หากประชากรกลุ่ม Gen Y มีอุปสงค์ต่อการถือเงินเพื่อสะสมทรัพย์เปลี่ยนแปลงไป 1 หน่วยจะทำการออมเปลี่ยนแปลงไป 0.114 หน่วย ในทิศทางตรงข้าม

ผลการศึกษาปัจจัยที่มีอิทธิพลและการพยากรณ์แนวโน้มการลงทุนของคนกลุ่ม Gen Y

ผลการศึกษาด้านปัจจัยที่มีอิทธิพลและการพยากรณ์แนวโน้มการลงทุนของคนกลุ่มตัวอย่างในสถานการณ์โรคระบาด สามารถอภิปรายผลได้เป็นหัวข้อ ดังนี้

องค์ประกอบเชิงยืนยันต่อการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด

การวิเคราะห์ส่วนนี้ใช้หลักการเดียวกันกับการวิเคราะห์การออมที่ได้นำเสนอมาก่อนหน้านี้ โดยสามารถแปลความหมายผลการวิเคราะห์ข้อมูลผล โดยทำการวัดค่า Chi-square Probability เท่ากับ 0.336 ค่า Chi-square Relative เท่ากับ 1.446 ค่า GFI เท่ากับ 0.997 ค่า CFI เท่ากับ 0.996 ค่า RMR เท่ากับ 0.010 ค่า RMSER เท่ากับ 0.075 จากนั้นจึงแปลความหมายผลการวิเคราะห์ข้อมูลผล (Schumacher, R. E., & Lomax, R. G. ,2010). ซึ่งทุกค่าผ่านมาตรฐานการตรวจสอบโมเดล ซึ่งอธิบายได้ว่าผลการตรวจสอบจะเห็นได้ว่าผ่านเกณฑ์มาตรฐาน แสดงว่าโมเดลมีความถูกต้องของโมเดล จากนั้นผู้วิจัยจึงทำการวิเคราะห์องค์ประกอบเชิงยืนยันการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดผ่านการวิเคราะห์ซึ่งสามารถหาแสดงค่าน้ำหนักองค์ประกอบจากการวิเคราะห์เส้นทางความสัมพันธ์เชิงสาเหตุระหว่างตัวแปร โดยที่ได้ทำการตัด Factor loading ที่ต่ำกว่า 0.70 ออกจากโมเดล (Schumacher, R. E., & Lomax, R. G. ,2010). ดังแสดงในภาพที่ 3



ภาพที่ 3 องค์ประกอบเชิงยืนยันการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด

จากภาพที่ 3 สามารถนำวิเคราะห์องค์ประกอบเชิงยืนยันการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดใช้หลักการเดียวกันกับการวิเคราะห์การออมที่ได้นำเสนอมาก่อนหน้านี้โดยสามารถแสดงค่าน้ำหนักองค์ประกอบและสัมประสิทธิ์การพยากรณ์ ได้ดังแสดงในตาราง 3

ตารางที่ 3 ค่าน้ำหนักองค์ประกอบและค่าสัมประสิทธิ์การพยากรณ์

องค์ประกอบ/ตัวแปร	ค่าน้ำหนักองค์ประกอบ	ค่าสัมประสิทธิ์การพยากรณ์
ปัจจัยด้านเศรษฐกิจ	**0.96**	**0.92**
ความหลากหลายของแพลตฟอร์มการลงทุนในระบบออนไลน์	0.75	0.56
นโยบาย/ผลิตภัณฑ์ส่งเสริมการลงทุนจากภาคเอกชน	0.70	0.49
ปัจจัยส่วนบุคคล	**0.90**	**0.81**

ภาระหนี้สิน	0.70	0.49
รายได้	0.73	0.53
อุปสงค์ต่อการถือเงิน	**0.97**	**0.94**
เพื่อใช้สอยในชีวิตประจำวัน	0.80	0.64
เพื่อใช้สอยเพื่อสะสมทรัพย์	0.70	0.49
เพื่อใช้เพื่อใช้ยามฉุกเฉิน	0.73	0.53

ที่มา: จากการสำรวจและคำนวณ

ตารางที่ 3 จะเห็นได้ว่าผลการพิจารณาค่าสัมประสิทธิ์การพยากรณ์ทุกๆ ค่าที่แสดงมีค่าเกิน 0.30 ทั้งสิ้นสามารถอภิปรายผลการวิเคราะห์ ดังนี้

1) ปัจจัยด้านเศรษฐกิจ ปัจจัยด้านเศรษฐกิจมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.92 โดยมีค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยัน คือ ความหลากหลายของแพลตฟอร์มการลงทุนในระบบออนไลน์เท่ากับ 0.56 และนโยบาย/ผลิตภัณฑ์ส่งเสริมการลงทุนจากภาคเอกชนเท่ากับ 0.49 สามารถอภิปรายโดยอ้างอิงจากการได้สัมภาษณ์หลายท่านพบได้ว่า ประชากรกลุ่ม Gen Y มีความคุ้นเคยและเชี่ยวชาญกับการใช้เทคโนโลยีและอินเทอร์เน็ต ประกอบกับปัจจุบันการลงทุนในหลักทรัพย์ดิจิทัลมีหลายแพลตฟอร์ม มีความไม่ซับซ้อนและไม่จำเป็นต้องใช้เงินลงทุนจำนวนมากนัก ประชากรกลุ่มนี้จึงชื่นชอบและนิยมที่จะออมและลงทุนผ่านสินทรัพย์ดิจิทัลมาก

2) ปัจจัยส่วนบุคคล ปัจจัยส่วนบุคคลมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.81 โดยมีค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยัน คือ ภาระหนี้สินเท่ากับ 0.49 จำนวนผู้พึ่งพิงรายได้ใน และรายได้เท่ากับ 0.53 ซึ่งนิรนัยได้ว่าการที่มีประชากร Gen Y จะเกิดการลงทุนได้นั้นต้องพิจารณาถึงรายได้ที่หลงเหลือจากภาระหนี้สินเป็นสำคัญ

3) อุปสงค์ต่อการถือเงิน อุปสงค์ต่อการถือเงินมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.94 ทั้งนี้มีค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยัน คือ เพื่อใช้สอยในชีวิตประจำวัน 0.64 เพื่อใช้สอยเพื่อสะสมทรัพย์ 0.49 และเพื่อใช้เพื่อใช้ยามฉุกเฉินเท่ากับ 0.53 ทั้งนี้ เมื่อพิจารณาจะพบว่าตัวแปรเพื่อใช้สอยในชีวิตประจำวันค่าสัมประสิทธิ์การพยากรณ์ สูงที่สุดในองค์ประกอบในลำดับที่ 1 ในโมเดลนี้ ดังนั้นสามารถนิรนัยได้ว่า การมีกระแสเงินสดไว้กับตนเองไว้ให้มากจะส่งผลต่อการลงทุน

การพยากรณ์แนวโน้มการลงทุนในสถานการณ์โรคระบาดของประชากร Gen Y

จากการวิเคราะห์องค์ประกอบเชิงยืนยันต่อการลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด ทำให้ได้ทราบองค์ประกอบเชิงยืนยันที่เป็นปัจจัยสำคัญที่ก่อให้เกิดการลงทุน โดยพิจารณาจากการที่ปัจจัยมีค่าองค์ประกอบเชิงยืนยันมากกว่า 0.70 จากนั้นจึงได้ทำการนำปัจจัยดังกล่าวมาพยากรณ์แนวโน้มโดยการใช้โดยใช้สมการการวิเคราะห์ถดถอยพหุแบบเส้นทางสัมพันธ์ โดยผู้วิจัยได้ทำการตรวจสอบค่าความสัมพันธ์ระหว่างตัวแปร (Correlation) พบว่า ไม่มีตัวแปรใดที่มีความสัมพันธ์เกิน 0.8 โดยตั้งค่านัยสำคัญทางสถิติที่ระดับ 0.05 โดยมีค่าความสัมประสิทธิ์สหสัมพันธ์อยู่ระหว่าง 0.413-0.553 จากนั้นจึงนำข้อมูลตัวแปรที่สกัดจาก factor loading ที่มากกว่า 0.70 มาวิเคราะห์ความแปรปรวน โดยจากการตรวจสอบความแปรปรวนในการพยากรณ์การลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดพบว่าค่า P-value มีค่าเท่ากับ 0.00 จากนั้นจึงทำการ

ประมวลผลเพื่อหาค่าสัมประสิทธิ์สหสัมพันธ์ถดถอยพหุคูณของตัวแปรพยากรณ์ที่ใช้พยากรณ์การลงทุนของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาด แสดงในตาราง 4

ตาราง 4 ค่าสัมประสิทธิ์สหสัมพันธ์ถดถอยพหุคูณแบบขั้นตอนของตัวแปรพยากรณ์

ตัวแปรพยากรณ์	b	S.E.B	B	t	p
อุปสงค์ต่อการถือเงินเพื่อใช้ในชีวิตประจำวัน	0.201	0.052	0.177	3.826	0.000
อุปสงค์ต่อการถือเงินเพื่อสะสมทรัพย์	0.103	0.050	0.097	2.047	0.041
อุปสงค์ต่อการถือเงินเพื่อใช้ยามฉุกเฉิน	0.187	0.048	0.180	3.870	0.000
ภาระหนี้สิน	0.162	0.051	0.156	3.151	0.002
รายได้	0.248	0.054	0.244	4.616	0.000
นโยบายหรือผลิตภัณฑ์ส่งเสริมการออมจากภาคเอกชน	-0.098	0.052	-0.093	-1.878	0.061
ความหลากหลายของแพลตฟอร์มการลงทุนในระบบออนไลน์	0.132	0.050	0.125	2.619	0.009
ค่าคงที่ 0.234					

* $p < 0.05$

Y = 0.234 + 0.201 (อุปสงค์ต่อการถือเงินเพื่อใช้ในชีวิตประจำวัน) + 0.103 (อุปสงค์ต่อการถือเงินเพื่อสะสมทรัพย์) + 0.187 (อุปสงค์ต่อการถือเงินเพื่อใช้เพื่อใช้ยามฉุกเฉิน) + 0.162 (ภาระหนี้สิน) + 0.248 (รายได้) - 0.098 (นโยบาย/ผลิตภัณฑ์ส่งเสริมการลงทุนจากภาคเอกชน) + 0.132 (ความหลากหลายของแพลตฟอร์มการลงทุนในระบบออนไลน์) จากสมการพยากรณ์แนวโน้มการลงทุน พบว่า รายได้มีค่าสัมประสิทธิ์สูงสุดเท่ากับ 0.248 ซึ่งสามารถอธิบายได้ว่า เมื่อเกิดสถานการณ์โรคระบาดขึ้น หากประชากรกลุ่ม Gen Y มีการเปลี่ยนแปลงรายได้ไป 1 หน่วยจะทำการลงทุนเปลี่ยนแปลงไป 0.248 หน่วย

สรุปและอภิปรายผล

การวิจัยองค์ประกอบเชิงยืนยันในการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดซึ่งตรงกับวัตถุประสงค์การวิจัยข้อที่ 1 พบว่า การลดภาระค่าใช้จ่ายประชาชนเป็นองค์ประกอบเชิงยืนยันที่มีค่าสัมประสิทธิ์การพยากรณ์สูงสุดเป็น 3 ลำดับแรก สามารถนิรนัยได้ว่า จำนวนผู้พึ่งพิงรายได้ในครอบครัวและนโยบายจากภาครัฐลดภาระค่าใช้จ่ายประชาชนเป็นสิ่งที่สอดคล้องกับภาระค่าใช้จ่ายของประชาชนและจะส่งผลต่อการออมอย่างมีนัยสำคัญ โดยที่มีนโยบายหรือผลิตภัณฑ์ส่งเสริมการออมจากภาคเอกชนที่น่าสนใจและให้สิทธิประโยชน์สูงสุดแก่ผู้ซื้อจะเป็นสิ่งเร้าให้เกิดการออมเป็นอย่างยิ่ง ซึ่งมีความสอดคล้องกับงานวิจัยของ Hongyun Si ที่วิจัยและให้ข้อมูลในประเด็นเดียวกัน (Hongyun Si, 2021) ขณะที่เมื่อพิจารณาเรื่องการลงทุนซึ่งตรงกับวัตถุประสงค์การวิจัยข้อที่ 2 พบว่า อุปสงค์ต่อการถือเงินเพื่อใช้สอยในชีวิตประจำวันและความหลากหลายของแพลตฟอร์มการลงทุนในระบบออนไลน์เป็นองค์ประกอบเชิงยืนยันที่มีค่าสัมประสิทธิ์การพยากรณ์ สูงสุดเป็น 3 ลำดับแรก สามารถนิรนัยได้ว่าการมีกระแสเงินสดไว้เพื่อใช้สอยในชีวิตประจำเพียงพอเป็นสิ่งสำคัญที่สุดที่จะต้อง

นำมาพิจารณาก่อนเกิดการลงทุน โดยที่การลงทุนนี้จะถูกกระตุ้นจากความหลากหลายของแพลตฟอร์มการลงทุนในระบบออนไลน์ซึ่งข้อมูลดังกล่าวมีความสอดคล้องกับงานวิจัยของ Christoph Huber ที่ระบุข้อมูลวิจัยไปในทิศทางเดียวกัน (Christoph Huber, 2021)

เมื่อพิจารณาการพยากรณ์แนวโน้มการออมเงินของคนกลุ่ม Gen Y ในสถานการณ์โรคระบาดซึ่งตรงกับวัตถุประสงค์การวิจัยข้อที่ 3 พบว่า จำนวนผู้พึ่งพิงรายได้ในครอบครัวและอุปสงค์ต่อการถือเงินเพื่อใช้ในชีวิตประจำวันเป็นตัวแปรพยากรณ์ที่มีค่าสัมประสิทธิ์สูงสุด 2 ลำดับแรก สามารถนิรนัยได้ว่าหากเกิดสถานการณ์โรคระบาดขึ้นจำนวนผู้พึ่งพิงรายได้ในครอบครัวและกระแสเงินสดเพื่อใช้ในชีวิตประจำวันจะเป็นสิ่งที่ประชากรกลุ่มนี้จะพิจารณาเป็นลำดับแรกก่อนจะตัดสินใจออม ซึ่งผลการวิจัยดังกล่าวมีความคล้ายคลึงกับงานวิจัยของ Hongyun Si ที่ระบุข้อมูลในแนวทางที่สอดคล้องกับงานวิจัยนี้ (Hongyun Si, 2021) ขณะที่การพยากรณ์แนวโน้มการลงทุนซึ่งตรงกับวัตถุประสงค์การวิจัยข้อที่ 4 พบว่า อุปสงค์ต่อการถือเงินเพื่อใช้สอยในชีวิตประจำวันและรายได้เป็นตัวแปรพยากรณ์ที่มีค่าสัมประสิทธิ์สูงสุด 2 ลำดับแรก สามารถนิรนัยได้ว่าหากเกิดสถานการณ์โรคระบาดขึ้นรายได้และกระแสเงินสดเพื่อใช้ในชีวิตประจำวันจะเป็นปัจจัยสำคัญที่ประชากรกลุ่มนี้จะพิจารณาก่อนจะตัดสินใจลงทุนซึ่งผลการวิจัยดังกล่าวมีความสอดคล้องกับงานวิจัยของ Emigdio Larios-Gómez (ที่ชี้ชัดว่าตัวแปรดังกล่าวส่งผลอย่างมีนัยสำคัญต่อการลงทุนในภาวะการณ์ระบาด Covid-19 Gomez, 2021)

ข้อเสนอแนะเชิงนโยบาย

1) เมื่อพิจารณาจากองค์ประกอบเชิงยืนยัน หากในอนาคตเกิดสถานการณ์โรคระบาด รัฐบาลจะสามารถกระตุ้นการออมจากประชากรกลุ่มนี้ให้เกิดขึ้นได้โดยใช้มาตรการหรือนโยบายที่ลดภาระค่าใช้จ่ายประชาชนเพราะปัจจัยดังกล่าวส่งผลต่อการออมเป็นอย่างสูง เช่นเดียวกับภาคเอกชนหรือสถาบันการเงินควรจะต้องสร้างผลิตภัณฑ์ส่งเสริมการออมที่น่าสนใจและให้สิทธิประโยชน์หลากหลายเพื่อดึงดูดเงินออมจากประชากรกลุ่มดังกล่าว

2) เมื่อพิจารณาจากองค์ประกอบเชิงยืนยัน หากในอนาคตเกิดสถานการณ์โรคระบาด ภาครัฐบาลและเอกชนจะสามารถกระตุ้นการลงทุนจากประชากรกลุ่มนี้ให้เกิดขึ้นได้โดยการสร้างแพลตฟอร์มการลงทุนในระบบออนไลน์ที่น่าสนใจและให้สิทธิประโยชน์หลากหลายเพื่อดึงดูดเงินออมจากประชากรกลุ่มดังกล่าว โดยต้องเจาะกลุ่มประชากรที่กระแสเงินสดไว้เพื่อใช้สอยในชีวิตประจำเพียงพอซึ่งอาจจะพิจารณาได้จากการพิจารณาหนี้ส่วนบุคคลและหนี้ครัวเรือนเป็นสำคัญ

เอกสารอ้างอิง

ธานินทร์ ศิลป์จารุ. (2555). *การวิจัยและวิเคราะห์ข้อมูลทางสถิติด้วย SPSS และ AMOS*. พิมพ์ครั้งที่ 13. กรุงเทพฯ:สำนักพิมพ์.

บริษัท ข้อมูลเครดิตแห่งชาติ จำกัด. (2564). *การเป็นหนี้ของกลุ่ม GEN Y กลุ่มที่สร้างหนี้ง่ายขึ้น หนี้เร็วขึ้นและหนี้นานมากขึ้น*. สืบค้นจาก www.ncb.co.th/credit-bureau-video/.

พิจิตรา ก้องกิตติงาม และ บุษรา โพวาทอง. (2561). กลุ่มเจนเนอเรชันวายกับการวางแผนทางการเงินเพื่อซื้อที่อยู่อาศัย: กรณีศึกษา บัณฑิตจบใหม่จากจุฬาลงกรณ์มหาวิทยาลัย. *วารสารสาระศาสตร์*

วันรักษ์ มิ่งมณีนาคิน. (2546). เศรษฐศาสตร์เบื้องต้น. พิมพ์ครั้งที่ 7. กรุงเทพฯ: มหาวิทยาลัยธรรมศาสตร์. สืบค้นจากhttps://suandusitpoll.dusit.ac.th/WEB/list-pollphpSearch.

สำนักงานสถิติแห่งชาติ. (2564). *จำนวนและสัดส่วนประชากรจากการทะเบียน จำแนกตามกลุ่มอายุ (วัยเด็ก วัยแรงงาน วัยสูงอายุ) เพศ ภาค และจังหวัดพ.ศ.2563-2554*.สืบค้นจาก http://statbbi.nso.go.th/ staticreport/page/sector/th/01.aspx.

อมรทิพย์ แท้เที่ยงธรรม. (2544). *เศรษฐศาสตร์มหภาค*. กรุงเทพฯ: สำนักพิมพ์มหาวิทยาลัยเกษตรศาสตร์.

Byrne, B.M. (2005). *Factor analytic models: Viewing structure of an assessment instrument from three different perspectives*. *Journal of Personality Assessment, 17*, 85-132.

Huber, C., Huber, J., & Kirchler, M. (2021). Market shocks and professionals' investment behavior-Evidence from the COVID-19 crash. *Journal of Banking and Finance, 133*, 1-8.

Larios-Gómez, E., Fischer, L., Peñalosa, M., & Ortega-Vivanco, M. (2021). Purchase behavior in COVID-19: A cross study in Mexico, Colombia, and Ecuador. *Heliyon, 7*(3), 1-12.

Hair, Jr.J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis: A global perspective*. 7th ed. New York: Pearson Prentice Hall.

Si, H., Shen, L., Liu, W., & Wu, G. (2021). Uncovering people's mask-saving intentions and behaviors in the post-COVID-19 period: Evidence from China. *Sustainable Cities and Society, 12*(65), 1-14.

Sifat, I. (2021). On cryptocurrencies as an independent asset class: Long-horizon and COVID-19 pandemic era decoupling from global sentiments. *Finance Research Letters, 42*, 106-120.

Shachat, J., Walker, M., & Wei, L. (2020). *The Impact of the Covid- 19Pandemic on Economic Behaviours and Preferences*: Experimental Evidence from Wuhan. Working Paper.

Schumacher, R., & Lomax, R. (2010). *A Beginners Guide to Structural Equation Modeling: SEM*. New Jersey: Lawrence Erlbaum Associates.

Yamane, T. (1973). Statistics: *An Introductory Analysis*. 3rd ed. New York: Harper and Row.

ปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์รถยนต์ไฟฟ้าแบตเตอรี่ BEV

Factors Effecting towards Purchase of The Battery Electric Vehicle

ดนัยกฤต อินทุฤทธิ์ / Danaikrit Inthurit
คณะบริหารธุรกิจและเทคโนโลยีสารสนเทศ มหาวิทยาลัยเทคโนโลยีราชมงคลตะวันออก / Faculty of Business Administration and Information Technology, Rajamangala University of Technology Tawan-Ok
E-mail: danaikrit_in@rmutto.ac.th

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาปัจจัยที่มีอิทธิพลและองค์ประกอบเชิงยืนยันของปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ผ่านการรวบรวมข้อมูลจากแบบสอบถามจากผู้ซื้อรถไฟฟ้าแบตเตอรี่ BEV จำนวน 386 คน ผลการวิจัยพบว่าเศรษฐกิจมหภาคและอุปสงค์ต่อการถือเงินเป็นปัจจัยที่มีความสำคัญมากที่สุดโดยมีค่าสัมประสิทธิ์เส้นทางเท่ากับ 0.51 และ 0.49 ตามลำดับ ขณะที่การวิเคราะห์องค์ประกอบเชิงยืนยันพบว่าปัจจัยผลิตภัณฑ์ในด้านส่วนผสมการตลาดและปัจจัยแนวโน้มราคาน้ำมัน เป็นตัวแปรที่มีค่าสัมประสิทธิ์การพยากรณ์สูงที่สุด 2 ลำดับแรกโดยมีโดยมีค่าสัมประสิทธิ์การพยากรณ์เท่ากับ 0.55 และ 0.52 ตามลำดับ โดยงานวิจัยนี้มีข้อเสนอแนะให้หน่วยงานภาครัฐนโยบายทางเศรษฐศาสตร์มหภาคให้เอื้อต่อการซื้อรถไฟฟ้าแบตเตอรี่ BEV เช่น การลดหย่อนหรือกำหนดภาษีอัตราพิเศษสำหรับการซื้อรถไฟฟ้าแบตเตอรี่ BEV เป็นต้น ตลอดจนภาคธุรกิจที่เกี่ยวข้องกับรถยนต์ไฟฟ้าแบตเตอรี่ BEV จะต้องเลือกสรรจากแบรนด์ที่ได้รับความเชื่อและมีภาพลักษณ์ที่น่าเชื่อถือที่สุดเพื่อสร้างจุดแข็งในการดำเนินธุรกิจใดๆ ที่เกี่ยวข้องกับรถยนต์ไฟฟ้าแบตเตอรี่ BEV

คำสำคัญ: รถยนต์ไฟฟ้าแบตเตอรี่, ปัจจัยที่มีอิทธิพล, พฤติกรรม, การวิเคราะห์เส้นทาง, องค์ประกอบเชิงยืนยัน

Abstract

This research aimed to study factors effecting and the corroborative components of the factors influencing the purchase of battery electric vehicles by collecting data from a questionnaire from 386 battery electric vehicle buyers. The results showed that macroeconomic and demand for money were the most important factors, with path coefficients of 0.51 and 0.49, respectively. While the corroborative component analysis revealed that the product factors in terms of market ingredients and oil price trend factors The variables with the highest forecast coefficients were the first two with forecast coefficients of 0.55 and 0.52, respectively. In this research, there are suggestions for government agencies on macroeconomic policies to facilitate the purchase of electric vehicles such as a reduction or special tax rate for the purchase of BEV battery electric vehicles, etc. As well as those involved in the battery electric vehicle sector, BEV must select from the most trusted brands and the most trusted image to build a strong point in any business related to the BEV battery electric vehicle.

Keywords: BEV, Factor Effecting, Behavior, Path Analysis, Confirm Factor Analysis

บทนำ

พลังงานเป็นปัจจัยพื้นฐานที่สำคัญที่ใช้ในการผลิตตั้งแต่ภาคครัวเรือนไปจนถึงระดับอุตสาหกรรม ซึ่งมนุษย์มีความต้องการที่จะใช้พลังงานมากขึ้น จนทำให้มีการก่อก๊าซคาร์บอนไดออกไซด์ ในอากาศเป็นจำนวนมาก ส่งผลกระทบต่อสภาพแวดล้อมทางธรรมชาติ จนเกิดเป็นปรากฏการณ์เรือนกระจก และส่งผลต่อสิ่งมีชีวิตทั้งหมดบนโลก เนื่องจากการคมนาคมเป็นสาเหตุสำคัญ อย่างหนึ่งที่ทำให้เกิด ภาวะโลกร้อนในปัจจุบัน โดยที่ปัญหาการปล่อยมลพิษของรถยนต์ส่วนใหญ่เป็นเครื่องยนต์ประเภทที่ใช้การเผาไหม้น้ำมันเชื้อเพลิงเป็นแหล่งพลังงานในการขับเคลื่อน ฉะนั้นเมื่อมีการเผาไหม้ภายในรถยนต์แล้วจะ เกิดการปล่อยมลพิษออกสู่สิ่งแวดล้อม ปัญหาดังกล่าวนี้ส่งผลกระทบต่อหลายประเทศทั่วโลก หลายประเทศมองเห็นถึงปัญหาของภาวะโลกร้อน จึงมีมาตรการทางกฎหมายในการส่งเสริมการนำพลังงานทดแทนมาใช้แทนพลังงานน้ำมัน เพื่อลดการนำเข้าน้ำมันดิบจากต่างประเทศและลดก๊าซคาร์บอนไดออไซด์ในขณะขับเคลื่อนของรถยนต์ประเภทเครื่องยนต์ที่ใช้น้ำมันที่เกิดขึ้นและส่งผลกระทบต่อสิ่งแวดล้อม จนเกิดเป็นนวัตกรรม ใหม่เพื่อสิ่งแวดล้อมคือรถยนต์ขับเคลื่อนด้วยพลังงานไฟฟ้า รถยนต์ไฟฟ้านี้มีการ ปลดปล่อยมลพิษใกล้เคียงศูนย์ โดยรถยนต์ไฟฟ้าแบตเตอรี่เป็นนวัตกรรมใหม่ที่ได้รับความนิยมเพิ่มขึ้นอย่างรวดเร็ว

ด้วยปัจจัยผลักดันหลายด้านแต่ที่สำคัญที่สุด คือ การไม่ใช้พลังงานจากน้ำมัน ซึ่งความผันผวนของราคาน้ำมันและปัจจัยการเมืองระดับโลกและระดับประเทศยิ่งเป็นปัจจัยผลักดันให้คนใช้รถยนต์ไฟฟ้าแบตเตอรี่มากขึ้น ยกตัวอย่างเช่น สงครามระหว่างรัสเซียกับยูเครนที่เริ่มต้นในวันที่ 24 กุมภาพันธ์ 2565 ส่งผลให้ราคาน้ำมันดิบ พุ่งขึ้นไปแตะระดับ 118 ดอลลาร์ต่อบาร์เรล ในวันที่ 3 มีนาคม 2565 โดยระดับราคาดังกล่าวเป็นระดับสูงสุดในรอบ 9 ปี นับตั้งแต่สถิติสูงสุดเดิมของราคาน้ำมันอยู่ที่ระดับ 147.50 ดอลลาร์ต่อบาร์เรลในเมื่อปี 2551 (หน่วยวิเคราะห์สถานการณ์ราคาน้ำมัน บมจ. ไทยออยล์, 2565)

สำหรับในประเทศไทยรถยนต์ไฟฟ้าแบตเตอรี่มีมากขึ้นในปัจจุบัน โดยจะเห็นได้จากสถิติจำนวนรถที่จดทะเบียนใหม่ตามกฎหมายว่าด้วยรถยนต์ กฎหมายว่าด้วยการขนส่งทางบก จำแนกตามชนิดเชื้อเพลิง ทั่วประเทศย้อนหลัง 5 ปีตั้งแต่ปี 2560-2564 จำนวน 10,997 คัน โดยเรียงลำดับตามปีได้ดังนี้ 165 325 1,527 2,999 และ 5,889 คัน (กลุ่มสถิติการขนส่ง กองแผนงาน กรมการขนส่งทางบก, 2565) ซึ่งการเติบโตของจำนวนรถยนต์ไฟฟ้าแบตเตอรี่สะท้อนภาพการตื่นตัวของประชาชนชาวไทยที่ให้ความสนใจในรถยนต์ไฟฟ้าแบตเตอรี่มากขึ้น จากเหตุผลที่ได้นำเสนอมานั้น ผู้วิจัยมีความสนใจที่จะศึกษาถึง ปัจจัยที่ส่งผลต่อการเลือกซื้อรถยนต์พลังงานไฟฟ้า เพื่อให้ทราบ ถึงการปัจจัยที่มีอิทธิพลในการตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ โดยงานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV และเพื่อศึกษาองค์ประกอบเชิงยืนยันของปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ซึ่งผลการวิจัยจะเกิดประโยชน์ต่อนักลงทุนหรือผู้ประกอบการที่กำลังพิจารณาการลงทุนในธุรกิจใดๆ ที่เกี่ยวข้องกับรถยนต์ ตลอดจนเป็นข้อมูลให้หน่วยงานรัฐทราบถึงปัจจัยที่จะส่งเสริมการรถยนต์ไฟฟ้าแบตเตอรี่ซึ่งจะส่งเสริมให้เกิดการประหยัดพลังงานจากเชื้อเพลิงและการลดมลภาวะทางด้านอากาศในประเทศ

การทบทวนวรรณกรรม

แนวคิดความต้องการถือเงิน (Demand for Money) หมายถึง แบ่งความต้องการถือเงินออกเป็น 3 ประเภท คือ ความต้องการถือเงินเพื่อใช้จ่ายในชีวิตประจำวัน ความต้องการถือเงินเพื่อใช้จ่ายเมื่อเกิดเหตุการณ์ที่ไม่ได้คาดคิดไว้ล่วงหน้า และความต้องการถือเงินเพื่อแสวงหากำไร จากการที่เคนส์เชื่อว่า คนเราจะถือเงินส่วนหนึ่งไว้เพื่อแสวงหากำไร (วันรักษ์ มิ่งมณีนาคิน, 2546: 59-63)

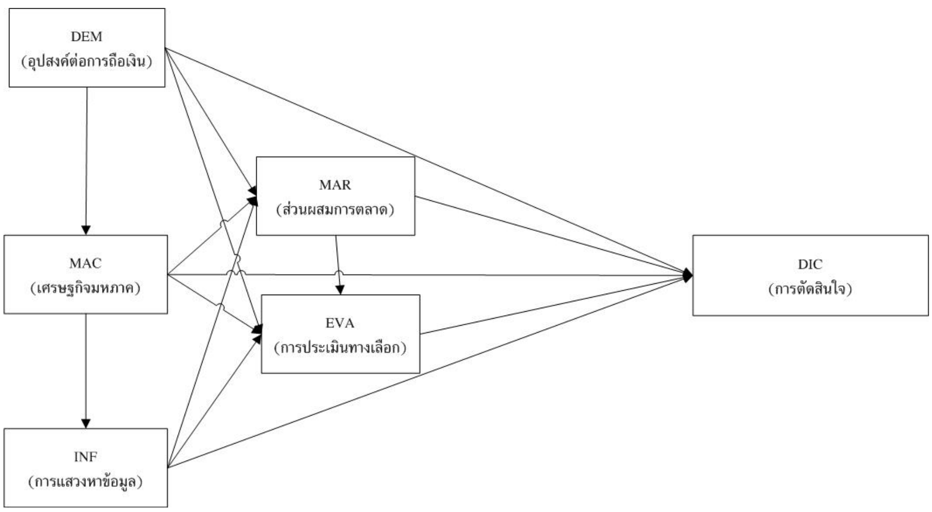
แนวคิดเศรษฐกิจมหภาค หมายถึง ปัจจัยที่ส่งผลต่อปรากฏการณ์ทางเศรษฐกิจ โดยส่วนรวม ที่ส่งผ่านพฤติกรรมและ Aggregate) ในระดับปัจเจกชนแล้วส่งผลสู่ระดับมหภาค เช่น ผลผลิต มวลรวม รายได้ประชาชาติ การบริโภคมวลรวม การลงทุนมวลรวม การใช้จ่ายของรัฐบาล และการจ้างงาน เป็นต้น (อมรทิพย์ แท้เที่ยงธรรม, 2544: 62-108)

แนวคิดส่วนผสมการตลาด เป็นตัวแปรอิสระที่สำคัญที่นำมาพิจารณาโดยใช้ตัวแปรส่วนประสมการตลาด 7 ตัวแปรย่อย ได้แก่ สินค้า (Product) ราคา (Price) สถานที่ (place) สิทธิประโยชน์ (Promotion) บุคลากร (People) กระบวนการ (Process) องค์ประกอบทางกายภาพ (Physical Evidence) มาเป็นตัวแปรต้นในการพิจารณา (Schiffman, L. G., & Kanuk, L. L., 1994).

แนวคิดการแสวงหาข้อมูล การแสวงหาข้อมูลภายใน (Internal Search) จากความต้องการหรือความทรงจำของตนเอง และการแสวงหาข้อมูลภายนอก (External Search) ทั้งจาก แหล่งบุคคล แหล่งพาณิชย์ และแหล่งสาธารณะ ทั้งการแสวงหาข้อมูลภายในและภายนอกจะทำให้ผู้บริโภคได้กลุ่มทางเลือกที่พิจารณา (Evoked Set)

แนวคิดการประเมินทางเลือก การนำข้อมูลที่ได้มาพิจารณาความสำคัญและประโยชน์ที่ได้รับก่อนการตัดสินใจซื้อ มีการตั้งเกณฑ์ที่ใช้ในการเปรียบเทียบก็จะประเมินทางเลือกและตัดสินใจเลือกทางที่ดีที่สุด วิธีการที่ผู้บริโภคใช้ในการประเมินทางเลือกอาจจะประเมิน (Schiffman, L. G., & Kanuk, L. L., 1994).

จากการนำองค์ความรู้ต่างๆ มาสกัดตัวแปรการวิจัยจึงได้การวิเคราะห์เส้นทางตามภาพ 1



ภาพ 1 แบบจำลองการวิเคราะห์เส้นทางความสัมพันธ์ (Path Analysis) ของตัวแปรที่ศึกษา

วิธีการวิจัย

ประชากรและกลุ่มตัวอย่าง

ประชากรและกลุ่มตัวอย่างที่ใช้รถยนต์รถยนต์ไฟฟ้าแบตเตอรี่ BEV ในประเทศไทย โดยกลุ่มตัวอย่างมีจำนวน 386 คน จากการคำนวณของยามาเน่ (Yamane, 1973) โดยกำหนดค่าความคาดเคลื่อนไว้ที่ร้อยละ 5 ทั้งนี้จำนวนกลุ่มตัวอย่างที่ได้กำหนดมานั้น ผู้วิจัยได้ทำการเจาะจงเลือกเฉพาะ

ผู้ที่เป็นเจ้าของรถไฟฟ้าแบตเตอรี่ โดยจะทำการสุ่มตัวอย่างแบบบอลล์หิมะ (Snowball sampling) โดยสาเหตุที่ต้องเลือกใช้การสุ่มตัวอย่างแบบบอลล์หิมะ เนื่องจากผู้จำนวนผู้ใช้รถไฟฟ้าแบตเตอรี่มีจำนวนไม่มากในประเทศไทย และกระจัดกระจายอยู่ทั่วประเทศ ดังนั้นผู้วิจัยจึงเห็นว่าการเลือกใช้การสุ่มตัวอย่างแบบบอลล์หิมะจะเป็นวิธีการที่ได้ข้อมูลและเข้าถึงตัวกลุ่มตัวอย่างได้ง่ายที่สุด

วิธีการเก็บรวบรวมข้อมูล

ผู้วิจัยใช้แบบการสอบถามเป็นเครื่องมือในการเก็บรวบรวมข้อมูล โดยแบบสอบถามแบ่งเป็น 3 ตอน ได้แก่ ตอนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม ตอนที่ 2 การตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV และตอนที่ 3 ปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ทั้งนี้ ผู้วิจัยได้ทำการทดสอบความเที่ยงของแบบสอบถามผ่านการทำการทดสอบข้อคำถามก่อนวิจัย (Pre-Test) กับผู้ที่ซื้อรถไฟฟ้าปลั๊กอินไฮบริด (PHEV) จำนวน 40 คน โดยใช้วิธีการวัดความสอดคล้องภายในแบบ Cronbach’s Alpha ข้อคำถามที่มีค่าความเชื่อมั่นตั้งแต่ 0.70 ขึ้นไปซึ่งถือว่ามีความเชื่อถือได้ค่อนข้างสูง (ธานินทร์ ศิลป์จารุ, 2555) จากการทดสอบได้ค่าความเชื่อมั่น เท่ากับ 0.822 ซึ่งถือว่าเชื่อถือได้จึงนำแบบสอบถามไปใช้ในการเก็บรวบรวมข้อมูล

การวิเคราะห์ข้อมูล

การวิเคราะห์ในส่วนที่ 1 ข้อมูลทั่วไปและส่วนที่ 2 คือ พฤติกรรมการตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV นำสถิติที่มาใช้ในการวิเคราะห์ข้อมูล ได้แก่ ค่าเฉลี่ยค่าร้อยละ และการตีความแปลผลตามอันตรภาคชั้น

การวิเคราะห์ในส่วนที่ 3 ศึกษาปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV จะทำการวิเคราะห์ผ่านการวิเคราะห์ข้อมูลโดยหาค่าความสัมพันธ์ของปัจจัยที่มีอิทธิพล โดยใช้สมการการวิเคราะห์ถดถอย การวิเคราะห์ถดถอยพหุแบบเส้นทางสัมพันธ์ ซึ่งเป็นเทคนิคการวิเคราะห์ตัวแปรหลายตัว (สุชาติ ประสิทธิ์รัฐสินธุ์, 2546) โดยใช้โปรแกรมสำเร็จรูปวิเคราะห์ทางสถิติ AMOS ซึ่งมีรูปแบบของสมการ ลักษณะของเส้นทาง ตัวย่อและความหมาย ที่สังเคราะห์สร้างจากการทบทวนวรรณกรรม

การวิเคราะห์ในส่วนที่ 4 การหาองค์ประกอบเชิงยืนยัน **ผู้วิจัยจะนำผลวิจัยในส่วนที่ 3 ที่วิเคราะห์สกัดผลได้เฉพาะตัวแปรสังเกตได้นำมาขยายผลทำการวิเคราะห์เส้นทางองค์ประกอบเชิงยืนยัน** ระหว่างตัวแปรโดยใช้โปรแกรมคอมพิวเตอร์สำเร็จรูป AMOS วิเคราะห์องค์ประกอบเชิงยืนยัน (Confirmatory Factor Analysis) โดยกำหนดโมเดลการวิเคราะห์องค์ประกอบเชิงยืนยันขององค์ประกอบเชิงยืนยันปัจจัยอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEVในลำดับต่อไป

ผลการวิจัย

การตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV และการวิจารณ์ผล

ผู้วิจัยได้ทำการสำรวจข้อมูลเกี่ยวกับพฤติกรรมการตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ซึ่งทำการรวบรวมแบบ Likert Scale ซึ่งสามารถสรุปการแปลผลเป็นตารางได้ ดังนี้

ตาราง 1 พฤติกรรมการการตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV

n = 386

ปัจจัย	**คะแนน**	**การแปลผล**
อุปสงค์ต่อการถือเงิน		
อุปสงค์ต่อความต้องการถือเงินเพื่อใช้ในชีวิตประจำวัน	4.13	ความต้องการถือเงินเพื่อใช้ในชีวิตประจำวันส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
อุปสงค์ต่อความต้องการถือเงินเพื่อใช้ในสถานการณ์ฉุกเฉิน	4.45	ความต้องการถือเงินเพื่อใช้ในสถานการณ์ฉุกเฉินส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมากที่สุด
อุปสงค์ต่อความต้องการถือเงินเพื่อเก็งกำไร	3.11	ความต้องการถือเงินเพื่อเก็งกำไรฉุกเฉินส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง
ค่าเฉลี่ย	**3.89**	**อุปสงค์ต่อการถือเงินส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก**
ปัจจัย	**คะแนน**	**การแปลผล**
ปัจจัยเศรษฐกิจมหภาค		
การเติบโตของอุตสาหกรรมรถ BEV ในประเทศ	3.11	การเติบโตของอุตสาหกรรมรถ BEV ในประเทศส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง
เศรษฐกิจองค์รวม (อัตราการเติบโตของ GDP)	3.36	เศรษฐกิจองค์รวมส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง
แนวโน้มราคาน้ำมัน	4.27	แนวโน้มราคาน้ำมันส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมากที่สุด
เสถียรภาพทางการเมือง	3.37	เสถียรภาพทางการเมืองส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
อัตราเงินเฟ้อ	2.21	อัตราเงินเฟ้อส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับน้อย

แนวโน้มอัตราแลกเปลี่ยน	4.24	แนวโน้มอัตราแลกเปลี่ยนส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมากที่สุด
ค่าเฉลี่ย	**3.43**	**ปัจจัยเศรษฐกิจมหภาคส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก**
การแสวงหาข้อมูล		
การแนะนำจากครอบครัว เพื่อน หรือคนรู้จัก	2.92	การแนะนำจากครอบครัว เพื่อน หรือคนรู้จักส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง
การแนะนำจากผู้ผลิตหรือจัดจำหน่าย	3.58	การแนะนำจากผู้ผลิตหรือจัดจำหน่ายส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
การแนะนำจากข่าวสารต่างๆ	2.87	การแนะนำจากข่าวสารต่างๆส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง
การแนะนำจากประสบการณ์ของผู้บริโภคเอง	2.52	การแนะนำจากประสบการณ์ของผู้บริโภคเองส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับน้อย
ค่าเฉลี่ย	**2.97**	**การแสวงหาข้อมูลส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง**
การประเมินทางเลือก		
แบรนด์หรือตราสินค้า	4.22	แบรนด์หรือตราสินค้าส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมากที่สุด
ร้านค้าหรือตัวแทนจำหน่าย	3.66	ร้านค้าหรือตัวแทนจำหน่ายส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
ปริมาณสินค้า	1.71	ปริมาณสินค้าส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับน้อย
ความเชื่อมั่นของผลิตภัณฑ์	4.36	ความเชื่อมั่นของผลิตภัณฑ์ส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
วิธีการดำเนินการซื้อขาย	3.88	วิธีการดำเนินการซื้อขายส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
ค่าเฉลี่ย	**3.56**	**การประเมินทางเลือกส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก**
ปัจจัย	**คะแนน**	**การแปลผล**

ส่วนผสมการตลาด		
ผลิตภัณฑ์	4.42	ผลิตภัณฑ์ส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมากที่สุด
ราคา	4.08	ราคาส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
สถานที่	2.44	สถานที่ส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับน้อย
โปรโมชัน	3.76	โปรโมชันส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
บุคลากร	3.38	บุคลากรส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง
กระบวนการดำเนินงาน	4.17	กระบวนการดำเนินงานส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก
สิ่งแวดล้อมทางกายภาพ	2.58	สิ่งแวดล้อมทางกายภาพส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับปานกลาง
ค่าเฉลี่ย	**3.58**	**ส่วนผสมการตลาดส่งผลต่อการตัดสินใจซื้อรถ BEV ในระดับมาก**

ที่มา: จากการสำรวจและคำนวณ

จากตารางที่ 1 แสดงพฤติกรรมการการตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV แสดงให้เห็นถึงปัจจัยที่ส่งผลต่อการตัดสินใจในการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV โดยปัจจัยที่ส่งผลมากที่สุดใน 3 ลำดับแรก คือ อุปสงค์ต่อความต้องการถือเงินเพื่อใช้ในสถานการณ์ฉุกเฉิน ผลิตภัณฑ์ และความเชื่อมั่นของผลิตภัณฑ์ ที่มีค่าคะแนนเท่ากับ 4.45 4.42 และ 4.36 ตามลำดับ

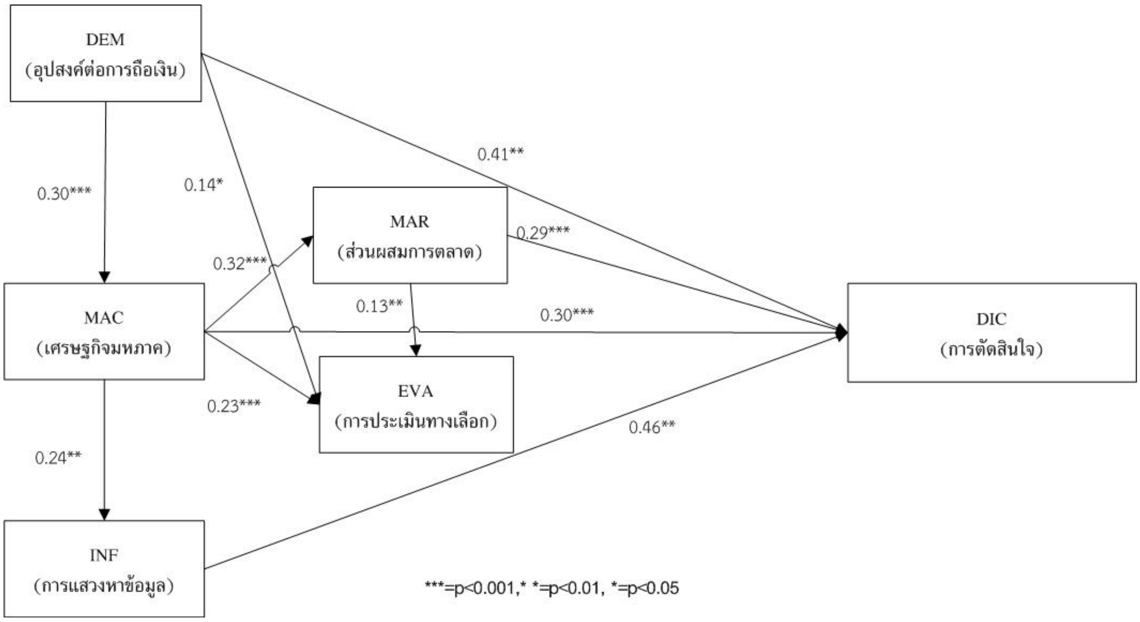
ปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV

จากการกำหนดโมเดลเพื่อทำการวิเคราะห์ปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ดังภาพที่ 1 สามารถเขียนรูปแบบสมการความสัมพันธ์ที่ใช้การวิเคราะห์ถดถอยพหุ (Regression analysis) ในรูปสมการ ดังนี้

$DIC = a + b_1DEM + b_2MAC + b_3INF + b_4MAR + b_5EVA$

ผู้วิจัยได้ทำการตรวจสอบความถูกต้องของโมเดล โดยแสดงปรากฏผลว่า มีค่า Chi-square Probability เท่ากับ 0.354 ค่า Chi-square Relative เท่ากับ 1.101 ค่า Goodness of Fit Index เท่ากับ 0.996 และ Root Mean Square Error of Approximation เท่ากับ 0.016 แสดงว่าโมเดลมีความสอดคล้องและความถูกต้องซึ่งจะต้องผ่านเกณฑ์การพิจารณาที่เป็นที่ยอมรับ (พูลพงศ์ สุขสว่าง,

2557: 141) โดยสามารถแสดงการหาค่าสัมประสิทธิ์เส้นทางและสัมประสิทธิ์สหสัมพันธ์จากการวิเคราะห์เส้นทางความสัมพันธ์เชิงสาเหตุระหว่างตัวแปร ดังภาพที่ 2



** **หมายเหตุ**** p-value หมายถึง ค่าสถิติที่แตกต่างอย่างมีนัยยะสำคัญที่ระดับ 0.05 0.01 และ 0.001

ภาพ 2 แสดงโมเดลรูปแบบเส้นทางความสัมพันธ์เชิงสาเหตุ

ภาพที่ 2 อธิบายได้ว่าสัมประสิทธิ์เส้นทางที่มีนัยสำคัญทางสถิติทั้งหมด 9 เส้นทาง สามารถนำค่าสัมประสิทธิ์เส้นทางของแต่ละสมการโครงสร้างมาเขียนเส้นทางของรูปแบบความสัมพันธ์เชิงสาเหตุเพื่ออภิปรายความสัมพันธ์ระหว่างตัวแปรพร้อมทั้งอิทธิพลทางตรง อิทธิพลทางอ้อมและผลรวมอิทธิพลได้ดังแสดงในตาราง 4

ตารางที่ 2 อิทธิพลทางตรง อิทธิพลทางอ้อม และผลรวมอิทธิพล

ประเภทความสัมพันธ์	**ความสัมพันธ์ระหว่างตัวแปรอิสระกับตัวแปรตาม DIC**			
	DEM	**MAC**	**INF**	**MAR**
ผลทางตรง: DE	0.412	0.426	0.296	0.292
ผลทางอ้อม: IE	0.093	0.194	-	-
ความสัมพันธ์เชิงสาเหตุและผล: TE	**0.505**	**0.490**	**0.429**	**0.292**

ที่มา: จากการสำรวจและคำนวณ

จากตารางที่ 2 เมื่อวิเคราะห์เหตุปัจจัยที่มีอิทธิพล พบว่า

1) ตัวแปรที่มีเฉพาะอิทธิพลทางตรงต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV มากที่สุด คือ ปัจจัยเศรษฐกิจมหภาคที่มีค่าสัมประสิทธิ์เส้นทางเท่ากับ 0.426 ที่รองลงมา คือ อุปสงค์ต่อการถือเงินโดยมีค่าสัมประสิทธิ์เส้นทางเท่ากับ 0.412 จากการที่ปัจจัยเศรษฐกิจมหภาคมีอิทธิพลทางตรงต่อการตัดสินใจซื้อสินค้ามีความสอดคล้องกับงานวิจัยของ Marina Buranelli de Oliveira ที่ระบุว่าปัจจัยทางสังคมและสภาพเศรษฐกิจเป็นตัวเร่งส่งผลให้ผู้บริโภคตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่และรถไฟฟ้าปลั๊กอินมากขึ้น (Marina Buranelli de Oliveira, 2022)

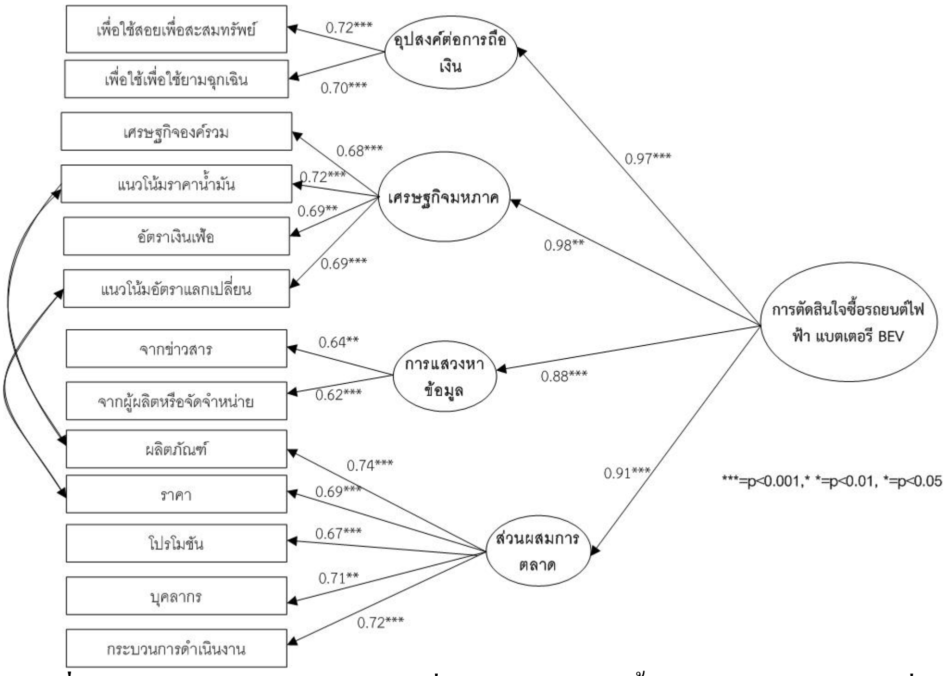
2) ตัวแปรที่มีเฉพาะอิทธิพลทางอ้อมต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV มากที่สุด ได้แก่ ปัจจัยเศรษฐกิจมหภาคโดยมีค่าสัมประสิทธิ์เส้นทางเท่ากับ 0.194 รองลงมา คือ ปัจจัยอุปสงค์ต่อการถือเงินโดยมีค่าสัมประสิทธิ์เส้นทางเท่ากับ 0.093 ซึ่งแสดงให้เห็นว่าตัวแปรเหล่านี้เป็นตัวแปรที่ส่งผลต่อการตัดสินใจซื้อแต่จะส่งผลผ่านตัวแปรอื่นแล้วเกิดอิทธิพลโดยอ้อมต่อการตัดสินใจซื้อในที่สุด ซึ่งประเด็นดังกล่าวมีความสอดคล้องกับงานวิจัยของ Hamed Khazaei ที่ระบุว่าการพิจารณาเรื่องภาวการณ์ทางด้านเศรษฐกิจและการเงินส่วนบุคคลจะเป็นสิ่งกระตุ้นใหการตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่ (Hamed Khazaei, 2019)

3) ตัวแปรที่มีทั้งอิทธิพลทางตรงและทางอ้อมต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV มากที่สุด ได้แก่ ปัจจัยเศรษฐกิจมหภาคที่มีค่าสัมประสิทธิ์เส้นทางเท่ากับ 0.505 ที่รองลงมา คือ อุปสงค์ต่อการถือเงินโดยมีค่าสัมประสิทธิ์เส้นทางเท่ากับ 0.490

ผลการวิจัยองค์ประกอบเชิงยืนยันปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV และอภิปรายผล

การศึกษาองค์ประกอบเชิงยืนยันได้การกำหนดโมเดลเพื่อทำการวิเคราะห์ปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV **ผู้วิจัยจะนำผลวิจัยในส่วนที่ 3 ที่วิเคราะห์สกัดผลได้เฉพาะตัวแปรสังเกตได้นำมาขยายผลทำการวิเคราะห์** ผ่านการวิเคราะห์องค์ประกอบเชิงยืนยัน (Confirmatory Factor Analysis) โดยการระบุความเป็นไปได้ค่าเดียวของตัวแบบ (Identification of model) คือ ระบุว่าตัวแบบสามารถประมาค่าพารามิเตอร์ได้เป็นค่าเดียว จากนั้นจึงทำการประมาณค่าพารามิเตอร์จากตัวแบบ (Parameter estimation from the mode) คือ การวิเคราะห์ข้อมูลจากกลุ่มตัวอย่างเพื่อหาค่าพารามิเตอร์ โดยใช้วิธีการประมาณค่าแบบวิธีไลค์ลิฮูดสูงสุด (A Maximum Likelihood) และผู้วิจัยจึงได้ทำการทดสอบโมเดล โดยดูผลจากค่าทดสอบทางสถิติที่ผ่านเกณฑ์ ซึ่งมีเกณฑ์ในการพิจารณาความสอดคล้องกลมกลืนขององค์ประกอบเชิงยืนยัน โดยทำการวัดค่า Chi-square Probability เท่ากับ 0.172 ค่า Chi-square Relative เท่ากับ 1.172 ค่า GFI เท่ากับ 0.974 ค่า CFI เท่ากับ 0.996 ค่า RMR เท่ากับ 0.011 ค่า RMSEA เท่ากับ 0.021 จากนั้นจึงแปลความหมายผลการวิเคราะห์

ข้อมูลผล (Schumacher, R. E., & Lomax, R. G., 2010). ซึ่งทุกค่าผ่านมาตรฐานการตรวจสอบโมเดล ซึ่งอธิบายได้ว่าผลการตรวจสอบจะเห็นได้ว่าผ่านเกณฑ์มาตรฐาน แสดงว่าโมเดลมีความถูกต้องของโมเดล จากนั้นผู้วิจัยจึงทำการวิเคราะห์องค์ประกอบเชิงยืนยันโดยที่ได้ทำการตัด Factor loading ที่ต่ำกว่า 0.60 ออกจากโมเดล (Schumacher, R. E., & Lomax, R. G., 2010). ซึ่งผลการวิจัยแสดงได้ ดังภาพที่ 3



ภาพที่ 3 องค์ประกอบเชิงยืนยันปัจจัยที่มีอิทธิพลต่อการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV

จากภาพที่ 3 สามารถนำวิเคราะห์องค์ประกอบเชิงยืนยันโดยสามารถแสดงค่าน้ำหนักองค์ประกอบและสัมประสิทธิ์การพยากรณ์ ได้ดังแสดงในตาราง 3

ตารางที่ 3 ค่าน้ำหนักองค์ประกอบและค่าสัมประสิทธิ์การพยากรณ์

องค์ประกอบ/ตัวแปร	ค่าน้ำหนักองค์ประกอบ	ค่าสัมประสิทธิ์การพยากรณ์
อุปสงค์ต่อการถือเงิน	**0.97**	**0.94**
เพื่อใช้สอยเพื่อสะสมทรัพย์	0.72	0.51
เพื่อใช้สอยเพื่อยามฉุกเฉิน	0.70	0.49
เศรษฐกิจมหภาค	**0.98**	**0.96**

องค์ประกอบ/ตัวแปร	ค่าน้ำหนักองค์ประกอบ	ค่าสัมประสิทธิ์การพยากรณ์
เศรษฐกิจองค์รวม	0.68	0.46
แนวโน้มราคาน้ำมัน	0.72	0.52
อัตราเงินเฟ้อ	0.69	0.48
แนวโน้มอัตราแลกเปลี่ยน	0.69	0.48
การแสวงหาข้อมูล	**0.88**	**0.77**
การแสวงหาข้อมูลจากข่าวสาร	0.64	0.41
การแสวงหาข้อมูลจากผู้ผลิตหรือจัดจำหน่าย	0.62	0.38
ส่วนผสมการตลาด	**0.91**	**0.83**
ผลิตภัณฑ์	0.74	0.55
ราคา	0.69	0.48
โปรโมชัน	0.67	0.45
บุคลากร	0.71	0.50
กระบวนการดำเนินงาน	0.71	0.51

ที่มา: จากการสำรวจและคำนวณ

ตารางที่ 3 จะเห็นได้ว่าผลการพิจารณาค่าสัมประสิทธิ์การพยากรณ์ ทุกๆ ค่าที่แสดงมีค่าเกิน 0.30 ทั้งสิ้นสามารถอภิปรายผลการวิเคราะห์ ดังนี้

1) อุปสงค์ต่อการถือเงิน ปัจจัยด้านอุปสงค์ต่อการถือเงินมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.94 โดยมีค่าสัมประสิทธิ์การพยากรณ์ขององค์ประกอบยืนยัน คือ อุปสงต่อการถือเงินเพื่อใช้สอยเพื่อสะสมทรัพย์เท่ากับ 0.52 และอุปสงต่อการถือเงินเพื่อใช้สอยเพื่อสะสมทรัพย์เท่ากับ 0.49 สามารถอภิปรายได้ว่า อุปสงค์ต่อการถือเงินโดยเฉพาะเพื่อการสะสมทรัพย์เป็นสิ่งสำคัญที่ทำให้ผู้ซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ตระหนักก่อนตัดสินใจซื้อ อีกทั้งจากการได้สัมภาษณ์กลุ่มตัวอย่างก็พบว่าการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ก็เสมือนเป็นการสะสมทรัพย์ไปในทางหนึ่งซึ่งส่งผลต่อการตัดสินใจในที่สุด ซึ่งสอดคล้องกับงานวิจัยของ Hamed Khazaei และ Mohammad Ali Tareq ที่ให้ผลวิจัยในทำนองเดียวกันว่าการตัดสินใจรถยนต์ไฟฟ้าเป็นการสะสมความมั่งคั่งและยกระดับฐานะทางสังคมได้ทางหนึ่งด้วย (Hamed Khazaei & Mohammad Ali Tareq, 2019)

2) เศรษฐกิจมหภาค ปัจจัยเศรษฐกิจมหภาคมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.96 ซึ่งเป็นปัจจัยหลักที่มีค่าพยากรณ์มากที่สุด โดยมีค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยันที่มากที่สุด คือ แนวโน้มราคาน้ำมันเท่ากับ 0.41 ซึ่งนิรนัยได้ว่า ความผันผวนของแนวโน้มราคาน้ำมันตลอดจนการเป็นทรัพยากรธรรมชาติที่ใช้แล้วหมดไปเป็นปัจจัยที่มีอิทธิพลที่สำคัญที่ทำให้ผู้ซื้อเกิดการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV ซึ่งสอดคล้องกับงานวิจัย Sonja Haustein และคณะ ที่ระบุว่าความกังวลต่อความไม่แน่นอนของราคาน้ำมันส่งผลต่อการตัดสินใจให้เกิดการซื้อรถยนต์ไฟฟ้าแบตเตอรี่มากขึ้น (Sonja Haustein, Anders Fjendbo Jensen, & Elisabetta Cherchi, 2021)

3) การแสวงหาข้อมูล ปัจจัยการแสวงหาข้อมูลมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.77 ทั้งนี้มีค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยัน คือ การแสวงหาข้อมูลจากข่าวสาร 0.41 และการแสวงหาข้อมูลจากผู้ผลิตหรือจัดจำหน่าย 0.38 ผลวิจัยแสดงให้เห็นว่าผู้ซื้อรถไฟฟ้าแบตเตอรี่ BEV จะต้องเกิดการแสวงหาข้อมูลจากข่าวสารที่เกี่ยวข้องและข้อมูลที่ได้รับจากผู้ผลิตหรือจัดจำหน่ายโดยตรงก่อนการตัดสินใจ ซึ่งมีความคล้ายคลึงกับงานวิจัยของ Lina Ingeborgrud และ Marianne Ryghaug ที่ให้ข้อมูลว่าการให้ข้อมูลและข่าวสารเกี่ยวกับผลิตภัณฑ์ของผู้จัดจำหน่ายเป็นสิ่งกระตุ้นให้ผู้บริโภคตัดสินใจซื้อรถยนต์ไฟฟ้าแบตเตอรี่มากขึ้น (Lina Ingeborgrud & Marianne Ryghaug, 2019)

4) ส่วนผสมทางการตลาด ปัจจัยส่วนผสมทางการตลาดมีค่าสัมประสิทธิ์การพยากรณ์ เท่ากับ 0.83 ซึ่งเป็น โดยมีค่าสัมประสิทธิ์การพยากรณ์ ขององค์ประกอบยืนยันที่มากที่สุด 2 ลำดับแรก คือ ผลิตภัณฑ์ เท่ากับ 0.55 และ กระบวนการดำเนินงาน เท่ากับ 0.52 ซึ่งนิรนัยได้ว่า ผู้บริโภคจะให้ความสำคัญกับคุณสมบัติและสมรรถนะรถยนต์ไฟฟ้าแบตเตอรี่ BEV เป็นสำคัญก่อนที่จะทำการตัดสินใจซื้อ โดยพิจารณาควบคู่ไปกับกระบวนการดำเนินการของการจัดซื้อซึ่งสอดคล้องกับงานวิจัย Marina Buranelli de Oliveira ที่ระบุว่าผู้ซื้อรถยนต์ไฟฟ้าแบตเตอรี่ให้ความสำคัญกับตัวผลิตภัณฑ์หรือแบรนด์สินค้าของผู้ผลิตอย่างมาก เนื่องจากมีความเชื่อมั่นในสมรรถนะของรถยนต์ไฟฟ้าแบตเตอรี่ในแบรนด์ที่ตนเองเลือกอย่างมาก (Marina Buranelli de Oliveira, 2022)

สรุปผลและข้อเสนอแนะเชิงนโยบาย

1) เมื่อพิจารณาการวิเคราะห์ปัจจัยที่มีอิทธิพล พบว่า เศรษฐกิจมหภาคและอุปสงค์ต่อการถือเงินเป็นปัจจัยที่มีความสำคัญมากที่สุดที่ทำให้เกิดการซื้อรถยนต์ไฟฟ้าแบตเตอรี่ BEV เนื่องจากเป็นปัจจัยที่มีทั้งอิทธิพลทางตรงและทางอ้อม ดังนั้น หากหน่วยงานภาครัฐบาลต้องการกระตุ้นให้เกิดการใช้รถยนต์ไฟฟ้าแบตเตอรี่ BEV ในประเทศมากขึ้นจะต้องออกนโยบายทางเศรษฐศาสตร์มหภาคให้

เอื้อต่อการซื้อรถไฟฟ้าแบตเตอรี่ BEV เช่น การลดหย่อนหรือกำหนดภาษีอัตราพิเศษสำหรับการซื้อรถไฟฟ้าแบตเตอรี่ BEV เป็นต้น

2) เมื่อพิจารณาการวิเคราะห์องค์ประกอบเชิงยืนยัน พบว่า ปัจจัยผลิตภัณฑ์ในด้านส่วนผสมการตลาดและปัจจัยแนวโน้มราคาน้ำมัน เป็นตัวแปรที่มีค่าสัมประสิทธิ์การพยากรณ์สูงที่สุด 2 ลำดับแรก ซึ่งสะท้อนภาพให้เห็นว่าความผันผวนของราคาน้ำมันกระตุ้นให้ผู้บริโภคตัดสินใจซื้อโดยตระหนักถึงผลิตภัณฑ์ที่มีสมรรถนะหรือคุณสมบัติที่ดีที่สุด ดังนั้น การสรรหาผลิตภัณฑ์หรือบริการใดๆ ที่เกี่ยวข้องกับรถยนต์ไฟฟ้าแบตเตอรี่ BEV จะต้องแสดงจุดแข็งด้านศักยภาพและสมรรถนะของผลิตภัณฑ์ให้ผู้ที่สนใจได้รับข้อมูลมากที่สุด ประกอบกับการจัดสรรหาผลิตภัณฑ์หรือเป็นตัวแทนจำหน่ายสินค้าหรือบริการใดๆ ที่เกี่ยวข้องกับรถยนต์ไฟฟ้าแบตเตอรี่ BEV จะต้องเลือกสรรจากแบรนด์ที่ได้รับความเชื่อและมีภาพลักษณ์ที่น่าเชื่อถือที่สุดเพื่อสร้างจุดแข็งในการดำเนินธุรกิจใดๆ ที่เกี่ยวข้องกับรถยนต์ไฟฟ้าแบตเตอรี่ BEV

เอกสารอ้างอิง

กลุ่มสถิติการขนส่ง กองแผนงาน กรมการขนส่งทางบก. (2565). *จำนวนรถจดทะเบียนรายปี 2560-2564*. สืบค้นจาก https://web.dlt.go.th/statistics/.

ธานินทร์ ศิลป์จารุ. (2555). การวิจัยและวิเคราะห์ข้อมูลทางสถิติด้วย SPSS และ AMOS. พิมพ์ครั้งที่ 13. กรุงเทพฯ:สำนักพิมพ์เอสอาร์พริ้นติ้งแมสโปรดักส์.

หน่วยวิเคราะห์สถานการณ์ราคาน้ำมัน บมจ. ไทยออยล์. (2565). *ราคาน้ำมันดิบมีแนวโน้มทรงตัวในระดับสูง จากสถานการณ์ความตึงเครียดระหว่างรัสเซียและยูเครนที่ยังคงไม่มีความแน่นอน*. สืบค้นจาก https://thaioilgroup.com/home/media_critic.aspxid=179.

วันรักษ์ มิ่งมณีนาคิน. (2546). *เศรษฐศาสตร์เบื้องต้น*. พิมพ์ครั้งที่ 7. กรุงเทพฯ: มหาวิทยาลัยธรรมศาสตร์.

สุชาติ ประสิทธิ์รัฐสินธุ์. (2546). *เทคนิคการวิเคราะห์ตัวแปรหลายตัวสำหรับการวิทยาทางสังคมศาสตร์และพฤติกรรมศาสตร์ หลักการ วิธีการ และการประยุกต์*. กรุงเทพฯ: สถาบันบัณฑิตพัฒนบริหารศาสตร์.

สำนักงานนโยบายและแผนพลังงาน กระทรวงพลังงาน.สถานการณ์ราคาน้ำมันเดือนมีนาคม 2565.

อมรทิพย์ แท้เที่ยงธรรม. (2544). *เศรษฐศาสตร์มหภาค*. กรุงเทพฯ: สำนักพิมพ์มหาวิทยาลัยเกษตรศาสตร์.

Hamed Khazaei. (2019). The datasets of factors influencing adoption of electric Cars in Malaysia: A structural equation modelling (SEM) analysis. *Data in Brief*, *27*.

Hamed Khazaei & Mohammad Ali Tareq. (2021). Moderating effects of personal innovativeness and driving experience on factors influencing adoption of BEVs in Malaysia: An integrated SEM-BSEM approach. *Heliyon, 7*(9), e08072.

Lina Ingeborgrud & Marianne Ryghaug. (2019). The role of practical, cognitive and symbolic factors in the successful implementation of battery electric vehicles in Norway. *Transportation Research, 130*, 507-516.

Marina Buranelli de Oliveira, Hermes Moretti, Ribeiro da Silva a, Daniel Jugend a, & Paula De Camargo Fiorini b, Carlos Eduardo Paro. (2022). Factors influencing the intention to use electric cars in Brazil. *Transportation Research*, 155, 418-433.

Schiffman, L.G., & Kanuk, L.L. (1994). Consumer behavior. 5th ed. N. J.: Prentice-Hall.

Schumacher, R.E., & Lomax, R.G. (2010). *A Beginners Guide to Structural Equation Modeling: SEM.* Newjersey: Lawrence Erlbaum Associates.

Sonja Haustein, Anders Fjendbo Jensen, & Elisabetta Cherchi. (2021). Battery electric vehicle adoption in Denmark and Sweden: Recent changes, related factors and policy implications. *Energy Policy, 149*, 112096.

Yamane, T. (1973). *Statistics: An Introductory Analysis*. 3rd Ed. New York: Harper and Row.

ปัจจัยที่มีอิทธิพลต่อการเกิดขยะก่อสร้างในโครงการก่อสร้างอาคาร: แนวทางการวิเคราะห์เส้นทาง

Factors Influencing Construction Waste Generation in Building Construction Project: A Path Analysis Approach

วริสรา เลิศไพฑูรย์พันธ์ / Warisara Lertpaitoonpan*
คณะวิศวกรรมศาสตร์ มหาวิทยาลัยศรีปทุม / School of Engineering, Sripatum University
Corresponding author: E-mail: warisara.le@spu.ac.th

สุรพันธ์ สันติยานนท์ / Suraphan Santiyanon
คณะวิศวกรรมศาสตร์ มหาวิทยาลัยศรีปทุม / School of Engineering, Sripatum University
E-mail: suraphan.sa@spu.ac.th

บทคัดย่อ

เศษวัสดุจากการก่อสร้างกลายเป็นขยะที่ส่งผลเสียต่อสิ่งแวดล้อม โดยพื้นที่ฝังกลบของประเทศไทยมีปริมาณขยะก่อสร้างอยู่ประมาณร้อยละ 30-40 ของพื้นที่ฝังกลบ และยังมีการลักลอบทิ้งอีกเป็นจำนวนมาก การลักลอบทิ้งด้วยตนเองในที่สาธารณะมีปริมาณถึงร้อยละ 85 ของขยะก่อสร้างในกรุงเทพมหานคร การลดปริมาณของเสียจากการก่อสร้างจะส่งผลดีต่อสิ่งแวดล้อม ต่อเจ้าของโครงการและผู้รับเหมาก่อสร้างที่จะลดต้นทุนการซื้อวัสดุและต้นทุนในการบริหารจัดการขยะ แต่ความพยายามลดปริมาณขยะก่อสร้างมักไม่ประสบผลสำเร็จเพราะการจัดการที่ผิดพลาดของทุกฝ่ายที่เกี่ยวข้อง การวิจัยนี้จึงจัดทำขึ้นเพื่อศึกษาถึงอิทธิพลของการเกิดขยะก่อสร้างภายในโครงการก่อสร้างอาคาร ที่สัมพันธ์กับกลุ่มผู้เกี่ยวข้องกับโครงการก่อสร้าง ได้แก่ ฝ่ายผู้ว่าจ้าง ฝ่ายผู้ออกแบบ ผู้ควบคุมงาน และฝ่ายผู้รับจ้าง โดยเก็บรวบรวมข้อมูลด้วยแบบสอบถาม จากกลุ่มตัวอย่างรวม 100 คน และวิเคราะห์เส้นทางปัจจัย พบว่า อิทธิพลที่ส่งผลต่อการเกิดขยะในโครงการก่อสร้างสูงสุด มาจาก ฝ่ายผู้ควบคุมงาน (0.423) รองลงมาคือฝ่ายผู้ออกแบบ (0.268) และได้รับอิทธิพลทางอ้อม จากผู้ออกแบบ ผู้ว่าจ้าง และ ผู้ควบคุมงาน ที่ส่งผ่านทางผู้รับจ้างอีกด้วย (-0.123)

คำสำคัญ: เส้นทางปัจจัย, อิทธิพลต่อการเกิดขยะ, ขยะจากการสร้างอาคาร

Abstract

Construction waste negatively affects the environment. In Thailand, the amount of construction waste is approximately 30-40% of the landfill area. Illegal disposal of the construction waste in public places accounts for 85% of construction waste in Bangkok. Construction waste reduction is the best to reduce adverse effects. The efforts to reduce construction waste are often unsuccessful because of mismanagement by all involved. This research was conducted to study the factors influence the construction waste generation in building construction project related to the group of people involved in the construction project; the owner, the designer, the consultant, and the contractor by collecting data with questionnaires. The sample size is 100. The Path Analysis was conducted and revealed that the construction waste generation was highest influenced by the consultant (0.423), then the designer (0.268), and was indirectly influenced by 3 groups (designer, owner, and consultant) through the contractor (-0.123).

Keywords: Path Analysis, Factors Effect Waste Generation, Building Construction Waste

บทนำ

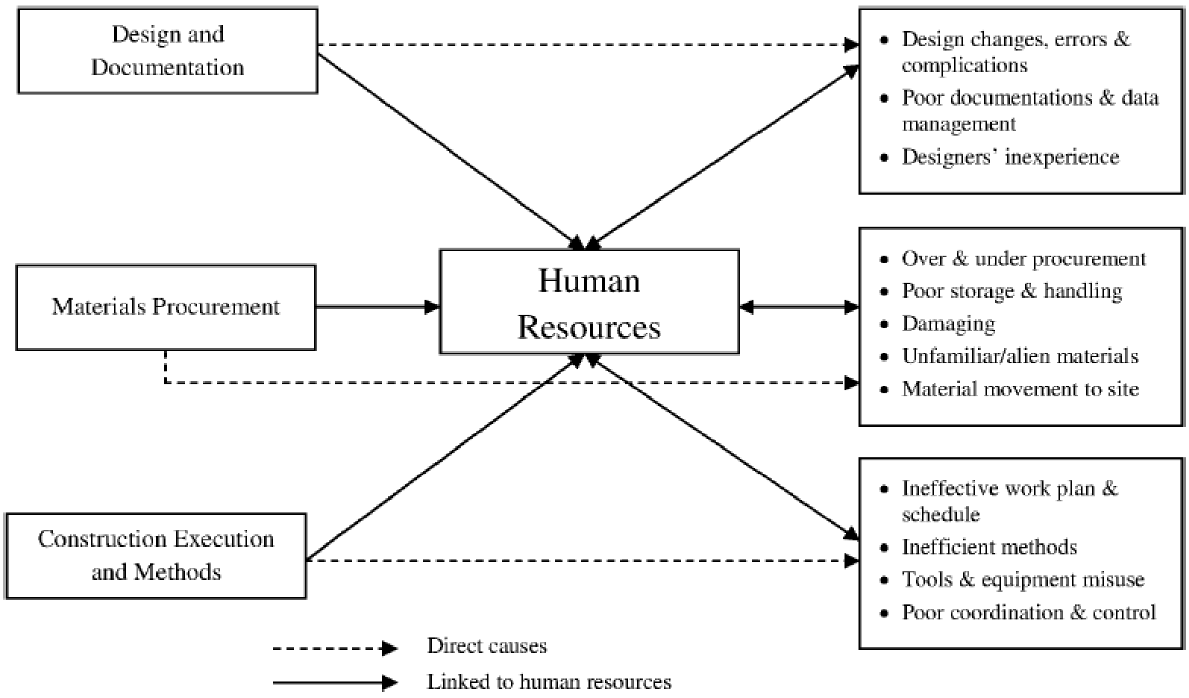
กิจกรรมจากอุตสาหกรรมก่อสร้างนอกจากจะใช้ทรัพยากรและพลังงานในสัดส่วนที่สูงมากเมื่อเทียบกับภาคธุรกิจอื่น แล้ว ยังสร้างขยะขึ้นมาในปริมาณมหาศาลทั่วโลก (Spišáková, Mésároš, & MandiČák, 2021) ซึ่งส่งผลเสียต่อสิ่งแวดล้อม สถานการณ์ขยะของประเทศไทยที่รายงานโดยกรมควบคุมมลพิษ ระบุว่า ปี 2563 มีปริมาณขยะมูลฝอยเกิดขึ้นประมาณ 25.37 ล้านตัน (ลดลงจากปี 2562 ร้อยละ 12 เนื่องจากสถานการณ์การระบาดของ โควิด-19) หรือประมาณ 69,322 ตัน/วัน ได้รับการกำจัดอย่างถูกต้อง 9.13 ล้านตัน (ร้อยละ 36) และกำจัดอย่างไม่ถูกต้อง 7.88 ล้านตัน (ร้อยละ 31) (กรมควบคุมมลพิษ, 2564) ซึ่งพื้นที่ฝังกลบของประเทศไทยมีปริมาณขยะก่อสร้างอยู่ประมาณร้อยละ 30-40 ของพื้นที่ฝังกลบ และยังมีการลักลอบทิ้งอีกเป็นจำนวนมาก เฉพาะในเขตกรุงเทพมหานครพบว่ามีการลักลอบนำขยะก่อสร้างไปทิ้งนอกพื้นที่ฝังกลบประมาณ 300 ตันต่อวัน (วีระยุทธ์ สุขเพชร, 2556) ทางสำนักยุทธศาสตร์และประเมินผล กรุงเทพมหานคร ได้ศึกษาการจัดการมูลฝอยจากสิ่งก่อสร้างพบว่าส่วนใหญ่เป็นการลักลอบทิ้งด้วยตนเองในที่สาธารณะมากถึงร้อยละ 85 (เดลินิวส์, 2560) ซึ่งหลายประเทศทั่วโลกก็ประสบปัญหาในการจัดการขยะก่อสร้างเช่นกัน

แนวทางการลดของเสียโดยใช้หลักการ "3R"-reduce (ลดการใช้), reuse (การนำกลับมาใช้ซ้ำ) and recycle (การแปรใช้ใหม่) เป็นวิธีที่ใช้กันอย่างแพร่หลายและได้ผลดี (Peng, Domenic, & Charles, 1997) ดังจะเห็นได้ว่าบางประเทศมีมาตรการให้นำขยะก่อสร้างกลับมาใช้ซ้ำ หรือรีไซเคิล ซึ่งจะช่วยลดปริมาณการเพิ่มของขยะในพื้นที่ฝังกลบ ลดปัญหาการลักลอบทิ้งเศษวัสดุก่อสร้าง ใช้ทรัพยากรที่มีอยู่ให้เกิดประโยชน์สูงสุด และลดผลกระทบที่เกิดจากการใช้ทรัพยากรและพลังงานอย่างมากเกินจำเป็น (วริสรา เลิศไพฑูรย์พันธ์, ไพจิตร ผาวัน และ สมบัติ โพชนา, 2562; Kittiwararat & Lertwattanaruk, 2012; Yu, Wong, Wu, & Poon, 2021) อันจะนำไปสู่การพัฒนาอย่างยั่งยืนได้ การลดปริมาณของเสียจากการก่อสร้างนอกจากจะส่งผลดีต่อสิ่งแวดล้อมแล้ว ยังส่งผลดีต่อเจ้าของโครงการและผู้รับเหมาก่อสร้างที่จะลดต้นทุนการซื้อวัสดุและต้นทุนในการบริหารจัดการขยะ อีกทั้งส่งเสริมภาพลักษณ์ที่ดีให้แก่องค์กรซึ่งเป็นผลพลอยได้ที่วัดเป็นมูลค่าเงินไม่ได้

อย่างไรก็ตาม ความพยายามลดปริมาณขยะก่อสร้างมักจะไม่ประสบผลสำเร็จเพราะการจัดการที่ผิดพลาดของมนุษย์นั่นเอง เนื่องจากการลดปริมาณขยะก่อสร้างโดยมุ่งเน้นการลดของเสียที่แหล่งกำเนิดนั้นต้องอาศัยการวางแผน บริหารจัดการ และทัศนคติที่ดี ของผู้เกี่ยวข้องทุกฝ่าย เพราะเศษวัสดุที่เกิดขึ้นนั้นเกิดได้ตั้งแต่กระบวนการออกแบบ การคำนวณปริมาณวัสดุและการสั่งซื้อ การขนส่ง การจัดเก็บ การขนย้ายจากที่จัดเก็บไปยังพื้นที่ทำงาน การใช้งาน (ผู้ใช้งานอาจไม่มีประสบการณ์หรือไม่มีความรอบคอบในการใช้วัสดุนั้นๆ) การวางแผนการทำงาน วิธีการทำงาน การใช้อุปกรณ์หรือเครื่องมือ การประสานงาน การควบคุมการดำเนินงาน ฯลฯ (วิจิตรา แสนกุดเลาะ, 2559; Omeje, Okereke, & Chukwu, 2020) ความเชื่อมโยงระหว่างบุคลากรและสาเหตุของการเกิดขยะจากการก่อสร้างในแต่ละขั้นตอนดำเนินงานแสดงดังภาพที่ 1

งานวิจัยหลายชิ้นได้รายงานผลการศึกษาถึงสาเหตุของการเกิดขยะก่อสร้างที่เกิดจากฝ่ายบริหารโครงการ คือ สื่อสารกับส่วนปฏิบัติงานไม่ชัดเจน ขาดการวางแผนงานและกำหนดนโยบายการก่อสร้างที่ดี จัดบริเวณที่เก็บกองวัสดุไม่เหมาะสม วางแผนใช้วัสดุไม่รัดกุม ส่วนสาเหตุที่เกิดจากฝ่ายปฏิบัติงาน คือ ขาดทักษะในการทำงาน แก้ไขงานเนื่องจากผลงานไม่ได้มาตรฐาน หัวหน้างานขาดการติดตามตรวจสอบงาน ดังนั้นแนวทางปฏิบัติเพื่อส่งเสริมการลดปริมาณขยะ คือ ออกแบบอย่างรัดกุม ศึกษาแบบก่อนลงมือทำงาน สั่งงานที่ชัดเจน บริหารจัดการจัดเก็บวัสดุที่ดี วางแผนการดำเนินงานก่อสร้างที่เหมาะสม จัดการอบรมให้ความรู้แก่หัวหน้างาน เพิ่มทักษะให้แก่ผู้ปฏิบัติงาน (กวี หวังนิเวศน์กุล และ เสกสรร ปัญญางาม, 2556; โชคดี ยี่แพร่, ต่อตระกูล ยมนาค, และ ทิพวรรณ บุณย์เพิ่ม, 2554; ฌิรดา พิชยะปัญญา, 2560; Kittiwararat, & Lertwattanaruk, 2012) ซึ่งยังไม่พบว่ามีการศึกษาถึงอิทธิพลของการเกิดขยะก่อสร้างภายในโครงการที่สัมพันธ์กับกลุ่มผู้เกี่ยวข้องกับ

โครงการก่อสร้าง ได้แก่ ฝ่ายผู้ว่าจ้าง (owner) ฝ่ายผู้ออกแบบ (designer) ผู้ควบคุมงาน (consultant) และฝ่ายผู้รับจ้าง (contractor) ดังนั้นการวิจัยนี้จึงมีวัตถุประสงค์ 1) เสนอแนวทางการใช้การวิเคราะห์เส้นทาง (Path Analysis) เพื่อวิเคราะห์อิทธิพลของแต่ละปัจจัยที่มีต่อการเกิดขยะ 2) วิเคราะห์ปัจจัยที่มีอิทธิพลทางตรง อิทธิทางอ้อม และอิทธิพลรวมของกลุ่มผู้เกี่ยวข้องกับโครงการก่อสร้างที่มีต่อการเกิดขยะ



ภาพที่ 1 ความเชื่อมโยงระหว่างสาเหตุการเกิดขยะก่อสร้างและบุคคลากร
ที่มา: Omeje et al. (2020)

วิธีการวิจัย

ประชากรและตัวอย่าง

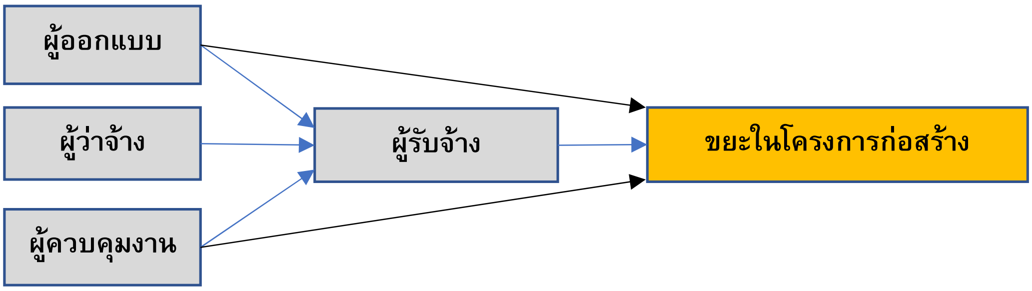
กลุ่มตัวอย่างของการวิจัย เป็นผู้เกี่ยวข้องกับโครงการก่อสร้าง ได้แก่ ฝ่ายผู้ว่าจ้าง (owner) ฝ่ายผู้ออกแบบ (designer) ผู้ควบคุมงาน (consultant) และฝ่ายผู้รับจ้าง (contractor) จำนวนทั้งสิ้น 100 คน จากโครงการก่อสร้างอาคารในกรุงเทพมหานคร

การเก็บรวบรวมและการวิเคราะห์ข้อมูล

การวิจัยนี้เป็นการวิจัยเชิงปริมาณ (quantitative research) เครื่องมือที่ใช้ในการวิจัย คือแบบสอบถาม (questionnaire) วัดโดยมาตรวัดแบบลิเคิร์ท (Likert Scale) ชนิด 5 ระดับ โดยที่ 5 หมายถึง มากที่สุด และ 1 หมายถึง น้อยที่สุด ทำการเก็บรวบรวมตัวอย่างเลือกแบบเฉพาะเจาะจง (purposive sampling)

จากการแจกแบบสอบถามผ่านทางระบบออนไลน์ (เนื่องจากสถานการณ์การแพร่ระบาดของ โควิด-19) ซึ่งได้จำนวนผู้ตอบแบบสอบถามทั้งหมดจำนวน 100 คน

การวิเคราะห์ข้อมูลของตัวแปรเบื้องต้นได้แก่ ค่าเฉลี่ย ($\bar{x}$) ค่าเบี่ยงเบนมาตรฐาน (SD) โดยมีเกณฑ์การตัดสินค่าเฉลี่ยจากมาตรประมาณค่า 5 ระดับ โดยแปลความหมายดังนี้ 4.51-5.00 มีความรู้สึกในระดับมากที่สุด, 3.51-4.50 มีความรู้สึกในระดับมาก, 3.51-3.50 มีความรู้สึกในระดับปานกลาง, 3.51-2.50 มีความรู้สึกในระดับน้อย, 3.00-1.50 มีความรู้สึกในระดับน้อยที่สุด และวิเคราะห์เส้นทางปัจจัยที่ส่งผลการเกิดขยะในโครงการก่อสร้างด้วยการวิเคราะห์สายสัมพันธ์ (Path Analysis) โดยมีกรอบแนวคิดงานวิจัยคือ ผู้ออกแบบ และผู้ควบคุมงาน มีอิทธิพลโดยตรงต่อการเกิดขยะในโครงการก่อสร้าง และ ผู้ออกแบบ ผู้ว่าจ้าง และผู้ควบคุมงาน มีอิทธิพลโดยอ้อมต่อการเกิดขยะโดยการส่งผ่านผู้รับจ้าง ดังแสดงในภาพที่ 2



ภาพที่ 2 กรอบแนวคิดการวิจัย (conceptual framework)

ผลการวิจัย

ผลการวิเคราะห์ปัจจัยที่เกี่ยวข้องกับการเกิดขยะ

การวิเคราะห์ข้อมูลเบื้องต้นพบว่า กลุ่มตัวอย่างมีความรู้สึกว่าขยะในโครงการก่อสร้างที่เกิดขึ้น มีอิทธิพลมาจากผู้ออกแบบอยู่ใน ระดับน้อย ($\bar{x}$ = 2.01) อิทธิพลมาจากผู้ว่าจ้าง และผู้ควบคุมงาน ระดับปานกลาง ($\bar{x}$ = 2.69 และ 3.04 ตามลำดับ) อิทธิพลมาจากผู้รับจ้าง ระดับมาก ($\bar{x}$ = 3.70) ดังแสดงในตารางที่ 1 และการเกิดขยะในโครงการที่ได้รับอิทธิพลจากทั้ง 4 ฝ่าย อยู่ในระดับ มาก มาก ($\bar{x}$ = 3.81) ดังแสดงในตารางที่ 1

ตารางที่ 1 ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน ของปัจจัยที่เกี่ยวข้องกับการเกิดขยะในโครงการก่อสร้าง

ตัวแปร	**ระดับความรู้สึก**	**ค่าเฉลี่ย ($\bar{x}$)**	**ส่วนเบี่ยงเบนมาตรฐาน (SD)**
สาเหตุการเกิดขยะมาจากผู้ว่าจ้าง	ปานกลาง	2.69	1.23
สาเหตุการเกิดขยะมาจากผู้ออกแบบ	น้อย	2.01	1.28
สาเหตุการเกิดขยะมาจากผู้ควบคุมงาน	ปานกลาง	3.04	1.10
สาเหตุการเกิดขยะมาจากผู้รับจ้าง	มาก	3.70	1.02
การเกิดขยะในโครงการ	มาก	3.81	0.83

ทั้งนี้ผู้มีส่วนเกี่ยวข้องทั้ง 4 กลุ่มดังกล่าวล้วนแต่เป็นต้นเหตุของการเกิดขยะในโครงการก่อสร้างได้จากหลากหลายประการด้วยกัน เช่น จากกระบวนการทำงาน จากทักษะความรู้ความสามารถ จากความรับผิดชอบส่วนบุคคล จากความไม่รอบคอบ จากการขาดแคลนทรัพยากร เป็นต้น ซึ่งสามารถสรุปพอสังเขปได้ดังภาพที่ 3

ภาพที่ 3 สาเหตุการเกิดขยะในโครงการก่อสร้างจำแนกตามกลุ่มผู้เกี่ยวข้อง
ที่มา: จากการสัมภาษณ์ผู้เชี่ยวชาญ

ผลการวิเคราะห์เส้นทางปัจจัยที่ส่งผลต่อการเกิดขยะในโครงการก่อสร้างอาคาร

เมื่อวิเคราะห์การถดถอย (regression) โดย การเกิดขยะก่อสร้างจากโครงการก่อสร้างอาคาร (Waste) เป็นตัวแปรตาม และ ผู้ว่าจ้าง (Owner) ผู้ออกแบบ (Designer) ผู้ควบคุมงาน (Consultant) และ ผู้รับจ้าง (Contractor) เป็นตัวแปรอิสระ ได้ค่าสหสัมพันธ์ (correlation) และ P-value ดังตารางที่ 2

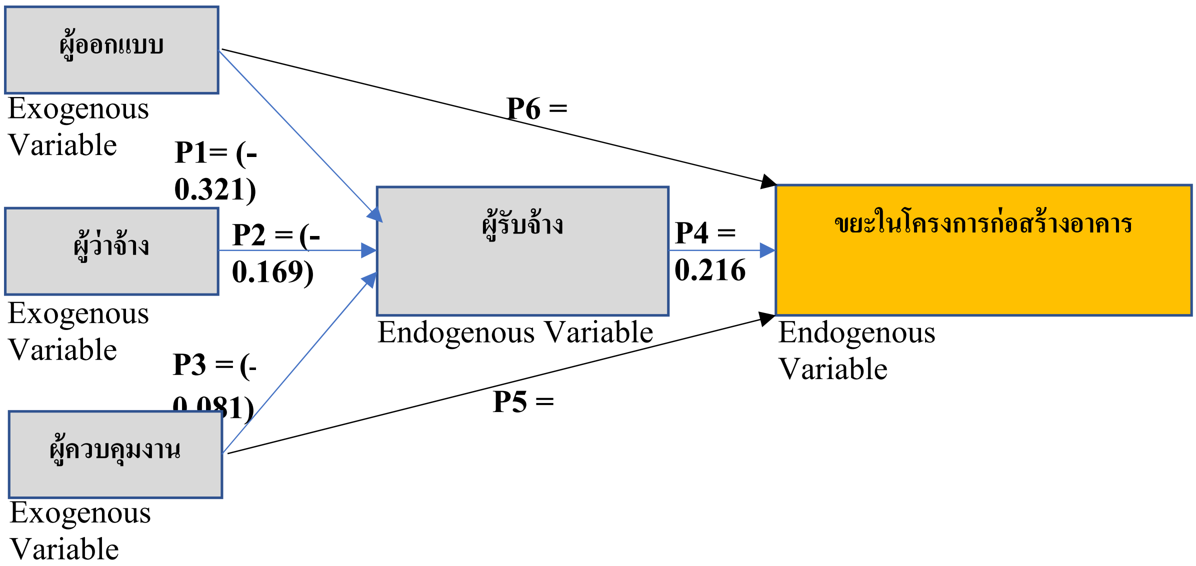
ตารางที่ 2 ค่าสหสัมพันธ์ (correlation) ระหว่างตัวแปรปัจจัย

	Owner	**Designer**	**Consultant**	**Contractor**	**Waste**	**t stat**	**P-value**
1) Owner	1					3.598	<.01
2) Designer	0.692	1				4.552	<.01
3) Consultant	0.659	0.676	1			1.081	>.05
4) Contractor	-0.204	-0.401	-0.088	1		2.132	<0.5
5) Waste	0.599	0.415	0.565	0.268	1	5.586	<.01

เมื่อพิจารณาขนาดอิทธิพลของเส้นทางปัจจัยที่ส่งผลต่อการเกิดขยะในโครงการก่อสร้างอาคาร ดังภาพที่ 4 โดยมีค่าสัมประสิทธิ์ขนาดอิทธิพลจำแนกตามตัวแปร ดังนี้ ขยะก่อสร้างที่เกิดขึ้นในโครงการก่อสร้างอาคาร ได้รับอิทธิพลสูงสุด ซึ่งเป็นอิทธิพลทางตรง (Direct Effect: DE) จาก ฝ่ายผู้ควบคุมงาน (0.423) รองลงมาคือฝ่ายผู้ออกแบบ (0.268) และ น้อยที่สุดคือฝ่ายผู้รับจ้าง (0.216) โดยทั้ง 3 ปัจจัยนี้มีอิทธิพลต่อการเกิดขยะในโครงการก่อสร้างอาคาร อย่างมีนัยสำคัญทางสถิติที่ระดับ .01 ทั้งผู้ควบคุมงาน ผู้ออกแบบ และ ผู้รับจ้าง มีอิทธิพลทางตรงเชิงบวกต่อการเกิดขยะในโครงการก่อสร้างอาคาร หมายความว่า กระบวนการทำงานของทั้ง 3 ฝ่าย มีความสำคัญต่อการก่อให้เกิดเศษวัสดุก่อสร้างที่จะกลายเป็นขยะในโครงการก่อสร้างอาคาร

สำหรับขนาดอิทธิพลทางอ้อม (Indirect Effect: IE) พบว่า ผู้ออกแบบ ผู้ว่าจ้าง และผู้ควบคุมงาน มีอิทธิพลต่อการเกิดขยะในโครงการก่อสร้าง เป็นอิทธิพลทางอ้อมที่ส่งผ่านตัวผู้รับจ้าง โดยมีรายละเอียดดังนี้ ผู้ออกแบบมีอิทธิพลทางอ้อมต่อการเกิดขยะในโครงการก่อสร้างโดยส่งผ่านผู้รับจ้าง อย่างมีนัยสำคัญทางสถิติที่ระดับ .01 โดยค่าสัมประสิทธิ์ขนาดอิทธิพลเท่ากับ -0.069 ส่วนผู้ว่าจ้างมีอิทธิพลทางอ้อมต่อการเกิดขยะในโครงการก่อสร้างโดยส่งผ่านผู้รับจ้าง อย่างมีนัยสำคัญทางสถิติที่ระดับ .01 โดยค่าสัมประสิทธิ์ขนาดอิทธิพลเท่ากับ -0.037 และผู้ควบคุมงานมีอิทธิพลทางอ้อมต่อการเกิดขยะในโครงการก่อสร้างโดยส่งผ่านผู้รับจ้าง อย่างไม่มีนัยสำคัญทางสถิติ ทั้งนี้อิทธิพลทางอ้อมรวมทั้งหมดที่มีอิทธิพลต่อการเกิดขยะในโครงการก่อสร้างโดยส่งผ่านผู้รับจ้างมีค่า

สัมประสิทธิ์เท่ากับ -0.123 โดยค่าสัมประสิทธิ์ของปัจจัยที่มีอิทธิพลทางตรง อิทธิพลทางอ้อม และอิทธิพลรวมต่อการเกิดขยะในโครงการก่อสร้าง แสดงในตารางที่ 3



ภาพที่ 4 โมเดลเส้นทางปัจจัยที่ส่งผลต่อการเกิดขยะในโครงการก่อสร้างอาคาร

ตารางที่ 3 ขนาดอิทธิพลของเส้นทางปัจจัยที่ส่งผลต่อการเกิดขยะในโครงการก่อสร้าง

ตัวแปรปัจจัย	อิทธิพลต่อการเกิดขยะในโครงการก่อสร้างอาคาร			อิทธิพลต่อผู้รับจ้าง		
	DE	IE	TE	DE	IE	TE
ผู้ออกแบบ	0.268	-0.069	0.199	-0.321	-	-0.321
ผู้ว่าจ้าง	-	-0.037	-0.037	-0.169	-	-0.169
ผู้ควบคุมงาน	0.423	-0.018	0.405	-0.081	-	-0.081
ผู้รับจ้าง	0.216	-	0.216			

สรุปและอภิปรายผลการวิจัย

สาเหตุของการเกิดขยะก่อสร้างที่พบบ่อยที่สุดที่รายงานในบทความวิจัย คือสาเหตุจากการเปลี่ยนแปลงแบบ และความผิดพลาดในช่วงการออกแบบ (ตรีทิพย์ ประทุมมณี และ ปิยนุช เวทย์วิวรณ์, 2561; Memon, Soomro, Bhangwar, Memon, & Memon, 2016; Nagapan, Rahman, & Asmi, 2011; Osmani, Glass, & Price, 2006) ซึ่งเกี่ยวข้องกับฝ่ายผู้ออกแบบเป็นหลัก และหรือร่วมกับผู้ว่าจ้างที่เปลี่ยนใจหลังจากออกแบบและดำเนินการก่อสร้างแล้ว ก็จะทำให้ต้องเปลี่ยนวัสดุ

ใหม่ มีการรื้อหรือทุบในส่วนที่สร้างไปแล้ว ซึ่งจะทำให้เกิดขยะขึ้น ในขณะที่งานวิจัยของ Luangcharoenrat, Intrachooto, Peansupap, & Sutthinarakorn (2019) พบว่า สาเหตุของการเกิดขยะก่อสร้างเรียงตามความสำคัญ 3 อันดับแรกคือ เกิดเศษวัสดุตามงานแต่ละประเภท การเร่งงาน และ ผู้ควบคุมงานขาดประสบการณ์และความชำนาญงานด้านวิศวกรรม ตามลำดับ ซึ่งการมีเศษวัสดุตามงานแต่ละประเภทนั้น เกี่ยวข้องได้ทั้งจากผู้ออกแบบและจากการทำงานของผู้รับจ้าง ส่วนการเร่งงานและผู้ควบคุมงานขาดความชำนาญนั้นเกี่ยวข้องกับผู้รับจ้างโดยตรง

แต่จากผลการวิเคราะห์เส้นทางปัจจัยในการวิจัยนี้ไม่สอดคล้องกับงานวิจัยอื่นที่กล่าวมาข้างต้น เนื่องจากพบว่าผู้ควบคุมงานมีอิทธิพลโดยตรงต่อการเกิดขยะจากโครงการก่อสร้างอาคารมากที่สุด ทั้งนี้อาจเป็นเพราะการควบคุมงานที่เข้มงวดเกินไปโดยไม่คำนึงถึงความสมเหตุสมผลและข้อจำกัดในการก่อสร้าง ทำให้ต้องรื้อ ทุบ หรือ เปลี่ยนวัสดุ จึงเป็นที่มาของการเกิดขยะและการสูญเปล่าของวัตถุดิบ ซึ่งการควบคุมงานที่มีประสิทธิภาพนั้นนอกจากจะควบคุมให้งานออกมาตามแบบรูปและข้อกำหนดในสัญญา ข้อตกลงการว่าจ้างระหว่างผู้ว่าจ้างและผู้รับจ้าง ที่เน้นไปทางด้านเทคนิควิศวกรรม อาจต้องพิจารณาถึงประเด็นความเป็นมิตรต่อสิ่งแวดล้อมร่วมด้วย ซึ่งผู้ควบคุมงานจะต้องใช้วิจารณญาณมากขึ้นในการหาความพอดีในการควบคุมงานก่อสร้าง ไม่เข้มงวดเกินไปจนเกิดผลเสียต่อผู้รับจ้างและสิ่งแวดล้อม แต่ก็ไม่หละหลวมเกินไปจนเกิดผลเสียต่อผู้ว่าจ้าง

เมื่อพิจารณาอิทธิพลโดยตรงที่ทำให้เกิดขยะในโครงการก่อสร้าง โดยเปรียบเทียบเฉพาะผู้ออกแบบกับผู้รับจ้าง พบว่า ผู้ออกแบบมีอิทธิพลมากกว่าผู้รับจ้าง ซึ่งสอดคล้องกับงานวิจัยอื่นๆ ข้างต้น ที่ระบุว่าสาเหตุการเกิดขยะก่อสร้างที่พบบ่อยที่สุด คือ การเปลี่ยนแปลงแบบ และ ความผิดพลาดในการออกแบบ

อย่างไรก็ตามกรอบแนวคิดการวิเคราะห์เส้นทางที่เสนอในการวิจัยนี้ยังเป็นเพียงโมเดลอย่างง่ายที่ได้แนวคิดมาจากการอนุมานจากงานวิจัยที่เกี่ยวข้องและสัมภาษณ์ปากเปล่าผู้เกี่ยวข้องกับธุรกิจก่อสร้างอาคาร ผลวิจัยที่ได้จึงยังไม่ครบถ้วนสมบูรณ์ ถ้าหากมีการปรับปรุงโมเดลเส้นทางปัจจัยให้ผู้เกี่ยวข้องแต่ละกลุ่มมีความสัมพันธ์เชื่อมโยงต่อกันมากกว่านี้ รวมทั้งกลุ่มตัวอย่างที่เก็บรวบรวมข้อมูลมีจำนวนมากขึ้น ก็จะได้ผลการศึกษาที่น่าเชื่อถือมากขึ้นและเป็นประโยชน์ต่อการนำไปพิจารณาวางแผนและบริหารจัดการงานที่เกี่ยวข้องกับแต่ละฝ่ายเพื่อให้ขยะจากการก่อสร้างอาคารลดลงได้ ซึ่งเป็นผลดีทั้งด้านลดค่าใช้จ่ายจากการสูญเปล่าของวัสดุ ลดค่าใช้จ่ายในการขนทิ้งและกำจัดขยะก่อสร้าง และลดมลพิษที่เกิดจากการกำจัดขยะ ซึ่งจะเป็นการสนับสนุนการพัฒนาอย่างยั่งยืน

เอกสารอ้างอิง

กรมควบคุมมลพิษ. (2564). *รายงานสถานการณ์มลพิษของประเทศไทย ปี 2563*. กรุงเทพมหานคร: สไตล์ครีเอทีฟเฮ้าส์ จำกัด.

กวี หวังนิเวศน์กุล และ เสกสรร ปัญญางาม. (2556). การจัดการขยะที่เกิดจากงานก่อสร้างรถไฟฟ้า (มุมมองของฝ่ายผู้รับจ้าง). *วารสารวิชาการและวิจัย มทร.พระนคร, 7*(1), 25-35.

โชคดี ยี่แพร่, ต่อตระกูล ยมนาค และ ทิพวรรณ บุณย์เพิ่ม. (2554). การจัดการขยะจากการก่อสร้างเพื่อสิ่งแวดล้อมที่ยั่งยืน. *วารสารการจัดการสมัยใหม่*, *9*(1), 56-68.

ณิรดา พิชยะปัญญา. (2560). การศึกษาการจัดการขยะจากเศษวัสดุก่อสร้างในโครงการ Miyake Seki Factory. *วารสารรัฐประศาสนศาสตร์ มหาวิทยาลัยราชภัฏสวนสุนันทา, 1*(3), 35-48.

เดลินิวส์. (2560). *โรงกำจัดวัสดุก่อสร้างเกือบร้างใช้ไม่คุ้มค่าคนเมินเอาขยะไปทิ้ง*. สืบค้นจาก https://d.dailynews.co.th/bangkok/571791/.

ตรีทิพย์ ประทุมมณี และ ปิยนุช เวทย์วิวรณ์. (2561). การศึกษาทัศนคติและพฤติกรรมการจัดการขยะก่อสร้างของผู้รับเหมาในประเทศไทย. *การประชุมทางวิชาการของมหาวิทยาลัยเกษตรศาสตร์ ครั้งที่ 56*, กรุงเทพมหานคร, 6-9 กุมภาพันธ์ 2561, 271-278.

วริสรา เลิศไพฑูรย์พันธ์, ไพจิตร ผาวัน และ สมบัติ โพชนา. (2562). คอนกรีตบล็อกมวลเบารีไซเคิลที่ทดแทนมวลรวมด้วยขยะจากการรื้อถอนทำลายสิ่งปลูกสร้าง. *การประชุมวิชาการวิศวกรรมโยธาแห่งชาติ ครั้งที่ 24*, อุดรธานี, 10-12 กรกฎาคม 2562, 2740-2747.

วิจิตรา แสนกุดเลาะ. (2559). การจัดการเศษวัสดุและผลกระทบสิ่งแวดล้อมจากการก่อสร้างรถไฟฟ้าสายบางซื่อ-รังสิต: กรณีศึกษาสถานีดอนเมือง. วิทยานิพนธ์วิศวกรรมศาสตรมหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์, ปทุมธานี.

วีระยุทธ์ สุขเพชร. (2556). การศึกษาการจัดการเพื่อลดเศษวัสดุในโครงการก่อสร้างอาคารพักอาศัย กรณีศึกษา โครงการ สมูท เรสซิเดนท์. วิทยานิพนธ์วิทยาศาสตรมหาบัณฑิต, มหาวิทยาลัยศรีปทุม, กรุงเทพมหานคร.

Kittiwararat, S. and Lertwattanaruk, P. (2012). Strategies for Construction Waste Reduction in Small Residential Buildings. *JARS*, *9*(2), 81-94.

Luangcharoenrat, C., Intrachooto, S., Peansupap, V. and Sutthinarakorn, W. (2019). Factors Influencing Construction Waste Generation in Building Construction: Thailand's Perspective. *Sustainability*, *11*(13), 3638.

Memon, A. H., Soomro, M. A., Bhangwar, S. N., Memon, A. H. and Memon, M. U. (2016). Consultants' Perspective on Factors Causing Construction Waste Generation in Less Developed Region. *International Journal of Engineering Inventions*, *5*(6), 57-62.

Nagapan, S., Rahman, I.A. and Asmi, A. (2011). A Review of construction waste cause factors. *Asian Conference of Real Estate: Sustainable Growth Managing Challenges (ACRE)*, Johor, Malaysia, 967-987.

Omeje, H. O., Okereke, G. K. and Chukwu, D. U. (2020). Construction Waste Reduction Awareness: Action Research. *Journal of Teacher Education for Sustainability*, *22*(1), 66-83.

Osmani, M., Glass, J. and Price, A. (2006). Architect and Contractor Attitudes to Waste Minimisation. *Proceedings of the Institution of Civil Engineers-Waste and Resource Management*, *159*(2), 65-72.

Peng, C. L., Scorpio, D. E. and Kibert, C. J. (1997). Strategies for Successful Construction and Demolition Waste Recycling Operations. *Construction Management and Economics*, *15*(1), 49-58.

Spišáková, M., Mésároš, P. and Mandičák, T. (2021). Construction Waste Audit in the Framework of Sustainable Waste Management in Construction Projects—Case Study. *Buildings*, *11*(2), 61.

Yu, A. T. W., Wong, I., Wu, Z. and Poon, C. S. (2021). Strategies for Effective Waste Reduction and Management of Building Construction Projects in Highly Urbanized Cities—A Case Study of Hong Kong. *Buildings*, *11*(5), 214.

ความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด

Expectations and Satisfactions of Chinese Tourists toward Service of Chiangmai Twinzy Travel Company Limited

สิรินทร์นดา ฉัตรโพธิ์สกุล / Sirinnada Chatposkool
คณะบริหารธุรกิจ มหาวิทยาลัยพายัพ / Faculty of Business Administration, Payap University
E-mail: twinzytravel@gmail.com

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาระดับความคาดหวังและความพึงพอใจ และเปรียบเทียบความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด กลุ่มตัวอย่างคือ ลูกค้านักท่องเที่ยวชาวจีนของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด จำนวนทั้งสิ้น 350 คน เก็บรวบรวมข้อมูลด้วยแบบสอบถาม สถิติที่ใช้ในการวิเคราะห์ ได้แก่ การแจกแจงความถี่ ค่าร้อยละ ค่าเฉลี่ย และค่าเบี่ยงเบนมาตรฐาน และวิเคราะห์เปรียบเทียบค่าเฉลี่ยความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ด้วยเทคนิค Importance-Performance Analysis (IPA) ผลการศึกษาพบว่า ความคาดหวังในบริการมีค่าเฉลี่ยรวม 3.92 ความพึงพอใจในบริการมีค่าเฉลี่ยรวม 4.69 และผลการเปรียบเทียบค่าเฉลี่ยความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ด้วยเทคนิค IPA พบว่า การเปรียบเทียบคะแนนความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด พบว่า ควรให้ความสำคัญใน Quadrant B เนื่องจากนักท่องเที่ยวชาวจีนมีความคาดหวังในด้านช่องทางการติดต่อกับบริษัทอย่างมาก และได้รับการตอบสนองในประเด็นดังกล่าวได้ดีพอสมควร จึงควรรักษาประสิทธิภาพการบริการนี้ไว้

คำสำคัญ: ความคาดหวัง, ความพึงพอใจ, นักท่องเที่ยวชาวจีน

Abstract

The purposes of this research were to study and compare the level of expectations and satisfactions of Chinese tourists toward service of Chiangmai Twinzy Travel Company Limited. The samples were 350 Chinese tourists toward service of Chiangmai Twinzy Travel Company Limited. The questionnaires were used to collect the data. The statistics used for data analysis were frequency percentage and mean. Expectations and satisfactions of Chinese tourists compared with the tool as Importance-Performance Analysis (IPA). The research revealed that overall level of expectation mean score was 3.92 and a level of satisfactions mean was 4.69. The most satisfaction and expectation of Chinese tourists toward service of Chiangmai Twinzy Travel Company Limited were in Quadrant B in company contact channel so the efficiency of this service should be maintained.

Keywords: Expectation, Satisfaction, Chinese tourists

บทนำ

การท่องเที่ยวถือได้ว่าเป็นกิจกรรมอย่างหนึ่งที่สำคัญของมนุษย์ที่มีความต้องการเดินทางท่องเที่ยวเพื่อการพักผ่อน การเรียนรู้ต่างวัฒนธรรม หรือการเสาะแสวงหาประสบการณ์ใหม่ๆ อยู่เสมอ จึงทำให้การท่องเที่ยวเป็นตลาดที่เติบโตอย่างต่อเนื่อง ตั้งแต่อดีตจนกระทั้งก่อนที่จะเกิดสถานการณ์แพร่ระบาดของโรคโควิด-19

จากการแพร่ระบาดของโรคโควิด-19 เป็นปัจจัยที่ส่งผลกระทบอย่างหนักต่ออุตสาหกรรมการท่องเที่ยวของประเทศไทย รวมถึงจังหวัดเชียงใหม่เมืองที่ได้ชื่อว่าติดอันดับน่าท่องเที่ยวที่ดีที่สุดในโลก กลับเจอวิกฤตอย่างหนัก นักท่องเที่ยวลดลงทั้งชาวไทยและชาวต่างชาติ ธุรกิจร้านค้าพากันปิดตัว รวมถึงเศรษฐกิจฐานรากไม่สามารถเติบโตได้

ในปี 2563 ประเทศไทยมีจำนวนนักท่องเที่ยวต่างชาติเดินทางเข้ามาในประเทศไทยรวม 6,702,396 คน ลดลงจากปีก่อนร้อยละ 83 คิดเป็นรายได้ 332,013 ล้านบาท ลดลงจากปีก่อนร้อยละ 82 โดยส่วนใหญ่เป็นยอดนักท่องเที่ยวที่สะสมตั้งแต่ช่วงต้นปีก่อนจะหายไปช่วงเกิดการระบาดของโรคโควิด-19 ส่วนในช่วงปลายปี พบว่ามีนักท่องเที่ยวต่างชาติเดินทางเข้ามาในประเทศไทยผ่านวีซ่าประเภทพิเศษ(Special Tourist Visa) ผ่านสมาชิกบัตรไทยแลนด์ อีลิท และวีซ่านักธุรกิจ เพียงแค่ 3 เดือน คือ ตุลาคม-ธันวาคม รวมแค่ 10,822 คนเท่านั้น (ผู้จัดการออนไลน์, 2564)

จำนวนนักท่องเที่ยวต่างชาติที่เดินทางมาไทย ติดลบเกือบ 100% นี้ เพราะเป็นช่วงเริ่มต้นของการระบาดของไวรัส โควิด-19 จากประเทศจีน แต่ก็เป็นที่น่าสนใจว่าจำนวนตัวเลขนักท่องเที่ยวต่างชาติในเดือนนี้ มีจำนวนตัวเลขการเดินทางเข้ามามากกว่าหลายเดือนในช่วงที่มีการระบาดของไวรัสโควิด-19 และรัฐบาลได้ผ่อนปรนให้เดินทางเข้ามาได้แล้ว โดยเฉพาะเมื่อเทียบกับในช่วงไตรมาสที่ 3-4 ของปี 2563 หากแยกออกเป็นภูมิภาคต่างๆ พบว่า กลุ่มประเทศที่เดินทางมาสูงที่สุด คือ ยุโรป จำนวนกว่า 4,072 คน โดยส่วนใหญ่มาจากเยอรมันนี สหราชอาณาจักร ฝรั่งเศส รัสเซีย และกลุ่มประเทศยุโรปตะวันออก รองลงมาคือกลุ่มประเทศเอเชียตะวันออก 1,749 คน ส่วนใหญ่มาจาก จีน อาเซียน เกาหลี ญี่ปุ่น และฮ่องกง และกลุ่มประเทศฝั่งอเมริกา 1,044 คน ส่วนใหญ่มาจาก สหรัฐอเมริกา แคนาดา บราซิล และอาร์เจนตินา กลุ่มประเทศตะวันออกกลาง 293 คน กลุ่มประเทศฝั่งโอชีเนีย 250 คน เอเชียใต้ 165 คน และแอฟริกา 121 คน (เดลินิวส์, 2564) ในส่วนนักท่องเที่ยวชาวจีนที่เดินทางเข้ามาในประเทศไทยตลอดทั้งปี 2563 มีจำนวน 1,249,910 คน ซึ่งลดลงจากปีก่อน ติดลบ 88.63% (กองเศรษฐกิจการท่องเที่ยวและกีฬา, 2564)

เนื่องจากนักท่องเที่ยวต่างชาติลดจำนวนลงไปมากจากที่กล่าวมาข้างต้น แม้จะได้รายได้จากไทยเที่ยวไทยเข้ามาต่อลมหายใจบ้าง ในช่วงปลายปี 2563 แต่ก็ยังไม่มากพอ สำหรับรายได้จากไทยเที่ยวไทย 10 อันดับแรก ปี 2563 มีรายได้รวม 482,468 ล้านบาท ลดลงถึง 55.4% เมื่อเทียบจากปี 2562 ที่ยังไม่เกิดวิกฤติโควิด ขณะที่ภาพรวมอุตสาหกรรมท่องเที่ยวไทยในปี 2563 มีรายได้รวม 0.81 ล้านล้านบาท ลดลง 2.18 ล้านล้านบาท หรือหดตัว 72.79% เมื่อเทียบจากปี 2562 ทั้งนี้จากมูลค่ารายได้ที่ลดลง 2.18 ล้านล้านบาท พบว่า ค่าใช้จ่ายของนักท่องเที่ยวที่ลดลงมากที่สุด 3 อันดับแรก ได้แก่ ค่าที่พัก, ค่าซื้อสินค้า ของที่ระลึก และค่าอาหารและเครื่องดื่ม ตามลำดับ (The Bangkok Insight, 2564)

ในส่วนของจังหวัดเชียงใหม่นั้น สถานการณ์การท่องเที่ยวในปี 2563 มีนักท่องเที่ยวลดลง 47% คงเหลือนักท่องเที่ยวชาวไทย 4.4 ล้านคน นักท่องเที่ยวต่างประเทศ 561,005 คน ลดลง 82% ทำให้รายได้ลดลงถึง 55% คงเหลือ 42,896 ล้านบาท อัตราการเข้าพักโรงแรมตลอดทั้งปีเฉลี่ย 40% ลดลงร้อยละ 33 ซึ่งในช่วงไตรมาส 4 มีแนวโน้มที่ดีขึ้น แต่หลังจากพบผู้ติดเชื้อที่มาจากเมียนมาต่อเนื่องถึงต้นปี ทำให้ยอดนักท่องเที่ยวลดลงอย่างต่อเนื่อง โดยเฉพาะผู้โดยสารทางเครื่องบินในช่วงเดือนธันวาคมที่มีวันละ 74 เที่ยวบิน ผู้โดยสารประมาณ 15,000 คน คงเหลือในปัจจุบันเพียง 14 เที่ยวบิน ผู้โดยสาร 1,300 คน จึงจำเป็นที่จะต้องเร่งแก้ไขผลกระทบที่จะตกสู่ภาคการท่องเที่ยวในปี 2564 ซึ่งคาดว่าในไตรมาส 2-3 น่าจะฟื้นตัวกลับมาได้ (ประชาชาติธุรกิจ, 2564)

บริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด เป็นธุรกิจให้บริการนำเที่ยว รวมทั้งธุรกิจที่เกี่ยวข้องกับการนำเที่ยวทุกชนิด ได้จดทะเบียนเป็นนิติบุคคลเมื่อวันที่ 29 ตุลาคา 2557 ทุนจดทะเบียน 2ล้านบาท สถานประกอบตั้งอยู่เลขที่ 174/208 หมู่ที่ 6 ตำบลหนองหาร อำเภอสันทราย จังหวัดเชียงใหม่

บริษัทฯ เน้นกลุ่มลูกค้าชาวจีนที่เป็นนักธุรกิจโดยเฉพาะที่สนใจจะท่องเที่ยวและเสาะแสวงหาแหล่งลงทุนในไทยไปด้วย เนื่องจากผู้บริหารของบริษัทฯ มีความชำนาญทางด้านภาษาจีนเป็นอย่างดี และรู้จักเครือข่ายธุรกิจต่างๆ ในไทยเป็นจำนวนมาก จึงเป็นที่ไว้วางใจในกลุ่มนักธุรกิจชาวจีนหลายคณะที่เลือกใช้บริการของบริษัทฯ นำเที่ยวและแนะนำช่องทางการลงทุนในไทยไปด้วย

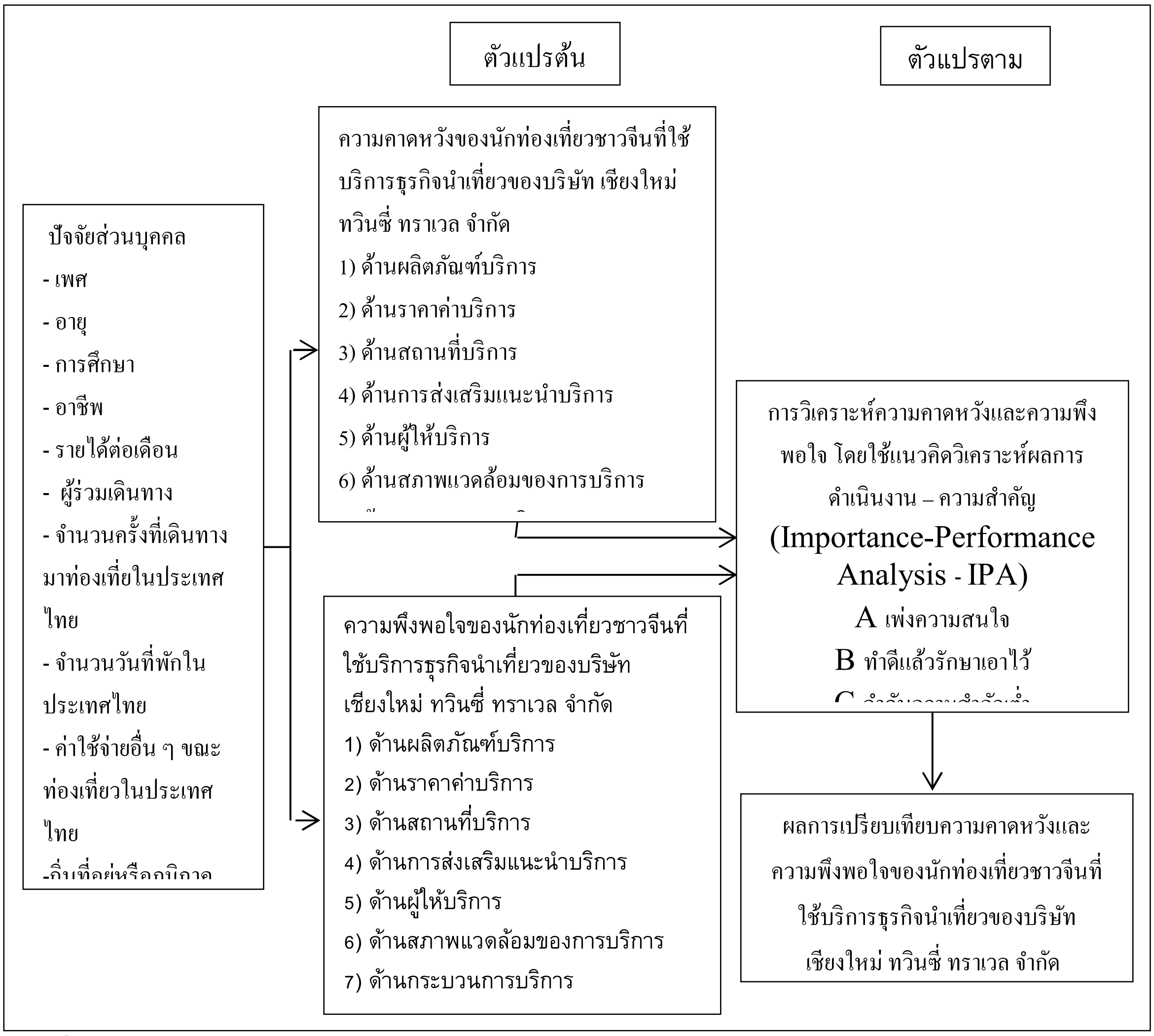
จากภาวะเศรษฐกิจการท่องเที่ยวในปัจจุบันที่นักท่องเที่ยวชาวต่างชาติลดหายลงไปเป็นจำนวนมาก ดังที่กล่าวไว้ในข้างต้นนั้น และเพื่อรองรับการกลับมาของนักท่องเที่ยวชาวต่างชาติอีกครั้งในราวปลายปี 2564 หรือต้นปี 2565 การทำให้ลูกค้าพึงพอใจนับเป็นจุดสำคัญที่ผู้ประกอบธุรกิจต้องคำนึงถึง เพื่อสร้างความเชื่อมั่นและความไว้วางใจแก่นักท่องเที่ยวชาวต่างชาติอีกครั้งหนึ่ง และเพื่อทำให้ทีมงานบริการของบริษัทฯ เกิดความรู้ความเข้าใจที่จะช่วยในการทำให้เกิดการยอมรับในบริการของผู้ใช้บริการในอนาคต ผู้ศึกษาจึงได้เล็งเห็นถึงความสำคัญของความต้องการและความพึงพอใจของลูกค้าที่มาใช้บริการธุรกิจนำเที่ยว การวิจัยครั้งนี้จึงจัดทำขึ้นภายใต้วัตถุประสงค์ที่จะ 1) ศึกษาระดับความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด และ 2) เปรียบเทียบความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด เพื่อนำผลการศึกษาดังกล่าวมาใช้เป็นแนวทางในการกำหนดนโยบายทางการบริหารและกลยุทธ์ทางการตลาด และปรับปรุงการบริการเพื่อเพิ่มศักยภาพของกิจการ ซึ่งผลประโยชน์ในที่สุดจะเป็นของผู้รับบริการ ในการที่จะได้รับบริการที่มีคุณภาพและตรงตามความคาดหวังของลูกค้าต่อไป

การทบทวนวรรณกรรม

งานวิจัยที่เกี่ยวข้องกับงานวิจัยนี้ได้มาจาก ศรัณพร ชวนเกริกกุล (2561) ได้ศึกษาเรื่อง กลยุทธ์การยกระดับการตลาดท่องเที่ยวเชิงวัฒนธรรมเมืองรองจังหวัดสิงห์บุรี ประชากรที่ใช้ในการวิจัยคือนักท่องเที่ยวคนไทยที่เดินทางมาท่องเที่ยวจังหวัดสิงห์บุรี จำนวน 402 ราย โดยใช้แบบสอบถามเป็นเครื่องมือในการเก็บรวบรวมข้อมูล สถิติที่ใช้ในการวิเคราะห์ข้อมูล คือ การแจกแจงความถี่ ค่าร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และใช้เทคนิค IPA ผลการศึกษาพบว่านักท่องเที่ยวส่วนใหญ่เป็นเพศหญิง ร้อยละ 64.7 มีช่วงอายุระหว่าง 31-40 ปี ร้อยละ 41.5 มีถานภาพการสมรส ร้อยละ 55.5 จบการศึกษาระดับปริญญาตรี ร้อยละ 51.2 ทำธุรกิจส่วนตัว ร้อยละ 29.1 มีรายได้ระหว่าง 15,001-20,000 บาท ร้อยละ 33.8 และเดินทางมาจากกรุงเทพมหานครและปริมณฑล ร้อยละ 35.6 นักท่องเที่ยวมีความคาดหวังต่อการตลาดท่องเที่ยวเชิงวัฒนธรรมเมืองรองจังหวัดสิงห์บุรี ซึ่งประกอบไปด้วยผลิตภัณฑ์ทางการท่องเที่ยว ราคา ช่องทางการจัดจำหน่าย การส่งเสริมการตลาด บุคลากร กระบวนการบริการ และสิ่งแวดล้อมโดยรวมอยู่ในระดับมาก ค่าเฉลี่ยคิดเป็น 4.13 มีความ

พึงพอใจโดยรวมอยู่ในระดับปานกลาง ค่าเฉลี่ยคิดเป็น 2.75 ความคาดหวังและความพึงพอใจของนักท่องเที่ยวตกอยู่ใน Quadrant A ด้านบุคลากรและด้านกระบวนการให้บริการ ตกอยู่ใน Quadrant B ด้านการส่งเสริมการตลาด ตกอยู่ใน Quadrant C ด้านผลิตภัณฑ์ทางการท่องเที่ยว และตกอยู่ใน Quadrant D ด้านราคา ด้านช่องทางการจัดจำหน่าย และด้านสิ่งแวดล้อมทางกายภาพ

กรอบแนวคิดการวิจัย



ภาพที่ 1 กรอบแนวคิดการวิจัย

วิธีการวิจัย

ประชากรและตัวอย่าง

ประชากรที่ใช้ในการศึกษาครั้งนี้ ได้แก่ นักท่องเที่ยวชาวจีนที่เดินทางมาท่องเที่ยวในประเทศไทย และใช้บริการนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ตั้งแต่ปี 2558 ถึง ปี 2562 ซึ่งมีจำนวน 1,482 คน

กลุ่มตัวอย่างที่ใช้ในการศึกษาครั้งนี้ คือ ลูกค้าชาวจีนที่มาใช้บริการการท่องเที่ยวของของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ตั้งแต่ปี 2558 ถึง ปี 2562 โดยกำหนดขนาดของกลุ่มตัวอย่างตามหลักการคำนวณของทาโร ยามาเน (Taro Yamane) (ชูศรี วงศ์รัตนะ, 2560) จำนวนกลุ่มตัวอย่างเท่ากับ 350 ราย

การเก็บรวบรวมและการวิเคราะห์ข้อมูล

การเก็บรวบรวมข้อมูลที่ใช้ประกอบในการศึกษาครั้งนี้ จำแนกตามแหล่งที่มา เป็น 2 ส่วน ดังนี้ 1) ข้อมูลปฐมภูมิ (Primary Data) ใช้วิธีเก็บรวบรวมข้อมูลจากจากลูกค้านักท่องเที่ยวชาวจีนของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด จำนวน 350 คน โดยใช้แบบสอบถาม ซึ่งจะส่งแบบสอบถามทางแอพพลิเคชั่น WeChat สำหรับนักท่องเที่ยวชาวจีนที่อยู่ในประเทศจีน ส่วนนักท่องเที่ยวชาวจีนที่ยังอาศัยอยู่ในจังหวัดเชียงใหม่ ผู้วิจัยจะส่งแบบสอบถามด้วยตนเอง 2) ข้อมูลทุติยภูมิ (Secondary Data) โดยการค้นคว้าข้อมูลจากหนังสือ วารสาร สิ่งพิมพ์ เอกสาร ฐานข้อมูลและเว็บไซด์ที่เกี่ยวข้อง

ข้อมูลที่รวบรวมได้จากแบบสอบถาม จะนำมาวิเคราะห์ข้อมูลเบื้องต้นด้วยสถิติเชิงพรรณนา (Descriptive Statistics) ประกอบด้วย ความถี่ (Frequency) ค่าร้อยละ (Percentage) และค่าเฉลี่ย (Mean) และนำมาประมวลผลโดยใช้โปรแกรมสำเร็จรูป โดยมีการตรวจสอบความสมบูรณ์และถูกต้องครบถ้วนของแบบสอบถามทุกฉบับ บันทึกข้อมูลจากแบบสอบถามในส่วนที่เป็นคำถามเกี่ยวกับข้อมูลทั่วไปของผู้ตอบแบบสอบถาม บันทึกข้อมูลจากแบบสอบถามในส่วนที่เป็นคำถามเกี่ยวกับระดับความคาดหวังและระดับความพึงพอใจของลูกค้าต่อการบริการของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ด้วยทฤษฎีส่วนประสมทางการตลาดของบริการ (Service Marketing mix: 7Ps) (Kotler and Armstrong,2013) ประกอบด้วยปัจจัย ด้านผลิตภัณฑ์บริการ ด้านราคาค่าบริการ ด้านสถานที่บริการ ด้านการส่งเสริมแนะนำบริการ ด้านผู้ให้บริการ ด้านสภาพแวดล้อมของการบริการ และด้านกระบวนการบริการ มาวิเคราะห์หาค่าเฉลี่ย (Mean) โดยมีหลักเกณฑ์การให้คะแนนตามระดับความคาดหวัง/ระดับความพึงพอใจ 5 ระดับ ดังนี้ มากที่สุด มาก ปานกลาง น้อย และน้อยที่สุด โดยมีเกณฑ์การให้คะแนน 5 4 3 2 และ 1 ตามลำดับ (ยุทธ ไกรยวรรณ์, 2550: 244) บันทึกข้อมูลจากแบบสอบถามในส่วนที่เป็นแบบสอบถามชนิดปลายเปิดเกี่ยวกับปัญหาและ

ข้อเสนอแนะในการปรับปรุงการให้บริการของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด เพื่อสรุปปัญหาและข้อเสนอแนะจากลูกค้าผู้บริโภค และ วิเคราะห์การเปรียบเทียบค่าเฉลี่ยความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ด้วยเทคนิค Importance performance analysis (IPA) (Martilla และ James, 1977)

ผลการวิจัย

ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม พบว่า กลุ่มตัวอย่างส่วนใหญ่เป็นเพศหญิง มีอายุตั้งแต่ 31-40 ปี มีระดับการศึกษาปริญญาตรี มีอาชีพประกอบธุรกิจส่วนตัว/เจ้าของกิจการ มีรายได้ต่อเดือนตั้งแต่ 3,001-5,000 หยวน มีผู้ร่วมเดินทางเป็นคู่สมรสและบุตร เคยมาท่องเที่ยวแล้วตั้งแต่ 6-10 ครั้ง มาพักตั้งแต่ 6-7 วัน มีค่าใช้จ่ายในการท่องเที่ยวตั้งแต่ 6,001-8,000 หยวน มีภูมิลำเนาอยู่ที่เซียงไฮ้ และมีกิจการประเภทการซื้อ-ขายสินค้า

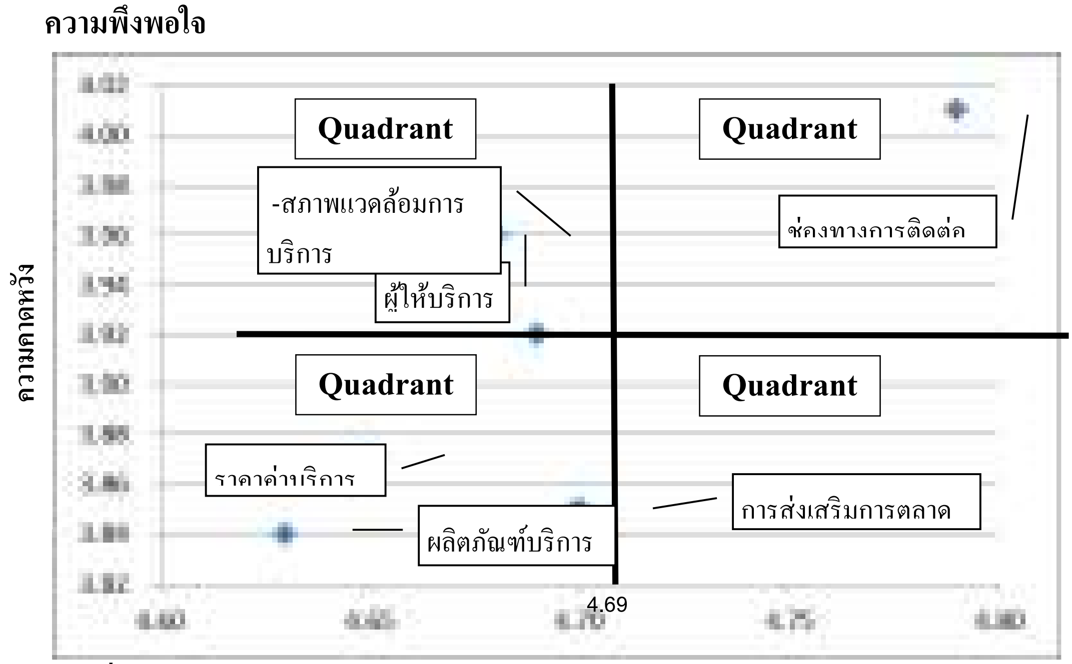
ตารางที่ 1 ค่าเฉลี่ยและระดับความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด

รายการ	**ความคาดหวัง**		**ความพึงพอใจ**	
	$\bar{X}$	**ระดับ**	$\bar{X}$	**ระดับ**
ด้านผลิตภัณฑ์บริการ	3.84	มาก	4.63	มากที่สุด
ด้านราคาค่าบริการ	3.87	มาก	4.65	มากที่สุด
ด้านช่องทางการติดต่อกับบริษัท	4.01	มาก	4.79	มากที่สุด
ด้านการส่งเสริมการตลาด	3.85	มาก	4.70	มากที่สุด
ด้านผู้ให้บริการ (ล่าม เจ้าหน้าที่ คนขับรถ)	3.96	มาก	4.67	มากที่สุด
ด้านสภาพแวดล้อมของการบริการ	3.96	มาก	4.68	มากที่สุด
ด้านกระบวนการบริการ	3.96	มาก	4.68	มากที่สุด
รวม	3.92	มาก	4.69	มากที่สุด

ข้อมูลเกี่ยวกับระดับความคาดหวังของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด พบว่า ความคาดหวังของนักท่องเที่ยวชาวจีน โดยรวมอยู่ในระดับอยู่ในระดับมาก เมื่อพิจารณาเป็นรายด้านพบว่านักท่องเที่ยวมีความคาดหวังต่อด้านช่องทางการติดต่อกับบริษัทในระดับมาก ค่าเฉลี่ย 4.01 ความคาดหวังต่อด้านผู้ให้บริการ ด้านสภาพแวดล้อมของการบริการ และด้านกระบวนการบริการในระดับมาก ค่าเฉลี่ยเท่ากัน 3.96 คาดหวังต่อด้านราคา

ค่าบริการในระดับมาก ค่าเฉลี่ย 3.87 ความคาดหวังต่อด้านการส่งเสริมการตลาดในระดับมาก ค่าเฉลี่ย 3.85 และความคาดหวังต่อด้านผลิตภัณฑ์บริการในระดับมาก ค่าเฉลี่ย 3.84 ตามลำดับ ข้อมูลเกี่ยวกับระดับความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด พบว่า ความพึงพอใจของนักท่องเที่ยวโดยรวมอยู่ในระดับมากที่สุด เมื่อพิจารณาเป็นรายด้านพบว่านักท่องเที่ยวมีความพึงพอใจต่อด้านช่องทางการติดต่อกับบริษัทในระดับมากที่สุด ค่าเฉลี่ย 4.79 ความพึงพอใจต่อด้านการส่งเสริมการตลาดในระดับมากที่สุด ค่าเฉลี่ย 4.70 ความพึงพอใจต่อด้านสภาพแวดล้อมของการบริการ และด้านกระบวนการบริการในระดับมากที่สุด ค่าเฉลี่ยเท่ากัน 4.68 ความพึงพอใจต่อด้านผู้ให้บริการ ค่าเฉลี่ย 4.67 ความพึงพอใจต่อด้านราคาค่าบริการในระดับมากที่สุด ค่าเฉลี่ย 4.65 และความพึงพอใจต่อด้านผลิตภัณฑ์บริการในระดับมากที่สุด ค่าเฉลี่ย 4.63

ผลการวิเคราะห์การเปรียบเทียบค่าเฉลี่ยความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ด้วยเทคนิค Importance performance analysis (IPA) พบว่า การเปรียบเทียบคะแนนความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ทั้ง 7 ด้าน ด้วยเทคนิค IPA มีดังนี้



ภาพที่ 2 การเปรียบเทียบคะแนนความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ทั้ง 7 ด้าน ด้วยเทคนิค Importance performance analysis (IPA)

Quadrant A พบว่า มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant A ใน 3 ประเด็น ได้แก่ ด้านผู้ให้บริการ (ล่าม เจ้าหน้าที่ คนขับรถ) ด้านสภาพแวดล้อมของการบริการ และด้านกระบวนการบริการ หมายความว่า นักท่องเที่ยวชาวจีนให้ความสำคัญในประเด็นด้านผู้ให้บริการ ด้านสภาพแวดล้อมของการบริการ และด้านกระบวนการบริการเป็นอย่างมาก แต่นักท่องเที่ยวไม่ได้รับการตอบสนองในประเด็นดังกล่าวอย่างเพียงพอ จึงมีผลต่อความพึงพอใจในระดับต่ำ ดังนั้นผู้บริหารและผู้ที่เกี่ยวข้องของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด จำเป็นต้องให้ความสำคัญในประเด็นดังกล่าวมากขึ้น เนื่องจากผู้ให้บริการ สภาพแวดล้อมของการบริการ และกระบวนการบริการมีความสำคัญอย่างมากต่อการสร้างคุณค่าและมูลค่าทางเศรษฐกิจอย่างยั่งยืนให้แก่บริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด

Quadrant B พบว่า มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant B ใน 1 ประเด็น ได้แก่ ด้านช่องทางการติดต่อกับบริษัท หมายความว่า นักท่องเที่ยวชาวจีนมีความคาดหวังในด้านช่องทางการติดต่อกับบริษัทอย่างมาก และได้รับการตอบสนองในประเด็นดังกล่าวได้ดีพอสมควร

Quadrant C พบว่า มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant C ใน 2 ประเด็น ได้แก่ ด้านผลิตภัณฑ์บริการ และด้านราคาค่าบริการ หมายความว่า ประเด็นด้านผลิตภัณฑ์บริการและด้านราคาค่าบริการ ยังสามารถตอบสนองนักท่องเที่ยวชาวจีนได้ไม่ดีเท่าที่ควร จึงทำให้มีผลต่อความพึงพอใจในระดับต่ำกว่ามาตรฐาน

Quadrant D พบว่า มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant D ใน 1 ประเด็น ได้แก่ ด้านการส่งเสริมการตลาด หมายความว่า ผู้บริหารและผู้ที่มีส่วนเกี่ยวข้องกับบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด สามารถรักษาคุณภาพด้านการส่งเสริมการตลาดได้เป็นอย่างดี ซึ่งมีผลต่อความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด

สรุปและอภิปรายผลการวิจัย

จากการศึกษาระดับความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด พบว่า ความคาดหวังของนักท่องเที่ยวชาวจีนโดยรวมอยู่ในระดับอยู่ในระดับมาก เมื่อพิจารณาเป็นรายด้านพบว่านักท่องเที่ยวมีความคาดหวังในระดับมากในทุกด้าน ได้แก่ ด้านช่องทางการติดต่อกับบริษัท ด้านผู้ให้บริการ ด้านสภาพแวดล้อมของการบริการ ด้านกระบวนการบริการ ด้านราคาค่าบริการ ด้านการส่งเสริมการตลาด และด้านผลิตภัณฑ์บริการ และความพึงพอใจของนักท่องเที่ยวโดยรวมอยู่ในระดับมากที่สุด เมื่อพิจารณาเป็นรายด้านพบว่านักท่องเที่ยวมีความพึงพอใจระดับมากที่สุดในทุกด้าน ได้แก่ ด้านช่องทางการ

ติดต่อกับบริษัท ด้านการส่งเสริมการตลาด ด้านสภาพแวดล้อมของการบริการ ด้านกระบวนการบริการใน ด้านผู้ให้บริการ ด้านราคาค่าบริการ และด้านผลิตภัณฑ์บริการ ไม่สอดคล้องกับงานวิจัยของ ศรัณพร ชวนเกริกกุล (2561) ได้ศึกษาเรื่อง กลยุทธ์การยกระดับการตลาดท่องเที่ยวเชิงวัฒนธรรมเมืองรองจังหวัดสิงห์บุรี พบว่า นักท่องเที่ยวมีความคาดหวังต่อการตลาดท่องเที่ยวเชิงวัฒนธรรมเมืองรองจังหวัดสิงห์บุรี ซึ่งประกอบไปด้วยผลิตภัณฑ์ทางการท่องเที่ยว ราคา ช่องทางการจัดจำหน่าย การส่งเสริมการตลาด บุคลากร กระบวนการบริการ และสิ่งแวดล้อมโดยรวมอยู่ในระดับมาก และมีความพึงพอใจโดยรวมอยู่ในระดับปานกลาง

จากการวิเคราะห์เปรียบเทียบความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ด้วยเทคนิค IPA พบว่า มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant A ใน 3 ประเด็น ได้แก่ ด้านผู้ให้บริการ (ล่าม เจ้าหน้าที่ คนขับรถ) ด้านสภาพแวดล้อมของการบริการ และด้านกระบวนการบริการ มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant B ใน 1 ประเด็น ได้แก่ ด้านช่องทางการติดต่อกับบริษัท มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant C ใน 2 ประเด็น ได้แก่ ด้านผลิตภัณฑ์บริการ และด้านราคาค่าบริการ และ มีค่าเฉลี่ยความคาดหวังและความพึงพอใจตกอยู่ใน Quadrant D ใน 1 ประเด็น ได้แก่ ด้านการส่งเสริมการตลาด ไม่สอดคล้องกับงานวิจัยของ ศรัณพร ชวนเกริกกุล (2561) ได้ศึกษาเรื่อง กลยุทธ์การยกระดับการตลาดท่องเที่ยวเชิงวัฒนธรรมเมืองรองจังหวัดสิงห์บุรี พบว่า ความคาดหวังและความพึงพอใจของนักท่องเที่ยวตกอยู่ใน Quadrant A ด้านบุคลากรและด้านกระบวนการให้บริการ ตกอยู่ใน Quadrant B ด้านการส่งเสริมการตลาด ตกอยู่ใน Quadrant C ด้านผลิตภัณฑ์ทางการท่องเที่ยว และตกอยู่ใน Quadrant D ด้านราคา ด้านช่องทางการจัดจำหน่าย และด้านสิ่งแวดล้อมทางกายภาพ

จากการศึกษาเรื่อง ความคาดหวังและความพึงพอใจของนักท่องเที่ยวชาวจีนที่ใช้บริการธุรกิจนำเที่ยวของบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ผู้วิจัยพบว่าบริษัท เชียงใหม่ ทวินซี่ ทราเวล จำกัด ควรมีการปรับปรุงพัฒนาดังนี้ ด้านผลิตภัณฑ์บริการ อาทิเช่น บริการการต้อนรับที่สนามบิน บริการแลกเปลี่ยนเงินตรา บริการจองที่พัก บริการพาหนะ บริการจองร้านอาหาร/ภัตตาคาร บริการนำเที่ยว บริการล่าม บริการแนะนำธุรกิจการลงทุนในไทย บริการส่งที่สนามบิน บริษัทฯ ไม่จำเป็นต้องปรับปรุงบริการทางด้านนี้ เนื่องจากลูกค้านักท่องเที่ยวชาวจีนส่วนใหญ่ไม่ได้ให้ความสำคัญหรือคาดหวังกับบริการด้านนี้มากนัก แต่ทางบริษัทต้องรักษามาตรฐานการบริการเหล่านี้ให้ดีอย่างสม่ำเสมอเพื่อให้เกิดภาพลักษณ์ที่ดีต่อไป ด้านราคาค่าบริการ อาทิเช่น ราคาค่าบริการของบริษัทที่เหมาะสม ราคาค่าอาหารที่เหมาะสม ราคาที่พักที่เหมาะสม ความคุ้มค่าของค่าใช้จ่ายในการท่องเที่ยวโดยรวม ราคาค่าบริการเหมารวมค่าล่วงเวลา บริษัทฯ ไม่จำเป็นต้อง

ปรับปรุงบริการทางด้านนี้ เนื่องจากลูกค้านักท่องเที่ยวชาวจีนส่วนใหญ่ไม่ได้ให้ความสำคัญหรือคาดหวังกับบริการด้านนี้มากนัก ด้านช่องทางการติดต่อกับบริษัท อาทิเช่น ช่องทางติดต่อผ่าน WeChat ช่องทางติดต่อผ่าน Line ช่องทางติดต่อผ่านโทรศัพท์ การติดต่อผ่านคนรู้จัก ควรรักษามาตรฐานการบริการและส่งเสริมสนับสนุนการบริการทางด้านนี้ให้ดียิ่งขึ้น เนื่องจากนักท่องเที่ยวชาวจีนให้ความคาดหวังในด้านนี้มาก เช่น เพิ่มช่องทางการติดต่อกับบริษัทให้มากขึ้น ทางบริษัทอาจเพิ่มช่องทางการติดต่อและการโฆษณาผ่านทาง Tiktok หรือ Weibo เนื่องจากเป็นช่องทางที่นักท่องเที่ยวจีนกำลังเป็นที่นิยมในขณะนี้ ด้านการส่งเสริมการตลาด อาทิเช่น บริการแจกอุปกรณ์เสริมความสะดวกในการท่องเที่ยว ของแถม ของชำร่วย ควรรักษามาตรฐานการบริการในด้านนี้ให้คงที่ แต่ไม่ต้องลงทุนเพิ่มเนื่องจากลูกค้าชาวจีนให้ความสำคัญหรือคาดหวังทางด้านนี้ไม่มาก ด้านผู้ให้บริการ อาทิเช่น ความรู้ความชำนาญด้านการนำเที่ยวของพนักงานบริษัท ความรู้ความชำนาญด้านภาษาจีนของพนักงานบริษัท ความรู้ความชำนาญด้านธุรกิจของพนักงานบริษัท ความน่าสนใจในการถ่ายทอดข้อมูลของล่าม ความครบถ้วนในการตอบข้อสงสัยของล่าม ล่ามมีความเป็นมิตรและอัธยาศัยดี บริษัทฯ จำเป็นต้องปรับปรุงแก้ไขและพัฒนาการบริการด้านนี้ให้มากขึ้นเพื่อเพิ่มความพึงพอใจให้ลูกค้านักท่องเที่ยวชาวจีนให้สูงขึ้น เช่น การพัฒนาอบรมล่ามและพนักงานของบริษัทฯ ให้มีความรู้ความชำนาญมากขึ้นในด้านสถานที่ท่องเที่ยวและธุรกิจที่ลูกค้านักท่องเที่ยวชาวจีนให้ความสนใจ ด้านสภาพแวดล้อมของการบริการ อาทิเช่น ความสะอาด ความสวยงามของบริษัท ความน่าเชื่อถือของบริษัท สภาพรถ ขนาดของรถ ความสะอาดของรถ อุปกรณ์อำนวยความสะดวกภายในรถ บริษัทฯ จำเป็นต้องปรับปรุงแก้ไขและพัฒนาการบริการด้านนี้ให้มากขึ้น เพื่อเพิ่มความพึงพอใจให้ลูกค้านักท่องเที่ยวชาวจีนให้สูงขึ้น เช่น จัดสถานที่บริษัทฯ ให้มีความกว้างขวาง และความร่มรื่นมากยิ่งขึ้น ติดอุปกรณ์ส่งสัญญาณไวไฟในรถยนต์ และด้านกระบวนการบริการ อาทิเช่น ความพร้อมในการให้บริการของบริษัท การรักษาเวลาและตรงต่อเวลา ความรวดเร็วในการติดต่อจอง ความสะดวกในการชำระเงิน การดูแลช่วยเหลือลูกค้าหลังการขาย การประสานงานกับบุคคลอื่นๆ ให้แก่ลูกค้า การแก้ไขปัญหาให้กับลูกค้า บริษัทฯ จำเป็นต้องปรับปรุงแก้ไขและพัฒนาการบริการด้านนี้ให้มากขึ้น เพื่อเพิ่มความพึงพอใจให้ลูกค้านักท่องเที่ยวชาวจีนให้สูงขึ้น เช่น ล่ามและผู้นำเที่ยวควรศึกษาสถานที่ท่องเที่ยวหรือธุรกิจให้มากขึ้น เพื่อถ่ายทอดความรู้นั้นให้แก่ลูกค้านักท่องเที่ยวชาวจีนให้ดีมากยิ่งขึ้น สอบถามลูกค้านักท่องเที่ยวชาวจีนว่าเขาต้องการไปที่ใดบ้าง ซื้อสินค้าอะไรบ้าง สนใจจะดูงานธุรกิจใดบ้าง หรือต้องการเข้าพบกับบุคคลสำคัญใครบ้างอย่างละเอียด จะได้นำมาวางแผนการเดินทางให้ดีมากยิ่งขึ้น เพื่อช่วยให้ลูกค้าได้รับสิ่งเหล่านั้นตรงตามความต้องการจริงๆ ลดปัญหาที่ว่าลูกค้าไม่มีเวลาซื้อสินค้าก่อนกลับ และลดความเมื่อยล้าการเดินทาง และบริษัทฯ ควรหาสถานที่ท่องเที่ยวหรือธุรกิจสำรองไว้ เพื่อลูกค้า

นักท่องเที่ยวชาวจีนไม่ชอบหรือไม่สนใจสถานที่ท่องเที่ยวหรือธุรกิจที่ทางบริษัทฯ ได้จัดเตรียมไว้ล่วงหน้านั้น

เอกสารอ้างอิง

กองเศรษฐกิจการท่องเที่ยวและกีฬา. (2564). *สถิติด้านการท่องเที่ยว ปี 2563*. สืบค้นจาก https://mots.go.th/more_news_new.php?cid=592.

ชูศรี วงศ์รัตนะ. (2560). *เทคนิคการใช้สถิติเพื่อการวิจัย*. พิมพ์ครั้งที่ 13. กรุงเทพฯ: ศูนย์หนังสือจุฬาลงกรณ์มหาวิทยาลัย.

ประชาชาติธุรกิจ. (2564). *เชียงใหม่ปรับกลยุทธ์ ชงลดเวลากักตัว แก้เกมนักท่องเทียวลด 50%.* สืบค้นจาก www.prachachat.net/local-economy/news-601441.

ผู้จัดการออนไลน์. (2564). *กระทรวงท่องเที่ยวฯ เผยปี 63 นักท่องเที่ยวลดลง 83% รายได้วูบ 82%.* สืบค้นจากhttps://mgronline.com/uptodate/detail/9640000008893.

เดลินิวส์. (2564). *เผยนักท่องเที่ยวต่างชาติ มาไทยเดือน ม.ค. 7.6 พันคน*. สืบค้นจาก www.dailynews.co.th/economic/827895/.

ศรัณพร ชวนเกริกกุล. (2561). *กลยุทธ์การยกระดับการตลาดท่องเที่ยวเชิงวัฒนธรรมเมืองรอง จังหวัดสิงห์บุรี*. วิทยานิพนธ์ บริหารธุรกิจดุษฎีบัณฑิต, มหาวิทยาลัยสยาม.

The Bangkok Insight. (2564). *เปิดรายได้ท่องเที่ยว เมืองหลัก-เมืองรอง ปี 63 ลดวูบถ้วนหน้า ซมพิษโควิด*. สืบค้นจาก www.thebangkokinsight.com/news/business/569972/.

Kotler P, Armstrong G. (2013). *Principles of marketing*. 15th ed. Pearson.

Martilla, J. A., and James, J. C. (1977). Importance-Performance analysis. *Journal of Marketing, 41*, 77-79.

ปัจจัยที่ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน)

Factors affecting the acceptance of the PacD application for communication and learning among employees of LH Financial Group Public Company Limited

ขวัญเรือน ลิ่มสกุล / Kwanruan Limsakul
สาขาวิชานวัตกรรมการจัดการ วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา /
Innovative Management, Department of Management Innovation, College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: S63463829010@ssru.ac.th

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
สาขาวิชานวัตกรรมการจัดการ วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา /
Innovative Management, Department of Management Innovation, College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

วิไลลักษณ์ รักบำรุง / Wilailuk Rakbumrung
สาขาวิชานวัตกรรมการจัดการ วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา /
Innovative Management, Department of Management Innovation, College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: wilailuk.ra@ssru.ac.th

บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์ (1) เพื่อศึกษาระดับความคิดเห็นเกี่ยวกับปัจจัยและการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและเรียนรู้ของพนักงาบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) (2) เพื่อศึกษาปัจจัยที่ส่งผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) ระเบียบวิธีวิจัยเป็นงานวิจัยเชิงปริมาณ กลุ่มตัวอย่าง คือ ผู้ใช้งานแอปพลิเคชัน PacD บริษัท แอล เอช ไฟแนนซ์เชียล

กรุ๊ป จำกัด (มหาชน) จำนวน 325 คน โดยใช้วิธีการสุ่มตัวอย่างวิธีอย่างง่าย เครื่องมือที่ใช้ในการวิจัย คือ การสอบถาม การวิเคราะห์ข้อมูล โดยใช้สถิติเชิงพรรณนา คือ ค่าความถี่ ค่าร้อยละ ค่าเฉลี่ย และค่าเบี่ยงเบนมาตฐาน และสถิติเชิงอนุมาณ คือ การวิเคราะห์ความแปรปรวน และการวิเคราะห์ความถดถอยเชิงพหุ ผลวิจัย พบว่า ปัจจัยที่ส่งผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน สามารถอธิบายได้ร้อยละ 72.3 เมื่อทดสอบตัวแปรอิสระที่ส่งผลต่อตัวแปรตาม พบว่า ปัจจัยการยอมรับเทคโนโลยีที่มีผลมากที่สุด คือ ด้านทัศนคติที่มีต่อการใช้งาน (Beta = 0.493) รองลงมาคือ ด้านพฤติกรรมที่มีแนวโน้มในการใช้งาน (Beta = 0.293) และด้านการรับรู้ถึงประโยชน์ต่อการใช้งาน (Beta = 0.122) อย่างมีนัยสำคัญทางสถิติที่ระดับ .05

คำสำคัญ: การยอมรับเทคโนโลยี, แอปพลิเคชัน PacD, การสื่อสาร, การเรียนรู้

Abstract

The objectives of this study were (1) to study the opinion level of factors and acceptance level of PacD application for communication and learning of employees of LH Financial Group Public Company Limited and (2) to study the factors affecting application acceptance PacD for communication and learning of employees of LH Financial Group Public Company Limited. The research methodology is quantitative research. The sample group was 325 users of the PacD application, LH Financial Group Public Company Limited, using a simple sample random method. A set of questionnaires is used as an instrument. The data analysis was used descriptive statistics — frequency, percentage, average, and standard deviation — and of inferential statistics — multiple regression analysis.The research results revealed that the factors affected acceptance of PacD applications for communication and learning. The factors affected the employee adoption of PacD applications for communication and learning at 72.3 percent. Once independent variables were tested against the dependent variables, the Beta data found at statistically significant of 0.05 were as follows: the most influential factor adoption of innovation was attitude toward using (Beta = 0.493), followed by Behavioral Intention to Use (Beta = 0.293) and Perceived Usefulness (Beta = 0.122).

Keywords: Technology adoption, PacD applications, Communication, Learning

ความเป็นมาและความสำคัญของปัญหา

เทคโนโลยีการสื่อสารในยุคปัจจุบันมีการพัฒนาและเจริญก้าวหน้าอย่างมากโดยอุปกรณ์การสื่อสารที่ได้รับความนิยม คือ โทรศัพท์มือถือแบบสมาร์ทโฟน (Smart Phone) ซึ่งสัดส่วนของยอดจำหน่ายโทรศัพท์มือถือแบบสมาร์ทโฟนในปัจจุบันได้เพิ่มขึ้นเป็นอย่างมาก เนื่องจากการพัฒนาความสามารถของโทรศัพท์มือถือที่แต่เดิมมีไว้แค่การติดต่อสื่อสารผ่านการสนทนาเท่านั้น แต่ปัจจุบันผู้ใช้มีกิจกรรมเพิ่มขึ้นจากการใช้งานโทรศัพท์มือถือ ทั้งนี้เป็นผลมาจากแอปพลิเคชันบนอุปกรณ์โทรศัพท์มือถือแบบสมาร์ทโฟนมีการพัฒนาต่อยอดมากขึ้น ทั้งจากค่ายผู้ให้บริการโทรศัพท์หรือจากที่บริษัทพัฒนาซอฟต์แวร์หลายบริษัทต่างหันมาพัฒนาแอปพลิเคชันบนโทรศัพท์มือถือ และด้วยแอปพลิเคชันที่เพิ่มขึ้นและมีประสิทธิภาพมากขึ้น ทำให้ผู้ใช้อุปกรณ์โทรศัพท์เคลื่อนที่ในรูปแบบสมาร์ทโฟนมีแนวโน้มในการใช้แอปพลิเคชันต่างๆ เพื่อตอบสนองกิจกรรมในชีวิตประจำวัน (เทิดรัฐ แววศักดิ์, 2556)

การที่ผู้บริโภคต้องเปลี่ยนพฤติกรรมสู่ออนไลน์อย่างเต็มรูปแบบ ทั้งการทำงานและในชีวิตประจำวันในช่วงที่ผ่านมานั้น ทุกอย่างเกิดขึ้นผ่านดิจิทัลแพลตฟอร์ม โดยเฉพาะ “แอปพลิเคชัน” ทำให้ผู้คนมองว่า ตลาดแอปพลิเคชันกลายเป็นหนึ่งในผู้แข็งแกร่งที่รอดจากพิษ COVID-19 ตั้งแต่ปี 2015-2019 จะพบว่าความนิยมและเวลาในการใช้งานแอปนั้น เพิ่มขึ้นอย่างต่อเนื่อง ไม่ใช่แค่อานิสงส์จากตลาดสมาร์ทโฟนที่ผู้คนหันมาใช้งานมากขึ้น แต่เพราะ “ชีวิตออนไลน์” กลายเป็นพฤติกรรมของผู้คนมากขึ้น และมากขึ้นเรื่อยๆ ด้วย (MARGETING OOPS, 2563) โดยเฉพาะโซเชียลมีเดียหรือออนไลน์ต่างๆ จากประชากรไทยกว่า 66 ล้านคน มีผู้ใช้งานอินเตอร์เน็ตมากถึง 52 ล้านคน โดยเฉพาะช่วงโควิด-19 ระบาด ต้องทำงานที่บ้าน work from home มีการใช้อินเตอร์เน็ตมากกว่า 9 ชั่วโมงต่อวัน ถือเป็นจุดเปลี่ยนที่คนหันมาสนใจเทคโนโลยีใกล้ตัวกันเป็นอย่างมาก เพราะสามารถรับรู้ข้อมูลข่าวสารได้อย่างรวดเร็วและทันต่อเหตุการณ์ ซึ่งมีแอปพลิเคชันมากมายที่ทำให้เราสามารถรับสารกันได้ง่ายขึ้น SMARTFINN (2563).

ดังนั้น การบริหารงานบุคคล เป็นอีกส่วนหนึ่งที่มีการนำเทคโนโลยีเข้ามาช่วยในการทำงานที่ช่วยเพิ่มศักยภาพของบุคลากรภายในองค์กรให้มีประสิทธิภาพ โดยเฉพาะ แอปพลิเคชัน ซึ่งมีความสะดวกสบายมากขึ้น ช่วยบริหารจัดการและเพิ่มศักยภาพของบุคลากรภายในองค์กรได้ ทำให้ตอบโจทย์องค์กรในยุค New normal ได้อย่างมีประสิทธิภาพ ซึ่งบริษัทแอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) เป็นอีกหนึ่งบริษัทที่ได้กำหนดกลยุทธ์และแนวทางการพัฒนาทรัพยากรบุคคลที่เน้นความคล่องตัวในการทำงานยืนหยุ่น และรวดเร็ว จึงได้มีนโยบายในการนำแอปพลิเคชัน PacD มาใช้ในงานบริหารทรัพยากรบุคคล เพื่อเพิ่มช่องทางในการเรียนรู้พร้อมสร้างกลไกในการนำความรู้ไปสู่การปฏิบัติ รวมถึงกิจกรรมส่งเสริมสำหรับพนักงานให้สามารถเรียนรู้ได้ทุกที่ ทุกเวลา

แบบไม่มีข้อจำกัด ภายใต้ชื่อ LHFG People Connect เพื่อเป็นการเสริมสร้างศักยภาพพนักงานให้พร้อมทันต่อความรู้ และการเปลี่ยนแปลงที่รวดเร็ว

จากความสำคัญในข้างต้น ผู้วิจัยจึงสนใจที่จะทำงานวิจัยเรื่อง ปัจจัยที่ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) เพื่อนำผลการวิจัยไปใช้ให้เกิดประโยชน์ในด้านการพัฒนาดำเนินการสื่อสารและการเรียนรู้ เพื่อยกระดับประสิทธิภาพในการสื่อสารและเรียนรู้ภายในองค์กร

เอกสารและงานวิจัยที่เกี่ยวข้อง

1) แนวคิดเกี่ยวกับแอปพลิเคชัน การสื่อสารและการเรียนรู้

แนวโน้มการใช้งาน Mobile Device อย่างสมาร์ทโฟนเพิ่มขึ้นอย่างก้าวกระโดดในช่วงไม่กี่ปีที่ผ่านมาซึ่งเป็นผลมาจากการพัฒนา Mobile Applications และเทคโนโลยีของตัวเครื่องโทรศัพท์จากค่ายผู้ผลิตโทรศัพท์โดยเฉพาะการพัฒนาต่อยอดแอปพลิเคชันบนอุปกรณ์เคลื่อนที่ของบริษัทต่างๆ ที่แข่งขันกันเพื่อชิงความเป็นหนึ่งในตลาดด้าน Mobile Application ซึ่งการพัฒนาแอพพลิเคชั่นแบ่งเป็นการพัฒนาแอปพลิเคชันระบบ (Operation System) และแอปพลิเคชันซอฟต์แวร์ที่ตอบสนองการใช้งานบนอุปกรณ์และด้วยแอปพลิเคชันที่เพิ่มขึ้นและมีประสิทธิภาพมากขึ้นทำให้ผู้ใช้อุปกรณ์เคลื่อนที่มีแนวโน้มใช้โปรแกรมต่างๆ เพื่อตอบสนองกิจกรรมในชีวิตประจำวัน

ความหมายและประเภทของ Mobile Application

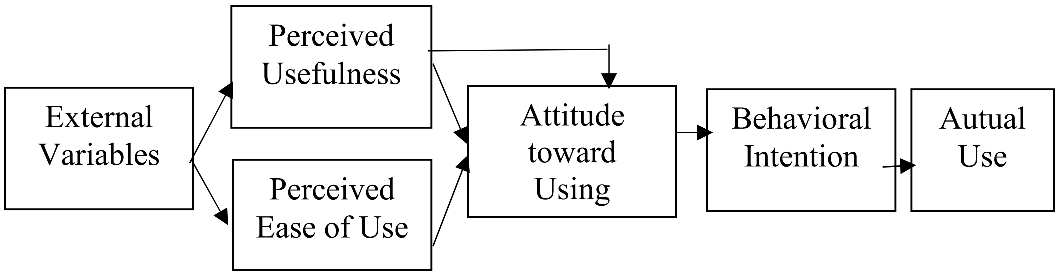
Mobile Application ประกอบขึ้นด้วยคำสองคำ คือ Mobile กับApplication ซึ่งมีความหมายดังนี้

Mobile คืออุปกรณ์สื่อสารที่ใช้ในการพกพา ซึ่งนอกจากจะใช้งานได้ตามพื้นฐานของโทรศัพท์แล้วยังทำงานได้เหมือนกับเครื่องคอมพิวเตอร์เนื่องจากเป็นอุปกรณ์ที่พกพาได้จึงมีคุณสมบัติเด่น คือ ขนาดเล็ก น้ำหนักเบา ใช้พลังงานค่อนข้างน้อย ปัจจุบันมักใช้ทำหน้าที่ได้หลายอย่างติดต่อแลกเปลี่ยนข่าวสารกับคอมพิวเตอร์ได้และที่สำคัญคือสามารถเพิ่มหน้าที่การทำงานได้ สำหรับ Application จะหมายถึง ซอฟต์แวร์ที่ใช้เพื่อช่วยการทำงานของผู้ใช้ (User) โดยApplication จะต้องมีสิ่งที่เรียกว่า ส่วนติดต่อกับผู้ใช้ (User Interface หรือ UI) เพื่อเป็นตัวกลางการใช้งานต่างๆ

ดังนั้น Mobile Application หมายถึง แอปพลิเคชันที่ช่วยการทำงานของผู้ใช้บนอุปกรณ์สื่อสารแบบพกพา เช่น โทรศัพท์มือถือ ซึ่งแอปพลิเคชันเหล่านั้นจะทำงานบนระบบปฏิบัติการ (OS) ที่แตกต่างกันไป ตัวอย่างของระบบปฏิบัติการบนอุปกรณ์เคลื่อนที่ ได้แก่ Symbian OS ที่ใช้กันอยู่ในมือถือหลายค่าย ได้แก่ โนเกีย Windows mobile ของค่าย Microsoft BlackBerry OS ของค่าย RIM (Research In Motion) Web OS ของ ค่าย Palm iPhone OS ของค่าย Apple และ Android OS ของค่าย Google ซึ่งเป็นค่ายล่าสุดในขณะนี้ เป็นต้น (สุชาดา พลาชัยภิรมย์ศิล, 2554)

2) ทฤษฎีการยอมรับเทคโนโลยี

แบบจำลองการยอมรับเทคโนโลยี หรือ TAM เสนอโดย Davis (1989) เป็นการพัฒนาเพิ่มเติมจาก ทฤษฎี TRA และทฤษฎี TPB หลักการของแบบจำลองการยอมรับเทคโนโลยี คือ การศึกษาปัจจัยที่มีอิทธิพลต่อการยอมรับหรือการตัดสินใจที่จะใช้เทคโนโลยีใหม่ ว่าผู้ใช้จะใช้เมื่อไรและจะมีแนวโน้มการใช้งานอย่างไร ดังแบบจำลองแสดงดังภาพที่ 1



ภาพที่ 1 แบบจำลองการยอมรับเทคโนโลยีตามแนวคิดของ Davis (1989)

แบบจำลองการยอมรับเทคโนโลยีนี้ อธิบายได้ว่า ตัวแปรภายนอก (External Variables) จะสร้างการรับรู้ถึงประโยชน์ในการใช้งาน (Perceived Usefulness) และการรับรู้ถึงความง่ายในการใช้งาน (Perceived Ease of Use) ซึ่งส่งผลต่อทัศนคติที่มีต่อการใช้งาน (Attitude toward Using) ทำให้เกิดความตั้งใจในการใช้เทคโนโลยี (Behavioural Intention) สุดท้ายจะมีการใช้จริงตามมา (Actual Use) ซึ่งการรับรู้ถึงประโยชน์ในการใช้งาน ยังเป็นตัวผลักดันให้เกิดความตั้งใจในการใช้งานและการใช้งานจริงด้วย

องค์ประกอบของแบบจำลองการยอมรับเทคโนโลยี ประกอบด้วย 5 ปัจจัย ดังนี้

1) การรับรู้ประโยชน์ในการใช้งาน (Perceived Usefulness) หมายถึง ระดับที่ผู้ใช้เชื่อว่าประโยชน์ของเทคโนโลยีจะสามารถช่วยเพิ่มประสิทธิภาพให้กับงานของตน ซึ่งมีความสัมพันธ์โดยตรงกับทัศนคติที่มีต่อการใช้งานและพฤติกรรมของผู้ใช้

2) การรับรู้ถึงความง่ายในการใช้งาน (Perceived Ease of Use) หมายถึง ระดับที่ผู้ใช้เชื่อว่าเทคโนโลยีที่นำมาใช้มีความง่ายในการใช้งาน สามารถใช้งานได้โดยไม่ต้องอาศัยความพยายามมากนัก ซึ่งมีความสัมพันธ์โดยตรงกับการรับรู้ประโยชน์ในการใช้งานและทัศนคติที่มีต่อการใช้งาน

3) ทัศนคติที่มีต่อการใช้งาน (Attitude toward Using) หมายถึง ความคิดเห็นของผู้ใช้งานที่มีต่อเทคโนโลยีนั้นๆ ซึ่งเกิดจากการรับรู้ประโยชน์ในการใช้งานและการรับรู้ความง่ายในการใช้งาน ซึ่งจะส่งผลโดยตรงต่อความตั้งใจในการใช้งาน

4) ความตั้งใจในการใช้งาน (Behavioural Intention) หมายถึง พฤติกรรมความตั้งใจที่จะใช้งานเทคโนโลยีนั้นๆ โดยได้รับอิทธิพลจากการรับรู้ประโยชน์ในการใช้งานและทัศนคติที่มีต่อการใช้งานเทคโนโลยีนั้น

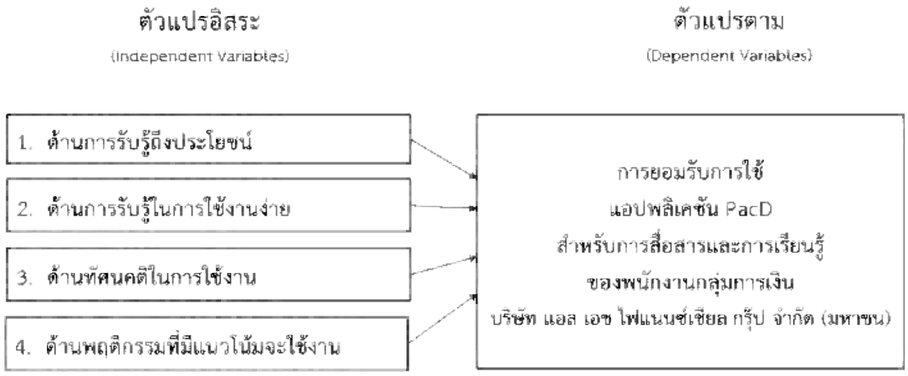
5) การใช้งานจริง (Actual Use) หมายถึง การยอมรับเทคโนโลยีโดยการนำมาใช้จริง โดยมีทัศนคติต่อการใช้งานเป็นตัวแปรที่มีผลต่อการใช้งานจริงของผู้ใช้

ตารางที่ 2 สรุปแนวคิด ทฤษฎี และงานวิจัยที่เกี่ยวข้อง

ปัจจัย	สรุปแนวคิด ทฤษฎี และงานวิจัยที่เกี่ยวข้อง									รวม
	Davis, F. D. (1989)	Ajzen, I. (1985)	เสกข์ ชาญประเสริฐ (2553)	วัลยา เจริญศรีสันต์ (2553)	วิริยาภรณ์ เตชะกฤตธีรพงศ์ (2558)	ศิริรวี ราศรี (2558)	พัชรินทร์ บุญช่วย, วิไลลักษณ์ รักบำรุง (2563)	รัฐชฌัณธร แตงจุ้ยม วิไลลักษณ์ รักบำรุง (2563)	สมรพรรณ เรืองสวัสดิ์, วิไลลักษณ์ รักบำรุง (2564)	
ปัจจัยภายนอก	/									1
การรับรู้ถึงประโยชน์	/	/	/	/	/	/	/	/	/	9
การรับรู้ถึงความง่ายต่อการใช้งาน	/	/	/	/	/	/	/	/	/	9
ด้านทัศนคติในการใช้งาน	/	/	/	/	/	/	/	/	/	9
ด้านพฤติกรรมที่มีแนวโน้มจะใช้งาน	/	/	/	/	/	/	/	/	/	9
อิทธิพลทางสังคม		/	/		/					3
ความคาดหวังในประสิทธิภาพ					/					1
ประสบการณ์ ความเชื่อ				/						1
การยอมรับ	/	/	/	/	/	/	/	/	/	9

จากการทบทวนวรรณกรรม แนวคิดทฤษฎี และงานวิจัยที่เกี่ยวข้อง ผู้วิจัยได้ทบทวนวรรณกรรมที่เกี่ยวข้องกับปัจจัยการยอมรับเทคโนโลยี พบว่า ปัจจัยด้านการรับรู้ถึงประโยชน์ การรับรู้ถึงความง่ายในการใช้งาน ทัศนคติในการใช้ และพฤติกรรมแนวโน้มจะใช้ และการยอมรับ จำนวน 9 แนวคิด/งานวิจัย ส่วนในด้านปัจจัยภายนอก ประสบการณ์

ความเชื่อ มี 1 แนวคิด/งานวิจัย และอิทธิพลทางสังคม มี 3 แนวคิด/งานวิจัย ทั้งนี้ประกอบกับแบบจำลองการยอมรับเทคโนโลยี (Technology Acceptance Model: TAM) ถือเป็นทฤษฎีที่ได้รับการยอมรับว่ามีประสิทธิภาพสูงสุด และถูกนำมาใช้ในการพยากรณ์พฤติกรรมการยอมรับเทคโนโลยีของบุคคลอย่างแพร่หลายในแง่ด้านความน่าเชื่อถือ และความสมเหตุสมผล ด้วยเหตุนี้ผู้วิจัยจึงได้นำตัวแปรดังกล่าวไปพัฒนาเป็นกรอบแนวคิดในการวิจัย ดังภาพที่ 2 จึงเป็นที่มาของกรอบแนวคิดในการวิจัยครั้งนี้ ผู้วิจัยได้กำหนดกรอบแนวคิดหลักในการวิจัยมุ่งศึกษาถึง การยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน บริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) ดังแสดงในภาพ 2



ภาพที่ 2 กรอบแนวคิดในการวิจัย
ที่มา: ผู้วิจัยดัดแปลงจาก Davis (1989)

ผลการวิจัย

ผลการวิจัยด้านข้อมูลทั่วไป พบว่า ผู้ตอบแบบสอบถามส่วนใหญ่เป็นเพศชาย มีจำนวน 106 คน ส่วนใหญ่มีอายุ อายุ 30-39 ปี มีจำนวน 139 คน คิดเป็นร้อยละ 42.8 ระดับการศึกษา การศึกษาระดับปริญญาตรี มีจำนวน 194 คน คิดเป็นร้อยละ 59.7 สังกัดสายงานบริหารกลุ่มลูกค้ารายย่อย มีจำนวน 59 คน คิดเป็นร้อยละ 18.2 โดยผลการวิเคราะห์ระดับความคิดเห็นต่อระดับปัจจัยและการยอมรับเทคโนโลยี ระดับความคิดเห็นต่อปัจจัย พบว่า โดยภาพรวมอยู่ในระดับมาก (ค่าเฉลี่ย 4.42) เมื่อพิจารณาเป็นรายด้าน พบว่าด้านที่มีค่าเฉลี่ยมากที่สุดคือ ด้านการรับรู้การใช้งานง่าย (ค่าเฉลี่ย 4.45) รองลงมาคือ การรับรู้ถึงคุณประโยชน์ที่ได้รับ (ค่าเฉลี่ย 4.44) พฤติกรรมที่มีแนวโน้มในการใช้งาน

(ค่าเฉลี่ย 4.43) และทัศนคติที่มีต่อการใช้งาน (ค่าเฉลี่ย 4.37) สำหรับระดับความคิดเห็นต่อการยอมรับเทคโนโลยีแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน ภาพรวมพบว่า อยู่ในระดับมากที่สุด (ค่าเฉลี่ย 4.52) เมื่อพิจารณาเป็นรายข้อ พบว่าด้านที่มีระดับความคิดเห็นมากที่สุด คือ ตั้งใจจะใช้แอปพลิเคชัน PacD อย่างต่อเนื่อง (ค่าเฉลี่ย 4.54) รองลงมาคือ ตั้งใจจะใช้แอปพลิเคชัน PacD อย่างต่อเนื่อง (ค่าเฉลี่ย 4.53) ยินดีแนะนำการใช้งานแอปพลิเคชัน PacD ให้กับพนักงานท่านอื่น (ค่าเฉลี่ย 4.53) และพึงพอใจที่ได้ใช้งาน แอปพลิเคชัน PacD (ค่าเฉลี่ย 4.47) ผลการทดสอบสมมุติฐานการวิจัย ผลการวิเคราะห์สมการถดถอยเชิงพหุ โดยใช้วิธีนำตัวแปรอิสระเข้าสมการถดถอยด้วยวิธี Stepwise ที่ระดับความเชื่อมั่น 95% โดยยอมรับสมมติฐานหลัก (H1) ต่อเมื่อค่านัยสำคัญทางสถิติ (Significant) มีค่าน้อยกว่า .05 ผลการวิจัยพบว่า ค่า Adjusted R2 = .723 หมายถึง ปัจจัยด้านการรับรู้ถึงประโยชน์ต่อการใช้งาน การรับรู้ถึงความง่ายต่อการใช้งาน ทัศนคติต่อการใช้งาน และพฤติกรรมที่มีแนวโน้มในการใช้งาน ส่งผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน สามารถอธิบายได้ ร้อยละ 72.3

ตารางที่ 3 ผลการวิเคราะห์สมการถดถอยเชิงพหุของปัจจัยที่ส่งผลต่อการยอมรับแอปพลิเคชันการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน

ตัวแปร		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	**Std. Error**	**Beta**			**Tolerance**	**VIF**
	ค่าคงที่ (Constant)	0.657	0.141		4.651	0.000*		
X_3	ทัศนคติที่มีต่อการใช้งาน	0.470	0.058	0.493	8.070	0.000*	0.229	4.367
X_4	พฤติกรรมที่มีแนวโน้มในการใช้งาน	0.281	0.047	0.293	5.998	0.000*	0.360	2.782
X_1	การรับรู้ถึงประโยชน์ต่อการใช้งาน	0.126	0.056	0.122	2.269	0.024	0.295	3.385

* มีนัยสำคัญทางสถิติที่ระดับ .05

ผลการวิเคราะห์พบว่า ปัจจัยการยอมรับเทคโนโลยีที่มีผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน ได้แก่ ด้านทัศนคติที่มีต่อการใช้งาน (p-value = .000), ด้านพฤติกรรมที่มีแนวโน้มในการใช้งาน (p-value = .000) และ ด้านการรับรู้ถึงประโยชน์ต่อการใช้งาน (p-value = .024) ซึ่งมีค่าน้อยกว่านัยสำคัญที่กำหนดไว้ คือ 0.05 หมายถึง ปัจจัยด้านทัศนคติที่มีต่อการใช้งาน, ด้านพฤติกรรมที่มีแนวโน้มในการใช้งาน และด้านการรับรู้ถึงประโยชน์ต่อการใช้งาน ส่งผลต่อการยอมรับเทคโนโลยีที่มีผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน อย่างมีนัยสำคัญทางสถิติ

จากการพิจารณาถึงปัจจัยตัวแปรอิสระที่ส่งผลกับตัวแปรตามมากที่สุด โดยศึกษาจากค่า Beta ซึ่งเป็นค่าของสัมประสิทธิ์ความถดถอยที่เป็นมาตรฐาน (Standardized) แล้ว (กัลยา วานิชย์บัญชา, 2559) ผลการศึกษาวิจัย สรุปได้ว่า จากการพิจารณาถึงการยอมรับเทคโนโลยีที่มีผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานมากที่สุด โดยผู้วิจัยพิจารณาจากค่า Beta ซึ่งเป็นค่าสัมประสิทธิ์ความถดถอยที่เป็นมาตรฐาน (Standardized) แล้ว พบว่า ปัจจัยการยอมรับเทคโนโลยีที่มีผลมากที่สุด คือ ด้านทัศนคติที่มีต่อการใช้งาน

(Beta = 0.493) รองลงมาคือ ด้านพฤติกรรมที่มีแนวโน้มในการใช้งาน (Beta = 0.293) และด้านการรับรู้ถึงประโยชน์ต่อการใช้งาน (Beta = 0.122) อย่างมีนัยสำคัญทางสถิติที่ระดับ .05 สามารถเขียนเป็นสมการพยากรณ์การยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงาน โดยเรียงลำดับค่า Beta คะแนนมาตรฐานตามลำดับได้ดังนี้

$\hat{Y} = 0.493 (X3) + 0.293 (X4) + 0.122 (X1)$

อภิปรายผล

จากการวิจัยเรื่อง ปัจจัยที่ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) ผลการวิจัย พบว่า ด้านทัศนคติที่มีต่อการใช้งาน (Beta = 0.493) ด้านพฤติกรรมที่มีแนวโน้มในการใช้งาน (Beta = 0.293) และด้านการรับรู้ถึงประโยชน์ (Beta = 0.122) ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) อย่างมีนัยสำคัญทางสถิติที่ 05 ทั้งนี้สามารถอภิปรายผลเรียงลำดับตามค่า Beta ได้ดังนี้

ด้านทัศนคติส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) เนื่องจาก เมื่อพนักงานเกิดการรับรู้เข้าใจวัตถุประสงค์ในการนำเทคโนโลยีแอปพลิเคชันเข้ามาช่วยลดข้อจำกัดในการทำงาน เกิดความคล่องตัวในการทำงานยืนหยุ่น และรวดเร็ว ทำให้ตอบโจทย์องค์กรในยุค New normal ทำให้มี

ทัศนคติที่ดีต่อการใช้งาน ซึ่งถือเป็นการยกระดับการสื่อสารและเรียนรู้ในองค์กร สร้างประสบการณ์ใหม่ๆ ให้กับพนักงาน รวมถึงการตอบโจทย์การใช้งาน รวมถึงมีระบบความปลอดภัยที่น่าเชื่อถือ ทำให้พนักงานรู้สึกชื่นชอบและมีทัศนคติในเชิงบวก จึงถือได้ว่าทัศนคติเป็นแรงจูงใจที่จะยอมรับการใช้งานแอปพลิเคชัน และเป็นเครื่องมือในการทำนายพฤติกรรมที่อาจเกิดขึ้นในอนาคต แอปพลิเคชัน PacD จึงถูกออกแบบให้สามารถตอบโจทย์และยกระดับการสื่อสารและการเรียนรู้สำหรับพนักงานให้ดีขึ้น มีระบบความปลอดภัยด้านข้อมูลที่น่าเชื่อถือ ตอบโจทย์การใช้งานจริง และสามารถใช้งานได้อย่างมีประสิทธิภาพ สอดคล้องกับการศึกษาของ Luarn and Lin (2005) และ Gu, Lee and Suh (2009) พบว่า ทัศนคติต่อการใช้งาน Mobile Banking ส่งผลต่อการใช้งานและทำให้เกิดพฤติกรรมการใช้งานจริง ผ่านโทรศัพท์มือถือในประเทศไทย สอดคล้องกับการศึกษาของ พระมหาเชษฐ์ภาวิตร นาโฮม (2563) และ ธนันพัชญ์ ภุมมาลา (2563) พบว่า ทัศนคติต่อการใช้งานต้นแบบนวัตกรรม ส่งผลต่อการใช้งานและทำให้เกิดพฤติกรรมการใช้งานจริงผ่านบริการต้นแบบแอปพลิเคชันบนมือถือ ซึ่งเป็นไปในทิศทางเดียวกับการศึกษาวิจัยของ คุณิตา เทพวงค์ (2558) พบว่าทัศนคติที่ดีมีผลต่อการตัดสินใจใช้แอปพลิเคชัน Bualuang mBanking ของลูกค้าธนาคารกรุงเทพ ในเขตจังหวัดชลบุรี

สำหรับด้านพฤติกรรมที่มีแนวโน้มในการใช้งานส่งผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) เนื่องจากพนักงานส่วนใหญ่มีทัศนคติที่ดีต่อการนำเทคโนโลยีแอปพลิเคชันเข้ามาช่วยลดข้อจำกัดในการทำงาน เพื่อให้เกิดความคล่องตัวในการทำงานยืนหยุ่น และรวดเร็ว ทำให้ตอบโจทย์องค์กรในยุค New normal ซึ่งส่วนใหญ่มีความชอบต่อการนำเทคโนโลยีที่ทันสมัยมาประยุกต์ใช้ในงาน จึงเกิดพฤติกรรมที่มีแนวโน้มจะใช้ อีกทั้งฟังก์ชันการทำงานของ แอปพลิเคชัน PacD สามารถลดข้อจำกัดในการเข้าถึงข่าวสารความเคลื่อนไหวในองค์กร รวมถึงสามารถเข้าเรียนรู้ได้ทุกที่ทุกเวลา พนักงานมีความเชื่อมั่นในความถูกต้องของข้อมูลข่าวสาร อันส่งผลให้เกิดการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) สอดคล้องกับ สมรพรรณ เรืองสวัสดิ์ (2564) ได้ทำวิจัยเรื่อง ปัจจัยที่ส่งผลต่อการยอมรับต้นแบบนวัตกรรมการบริหารจัดการการท่องเที่ยวเชิงสุขภาพ ที่พบว่า พฤติกรรมที่มีแนวโน้มในการใช้งาน จะส่งผลต่อการยอมรับต้นแบบนวัตกรรมการบริหารจัดการการท่องเที่ยวเชิงสุขภาพเพิ่มขึ้น แสดงให้เห็นว่านักท่องเที่ยวมีทัศนคติที่ดีต่อ ซึ่งนักท่องเที่ยวส่วนใหญ่มีความชอบต่อการนำเทคโนโลยีที่ทันสมัยมาประยุกต์ใช้งาน จึงเกิดพฤติกรรมที่มีแนวโน้มจะใช้งาน

สำหรับการรับรู้ถึงประโยชน์ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) เนื่องจากพนักงาน

ผู้ใช้งานได้ใช้งานแอปพลิเคชัน PacD ทำให้พนักงานเข้าถึงช่องทางการสื่อสารและเรียนรู้ ทำให้ได้รับข้อมูลข่าวสารที่เกี่ยวข้องกับองค์กรได้อย่างรวดเร็ว เพิ่มช่องทางในการเข้าถึงการสื่อสารและเรียนรู้ มีเครื่องมือช่วยในการบริหารจัดการงาน มีช่องทางการติดต่อแบบ 2 ทาง (Two way Communication) ทำให้สามารถเพิ่มประสิทธิภาพในการติดต่อสื่อการได้อย่างทันทีแบบ Real Time มีช่องทางที่ช่วยสำรวจข้อมูลด้านต่างๆ ได้อย่างรวดเร็ว ช่วยในการตัดสินใจ ส่งผลให้เกิดประโยชน์ต่อการปฏิบัติงานพนักงานโดยตรง เมื่อพนักงานเกิดการรับรู้ประโยชน์ของการใช้งานแอปพลิเคชันมากขึ้น ก็ย่อมนำไปสู่การยอมรับและใช้เทคโนโลยีนั้นต่อไป แอปพลิเคชัน PacD จึงตอบโจทย์การใช้งานของพนักงานทั้งการรับรู้ข่าวสารความเคลื่อนไหวขององค์กรที่รวดเร็ว เพิ่มช่องทางในการสื่อสารและเรียนรู้ ช่วยลดขั้นตอนและเวลาในการค้นหาบทเรียน การสืบค้นเบอร์โทรศัพท์ในการติดต่อเพื่อนร่วมงานในช่วง Work form Home รวมถึงสามารถช่วยในการบริหารจัดการงาน สามารถตอบสนองความต้องการของพนักงานได้อย่างครอบคลุมและครบถ้วน ดังนั้น หากพนักงานมีการใช้งานแอปพลิเคชัน PacD อย่างจริงจังก็จะได้รับรู้ถึงประโยชน์จากแอปพลิเคชันดังกล่าว สอดคล้องกับงานวิจัยของ Cha (2011) ที่พบว่าความแตกต่างของการรับรู้ถึงประโยชน์ส่งผลต่อเจตนาในการซื้อสินค้าผ่านอินเทอร์เน็ตของผู้บริโภค และสอดคล้องกับการศึกษาของ ธนันพัชญ์ ภุมมาลา (2563) ได้ทำวิจัยเรื่องปัจจัยที่ส่งผลต่อการยอมรับต้นแบบนวัตกรรมแอปพลิเคชันการจัดจำหน่ายสินค้าของฝ่ายผลิตอาหารและเครื่องดื่ม มหาวิทยาลัยราชภัฏสวนสุนันทา ผลการวิจัยพบว่า การรับรู้ถึงประโยชน์ ส่งผลเชิงบวกต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน)

สำหรับด้านการรับรู้ถึงความง่ายต่อการใช้งาน ไม่ส่งผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) ทั้งนี้จากการศึกษาพบว่า แนวทางการพัฒนาแอปพลิเคชันในปัจจุบันให้ความสำคัญกับการออกแบบโดยคำนึงถึงประสบการณ์ของผู้ใช้งาน (User Experience) แอปพลิเคชันที่ดีนั้นจะต้องใช้งานง่าย ให้ในสิ่งที่ผู้ใช้งานต้องการจริงๆ (User Need) คือ ถึงแม้จะไม่มีคู่มืออะไรให้ แต่เมื่อ user ได้เห็นครั้งแรกก็ควรที่จะต้องเข้าใจได้ภายในเวลาไม่กี่วินาทีทันที มีผลให้ความง่ายต่อการใช้งานไม่ส่งผลต่อการยอมรับแอปพลิเคชัน PacD มากนัก เนื่องจากการออกแบบแอปพลิเคชันได้ให้ความสำคัญต่อประสบการณ์ของผู้ใช้งานในด้านความรู้สึกที่ตอบสนองต่อการใช้งานระบบต่างๆ เช่น ความสะดวกสบาย ใช้งานง่าย ความสนุกสนาน จนเกิดเป็นความพึงพอใจสูงสุด หรือเกิดประสบการณ์ที่ดีของผู้ใช้งานนั่นเอง สอดคล้องกับการศึกษาของ ศักรินทร์ ตันสุพงษ์ (2557) ได้ทำงานวิจัยเรื่องปัจจัยที่ส่งผลต่อการยอมรับแอปพลิเคชันไลน์ ปัจจัยด้านความง่ายในการใช้งาน (Ease of Use) ไม่ได้เป็นปัจจัยที่ส่งผลต่อการยอมรับของผู้ใช้งานมากนัก อาจเป็นเพราะผู้ใช้งานมีประสบการณ์ใน

การใช้งานมาเป็นเวลา 1-2 ปี ย่อมมีความสามารถที่จะใช้งานแอปพลิเคชันไลน์ ได้ดีแล้วระดับหนึ่งแล้ว ดังนั้น ความสามารถเข้าถึงข้อมูลได้ง่าย สะดวก สามารถเข้าถึงได้ทุกที่ทุกเวลา (User friendly) จึงไม่ได้เป็นปัจจัยที่ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD มากนัก

ข้อเสนอแนะ

จากการวิจัยเรื่อง ปัจจัยที่ส่งผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) โดยปัจจัยด้านทัศนคติที่มีต่อการใช้งาน ด้านพฤติกรรมที่มีแนวโน้มในการใช้งาน และด้านการรับรู้ถึงประโยชน์ ส่งผลต่อ การยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน)

1) จากผลการวิจัยพบว่า ผลการวิจัย พบว่า ด้านทัศนคติที่มีต่อการใช้งาน ด้านพฤติกรรมที่มีแนวโน้มในการใช้งาน และด้านการรับรู้ถึงประโยชน์ ส่งผลต่อการยอมรับ แอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) ดังนั้น ควรมีการสื่อสารส่งเสริมให้พนักงานใช้งานอย่างต่อเนื่อง โดยบริษัทฯ ควรทำการสื่อสารประชาสัมพันธ์แบบบูรณาการเพื่อให้พนักงานได้รับรู้ เกิดความสนใจ มีทัศนคติที่ดีต่อการใช้งาน จึงเกิดพฤติกรรมที่มีแนวโน้มจะใช้งาน และรับรู้ถึงประโยชน์ต่อการใช้งานด้วยการพัฒนาการฟังก์ชันใช้งานให้ครอบคลุมและตอบสนองความต้องการ สามารถเข้าใช้ได้ทุกที่ ทุกเวลา อีกทั้งมีเนื้อหาสาระที่ตอบสนองต่อความต้องการของผู้ใช้งานได้อย่างครอบคลุมและครบถ้วน และพนักงานเกิดความเชื่อมั่นต่อการใช้งาน อันจะส่งผลให้เกิดการยอมรับการใช้งานแอปพลิเคชันต่อไป ตลอดจนบริษัทผู้พัฒนาสามารถนำผลการวิจัยใช้ในการวางแผนการจัดการเชิงกลยุทธ์สำหรับการพัฒนาและออกแบบรูปแบบของแอปพลิเคชันให้สามารถตอบสนองความต้องการของผู้ใช้งานได้อย่างมีประสิทธิภาพ ตลอดจนปรับปรุงพัฒนาระบบให้มีประสิทธิภาพที่ดียิ่งขึ้น

2) จากผลการวิจัยด้านการรับรู้ถึงความง่ายต่อการใช้งาน ไม่ส่งผลต่อการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ของพนักงานบริษัท แอล เอช ไฟแนนซ์เชียล กรุ๊ป จำกัด (มหาชน) หน่วยงานที่รับผิดชอบควรมีการพัฒนาแอปพลิเคชันให้สามารถตอบสนองความต้องการของพนักงาน โดยพัฒนาให้มีฟังก์ชันที่ใช้งานที่เป็นหมวดหมู่ มีฟังก์ชันและขั้นตอนการใช้งานไม่ซับซ้อน ช่วงแรกของการใช้งานควรจัดอบรมให้ความรู้แก่พนักงาน มีคู่มือการใช้งาน มีเจ้าหน้าที่คอยช่วยเหลือ ทั้งนี้บางหน่วยงานอาจใช้ระบบพี่เลี้ยง ให้พนักงานที่ใช้งานได้คล่องเป็นต้นแบบและพี่เลี้ยงที่คอยให้ความช่วยเหลือและแนะนำแก่พนักงานที่ยังใช้งานไม่คล่อง รวมถึงทำการประชาสัมพันธ์ให้กับพนักงานได้รับรู้ถึงความง่ายต่อการใช้งานของ แอปพลิเคชัน PacD ให้มากขึ้น

เมื่อพนักงานได้รับรู้ถึงความง่ายต่อการใช้งาน และสามารถเข้าถึงข้อมูลได้ทุกที่ทุกเวลา จนเกิดเป็นความพึงพอใจสูงสุด หรือเกิดประสบการณ์ที่ดี ก็จะส่งผลให้พนักงานเกิดการยอมรับแอปพลิเคชัน PacD สำหรับการสื่อสารและการเรียนรู้ต่อไป

รายการอ้างอิง

คุณิตา เทพวงค์. (2558). *ปัจจัยที่ส่งผลต่อการตัดสินใจใช้แอปพลิเคชัน Bualuang mBanking ของลูกค้า*. กรุงเทพฯ: มหาวิทยาลัยกรุงเทพ.

เทิดรัฐ แววศักดิ์. (2556). *การยอมรับนวัตกรรมที่มีอิทธิพลต่อพฤติกรรมการซื้อแอพพลิเคชั่นสำหรับสมาร์ทโฟนของผู้บริโภคในเขตกรุงเทพมหานคร*. วิทยานิพนธ์ปริญญามหาบัณฑิต , มหาวิทยาลัยศรีนครินทรวิโรฒ.

ธนันพัชญ์ ภุมมาลา. (2563). *ปัจจัยที่ส่งผลต่อการยอมรับต้นแบบนวัตกรรมแอปพลิเคชันการจัดจำหน่ายสินค้าของฝ่ายผลิตอาหารและเครื่องดื่ม มหาวิทยาลัยราชภัฏสวนสุนันทา*. การค้นคว้าอิสระหลักสูตรการจัดการมหาบัณฑิต. วิทยาลัยนวัตกรรมและการจัดการ, มหาวิทยาลัยราชภัฏสวนสุนันทา.

พระมหาเชษฐ์ภาวิตร นาโฮม. (2563). *ปัจจัยการยอมรับเทคโนโลยีที่ส่งผลต่อการยอมรับต้นแบบนวัตกรรมไลน์บอทสำหรับบริการข้อมูลสารสนเทศของสำนักงานแม่กองธรรมสนามหลวง*. การค้นคว้าอิสระหลักสูตรการจัดการมหาบัณฑิต. วิทยาลัยนวัตกรรมและการจัดการ, มหาวิทยาลัยราชภัฏสวนสุนันทา.

พัชรินทร์ บุญช่วย และ วิไลลักษณ์ รักบำรุง. (2563). *ปัจจัยที่ส่งผลต่อการยอมรับต้นแบบนวตกรรมการบริหารจัดการงานก่อสร้างอาคารพักอาศัย*. วิทยาลัยนวัตกรรมการจัดการ, มหาวิทยาลัยราชภัฏสวนสุนันทา.

รัฐมรัณธร แตงจุ้ยและวิไลลักษณ์ รักบำรุง. (2563). *ปัจจัยที่ส่งผลต่อการยอมรับต้นแบบนวัตกรรมการบริหารจัดการรถตู้โดยสารสาธารณะบริษัท กาญจนบุรี เอ็กซ์เพรส จำกัด*. วิทยาลัยนวัตกรรมการจัดการ, มหาวิทยาลัยราชภัฏสวนสุนันทา.

วัลยา เจริญศรีสันต์. (2553). *การยอมรับและใช้งานระบบบริหารการวางแผนทรัพยากร (Enterprise Resource Planning System) กรณีศึกษา บริษัทจัดจำหน่ายเวชภัณฑ์แห่งหนึ่ง*, วิทยาลัยนวัตกรรม. มหาวิทยาลัยธรรมศาสตร์.

วิริยาภรณ์ เตชะกฤตธีรพงศ์. (2558). ปัจจัยการยอมรับการใช้งานเทคโนโลยีการทำงานร่วมกันของบุคลากรในองค์การ. การค้นคว้าอิสระหลักสูตรวิทยาศาสตร์มหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

ศักรินทร์ ตันสุพงษ์. (2557). *ปัจจัยที่ส่งผลต่อการยอมรับแอพพลิเคชั่นไลน์*. การค้นคว้าอิสระเป็นส่วนหนึ่งของการศึกษาตามหลักสูตร, มหาวิทยาลัยกรุงเทพ.

ศิริรวี ราศรี. (2558). *การใช้เทคโนโลยีสารสนเทศกับการบริหารจัดการทรัพยากรบุคคล กรณีศึกษาองค์การสวนสัตว์*,มหาวิทยาลัยธรรมศาสตร์.

สุชาดา พลาชัยภิรมย์ศิล. (2554). *แนวโน้มการใช้โมบายแอพพลิเคชั่น*, มหาวิทยาลัยกรุงเทพ

สมรพรรณ เรืองสวัสดิ์ และ วิไลลักษณ์ รักบำรุง. (2564). ปัจจัยที่ส่งผลต่อการยอมรับต้นแบบนวัตกรรมการบริหารจัดการการท่องเที่ยวเชิงสุขภาพ. การค้นคว้าอิสระหลักสูตรการจัดการมหาบัณฑิต, มหาวิทยาลัยราชภัฏสวนสุนันทา.

เสกข์ ชาญประเสริฐ. (2553). *ปัจจัยที่มีผลต่อการยอมรับเทคโนโลยีระบบ ERP ของเขื่อนอุบลรัตน์การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย*. การค้นคว้าอิสระวิทยาศาสตร์มหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์

Ajzen, I. (1985). Fromintentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), Action control: From cognition to behavior (pp.11-39). Heidelberg: Springer.

Cha, J. (2011). Exploring the internet as a unique shopping channel to sell both real and virtual items: A comparison of factors affecting purchase intention and consumer characteristics. *Journal of Electronic Commerce Research, 12*(2).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications, 36*(9), 11605-11616.

Luarn, P., & Lin, H. H. (2005). Toward an understanding of the behavioral intention to use mobile banking. *Computers in human behavior, 21*(6), 873-891.

MARGETING OOPS. (2563). *สถิติใช้ "แอป" สะท้อน New Normal เกิดตั้งแต่ 2019 ยอดโหลดทั่วโลก 1.2 แสนล้านครั้ง*. สืบค้นจาก www.marketingoops.com/digital-life/report-app-usage/.

SMARTFINN. (2563). แอปพลิเคชันครองใจคนไทยปี 2020. สืบค้นจาก www.smartfinn.co.th/article/แอปพลิเคชันครองใจคนไทยปี-2020.

โมเดลการยอมรับเทคโนโลยี: การประยุกต์ใช้สำหรับพัฒนาแอปพลิเคชัน

Technology adoption model: applied for application development

ขวัญเรือน ลิ่มสกุล / Kwanruan Limsakul

วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / Department of Management Innovation, Suan Sunandha Rajabhat University

E-mail: S63463829010@ssru.ac.th

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on

วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / Department of Management Innovation, Suan Sunandha Rajabhat University

E-mail: poramet.sa@ssru.ac.th

วิไลลักษณ์ รักบำรุง / Wilailuk Rakbumrung

วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / Department of Management Innovation, Suan Sunandha Rajabhat University

E-mail: wilailuk.ra@ssru.ac.th

บทคัดย่อ

จากสถานการณ์การแพร่ระบาดของไวรัสโคโรน่า หรือโควิด-19 ทำให้เกิดการปิดเมือง และการดำเนินชีวิตในรูปแบบใหม่ การเว้นระยะห่างทางสังคม เพื่อลดโอกาสการติดหรือแพร่เชื้อโควิด การใช้ชีวิตประจำวันเข้าสู่โลกออนไลน์มากขึ้นทั้งการติดต่อสื่อสาร การทำธุรกิจ หรือแม้แต่การบริหารสถานการณ์โรคระบาดของภาครัฐ ที่ต้องใช้เทคโนโลยีเข้ามาเป็นตัวช่วย ซึ่งแอปพลิเคชันเป็นอีกหนึ่งปัจจัยที่มีความจำเป็นอย่างยิ่ง และเป็นที่นิยมใช้งาน ทั้งนี้จากการศึกษา พบว่า การพัฒนาแอปพลิเคชันยังมีปัญหาหลายด้าน อาทิ ฟังก์ชันการทำงานที่ไม่ตอบสนองความต้องการของผู้ใช้ มีฟังก์ชันซับซ้อนใช้งานยาก การออกแบบการใช้งานยังไม่มีความเหมาะสม จากปัญหาปัญหาในข้างต้น บทความนี้จึงมีวัตถุประสงค์ เพื่อศึกษาโมเดลการยอมรับเทคโนโลยี: การประยุกต์ใช้สำหรับพัฒนาแอปพลิเคชัน จากการศึกษาพบว่า ปัจจัยการยอมรับเทคโนโลยีที่ส่งผลต่อการยอมรับนวัตกรรมแอปพลิเคชัน ประกอบด้วย การรับรู้ถึงประโยชน์ในการใช้งาน การรับรู้ถึงความง่ายต่อการใช้งาน ทัศนคติที่มีต่อการใช้งาน และความตั้งใจในการใช้เทคโนโลยี ดังนั้น ผู้ประกอบการ

หรือผู้ที่สนใจสามารถนำองค์ความรู้ด้านแบบจำลองการยอมรับเทคโนโลยีไปประยุกต์ใช้การพัฒนาแอปพลิเคชันและศึกษายอมรับแอปพลิเคชันตามแนวคิดดังกล่าว โดยต้องมีการศึกษาความต้องการของลูกค้า พัฒนาตามรูปแบบความต้องการของลูกค้า รูปแบบการใช้งานควรมีความง่ายต่อการใช้งาน เพื่อให้ลูกค้าได้ทดลองใช้แล้วเกิดความพอใจ และเห็นถึงประโยชน์ที่จะได้รับ จนเกิดเป็นทัศนคติที่ดีในด้านบวก และเกิดความตั้งใจแสดงพฤติกรรมการใช้งาน จนเกิดการยอมรับและดาวน์โหลดแอปพลิเคชันมาใช้งานจริง

คำสำคัญ: โมเดลการยอมรับเทคโนโลยี, แอปพลิเคชัน

Abstract

The corona virus or Covid-19 epidemic causes the city to shut down. People have to live in the new normal era with social distancing to reduce the chance of contracting or spreading the coronavirus. Daily life has become more online whether the communication, business operation, or even management of epidemic situation of the government sector. All require the technological aid. The application is another factor that is absolutely necessary and is popularly used. However, the study revealed that the development of applications still encounters many problems, such as functionality that does not meet the needs of users. The complex functions are difficult to be used. The design is not suitable for use. From the above problems, this article therefore aims to study the technology adoption model: application for application development. Studies have shown that technology adoption factors affecting application innovation acceptance include 1) Perceived Usefulness, 2) Perceived ease of use, 3) Attitude towards use and 4) Behavioral Intention. Therefore, entrepreneurs or interested people can apply their knowledge of technology acceptance modeling for application adoption. The needs of the customers must be studied in order to develop according to customer demand. Functionality should be easy to use for satisfying customers to try and see the benefits to be gained until forming a positive attitude in a positive way. The intention can show usage behaviors until being accepted and the application can be downloaded for actual use.

Keywords: Technology adoption model, applications

ความเป็นมาและความสำคัญของปัญหา

ปัจจุบันเทคโนโลยีเข้ามามีบทบาทในการใช้ชีวิตประจำวันของเรามากขึ้น โดยเฉพาะโซเชียลมีเดียหรือออนไลน์ต่างๆ จากประชากรไทยกว่า 66 ล้านคน มีผู้ใช้งานอินเตอร์เน็ตมากถึง 52 ล้านคน โดยเฉพาะช่วงโควิด-19 ระบาด ต้องทำงานที่บ้าน work from home มีการใช้อินเตอร์เน็ตมากกว่า 9 ชั่วโมงต่อวัน ถือเป็นจุดเปลี่ยนที่คนหันมาสนใจเทคโนโลยีใกล้ตัวกันเป็นอย่างมาก เพราะสามารถรับรู้ข้อมูลข่าวสารได้อย่างรวดเร็วและทันต่อเหตุการณ์ ซึ่งมีแอปพลิเคชันมากมายที่ทำให้เราสามารถรับสารกันได้ง่ายขึ้น โควิด-19 ที่ผ่านมา ประชาชนต้องอยู่บ้าน work from home ทำให้แอปพลิเคชันนี้มีบทบาทในการสร้างความสนุกและความบันเทิงให้กับคนทั่วโลก นอกจากนี้แอปพลิเคชันยังช่วยเสริมธุรกิจให้ง่ายและรวดเร็วมากยิ่งขึ้น เช่น การขายสินค้าออนไลน์ โดยผู้ขายสามารถติดต่อกับลูกค้าผ่านช่องทาง Facebook Messenger ด้วยการถ่ายรูปสินค้าให้ลูกค้าเลือกดูและตัดสินใจซื้อได้เลยทันที หรือแม้แต่การติดต่อประสานงานภายในองค์กรในการอัพเดตข้อมูลงานต่างๆ เพื่อให้เกิดความเข้าใจร่วมกัน เป็นต้น (SMARTFINN, 2022)

ทั้งนี้จากการศึกษา พบว่า ปัญหาของการพัฒนาแอปพลิเคชันไม่ถูกใช้งาน คือ แอปพลิเคชันไม่ได้ช่วยแก้ไขปัญหาให้ลูกค้าอย่างแท้จริง การพัฒนาแอปพลิเคชันยังมีปัญหาหลายด้าน อาทิ ฟังก์ชันการทำงานที่ไม่ตอบสนองความต้องการของผู้ใช้ มีฟังก์ชันซับซ้อนใช้งานยาก การออกแบบการใช้งานยังไม่มีความเหมาะสม (Sopon, 2021) ทั้งนี้รวมถึงปัจจัยภายนอกที่ส่งผลกระทบให้แอปพลิเคชันทำงานได้ช้าลง อาทิคลื่นสัญญาณติดขัด หรือแบตเตอรี่ต่ำ ซึ่งอาจส่งผลทำให้ประสิทธิภาพการทำงานของแอปพลิเคชันลดลงได้เช่นกัน และทางฝ่ายพัฒนาไม่สามารถแก้ไขได้ด้วย แต่มีสิ่งหนึ่งที่ยังคงทำให้ผู้ใช้ยังคงเก็บและใช้งานแอปพลิเคชันนั้นอยู่ คือประโยชน์ที่ผู้ใช้จะได้รับ ดังนั้นการพัฒนาแอปพลิเคชันควรพัฒนาให้ผู้ใช้งานเห็นถึงประโยชน์ที่จากได้รับจากแอปพลิเคชันของเรามากที่สุด สร้างความโดดเด่นและความแตกต่างที่จะแสดงให้เห็นถึงเหตุผลว่า ทำไมพวกเขาต้องการแอปพลิเคชันนี้ (TECHSAUCE, 2015)

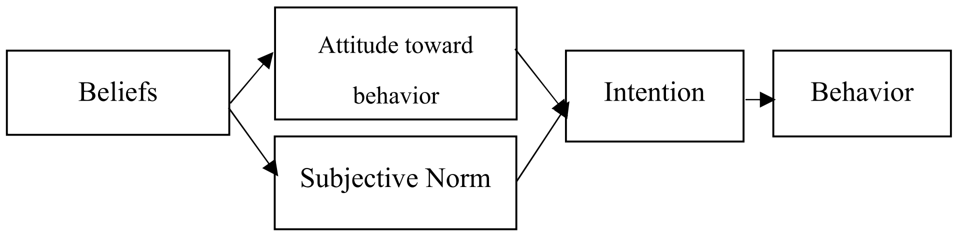
จากความสำคัญและปัญหาข้างต้น ผู้เขียนจึงสนใจจะศึกษาโมเดลการยอมรับเทคโนโลยี: การประยุกต์ใช้สำหรับพัฒนาแอปพลิเคชัน เพื่อเสนอองค์ความรู้เกี่ยวกับโมเดลการยอมรับเทคโนโลยีเพื่อการประยุกต์ใช้สำหรับการพัฒนาแอปพลิเคชัน ว่ามีปัจจัยใดบ้างที่ควรให้ความสำคัญที่มีผลต่อการยอมรับนวัตกรรมแอปพลิเคชัน เพื่อเป็นข้อมูลเสนอแนะต่อผู้ประกอบการในพัฒนาและปรับปรุงในการพัฒนาแอปพลิเคชันต่อไป

แนวคิดและทฤษฎีเกี่ยวกับการยอมรับเทคโนโลยี

ทฤษฎีพื้นฐานที่นำมาใช้ศึกษาพฤติกรรมมนุษย์ในการยอมรับการใช้เทคโนโลยี (Technology acceptance) มีนักวิชาการได้เสนอแนวคิดที่เกี่ยวข้องหลายท่าน ผู้เขียนขอยกตัวอย่าง ดังนี้

ทฤษฎีการกระทำอย่างมีเหตุผล (Theory of Reasoned Action: TRA)

ทฤษฎีการกระทำอย่างมีเหตุผลหรือ TRA นำเสนอโดย Ajzen และ Fishbein (1980) เป็นหนึ่งในทฤษฎีทางจิตวิทยาสังคม (Social Psychology) ซึ่งถูกนำมาใช้เป็นพื้นฐานสำหรับการศึกษาพฤติกรรมมนุษย์มากที่สุด ทฤษฎีนี้แสดงความสัมพันธ์ระหว่างความเชื่อ (Beliefs) ทัศนคติ (Attitude) ความตั้งใจ (Intention) และพฤติกรรม (Behavior) ตามแนวคิดที่ว่ามนุษย์โดยปกติแล้วเป็นผู้มีเหตุผล พฤติกรรมของแต่ละบุคคลจึงไม่ได้เกิดขึ้นโดยขาดการพิจารณามาก่อน ดังนั้นการที่บุคคลจะมีหรือไม่มีพฤติกรรมใดอย่างหนึ่งนั้น จะเกิดความตั้งใจและมีเหตุผล โดยโครงสร้างของทฤษฎี TRA แสดงดังภาพที่ 1



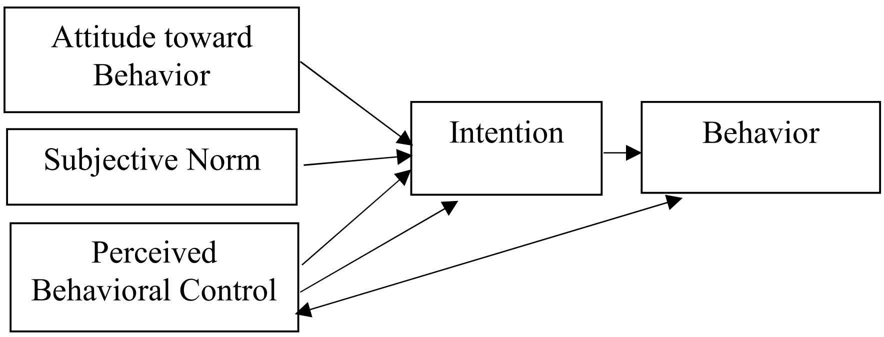
ภาพที่ 1 โครงสร้างของทฤษฎีการกระทำอย่างมีเหตุผล

ที่มา: Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. New Jersey: Prentice-Hall.

จากภาพที่ 1 จะเห็นว่าพฤติกรรมและความตั้งใจของแต่ละบุคคลนั้นเป็นผลมาจากความเชื่อที่สำคัญ 2 ประการ คือ 1) ทัศนคติที่มีต่อพฤติกรรม (Attitude toward Behavior) เป็นความเชื่อของแต่ละบุคคลว่า การมีหรือไม่มีพฤติกรรมใดนั้นจะทำให้เกิดผลลัพธ์ที่แน่นอนตามที่บุคคลนั้นได้ประเมินไว้แล้ว และ 2) บรรทัดฐานเชิงจิตวิสัย (Subjective Norm) เป็นความเชื่อของแต่ละบุคคลที่ว่าการมีหรือไม่มีพฤติกรรมจะคล้อยตามคนรอบข้างที่มีอิทธิพลหรือมีความสำคัญกับตน แม้ TRA จะเป็นทฤษฎีที่ใช้อธิบายพฤติกรรมโดยทั่วไป แต่ก็สามารถนำมาประยุกต์กับการทำนายพฤติกรรมการยอมรับเทคโนโลยีได้เช่นเดียวกัน โดยการมองว่าทัศนคติต่อการใช้งานและบรรทัดฐานเชิงจิตวิสัยจะเป็นสิ่งที่ก่อให้เกิดความตั้งใจในการใช้งานเทคโนโลยี และจะส่งผลต่อพฤติกรรมการยอมรับเทคโนโลยีของบุคคลในที่สุด (Yahyapour, 2008)

ทฤษฎีพฤติกรรมตามแผน (Theory of Planned Behavior: TPB)

ทฤษฎีพฤติกรรมตามแผนหรือ TPB นำเสนอโดย Ajzen (1985) เป็นทฤษฎีที่พัฒนามาจากทฤษฎี TRA โดย Ajzen ได้เพิ่มปัจจัยการรับรู้ถึงการควบคุมพฤติกรรมของตนเองในการแสดงพฤติกรรมใดๆ (Perceived Behavioral Control) เพื่อลดข้อจากัดของทฤษฎี TRA เนื่องจากการแสดงพฤติกรรมของแต่ละบุคคลไม่สามารถเกิดขึ้นได้จริงถ้าหากพฤติกรรมนั้นมีความซับซ้อนเกินกว่าความสามารถของบุคคลจะควบคุมได้ โดยสามารถนำมาปรับใช้เพื่อศึกษาความตั้งใจและพฤติกรรมในบริบทที่หลากหลาย รวมถึงช่วยสร้างความเข้าใจในการยอมรับการใช้เทคโนโลยีของแต่ละบุคคลได้หลักการของ TPB จะศึกษาพฤติกรรมของแต่ละบุคคลที่ได้รับแรงขับเคลื่อนจากความตั้งใจแสดงพฤติกรรมจากปัจจัยหลัก 3 ประการได้แก่ ทัศนคติที่มีต่อพฤติกรรม (Attitude toward Behavior) บรรทัดฐานเชิงจิตวิสัย (Subjective Norm) และการรับรู้ถึงการควบคุมพฤติกรรมของตนเองในการแสดงพฤติกรรมใดๆ (Perceived Behavioral Control) แสดงดังภาพที่ 2



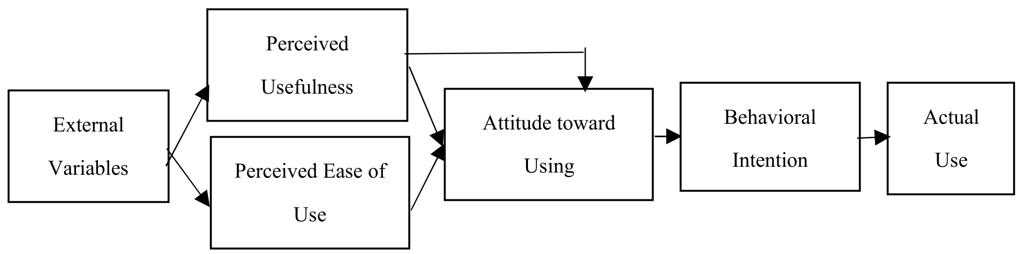
ภาพที่ 2 โครงสร้างของทฤษฎีพฤติกรรมตามแผน

ที่มา: Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), Action control: From cognition to behavior (pp.11-39). Heidelberg: Springer.

จากรูปภาพที่ 1.2 จะเห็นได้ว่าความสัมพันธ์ระหว่างความตั้งใจและพฤติกรรมได้รับอิทธิพลจากทัศนคติที่มีต่อพฤติกรรม บรรทัดฐานเชิงจิตวิสัย และการรับรู้ถึงการควบคุมพฤติกรรมของตนเองในการแสดงพฤติกรรมใดๆ ที่มีอิทธิพลโดยตรงต่อพฤติกรรมด้วย ซึ่งการรับรู้ถึงการควบคุมพฤติกรรมของตนเองในการแสดงพฤติกรรมใดๆ (Perceived Behavioural Control) หมายถึง การรับรู้ถึงความยากง่ายในการแสดงพฤติกรรม ถ้าบุคคลรับรู้ว่ามีความสามารถที่จะแสดงพฤติกรรมใน

สภาพการณ์นั้นได้ และสามารถควบคุมให้เกิดผลลัพธ์ตามต้องการได้ บุคคลจะมีแนวโน้มที่จะแสดงพฤติกรรมนั้น

แบบจำลองการยอมรับเทคโนโลยี หรือ TAM เสนอโดย Davis (1989) เป็นการพัฒนาเพิ่มเติมจากทฤษฎี TRA และทฤษฎี TPB หลักการของแบบจำลองการยอมรับเทคโนโลยี คือ การศึกษาปัจจัยที่มีอิทธิพลต่อการยอมรับหรือการตัดสินใจที่จะใช้เทคโนโลยีใหม่ ว่าผู้ใช้จะใช้เมื่อไรและจะมีแนวโน้มการใช้งานอย่างไร ดังแบบจำลองแสดงดังภาพที่ 3



ภาพที่ 3 แบบจำลองการยอมรับเทคโนโลยีตามแนวคิดของ Davis (1989)
ที่มา: Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.

แบบจำลองการยอมรับเทคโนโลยีนี้ อธิบายได้ว่า ตัวแปรภายนอก (External Variables) จะสร้างการรับรู้ถึงประโยชน์ในการใช้งาน (Perceived Usefulness) และการรับรู้ถึงความง่ายในการใช้งาน (Perceived Ease of Use) ซึ่งส่งผลต่อทัศนคติที่มีต่อการใช้งาน (Attitude toward Using) ทำให้เกิดความตั้งใจในการใช้เทคโนโลยี (Behavioural Intention) สุดท้ายจะมีการใช้จริงตามมา (Actual Use) ซึ่งการรับรู้ถึงประโยชน์ในการใช้งาน ยังเป็นตัวผลักดันให้เกิดความตั้งใจในการใช้งานและการใช้งานจริงด้วย

องค์ประกอบของแบบจำลองการยอมรับเทคโนโลยี ประกอบด้วย 5 ปัจจัย ดังนี้

1) การรับรู้ประโยชน์ในการใช้งาน (Perceived Usefulness) หมายถึง ระดับที่ผู้ใช้เชื่อว่าประโยชน์ของเทคโนโลยีจะสามารถช่วยเพิ่มประสิทธิภาพให้กับงานของตน ซึ่งมีความสัมพันธ์โดยตรงกับทัศนคติที่มีต่อการใช้งานและพฤติกรรมของผู้ใช้

2) การรับรู้ถึงความง่ายในการใช้งาน (Perceived Ease of Use) หมายถึง ระดับที่ผู้ใช้เชื่อว่าเทคโนโลยีที่นำมาใช้มีความง่ายในการใช้งาน สามารถใช้งานได้โดยไม่ต้องอาศัยความพยายามมากนัก ซึ่งมีความสัมพันธ์โดยตรงกับการรับรู้ประโยชน์ในการใช้งานและทัศนคติที่มีต่อการใช้งาน

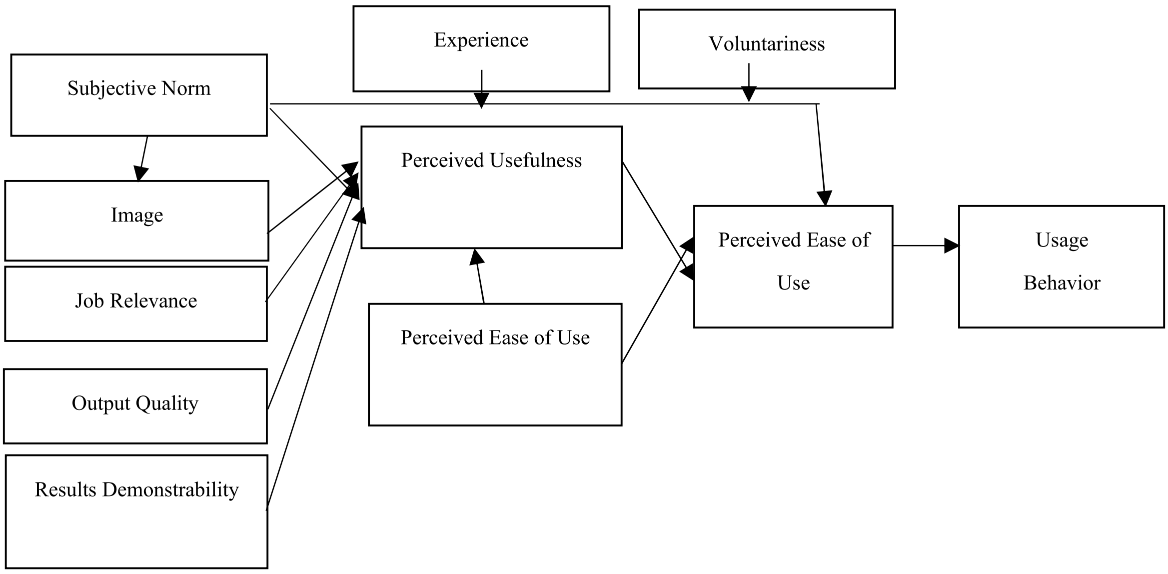
3) ทัศนคติที่มีต่อการใช้งาน (Attitude toward Using) หมายถึง ความคิดเห็นของผู้ใช้งานที่มีต่อเทคโนโลยีนั้นๆ ซึ่งเกิดจากการรับรู้ประโยชน์ในการใช้งานและการรับรู้ความง่ายในการใช้งาน ซึ่งจะส่งผลโดยตรงต่อความตั้งใจในการใช้งาน

4) ความตั้งใจในการใช้งาน (Behavioural Intention) หมายถึง พฤติกรรมความตั้งใจที่จะใช้งานเทคโนโลยีนั้นๆ โดยได้รับอิทธิพลจากการรับรู้ประโยชน์ในการใช้งานและทัศนคติที่มีต่อการใช้งานเทคโนโลยีนั้น

5) การใช้งานจริง (Actual Use) หมายถึง การยอมรับเทคโนโลยีโดยการนำมาใช้จริง โดยมีทัศนคติต่อการใช้งานเป็น

ตัวแปรที่มีผลต่อการใช้งานจริงของผู้ใช้

นอกจากนี้แล้ว (Venkatesh, V., & Davis, F. D. (2000) ยังได้ทำการพัฒนาทฤษฎี TAM เพิ่มเติมเพื่อช่วยพยากรณ์พฤติกรรมการใช้ระบบสารสนเทศได้ชัดเจนยิ่งขึ้น โดยให้ชื่อว่าทฤษฎีการยอมรับเทคโนโลยี 2 (TAM 2) โดยทำการปรับปรุงตัวแปรภายนอกและปัจจัยที่เกิดก่อน (Antecedents) ที่มีอิทธิพลต่อการรับรู้ว่ามีประโยชน์ที่ได้รับจากเทคโนโลยี สารสนเทศ และการรับรู้ว่าง่ายต่อการใช้ให้มีความทันสมัยมากยิ่งขึ้น เช่น บรรทัดฐานของสังคม (Subjective Norm) ความสมัครใจ (Voluntariness) ภาพลักษณ์ (Image) ตลอดทั้งกระบวนการใช้ปัญญา (Cognitive Instrumental Process) คือ ความเกี่ยวข้องสัมพันธ์กับงาน (Job Relevance) คุณภาพของผลลัพธ์ (Output Quality) ผลลัพธ์ที่สามารถแสดงให้เห็นก่อนได้ (Results Demonstrability) และการับรู้ว่าเป็นระบบที่ง่ายต่อการใช้งาน (Perceived Ease of Use) ดังแบบจำลองแสดง ดังภาพที่ 4



ภาพที่ 4 แบบจำลองการยอมรับเทคโนโลยี 2 (Technology Acceptance Model 2: TAM2)

ที่มา: Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46 (2), 186-204.

ปัจจัยที่อยู่ในกลุ่มกระบวนการที่มีอิทธิพลต่อสังคมประกอบด้วย 1) บรรทัดฐานเชิง จิตวิสัย (Subjective norm) และ 2) ภาพลักษณ์ (Image) ส่วนปัจจัยที่เหลืออื่นๆ จะอยู่ในลักษณะประจำของระบบ ซึ่งประกอบด้วย 1) ความเกี่ยวข้องกับงาน (Job Relevance) 2) คุณภาพของผลลัพธ์ (Output Quality) 3) ผลลัพธ์ที่สามารถแสดงให้เห็นก่อนได้(Results demonstrability) และ 4) การรับรู้ว่าเป็นระบบที่ง่ายต่อการใช้งาน (Perceived Ease of Use) นอกจากนั้นในแบบจำลองจะมีตัวแปรที่จัดเป็นตัวดำเนินการ (Moderators) ประกอบด้วย 1) ความสมัครใจ (Voluntariness) ซึ่งเป็นระดับของการรับรู้ถึงการนำเทคโนโลยีมาใช้โดยความสมัครใจ (Venkatesh, V., & Davis, F. D. (2000).) และ 2) ประสบการณ์ (Experience) ซึ่งเป็นระดับของความชัดเจนที่เกิดจากการกระทำหรือได้พบเห็นมา แต่ถึงแม้ว่า TAM2 จะได้รับการปรับปรุงยังมีจุดบกพร่องที่ขาดการอธิบายถึงสาเหตุที่มีผลต่อพฤติกรรมการรับรู้ถึงความง่ายในการใช้งานเทคโนโลยีสารสนเทศ
จากตัวอย่างแนวคิดด้านการยอมรับการใช้เทคโนโลยี (Technology acceptance) ที่นักวิชาการได้เสนอแนวคิดที่ไว้ในข้างต้น ในบทความนี้ได้นำเสนอแนวคิดของ Davis, F. D. (1989) เพื่อนำมาประยุกต์ใช้ในการศึกษาการยอมรับสำหรับการพัฒนาแอปพลิเคชัน ในด้านสร้างการรับรู้ถึงประโยชน์ในการใช้งาน และการรับรู้ถึงความง่ายในการใช้งาน ซึ่งส่งผลต่อทัศนคติที่มีต่อการใช้งาน ทำให้เกิดความตั้งใจในการใช้เทคโนโลยี สุดท้ายจะมีการใช้จริงตามมา ซึ่งการรับรู้ถึงประโยชน์ในการใช้งาน ยังเป็นตัวผลักดันให้เกิดความตั้งใจในการใช้งานและการใช้งานจริงด้วย

ขั้นตอนของกระบวนการยอมรับเทคโนโลยี

กระบวนการตัดสินใจยอมรับเทคโนโลยี เป็นกระบวนทางจิตใจของบุคคล ที่เริ่มจากการรับรู้เทคโนโลยี ไปจนกระทั่งการตัดสินใจยอมรับเทคโนโลยี ซึ่งถือเป็นกระบวนการตัดสินใจ Rogers & Shoemaker (1971) ได้แบ่งกระบวนการยอมรับเทคโนโลยีเป็น 5 ขั้นตอนดังนี้

a. ขั้นรับรู้หรือตื่นตัว (Awareness Stage) เป็นขั้นเริ่มแรกที่ได้รับรู้เกี่ยวกับเทคโนโลยีใหม่ ที่เกี่ยวข้องกับการทำงานของตนเอง แต่ยังขาดข้อมูลหรือประโยชน์ของเทคโนโลยีนั้น

b. ขั้นสนใจ (Interest Stage) เป็นขั้นที่เริ่มมีความสนใจ และตั้งใจหารายละเอียดเกี่ยวกับเทคโนโลยีเพิ่มเติมจากแหล่งความรู้ มีการใช้กระบวนการทางความคิดมากขึ้นจนทำให้ได้รับความรู้ของเทคโนโลยีใหม่มากขึ้น

c. ขั้นประเมินค่า (Evaluation Stage) เป็นขั้นที่เริ่มคำนึงถึงประโยชน์ในการลองใช้เทคโนโลยีใหม่ๆ และสามารถเป็นประโยชน์ต่อตนเองได้จริงหรือไม่ ด้วยการนำข้อมูลที่ได้มาเปรียบเทียบข้อดีและข้อเสียเพื่อประกอบการตัดสินใจ แต่อย่างไรก็ตามมักมีความคิดว่าการนำเทคโนโลยีมาใช้อาจทาให้เกิดความเสี่ยง จึงต้องสร้างแรงเสริม (Reinforcement) เพื่อสร้างความเชื่อมั่นถึงสิ่งที่ได้ตัดสินใจไป ซึ่งจะเป็นขั้นตอนที่ทาให้เกิดการไตร่ตรองว่าจะทดลองใช้เทคโนโลยีหรือไม่

d. ขั้นทดลอง (Trial Stage) เป็นขั้นที่ทดลองใช้เทคโนโลยีใหม่กับกลุ่มทดลองส่วนน้อย เพื่อจะได้ทราบถึงผลลัพธ์ของการใช้เทคโนโลยีใหม่นั้นมีประโยชน์และสามารถใช้ได้จริงหรือไม่ หากผลลัพธ์ของการทดลองใช้เทคโนโลยีมีประโยชน์มากเพียงพอ จะส่งผลต่อการตัดสินใจในการยอมรับเทคโนโลยีได้

e. ขั้นการยอมรับ (Adoption Stage) เป็นขั้นที่บุคคลเกิดการยอมรับเทคโนโลยีใหม่ หลังจากที่ได้ทดลองใช้ และรับทราบถึงประโยชน์ของเทคโนโลยีแล้ว บุคคลจะเกิดการยอมรับเทคโนโลยีและเกิดความต้องการที่จะนำไปใช้อย่างต่อเนื่องในอนาคต เมื่อบุคคลได้ยอมรับเทคโนโลยีแล้ว จะเกิดการค้นหาข้อมูลเพิ่มเติม เพื่อสนับสนุนการตัดสินใจในการยอมรับเทคโนโลยี

f. จากกระบวนการยอมรับเทคโนโลยีดังกล่าว Rogers & Shoemaker (1971) ยังพบว่าในแต่ละขั้นตอนไม่ได้เกิดขึ้นตามลำดับเสมอไป บางขั้นตอนอาจถูกข้ามขั้นตอนไป ซึ่งก็คือขั้นทดลองบางกระบวนการยอมรับเทคโนโลยีไม่ได้มีการกำหนดกลุ่มทดลองใช้งาน และสาหรับขั้นตอนประเมินค่าอาจเกิดขึ้นได้ในทุกขั้นตอนมากกว่าที่จะเกิดในขั้นตอนเดียว เนื่องจากกระบวนการยอมรับเทคโนโลยีเป็นกระบวนการตัดสินใจ ซึ่งจะต้องใช้การประเมินในทุกขั้นตอนเสมอ แต่อย่างไรก็ตามกระบวนการยอมรับเทคโนโลยีมีความสอดคล้องกับบริบทและสถานการณ์ขององค์กรที่ต้องการศึกษาในปัจจุบันที่ได้มีการทดลองนาเทคโนโลยีสารสนเทศมาใช้ในงานบริหารทรัพยากรบุคคลกับกลุ่มทดลองที่เป็นบุคลากรฝ่ายทรัพยากรบุคคล ซึ่งอยู่ในขั้นทดลองของกระบวนการยอมรับเทคโนโลยี แต่ยังไม่ได้มีการประกาศใช้อย่างเป็นทางการกับบุคลากรทั้งองค์กร

แอปพลิเคชัน

แนวคิดเกี่ยวกับแอปพลิเคชัน

แนวโน้มการใช้งาน Mobile Device อย่างสมาร์ทโฟนเพิ่มขึ้นอย่างก้าวกระโดดในช่วงไม่กี่ปีที่ผ่านมาซึ่งเป็นผลมาจากการพัฒนา Mobile Applications และเทคโนโลยีของตัวเครื่องโทรศัพท์จากค่ายผู้ผลิตโทรศัพท์โดยเฉพาะการพัฒนาต่อยอดแอปพลิเคชันบนอุปกรณ์เคลื่อนที่ของบริษัทต่างๆ ที่แข่งขันกันเพื่อชิงความเป็นหนึ่งในตลาดด้าน Mobile Application ซึ่งการพัฒนาแอปพลิเคชันแบ่งเป็นการพัฒนาแอปพลิเคชันระบบ (Operation System) และแอปพลิเคชันซอฟต์แวร์ที่

ตอบสนองการใช้งานบนอุปกรณ์และด้วยแอปพลิเคชันที่เพิ่มขึ้นและมีประสิทธิภาพมากขึ้นทำให้ผู้ใช้อุปกรณ์เคลื่อนที่มีแนวโน้มใช้โปรแกรมต่างๆ เพื่อตอบสนองกิจกรรมในชีวิตประจำวัน ได้แก่ ทำธุรกรรมทางการเงินเชื่อมต่อและสืบค้นข้อมูลบนเครือข่ายอินเทอร์เน็ต ชมภาพยนตร์ฟังเพลง หรือแม้แต่การเล่นเกมซึ่งมีทั้งออนไลน์ และออฟไลน์ด้วยอัตราการขยายตัวด้านการใช้งานอุปกรณ์เคลื่อนที่ทำให้บริษัทชั้นนำด้านโทรศัพท์มือถือหลายแห่งหันมาให้ความสำคัญ กับการพัฒนาโปรแกรมบนโทรศัพท์มือถือ โดยเชื่อว่าจะมีอัตราการดาวน์โหลดเพื่อใช้งานที่เติบโตอย่างเห็นได้ชัด

แอปพลิเคชัน (Application) หรือที่ทุกคนเรียกกันสั้นๆ ว่า App (แอปพลิเคชัน) คือ โปรแกรมที่อำนวยความสะดวกในด้านต่างๆ ที่ออกแบบมาสำหรับ Mobile (โมบาย) Teblet (แท็บเล็ต) หรืออุปกรณ์เคลื่อนที่ ที่เรารู้จักกัน ซึ่งในแต่ละระบบปฏิบัติการจะมีผู้พัฒนาแอปพลิเคชันขึ้นมามากมายเพื่อให้ตรงกับความต้องการของผู้ใช้งาน ซึ่งจะมีให้ดาวน์โหลดทั้งฟรีและจ่ายเงิน ทั้งในด้านการศึกษา ด้านการสื่อสารหรือแม้แต่ด้านความบันเทิงต่างๆ เป็นต้น

แนวคิดการออกแบบ Mobile Application ในด้านของ User Experience ดังนี้

การออกแบบที่ มุ่งเน้น UX (User Experience) คือ ประสบการณ์การใช้งานของผู้ใช้ คือการออกแบบ Application ผู้ใช้บริการ ต้องการ ในประเด็น Useful: มีประโยชน์ Usable: ใช้งานได้ดี Findable: ง่ายต่อการค้นหา Credible: น่าเชื่อถือ Desirable: เป็นไปตามที่พึงปรารถนา Accessible: เข้าถึงได้ง่าย และ Valuable: มีคุณค่า

โดยการออกแบบ ที่ มุ่งเน้น UX (User Experience) จะต้องให้มีการตอบสนองการใช้งานที่ง่าย กล่าวคือ หากมองเพียงในมุมของ UI แล้ว เป็นการออกแบบเว็บไซต์ให้สวยงามดึงดูด ในขณะที่หากรวมองค์ประกอบของ UX เข้าไปด้วย นอกจากความสวยงาม ก็จะยังได้ในเรื่องของการใช้งาน (Usability) ของ Mobile Application อีกส่วนหนึ่ง โดยการออกแบบให้สามารถตอบสนองการใช้งานที่สะดวก และง่ายของผู้ใช้ประกอบด้วย การออกแบบที่ตอบโจทย์วัตถุประสงค์ของผู้ใช้ (Interaction design) เช่น การใช้คำพูดในการสื่อสาร ตรงประเด็นหรือไม่? หรือการออกแบบเหมาะสมกับการใช้งานในชีวิตประจำวันของกลุ่มเป้าหมายหรือไม่ นอกจากนี้ UX ยังคำนึงถึงการจัดเรียงข้อมูลบน Mobile Application เช่น การเชื่อมโยงของเนื้อหาสัมพันธ์กันหรือไม่ สามารถสร้างความเชื่องโยงไปถึงการซื้อสินค้าและบริการได้หรือไม่ เป็นต้น การคำนึงถึงลำดับความสำคัญของเนื้อหา ก็ถือเป็นหนึ่งองค์ประกอบของการ อกกแบบ UX ให้มีประสิทธิภาพ (Claire D. Costa, 2020)

การพัฒนาแอปพลิเคชัน ประกอบด้วย

การพัฒนาแอปพลิเคชันหรือผลิตภัณฑ์ทางซอฟต์แวร์นั้น สามารถนำกระบวนการทางวิศวกรรมที่ใช้ในการพัฒนาผลิตภัณฑ์ประเภทอื่นมาประยุกต์ใช้เพื่อวางแผนการดำเนินงาน ซึ่งมีขั้นตอนทั่วไปดังนี้ (KruPreecha Deenang, 2021)

(1) การศึกษาความต้องการ-แอปพลิเคชันถูกสร้างขึ้นตามความต้องการและเพื่อแก้ปัญหาของลูกค้าหรือผู้ใช้ ผู้พัฒนาต้องทราบความต้องการหรือปัญหาก่อนดำเนินการออกแบบ ซึ่งจะได้ข้อกำหนดที่เป็นคุณสมบัติต่างๆ ของแอปพลิเคชัน ซึ่งเป็นขั้นตอนที่ต้องอาศัยประสบการณ์ของผู้พัฒนา เพื่อให้ได้ความต้องการของลูกค้าหรือผู้ใช้ที่แท้จริง เพราะอาจมีการสื่อสารความต้องการที่คลาดเคลื่อน

(2) การออกแบบ-เป็นหัวใจสำคัญในการพัฒนาแอปพลิเคชัน ซึ่งค่อนข้างมีความซับซ้อนและมีรายละเอียดจำนวนมาก ต้องอาศัยแนวคิดเชิงคำนวณมาประยุกต์ใช้ในการออกแบบอย่างเป็นระบบ ผลจากการออกแบบ จะได้เป็นโครงร่างของแอปพลิเคชันที่มีส่วนประกอบย่อยที่มีการกำหนดหน้าที่การทำงานไว้

(3) การลงมือพัฒนา-ผู้พัฒนาหรือโปรแกรมเมอร์ (programmer) ลงมือเขียนคำสั่งในส่วนประกอบย่อยที่ได้ออกแบบไว้ ซึ่งอาจพบข้อจำกัดหรือข้อบกพร่องจากขั้นตอนการออกแบบ หรือขั้นตอนศึกษาความต้องการ จึงเป็นเรื่องปกติที่ต้องย้อนกลับไปแก้ไขการออกแบบหรือศึกษาความต้องการ

(3) การทดสอบ-เป็นการตรวจสอบคุณภาพของแอปพลิเคชัน เพื่อค้นหาข้อผิดพลาดที่มีอยู่ระหว่างที่แอปพลิเคชันทำงาน และสร้างความมั่นใจแอปพลิเคชันทำงานได้ถูกต้องและตรงความต้องการอย่างแท้จริง หากพบข้อผิดพลาด ต้องทำการปรับปรุง แก้ไข และทดสอบซ้ำ เพื่อไม่ให้เกิดข้อผิดพลาดระหว่างการใช้งานจริง ซึ่งอาจทำให้เกิดความเสียหายอย่างรุนแรงตามมา

ประโยชน์ของ Mobile Application

ปัจจุบันนี้ผู้ที่ประกอบธุรกิจต่างๆ ไม่ว่าจะขนาดใหญ่ หรือ ขนาดเล็กได้ให้ความสนใจในการที่จะพัฒนา Mobile Application เพื่อที่จะสามารถประชาสัมพันธ์ หรือ ทำการติดต่อลูกค้าได้ ซึ่งแบ่งออกได้เป็นกลุ่มๆ ดังนี้ (K&O, 2020)

- กลุ่มธุรกิจการการท่องเที่ยวและการเดินทาง มีการจัด Mobile Application ระบบแนะนำสถานที่ท่องเที่ยว ประชาสัมพันธ์โรงแรมและการจองห้องพัก
- กลุ่มธุรกิจเพื่อการศึกษา มีการโฆษณาประชาสัมพันธ์ การซื้อขายสื่อการเรียนการสอน การแลกเปลี่ยนความรู้ต่างๆ

โดยทั่วไปแล้วโมบายแอปพลิเคชัน มีประโยชน์ในการพัฒนาโปรแกรมที่มีการประยุกต์เพื่อใช้กับอุปกรณ์เคลื่อนที่ เช่น สมาร์ทโฟน แท็บเล็ต เพื่อเป็นการตอบสนองการใช้งานของผู้บริโภคให้มาก

ที่สุด โดยการใช้แอปพลิเคชันนี้จะทำให้สามารถอำนวยความสะดวกเกี่ยวกับการใช้งานทั้งทางด้านผู้ให้บริการและผู้บริโภค โดยโมบายแอปพลิเคชันมีประโยชน์ (Wynnsoft Solution, 2561) ดังนี้

ประโยชน์ด้านผู้ให้บริการ

- ลดค่าใช้จ่ายในการผลิตสื่อเพื่อโฆษณาประชาสัมพันธ์ เพราะการประชาสัมพันธ์ทางแอปพลิเคชันจะมีข้อมูลที่หลากหลาย และเป็นช่องทางการติดต่อได้อีกด้วย
- เพิ่มภาพพจน์ร้านให้ดูดี มีจุดเด่น มีจุดขายที่ชัดเจน ส่งผลให้ ธุรกิจมียอดขายที่เพิ่มขึ้น เพราะสามารถเข้าถึงได้อย่างง่าย และสะดวก
- มีการบริการลูกค้าสัมพันธ์ที่ดีขึ้น สามารถติดต่อได้ทันที
- ลดขั้นตอนการทำงาน ทำให้การติดต่องานต่างๆ สะดวกมากยิ่งขึ้น

ประโยชน์ด้านผู้บริโภค

- ลดขั้นตอน และประหยัดเวลา ในการทำธุรกรรมต่างๆ เช่น ต้องการโอนเงินค่าสินค้า ก็สามารถใช้ Mobile App ทำธุรกรรมทางการเงินได้ในทันที โดยไม่ต้องออกไปข้างนอกและสามารถ ที่จะช้อปปิ้งได้ตลอดเวลา โดยไม่เสียเวลาในการเดินช้อปปิ้ง อีกต่อไป
- มีตัวเลือกที่หลากหลาย สามารถเปรียบเทียบ คุณภาพ และราคาได้ โดยที่ไม่ต้องออกไปสำรวจราคาสินค้าที่เราต้องการให้เสียเวลา ทั้งยังสามารถที่จะดูรีวิวจากสินค้าร้านนั้นๆ ก่อนจะทำการซื้อขายอีกด้วย
- ประหยัดค่าใช้จ่ายในการออกไปเลือกซื้อสินค้าหรือการใช้บริการต่างๆ
- ช่วยลดเวลาในการเดินทาง คำนวณเวลาได้ ค้นหาเส้นทางหรือแนะนำเลี่ยงเส้นทางที่มีการจราจรติดขัดได้

ข้อเสนอแนะต่อการนำโมเดลการยอมรับเทคโนโลยีมาประยุกต์ใช้สำหรับการพัฒนาแอปพลิเคชัน

จากแนวคิดของ Davis (1989) ที่ได้อธิบายปัจจัยที่ส่งผลต่อการยอมรับเทคโนโลยีว่า ประกอบด้วยการรับรู้ถึงความง่ายในการใช้งาน การรับรู้ถึงประโยชน์ที่เกิดจากการใช้ ซึ่งเมื่อผู้ใช้งานรับรู้ถึงความง่ายต่อการใช้เทคโนโลยีหรือนวัตกรรม จะส่งผลทำให้รับรู้ถึงประโยชน์ เมื่อรับรู้ถึงความง่ายและประโยชน์ต่อการใช้งานจะเกิดทัศนคติที่ดีต่อเทคโนโลยีหรือนวัตกรรมนั้น และจะส่งผลต่อความตั้งใจเชิงพฤติกรรมในการใช้เทคโนโลยี อันจะส่งผลต่อการยอมรับและใช้งานนวัตกรรมแอปพลิเคชันนั้นจริง ผู้เขียนจึงมีข้อเสนอแนะต่อการนำโมเดลการยอมรับเทคโนโลยีมาประยุกต์ใช้สำหรับการพัฒนาแอปพลิเคชันสำหรับผู้ประกอบการ ดังนี้

- การรับรู้ถึงประโยชน์ในการใช้งาน (Perceived Usefulness) เป็นการรับรู้ในแต่ละบุคคลว่าแอปพลิเคชันมีส่วนช่วยพัฒนาประสิทธิภาพการปฏิบัติงาน ความสะดวก รวดเร็ว ไม่มีข้อจำกัดใน

เรื่องของเวลา สามารถทำรายการประเภทต่างๆ ได้ทุกที่ทุกเวลา ทั้งนี้ระบบมีการเสริมสร้างความเข้มแข็งให้กับธุรกิจ ส่งผลทำให้เกิดประโยชน์ต่อการดำเนินชีวิต กรณีเกิดสถานการณ์การแพร่ระบาดของไวรัส เช่น โควิด-19 สามารถช่วยลดค่าใช้จ่ายในการเดินทางเพื่อซื้อสินค้าหรือบริการตามสถานที่ต่างๆ ช่วยประหยัดเวลาในการออกไปซื้อสินค้า สามารถตอบสนองผู้ใช้บริการได้อย่างรวดเร็ว มีฟังก์ชันการใช้งานครบตามความต้องการของผู้ใช้งาน และช่วยให้ผู้ใช้งานได้รับข้อมูลบริการที่ครบถ้วนและหลากหลาย เมื่อผู้ใช้ได้ทดลองใช้งานแอปพลิเคชัน ทำให้เข้าใจกระบวนการทำงานต่างๆ มีความสะดวก รวดเร็ว เพิ่มศักยภาพในการทำงาน ส่งผลทำให้เกิดประโยชน์ต่อการดำเนินชีวิต เช่น ลดค่าใช้จ่าย มีความสะดวกรวดเร็วขึ้น ข้อมูลครบถ้วน มีความปลอดภัย และมีความทันสมัย ผู้ใช้จะรับรู้ถึงประโยชน์ของแอปพลิเคชันมากขึ้น ก็จะนำไปสู่การยอมรับนวัตกรรมแอปพลิเคชันนั้นๆ ต่อไป ดังนั้นในการนำเอาแอปพลิเคชันมาใช้จึงต้องมีข้อมูลการบริการที่ครบถ้วน ช่วยลดค่าใช้จ่ายในการเดินทางเพื่อติดต่อประสานงานหรือการสั่งซื้อสินค้าและบริการควรมีฟังก์ชันการใช้งานที่ครอบคลุมตามความต้องการของผู้ใช้บริการ และสามารถตอบสนองผู้รับบริการได้อย่างสะดวก รวดเร็ว ดังนั้น ผู้ประกอบการจะต้องมีการปรับปรุงและพัฒนาแอปพลิเคชันโดยคำนึงถึงความต้องการและตอบโจทย์การใช้งานลูกค้า เพื่อให้ลูกค้าสามารถได้ใช้งานจริง ลูกค้าจะได้รับรู้ถึงประโยชน์จากแอปพลิเคชันดังกล่าว

• การรับรู้ถึงความง่ายต่อการใช้งาน (Perceived ease of use) เป็นปัจจัยที่กำหนดในแง่ปริมาณหรือความสำเร็จที่ได้รับว่าตรงกับความต้องการหรือที่คาดหวังไว้หรือไม่ ซึ่งแอปพลิเคชันที่จะประสบความสำเร็จได้จะต้องมีความง่ายในการเรียนรู้ที่จะใช้งาน มีขั้นตอนการใช้งานไม่ยุ่งยากซับซ้อน สามารถลดเวลาในการทำงาน ช่วยให้หาข้อมูลได้ง่าย และไม่ต้องใช้ความพยายามมากในการใช้งาน ดังนั้น หากผู้ประกอบการนำแอปพลิเคชันไปใช้งานแล้ว แอปพลิเคชันควรมีรูปแบบการใช้งานที่สามารถเรียนรู้ได้ง่าย สะดวกไม่ซับซ้อน และไม่ต้องใช้ความพยายามมาก เนื่องจากการรับรู้ความง่ายในการใช้งานมีอิทธิพลทั้งทางตรงและทางอ้อมต่อการใช้งานแอปพลิเคชัน ดังนั้นแอปพลิเคชันจึงควรถูกออกแบบโดยคำนึงถึงประสบการณ์ที่ดีของผู้ใช้งาน (User Experience) ให้มีฟังก์ชันการใช้งานจัดเป็นหมวดหมู่ มีรูปแบบราบละเอียดที่ชัดเจน สามารถเรียนรู้ได้ด้วยตนเอง

• ทัศนคติที่มีต่อการใช้งาน (Attitude towards use) เป็นความคิด ความเข้าใจ ความคิดเห็นความรู้สึกว่าเห็นด้วยหรือไม่เห็นด้วย ชอบหรือไม่ชอบ สนใจหรือไม่สนใจ เป็นภาวะทางจิตใจของการเตรียมพร้อมที่จะเรียนรู้และปรับตัวต่อการใช้นวัตกรรมนแอปพลิเคชันให้เกิดประโยชน์ โดยในส่วนของผู้บริโภคเกิดทัศนคติที่ดีต่อการใช้โมบายแอปพลิเคชันในการทำกิจกรรมต่างๆ การซื้อสินค้าหรือบริการ การเลือกช่องทางในการชำระเงินได้สะดวก ปลอดภัยและรวดเร็ว มีประสิทธิภาพแม่นยำถูกต้อง ทัศนคติของผู้ใช้ที่เกิดขึ้นจากผลของการรับรู้ถึงประโยชน์และการรับรู้ถึงความง่าย

ในการใช้เทคโนโลยีนั้น อาจเป็นได้ทั้งเชิงบวกและเชิงลบ แอปพลิเคชันจึงถูกออกแบบให้มีความง่ายต่อการใช้งาน และเมื่อผู้ใช้บริการรับรู้ถึงประโยชน์ต่อการใช้งาน ก็จะส่งผลทำให้ผู้ใช้เกิดทัศนคติในเชิงบวก เป็นภาวะทางจิตใจของการเตรียมพร้อมที่จะเรียนรู้และถูกปรับตัวต่อการใช้แอปพลิเคชัน ดังนั้น แอปพลิเคชันจึงต้องถูกออกแบบให้มีระบบความปลอดภัยที่น่าเชื่อถือ ตอบโจทย์การใช้งานจริง และสามารถใช้งานได้อย่างมีประสิทธิภาพ

• ความตั้งใจแสดงพฤติกรรมการใช้ (Behavioural Intention) เป็นการแสดงออก การปฏิบัติหรือการทำกิจกรรมเพื่อจัดสรรเวลาสำหรับการจัดการกับภาระหน้าที่ต่างๆ ที่ต้องปฏิบัติ มีความพร้อม ความตั้งใจ ที่ผู้ใช้พยายามใช้งานโมบายแอปพลิเคชัน ไม่ว่าจะเป็นการจองที่พัก การสั่งซื้ออาหาร การสั่งซื้อสินค้าหรือบริการ ดังนั้นเมื่อผู้ใช้บริการแอปพลิเคชันมีการรับรู้ถึงความง่ายในการใช้งานและรับรู้ถึงประโยชน์ ผู้ใช้บริการจึงเกิดความสนใจ มีความตั้งใจที่จะเรียนรู้ใช้งานแอปพลิเคชันตามลำดับ ผู้ประกอบการควรมีการศึกษาพฤติกรรมของผู้ใช้งานอย่างต่อเนื่อง และพัฒนารูปแบบของแอปพลิเคชันให้สามารถตอบสนองความต้องการดังกล่าวอย่างมีประสิทธิภาพ

บทสรุป

ปัจจุบันเทคโนโลยีเข้ามามีบทบาทในการใช้ชีวิตประจำวันของเรามากขึ้น โดยเฉพาะช่วงโควิด-19 ระบาด ประชาชนต้องทำงานที่บ้าน work from home มีการใช้อินเตอร์เน็ตมากกว่า 9 ชั่วโมงต่อวัน ถือเป็นจุดเปลี่ยนที่คนหันมาสนใจเทคโนโลยีใกล้ตัวกันเป็นอย่างมาก เพราะสามารถรับรู้ข้อมูลข่าวสารได้อย่างรวดเร็วและทันต่อเหตุการณ์ ซึ่งมีแอปพลิเคชันมากมายที่ทำให้เราสามารถรับสารกันได้ง่ายขึ้น ทำให้แอปพลิเคชันนี้มีบทบาทในการสร้างความสนุกและความบันเทิงให้กับคนทั่วโลก นอกจากนี้แอปพลิเคชันยังช่วยเสริมธุรกิจให้ง่ายและรวดเร็วมากยิ่งขึ้น จากความสำคัญดังกล่าว จากการศึกษา พบว่า ปัจจัยการยอมรับเทคโนโลยีที่ส่งผลต่อการยอมรับนวัตกรรมแอปพลิเคชัน ประกอบด้วย การรับรู้ถึงประโยชน์ในการใช้งาน การรับรู้ถึงความง่ายต่อการใช้งาน ทัศนคติที่มีต่อการใช้งาน และความตั้งใจในการใช้เทคโนโลยี ดังนั้น ผู้ประกอบการหรือผู้ที่สนใจสามารถนำองค์ความรู้ด้านแบบจำลองการยอมรับเทคโนโลยีไปประยุกต์ใช้สำหรับการยอมรับแอปพลิเคชัน โดยต้องมีการศึกษาความต้องการของลูกค้า พัฒนาตามรูปแบบความต้องการของลูกค้า รูปแบบการใช้งานควรมีความง่ายต่อการใช้งาน เพื่อให้ลูกค้าได้ทดลองใช้แล้วเกิดความพอใจ และเห็นถึงประโยชน์ที่จะได้รับ จนเกิดเป็นทัศนคติที่ดีในด้านบวก และเกิดความตั้งใจแสดงพฤติกรรมการใช้งาน จนเกิดการยอมรับและดาวน์โหลดแอปพลิเคชันมาใช้งานจริง ดังนั้น ผู้ประกอบการควรให้ผู้ใช้ได้ทดลองใช้แอปพลิเคชันดังกล่าวด้วยตนเอง จะได้เรียนรู้ถึงความง่ายในการใช้งาน มีฟังก์ชันการทำงานที่สามารถตอบสนองความต้องการได้อย่างมีประสิทธิภาพในเวลาอันสั้น อีกทั้ง

ขั้นตอนการทำงานยังเข้าใจง่าย ภาพและตัวอักษรประกอบมีความชัดเจน ช่วยลดขั้นตอนการทำงาน ลดเวลาในการปฏิบัติงานลง สามารถใช้งานได้ตลอดเวลาที่ต้องการ และผู้ใช้มีความเชื่อมั่นในความถูกต้องของข้อมูลข่าวสารที่ได้รับ อันส่งผลให้เกิดการยอมรับในการนำนวัตกรรมแอปพลิเคชันไปใช้งานต่อไป

เอกสารอ้างอิง

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting socialbehavior*. New Jersey:Prentice-Hall.

Ajzen, I. (1985). Fromintentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp.11-39). Heidelberg: Springer.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

Claire D. Costa (2020). *The 7 factors that influence user experience*. Retrieved from https://uxdesign.cc/the-7-factors-that-influence-user-experience-2805282616f9.

K & O. (2020). *การพัฒนาแอปพลิเคชัน บนมือถือมีประโยชน์อย่างไรกับเราบ้าง*. สืบค้นจาก www.ko.in.th/การพัฒนาแอปพลิเคชัน/.

Mango Grow you success. *Application แอปพลิเคชัน คืออะไร*. สืบค้นจาก www.mangoconsultant.com/th/news-knowledge/knowledge/274-application-แอปพลิเคชัน -คืออะไร.

Sopon Supamangmee. (2021). *การล้มหายตายจากของ App ที่ล้นตลาด และไอเดียทำ App อย่างไรให้ชนะ*. https://thematter.co/thinkers/dead-ocean-of-applications/142399.

SMARTFINN. (2563). *แอปพลิเคชันครองใจคนไทยปี 2020*. สืบค้นจาก www.smartfinn.co.th/article/แอปพลิเคชันครองใจคนไทยปี-2020.

TECHSAUCE KNOWLEDGE SHARING PLATFORM. (2015). *ปัญหา App Retention แอปพลิเคชันถูกใช้งานเกิดจากอะไรบ้าง?*. https://techsauce.co/news/app-retention-research.

KruPreech Deenang. (2021). *การพัฒนาแอปพลิเคชัน*. สืบค้นจาก https://nuiphen.wordpress.com

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186-204.

นวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการ บริษัท โอ เอส การาจ จำกัด

Service Innovation Affecting of Customer Loyalty to The OS Garage Company Limited

ภัคพล จันทร์แพง / Pakaphon Junpaeng
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: os44garage@gmail.com

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

ศุภรา เจริญภูมิ / Suppara Charoenpoom
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: suppara.ch@ssru.ac.th

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาระดับนวัตกรรมการบริการ และระดับความภักดีของผู้รับบริการ บริษัท โอ เอส การาจ จำกัด และ 2) ศึกษานวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด เป็นการวิจัยเชิงปริมาณ กลุ่มตัวอย่างได้แก่ ผู้รับบริการของ บริษัท โอ เอส การาจ จำกัด จำนวน 216 คน เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลได้แก่ แบบสอบถาม วิเคราะห์ข้อมูลโดยใช้สถิติ เชิงพรรณนาเพื่อหาค่าร้อยละ ค่าเฉลี่ย ค่าส่วนเบี่ยงเบนมาตรฐาน และสถิติเชิงอนุมานวิเคราะห์ด้วยสมการถดถอยเชิงพหุ ผลการวิจัยพบว่า ผู้รับบริการมีความคิดเห็นเกี่ยวกับระดับนวัตกรรมการบริการของบริษัท โอ เอส การาจ จำกัดโดยภาพรวม อยู่ในระดับมาก และเมื่อพิจารณาเป็นรายด้านพบว่า นวัตกรรมการบริการ ในด้านสิ่งแวดล้อม อยู่ในระดับมากที่สุด รองลงมาได้แก่ ด้านกระบวนการ ด้านเทคโนโลยี และด้านข้อมูลสารสนเทศ อยู่ในระดับมาก ตามลำดับ ผลการวิเคราะห์ระดับความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด

พบว่าโดยภาพรวมอยู่ในระดับมากที่สุด ผลการวิจัยยังพบว่าปัจจัยนวัตกรรมการบริการด้านเทคโนโลยีและด้านสิ่งแวดล้อมส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด อย่างมีนัยสำคัญทางสถิติ ที่ระดับ .05 โดยสามารถร่วมกันอธิบายความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด ได้ร้อยละ 40.20 ส่วนปัจจัยนวัตกรรมด้านข้อมูลสารสนเทศและด้านกระบวนการให้บริการไม่ส่งผลต่อความภักดีของผู้รับบริการ บริษัท โอ เอส การาจ จำกัด

คำสำคัญ: นวัตกรรมการบริการ, ความภักดี, ซ่อมบำรุงรถยนต์

Abstract

The purposes of this research were; 1) to study the level of service innovation and the level of customer loyalty to The OS Garage Company Limited. 2) to study the service innovation affecting to customer loyalty of The OS Garage Company Limited. This is the quantitative research. The sample group was 216 customers of The OS Garage Company Limited. The research instrument used for the data collection was questionnaires. In data analyzing process, this research used the descriptive statistics for percentage, mean, standard deviation and analytical inferential statistics through multiple regressions. The findings revealed that customer have the opinions to the overall service innovation of The OS Garage Company Limited at high level. Considering in each aspect, the environmental service innovation was at the highest level, followed by the process, technology, and information were at a high level. The result of data analysis to the level of customer loyalty to The OS Garage Company Limited was at the highest level. In addition, the result of the research also found that technology and the environmental service innovation had a statistically significant effected at .05 level of customer loyalty to The OS Garage Company Limited, which described the customer loyalty to The OS Garage Company Limited in 40.20 percentage. Also, the innovation of information and processing service were not affected to the customer loyalty of The OS Garage Company Limited.

Keywords: Service Innovation, loyalty, Car Maintenance

บทนำ

การพัฒนาประเทศไทยที่ผ่านมามีการพัฒนาในหลายด้าน โดยเฉพาะอย่างยิ่งการพัฒนา ด้านการเกษตรไปสู่อุตสาหกรรมและเทคโนโลยีในด้านต่างๆ การคมนาคมเป็นอีกด้านหนึ่งที่มีการพัฒนา อย่างเห็นได้ชัด ซึ่งในปัจจุบันรถยนต์นับเป็นปัจจัยที่มีความสำคัญเป็นอย่างมากต่อการดำรงชีวิตของมนุษย์ เนื่องจากรถยนต์ช่วยอำนวยความสะดวกในการเดินทางให้กับมนุษย์ทั้งในเรื่องส่วนตัว การทำธุรกิจ การงาน และการท่องเที่ยว เป็นต้น ส่งผลให้ผู้คนส่วนใหญ่ต่างหันมาให้ความสำคัญในการซื้อรถยนต์มาใช้ในการเดินทางตามความต้องการของตนเองเป็นจำนวนมาก เห็นได้จากสถิติ จำนวนรถยนต์นั่งส่วนบุคคลที่จดทะเบียนใหม่ ทั่วประเทศในปีพ.ศ.2560 มีจำนวน 577,927 คัน และเพิ่มขึ้นเป็น 696,958 คัน และ 736,291 คัน ในปี พ.ศ.2561 และ พ.ศ.2562 ตามลำดับ (กรมการขนส่งทางบก, 2562) จากการขยายตัวเพิ่มขึ้นอย่างต่อเนื่องของปริมาณรถยนต์ดังกล่าว อู่ซ่อมรถยนต์ซึ่งเป็นสถานที่สำคัญในการดูแลรักษาซ่อมแซมรถยนต์จึงมีการขยายตัวเพิ่มขึ้นเช่นกัน โดยในปัจจุบันมีอู่ซ่อมรถยนต์ที่ให้บริการเป็นจำนวนมาก เนื่องจากการเปิดอู่ซ่อมรถยนต์ เป็นงานบริการที่ไม่ต้องจดทะเบียนพาณิชย์ จึงทำให้ผู้ประกอบการอู่ซ่อมรถยนต์สามารถประกอบกิจการได้อย่างอิสระ เป็นผลให้ธุรกิจอู่ซ่อมรถยนต์มีการแข่งขันกันในระดับสูง (จารุภรณ์ ทองเครือ ดวงรัตน์ โกยกิจเจริญ และณัฐวุฒิ บุญศรี, 2562)

ในสถานการณ์การแข่งขันทางธุรกิจทุกระดับที่มีการเปลี่ยนแปลงอย่างรวดเร็วและกว้างขวางมาก ทั้งในด้านเศรษฐกิจ สังคม และเทคโนโลยี คุณภาพบริการจึงเป็นเรื่องสำคัญสำหรับการประกอบธุรกิจ เพราะเป็นเครื่องมือในการสร้างความแตกต่างและความสามารถในการแข่งขัน คุณภาพการบริการสามารถรักษาลูกค้าไว้ได้ในระยะยาว และมีความสัมพันธ์โดยตรงกับความมั่นคงของธุรกิจ (ภาวิณี ทองแย้ม, 2560 อ้างถึงใน ประมวล มียอด, 2561) ซึ่งในปัจจุบัน การแข่งขันของบริษัทรถยนต์มีมากขึ้นและรุนแรงมากขึ้นทั้งในด้าน ราคา คุณภาพ เทคโนโลยี อุปกรณ์เครื่องมือเครื่องใช้ในการซ่อมบำรุงรักษารถยนต์ รวมทั้งระบบการให้บริการลูกค้า ที่นำรถยนต์มาซ่อมในหลายรูปแบบ ดังนั้น อู่ซ่อมรถยนต์จึงมีความจำเป็นที่จะต้องพัฒนาการให้บริการ ด้วยนวัตกรรมและเทคโนโลยีที่มีความทันสมัยเพื่อให้สอดคล้องและรองรับการซ่อมรถยนต์ทุกประเภท นอกจากนี้จากสถานการณ์การแพร่ระบาดของเชื้อไวรัสโควิด-19 (COVID-19) ที่ส่งผลให้ผู้ประกอบการธุรกิจต่างๆ ได้รับผลกระทบทั้งจากทางตรงและทางอ้อม ดังนั้นการยกระดับการให้บริการจึงเป็นกลยุทธ์สำคัญ อีกประการที่จำเป็นในการพัฒนาคุณภาพการบริการเพื่อให้ผู้รับบริการเกิดความประทับใจต่อคุณภาพ การให้บริการ ด้วยเหตุผลดังกล่าวข้างต้น ผู้วิจัยในฐานะเป็นผู้ประกอบการธุรกิจในด้านการให้บริการดูแลรักษาและซ่อมบำรุงรถยนต์ จึงสนใจที่จะศึกษาระดับและปัจจัยนวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการ บริษัท โอ เอส การาจ จำกัด

การทบทวนวรรณกรรม

1) แนวคิดและทฤษฎีเกี่ยวกับนวัตกรรมการบริการ

1.1) ความหมายของนวัตกรรม

Morton (1998) ได้ให้ความหมายของนวัตกรรมว่า เป็นการทำให้ใหม่ขึ้นอีกครั้ง (Renewal) ซึ่งเป็นการปรับปรุงสิ่งเก่า และพัฒนาศักยภาพของบุคลากร ตลอดจนหน่วยงานหรือองค์การนั้นๆ นวัตกรรมอาจไม่ใช่การขจัดหรือล้มล้างสิ่งเก่าๆ ให้หมดสิ้นไป แต่เป็นการปรับปรุง เสริมแต่ง และพัฒนา

Michael E. Porter (1990) ได้ให้ความหมายของนวัตกรรมไว้ว่า เป็นสิ่งสำคัญที่ทำให้องค์การ มีศักยภาพในการแข่งขัน และได้มองนวัตกรรมในความหมายที่กว้าง โดยรวมเอาเทคโนโลยีใหม่และแนวทาง ในการทำสิ่งต่างๆ เข้าไว้ด้วยกัน

Peter F. Drucker (1985) ได้ให้คำนิยามนวัตกรรมในมุมมองที่เกี่ยวข้องกับผู้ประกอบการว่า นวัตกรรมคือ เครื่องมือที่สำคัญสำหรับผู้ประกอบการในการแสวงหาผลประโยชน์และโอกาสจากการเปลี่ยนแปลงต่างๆ เพื่อสร้างธุรกิจและบริการที่แตกต่างจากคู่แข่ง นวัตกรรมเป็นความสามารถที่ถูก แสดงออกมาในรูปแบบของการฝึกฝนศักยภาพในการเรียนรู้ และการนำไปปฏิบัติได้จริง

สำนักงานนวัตกรรมแห่งชาติ (2558 อ้างถึงใน สำนักงานเลขาธิการสภาผู้แทนราษฎร, 2558) ได้ให้ความหมายของนวัตกรรมไว้ว่า คือสิ่งใหม่ที่เกิดจากการใช้ความรู้และความคิดสร้างสรรค์ที่มีประโยชน์ต่อเศรษฐกิจและสังคม นวัตกรรมเป็นกระบวนการที่เกิดจากการนำความรู้และความคิดสร้างสรรค์มาผนวกกับความสามารถในการบริหารจัดการ เพื่อสร้างให้เกิดเป็นธุรกิจนวัตกรรมหรือธุรกิจใหม่ อันจะนำไปสู่การลงทุนใหม่ที่ส่งผลต่อการเพิ่มขีดความสามารถในการแข่งขันของประเทศ

1.2) ความหมายของการบริการ

Kotler (1994) กล่าวว่า การบริการ หมายถึงกิจกรรมใดๆ หรือการปฏิบัติที่กลุ่มหรือคณะใด คณะหนึ่งสามารถเสนอสิ่งสำคัญที่มองไม่เห็นเป็นตัวเป็นตน และไม่มีผลในการเป็นเจ้าของผลผลิตของบริการอาจเป็นหรือไม่เป็นผลิตภัณฑ์ก็ได้ โดยที่ลักษณะของการให้บริการแบ่งออกเป็น 4 ลักษณะ ได้แก่

1.2.1) ลักษณะการบริการที่ไม่สามารถจับต้องได้ (Intangibility) ผู้ให้บริการต้องหาหลักประกันที่แสดงถึงคุณภาพและประโยชน์จากบริการ ได้แก่ 1) สถานที่ (Place) ต้องสามารถสร้างความเชื่อมั่นและความสะดวกให้กับผู้มาติดต่อ 2) บุคคล (People) พนักงานบริการต้องแต่งตัวให้เหมาะสม บุคลิกดีพูดจาดี เพื่อให้ลูกค้าเกิดความประทับใจและเกิดความเชื่อมั่นว่าบริการจะดีด้วย 3) เครื่องมือ (Equipment) อุปกรณ์ที่เกี่ยวข้องกับการให้บริการ ต้องมีประสิทธิภาพ ให้บริการรวดเร็วและให้

ลูกค้าพอใจ 4) วัสดุสื่อสาร (Communication material) สื่อโฆษณาและเอกสารการโฆษณาต่างๆ จะต้องสอดคล้องกับลักษณะของการบริการที่เสนอขายและลักษณะของลูกค้า 5) สัญลักษณ์ (Symbols) ชื่อ หรือเครื่องหมายตราสินค้าที่ใช้ในการบริการ เพื่อให้ผู้บริโภคเรียกได้ถูกต้องและสื่อความหมายได้ และ 6) ราคา (Price) โดยการกำหนดราคาควรเหมาะสมกับระดับการให้บริการที่ชัดเจน และง่ายต่อการจำแนกระดับบริการที่แตกต่างกัน

1.2.2) ลักษณะที่ไม่สามารถแบ่งแยกการให้บริการ (Inseparability) การให้บริการเป็นทั้งการผลิตและการบริโภคในขณะเดียวกัน ผู้ให้บริการแต่ละรายจะมีลักษณะเฉพาะตัว ไม่สามารถให้คนอื่นให้บริการ แทนได้เพราะต้องผลิตและบริโภคในเวลาเดียวกัน ทำให้การให้บริการอยู่ในวงจำกัด ในเรื่องของเวลา

1.2.3) ลักษณะไม่แน่นอน (Variability) ลักษณะของการบริการไม่แน่นอน ขึ้นอยู่กับว่าผู้ให้บริการจะเป็นใครจะให้บริการเมื่อใด ที่ไหน อย่างไร

1.2.4) ลักษณะไม่สามารถเก็บไว้ได้ (Perish ability) บริการไม่สามารถเก็บไว้ได้เหมือนสินค้าอื่นๆ ดังนั้นถ้าลักษณะความต้องการไม่แน่นอน จะทำให้เกิดปัญหาหรือบริการไม่ทันหรือไม่มีลูกค้า

1.3) ความหมายของนวัตกรรมการบริการ

Schumpeter (1934) กล่าวว่า นวัตกรรมเป็นสิ่งที่องค์กรควรให้ความสำคัญใน 5 เรื่อง ได้แก่ 1) การปรับปรุงผลิตภัณฑ์ใหม่ โดยการแนะนำผลิตภัณฑ์ใหม่หรือปรับเปลี่ยนคุณภาพผลิตภัณฑ์ที่มีอยู่แล้ว 2) การสร้างหรือแนะนำกระบวนการใหม่ให้เกิดขึ้นในอุตสาหกรรม 3) การสร้างตลาดใหม่หรือ การเปิดตลาดใหม่ 4) การพัฒนาอุปทานของตลาดใหม่ โดยการดำเนินการด้านการจัดหาวัตถุดิบหรือปัจจัยการผลิตอื่นๆ และ 5) การปรับโครงสร้างหรือการพัฒนาองค์กร

1.4) ประเภทของนวัตกรรมการบริการ

Schumpeter (1934) ได้แบ่งประเภทของนวัตกรรมออกเป็น 4 ประเภท ได้แก่

1.4.1) Product Innovation เป็นการเปลี่ยนแปลงผลิตภัณฑ์หรือบริการขององค์กร เช่น การพัฒนาคอมพิวเตอร์โน๊ตบุ๊คให้มีประสิทธิภาพให้รวดเร็วขึ้น

1.4.2) Process Innovation เป็นการเปลี่ยนแปลงกระบวนการผลิต หรือกระบวนการนำเสนอผลิตภัณฑ์ หรือกระบวนการนำนวัตกรรมสู่ตลาด เช่น Nokia ย้ายฐานการผลิตไปที่จีน หรือการเพิ่มนวัตกรรม PDA สามารถโทรศัพท์ได้

1.4.3) Position Innovation เป็นการเปลี่ยนแปลงรูปแบบของสินค้าหรือบริการ หรือเปลี่ยนตำแหน่งนวัตกรรมสินค้าหรือบริการที่เคยออกสู่ตลาดมาแล้วให้รับรู้ใหม่ เช่น Orange เคยถูกมองในตำแหน่ง Global Brand เป็น Premium Service แต่ถูกเปลี่ยนมาเป็นทรูมูฟ ซึ่งถูก Repositioning ให้ไปอยู่ตำแหน่ง Lifestyles ครองใจคนเมืองรุ่นใหม่อย่างประสบความสำเร็จ

1.4.4) Paradigm Innovation เป็นการมุ่งให้เกิดนวัตกรรมที่เปลี่ยนแปลงกรอบความคิด (Change in Mental Model) เช่น เดิมเชื่อว่าการผลิตรถยนต์ด้วยมือจะมีความประณีต ทั้งยังมีราคาแพง ผู้มีฐานะร่ำรวยเท่านั้นที่สามารถมีไว้ครอบครองได้ แต่ต่อมาการผลิตปริมาณมากแบบการผลิตจำนวนมากที่มีราคาที่เหมาะสม สามารถ Quality Control รถยนต์ให้มีสมรรถนะคงที่เท่ากันได้ดีกว่า หรือแม้กระทั่งการเชื่อว่าการเก็บเงินค่า Average Cost: AC กับประชาชนแบบกินเปล่าเป็นเรื่องที่ดีกับองค์กรแต่เมื่อมีการให้เก็บแบบ Inter Company: IC ตามการใช้งานจริง ทั้งยุติธรรมกับประชาชนแล้วยังทำให้สร้างรายได้เพิ่มมากขึ้นอีกด้วย เป็นต้น

1.5) องค์ประกอบของนวัตกรรมการบริการ

Service Research and Innovation Institute (SRII) Asia Summit (2013) ได้ทำการ สรุปไว้ว่าการสร้างนวัตกรรมบริการต้องอาศัยกรอบ (Framework) เพื่อใช้เป็นหลักยึดในกระบวนการของนวัตกรรมบริการ กรอบดังกล่าวเป็นส่วนประกอบโครงสร้าง หรือ Building Block ของนวัตกรรมบริการที่มีองค์ประกอบ 4 ส่วน ดังนี้ (กระทรวงวิทยาศาสตร์และเทคโนโลยี, 2556)

1.5.1) ข้อมูลสารสนเทศ (Information) หมายถึง วัตถุประสงค์หรือเป้าหมายของคุณค่า (Value) ที่คาดหวังจากผลงานของนวัตกรรมการบริการ รวมทั้งประเด็นเงื่อนไขข้อจำกัด กล่าวโดยสรุปคือ การหาวิธีที่แก้ไขปัญหาให้กับลูกค้าหรือผู้รับบริการ ตัวอย่างเช่น ลูกค้าที่รับบริการใช้รถยนต์เพื่อเดินทางไปสถานที่ต่างๆ ข้อมูลนี้หมายถึง ลักษณะการบริการเช่ารถยนต์ เงื่อนไขที่เกี่ยวข้องการให้ความสะดวกแก่ผู้ใช้บริการที่ต้องรู้ตำแหน่งรับ-ส่งของรถ สามารถเปิดประตูและสตาร์ทเครื่องยนต์ได้โดยอาศัยกุญแจอิเล็กทรอนิกส์พิเศษ มีระบบการชำระเงินที่สะดวก เป็นต้น อาจถือได้ว่าเป็นคุณลักษณะหรือ Specification ของกลุ่มข้อเสนอที่จะถูกสร้างขึ้น

1.5.2) กระบวนการ (Process) หมายถึง ขั้นตอนการให้บริการในฝั่งผู้ให้บริการ และกระบวนการใช้บริการในฝั่งของผู้ใช้บริการเป็นส่วนสำคัญของนวัตกรรมการบริการ และเป็นทรัพย์สิน ทางปัญญาที่มีคุณค่ามาก เพราะจะเป็นส่วนที่มาจากแนวความคิดใหม่ๆ ที่ถือว่าเป็นนวัตกรรม โดยเฉพาะในยุคที่พัฒนาการด้านไอซีทีได้ก้าวหน้าไปมาก นวัตกรรมการบริการจะต้องสร้างขึ้นบนพื้นฐานของการใช้เทคโนโลยีสารสนเทศและการสื่อสาร โดยเฉพาะบรอดแบรนด์อินเทอร์เน็ตและอุปกรณ์พกพาไร้สาย

1.5.3) เทคโนโลยี (Technologies) เป็นเครื่องมือในการสนับสนุนกระบวนการ ที่เป็น ส่วนหนึ่งของข้อเสนอเพื่อสร้างคุณค่า รวมทั้งการเชื่อมโยงทรัพยากรทั้งจากแหล่งภายในและภายนอกองค์กรเพื่อร่วมกันสร้างข้อเสนอและสร้างคุณค่า จำเป็นต้องอาศัยระบบบริการ (Service System) ที่เป็นระบบไอซีที ที่สำคัญระบบบริการที่เป็นไอซีทียังใช้เป็นระบบส่งมอบ (Deliver System) ข้อเสนอให้ลูกค้า

นำไปสร้างคุณค่า ระบบบริการนี้จะถูกออกแบบให้สัมพันธ์กับข้อเสนอ และกระบวนการสร้างคุณค่า การออกแบบระบบบริการถือว่าเป็นส่วนสำคัญอีกส่วนหนึ่งของนวัตกรรมการบริการ

1.5.4) สภาพแวดล้อม (Environment) หมายถึง การรับรู้ถึงข้อมูลประวัติและภาวการณ์ ของผู้รับบริการที่จะช่วยให้การสร้างคุณค่าร่วมกันระหว่างผู้ให้บริการกับผู้รับบริการเป็นไปอย่างมีประสิทธิผล โดยเป็นลักษณะของการพยายามเข้าใจบริบทต่างๆ ของผู้บริโภคเพื่อจะได้สามารถตอบคำถามลูกค้าในบริบทต่างๆ ได้ นอกจากนี้อาจหมายถึงสภาพแวดล้อมด้านอื่นๆ ที่ส่งผลต่อการออกแบบข้อเสนอและระบบบริการ ที่นำไปสู่การสนับสนุนให้ลูกค้าสร้างคุณค่าได้เต็มที่

กล่าวโดยสรุป การทำให้เกิดนวัตกรรมบริการซ่อมบำรุงรถยนต์ที่สามารถนำไปใช้ได้จริง จำเป็นต่อการสร้างนวัตกรรมอย่างเป็นขั้นเป็นตอน อย่างเป็นระบบและต้องอาศัยกรอบ (Framework) ที่มีองค์ประกอบ 4 ส่วน ได้แก่ ข้อมูลสารสนเทศ (Information) กระบวนการ (Process) เทคโนโลยี (Technologies) และ สภาพแวดล้อม (Environment) ซึ่งเป็นจุดเริ่มต้นในการนำไปสู่การสร้างแนวคิดใหม่ ที่เป็นประโยชน์ต่อการสร้างนวัตกรรมการบริการในยุคดิจิทัล เนื่องจากนวัตกรรมการบริการจะสร้างอยู่ บนพื้นฐานของเทคโนโลยี ไอซีที ทำให้เกิดข้อเสนอในเชิงบริการที่มีคุณค่าอย่างแท้จริงและหลากหลาย

2) แนวคิดและทฤษฎีเกี่ยวกับความภักดี

Stone, Woodcock, and Machtynger (2000) กล่าวว่า ความภักดีแบ่งออกเป็น 2 ประเภท

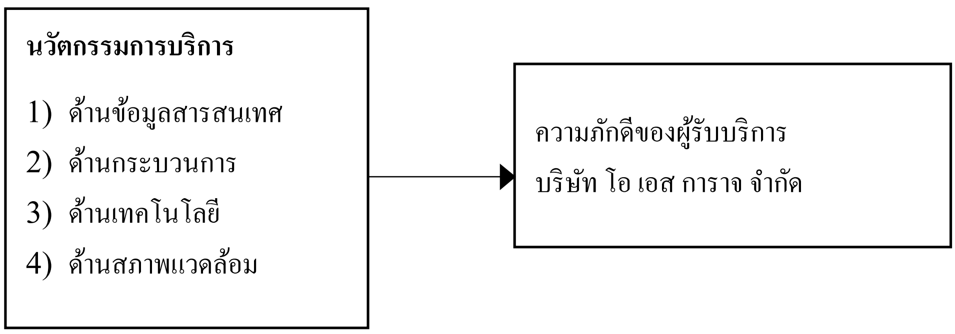
ประเภทแรกได้แก่ ความภักดีด้านอารมณ์ หมายถึง ความไว้วางใจ ความเชื่อมั่น และ ความปรารถนาดีของผู้รับบริการที่มีต่อสินค้าหรือบริการของธุรกิจภายใต้สภาวะจิตใจที่รู้สึกยินดีเมื่อได้ใช้บริการ และประเภทที่สองได้แก่ ความภักดีที่เกิดจากเหตุผล หมายถึง การที่ผู้รับบริการได้รับการบริการและรู้สึกชื่นชอบเต็มใจที่ได้ใช้บริการ ซึ่งเป็นการตอบสนองความต้องการของผู้รับบริการและเติมเต็มในสิ่งที่ต้องการ นอกจากนี้ Chang and Chen (2008) ยังได้กล่าวว่า คุณภาพการบริการ คุณค่าที่ผู้รับบริการรับรู้ และความพึงพอใจของผู้รับบริการ สามารถใช้เป็นตัวทำนายความภักดีของผู้รับบริการได้ โดยที่คุณภาพการบริการเป็นความประทับใจของผู้รับบริการที่ได้รับบริการจากผู้ให้บริการเป็นอย่างดี คุณภาพการบริการถือเป็นหัวใจสำคัญในการขับเคลื่อนธุรกิจสู่ความสำเร็จเป็นหนึ่งในกลยุทธ์ของผู้ประกอบการในการผลิตสินค้าและบริการให้โดดเด่นและแตกต่าง (Jang, Kim & Lee, 2016) นอกจากนี้ คุณค่าที่รับรู้ยังเป็นความแตกต่างระหว่างคุณค่าที่ได้รับจากการใช้บริการเมื่อเทียบกับต้นทุนทั้งหมด โดยผู้รับบริการจะใช้บริการจากองค์กรที่มีการนำเสนอคุณค่าสูงสุดที่ผู้รับบริการสามารถรับรู้ได้จนเกิดความรู้สึกพึงพอใจ (Kotler and Keller, 2009)

3) งานวิจัยที่เกี่ยวข้อง

ไชยพศ รื่นมล (2558) ศึกษาเรื่อง ปัจจัยที่ส่งผลต่อความจงรักภักดีของผู้ใช้บริการธุรกิจคาร์แคร์ในกรุงเทพมหานคร เป็นการวิจัยเชิงปริมาณ เก็บข้อมูลจากกลุ่มตัวอย่างได้แก่ลูกค้าจำนวน 400 คน โดยใช้วิธีการสุ่มตัวอย่างแบบตามความสะดวก ผลการวิจัยพบว่า ปัจจัยด้านกระบวนการ ด้านการสร้างและนำเสนอลักษณะทางกายภาพส่งผลต่อความจงรักภักดีในการใช้บริการคาร์แคร์ของผู้บริโภคในกรุงเทพมหานคร นอกจากนี้ ปิยะภัทร์ สิริรัตนาวงศ์ (2561) ศึกษาเรื่อง การศึกษาปัจจัยที่มีผลต่อการตัดสินใจเข้ารับบริการกิจการประเภทบำรุงรักษาและซ่อมแซมยานยนต์ เป็นงานวิจัยเชิงสำรวจ โดยเลือกใช้กลุ่มตัวอย่างแบบบังเอิญ จำนวน 400 คน ผลการวิจัยพบว่า ปัจจัยด้านการบริการเป็นปัจจัยที่ลูกค้าให้ความสำคัญมากที่สุด ในเรื่อง ความชำนาญในการวิเคราะห์ปัญหาและแก้ไขได้ตรงจุด ความรวดเร็วในการให้บริการ และมีบริการบำรุงรักษาและซ่อมแซมยานยนต์ครบวงจร ปัจจัยด้านผลิตภัณฑ์เป็นปัจจัยรองลงมาในเรื่องการรับประกันคุณภาพ ของผลิตภัณฑ์และปัจจัยด้านสถานที่ในเรื่องของการมีพื้นที่เพียงพอต่อการเข้ารับบริการ

กรอบแนวคิดในการวิจัย

จากการทบทวนวรรณกรรม แนวคิดทฤษฎี และงานวิจัยที่เกี่ยวข้อง ประกอบกับแนวคิด นวัตกรรมการบริการ (กระทรวงวิทยาศาสตร์และเทคโนโลยี, 2556) ผู้วิจัยได้กำหนดกรอบแนวคิดในการวิจัย ดังแสดงในภาพที่ 1



ภาพที่ 1 กรอบแนวคิดในการวิจัย

ระเบียบวิธีวิจัย

1) ประชากรและกลุ่มตัวอย่าง

ประชากรที่ใช้ในการวิจัยครั้งนี้ ได้แก่ ผู้รับบริการของ บริษัท โอ เอส การาจ จำกัด จำนวน 468 คน (บริษัท โอ เอส การาจ จำกัด, 2564) ผู้วิจัยใช้สูตรของทาโร่ ยามาเน่ (Taro Yamane, 1970 อ้างถึงใน กัลยา วาณิชบัญชา, 2557) ที่ระดับนัยสำคัญ .05 ในการคำนวณขนาดของกลุ่มตัวอย่าง ได้จำนวนกลุ่มตัวอย่างทั้งสิ้น 216 คน

2) เครื่องมือที่ใช้ในการวิจัย

ผู้วิจัยได้คัดเลือกมาตรวัดจากงานวิจัยที่เกี่ยวข้อง ซึ่งมาตรวัดดังกล่าวเป็นมาตรวัดที่ผ่านการใช้จากนักวิจัยมาแล้ว โดยเลือกเฉพาะมาตรวัดที่มีค่าความน่าเชื่อถือในระดับค่อนข้างสูง พิจารณาจากค่าสัมประสิทธิ์ ครอนบาค อัลฟา (Cronbach's Alpha) ที่มีค่ามากกว่า 0.6 (Hair et al., 1998) ผู้วิจัยนำแบบสอบถามที่ สร้างขึ้นไปให้ผู้เชี่ยวชาญจำนวน 3 คนเพื่อตรวจสอบความตรงเชิงเนื้อหา (Content Validity) จากนั้นนำไปทดลองใช้กับประชากรที่มีลักษณะใกล้เคียงกับกลุ่มตัวอย่างจำนวน 30 คน และนำข้อมูลที่ได้มาวิเคราะห์ หาค่าความเชื่อมั่น (Reliability) ของแบบสอบถามทั้งฉบับได้ค่าสัมประสิทธิ์ ครอนบาค อัลฟา เท่ากับ .908 และรายข้อเท่ากับ .901-.912

3) การเก็บรวบรวมข้อมูลและการวิเคราะห์ข้อมูล

ผู้วิจัยเก็บรวบรวมข้อมูลโดยส่งแบบสอบถามทางออนไลน์ให้กับกลุ่มตัวอย่าง ผลปรากฏว่าสามารถเก็บข้อมูลได้ครบทุกราย การวิเคราะห์ข้อมูลด้วยสถิติเชิงพรรณนา ใช้อธิบายปัจจัยส่วนบุคคลของกลุ่มตัวอย่างโดยใช้สถิติค่าความถี่ ร้อยละ ส่วนการวิเคราะห์ระดับความคิดเห็นของกลุ่มตัวอย่างเกี่ยวกับนวัตกรรม การบริการ และความภักดีของผู้รับบริการที่มีต่อบริษัท โอ เอส การาจ จำกัด ใช้ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน การวิเคราะห์ข้อมูลด้วยสถิติเชิงอนุมาน ใช้ในการวิเคราะห์ปัจจัยนวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการที่มีต่อบริษัท โอ เอส การาจ จำกัด ซึ่งเป็นตัวแปรเชิงปริมาณใช้การวิเคราะห์ การถดถอยเชิงพหุ

ผลการวิจัย

ผลการวิจัยพบว่า กลุ่มตัวอย่างส่วนใหญ่เป็นเพศชาย จำนวน 119 คน คิดเป็นร้อยละ 55.09 และเพศหญิง จำนวน 97 คน คิดเป็นร้อยละ 44.91 โดยส่วนใหญ่เป็นผู้ที่มีอายุระหว่าง 41-50 ปี จำนวน 60 คน คิดเป็นร้อยละ 27.78 ระดับการศึกษาส่วนใหญ่จบปริญญาตรี จำนวน 115 คน คิดเป็นร้อยละ 53.24 อาชีพส่วนใหญ่เป็นพนักงานบริษัทเอกชน จำนวน 87 คน คิดเป็นร้อยละ 40.28 ระดับเงินเดือนส่วนใหญ่ อยู่ระหว่าง 20,000-40,000 บาท จำนวน 89 คน คิดเป็นร้อยละ 41.20 ผลการศึกษาระดับนวัตกรรม การบริการของผู้รับบริการ บริษัท โอ เอส การาจ จำกัด พบว่าโดยภาพ

รวมอยู่ในระดับมาก และเมื่อพิจารณาเป็นรายด้านพบว่า นวัตกรรมการบริการในด้านสิ่งแวดล้อมอยู่ในระดับมากที่สุด มีค่าเฉลี่ยเท่ากับ 4.21 รองลงมา ได้แก่ ด้านกระบวนการ ด้านเทคโนโลยี และด้านข้อมูลสารสนเทศ อยู่ในระดับมาก โดยมีค่าเฉลี่ย 4.19 4.10 และ 3.98 ตามลำดับ ผลการวิเคราะห์ระดับความภักดีพบว่าอยู่ในระดับมากที่สุด โดยมีค่าเฉลี่ยเท่ากับ 4.40

ผลการศึกษานวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด ซึ่งผู้วิจัยใช้การวิเคราะห์การถดถอยเชิงพหุ ปรากฏผลดังแสดงในตารางที่ 1

ตารางที่ 1 ผลการวิเคราะห์นวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการ บริษัท โอ เอส การาจ จำกัด

นวัตกรรมการบริการ	B	SE_b	Beta	t	Sig
ด้านข้อมูลสารสนเทศ	.098	.084	.076	1.160	.247
ด้านกระบวนการ	.128	.087	.089	1.466	.144
ด้านเทคโนโลยี	.303	.092	.238	3.294	.001**
ด้านสภาพแวดล้อม	.505	.093	.377	5.416	.000**

ค่าคงที่ 0.000; SE_{est} = .68636

R = .643; R^2 = .402; F = 37.122; p-value .000

จากตารางที่ 1 ผลการวิเคราะห์ปัจจัยนวัตกรรมการบริการแต่ละด้านพบว่า ปัจจัยนวัตกรรม การบริการด้านเทคโนโลยี และด้านสิ่งแวดล้อม มีค่าน้อยกว่า .05 จึงถือว่าปัจจัยทั้ง 2 ด้านส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด อย่างมีนัยสำคัญทางสถิติที่ระดับ .05 ด้วยค่าสัมประสิทธิ์ การถดถอยเท่ากับ .238 และ .377 ตามลำดับ ส่วนด้านข้อมูลสารสนเทศ และด้านกระบวนการมีค่า p-value มากกว่า .05 แสดงว่าทั้ง 2 ด้านไม่ส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด

อภิปรายผล

ผลการวิจัยพบว่าปัจจัยด้านเทคโนโลยีและด้านสิ่งแวดล้อมเป็นปัจจัยที่ส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด สอดคล้องกับงานวิจัยของ ปิยะภัทร์ สิริรัตนาวงศ์ (2561) ศึกษาเรื่อง ปัจจัยที่มีผลต่อการตัดสินใจเข้ารับบริการกิจการประเภทบำรุงรักษาและซ่อมแซมยานยนต์ ผลการวิจัยพบว่าปัจจัยด้านการบริการเป็นปัจจัยที่ลูกค้าให้ความสำคัญมากที่สุด ในเรื่องความชำนาญในการวิเคราะห์ปัญหาและแก้ไขได้ตรงจุด ความรวดเร็วในการให้บริการ และมีบริการ

บำรุงรักษาและซ่อมแซมยานยนต์ครบวงจร ปัจจัยด้านผลิตภัณฑ์เป็นปัจจัยรองลงมาในเรื่องการรับประกันคุณภาพของผลิตภัณฑ์และปัจจัยด้านสถานที่ในเรื่องของการมีพื้นที่เพียงพอต่อการเข้ารับบริการ และยังสอดคล้องกับแนวคิดของ Michael E. Porter (1990) ที่กล่าวว่านวัตกรรมเป็นสิ่งสำคัญที่ทำให้องค์การมีศักยภาพในการแข่งขัน โดยการนำเอาเทคโนโลยีใหม่และแนวทางในการทำสิ่งใหม่ๆ เข้าไว้ด้วยกัน

ผลการวิจัยยังพบว่าปัจจัยด้านข้อมูลสารสนเทศและด้านกระบวนการให้บริการไม่ส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด สอดคล้องกับงานวิจัยของสุภัชชา วิทยาคง (2559) ที่ศึกษาเรื่อง ปัจจัยที่ส่งผลต่อความภักดีต่อตราสินค้าของสายการบินต้นทุนต่ำของผู้ใช้บริการชาวไทย ผลการวิจัยพบว่าปัจจัยด้านกระบวนการให้บริการไม่ส่งผลต่อความภักดีต่อตราสินค้าของสายการบินต้นทุนต่ำของผู้ใช้บริการชาวไทย ผู้วิจัยมีความเห็นว่า การที่ปัจจัยด้านข้อมูลสารสนเทศและด้าน กระบวนการไม่ส่งผลต่อความภักดีของผู้รับบริการบริษัท โอ เอส การาจ จำกัด อาจมีสาเหตุจากการที่กลุ่มตัวอย่างที่เป็นผู้ตอบแบบสอบถามส่วนใหญ่เป็นลูกค้ากันมานาน มีความคุ้นเคย ความไว้วางใจ และได้รับความสะดวกต่อการให้บริการของช่างและเจ้าของบริษัทฯ อยู่แล้ว จึงไม่ได้ให้ความสนใจกับเรื่องข้อมูลสารสนเทศและกระบวนการในการให้บริการมากนัก เห็นได้จากข้อเสนอแนะของผู้ตอบแบบสอบถามซึ่งพบว่า ผู้รับบริการชื่นชมการให้บริการของบริษัท โอ เอส การาจ จำกัด ใน 3 ประเด็นหลักคือ การให้คำปรึกษาในด้านข้อมูลเกี่ยวกับการใช้รถและการซ่อมเครื่อง ความสามารถของช่าง ตลอดจนการมีน้ำใจของช่างและเจ้าของบริษัท โอ เอส การาจ จำกัด

ข้อเสนอแนะ

ควรนำผลการวิจัยครั้งนี้ไปศึกษาข้อมูลเชิงคุณภาพเพื่อให้ได้ข้อมูลเชิงลึก ที่สามารถนำมาพัฒนาได้อย่างตรงประเด็นมากยิ่งขึ้น และเพื่อให้ได้ทราบเหตุผลโดยเฉพาะปัจจัยด้านข้อมูลสารสนเทศ และด้านกระบวนการที่ไม่ส่งผลต่อการตัดสินใจใช้บริการ นอกจากนี้ควรมีการศึกษาร่วมกับปัจจัยอื่นๆ ที่เกี่ยวข้องหรือคาดว่าจะมีผลต่อความภักดีของผู้รับบริการ เพื่อให้ได้ข้อมูลเชิงลึกที่ครอบคลุมในทุกมิติและทุกแนวคิด ที่เกี่ยวข้อง

เอกสารอ้างอิง

กรมการขนส่งทางบก. (2562). *รายงานสถิติการขนส่ง ประจำปี 2562*. สืบค้นจาก https://data.go.th/.

กระทรวงวิทยาศาสตร์และเทคโนโลยี. (2556). *Service Research and Innovation Institute Asia Summit 2013*.สืบค้นจาก http://ictandservices.blogspot.com/.

กัลยา วาณิชย์บัญชา. (2557). *การใช้ SPSS for Windows ในการวิเคราะห์ข้อมูล*. พิมพ์ครั้งที่ 14. กรุงเทพฯ: สามลดา.

จารุภรณ์ ทองเคร็ง, ดวงรัตน์ โกยกิจเจริญ และ ณัฐวุฒิ บุญศรี. (2562). *พฤติกรรมการเลือกใช้บริการอู่ซ่อมรถยนต์ในจังหวัดกระบี่*. การค้นคว้าอิสระ คณะมนุษยศาสตร์และสังคมศาสตร์, มหาวิทยาลัยราชภัฏสงขลา.

ไชยพศ รื่นมล. (2558). *ปัจจัยที่ส่งผลต่อความจงรักภักดีของผู้ใช้บริการธุรกิจคาร์แคร์ในกรุงเทพมหานคร*. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยศิลปากร.

ปิยะภัทร์ สิริรัตนาวงศ์. (2561). *การศึกษาปัจจัยที่มีผลต่อการตัดสินใจเข้ารับบริการกิจการประเภทบำรุงรักษาและซ่อมแซมยานยนต์*. การค้นคว้าอิสระ วิศวกรรมศาสตรมหาบัณฑิต, มหาวิทยาลัยศิลปากร.

ประมวล มียอด. (2561). *คุณภาพบริการที่ส่งผลต่อความภักดีของลูกค้าในการใช้บริการตรวจสอบเครื่องมือวัดและเตือนภัยแก๊สรั่วในอุตสาหกรรมยานยนต์: กรณีศึกษา บริษัท เอ็มทูพี เทคโนโลยี จำกัด*. การค้นคว้าอิสระบริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี.

สุภัชชา วิทยาคง. (2559). *ปัจจัยที่ส่งผลต่อความภักดีต่อตราสินค้าของสายการบินต้นทุนต่ำของผู้ใช้บริการชาวไทย*. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

สำนักงานเลขาธิการสภาผู้แทนราษฎร. (2558). *นวัตกรรม: ก้าวใหม่ SMES สู่ธุรกิจยั่งยืน*. เอกสารวิชาการสำนักวิชาการ สำนักงานเลขาธิการสภาผู้แทนราษฎร.

Chang, H. H. and Chen, S. W. (2008). The Impact of Customer Interface Quality, Satisfaction and Switching Cost on e-loyalty: Internet Experience as a Moderator. *Computer in Human Behavior, 24*, 2927-2944.

Hair, Joseph F., Jr., Anderson, Rolph E., Tatham, Ronald L., & Black, William C. (1998). Multivariate Data Analysis. New Jersey: Prentice-Hall.

Jang, S. H., Kim, R. H., & Lee, C. W. (2016). Effect of u-healthcare Service quality on Usage Intention in a Healthcare Service. *Technological Forecasting and Social Change, 113*, 396-403.

Kotler, P., & Keller, K. (2009). *Marketing management*. 13th ed. Pearson Prentice Hall.

Kotler, P. (1994). *Marketing Management: Analysis Planning Implementation and Control*. 8th ed.Englewood cliffs: Prentice Hall.

Michael E. Porter. (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Morton, H.L. (1998). *Logic Design and Computer Organization*. Reading: Addison-Wesley.

Peter F. Drucker. (1985). The Discipline of Innovation, Harvard Business Review. Schumpeter.

J.A. (1934). *The Theory of Economic Development: An Inquiry into Profit, Capital, Credit, Interest and the Business Cycle*. Cambridge: Harvard University Press.

Stone, M., Woodcock, N., & Machtynger, L. (2000). *Customer Relationship Marketing: Get to Know Your Customers and Win Their Loyalty*. 2nd ed. London.

นวัตกรรมการบริการซ่อมบำรุงรถยนต์

The Service Innovation for Car Maintenance

ภัคพล จันทร์แพง / Pakaphon Junpaeng
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: os44garage@gmail.com

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

ศุภรา เจริญภูมิ / Suppara Charoenpoom
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: suppara.ch@ssru.ac.th

บทคัดย่อ

บทความนวัตกรรมการบริการซ่อมบำรุงรถยนต์มีวัตถุประสงค์เพื่อ ทบทวนวรรณกรรมที่เกี่ยวข้องกับนวัตกรรมการบริการและสร้างกรอบแนวคิดเพื่อนำไปพัฒนาสู่งานวิจัยนวัตกรรมการบริการที่ส่งผลต่อ ความภักดีของผู้รับบริการจากอู่ซ่อมรถยนต์ที่สมบูรณ์ต่อไปในอนาคต ผลการศึกษาพบว่า นวัตกรรมการบริการ ประกอบด้วยปัจจัย 4 ด้าน ได้แก่ ด้านข้อมูลสารสนเทศ ด้านกระบวนการ ด้านเทคโนโลยี และ ด้านสภาพแวดล้อม โดยปัจจัยดังกล่าวมีอิทธิพลต่อความภักดีของผู้รับบริการจากอู่ซ่อมรถยนต์ เนื้อหา ส่วนใหญ่ของบทความได้รวบรวมแนวคิดและทฤษฎีของนักวิชาการอย่างหลากหลาย เพื่อให้ทราบถึงรายละเอียดของนวัตกรรมการบริการและความภักดีของผู้รับบริการที่มีความชัดเจนมากขึ้น องค์ความรู้และ ข้อค้นพบจากบทความนี้ สามารถใช้เป็นแนวทางในการวิจัยนวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการจากอู่ซ่อมรถยนต์ ได้ และผู้ประกอบธุรกิจบริการทั่วไปสามารถนำข้อค้นพบด้านนวัตกรรม การบริการนี้ไปใช้เป็นเครื่องมือในการพัฒนาและปรับปรุงธุรกิจให้บรรลุเป้าหมายได้อย่างมีประสิทธิภาพ

คำสำคัญ: นวัตกรรมการบริการ, ซ่อมบำรุงรถยนต์

Abstract

The purposes of the services innovation for car maintenance article were to review the literature related with services innovation and created a conceptual framework to develop service innovation research that affects the loyalty of service recipients from a perfect car garage in the future. The results of the study found that customer loyalty from the garage is influenced by service innovation which is the independent variables and contains with 4 aspects which are information, process, technology, and environment. These 4 aspects influence the loyalty of service recipients. Most of the detail in this article contains a wide range of scholarly ideas and theories to acknowledge the details of service innovation and more obviously customer loyalty. Knowledge and findings from this article can be used as a guideline for research about service innovations that affected the loyalty of the service recipients. The car maintenance and general service business operators can use this finding of this research as an instrument to develop and improve the business to achieve its effective objectives.

Keywords: Service Innovation, Car Maintenance

บทนำ

เนื่องจากการขยายตัวเพิ่มขึ้นอย่างต่อเนื่องของปริมาณรถยนต์ อู่ซ่อมรถยนต์ซึ่งเป็นสถานที่สำคัญในการดูแลรักษาซ่อมแซมรถยนต์จึงมีการขยายตัวเพิ่มขึ้นเช่นกัน โดยในปัจจุบันมีอู่ซ่อมรถยนต์ที่ให้บริการ เป็นจำนวนมาก เนื่องจากการเปิดอู่ซ่อมรถยนต์เป็นงานบริการที่ไม่ต้องจดทะเบียนพาณิชย์ จึงทำให้ผู้ประกอบการอู่ซ่อมรถยนต์สามารถประกอบกิจการได้อย่างอิสระ เป็นผลให้ธุรกิจอู่ซ่อมรถยนต์มีการแข่งขันกันในระดับสูง (จารุภรณ์ ทองเครือ ดวงรัตน์ โกยกิจเจริญ และณัฐวุฒิ บุญศรี, 2562) ในสถานการณ์ การแข่งขันทางธุรกิจทุกระดับที่มีการเปลี่ยนแปลงอย่างรวดเร็วและกว้างขวางมากทั้งในด้านเศรษฐกิจ สังคม และเทคโนโลยี คุณภาพบริการจึงเป็นเรื่องสำคัญสำหรับการประกอบธุรกิจ เพราะเป็นเครื่องมือในการสร้างความแตกต่างและความสามารถในการแข่งขัน คุณภาพการบริการสามารถรักษาลูกค้าไว้ได้ในระยะยาว และมีความสัมพันธ์โดยตรงกับความมั่นคงของธุรกิจ (ภาวิณี ทองแย้ม, 2560 อ้างถึงใน ประมวล มียอด, 2561) ซึ่งในปัจจุบัน การ

แข่งขันของบริษัทรถยนต์มีมากขึ้นและรุนแรงมากขึ้นทั้งในด้าน ราคา คุณภาพ เทคโนโลยี อุปกรณ์ เครื่องมือเครื่องใช้ในการซ่อมบำรุงรักษารถยนต์ รวมทั้งระบบการให้บริการลูกค้าที่นำรถยนต์มาซ่อม ในหลายรูปแบบ นอกจากนี้ ระบบการให้บริการของการซ่อมบำรุงรักษารถยนต์ก็มีมากขึ้นและยกระดับ การให้บริการเป็นศูนย์บริการของรถยนต์ยี่ห้อต่างๆ ทั้งในส่วนที่ผลิตในประเทศไทยและการนำเข้า จากต่างประเทศโดยเฉพาะอย่างยิ่ง มีการนำเข้ารถยนต์ที่เรียกว่าซุปเปอร์คาร์ (Super Car) หรือเรียกในสังคมปัจจุบันว่ารถหรู ซึ่งมีราคาสูงกว่ารถยนต์โดยทั่วไปหลายเท่า ดังนั้น อู่ซ่อมรถยนต์จึงมีความจำเป็นที่จะต้องพัฒนาการให้บริการด้วยนวัตกรรมและเทคโนโลยีที่มีความทันสมัยเพื่อให้สอดคล้องและรองรับการซ่อมรถยนต์ทุกประเภท

ทั้งนี้ จากสถานการณ์การแพร่ระบาดของเชื้อไวรัสโควิด-19 (COVID-19) ส่งผลให้ผู้ประกอบการธุรกิจต่างๆ ได้รับผลกระทบทั้งจากทางตรงและทางอ้อม การยกระดับการให้บริการจึงเป็นกลยุทธ์สำคัญอีกประการ ที่จำเป็นในการพัฒนาคุณภาพการบริการเพื่อให้ผู้รับบริการเกิดความประทับใจต่อคุณภาพการให้บริการ ด้วยเหตุผลดังกล่าวข้างต้น ผู้วิจัยในฐานะเป็นผู้ประกอบการธุรกิจในด้านการให้บริการดูแลรักษาและซ่อมบำรุงรถยนต์ จึงสนใจที่จะทำการศึกษาข้อมูลแนวคิด ทฤษฎี และงานวิจัยที่เกี่ยวข้องเพื่อสร้างกรอบแนวคิดในการพัฒนาไปสู่งานวิจัยที่สมบูรณ์ในอนาคตของการศึกษานวัตกรรมการบริการที่ส่งผลต่อความภักดีของผู้รับบริการจากอู่ซ่อมรถยนต์

การทบทวนวรรณกรรม

1) แนวคิดและทฤษฎีเกี่ยวกับนวัตกรรมการบริการ

1.1) ความหมายของนวัตกรรม

Morton (1998) ได้ให้ความหมายของนวัตกรรมว่า เป็นการทำให้ใหม่ขึ้นอีกครั้ง (Renewal) ซึ่งเป็นการปรับปรุงสิ่งเก่า และพัฒนาศักยภาพของบุคลากร ตลอดจนหน่วยงานหรือองค์การนั้นๆ นวัตกรรมอาจไม่ใช่การขจัดหรือล้มล้างสิ่งเก่าๆ ให้หมดสิ้นไป แต่เป็นการปรับปรุง เสริมแต่ง และพัฒนา

Rogers (1995) ได้อธิบายไว้ว่า นวัตกรรมเป็นความคิดใหม่ซึ่งถูกค้นพบหรือใช้เป็นครั้งแรก เป็นการรับรู้ ถึงความใหม่ของความคิดที่เกิดขึ้น ถ้าความคิดนั้นใหม่สำหรับแต่ละคน สิ่งนั้นก็ถือเป็นนวัตกรรม และสามารถแบ่งนวัตกรรมออกเป็นระดับบุคคล และระดับองค์กร การพิจารณาว่าสิ่งหนึ่งสิ่งใดเป็นนวัตกรรมนั้น Rogers ได้ชี้ให้เห็นว่าขึ้นอยู่กับการรับรู้ของแต่ละบุคคลหรือกลุ่มบุคคลว่าเป็นสิ่งใหม่สำหรับเขา ดังนั้น นวัตกรรมของกลุ่มบุคคลใดบุคคลหนึ่ง อาจไม่ใช่นวัตกรรมของกลุ่มบุคคลอื่นๆ ก็ได้ ขึ้นอยู่กับการรับรู้ของบุคคลนั้นว่าเป็นสิ่งใหม่สำหรับเขาหรือไม่

Michael E. Porter (1990) ได้ให้ความหมายของนวัตกรรมไว้ว่า เป็นสิ่งสำคัญที่ทำให้องค์การ มีศักยภาพในการแข่งขัน และได้มองนวัตกรรมในความหมายที่กว้าง โดยรวมเอาเทคโนโลยีใหม่และแนวทาง ในการทำสิ่งต่างๆ เข้าไว้ด้วยกันสำนักงานนวัตกรรมแห่งชาติ (2558 อ้างถึงใน สำนักงานเลขาธิการสภาผู้แทนราษฎร, 2558) ได้ให้ความหมายของนวัตกรรมไว้ว่า คือสิ่งใหม่ที่เกิดจากการใช้ความรู้และความคิดสร้างสรรค์ที่มีประโยชน์ต่อเศรษฐกิจและสังคม นวัตกรรมเป็นกระบวนการที่เกิดจากการนำความรู้และความคิดสร้างสรรค์มาผนวกกับความสามารถในการบริหารจัดการ เพื่อสร้างให้เกิดเป็นธุรกิจนวัตกรรมหรือธุรกิจใหม่ ซึ่งจะนำไปสู่การลงทุนใหม่ที่ส่งผลต่อการเพิ่มขีดความสามารถในการแข่งขันของประเทศ

เสน่ห์ จุ้ยโต (2558) ได้ให้ความหมายของนวัตกรรมไว้ว่า หมายถึง การเปลี่ยนแปลงที่เกิดขึ้น ที่เป็นสิ่งใหม่และองค์การยอมรับเอาไปใช้ นวัตกรรมจึงก่อให้เกิดการเปลี่ยนแปลง และการเปลี่ยนแปลงที่เกิดขึ้นในทุกครั้งจำเป็นต้องมีนวัตกรรมเข้าไปเกี่ยวข้อง การเริ่มต้นของการเปลี่ยนแปลงหรือการเปลี่ยนแปลงก่อนคนอื่น องค์การจึงเรียกว่า “นวัตกรรม” นวัตกรรมเป็นความคิดสร้างสรรค์ประกอบด้วยกระบวนการบริหารและความคิดทางสังคมเพื่อรวบรวมให้เกิดการแก้ปัญหากลับไปใช้ภายในสังคมและภายใต้สถานการณ์ต่างๆ อีกทั้งยังเป็นกระบวนการสร้างสรรค์ความคิดใหม่และนำไปใช้ในทางปฏิบัติ มีผลทำให้วิธีการในการทำสิ่งต่างๆ ดีขึ้นกว่าเดิม ดังนั้น นวัตกรรมจึงเป็นผลที่เกิดจากการคิดค้นเพื่อนำไปสู่การปฏิบัติ เพื่อแก้ปัญหาของบุคคล กลุ่มบุคคล และองค์การในอนาคต

1.2) ความหมายของการบริการ

การบริการ (Service) เป็นกิจกรรมหรือกระบวนการในการดำเนินการอย่างใดอย่างหนึ่งของบุคคลหรือองค์กร เพื่อตอบสนองความต้องการของบุคคลอื่นให้ได้รับความสุขและความสะดวกสบายหรือ เกิดความพึงพอใจจากผลของการกระทำนั้น โดยมีลักษณะเฉพาะของตัวเอง ไม่สามารถจับต้องได้ ไม่สามารถครอบครองเป็นเจ้าของในรูปธรรม และไม่จำเป็นต้องรวมอยู่กับ สินค้าหรือผลิตภัณฑ์อื่นๆ ทั้งยังเกิดจากความเอื้ออาทร มีน้ำใจไมตรีเปี่ยมด้วยความปรารถนาดี ช่วยเหลือเกื้อกูลให้ความสะดวกรวดเร็ว ให้ความเป็นธรรมและความเสมอภาค หลักในการให้บริการนั้น ต้องตอบสนองความต้องการของบุคคลส่วนใหญ่ โดยดำเนินการไปอย่างต่อเนื่อง สม่ำเสมอ เท่าเทียมกันทุกคน ทั้งยังให้ความสะดวกสบายไม่สิ้นเปลืองทรัพยากรและไม่สร้างความยุ่งยากให้แก่ผู้ใช้บริการมากจนเกินไป (กุลธน ธนาพงศ์ธร, 2530 อ้างถึงใน ทิพย์วรรณ ภูมิเพ็ง, 2551)

Kotler (1994) กล่าวว่า การบริการ หมายถึงกิจกรรมใดๆ หรือการปฏิบัติที่กลุ่มหรือคณะใด คณะหนึ่งสามารถเสนอสิ่งสำคัญที่มองไม่เห็นเป็นตัวเป็นตน และไม่มีผลในการเป็นเจ้าของผลผลิตของ

บริการอาจเป็นหรือไม่เป็นผลิตภัณฑ์ก็ได้ โดยที่ลักษณะของการให้บริการแบ่งออกเป็น 4 ลักษณะ ได้แก่

1.2.1) ลักษณะการบริการที่ไม่สามารถจับต้องได้ (Intangibility) ดังนั้นกิจการจึงต้องหา หลักประกันที่แสดงถึงคุณภาพและประโยชน์จากบริการ ได้แก่ 1) สถานที่ (Place) ต้องสามารถสร้างความเชื่อมั่นและความสะดวกให้กับผู้มาติดต่อ 2) บุคคล (People) พนักงานบริการต้องแต่งตัวให้เหมาะสม บุคลิกดีพูดจาดี เพื่อให้ลูกค้าเกิดความประทับใจและเกิดความเชื่อมั่นว่าบริการจะดีด้วย 3) เครื่องมือ (Equipment) อุปกรณ์ที่เกี่ยวข้องกับการให้บริการ ต้องมีประสิทธิภาพ ให้บริการรวดเร็วและให้ลูกค้าพอใจ 4) วัสดุสื่อสาร (Communication material) สื่อโฆษณาและเอกสารการโฆษณาต่างๆ จะต้องสอดคล้องกับลักษณะของการบริการที่เสนอขายและลักษณะของลูกค้า 5) สัญลักษณ์ (Symbols) ชื่อ หรือเครื่องหมายตราสินค้าที่ใช้ในการบริการ เพื่อให้ผู้บริโภคเรียกได้ถูกต้องและสื่อความหมายได้ และ 6) ราคา (Price) โดยการกำหนดราคาควรเหมาะสมกับระดับการให้บริการที่ชัดเจน และง่ายต่อการจำแนกระดับบริการที่แตกต่างกัน

1.2.2) ลักษณะที่ไม่สามารถแบ่งแยกการให้บริการ (Inseparability) การให้บริการเป็นทั้งการผลิตและการบริโภคในขณะเดียวกัน ผู้ขายแต่ละรายจะมีลักษณะเฉพาะตัว ไม่สามารถให้คนอื่นให้บริการ แทนได้เพราะต้องผลิตและบริโภคในเวลาเดียวกัน ทำให้การขายบริการอยู่ในวงจำกัด ในเรื่องของเวลา

1.2.3) ลักษณะไม่แน่นอน (Variability) ลักษณะของการบริการไม่แน่นอน ขึ้นอยู่กับว่าผู้ขายบริการจะเป็นใครจะให้บริการเมื่อใด ที่ไหน อย่างไร

1.2.4) ลักษณะไม่สามารถเก็บไว้ได้ (Perish ability) บริการไม่สามารถเก็บไว้ได้เหมือนสินค้าอื่นๆ ดังนั้นถ้าลักษณะความต้องการไม่แน่นอน จะทำให้เกิดปัญหาหรือบริการไม่ทันหรือไม่มีลูกค้า

กล่าวโดยสรุป การบริการเป็นลักษณะงานที่จับต้องไม่ได้ ผลิตล่วงหน้าไว้ไม่ได้ เป็นการตอบสนองต่อความต้องการอย่างรวดเร็วและทันท่วงที และกิจกรรมต่างๆ ในการบริการ เช่น การดูแลลูกค้าอย่างทั่วถึงการให้บริการที่ตรงตามความต้องการของลูกค้า การให้คำปรึกษา เสนอแนะแนวทางเกี่ยวกับประโยชน์ที่ลูกค้าพึงจะได้รับเพื่อการตัดสินใจของลูกค้า รวมถึงการมีอัธยาศัยที่ดีของเจ้าหน้าที่ทุกคน เป็นต้น

1.3) ความหมายของนวัตกรรมการบริการ

Drejer (2004) กล่าวว่า นวัตกรรมการบริการหมายถึง การพัฒนาที่สัมฤทธิ์ผลของการบริการใหม่หรือสินค้าใหม่ รวมถึงกิจกรรมที่เป็นนวัตกรรมใหม่ๆ ทุก ระดับที่ต้องอยู่ภายใต้การแก้ไขและพัฒนา

Van Ark (2003) กล่าวว่า นวัตกรรมบริการเป็นข้อสรุปใหม่เกี่ยวกับเรื่องการบริการสำหรับธุรกิจในอันที่จะพัฒนาการสร้างปฏิสัมพันธ์กับลูกค้าในเรื่องระบบการส่งมอบการบริการ

Schumpeter (1934) กล่าวว่า นวัตกรรมเป็นสิ่งที่องค์กรควรให้ความสำคัญใน 5 เรื่อง ได้แก่ 1) การปรับปรุงผลิตภัณฑ์ใหม่ โดยการแนะนำผลิตภัณฑ์ใหม่หรือปรับเปลี่ยนคุณภาพผลิตภัณฑ์ที่มีอยู่แล้ว 2) การสร้างหรือแนะนำกระบวนการใหม่ให้เกิดขึ้นในอุตสาหกรรม 3) การสร้างตลาดใหม่ หรือ การเปิดตลาดใหม่ 4) การพัฒนาอุปทานของตลาดใหม่ โดยการดำเนินการด้านการจัดหาวัตถุดิบหรือปัจจัยการผลิตอื่นๆ และ 5) การปรับโครงสร้างหรือการพัฒนาองค์กร

1.4) ประเภทของนวัตกรรมการบริการ

Schumpeter (1934) ได้แบ่งประเภทของนวัตกรรมออกเป็น 4 ประเภท ได้แก่

1.4.1) Product Innovation เป็นการเปลี่ยนแปลงผลิตภัณฑ์หรือบริการขององค์กร เช่น การพัฒนาคอมพิวเตอร์โน๊ตบุ๊คให้มีประสิทธิภาพให้รวดเร็วขึ้น

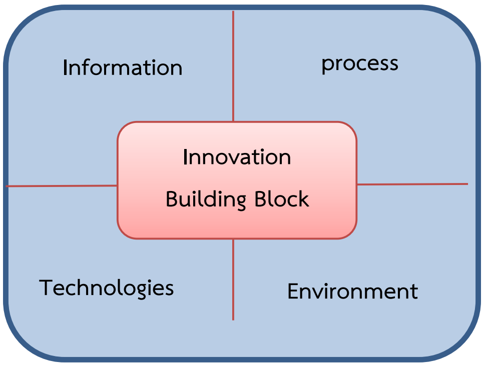
1.4.2) Process Innovation เป็นการเปลี่ยนแปลงกระบวนการผลิต หรือกระบวนการนำเสนอผลิตภัณฑ์ หรือกระบวนการนำนวัตกรรมสู่ตลาด เช่น Nokia ย้ายฐานการผลิตไปที่จีน หรือการเพิ่มนวัตกรรม PDA สามารถโทรศัพท์ได้

1.4.3) Position Innovation เป็นการเปลี่ยนแปลงรูปแบบของสินค้าหรือบริการ หรือเปลี่ยนตำแหน่งนวัตกรรมสินค้าหรือบริการที่เคยออกสู่ตลาดมาแล้วให้รับรู้ใหม่ เช่น Orange เคยถูกมองในตำแหน่ง Global Brand เป็น Premium Service แต่ถูกเปลี่ยนมาเป็นทรูมูฟ ซึ่งถูก Repositioning ให้ไปอยู่ตำแหน่ง Lifestyles ครองใจคนเมืองรุ่นใหม่อย่างประสบความสำเร็จ

1.4.4) Paradigm Innovation เป็นการมุ่งให้เกิดนวัตกรรมที่เปลี่ยนแปลงกรอบความคิด (Change in Mental Model) เช่น เดิมเชื่อว่าการผลิตรถยนต์ด้วยมือจะมีความประณีต ทั้งยังมีราคาแพง ผู้มีฐานะร่ำรวยเท่านั้นที่สามารถมีไว้ครอบครองได้ แต่ต่อมาการผลิตปริมาณมากแบบการผลิตจำนวนมากที่มีราคาที่เหมาะสม สามารถ Quality Control รถยนต์ให้มีสมรรถนะคงที่เท่ากันได้ดีกว่า หรือแม้กระทั่งการเชื่อว่าการเก็บเงินค่า Average Cost: AC กับประชาชนแบบกินเปล่าเป็นเรื่องที่ดีกับองค์กรแต่เมื่อมีการให้เก็บแบบ Inter Company: IC ตามการใช้งานจริง ทั้งยุติธรรมกับประชาชนแล้วยังทำให้สร้างรายได้เพิ่มมากขึ้นอีกด้วย เป็นต้น

1.5) องค์ประกอบของนวัตกรรมการบริการ

Service Research and Innovation Institute (SRII) Asia Summit (2013) ได้ทำการ สรุปไว้ว่าการสร้างนวัตกรรมบริการต้องอาศัยกรอบ (Framework) เพื่อใช้เป็นหลักยึดในกระบวนการของนวัตกรรมบริการ กรอบดังกล่าวเป็นส่วนประกอบโครงสร้าง หรือ Building Block ของนวัตกรรมบริการที่มีองค์ประกอบ 4 ส่วน โดยมีรายละเอียดดังแสดงในภาพที่ 1



ภาพที่ 1 ส่วนประกอบโครงสร้างนวัตกรรมการบริการ
ที่มา: กระทรวงวิทยาศาสตร์และเทคโนโลยี (2556)

จากภาพที่ 1 แสดงส่วนประกอบในการสร้างนวัตกรรมการบริการมีองค์ประกอบ 4 ส่วน ได้แก่

1.5.1) ข้อมูลสารสนเทศ (Information) หมายถึง วัตถุประสงค์หรือเป้าหมายของคุณค่า (Value) ที่คาดหวังจากผลงานของนวัตกรรมการบริการ รวมทั้งประเด็นเงื่อนไขข้อจำกัด กล่าวโดยสรุปคือการหาวิธีที่แก้ไขปัญหาให้กับลูกค้าหรือผู้รับบริการ ตัวอย่างเช่น ลูกค้าที่รับบริการใช้รถยนต์เพื่อเดินทางไปสถานที่ต่างๆ ข้อมูลนี้หมายถึง ลักษณะการบริการเช่ารถยนต์ เงื่อนไขที่เกี่ยวข้องการให้ความสะดวกแก่ผู้ใช้บริการที่ต้องรู้ตำแหน่งรับ-ส่งของรถ สามารถเปิดประตูและสตาร์ทเครื่องยนต์ได้โดยอาศัยกุญแจอิเล็กทรอนิกส์พิเศษ มีระบบการชำระเงินที่สะดวก เป็นต้น อาจถือได้ว่าเป็นคุณลักษณะหรือ Specification ของกลุ่มข้อเสนอที่จะถูกสร้างขึ้น

1.5.2) กระบวนการ (Process) หมายถึง ขั้นตอนการให้บริการในฝั่งผู้ให้บริการ และกระบวนการใช้บริการในฝั่งของผู้ใช้บริการเป็นส่วนสำคัญของนวัตกรรมการบริการ และเป็นทรัพย์สิน ทางปัญญาที่มีคุณค่ามาก เพราะจะเป็นส่วนที่มาจากแนวความคิดใหม่ๆ ที่ถือว่าเป็นนวัตกรรม โดยเฉพาะในยุคที่พัฒนาการด้านไอซีทีได้ก้าวหน้าไปมาก นวัตกรรมการบริการจะต้องสร้างขึ้นบนพื้นฐานของการใช้เทคโนโลยีสารสนเทศและการสื่อสาร โดยเฉพาะบรอดแบรนด์อินเทอร์เน็ตและอุปกรณ์พกพาไร้สาย

1.5.3) เทคโนโลยี (Technologies) เป็นเครื่องมือในการสนับสนุนกระบวนการ ที่เป็น ส่วนหนึ่งของข้อเสนอเพื่อสร้างคุณค่า รวมทั้งการเชื่อมโยงทรัพยากรทั้งจากแหล่งภายในและภายนอกองค์กรเพื่อร่วมกันสร้างข้อเสนอและสร้างคุณค่า จำเป็นต้องอาศัยระบบบริการ (Service System) ที่เป็นระบบไอซีที ที่สำคัญระบบบริการที่เป็นไอซีทียังใช้เป็นระบบส่งมอบ (Deliver System) ข้อเสนอให้ลูกค้านำไปสร้างคุณค่า ระบบบริการนี้จะถูกออกแบบให้สัมพันธ์กับข้อเสนอ และกระบวนการสร้างคุณค่า การออกแบบระบบบริการถือว่าเป็นส่วนสำคัญอีกส่วนหนึ่งของนวัตกรรมการบริการ

ตัวอย่างเช่น บริการรถยนต์เพื่อเดินทางสัญจร ประกอบด้วยเทคโนโลยีหลายด้าน เช่น เทคโนโลยีการใช้รหัสดาวโหลดลงในบัตรหรือในเครื่องโทรศัพท์เพื่อใช้เป็นกุญแจเปิดรถและสตาร์ทเครื่องยนต์ ระบบรับสัญญาณดาวเทียมเพื่อระบุตำแหน่งของรถยนต์ ระบบการชำระเงินออนไลน์ ระบบบริหารข้อมูลของสมาชิก ระบบควบคุมคุณภาพผลิตภัณฑ์

เป็นต้น

1.5.4) สภาพแวดล้อม (Environment) หมายถึง การรับรู้ถึงข้อมูลประวัติและภาวการณ์ (Profile) ของผู้รับบริการที่จะช่วยให้การสร้างคุณค่าร่วมกันระหว่างผู้ให้บริการกับผู้รับบริการเป็นไปอย่างมีประสิทธิผล โดยเป็นลักษณะของการพยายามเข้าใจบริบทต่างๆ ของผู้บริโภคเพื่อจะได้สามารถตอบคำถามลูกค้าในบริบทต่างๆ ได้ นอกจากนี้อาจหมายถึงสภาพแวดล้อมด้านอื่นๆ ที่ส่งผลต่อการออกแบบข้อเสนอและระบบบริการที่นำไปสู่การสนับสนุนให้ลูกค้า สร้างคุณค่าได้เต็มที่ ตัวอย่างเช่น ในรูปแบบธุรกิจของ IKEA การบริการให้ลูกค้ามีบ้านที่น่าอยู่ มีห้องรับแขกที่สบายตาสบายกาย จำเป็นต้องให้ลูกค้ามีส่วนในการออกแบบและเลือกรูปแบบเฟอร์นิเจอร์ที่เหมาะกับรสนิยมของตนเอง ซึ่งหมายถึงต้องมีสถานที่ที่แสดงการวางตำแหน่งเฟอร์นิเจอร์ลักษณะต่างๆ ให้ลูกค้าเกิดความคิด นอกจากนี้ ในกรณีที่ลูกค้าพาสมาชิกครอบครัวมาร่วมกันเลือกรูปแบบสินค้า หรืออาจมีนักออกแบบภายในมาช่วยกันออกแบบและเลือกเฟอร์นิเจอร์ เพื่อให้เกิดความพอใจแก่ทุกฝ่าย รวมทั้ง ในบางกรณี ลูกค้าอาจพาลูกหลานตัวน้อยๆ ไปร่วมสนุกด้วย ห้าง IKEA จะต้องจัดสถานที่โชว์รูมที่มี ขนาดใหญ่กว่าร้านเฟอร์นิเจอร์ทั่วไป พร้อมเครื่องมือ-เครื่องใช้อำนวยความสะดวก หลายอย่าง ตั้งแต่ ร้านอาหาร ที่นั่งเพื่อการปรึกษาหารือ รวมทั้งสถานที่เด็กเล่น ที่จะสนองตอบความต้องการของผู้บริโภคในบริบทที่แตกต่างกันได้

กล่าวโดยสรุป การทำให้เกิดนวัตกรรมบริการซ่อมบำรุงรถยนต์ที่สามารถนำไปใช้ได้จริง จำเป็นต่อการสร้างนวัตกรรมอย่างเป็นขั้นเป็นตอน อย่างเป็นระบบและต้องอาศัยกรอบ (Framework) ที่มีองค์ประกอบ 4 ส่วน ได้แก่ ข้อมูลสารสนเทศ (Information) กระบวนการ (Process) เทคโนโลยี (Technologies) และ สภาพแวดล้อม (Environment) ซึ่งเป็นจุดเริ่มต้นในการนำไปสู่การสร้างแนวคิดใหม่ ที่เป็นประโยชน์ต่อการสร้างนวัตกรรมการบริการในยุคดิจิทัล เนื่องจากนวัตกรรมการบริการจะสร้างอยู่ บนพื้นฐานของเทคโนโลยี ไอซีที ทำให้เกิดข้อเสนอในเชิงบริการที่มีคุณค่าอย่างแท้จริงและหลากหลาย

1) แนวคิดและทฤษฎีเกี่ยวกับความภักดี

Stone, Woodcock, and Machtynger (2000) กล่าวว่า ความภักดีแบ่งออกเป็น 2 ประเภท

ประเภทแรกได้แก่ ความภักดีด้านอารมณ์ หมายถึง ความไว้วางใจ ความเชื่อมั่น และ ความปรารถนาดีของผู้รับบริการที่มีต่อสินค้าหรือบริการของธุรกิจภายใต้สภาวะจิตใจที่รู้สึกยินดีเมื่อได้

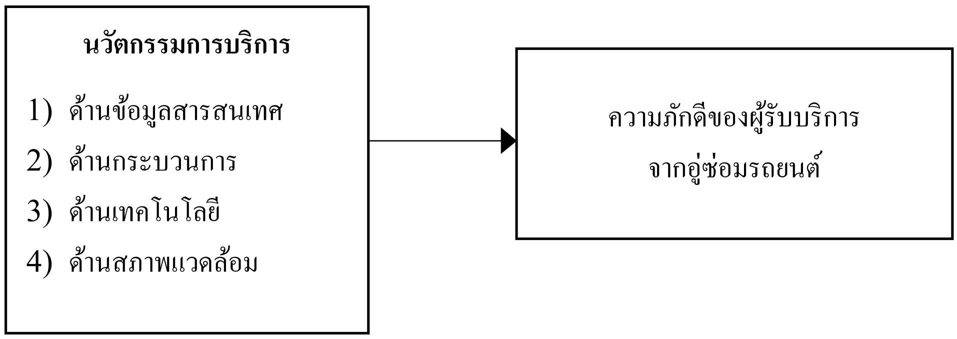
ใช้บริการ และประเภทที่สองได้แก่ ความภักดีที่เกิดจากเหตุผล หมายถึง การที่ผู้รับบริการได้รับการบริการและรู้สึกชื่นชอบเต็มใจที่ได้ใช้บริการ ซึ่งเป็นการตอบสนองความต้องการของผู้รับบริการและเติมเต็มในสิ่งที่ต้องการ นอกจากนี้ Chang and Chen (2008) ยังได้กล่าวว่า คุณภาพการบริการ คุณค่าที่ผู้รับบริการรับรู้ และความพึงพอใจของผู้รับบริการ สามารถใช้เป็นตัวทำนายความภักดีของผู้รับบริการได้ โดยที่คุณภาพการบริการเป็นความประทับใจของผู้รับบริการที่ได้รับบริการจากผู้ให้บริการเป็นอย่างดี คุณภาพการบริการถือเป็นหัวใจสำคัญในการขับเคลื่อนธุรกิจสู่ความสำเร็จเป็นหนึ่งในกลยุทธ์ของผู้ประกอบการในการผลิตสินค้าและบริการให้โดดเด่นและแตกต่าง (Jang, Kim & Lee, 2016) นอกจากนี้ คุณค่าที่รับรู้ยังเป็นความแตกต่างระหว่างคุณค่าที่ได้รับจากการใช้บริการเมื่อเทียบกับต้นทุนทั้งหมด โดยผู้รับบริการจะใช้บริการจากองค์กรที่มีการนำเสนอคุณค่าสูงสุด ที่ผู้รับบริการสามารถรับรู้ได้ (Kotler and Keller, 2009) จนเกิดความรู้สึกพึงพอใจโดยมีองค์ประกอบการวัดความพึงพอใจทั้งในด้านราคา ประสิทธิภาพของการให้บริการ ทัศนคติของลูกค้า ประสิทธิภาพโดยรวมของธุรกิจ และความใกล้ชิดกับธุรกิจ (Ostrom & Iacobucci, 1995)

2) งานวิจัยที่เกี่ยวข้อง

ไชยพศ รื่นมล (2558) ศึกษาเรื่อง ปัจจัยที่ส่งผลต่อความจงรักภักดีของผู้ใช้บริการธุรกิจคาร์แคร์ ในกรุงเทพมหานคร เป็นการวิจัยเชิงปริมาณ เก็บข้อมูลจากกลุ่มตัวอย่างได้แก่ลูกค้าจำนวน 400 คน โดยใช้วิธีการสุ่มตัวอย่างแบบตามความสะดวก ผลการวิจัยพบว่า ปัจจัยด้านกระบวนการ ด้านการสร้างและนำเสนอลักษณะทางกายภาพส่งผลต่อความจงรักภักดีในการใช้บริการคาร์แคร์ของผู้บริโภคในกรุงเทพมหานคร ชยาธร ฉันท์เรืองวณิชย์ (2563) ศึกษาเรื่อง นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจใช้บริการสอบบัญชีของบริษัทที่จดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย เป็นการวิจัยเชิงปริมาณ กลุ่มตัวอย่างได้แก่ พนักงาน ที่เกี่ยวข้องกับการบัญชีในบริษัทที่จดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทยจำนวน 230 คน ใช้วิธีการ สุ่มตัวอย่างแบบง่าย ผลการวิจัยพบว่าปัจจัยด้านสภาพแวดล้อมเป็นปัจจัยที่ส่งผลมากที่สุด รองลงมาคือ เทคโนโลยี และกระบวนการ ตามลำดับ นอกจากนี้ ณัฐนรี เศวตะดุล (2564) ศึกษาเรื่อง นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจใช้บริการร้านเมาท์เท่นคาเฟ่ จังหวัดระนอง เป็นการวิจัยเชิงปริมาณ เก็บข้อมูลจาก กลุ่มตัวอย่างลูกค้าที่มาใช้บริการร้านเมาท์เท่นคาเฟ่ จังหวัดระนอง จำนวน 300 คน ผลการวิจัยพบว่าปัจจัยด้านข้อมูลสารสนเทศ กระบวนการ เทคโนโลยี และสภาพแวดล้อม มีผลต่อการตัดสินใจใช้บริการร้านเมาท์เท่นคาเฟ่ จังหวัดระนอง อย่างมีนัยสำคัญทางสถิติที่ระดับ .05

บทสรุป

นวัตกรรมการบริการเป็นเครื่องมือที่สำคัญต่อธุรกิจการให้บริการซ่อมรถยนต์ ในการช่วยยกระดับการให้บริการ และเป็นกลยุทธ์สำคัญที่จำเป็นในการพัฒนาคุณภาพการบริการเพื่อให้ผู้รับบริการเกิดความประทับใจและความภักดีต่อคุณภาพการให้บริการ จากการทบทวนวรรณกรรมที่เกี่ยวข้อง ผู้วิจัยนำมาใช้เป็นแนวทางในการสร้างกรอบแนวคิด ดังแสดงในภาพที่ 2



ภาพที่ 2 กรอบแนวคิด

จากภาพที่ 2 แสดงให้เห็นถึงกรอบแนวคิดนวัตกรรมการบริการอู่ซ่อมรถยนต์โดยใช้แนวทางนวัตกรรมการบริการของกระทรวงวิทยาศาสตร์และเทคโนโลยี (2556) ที่มีองค์ประกอบสำคัญ 4 ด้าน ด้านแรกได้แก่ ข้อมูลสารสนเทศ เป็นการหาวิธีที่แก้ไขปัญหาให้กับผู้รับบริการ ด้านที่สองได้แก่ กระบวนการ เป็นขั้นตอนการให้บริการบนพื้นฐานของการนำเทคโนโลยีสารสนเทศและการสื่อสารมาใช้ให้เกิดประโยชน์และสร้างคุณค่าให้กับผู้รับบริการ ด้านที่สามได้แก่ เทคโนโลยี เป็นเครื่องมือในการสนับสนุนกระบวนการที่เป็น ส่วนหนึ่งของข้อเสนอเพื่อสร้างคุณค่า รวมทั้งการเชื่อมโยงทรัพยากรทั้งจากแหล่งภายในและภายนอกองค์กร และด้านสุดท้ายได้แก่ สภาพแวดล้อม ซึ่งหมายถึงสภาพแวดล้อมต่างๆ ที่ส่งผลต่อการออกแบบข้อเสนอและระบบบริการที่นำไปสู่การสนับสนุนให้ผู้รับบริการสร้างคุณค่าได้เต็มที่ โดยที่องค์ประกอบสำคัญทั้ง 4 ด้านดังกล่าวมีอิทธิพลต่อความภักดีของผู้รับบริการจากอู่ซ่อมรถยนต์

เอกสารอ้างอิง

กระทรวงวิทยาศาสตร์และเทคโนโลยี. (2556). *Service Research and Innovation Institute Asia Summit 2013*. สืบค้นจาก http://ictandservices.blogspot.com/.

จารุภรณ์ ทองเครือ, ดวงรัตน์ โกยกิจเจริญ และณัฐวุฒิ บุญศรี. (2562). *พฤติกรรมการเลือกใช้บริการอู่ซ่อมรถยนต์ในจังหวัดกระบี่*. การค้นคว้าอิสระ คณะมนุษยศาสตร์และสังคมศาสตร์, มหาวิทยาลัยราชภัฏสงขลา.

ชยาธร ฉันท์เรืองวณิชย์. (2563). *นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจใช้บริการสอบบัญชีของบริษัทที่จดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย*. การค้นคว้าอิสระ วิทยาลัยนวัตกรรมและการจัดการ,มหาวิทยาลัยราชภัฏสวนสุนันทา.

ไชยพศ รื่นมล. (2558). ปัจจัยที่ส่งผลต่อความจงรักภักดีของผู้ใช้บริการธุรกิจคาร์แคร์ในกรุงเทพมหานคร. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยศิลปากร.

ณัฐนรี เศวตะดุล. (2564). *นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจใช้บริการร้านเมาท์เท่นคาเฟ่จังหวัดระนอง*.การค้นคว้าอิสระ วิทยาลัยนวัตกรรมและการจัดการ, มหาวิทยาลัยราชภัฏสวนสุนันทา.

ทิพย์วรรณ ภูมิเพ็ง. (2551). *ความสัมพันธ์ระหว่างสิทธิการรักษาของผู้ป่วยกับคุณภาพบริการที่ได้รับของผู้ป่วยอุบัติเหตุและฉุกเฉินโรงพยาบาลมหาวิทยาลัยบูรพา*. ชลบุรี: มหาวิทยาลัยบูรพา.

ประมวล มียอด. (2561). *คุณภาพบริการที่ส่งผลต่อความภักดีของลูกค้าในการใช้บริการตรวจสอบเครื่องมือวัดและเตือนภัยแก๊สรั่วในอุตสาหกรรมยานยนต์: กรณีศึกษา บริษัท เอ็มทูพี เทคโนโลยี จำกัด*. การค้นคว้าอิสระบริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี.

สำนักงานเลขาธิการสภาผู้แทนราษฎร. (2558). *นวัตกรรม: ก้าวใหม่ SMES สู่ธุรกิจยั่งยืน*. เอกสารวิชาการสำนักวิชาการ สำนักงานเลขาธิการสภาผู้แทนราษฎร.

เสน่ห์ จุ้ยโต. (2558). *การพัฒนาตัวแบบการบริหารองค์กรปกครองส่วนท้องถิ่นสู่องค์การสมรรถนะสูง. วารสารอิเล็กทรอนิกส์การเรียนรู้ทางไกลเชิงนวัตกรรม*. สืบค้นจาก https://doi.nrct.go.th//ListDoi/listDetail?Resolve_DOI=10.14456/ejodil.2015.5.

Chang, H. H. and Chen, S. W. (2008). *The Impact of Customer Interface Quality, Satisfaction and Switching Cost on e-loyalty: Internet Experience as a Moderator*. Computer in Human Behavior, 24, 2927-2944.

Drejer, I. (2004). Identifying Innovation in Surveys of Services: A Schumpeterian Perspective. *Research Policy, 33*(3), 551-562.

Jang, S. H., Kim, R. H., & Lee, C. W. (2016). Effect of u-healthcare Service quality on Usage Intention in a Healthcare Service. *Technological Forecasting and Social Change, 113*, 396-403.

Kotler, P., & Keller, K. (2009). *Marketing management*. 13th ed. New Jersey: Pearson Prentice Hall.

Kotler, P. (1994). *Marketing Management: Analysis Planning Implementation and Control*. 8th ed. Englewood cliffs: Prentice-Hall.

Michael E. Porter (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Morton, H.L. (1998). *Logic Design and Computer Organization*. Reading: Addison-Wesley.

Ostrom A, Iacobucci D. (1995). Consumer Trade-offs and the Evaluation of Services. *J. Mark, 59*(1), 17-28.

Rogers, Everett M. (1995). *Diffusion of Innovations*. 4th ed. New York: Free Press.

Schumpeter, J.A. (1934). *The Theory of Economic Development: An Inquiry into Profit, Capital, Credit, Interest and the Business Cycle*. Cambridge: Harvard University Press.

Stone, M., Woodcock, N., & Machtynger, L. (2000). *Customer Relationship Marketing: Get to Know Your Customers and Win Their Loyalty*. 2nd ed. London.

Van Ark, B., Broersma, L. & den Hertog, P. (2003). Services Innovation, Performance and Policy. A review: on the Soft Side of innovation: Services Innovation and its Policy Implications. *Economist, 151*(4), 433.

นวัตกรรมการตลาดที่ส่งผลต่อความภักดีของลูกค้าในกลุ่มบริษัทโลจิสติกส์

Marketing innovation affecting to customer loyalty of logistic company group

คุณา ญาณสาร / Khuna Yanasarn
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: S63463829014@ssru.ac.th

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

วิไลลักษณ์ รักบำรุง / Wilailuk Rakbumrung
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: wilailuk.ra@ssru.ac.th

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์ 1) เพื่อศึกษาระดับความคิดเห็นเกี่ยวกับนวัตกรรมการตลาดในกลุ่มบริษัทโลจิสติกส์ 2) เพื่อศึกษานวัตกรรมการตลาดส่งผลต่อความภักดีของลูกค้าในกลุ่มบริษัทโลจิสติกส์ เป็นระเบียบวิธีการวิจัยเชิงปริมาณ เก็บรวบรวมข้อมูลจากกลุ่มตัวอย่างที่เป็นลูกค้าของในกลุ่มบริษัทโลจิสติกส์ จำนวน 240 คน โดยใช้วิธีการสุ่มแบบอย่างง่าย เครื่องมือที่ใช้ในการวิจัยคือแบบสอบถาม และทำการวิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา เพื่อหาค่าความถี่ ค่าร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน และวิเคราะห์ข้อมูลสถิติเชิงอนุมานด้วยการวิเคราะห์ความถดถอยแบบพหุ ผลการวิจัย พบว่า นวัตกรรมการตลาดส่งผลต่อความภักดีของลูกค้าในกลุ่มบริษัทโลจิสติกส์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 สามารถทำนาย ได้ร้อยละ 61.4 เมื่อทดสอบตัวแปรอิสระที่ส่งผลต่อตัวแปรตาม ผู้วิจัยอธิบายในรูปแบบของคะแนนดิบ พบว่า ตัวแปรที่สามารถพยากรณ์ได้มากที่สุดคือ คุณค่าเฉพาะตัว (ค่า B = .340, Sig. = .000) รองลงมาคือ การมุ่งตลาดเฉพาะกลุ่ม (ค่า B = .223, Sig. = .000) ความหลากหลายของผลิตภัณฑ์ (ค่า B = .189,

Sig. = .000) และการมุ่งเน้นที่ตัวลูกค้า (ค่า B = .144, Sig. = .020)

คำสำคัญ: นวัตกรรมการตลาด, ความภักดี, ลูกค้า, บริษัทโลจิสติกส์

Abstract

The objectives of this research were 1) to study the level of opinions on marketing innovations of logistic company group. 2) to study marketing innovations that affect customer loyalty of logistic company group. It is a quantitative research methodology. The data were collected from 240 customer sample of BD Plus Global Co., Ltd. using a simple random sampling method. The tool was a questionnaire. Data were analysed by descriptive statistics to find frequency, percentage, mean and standard deviation. Inferential statistical data were analysed by multiple regression analysis. The results showed marketing innovation affect customer loyalty of company with statistical significance at the 0.05 level which could predict by 61.4 percent. When test independent variables that affected dependent variables, explained in raw scores form, the most predictive variable is Unique proposition (B value = .340, Sig. = .000), followed by Market focus (B value = .223, Sig. = .000), Product variety (B value = .189, Sig. = .000) and Customer focus (B value = .144, Sig. = .020).

Keywords: Marketing innovation, loyalty, customer, logistic company

ความเป็นมาและความสำคัญของปัญหา

ธุรกิจโลจิสติกส์ในประเทศไทย มีแนวโน้มสัดส่วนต้นทุนโลจิสติกส์ต่อ GDP ในปี 2564 มีแนวโน้มปรับตัวดีขึ้น จากกิจกรรมทางเศรษฐกิจและอุปสงค์ในประเทศที่กลับมาขยายตัวและการฟื้นตัว ของเศรษฐกิจโลก โดยคาดว่าสัดส่วนต้นทุนโลจิสติกส์ของประเทศไทยปรับลดลง อยู่ที่ร้อยละ 13.8-14.0 ต่อ GDP อย่างไรก็ตาม ยังคงต้องประเมินปัจจัยเสี่ยง โดยเฉพาะความยืดเยื้อของการระบาดของ COVID-19 รวมทั้งแนวโน้มการปรับ เพิ่มขึ้นของราคาน้ำมันและค่าระวางเรือ (สำนักงานสภาพัฒนาการเศรษฐกิจและสังคมแห่งชาติ, 2563)

จากสถานการณ์การแพร่ระบาดของไวรัสโคโรน่า หรือโควิด-19 ได้ส่งผลกระทบต่ออุตสาหกรรมโลจิสติกส์ไทย โดยเฉพาะต่อธุรกิจการขนส่งสินค้าระหว่างประเทศที่หยุดชะงัก อย่างไรก็ดี ธุรกิจที่เกี่ยวข้องกับการขนส่งสินค้าภายในประเทศยังเติบโตได้ดี โดยเฉพาะธุรกิจซื้อ

ขายสินค้าออนไลน์ ธุรกิจขนส่งอาหาร ธุรกิจขนส่งพัสดุแบบเร่งด่วน และเมื่อมองไปข้างหน้า อุตสาหกรรมโลจิสติกส์ในประเทศไทยก็มีแนวโน้มเติบโตดี โดยเฉพาะธุรกิจที่เกี่ยวข้องกับอีคอมเมิร์ซ ตามพฤติกรรมของผู้บริโภคที่เปลี่ยนแปลงต่อเนื่องจากวิกฤติโควิด ซึ่งกระตุ้นให้การซื้อขายออนไลน์ในกลุ่มสินค้าอุปโภคบริโภคเติบโตอย่างก้าวกระโดด (สุพริศร์ สุวรรณิก, 2564) เพื่อเป็นการปรับตัวต่อสถานการณ์โควิด-19 และการเปลี่ยนแปลงของเศรษฐกิจ สังคม เทคโนโลยี รวมถึงพฤติกรรมผู้บริโภค ผู้ประกอบการโลจิสต์ติกส์มีการปรับกลยุทธ์ทางการตลาด โดยธุรกิจส่วนใหญ่ได้มีการนำนวัตกรรมเข้ามาช่วยในการดำเนินธุรกิจ ซึ่งนวัตกรรมการตลาดคือการสร้างสรรค์รูปแบบหรือแนวคิดใหม่ในการทำธุรกิจ เป็นผลสำเร็จของนวัตกรรมที่สามารถตอบรับความต้องการของผู้บริโภค มีการตลาด มีวิธีการทำงาน และมีการบริหารจัดการองค์กรที่ดี นวัตกรรมตลาดส่งผลทำให้ธุรกิจตัวแทนรับจัดการการขนส่งระหว่างประเทศและในประเทศเกิดการพัฒนา ทำให้เกิดผลกำไรและคุณค่าขององค์กรแก่ผู้มีส่วนได้ส่วนเสีย ด้านคุณภาพการบริการ เนื่องจากธุรกิจตัวแทนรับจัดการการขนส่งระหว่างประเทศและในประเทศเป็นธุรกิจประเภทงานบริการ (ณัฐพร ดิสนีเวทย์, 2559)

จากความสำคัญในข้างต้น ผู้วิจัยจึงสนใจที่จะศึกษา นวัตกรรมการตลาดที่ส่งผลต่อความภักดีของลูกค้าในกลุ่มบริษัทโลจิสติกส์ เพื่อนำผลวิจัยไปปรับใช้เป็นกลยุทธ์ในการบริหารจัดการงานด้านโลจิสต์ในมีประสิทธิภาพทันต่อการเปลี่ยนแปลง

การทบทวนวรรณกรรม

นวัตกรรมการตลาด (Marketing Innovation)

นวัตกรรมการตลาดได้ถูกจัดไว้เป็นด้านหนึ่งของนวัตกรรมโดยนักวิชาการหลายท่าน การตลาด (Marketing) หมายถึง กิจกรรมต่างๆ ทางธุรกิจที่เกิดขึ้นเพื่อให้สินค้าหรือบริการเปลี่ยนจากผู้ผลิตไปสู่ผู้บริโภค (Drucker, 1985) สามารถตอบสนองความพอใจและความต้องการต่างๆ ของผู้บริโภคได้ (Kotler, 1999) โดยกิจกรรมทางการตลาดถูกกำหนดขึ้นเพื่อวางแผนการดำเนินงาน การกำหนดราคา ส่งเสริมการจำหน่าย การกระจายสินค้าและบริการ นวัตกรรมการตลาด (Marketing innovation) เป็นการกล่าวถึงรูปแบบของนวัตกรรมที่เกี่ยวข้องกับการปรับปรุงส่วนประสมทางการตลาด (Marketing mix) ในกลุ่มลูกค้าเป้าหมายและการกำหนดว่าจะเลือกผลิตภัณฑ์หรือบริการในตลาดใดที่เหมาะสมที่สุด ทั้งนี้นวัตกรรมตลาดมีจุดมุ่งหมายที่จะกำหนดตลาดใหม่ที่มีศักยภาพ รวมถึงรูปแบบใหม่ในการนำเสนอผลิตภัณฑ์และบริการ การคัดเลือกตลาดในการนำเสนอผลิตภัณฑ์หรือบริการแก่ลูกค้ากลุ่มเป้าหมายให้ดีขึ้นกว่าเดิม โดยใช้แนวคิดของ (Lin, Chen, and Chiu, 2010) ซึ่งเป็นการปรับใช้วิธีทางการตลาดใหม่ ประกอบด้วย การเปลี่ยนแปลงตลาดใหม่

รูปแบบการกำหนดราคาใหม่ การเปลี่ยนแปลงช่องทางการจัดจำหน่าย และการพัฒนาการส่งเสริมการตลาด Naidoo (2010) ยังได้กล่าวว่านวัตกรรมการตลาด (Marketing innovation) เป็นกระบวนการทางการตลาดที่กำหนดขึ้นเพื่อทำการปรับปรุงส่วนประสมทางการตลาด (Marketing mix) ช่วยให้ธุรกิจสามารถแข่งขันและอยู่รอดภายใต้ความท้าทายทางเศรษฐกิจในปัจจุบัน นวัตกรรมการตลาดเข้าช่วยในการพัฒนาและสร้างความเปรียบในการแข่งขันแบบยั่งยืนบนพื้นฐานของความแตกต่างและกลยุทธ์ผู้นำด้านต้นทุน (Naidoo, 2010)

งานวิจัยของ Michele O'Dwyera, Audrey Gilmoreb and David Carsonb (2009) ได้ทำการศึกษางานวิจัยที่เกี่ยวข้องกับนวัตกรรมการตลาดในธุรกิจขนาดย่อม (SMEs) เพื่อนำมาพัฒนากรอบแนวคิดในการทำการตลาดเชิงนวัตกรรมพบว่าองค์ประกอบสำคัญของนวัตกรรมการตลาดสำหรับธุรกิจขนาดย่อมประกอบด้วยดังนี้ 1) คุณค่าเฉพาะตัว (Unique proposition) หมายถึง สิ่งที่เป็นเอกลักษณะและความที่ไม่เป็นตามแบบแผนเดิมที่เคยมีมา มีคุณค่าเฉพาะตัวไม่ซ้ำใคร ซึ่งคุณค่าเฉพาะตัวนี้ หรือการนำซึ่งการนำนวัตกรรมมาสร้างความแตกต่างจะส่งผลทำเกิดสร้างมูลค่าเพิ่มทางการตลาดที่จะช่วยให้บรรลุความได้เปรียบทางการแข่งขัน 2) การมุ่งเน้นที่ตัวลูกค้า (Customer focus) หมายถึง การยึดลูกค้าเป็นศูนย์กลางในการทำตลาด เพื่อตอบสนองต่อความต้องการของลูกค้า โดยมุ่งเน้นไปที่การสร้างความพึงพอใจให้เกิดขึ้นแก่ลูกค้า ซึ่งการกำหนดเป้าหมายของลูกค้าเป็นสิ่งสำคัญ จะช่วยนำไปสู่ความสำเร็จทางธุรกิจ 3) การมุ่งตลาดเฉพาะกลุ่ม (Market focus) หมายถึง การยึดตลาดเป็นศูนย์กลางโดยก่อนจะตัดสินใจเลือกกลุ่มลูกค้าเพื่อทำการตลาดของการให้บริการ อาศัยการวิเคราะห์ข้อมูลของตลาดเพื่อจะนำไปสู่การเป็นผู้นำของตลาดและการกำหนดราคาที่เหมาะสม 4) ความหลากหลายของผลิตภัณฑ์ (Product variety) หมายถึง การพัฒนาต่อยอดผลิตภัณฑ์ ซึ่งการพัฒนาผลิตภัณฑ์เป็นสิ่งที่ทำให้ธุรกิจเจริญก้าวหน้าอย่างต่อเนื่อง ดังนั้นต้องหาแนวทางการต่อยอดให้กับผลิตภัณฑ์อย่างสม่ำเสมอ 5) การเปลี่ยนแปลง (Modification) หมายถึง การที่องค์กรมีความสามารถในการเปลี่ยนแปลงในด้านต่างๆ ไปสู่ผลผลิตรูปแบบใหม่ที่เป็นไปตามความต้องการของลูกค้า 6) การสื่อสารการตลาดแบบบูรณาการ (Integrated marketing communication) หมายถึง การใช้ช่องทางในการโฆษณาและประชาสัมพันธ์ร่วมกันหลากหลายช่องทางเพื่อสร้างการรับรู้ การยอมรับผลิตภัณฑ์ให้แก่ลูกค้า

ความภักดีของลูกค้าต่อองค์กร (Customer Loyalty)

วรรณพร ไกรเลิศ (2547) ให้ความหมายของความภักดีต่อตราสินค้าไว้ว่าหมายถึง การที่ลูกค้าตระหนักได้ถึงความภักดีของธุรกิจในการพยายามจะส่งมอบสินค้าหรือบริการที่ดีมีคุณภาพ และคุ้มค่า เพื่อให้สามารถตอบสนองความต้องการของลูกค้าได้ ทำให้เกิดเป็นความเข้าใจอันดีงามในใจลูกค้า ซึ่งส่งผลต่อพฤติกรรมการซื้อที่ถี่ขึ้น จนเกิดเป็นความผูกพันต่อตราสินค้านั้นๆ และรู้สึกภักดี

ในที่สุด แต่สาหรับลูกค้าที่รู้สึกว่าตนเองเป็นเพียงหนึ่งในผู้บริโภคหลายร้อยคนของธุรกิจ ก็จะไม่รู้สึกผูกพันใดๆ และไม่เกิดเป็นความภักดีต่อตราสินค้าด้วยเช่นกัน ในด้านองค์ประกอบของความจงรักภักดี โดยทั่วไปจะแบ่งลูกค้าเป็นสองกลุ่มหลัก คือ 1) ความจงรักภักดีด้านพฤติกรรม ซึ่งเป็นการแสดงออก ที่สามารถมองเห็นได้ชัดเจนจากการกระทำ ผู้บริโภคเกิดการซื้อหรือใช้สินค้าและบริการซ้ำๆ การบอกต่อหรือการแนะนำ ผู้อื่น ให้มาใช้สินค้าหรือบริการ และ 2) ความภักดีด้านทัศนคติ คือ การวัดความคิดและความรู้สึกผูกพันของผู้บริโภคต่อองค์กรเช่นการชมเชยและมีความตั้งใจซื้อซ้ำ (Ivanauskiene & Auruskevicien, 2009) ณัฐพร ดิสนีเวทย์ (2559) ได้อธิบายและสรุปความจงรักภักดีมีทั้งหมด 6 ระดับ คือ 1) กลุ่มบุคคลที่มีการคาดการณ์ไว้ว่าน่าจะเป็นลูกค้า (Suspect) เป็นกลุ่มบุคคลโดยทั่วไปที่องค์การหรือธุรกิจคาดการณ์ว่าน่าจะเป็นผู้ที่ซื้อและใช้สินค้าของธุรกิจ 2) ผู้ที่มีโอกาสว่าจะซื้อและใช้สินค้า (Prospect) เป็นกลุ่มลูกค้าที่ถูกพิจารณาและไตร่ตรองจากกลุ่มที่คาดว่าจะเป็นลูกค้าว่าเป็นผู้ที่มีศักยภาพและความสามารถที่น่าจะซื้อและใช้สินค้าของธุรกิจ 3) กลุ่มลูกค้าที่เลือกซื้อและเลือกใช้บริการเป็นครั้งแรก (First Time Customer) เป็นกลุ่มลูกค้าที่ได้มีการตัดสินใจเลือกซื้อและเลือกใช้สินค้าขององค์กร 4) กลุ่มลูกค้าที่ซื้อหรือใช้สินค้าซ้ำ (Repeat Customer) เป็นกลุ่มลูกค้าที่เกิดความพึงพอใจและความประทับใจในตัวสินค้าของธุรกิจจนเกิดการซื้อหรือใช้สินค้าขององค์การซ้ำ 5) กลุ่มลูกค้าประจำ (Client) กลุ่มลูกค้าที่จะทำการซื้อสินค้าและใช้สินค้าอย่างปกติ 6) กลุ่มลูกค้าผู้ภักดี (Advocate) เป็นกลุ่มลูกค้าที่คอยสนับสนุนธุรกิจอย่างต่อเนื่องด้วยดีตลอดมา และมีความพร้อมที่จะแก้ต่างให้แก่องค์การหากมีใครเข้าใจผิดหรือมีทัศนคติแง่ลบที่ผิดๆ ต่อธุรกิจ

ในทางธุรกิจ ความพึงพอในของลูกค้าเป็นปัจจัยให้เกิดความภักดีของลูกค้า ซึ่งลูกค้าที่มีมีความพอใจจะกลายเป็นลูกค้าที่ภักดีต่อองค์กร (Wajeetongratana, Joemsittiprasert & Jermsittiparsert, 2019) หากกล่าวถึงในทางธุรกิจแล้วระดับกลุ่มลูกค้าผู้ภักดีถือว่ามีความสำคัญต่อธุรกิจเป็นอย่างมาก ความจงรักภักดีของลูกค้าถือว่าเป็นสินทรัพย์ที่สำคัญของการทำธุรกิจ (Srivastava, Shervani & Fahey, 2000; Aaker, 1991) เพราะความจงรักภักดีของลูกค้าส่งผลให้ธุรกิจสามารถลดต้นทุนในการประชาสัมพันธ์สินค้าหรือการหาตลาด รวมถึงการสร้างลูกค้ากลุ่มใหม่ (Aaker, 1991) และที่สำคัญ คือ ความจงรักภักดีของลูกค้าจะช่วยป้องกันส่วนแบ่งตลาดตลอดจนช่วงชิงลูกค้า จากคู่ แข่งขัน (Dunn, 1997) รวมทั้งทำให้เกิดลูกค้ารายใหม่ เพิ่มขึ้นเรื่อยๆ และเมื่อธุรกิจสามารถรักษาฐาน ลูกค้าเก่าพร้อมทั้งเพิ่มจำนวนลูกค้าใหม่ ธุรกิจก็จะมียอดขายเพิ่มขึ้น และ ความสามารถในการทำกำไรของธุรกิจก็สูงขึ้นเช่นกัน เพิ่มขีดความสารมารถในการแข่งขัน ดังนั้น ผลลัพธ์ที่ได้จากการสร้างความ ภักดีของลูกค้าจึงเป็นรากฐานที่สำคัญของธุรกิจที่จะนำไปสู่ความสำเร็จในธุรกิจระยะยาว (Oliver, 1997)

กรอบแนวคิดการวิจัย

งานวิจัยเรื่องนวัตกรรมการตลาดที่ส่งผลต่อความภักดีของลูกค้าในกลุ่มบริษัทโลจิสติกส์ ผู้วิจัยได้ศึกษาเอกสาร ทฤษฎี และงานวิจัยที่เกี่ยวข้องกับนวัตกรรมการตลาด โดยใช้ทฤษฎีของ Michele O'Dwyera, Audrey Gilmoreb and David Carsonb (2009) และทฤษฎีด้านความภักดีของ Aaker (1991), Dunn (1997), Oliver (1997), Srivastava, Shervani, & Fahey (2000) โดยสามารถเขียนเป็นกรอบแนวคิดการวิจัยได้ดังภาพที่ 1

ตัวแปรอิสระ **ตัวแปรตาม**

นวัตกรรมการตลาด
1) คุณค่าเฉพาะตัว (Unique Proposition)
2) การมุ่งเน้นที่ตัวลูกค้า (Customer Focus)
3) การมุ่งตลาดเฉพาะกลุ่ม (Market Focus)
4) ความหลากหลายของผลิตภัณฑ์ (Product Variety)
5) การเปลี่ยนแปลง (Modification)
6) การสื่อสารการตลาดแบบบูรณาการ (Integrated Marketing Communication)

→

ความภักดีของลูกค้า
ในกลุ่มบริษัทโลจิสติกส์

ภาพที่ 1 กรอบแนวคิดการวิจัย

วิธีการวิจัย

ประชากรและตัวอย่าง

ประชากรในการศึกษาวิจัยครั้งนี้คือ ลูกค้าของบริษัทในกลุ่มโลจิสติกส์ จำนวน 598 รายจากฐานข้อมูล ณ วันที่ 31 ตุลาคม 2563 โดยใช้ลูกค้าในฐานข้อมูลบริษัท บีดี พลัส โกลบอล จำกัด กลุ่มตัวอย่าง คือ ลูกค้าของบริษัทในกลุ่มโลจิสติกส์ โดยใช้ลูกค้าในฐานข้อมูลบริษัท บีดี พลัส โกลบอล จำกัด ผู้วิจัยใช้สูตรของทาโร่ ยามาเน่ (Yamane, 1973: 194) มีระดับความเชื่อมั่นอยู่ที่ 95 เปอร์เซ็นต์ และความคลาดเคลื่อนที่ยอมให้เกิดขึ้นได้เท่ากับ 5 เปอร์เซ็นต์เพื่อคำนวณหาจำนวนกลุ่มตัวอย่าง ได้จำนวน 240 คน ในการวิจัยครั้งนี้ ผู้วิจัยได้ทำการสุ่มตัวอย่างด้วยวิธีการสุ่มตัวอย่างแบบอย่างง่าย (Simple Random Sampling) ทำการสุ่มตัวอย่างจากกรอบตัวอย่าง โดยใช้โปรแกรมทางสถิติจัดทำตารางเลขสุ่ม

การเก็บรวบรวมและการวิเคราะห์ข้อมูล

เก็บรวบรวมข้อมูลด้วยแบบสอบถาม กับกลุ่มตัวอย่าง จำนวน 240 คน ทำแบบสอบถามที่พร้อมใช้เป็น Google Form แล้วส่งให้กลุ่มตัวอย่างแต่ละรายทางออนไลน์ และทำการวิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา เพื่อหาค่าความถี่ ค่าร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน และวิเคราะห์ข้อมูลสถิติเชิงอนุมานด้วยการวิเคราะห์ความถดถอยแบบพหุ

ผลการวิจัย

ด้านลักษณะประชากรศาสตร์ พบว่า เพศ ผู้ตอบแบบสอบถามส่วนใหญ่เป็นเพศหญิง จำนวน 129 คน คิดเป็นร้อยละ 53.75 อายุ ส่วนใหญ่มีอายุระหว่าง 30-40 ปี จำนวน 140 คน คิดเป็นร้อยละ 58.33 ระดับการศึกษา พบว่า มีการศึกษาอยู่ระดับปริญญาตรี จำนวน 165 คน คิดเป็นร้อยละ 68.75 รายได้ต่อเดือน พบว่า ผู้ตอบแบบสอบถามส่วนใหญ่มีรายได้อยู่ระหว่าง 30,001-40,000 บาท จำนวน 99 คน คิดเป็นร้อยละ 41.25

ผลการวิเคราะห์ข้อมูลระดับความคิดเห็นเกี่ยวกับนวัตกรรมการตลาด ภาพรวมอยู่ในระดับมาก โดยมีค่าเฉลี่ยเท่ากับ 4.06 เมื่อพิจารณาเป็นรายด้าน พบว่า มีด้านที่แปลผลได้ระดับมากที่สุด ได้แก่ ด้านความหลากหลายของผลิตภัณฑ์ มีค่าเฉลี่ยเท่ากับ 4.21 รองลงมาคือ ด้านคุณค่าเฉพาะตัว และด้านการมุ่งเน้นที่ตัวลูกค้า มีค่าเฉลี่ยอยู่ที่ 4.08 และด้านที่มีระดับความคิดเห็นน้อยที่สุดคือ การสื่อสารการตลาดแบบบูรณาการ มีค่าเฉลี่ยอยู่ที่ 3.87

ผลการศึกษาระดับความคิดเห็นด้านความภักดี พบว่า ภาพรวมมีค่าเฉลี่ยเท่ากับ 4.06 แปลผลได้ระดับมาก เมื่อพิจารณาเป็นรายข้อ พบว่า ทุกข้อแปลผลได้ระดับมาก ซึ่งข้อที่มีค่าเฉลี่ยเป็นลำดับแรกคือ มีความตั้งใจที่จะใช้บริการของบริษัทในครั้งต่อไป มีค่าเฉลี่ยเท่ากับ 4.17 รองลงมาคือ มีความตั้งใจจะกลับมาใช้บริการอย่างต่อเนื่องในอนาคต มีค่าเฉลี่ยเท่ากับ 4.13 และด้านที่น้อยที่สุดคือ จะรีวิวการใช้บริการของบริษัทลงบนสื่อออนไลน์ เพื่อจะนำเสนอข้อดี-ข้อเสีย จากประสบการณ์การใช้งาน เช่น Facebook, Instagram เป็นต้น มีค่าเฉลี่ยเท่ากับ 3.87

ผลการวิจัยด้านนวัตกรรมตลาดที่ส่งผลต่อความภักดีของลูกค้า ดังตารางที่ 1

ตารางที่ 1 Coefficients

ตัวแปร	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
ค่าคงที่ (Constant)	.388	.192		2.021	.044*		
X_1-คุณค่าเฉพาะตัว	.340	.065	.330	5.256	.000*	.411	2.435
X_3-การมุ่งตลาดเฉพาะกลุ่ม	.223	.055	.240	4.058	.000*	.461	2.169
X_4-ความหลากหลายของผลิตภัณฑ์	.189	.046	.205	4.075	.000*	.6337	1.570
X_2-การมุ่งเน้นที่ตัวลูกค้า	.144	.062	.158	2.335	.020*	.354	2.825
R = .787; R^2 = .620; Adjusted R^{2} = .614							

* มีนัยสำคัญทางสถิติที่ระดับ 0.05

จากตารางที่ 1 พบว่า ค่า Adjusted R2 เท่ากับ .614 หมายถึง ปัจจัยนวัตกรรมการตลาดส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกบอล จำกัด สามารถอธิบายได้ร้อยละ 61.4 เมื่อทดสอบตัวแปรอิสระที่ส่งผลต่อตัวแปรตามครั้งละ 1 ตัวจากตารางที่ 1 ผู้วิจัยอธิบายในรูปแบบของคะแนนดิบ พบว่า ตัวแปรที่สามารถพยากรณ์ ได้มากที่สุดคือ คุณค่าเฉพาะตัว (ค่า B = .340, Sig. = .000) รองลงมาคือ การมุ่งตลาดเฉพาะกลุ่ม (ค่า B = .223, Sig. = .000) ความหลากหลายของผลิตภัณฑ์ (ค่า B = .189, Sig. = .000) และการมุ่งเน้นตัวลูกค้า (ค่า B = .144, Sig. = .020) สามารถนำมาเขียนเป็นสมการความถดถอยได้ดังนี้

$$\hat{Y} = .388 + .340(X_1) + .223(X_3) + .189(X_4) + .144(X_2)$$

สรุปและอภิปรายผลการวิจัย

ผลการวิจัยพบว่า นวัตกรรมการตลาดด้านความหลากหลายของผลิตภัณฑ์ ด้านคุณค่าเฉพาะตัว ด้านการมุ่งเน้นที่ตัวลูกค้า ด้านการเปลี่ยนแปลง ส่งผลต่อความภักดีของลูกค้าบริษัทบีดี พลัส โกลบอล จำกัด อภิปรายได้ดังนี้

1) นวัตกรรมการตลาดด้านคุณค่าเฉพาะตัว ส่งผลต่อความภักดีของลูกค้าบริษัทมากที่สุด เนื่องจากบริษัทนำเสนอ

แบรนด์ของบริษัทให้โดดเด่นเฉพาะตัวในตลาด นำเสนอการบริการใหม่ด้านงานโลจิสติกส์ที่มีความโดดเด่นเฉพาะตัวในตลาด มีรูปแบบโดดเด่น ที่ทันสมัย บริษัทมีความรับผิดชอบในการให้บริการและตอบสนองความต้องการได้อย่างรวดเร็วและทันที อีกทั้งบริษัทยังมีการพัฒนาบุคลากร จัดฝึกอบรมให้พนักงานมีความเชี่ยวชาญในงานโลจิสติกส์อย่างสม่ำเสมอ ส่งให้ลูกค้ามีความเชื่อมั่นและวางใจในการเลือกใช้บริการกับทางบริษัท สอดคล้องกับงานวิจัยของ Manar, May, and Olga (2012) ที่ได้ศึกษากลยุทธ์การตลาดเชิงนวัตกรรมเพื่อส่งเสริมวิทยาลัยไอที: กรณีศึกษามหาวิทยาลัย Zayed และแนวคิดของ Tomas & Milan (2015) ที่พบว่าการนำเสนอคุณค่าเฉพาะตัวของสถาบันการศึกษา เช่น มีการเรียนการสอนที่เป็นแบบเชิงบูรณาการ การเป็นสถาบันที่เชี่ยวชาญและเป็นผู้นำด้านวิชานั้นๆ การนำเสนอคุณค่าเฉพาะตัวของสถาบันถือเป็นการสร้างภาพลักษณ์ที่ดีให้แก่สถาบัน และจะเป็นสิ่งที่เพิ่มความสามารถในการแข่งขันของผู้ที่จบการศึกษาในตลาดแรงงาน 2) นวัตกรรมการตลาดด้านการมุ่งตลาดเฉพาะกลุ่ม ความหลากหลายของผลิตภัณฑ์ และ การมุ่งเน้นที่ตัวลูกค้าส่งผลต่อความภักดีของลูกค้าบริษัทตามลำดับรองจากด้านคุณค่าเฉพาะตัว ทั้งนี้เนื่องจากในด้านการมุ่งตลาดเฉพาะกลุ่ม บริษัทมีกลุ่มเป้าหมายที่ชัดเจนในการทำการตลาด มีราคาที่เหมาะสมกับการบริการลูกค้าแต่ละกลุ่ม และมีการทำการตลาดด้านโลจิสติกส์กับกลุ่มผู้ประกอบการที่ต้องการการบริการโลจิสติกส์อย่างชัดเจน ด้านความหลากหลายของผลิตภัณฑ์เนื่องจาก บริษัทมีการขนส่งหลายรูปแบบให้ลูกค้าได้ตัดสินใจ อาทิ เลือกระหว่าง ขนส่งทางรถ ขนส่งทางเรือ ขนส่งทางเครื่องบิน การขนส่งแบบ Full shipment หรือ Partial shipment, การเพิ่มลดการขนส่งตามเทอมการซื้อขายของลูกค้า เป็นต้น อีกทั้งบริษัทสามารถปรับเปลี่ยนการบริการตามความต้องการของลูกค้าได้ตามสถานการณ์ และด้านการมุ่งเน้นที่ตัวลูกค้า เนื่องจากบริษัทยึดความต้องการของลูกค้าเป็นศูนย์กลางในการทำการตลาด ลูกค้าสามารถขอใช้บริการได้จากหลากหลายช่องทาง เช่น พนักงานขาย แอปพลิเคชั่น ไลน์ เฟสบุ๊ค หรือ เว็บไซต์ บริษัทให้ข้อมูลที่จำเป็นแก่ลูกค้า การตรวจสอบความพึงพอใจของลูกค้าอย่างสม่ำเสมอ พร้อมทั้งนำความต้องการของลูกค้ามาปรับปรุงเปลี่ยนแปลงการให้บริการ พนักงานมีปฏิสัมพันธ์ที่ดีกับลูกค้า มุ่งตอบสนองความต้องการให้กับลูกค้าด้วยความเชี่ยวชาญในงาน สอดคล้องกับงานวิจัยของ สมฤทัย หาญบุญเศรษฐ (2560) พบว่านวัตกรรมการตลาดส่งผลทางตรงต่อความพึงพอใจของลูกค้า สามารถอธิบายการเกิดขึ้นของความพึงพอใจของลูกค้าได้ร้อยละ 81 โดยมี 3 องค์ประกอบที่สำคัญที่สุด คือ ต้นทุนของลูกค้าและการสื่อสาร คุณค่าเฉพาะตัว และความต้องการของลูกค้าตามลำดับ ในท้ายที่สุดความพึงพอใจของลูกค้าส่งผลทางตรงต่อความจงรักภักดีของลูกค้า สามารถอธิบายการเกิดขึ้นของความจงรักภักดีของลูกค้าได้ถึงร้อยละ 91

3) จากการศึกษาของผู้วิจัยพบว่านวัตกรรมการตลาด ด้านการเปลี่ยนแปลง และด้านการสื่อสารการตลาดแบบบูรณาการ ไม่ได้ส่งผลต่อความภักดีของลูกค้าบริษัท ทั้งนี้หากพิจารณาถึงระดับความคิดเห็นพบว่าทั้งภาพรวมและรายด้านของทั้ง 2 ด้าน อยู่ในระดับมาก เนื่องจาก ในด้านการเปลี่ยนแปลงจากสถานการณ์การแพร่ระบาดของไวรัสโคโรน่าหรือโควิด-19 ส่งผลกระทบต่อการดำเนินงาน และด้านการเปลี่ยนแปลงของบริษัทอย่างมาก ในการปรับตัว ทั้งนี้ ด้านการสื่อสารการตลาดแบบบูรณาการยังขาดการส่งเสริมการตลาดที่ครอบคลุม เช่น การส่งเสริมการขาย การโฆษณา ประสัมพันธ์ รวมถึงการจัดกิจกรรมต่างๆ ให้กับลูกค้า จากผลการวิจัยดังกล่าวไม่สอดคล้องกับแนวคิดของ Michele O’Dwyera, Audrey Gilmoreb and David Carsonb (2009) ที่ได้อธิบายถึงแนวคิดด้านนวัตกรรมตลาดในด้านการเปลี่ยนแปลง และด้านการสื่อสารการตลาดแบบบูรณาการที่ส่งผลต่อความภักดีขององค์กร

เอกสารอ้างอิง

ณัฐพร ดิสนีเวทย์. (2559). *ปัจจัยที่ส่งผลต่อความภักดีของลูกค้าที่มีต่อตราสินค้าร้านคาเฟ่ขนมหวานในห้างสรรพสินค้า*. การค้นคว้าอิสระ ปริญญามหาบัณฑิต, มหาวิทยาลัยกรุงเทพ.

วรรณพร ไกรเลิศ. (2547). *ลูกค้าตลอดชีพ: กลเม็ดเคล็ดลับในการผูกใจและสร้างสายสัมพันธ์ที่ยืนยงกับลูกค้า*.กรุงเทพฯ: เอ.อาร์.บิซิเนส เพรซ.

วรารัตน์ สันติวงษ์. (2549). *ปัจจัยทีมีผลต่อความจงรักภักดีของลูกค้าธนาคารต่อการใช้บริการ E-Banking*. สารนิพนธ์ปริญญามหาบัณฑิต, มหาวิทยาลัยศรีนครินทรวิโรฒ.

สมฤทัย หาญบุญเศรษฐ. (2560). *ปัจจัยที่ส่งผลต่อความจงรักภักดีของลูกค้าในการใช้บริการระบบลิฟต์จอดรถยนต์อัตโนมัติ*. วิทยานิพนธ์ปริญญามหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

สุพริศร์ สุวรรณิก. (2564). *ธุรกิจโลจิสติกส์ไทย... จะไปอย่างไรต่อดี?*. สืบค้นจาก www.thairath.co.th/business/market/2272741.

สำนักงานสภาพัฒนาการเศรษฐกิจและสังคมแห่งชาติ. (2563). *รายงานโลจิสติกส์ของประเทศไทยประจำปี 2563*.สืบค้นจาก www.nesdc.go.th.

Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York:The Free Press.

Drucker, P. F. (1985). The discipline of innovation. *Harvard Business Review, 68*(4), 67-72.

Dunn, D. (1997). Relationship marketing: A 35 minute primer. Frequency marketing Strategies, strategic research Institute. Omni Chicago: Chicago.

Ivanauskiene, N., & Auruskevicien, V. (2009). Loyalty programs challenges in retail banking industry. *Economics & Management Journal, 14*(1), 407-412.

Jansorn, T. (2015). Study of acceptance factors for electronic payment services. *ISS & MLB Journal, 1*, 452-461.

Kotler, P. (1999). *Principles of marketing*. 2nd ed. New Jersey: Prentice Hall Europe.

Lin, R., Chen, R. & Kuan-Shun Chiu, K. (2010). Customer relationship management and innovation capability: an empirical study. *Industrial Management & Data Systems, 110*(1), 111-133.

Manar, A. T., May, E. B., & Olga, O. (2012). An innovative marketing strategy to promote our college of IT: Zayed University case study. *Informing Science and Information Technology, 7*, 161-175.

Michele, O., Audrey, G., & David, C. (2009). Innovative marketing in SMEs: an empirical study. *Journal of Strategic Marketing, 17*(5), 383-396.

Naidoo, V. (2010). Firm survival through a crisis: The influence of market orientation, marketing innovation and business strategy. *Industrial Marketing Management, 10*.

Oliver, R. L. (1997). *Satisfaction: A Behavioural Perspective on the Consumer*. New York: McGraw Hill.

Srivastava, R. K., Shervani, T. A., & Fahey, L. (1998) Market-based assets and shareholder value: A framework for analysis. *Journal of Marketing, 62*, 2-18.

Wajeetongratana, P., Joemsittiprasert, W., & Jermsittiparsert, K. (2019). Determinants of Loyalty Intentions among Thai Banking Customers: A Knowledge-Based Perspective. *International Journal of Innovation, Creativity and Change, 8*(8), 277-295.

คุณภาพการบริการที่ส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกลบอล จำกัด

Service quality affecting to customer loyalty of BD Plus Global Company Limited

คุณา ญาณสาร / Khuna Yanasarn
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: S63463829014@ssru.ac.th

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

วิไลลักษณ์ รักบำรุง / Wilailuk Rakbumrung
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: wilailuk.ra@ssru.ac.th

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาคุณภาพการบริการที่ส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกลบอล จำกัด เป็นระเบียบวิธีการวิจัยเชิงปริมาณ เก็บรวบรวมข้อมูลจากกลุ่มตัวอย่างที่เป็นลูกค้าของบริษัท บีดี พลัส โกลบอล จำกัด จำนวน 240 คน โดยใช้วิธีการสุ่มแบบอย่างง่าย เครื่องมือที่ใช้ในการวิจัยคือแบบสอบถาม และทำการวิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา เพื่อหาค่าความถี่ ค่าร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน และวิเคราะห์ข้อมูลสถิติเชิงอนุมานด้วยการวิเคราะห์ความถดถอยแบบพหุ ผลการวิจัย พบว่า คุณภาพการบริการส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกลบอล จำกัด อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 สามารถทำนายได้ร้อยละ 61.4 เมื่อทดสอบตัวแปรอิสระที่ส่งผลต่อตัวแปรตาม ผู้วิจัยอธิบายในรูปแบบของคะแนนดิบ พบว่า ตัวแปรที่สามารถพยากรณ์ได้มากที่สุดคือ การเข้าใจการรับรู้ความต้องการของผู้รับบริการ (ค่า B = .469, Sig. = .000) รองลงมาคือ ความเป็นรูปธรรมของการบริการ (ค่า B = .270, Sig. =

.000) การให้ความมั่นใจแก่ลูกค้า (ค่า B = .223, Sig. = .002) และความน่าเชื่อถือหรือความไว้วางใจ (ค่า B = -.172, Sig. = .007)

คำสำคัญ : คุณภาพการบริการ, ความภักดี, ลูกค้า, บริษัทบีดี พลัส โกลบอล จำกัด

Abstract

The objective of this research was to study service quality that affect customer loyalty of BD Plus Global Co., Ltd. It is a quantitative research methodology. The data were collected from 240 customer sample of BD Plus Global Co., Ltd. using a simple random sampling method. The tool was a questionnaire. Data were analysed by descriptive statistics to find frequency, percentage, mean and standard deviation. Inferential statistical data were analysed by multiple regression analysis. The results showed service quality affect customer loyalty of company with statistical significance at the 0.05 level which could predict by 61.4 percent. When test independent variables that affected dependent variables, explained in raw scores form, the most predictive variable is Empathy (B value = .469, Sig. = .000), followed by Tangibles (B value = .270, Sig. = .000) Assurance (B value = .223, Sig. = .002) and Reliability (B value = -.172, Sig. = .007).

Keywords: Service quality, loyalty, customer, BD Plus Global Co., Ltd.

ความเป็นมาและความสำคัญของปัญหา

ในการแข่งขันทางธุรกิจจะต้องตื่นตัวเพื่อให้ทันกับการเปลี่ยนแปลงที่ปรับเปลี่ยนไปอย่างรวดเร็ว ทั้งนี้เพื่อให้กิจการอยู่รอดและเจริญเติบโตก้าวหน้าไปอย่างยั่งยืน การให้ความสำคัญต่อการเพิ่มความแข็งแกร่งของธุรกิจเป็นสิ่งที่ต้องกระทำ ผู้บริหารธุรกิจจำเป็นจะต้องมีการบริหารกับความเสี่ยงในด้านต่างๆ ที่จะเกิดขึ้นภายในองค์กรและนอกองค์กร เพื่อให้มั่นใจได้ว่าการจัดการความเสี่ยงมีคุณภาพ มีความเหมาะสม และการบริหารความเสี่ยงได้นำไปใช้ในทุกส่วนขององค์กร การมีสารสนเทศและการสื่อสาร (Information & Communication) แก่บุคลากรทุกคนให้ได้รับรู้และเข้าใจอย่างทั่วถึง จะสามารถช่วยให้บุคลากรที่เกี่ยวข้องสามารถตอบสนองต่อเหตุการณ์ได้อย่างรวดเร็วและมีประสิทธิภาพ ยิ่งขึ้น (ชูศักดิ์ เดชเกรียงไกรกุล และนิทัศน์ คณะวรรณ, 2554: 52-53)

ในยุคแห่งการปฏิวัติอุตสาหกรรม การปรับตัวทันกับการเปลี่ยนแปลงอย่างรวดเร็วของการแข่งขันทางธุรกิจนั้นจำเป็นอย่างยิ่ง นวัตกรรมเป็นเครื่องมือหนึ่งที่สำคัญต่อองค์กรที่จะเปลี่ยนแปลงตัวเอง

ให้สามารถนำคู่แข่งอย่างต่อเนื่อง อีกทั้งในปัจจุบันมีสถานการณ์ที่กระตุ้นให้เกิดการปรับตัวและเปลี่ยนแปรงอย่างรวดเร็ว อย่างเช่น สถานการโรคระบาด Covid-19 ที่กระตุ้นให้วิถีชีวิตของคนต้องมีการปรับเปลี่ยนอย่างมาก การพบปะแบบใกล้ชิดได้หายไป การรักษาความสะอาดสุขอนามัยมีความจำเป็นและเข้มงวดขึ้นมาก ธุรกิจที่เกี่ยวข้องกับการสมาคมหรือรวมกลุ่มไม่สามารถดำเนินการเช่นเดิมได้ จะตระหนักได้ว่าหากธุรกิจใดไม่มีการปรับเปลี่ยนให้ทันกับการเปลี่ยนแปลงนั้นก็จะต้องปิดตัวไม่สามารถดำเนินการต่อได้ นวัตกรรมมีบทบาทอย่างมากในการที่องค์กรจะคงดำเนินธุรกิจอยู่ได้เพราะองค์กรที่มีความเป็นนวัตกรรมจะมีความตื่นตัว ตระหนักรู้ถึงโอกาสและอุปสรรคมองถึงอนาคตและพร้อมจะเปลี่ยนแปลงตลอดเวลา ความจงรักภักดีในการใช้บริการจากลูกค้าก็เป็นเป้าหมายหนึ่งที่สำคัญของธุรกิจ หากสินค้าหรือบริการของธุรกิจสามารถตอบสนองความต้องการของลูกค้าได้ สิ่งนั้นย่อมสร้างความจงรักภักดีของลูกค้าต่อองค์กร อย่างไรก็ตาม การสร้างความจงรักภักดีในปัจจุบัน ที่ลูกค้าหรือผู้มาใช้บริการมีความต้องการที่หลากหลายมากขึ้น ท่ามกลางการแข่งขันในธุรกิจที่สูงมาก ย่อมทำได้ไม่ง่ายนัก แต่ก็ไม่ยากจนไม่สามารถทำได้ (เด่นนภา มุ่งสูงเนิน, 2557) อีกทั้งคุณภาพมาตรฐานของการบริการที่ดีเป็นอีกหนึ่งปัจจัยสำคัญที่ส่งผลต่อการดำเนินนธุรกิจ ธุรกิจส่วนใหญ่ได้มีการนำนวัตกรรมเข้ามาช่วยในการดำเนินธุรกิจ ซึ่งนวัตกรรมตลาด และคุณภาพการบริการ ถือเป็นปัจจัยสำคัญต่อธุรกิจตัวแทนรับจัดการการขนส่งระหว่างประเทศและในประเทศเช่นกัน เนื่องจากนวัตกรรมการตลาดคือการสร้างสรรค์รูปแบบหรือแนวคิดใหม่ในการทำธุรกิจ เป็นผลสำเร็จของนวัตกรรมที่สามารถตอบรับความต้องการของผู้บริโภค มีการตลาด มีวิธีการทำงาน และมีการบริหารจัดการองค์กรที่ดี นวัตกรรมตลาดส่งผลทำให้ธุรกิจตัวแทนรับจัดการการขนส่งระหว่างประเทศและในประเทศเกิดการพัฒนา ทำให้เกิดผลกำไรและคุณค่าขององค์กรแก่ผู้มีส่วนได้ส่วนเสีย ด้านคุณภาพการบริการเนื่องจากธุรกิจตัวแทนรับจัดการการขนส่งระหว่างประเทศและในประเทศเป็นธุรกิจประเภทงานบริการ ดังนั้นคุณภาพการบริการจึงมีความสำคัญต่อรูปแบบการให้บริการแก่ลูกค้าขององค์กรคุณภาพการบริการถือเป็นสิ่งสำคัญในการสร้างความแตกต่างของธุรกิจบริการให้อยู่เหนือกว่าคู่แข่งขันได้ คุณภาพการบริการเป็นสิ่งที่ไม่สามารถจับต้องได้ แต่สามารถถูกรับรู้ในเชิงของความพึงพอใจและยังสามารถช่วยรักษาฐานลูกค้าไปจนถึงก่อให้เกิดเป็นความภักดีของลูกค้าได้อีกด้วย (ณัฐพร ดิสนีเวทย์, 2559) ความภักดีของลูกค้าต่อองค์กรนั้นเป็นสิ่งที่องค์กรปรารถนาให้เกิดขึ้นและคงอยู่อย่างยั่งยืนยาวนาน

บริษัท บีดี พลัส โกลบอล จำกัด (BD Plus Global Company Limited) เป็นบริษัทดำเนินธุรกิจตัวแทนรับจัดการการขนส่งระหว่างประเทศ เนื่องด้วยมากประสบการณ์ในธุรกิจการนำเข้าและส่งออกของผู้ก่อตั้งบริษัทกว่า 20 ปี บริษัทจึงมีความเชี่ยวชาญและเติบโตในธุรกิจอย่างต่อเนื่อง โดยให้บริการด้านการขนส่งระหว่างประเทศแบบครบวงจร ได้แก่ การนำเข้าสินค้าจากต่างประเทศและ

การส่งออกสินค้าไปต่างประเทศทั้งทางทะเล ทางอากาศ และทางบก การขนส่งระหว่างประเทศทางรถและการขนส่งสินค้าข้ามแดน การขนส่งสินค้าขนาดใหญ่ และการผ่านพิธีการศุลกากร เป็นต้น มีนโยบายในการพัฒนาศักยภาพการดำเนินธุรกิจ และเพื่อให้การดำเนินการธุรกิจมีศักยภาพในการแข่งขันกับคู่แข่งในตลาดปัจจุบันที่มีการแข่งขันสูง และมีอุปสรรคภายนอกที่มากขึ้นและเปลี่ยนแปลงเร็ว ความภัคดีของลูกค้าหรือผู้ใช้บริการของบริษัทถึงเป็นฐานสำคัญที่บริษัทต้องรักษาไว้ จากความสำคัญในข้างต้น ผู้วิจัยจึงสนใจที่จะทำวิจัยเรื่อง นวัตกรรมการตลาดและคุณภาพการบริการที่ส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกลบอล จำกัด เพื่อเป็นแนวทางในการพัฒนากลยุทธ์ด้านการดำเนินธุรกิจของบริษัท บีดี พลัส โกลบอล จำกัด

การทบทวนวรรณกรรม

คุณภาพการบริการ (Service Quality)

Parasuraman (1985, อ้างถึงใน ศุภรแพร ปากเพรียว, 2554: 19) ได้ให้ความหมายของคุณภาพบริการ (Service Quality) ไว้ว่า คุณภาพบริการเกิดจากประสบการณ์ที่คล้ายกันในแง่ดีและแง่ร้ายของผู้มารับบริการในทุกกลุ่ม โดยพบว่าคุณภาพบริการจะมีค่าสูงหรือต่ำขึ้นอยู่กับว่าผู้มารับบริการรับรู้ต่อบริการที่ได้รับเป็นอย่างไร ตรงกับที่คาดหวังไว้หรือไม่ กล่าวคือ คุณภาพบริการหมายถึง คุณภาพบริการตามการรับรู้และความคาดหวังของผู้มารับบริการ สอดคล้องกับ Gronroos (2000) ที่กล่าวว่าคุณภาพไม่ควรถูกกำหนดขึ้นตามความต้องการขององค์การ แต่ควรจะกำหนดขึ้นจากความต้องการของลูกค้าเป็นหลัก โดยใช้คำพูดของลูกค้าเอง คุณภาพบริการนับเป็นองค์ประกอบสำคัญต่อการดำเนินธุรกิจเป็นอย่างมากในยุคแห่งการแข่งขันนี้ซึ่งแต่ละองค์กรต่างมีเป้าหมายและความต้องการที่จะสร้างการบริการที่ดีที่สุด มีคุณภาพที่สุด สอดคล้องกับความต้องการของผู้รับบริการหรือลูกค้าโดยมุ่งหวังให้ผู้รับบริการหรือลูกค้าเกิดความพึงพอใจสูงสุด ทั้งนี้ก็เพื่อสร้างความโดดเด่นและความได้เปรียบในการแข่งขันให้กับองค์กร ซึ่งเป็นสิ่งสำคัญที่จะช่วยให้ธุรกิจนั้นสามารถดำเนินการต่อไปได้อย่างยืนยาวและมั่นคง

Parasuraman, et al. (1988, อ้างถึงใน ทศพล พวงทอง, 2550: 25) ได้ปรับปรุงและพัฒนาเครื่องมือในการประเมินคุณภาพบริการขึ้นมาใหม่และใช้ชื่อว่า “SERVQUAL” โดยเอาปัจจัยกำหนดคุณภาพบริการ 10 มิติ ที่ได้จากการศึกษาผู้บริโภคจากการบริการประเภทต่างๆ ในช่วงปี ค.ศ.1985 มายุบรวมปัจจัยที่มีความใกล้เคียงกันเข้าด้วยกันเหลือเพียง 5 มิติ ดังนี้ 1) ลักษณะทางกายภาพ (Tangibles) หมายถึง ลักษณะที่ปรากฏให้เห็นหรือสิ่งที่จับต้องได้ เช่น เครื่องมือ อุปกรณ์ บุคคล และอาคารสถานที่ 2) ความน่าเชื่อถือ (Reliability) หมายถึง ความสามารถในการให้บริการได้ตรงกับสัญญาหรือการประชาสัมพันธ์ที่ให้ไว้กับลูกค้า ซึ่งจะต้องเป็นการให้บริการที่มีทั้งความถูกต้องและแม่นยำ

3) การตอบสนอง (Responsiveness) หมายถึง การแสดงออกถึงความพร้อม ความเต็มใจในการให้บริการของพนักงาน และการตอบสนองต่อความต้องการของลูกค้าได้อย่างรวดเร็ว 4) ความเชื่อมั่น (Assurance) หมายถึง การแสดงถึงการมีทักษะ ความรู้ ความสามารถ ความสุภาพ และความซื่อสัตย์ของผู้ให้บริการ รวมถึงความมั่นคงขององค์การ เพื่อการสร้างความมั่นใจให้แก่ผู้ใช้บริการ 5) การดูแลเอาใจใส่ (Empathy) หมายถึง ความสามารถในการดูแลเอาใจใส่และการเข้าใจถึงความต้องการของผู้ใช้บริการแต่ละคน

ความภักดีของลูกค้าต่อองค์กร (Customer Loyalty)

ปชานนท์ ชนะราวี (2556) ได้อธิบายว่า ความจงรักภักดีต่อองค์กร คือ ความผูกพันต่อองค์กร หรือเจตคติต่อองค์กรที่จะสะท้อนให้เห็นถึงระบบความเกี่ยวข้องว่าบุคคลมีความเชื่อมั่น ศรัทธา รัก และหวงแหนต่อองค์กรที่ตนเป็นสมาชิกอยู่

วนันทพร ชวนชอบ (2560) ได้อธิบายถึง ความจงรักภักดีต่อองค์การ หมายถึง ความผูกพันองค์การที่สะท้อนให้เห็นถึงความรัก ความศรัทธา ความเชื่อมั่น ความพอใจ และความเต็มใจจะสร้างผลงานให้ มีทัศนคติในเชิงบวก รู้สึก หวงแหนไม่พอใจหากใครกล่าวถึงองค์การในทางไม่ดี มีความภูมิใจที่ได้อยู่ในองค์การ มีความรู้สึกเป็น ส่วนหนึ่งขององค์การ ยอมอุทิศตนเพื่อทุ่มเทให้ได้มาซึ่งความสำเร็จและเป้าหมายขององค์การ และ ปรารถนาจะอยู่ในองค์การตลอดไป

วรารัตน์ สันติวงษ์ (2549: 11) ได้อธิบายบายถึง สรุปความจงรักภักดีมีทั้งหมด 6 ระดับ คือ 1) กลุ่มบุคคลที่มีการคาดการณ์ไว้ว่าน่าจะเป็นลูกค้า (Suspect) เป็นกลุ่มบุคคลโดยทั่วไปที่องค์การหรือธุรกิจคาดการณ์ว่าน่าจะเป็นผู้ที่ซื้อและใช้สินค้าของธุรกิจ 2) ผู้ที่มีโอกาสว่าจะซื้อและใช้สินค้า (Prospect) เป็นกลุ่มลูกค้าที่ถูกพิจารณาและไตร่ตรองจากกลุ่มที่คาดว่าจะเป็นลูกค้าว่าเป็นผู้ที่มีศักยภาพและความสามารถที่น่าจะซื้อและใช้สินค้าของธุรกิจ 3) กลุ่มลูกค้าที่เลือกซื้อและเลือกใช้บริการเป็นครั้งแรก (First Time Customer) เป็นกลุ่มลูกค้าที่ได้มีการตัดสินใจเลือกซื้อและเลือกใช้สินค้าขององค์การ 4) กลุ่มลูกค้าที่ซื้อหรือใช้สินค้าซ้ำ (Repeat Customer) เป็นกลุ่มลูกค้าที่เกิดความพึงพอใจและความประทับใจในตัวสินค้าของธุรกิจจนเกิดการซื้อหรือใช้สินค้าขององค์การซ้ำ 5) กลุ่มลูกค้าประจำ (Client) กลุ่มลูกค้าที่จะทำการซื้อสินค้าและใช้สินค้าอย่างปกติ 6) กลุ่มลูกค้าผู้ภักดี (Advocate) เป็นกลุ่มลูกค้าที่คอยสนับสนุนธุรกิจอย่างต่อเนื่องด้วยดีตลอดมา และมีความพร้อมที่จะแก้ต่างให้แก่องค์การหากมีใครเข้าใจผิดหรือมีทัศนคติแง่ลบที่ผิดๆ ต่อธุรกิจ หากกล่าวถึงในทางธุรกิจแล้วระดับกลุ่มลูกค้าผู้ภักดีถือว่ามีความสำคัญต่อธุรกิจเป็นอย่างมาก ความจงรักภักดีของลูกค้าถือว่าเป็นสินทรัพย์ที่สำคัญของการทำธุรกิจ (Srivastava, Shervani, & Fahey, 2000; Aaker, 1991) เพราะความจงรักภักดีของลูกค้าส่งผลให้ธุรกิจสามารถลดต้นทุนในการประชาสัมพันธ์สินค้าหรือการหาตลาด รวมถึงการสร้างลูกค้ากลุ่มใหม่ (Aaker, 1991) และที่สำคัญ

คือ ความจงรักภักดีของลูกค้าจะช่วยป้องกันส่วนแบ่งตลาดตลอดจนช่วงชิงลูกค้า จากคู่ แข่งขัน (Dunn, 1997) รวมทั้งทำให้เกิดลูกค้ารายใหม่ เพิ่มขึ้นเรื่อยๆ และเมื่อธุรกิจสามารถรักษาฐาน ลูกค้าเก่าพร้อมทั้งเพิ่มจำนวนลูกค้าใหม่ ธุรกิจก็จะมียอดขายเพิ่มขึ้น และ ความสามารถในการทำกำไรของธุรกิจก็สูงขึ้นเช่นกัน เพิ่มขีดความสารมารถในการแข่งขัน ดังนั้น ผลลัพธ์ที่ได้จากการสร้างความ ภักดีของลูกค้าจึงเป็นรากฐานที่สำคัญของธุรกิจที่จะนำไปสู่ความสำเร็จในธุรกิจระยะยาว (Oliver, 1997)

กรอบแนวคิดการวิจัย

งานวิจัยเรื่องคุณภาพการบริการที่ส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกลบอล จำกัด ผู้วิจัยได้ศึกษาเอกสาร ทฤษฎี และงานวิจัยที่เกี่ยวข้องกับคุณภาพการบริการ โดยใช้ทฤษฎีของ Parasuraman et al, (1988) และทฤษฎีด้านความภักดีของ Aaker (1991), Dunn (1997), Oliver (1997), Srivastava, Shervani, & Fahey (2000) โดยสามารถเขียนเป็นกรอบแนวคิดการวิจัยได้ดังภาพที่ 1

ตัวแปรอิสระ

คุณภาพการบริการ

1) ความเป็นรูปธรรมของการบริการ (Tangibles)
2) ความน่าเชื่อถือหรือไว้วางใจ (Reliability)
3) การตอบสนองความต้องการ (Responsiveness)
4) การให้ความมั่นใจแก่ผู้รับบริการ (Assurance)
5) การเข้าใจการรับรู้ความต้องการของผู้รับบริการ (Empathy)

ตัวแปรตาม

ความภักดีของลูกค้าบริษัท บีดี พลัส โกลบอล จำกัด

ภาพที่ 1 กรอบแนวคิดการวิจัย

วิธีการวิจัย

ประชากรและตัวอย่าง

ประชากรในการศึกษาวิจัยครั้งนี้คือ ลูกค้าในฐานข้อมูลบริษัท บีดี พลัส โกลบอล จำกัด จำนวน 598 รายจากฐานข้อมูล ณ วันที่ 31 ตุลาคม 2563

กลุ่มตัวอย่าง คือ ลูกค้าในฐานข้อมูลบริษัท บีดี พลัส โกลบอล จำกัด ผู้วิจัยใช้สูตรของทาโร่ ยามาเน่ (Yamane, 1973: 194) มีระดับความเชื่อมั่นอยู่ที่ 95 เปอร์เซ็นต์ และความคลาดเคลื่อนที่ยอมให้เกิดขึ้นได้เท่ากับ 5 เปอร์เซ็นต์เพื่อคำนวณหาจำนวนกลุ่มตัวอย่าง ได้จำนวน 240 คน ในการวิจัยครั้ง

นี้ ผู้วิจัยได้ทำการสุ่มตัวอย่างด้วยวิธีการสุ่มตัวอย่างแบบอย่างง่าย (Simple Random Sampling) ทำการสุ่มตัวอย่างจากกรอบตัวอย่าง โดยใช้โปรแกรมทางสถิติจัดทำตารางเลขสุ่ม

การเก็บรวบรวมและการวิเคราะห์ข้อมูล

เก็บรวบรวมข้อมูลด้วยแบบสอบถาม กับกลุ่มตัวอย่าง ลูกค้าในฐานข้อมูล บีดี พลัส โกลบอล จำกัด จำนวน 240 คน ทำแบบสอบถามที่พร้อมใช้เป็น Google Form แล้วส่งให้กลุ่มตัวอย่างแต่ละรายทางออนไลน์ และทำการวิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา เพื่อหาค่าความถี่ ค่าร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน และวิเคราะห์ข้อมูลสถิติเชิงอนุมานด้วยการวิเคราะห์ความถดถอยแบบพหุ

ผลการวิจัย

ด้านลักษณะประชากรศาสตร์ พบว่า เพศ ผู้ตอบแบบสอบถามส่วนใหญ่เป็นเพศหญิง จำนวน 129 คน คิดเป็นร้อยละ 53.75 อายุ ส่วนใหญ่มีอายุระหว่าง 30-40 ปี จำนวน 140 คน คิดเป็นร้อยละ 58.33 ระดับการศึกษา พบว่า มีการศึกษาอยู่ระดับปริญญาตรี จำนวน 165 คน คิดเป็นร้อยละ 68.75 รายได้ต่อเดือน พบว่า ผู้ตอบแบบสอบถามส่วนใหญ่มีรายได้อยู่ระหว่าง 30,001-40,000 บาท จำนวน 99 คน คิดเป็นร้อยละ 41.25

ผลการวิจัยคุณภาพการบริการที่ส่งผลต่อความภักดีของลูกค้า ดังตารางที่ 1

ตารางที่ 1 Coefficients

ตัวแปร	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
ค่าคงที่ (Constant)	.807	.186		4.337	.000*		
X_{11}-การเข้าใจการรับรู้ความต้องการของผู้รับบริการ	.469	.056	.520	8.393	.000*	.421	2.377
X_7-ความเป็นรูปธรรมของการบริการ	.270	.060	.272	4.525	.000*	.446	2.245
X_{10}-การให้ความมั่นใจแก่ลูกค้า	.223	.070	.228	3.197	.002*	.317	3.158
X_8-ความน่าเชื่อถือหรือไว้วางใจ	-.172	.064	-.179	-2.708	.007*	.369	2.712

$R = .788$; $R^2 = .620$; Adjusted $R^2 = .614$

* มีนัยสำคัญทางสถิติที่ระดับ 0.05

จากตารางที่ 1 พบว่า ค่า Adjusted R2 เท่ากับ .614 หมายถึง ปัจจัยคุณภาพการบริการส่งผลต่อความภักดีของลูกค้าบริษัท บีดี พลัส โกบอล จำกัด สามารถอธิบายได้ร้อยละ 61.4 เมื่อทดสอบตัวแปรอิสระที่ส่งผลต่อตัวแปรตามครั้งละ 1 ตัวจากตารางที่ 1 ผู้วิจัยอธิบายในรูปแบบของคะแนนดิบ พบว่า ตัวแปรที่สามารถพยากรณ์ ได้มากที่สุดคือ การเข้าใจการรับรู้ความต้องการของผู้รับบริการ (ค่า B = .469, Sig. = .000) รองลงมาคือ ความเป็นรูปธรรมของการบริการ (ค่า B = .270, Sig. = .000) การให้ความมั่นใจแก่ลูกค้า (ค่า B = .223, Sig. = .002) และความน่าเชื่อถือหรือความไว้วางใจ (ค่า B = -.172, Sig. = .007) สามารถนำมาเขียนเป็นสมการความถดถอยได้ดังนี้

$$\hat{Y} = .807 + .469(X_{11}) + .270(X_7) + .223(X_{10}) + -.172(X_8)$$

สรุปและอภิปรายผลการวิจัย

ผลการวิจัยพบว่า คุณภาพการบริการด้านการเข้าใจการรับรู้ความต้องการของผู้รับบริการ ความเป็นรูปธรรมของการบริการ การให้ความมั่นใจแก่ลูกค้า และ ความน่าเชื่อถือหรือความไว้วางใจ ส่งผลต่อความภักดีของลูกค้าบริษัทบีดี พลัส โกลบอล จำกัด อภิปรายได้ดังนี้

1) จากการศึกษาวิจัยนี้พบว่าคุณภาพการบริการด้านการเข้าใจการรับรู้ความต้องการของผู้รับบริการส่งผลต่อความภักดีของลูกค้าบริษัทมากที่สุดเป็นเพราะเมื่อบริษัทมีความเข้าใจในงานของลูกค้าเป็นอย่างดี ลูกค้าจะได้รับการบริการได้อย่างตรงความต้องการ บริษัทสามารถให้คำแนะนำ ให้คำตอบและให้บริการตรงเป้าประสงค์ของลูกค้าได้ดี ในยุคนี้ที่ความรวดเร็วในการทำงานเป็นสิ่งจำเป็นและการที่ลูกค้ารับรู้ได้ว่าผู้ให้บริการนั้นเข้าในงานของตนก็จะเกินความไว้ว่างใจว่างานของตนจะไม่เกิดข้อผิดพลาด การทำงานจะไปถึงผลลัพธ์รวดเร็วส่งผลในทางที่ดีตามกัน ความมั่นใจที่เกิดขึ้นก็จะส่งผลให้เกิด ความประทับใจ ความพึงพอใจ ในทางธุรกิจความพึงพอในของลูกค้าเป็นปัจจัยให้เกิดความภักดีของลูกค้า ซึ่งลูกค้าที่มีมีความพอใจจะกลายเป็นลูกค้าที่ภักดีต่อองค์กร (Wajeetongratana, Joemsittiprasert & Jermsittiparsert, 2019) ยากที่จะเปลี่ยนใจไปใช้บริการจากผู้ให้บริการรายอื่นๆ ผลการศึกษาด้านคุณภาพการบริการสอดคล้องกับงานวิจัยของ เด่นนภา มุ่งสูงเนิน (2557) ได้ศึกษาเรื่องคุณภาพการบริการที่ส่งผลต่อความภักดีของผู้ใช้บริการ: กรณีบริษัทไดนามิค อินเตอร์ทรานสปอร์ต จำกัด พบว่าองค์ประกอบด้านการบริการที่สัมผัสได้ ความน่าเชื่อถือและความไว้วางใจ ความรวดเร็ว การรับประกัน และการเอาใจใส่ลูกค้ามีความสัมพันธ์ระดับปานกลางในทิศทางเดียวกันกับความภักดีของผู้ใช้บริการบริษัทไดนามิค อินเตอร์ทรานสปอร์ต จำกัด งานวิจัยของ กาญจนา ทวินันท์ และแววมยุรา คำสุข (2558) ได้ศึกษาคุณภาพการบริการที่ส่งผลต่อ

ความพึงพอใจของลูกค้าในธุรกิจการท่องเที่ยวแบบพำนักระยะยาวในอุตสาหกรรมท่องเที่ยวในประเทศไทยผลการศึกษาพบว่าปัจจัยที่ส่งผลเชิงบวกต่อความพึงพอใจของนักท่องเที่ยวสูงที่สุดคือการรู้จักและเข้าใจลูกค้า การให้ความเชื่อมั่นต่อลูกค้า ความเชื่อถือไว้วางใจได้ การตอบสนองต่อลูกค้า และความเป็นรูปธรรมของการบริการ ตามลำดับ เป็นการสร้างความพึงพอใจของลูกค้าเพื่อให้เกิดความภักดีของลูกค้า งานวิจัยของ สิริวิมล คำวงศ์ (2559) ที่ศึกษาปัจจัยคุณภาพบริการที่ส่งผลต่อความพึงพอใจ ความไว้เนื้อเชื่อใจ และความภักดีต่อบริษัทจัด ท่องเที่ยวไปต่างประเทศของผู้บริโภคในกรุงเทพมหานคร พบว่า คุณภาพการบริการมีอิทธิพลทางบวกต่อความพึงพอใจของบริษัทจัดท่องเที่ยวไปต่างประเทศของผู้บริโภคในกรุงเทพมหานคร และมีอิทธิพลทางบวกต่อความภักดีของบริษัทจัดท่องเที่ยวไปต่างประเทศของผู้บริโภคในกรุงเทพมหานคร จะเห็นว่าคุณภาพการบริการสร้างความพึงพอใจของลูกค้าเพื่อให้เกิดความภักดีของลูกค้า และสอดคล้องกับงานวิจัยของ Jing Wang and Lijuan Cheng (2012) ได้ทำการศึกษาความสัมพันธ์ระหว่างคุณภาพการรับรู้ของความพึงพอใจของลูกค้าและการเก็บรักษาลูกค้า การวิจัยเชิงประจักษ์พบว่าการรับรู้ในคุณภาพของการบริการและผลิตภัณฑ์มีผลต่อความพึงพอใจของลูกค้าโดยการเอาใจใส่ในเรื่องการบริการเป็นมิติที่สำคัญที่สุดที่มีอิทธิพลต่อความพึงพอใจ ทั้งสามงานวิจัยที่อ้างถึงต่างพบว่าคุณภาพการบริการสร้างความพึงพอใจให้กับลูกค้าและส่งผลให้เกินความภักดีของลูกค้าในอนาคตหากแต่บริบทของการบริการในแต่ละองค์กรต่างกัน คุณภาพการบริการในแต่ละด้านส่งผลต่อความภัคดีของลูกค้าบริษัทหรือองค์กรต่างกัน

2) คุณภาพการบริการ อีก 3 ปัจจัย ประกอบด้วย ด้านความเป็นรูปธรรมของการบริการ การให้ความมั่นใจแก่ลูกค้า ความน่าเชื่อถือหรือไว้วางใจ ส่งผลต่อความภักดีของลูกค้าบริษัทตามลำดับรองจากด้านการเข้าใจการรับรู้ความต้องการของผู้รับบริการในข้อ 1 ตามลำดับ เนื่องจากการบริการของบริษัทสามารถทำให้ลูกค้าเกิดความพึงพอใจและประทับใจ โดยมีการจัดเก็บข้อมูลสารสนเทศที่ต้องการอย่างครบถ้วนสมบูรณ์ มีช่องทางการเข้าถึงข้อมูลสารสนเทศของบริษัทได้หลากหลาย ใช้งานได้จริง มีพนักงานให้บริการในงานได้ทันที มีสำนักงานให้บริการสามารถติดต่อได้ และพนักงานมีบุคลิกภาพที่ดี สุภาพเรียบร้อย อย่างไรก็ดีในการศึกษาวิจัยครั้งนี้ พบว่า คุณภาพการบริการด้านความน่าเชื่อถือหรือไว้วางใจที่ส่งผลต่อความภักดีของลูกค้า มีค่าสัมประสิทธิ์เท่ากับ -.172 มีค่าสัมประสิทธิ์สหสัมพันธ์เป็นลบ แสดงว่า สัมพันธ์ในทิศทางตรงกันข้าม คือ ลูกค้าที่มีความน่าเชื่อถือหรือไว้วางใจมาก จะที่ส่งผลต่อความภักดีของลูกค้าน้อย เนื่องจากความรู้สึกของผู้ตอบแบบสอบถามซึ่งเป็นลูกค้าของบริษัทธุรกิจรับจัดการการขนส่งระหว่างประเทศและในประเทศของบริษัท บีดี พลัสโกลบอล จำกัด ความน่าเชื่อถือหรือความไว้วางใจคือพื้นฐานในการเลือกใช้บริการ

ธุรกิจประเภทนี้ เมื่อความน่าเชื่อในบริษัทถึงระดับหนึ่งแล้ว ลูกค้าจะพิจารณาคุณภาพบริการการให้บริการด้านอื่นๆ ร่วมด้วย หรือใช้บริการของบริษัทอื่นที่มีการบริการในรูปแบบเดียวกัน

3) จากผลการวิจัย พบว่า ด้านการตอบสนองความต้องการ ไม่ส่งผลต่อความภักดีของลูกค้าบริษัท บี ดี พลัส โกลบอล จำกัด เนื่องจากจำนวนลูกค้ามีจำนวนมาก บางครั้งพนักงานให้บริการแก่ลูกค้าได้อย่างไม่ทั่วถึงและรวดเร็ว ซึ่งจะเป็นสิ่งที่เป็นข้อเสนอแนะในการให้บริการในลำดับต่อไป ซึ่งจากผลการวิจัยไม่สอดคล้องกับแนวคิดทฤษฎีด้านคุณภาพการบริการของ Parasuraman et al. (1988) ที่ได้อธิบายถึงคุณภาพการบริการในด้านการตอบอสนองความต้องการส่งผลต่อความภักดีของลูกค้า

เอกสารอ้างอิง

กาญจนา ทวินันท์ และแววมยุรา คำสุข. (2558). *คุณภาพการบริการที่ส่งผลต่อความพึงพอใจของลูกค้าในธุรกิจการท่องเที่ยวแบบพำนัก ระยะยาวในอุตสาหกรรมการท่องเที่ยวในประเทศไทย*. วิทยานิพนธ์ปริญญามหาบัณฑิต, มหาวิทยาลัยเทคโนโลยีราชมงคลล้านนา.

ชูศักดิ์ เดชเกรียงไกรกุล และนิทัศน์ คณะวรรณ. (2545). *ธุรกิจขนาดย่อม*. กรุงเทพฯ: ซีเอ็ดยูเคชั่น.

ณัฐพร ดิสนีเวทย์. (2559). *ปัจจัยที่ส่งผลต่อความภักดีของลูกค้าที่มีต่อตราสินค้าร้านคาเฟ่ขนมหวานในห้างสรรพสินค้า*. การค้นคว้าอิสระ ปริญญามหาบัณฑิต, มหาวิทยาลัยกรุงเทพ.

เด่นนภา มุ่งสูงเนิน. (2557). คุณภาพบริการที่ส่งผลต่อความภักดีของผู้ใช้บริการ กรณีบริษัทไดนามิค อินเตอร์ทรานสปอร์ต จำกัด. *วารสารทางการเงิน การลงทุน การตลาด และการบริหารธุรกิจ, 4*(2), 83.

ปชานนท์ ชนะราวี. (2556). *แนวคิดเรื่องความจงรักภักดีต่อองค์กร*. สืบค้นจาก http://pachanon.blogspot.com/2013/06/loyalty-powerof-developmentandoutlast.html.

วนันทพร ชวนชอบ. (2560). *ปัจจัยที่ส่งผลให้บุคลากรมีความจงรักภักดีกับองค์การอย่างยั่งยืน กรณีศึกษา กองบริหารทรัพยากรบุคคล สำนักงานปลัดกระทรวงสาธารณสุข*. การค้นคว้าอิสระ รัฐศาสตรมหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

วรรณพร ไกรเลิศ. (2547). *ลูกค้าตลอดชีพ: กลเม็ดเคล็ดลับในการผูกใจและสร้างสายสัมพันธ์ที่ยืนยงกับลูกค้า*.กรุงเทพฯ: เอ.อาร์.บิซิเนส เพรซ.

วรารัตน์ สันติวงษ์. (2549). *ปัจจัยทีมีผลต่อความจงรักภักดีของลูกค้าธนาคารต่อการใช้บริการ E-Banking*. สารนิพนธ์ปริญญามหาบัณฑิต, มหาวิทยาลัยศรีนครินทรวิโรฒ.

ศุภรแพร ปากเพรียว. (2554). *การศึกษาคุณภาพบริการและความพึงพอใจที่มีต่อการให้บริการแผนกผู้ป่วยนอกโรงพยาบาลศิริราช*. วิทยานิพนธ์ปริญญามหาบัณฑิต, มหาวิทยาลัยศิลปากร.

สิริวิมล คำวงศ์. (2559). *ปัจจัยคุณภาพบริการที่ส่งผลต่อความพึงพอใจ ความไว้เนื้อเชื่อใจ และความภักดีต่อบริษัทจัดท่องเที่ยวไปต่างประเทศของผู้บริโภคในกรุงเทพมหานคร*. การค้นคว้าอิสระ ปริญญามหาบัณฑิต,มหาวิทยาลัยกรุงเทพ.

สุพริศร์ สุวรรณิก. (2564). *ธุรกิจโลจิสติกส์ไทย...จะไปอย่างไรต่อดี?*. สืบค้นจาก www.thairath.co.th/business/market/2272741.

สำนักงานสภาพัฒนาการเศรษฐกิจและสังคมแห่งชาติ. (2563). *รายงานโลจิสติกส์ของประเทศไทยประจำปี 2563*.สืบค้นจาก www.nesdc.go.th.

Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York:The Free Press.

Grönroos, C. (2000). *Service management and marketing: a customer relationship management approach*.2nd ed. New York: Wiley.

Ivanauskiene, N., & Auruskevicien, V. (2009). Loyalty programs challenges in retail banking industry. *Economics & Management Journal, 14*(1), 407-412.

Jing Wang & Lijuan Cheng. (2012). The relationships among perceived quality, customer satisfaction and customer retention. *An empirical research on Haidilao restaurant*, 978-1-4577-2025-3/IEEE.

Kun-Hsi Liao & Ming-Fang Hsieh. (2011). *Statistic exploring the casual relationships between service quality, brand image, customer satisfaction and customer loyalty on the leisure resort industry*. The 2nd international research symposium in service management, 506-515.

Oliver, R. L., (1997). *Satisfaction: A Behavioural Perspective on the Consumer*. New York: McGraw Hill.

__________. (1999). Whence Customer Loyalty?. *Journal of marketing, 63*, 33-44.

Parasuraman, A., Berry, L.L. & Zeithaml V.A. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing, 49*(4).

__________. (1988). SERQUAL: A multiple-item scale for measuring customer perceptions of service quality. *Journal of Retailing, 64*, 12-40.

__________. (1990). *Delivering Quality Service: Balancing Customer Perceptions and Expectation*. New York: The Free Press.

Srivastava, R. K., Shervani, T. A., & Fahey, L. (1998). Market-based assets and shareholder value: A framework for analysis. *Journal of Marketing, 62*, 2-18.

Wajeetongratana, P., Joemsittiprasert, W., & Jermsittiparsert, K. (2019). Determinants of Loyalty Intentions among Thai Banking Customers: A Knowledge-Based Perspective. *International Journal of Innovation, Creativity and Change, 8*(8), 277-295.

ปัจจัยที่ส่งผลต่อความภักดีของธุรกิจร้านกาแฟ: การทบทวนวรรณกรรม

Factors Affecting Loyalty Coffee Shop: Literature Review

จิดาภา ผริตาฤทธิ / Jidapa Pharitharich
วิทยาลัยนวัตกรรมและการจัดการ มหาวิทยาลัยราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: S63463829001@ssru.ac.th

ปรเมษฐ์ แสงอ่อน / Poramet Saeng-on
วิทยาลัยนวัตกรรมและการจัดการ มหาวิทยาลัยราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

ทวีป พรหมอยู่ / Taweep Promyoo
วิทยาลัยนวัตกรรมและการจัดการ มหาวิทยาลัยราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: taweep.pr.@ssru.ac.th

บทคัดย่อ

บทความนี้เป็นการนำเสนอผลการทบทวนวรรณกรรม เกี่ยวกับปัจจัยที่ส่งผลต่อความภักดีของธุรกิจร้านกาแฟ โดยมีวัตถุประสงค์เพื่อสร้างกรอบแนวคิดการวิจัยที่แสดงถึงความสัมพันธ์ของปัจจัยที่ส่งผลต่อความภักดีของธุรกิจร้านกาแฟ ได้แก่ ด้านพฤติกรรมผู้บริโภค ประกอบด้วย 1) ผู้บริโภคซื้ออะไร 2) ทำไมจึงซื้อ 3) ใครมีส่วนร่วมในการซื้อ 4) ซื้อเมื่อใด 5) ซื้อที่ไหน 6) ซื้ออย่างไร ด้านนวัตกรรมการตลาด ประกอบด้วย 1) คุณค่าเฉพาะตัว 2) การมุ่งเน้นที่ตัวลูกค้า 3) การมุ่งตลาดเฉพาะกลุ่ม 4) ความหลากหลายของผลิตภัณฑ์ 5) การสื่อสารการตลาดแบบบูรณาการ ด้านการบริหารลูกค้าสัมพันธ์ ประกอบด้วย 1) ด้านการติดตามลูกค้า 2) ด้านการสร้างสัมพันธภาพกับลูกค้า 3) ด้านการบริหารการสื่อสารระหว่างกัน 4) ด้านการเข้าใจความคาดหวังของลูกค้า องค์ความรู้และข้อค้นพบจากบทความนี้จะเป็นแนวทางการศึกษาวิจัย ปัจจัยที่ส่งผลต่อความภักดีของธุรกิจร้านกาแฟ และสามารถนำไปเป็นข้อมูลสำหรับปรับโครงสร้าง วางแผนการตลาด ปรับปรุง

เพิ่มเติมแก้ไขจุดบกพร่องของธุรกิจ และสามารถนำไปพัฒนาปรับใช้ให้เกิดประโยชน์ต่อธุรกิจต่อไป

คำสำคัญ: พฤติกรรมผู้บริโภค, นวัตกรรมการตลาด, การบริหารลูกค้าสัมพันธ์, ความภักดี

Abstract

This article presents the results of a literature review. About the factors affecting the loyalty of the coffee shop business. The objective is to create a research conceptual framework showing the relationship of factors affecting coffee shop loyalty, Namely, Consumer behavior consists of 1) What does the consumer buy, 2) Why does the consumer buy, 3) Who participates in the buying, 4) When does the consumer buy, 5) Where does the consumer buy and 6) How does the consumer buy. Marketing innovation consists of 1) Unique proposition, 2) Customer focus, 3) Market focus, 4) Product Variety and 5) Integrated Marketing Communication. Customer relationship management consists of 1) Customer prospecting, 2) Relations with Customers, 3) Interactive Management and 4) Understanding Customer Expectations. The knowledge and findings from this literature review will serve as a research study guide. Factors affecting the loyalty of the coffee shop business and can be used as information for restructuring marketing plan Additional improvements to fix business bugs. and can be developed and applied for further business benefits

Keywords: Consumer behavior, Marketing innovation, Customer Relationship Management, Loyalty

บทนำ

ความเป็นมาและความสำคัญของปัญหา

ธุรกิจยอดนิยมของใครหลายคนที่คิดจะมาเป็นผู้ประกอบการ ด้วยเงินลงทุนที่ไม่สูงมาก คงหนีไม่พ้น "ร้านกาแฟ" ด้วยกลิ่นหอมๆ ร้านเก๋ๆ บรรยากาศผู้คนนั่งดื่ม มันเป็น "เสน่ห์" ที่ดึงดูดใครหลายคนให้เข้าร้านกาแฟ ไม่ว่าจะเป็นนักดื่ม ผู้ใช้บริการ ไปจนถึงความอยากเป็นผู้ประกอบการหน้าใหม่ ธุรกิจร้านกาแฟได้รับความสนใจจากนักลงทุนชาวต่างชาติหลายรายในการเข้ามาเป็นผู้ประกอบธุรกิจร้านกาแฟในประเทศ รวมทั้งบริษัทผู้ผลิตภายในประเทศไทยที่มีกิจการที่เกี่ยวข้องกับกาแฟ

ธุรกิจร้านอาหาร ตลอดจนผู้ประกอบการขนาดกลางและขนาดย่อมเข้ามาลงทุนในธุรกิจนี้เพิ่มขึ้น ส่งผลให้การแข่งขันทวีความรุนแรงเพื่อช่วงชิงส่วนแบ่งการตลาด จนทำให้ร้านค้าที่ไม่พร้อมต้องออกจากธุรกิจไปเป็นจำนวนไม่น้อย

ในปี 2563 ตลาดกาแฟไทยยุคโควิด-19 เกิดการชะลอตัวในส่วนการผลิตและความต้องการบริโภคกาแฟต่อเนื่องมาจนถึงปัจจุบัน ข้อมูลจากรายงาน ของบริษัท เนสท์เล่ (ไทย) จำกัด พบว่ามูลค่าตลาดกาแฟในประเทศไทยปี 2564 มีประมาณ 64,700 ล้านบาท ในจำนวนนั้นแบ่งออกเป็นตลาดกาแฟในบ้าน 38,000 ล้านบาท และตลาดกาแฟนอกบ้าน 26,700 ล้านบาท (คอฟฟี่ทราเวลเลอร์ส, 2564) ซึ่งเห็นได้ชัดว่าตลาดกาแฟในบ้านกำลังได้รับความนิยมมากขึ้น แต่ตลาดกาแฟนอกบ้านกลับได้รับความนิยมลดลง เกิดเทรนด์การบริโภคแบบใหม่ คือ การดื่มกาแฟสำเร็จรูปหรือหันมานิยมชงกาแฟดื่มเองแทนเพื่อช่วยลดค่าใช้จ่าย เพราะเศรษฐกิจที่กำลังซบเซา จึงเป็นที่น่าสนใจว่าผู้ประกอบการไทยในตลาดกาแฟนอกบ้านจะมีการปรับตัวอย่างไร เพื่อให้สามารถเดินอยู่บนเส้นทางตลาดกาแฟไทยต่อไปได้

ดังนั้นเพื่อให้ธุรกิจเกิดความยั่งยืน ผู้ประกอบการธุรกิจร้านกาแฟ ต้องหากลวิธีที่จะรักษาลูกค้าเก่า สร้างลูกค้าใหม่ และสร้างความภักดีของลูกค้าให้เกิดกับธุรกิจของตน บทความนี้จึงได้มีการทบทวนวรรณกรรมที่เกี่ยวข้องถึงปัจจัยที่ส่งผลต่อความภักดีของธุรกิจร้านกาแฟ พบว่า พฤติกรรมผู้บริโภค นวัตกรรมการตลาด และการบริหารลูกค้าสัมพันธ์ สามารถที่จะส่งผลให้ลูกค้าเกิดความภักดีต่อธุรกิจได้ เพื่อให้ผู้สนใจและโดยเฉพาะอย่างยิ่งผู้ประกอบการธุรกิจร้านกาแฟในประเทศไทย ได้เข้าใจในมิติต่างๆ ของความภักดี ตลอดจนสามารถนำแนวคิดไปใช้ในการพัฒนาและกำหนดกลยุทธ์การดำเนินธุรกิจได้อย่างมีประสิทธิภาพ

การทบทวนวรรณกรรม

แนวคิดและทฤษฎีเกี่ยวกับพฤติกรรมผู้บริโภค

ในช่วงเวลาของการเผชิญกับการระบาดของโควิด-19 จะเห็นได้ว่าธุรกิจทั้งขนาดใหญ่และเล็กต่างต้องดิ้นรนเพื่อปรับตัวฝ่าความท้าทาย เพื่อให้ธุรกิจสามารถกลับมายืนได้อย่างแข็งแกร่ง เพราะไม่ได้แข่งขันกับคู่แข่งในตลาดเพียงอย่างเดียวเท่านั้น แต่ต้องตามให้ทันต่อพฤติกรรมและไลฟ์สไตล์ของผู้บริโภคที่เปลี่ยนไปจากเดิมด้วย โดยผู้บริโภคให้ความสำคัญกับผลลัพธ์ในการเลือกซื้อสินค้ามากที่สุด มีตัวบ่งชี้พฤติกรรม ได้แก่ 1) ผู้บริโภคจะเลือกซื้อสินค้าและบริการที่โดนใจ 2) ผู้บริโภคจะเลือกซื้อสินค้าและบริการที่มีคุณค่า คุ้มกับการลงทุน ไม่ว่าจะเป็นทุนเงิน ทุนเวลา และทุนความพยายาม (เอริสา ยุติธรรมดำรง, 2562) เมื่อพฤติกรรมของผู้บริโภคเกิดความคงเส้นคงวาในการซื้อหรือการเข้าใช้บริการต่อธุรกิจใดๆ อยู่เป็นประจำ จะทำให้เกิดความภักดีและความผูกพันที่

เป็นผลสืบเนื่องจากความพึงพอใจของผู้บริโภคที่ได้ใช้สินค้าหรือบริการนั้นๆ (วัชรี จงแจ่ม, 2563) การทำความเข้าใจผู้บริโภค (Consumer Behavior) ว่าสิ่งใดมีผลต่อการตัดสินใจเลือกซื้อหรือใช้บริการเป็นสิ่งที่สำคัญมาก เพราะการทำธุรกิจโดย "ไม่มีคนซื้อ" นั่นหมายความว่าเงินที่เปรียบเสมือนเส้นเลือดใหญ่ในการหล่อเลี้ยงธุรกิจกำลังหายไป (รวิศ หาญอุตสาหะ, 2564)
ดังนั้น การค้นหาหรือวิจัยเกี่ยวกับพฤติกรรมการซื้อเพื่อให้ทราบถึงความต้องการของผู้บริโภคได้อย่างเหมาะสม จึงควรพิจารณาให้ครบรอบด้าน ได้แก่ ผู้บริโภคซื้ออะไร (What) ทำไมจึงซื้อ (Why) ใครมีส่วนร่วมในการซื้อ (Who) ซื้อเมื่อใด (When) ซื้อที่ไหน (Where) ซื้ออย่างไร (How) (Philip Kotler, 1997) ด้วยข้อมูล (Data-Driven) และอินไซด์ของผู้บริโภคว่าพวกเขามีไลฟ์สไตล์อย่างไร จะเป็นคำตอบสำคัญที่จะช่วยให้ธุรกิจสามารถกำหนดกลยุทธ์การตลาด (Marketing Strategies) ที่สามารถตอบสนองความพึงพอใจและนำไปสู่การสร้างความภักดีของผู้บริโภคได้

แนวคิดและทฤษฎีเกี่ยวกับนวัตกรรมการตลาด

ความก้าวหน้าทางเทคโนโลยีกำลังทำให้การตัดสินใจซื้อสินค้าหรือบริการของผู้บริโภคเปลี่ยนไป ดังนั้นธุรกิจควรจะใช้ประโยชน์จากเทคโนโลยี เพื่อตอบโจทย์ความต้องการของผู้บริโภคให้ได้มากที่สุดผลสำรวจจากรายงานสถานะการตลาด ฉบับปีที่ 6 ของเซลส์ฟอร์ซ พบว่าในปัจจุบันนักการตลาดไทยตระหนักถึงความสำคัญของการสร้างนวัตกรรมการตลาดเป็นอันดับแรก เพื่อให้ก้าวทันกระแสความนิยมในโลกดิจิทัลซึ่งมีผลต่อทุกอุตสาหกรรม และต่อพฤติกรรมของผู้บริโภคที่มีความคาดหวังต่อสินค้าและบริการมากขึ้น (Jes O'Reilly, 2020) เพราะนวัตกรรมการตลาดเป็นวิธีการดำเนินการตลาดแบบใหม่ที่กำหนดขึ้นเพื่อปรับปรุงส่วนประสมทางการตลาด (Marketing Mix) ให้ดีขึ้น โดยนวัตกรรมการตลาดนั้นจะเข้ามาช่วยพัฒนาและสร้างความได้เปรียบในการแข่งขันทางธุรกิจ (ณัฐพัชร์ อภิรุ่งเรืองสกุล และประสพชัย พสุนนท์, 2563) ผ่านการสร้างสรรค์ความแปลกใหม่ให้กับสินค้าและบริการ รวมทั้งวิธีการและกระบวนการในการสร้าง ผลิต และส่งมอบสินค้าและบริการให้กับลูกค้า (กฤษติญา มูลศร, 2562)
องค์ประกอบสำคัญสำหรับนวัตกรรมการตลาดมี 5 องค์ประกอบที่เป็นมิติสำคัญ (Michele, Audrey & David, 2009) ดังนี้ 1) คุณค่าเฉพาะตัว (Unique Proposition) คือ คุณค่าเฉพาะตัวนี้เป็นการสร้างมูลค่าเพิ่มทางการตลาด 2) การมุ่งเน้นที่ตัวลูกค้า (Customer Focus) คือ การตอบโจทย์ลูกค้าแบบ Personalize เพื่อมุ่งเน้นการสร้างความพึงพอใจให้เกิดมากที่สุด 3) การมุ่งตลาดเฉพาะกลุ่ม (Market Focus) คือ การยึดตลาดเป็นศูนย์กลาง 4) หลากหลายของผลิตภัณฑ์ (Product Variety) คือ การพัฒนาต่อยอดผลิตภัณฑ์ เป็นการสร้างสินค้าและบริการใหม่ที่รองรับสินค้าและบริการตัวหลัก 5) การสื่อสารการตลาดแบบบูรณาการ (Integrated Marketing Communication) คือ การใช้ช่องทางเพื่อสร้างการรับรู้และยอมรับสินค้าและบริการใหม่ให้แก่ลูกค้า

แนวคิดและทฤษฎีเกี่ยวกับการบริหารลูกค้าสัมพันธ์

การบริหารลูกค้าสัมพันธ์ (Customer Relationship Management: CRM) เป็นการสร้างกลยุทธ์ทางการตลาดด้วยการ "รักษาฐานลูกค้าเก่า" ให้ลูกค้ารักในสินค้าและบริการของธุรกิจ (Frederick Newell, 1999) สำหรับยุควิถีใหม่ (New Normal) เป็นความท้าทายในการบริหารลูกค้าสัมพันธ์หลังจากการแพร่ระบาดของโควิด-19 ที่ธุรกิจจะต้องเรียนรู้ พัฒนา เพื่อรักษาความสัมพันธ์อันดีกับลูกค้าในระยะยาว กล่าวคือ ธุรกิจควรสร้างฐานข้อมูลของลูกค้า โดยการจัดเก็บข้อมูลภายในองค์กรผ่านกระบวนการวิเคราะห์ และทำความเข้าใจลูกค้า ว่าลูกค้าแต่ละบุคคลต้องการอะไร มีความหลากหลายอย่างไร (ธวัลรัตน์ วงศ์พฤกษ์ และคณะ, 2564) สื่อสารกับลูกค้าผ่านช่องทางที่ลูกค้าสะดวกที่สุด โดยนำเสนอสินค้าและบริการที่ลูกค้าต้องการในจังหวะเวลา และสถานที่ที่เหมาะสม รวมถึงลูกค้าต้องการได้รับบริการแบบเฉพาะบุคคลเพิ่มมากขึ้น ธุรกิจควรนำเสนอสินค้าและบริการที่จะมอบประสบการณ์และการให้บริการที่สอดคล้องกับประวัติการซื้อ รสนิยม บริบท และเจตนารมณ์ของลูกค้าคนนั้นๆ (อภิเษก เทวินทรภักติ, 2564) เพื่อทำให้ลูกค้าเกิดความพึงพอใจ เกิดทัศนคติที่ดี ทำให้ลูกค้าเกิดความสนใจที่จะซื้อสินค้าหรือบริการอย่างต่อเนื่องจนไปถึงเกิดความภักดีในที่สุด

องค์ประกอบของการบริหารลูกค้าสัมพันธ์ มีดังนี้ 1) ด้านการติดตามลูกค้า เพื่อสอบถามรูปแบบสินค้าและบริการที่ลูกค้าต้องการอยู่เสมอ ความพึงพอใจของลูกค้า รวมทั้งปัญหาของการใช้บริการเพื่อจะได้นำไปปรับปรุงแก้ไข 2) ด้านการสร้างสัมพันธภาพกับลูกค้า ผ่านช่องทางสื่อสารดิจิทัลมีเดีย เช่น Facebook/LINE ที่ให้ความสะดวกกับลูกค้า หรือมีระบบสมาชิกเพื่อสานสัมพันธ์กับลูกค้า ด้วยการมอบสิทธิพิเศษต่างๆ (loyalty Program) 3) ด้านการบริหารการสื่อสารระหว่างกัน มีพนักงานที่คอยแนะนำเกี่ยวกับสินค้าและบริการ สามารถโต้ตอบแบบเรียลไทม์เพื่อให้บริการแก่ลูกค้าอย่างทันท่วงที 4) ด้านการเข้าใจความคาดหวังของลูกค้า เพื่อนำเสนอสินค้าและบริการที่ดี ให้ลูกค้าเกิดความประทับใจและพึงพอใจมากที่สุด (Lawson-Body & Limayem, 2004)

แนวคิดและทฤษฎีเกี่ยวกับความภักดีของลูกค้า

จากการเปลี่ยนแปลงที่รวดเร็วของเทคโนโลยีก่อนหน้านี้ และผลกระทบจากโควิด-19 ทำให้ธุรกิจต้องวางแผนปรับเปลี่ยนกลยุทธ์ใหม่ๆ เพื่อทำให้ลูกค้าพึงพอใจมากที่สุดและสร้างให้เกิดความภักดีกับธุรกิจของตนเอง เมื่อได้ทบทวนวรรณกรรมนักวิชาการหลายท่านได้อธิบายถึง"ความภักดีของลูกค้า" ดังนี้ นักวิชาการต่างชาติ กล่าวว่า ความภักดีของลูกค้า คือ การสนับสนุนอย่างเต็มใจในระยะยาวของลูกค้า โดยการซื้อซ้ำหรือใช้บริการอย่างสม่ำเสมอ (Gronroos, 2000) โดยเกี่ยวข้องกับความพึงพอใจเป็นความผูกพันที่ลูกค้ามีให้กับสินค้าและบริการผ่านประสบการณ์ที่ได้รับ (Bourdeau, 2005 & Skogland & Siguaw, 2004) จะมีพฤติกรรม การใช้บริการต่อ, การไม่ใช้บริการที่อื่นและ

การบอกต่อแนะนำให้ผู้อื่น (Faed, Hussain & Chang, 2014) ขณะที่นักวิชาการไทย กล่าวว่า ความภักดีของลูกค้ามีความสำคัญมากสำหรับธุรกิจโดยเฉพาะภาคบริการ (Wajeetongratana, P., Joemsittiprasert, W., & Jermsittiparsert, K., 2019) ถือเป็นความเต็มใจของลูกค้าที่จะซื้อจะจ่ายสินค้าหรือบริการเดิมซ้ำๆ ซึ่งหมายถึงความชอบ ความพึงพอใจอย่างมากที่ลูกค้ามีต่อสินค้าหรือบริการนั้นๆ (Rungsrisawat, S., Namdej, N., & Jermsittiparsert, K., 2019) สอดคล้องกับมุมมองของณัฐทิชา ชาญวิทย์การ (2563) กล่าวว่า ความภักดีเกี่ยวข้องกับทัศนคติของลูกค้าที่มีต่อสินค้าและบริการ เพราะหากลูกค้ามีทัศนคติที่ดีจะส่งผลให้เกิดพฤติกรรมการซื้อซ้ำที่สม่ำเสมอได้ สามารถแบ่งความภักดีของลูกค้าออกเป็นสององค์ประกอบ คือมิติด้านพฤติกรรมที่เป็นการซื้อซ้ำและมิติด้านทัศนคติ (Wangchan, R., & Worapishet, T., 2019) โดยความภักดีด้านทัศนคติ มีความเป็นไปได้ที่ลูกค้าจะยึดติดกับสินค้าที่พวกเขาชื่นชอบ เป็นความรู้สึกทางอารมณ์ แต่ในความเป็นจริง พวกเขาอาจไม่เคยบริโภคสินค้าหรือบริการนั้นเลยก็เป็นได้ (Sangperm, N., & Pungpho, K., 2020) นอกจากนี้คุณภาพการบริการมีส่วนอย่างมากต่อการสร้างความพึงพอใจของลูกค้าและมีบทบาทสำคัญในการสร้างความรู้สึกภักดีต่อทุกธุรกิจ (Pungpho, K., & Wanarat, S., 2017) สอดคล้องกับ Wang, T., & Chaipoopirutana, S. (2015) ที่กล่าวว่า เมื่อลูกค้าพึงพอใจกับคุณภาพการบริการของบริษัท พวกเขามักจะอยู่กับบริษัทนี้ต่อไปในระยะยาว เพราะหากผู้บริโภคเกิดความภักดีเมื่อไหร่ก็ย่อมยากที่จะเปลี่ยนใจไปใช้สินค้าหรือบริการจากแบรนด์อื่นหรือคู่แข่ง เนื่องจากผู้บริโภคมีความรู้สึกพึงพอใจและคุ้นชินในตัวสินค้าหรือบริการนั้นแล้ว (ชัชญาภา ศักดิ์ศรี, 2561)
สิ่งสำคัญที่ผลักดันทำให้เกิดความภักดีของลูกค้า คือ ข้อมูล (Data) เพราะจะช่วยให้เข้าใจข้อมูลเชิงลึก (Insight) ของลูกค้า (Lynne Capozzi, 2020) ข้อมูลที่ควรพิจารณาเหล่านี้จะเข้ามาช่วยในเรื่องของการทำการตลาด ซึ่งธุรกิจจะสามารถนำเสนอกลยุทธ์เพื่อตอบสนองต่อความต้องการของลูกค้าได้ มีดังนี้ 1) ด้านความตั้งใจซื้อ 2) ด้านการแนะนำผู้อื่น 3) ด้านความไม่อ่อนไหวต่อราคา 4) ด้านพฤติกรรมการร้องเรียน (Zeithaml, Parasuraman & Berry, 1990; Pong & Yee , 2001)

งานวิจัยที่เกี่ยวข้อง

ณัฐทิชา ชาญวิทย์การ (2563) ศึกษาปัจจัยส่วนประสมการตลาดในมุมมองของผู้บริโภคและปัจจัยคุณค่าตราสินค้าที่มีผลต่อความจงรักภักดีในตราสินค้าของผู้บริโภคกาแฟแฟรนไชส์ของไทยในกรุงเทพมหานคร พบว่า ปัจจัยส่วนประสมทางการตลาดและปัจจัยคุณค่าตราสินค้า มีความสัมพันธ์ทางบวกต่อความจงรักภักดีในตราสินค้าของผู้บริโภคกาแฟแฟรนไชส์

ณัฐพัชร์ อภิรุ่งเรืองสกุล และประสพชัย พสุนนท์ (2563) ศึกษาเรื่องนวัตกรรมการตลาดสู่การขับเคลื่อนพาณิชย์อิเล็กทรอนิกส์ ผลการศึกษาพบว่า ความตั้งใจซื้อสินค้าได้รับอิทธิพลรวมสูงสุดจากปัจจัยด้านนวัตกรรมการตลาด คือ ด้านคุณค่าเฉพาะตัว เนื่องจากพาณิชย์อิเล็กทรอนิกส์นั้นมีความสะดวกรวดเร็วในการซื้อสินค้า การชำระเงิน และการจัดส่งสินค้า

วัชรี จงแจ่ม (2563) ศึกษาเรื่องการสร้างความภักดีต่อตราสินค้าของร้านสะดวกซื้อเซเว่นอีเลฟเว่น สาขาถนนบางบอน 3 เขตบางบอน กรุงเทพมหานคร พบว่าความภักดีเป็นผลมาจากด้านความน่าเชื่อถือของบริการ ด้านพฤติกรรมหลังการใช้บริการที่อยากแนะนำบุคคลอื่นต่อ และด้านการสร้างการรับรู้คุณภาพและรับรู้ในคุณค่าตราสินค้าเพื่อลดพฤติกรรมลังเลในการเลือกซื้อสินค้า

เอริสา ยุติธรรมดำรง (2562) ศึกษาเรื่องการสื่อสารการตลาด 4.0: ความท้าทายของผู้ประกอบการธุรกิจอาหารเสริมและเครื่องดื่มสุขภาพสำหรับผู้บริโภคสูงอายุ พบว่า ผู้บริโภคสูงอายุปัจจุบันยังมีวิถีชีวิตที่ทันสมัย พร้อมเปิดรับสิ่งใหม่ๆ เข้าถึงเทคโนโลยีได้ มีพฤติกรรมการซื้อสินค้าและบริการที่โดนใจ มีความคุ้มค่ากับการลงทุน ใช้เครือข่ายสังคมออนไลน์ ในการหาความรู้ หาคำแนะนำ จากบุคคลผู้วิพากษ์วิจารณ์สินค้า เพื่อให้ได้สินค้าและบริการที่เหมาะกับความเป็นตัวตน

ชัชญาภา ศักดิ์ศรี (2561) ศึกษาการบริหารลูกค้าสัมพันธ์มีผลต่อความภักดีต่อการใช้บริการห้างสรรพสินค้า กรณีศึกษาห้างสรรพสินค้าแห่งหนึ่ง พบว่า ปัจจัยการบริหารลูกค้าสัมพันธ์ ส่งผลไปในทิศทางเดียวกับความภักดีของผู้ใช้บริการห้างสรรพสินค้า ได้แก่ ด้านการซื้อซ้ำ หรือใช้บริการซ้ำ และด้านพฤติกรรมผู้บริโภค อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

จากองค์ความรู้และข้อค้นพบจากการทบทวนวรรณกรรมครั้งนี้ พบว่า ปัจจัยที่ส่งผลต่อความภักดีของธุรกิจร้านกาแฟ ประกอบด้วย 1) ปัจจัยด้านพฤติกรรมผู้บริโภค (Philip Kotler, 1997) 2) ปัจจัยด้านนวัตกรรมการตลาด (Michele, Audrey และ David, 2009) 3) ปัจจัยด้านการบริหารลูกค้าสัมพันธ์ (Lawson-Body และ Limayem, 2004) โดยนำมากำหนดเป็นกรอบแนวคิดการวิจัย ดังนี้

ตัวแปรต้น **ตัวแปรตาม**

ด้านพฤติกรรมผู้บริโภค (Philip Kotler, 1997)
1) ผู้บริโภคซื้ออะไร (What)
2) ทำไมจึงซื้อ (Why)
3) ใครมีส่วนร่วมในการซื้อ (Who)
4) ซื้อเมื่อใด (When)
5) ซื้อที่ไหน (Where)
6) ซื้ออย่างไร (How)

ด้านนวัตกรรมการตลาด (Michele, Audrey & David, 2009)
1) คุณค่าเฉพาะตัว
2) การมุ่งเน้นที่ตัวลูกค้า
3) การมุ่งตลาดเฉพาะกลุ่ม
4) ความหลากหลายของผลิตภัณฑ์
5) การสื่อสารการตลาดแบบบูรณาการ

ด้านการบริหารลูกค้าสัมพันธ์ (Lawson-Body & Limayem, 2004)
1) การติดตามลูกค้า
2) การมีสัมพันธภาพกับลูกค้า
3) การบริหารการสื่อสารระหว่างกัน
4) การเข้าใจความคาดหวังของลูกค้า

ความภักดีของธุรกิจร้านกาแฟ(Zeithaml, Parasuraman & Berry, 1990; Pong & Yee , 2001)

บทสรุป

เมื่อความภักดีของลูกค้า (Customer Loyalty) เป็นเครื่องมือสำคัญในการสร้างความสามารถในการแข่งขันและช่วยรักษาฐานลูกค้าเก่าพร้อมกับสร้างลูกค้าใหม่ได้ ธุรกิจร้านกาแฟจึงควรศึกษาปัจจัยทั้งด้านพฤติกรรมผู้บริโภคเพื่อให้เข้าใจความต้องการของลูกค้า สร้างนวัตกรรมการตลาดเพื่อคุณภาพและความแตกต่างของสินค้าและบริการ ผสานกับการแสดงจุดยืนของธุรกิจอย่างชัดเจนเพื่อ

การบริหารลูกค้าสัมพันธ์ เพราะการทำการตลาดโดยทำให้ลูกค้าเกิดความภักดีเป็นการตลาดแบบยั่งยืน

การจำแนกปัจจัยที่ส่งผลให้เกิดความภักดีของลูกค้า จากการทบทวนวรรณกรรมของผู้เขียนพบว่าความภักดีของลูกค้าเกิดจากปัจจัย 3 ด้าน คือ 1) ด้านพฤติกรรมผู้บริโภค (Consumer Behavior) จะต้องประเมินสิ่งที่มีอิทธิพลต่อการตัดสินใจและกระบวนการการซื้อสินค้าและบริการ ได้แก่ ผู้บริโภคซื้ออะไร (What) ทำไมจึงซื้อ (Why) ใครมีส่วนร่วมในการซื้อ (Who) ซื้อเมื่อใด (When) ซื้อที่ไหน (Where) ซื้ออย่างไร (How) (Philip Kotler, 1997) 2) ด้านนวัตกรรมการตลาด (Marketing Innovation) ประกอบด้วย การสร้างคุณค่าเฉพาะตัว สิ่งที่เป็นเอกลักษณ์ช่วยสร้างมูลค่าเพิ่มทางการตลาด การมุ่งเน้นที่ตัวลูกค้า การมุ่งตลาดเฉพาะกลุ่ม ความหลากหลายของผลิตภัณฑ์ มองไปที่ความต้องการของตลาดและนำเสนอสินค้าและบริการที่คิดค้นขึ้นมาใหม่เสมอๆ และการสื่อสารการตลาดแบบบูรณาการ เพื่อสร้างการรับรู้และยอดรับสินค้าและบริการใหม่ให้แก่ลูกค้า (Michele, Audrey & David, 2009) 3) การบริหารลูกค้าสัมพันธ์ (Customer Relationship) ประกอบด้วย การติดตามลูกค้า เพื่อเก็บรวบรวมข้อมูลต่างๆ ของลูกค้า การสร้างสัมพันธภาพกับลูกค้า เพื่อสร้างช่องทางการการติดต่อสื่อสารให้เกิดสัมพันธภาพที่ดี การบริหารสื่อสารระหว่างกัน เพื่อติดต่อเชื่อมโยงและมีปฏิสัมพันธ์กับลูกค้า และการเข้าใจความคาดหวังของลูกค้า เพื่อนำเสนอสินค้าหรือบริการที่ดีที่สุด (Lawson-Body & Limayem, 2004)

เอกสารอ้างอิง

กฤษติญา มูลศร. (2562). นวัตกรรมและการตลาดดิจิทัลที่ส่งผลต่อผลการดำเนินงานของธุรกิจขนาดกลางและขนาดย่อมในประเทศไทย. *วารสารสหวิทยาการวิจัยมหาวิทยาลัยราชภัฏเพชรบูรณ์*.

ชัชญาภา ศักดิ์ศรี. (2561). *การบริหารลูกค้าสัมพันธ์มีผลต่อความภักดีต่อการใช้บริการห้างสรรพสินค้า กรณีศึกษาห้างสรรพสินค้าแห่งหนึ่ง*. การค้นคว้าอิสระ, มหาวิทยาลัยมหิดล.

ณัฐทิชา ชาญวิทย์การ. (2563). *ปัจจัยส่วนประสมการตลาดในมุมมองของผู้บริโภคและปัจจัยคุณค่าตลาสินค้าที่มีผลต่อความจงรักภักดีในตราสินค้าของผู้บริโภคกาแฟแฟรนไชส์ของไทยในกรุงเทพมหานคร*. การค้นคว้าอิสระ. บริหารธุรกิจมหาบัณฑิต, วิทยาลัยดุสิตธานี.

ณัฐพัชร์ อภิรุ่งเรืองสกุล และประสพชัย พสุนนท์. (2563). นวัตกรรมการตลาดสู่การขับเคลื่อนพาณิชย์อิเล็กทรอนิกส์. *วารสารปัญญาภิวัฒน์*.

ธวัลรัตน์ วงศ์พฤกษ์, เกตุวดี สมบูรณ์ทวี, วรพนธ์ วัฒนาธร, และ ณัฐวุฒิ สมบูรณ์ทวี. (2564). อิทธิพลของการบริหารลูกค้าสัมพันธ์ (CRM) ที่ส่งผลต่อผลการปฏิบัติงานขององค์กร กรณีศึกษา ธนาคารพาณิชย์ในประเทศไทย. *วารสารนวัตกรรมธุรกิจ การจัดการ และสังคมศาสตร มหาวิทยาลัยธรรมศาสตร์*.

รวิศ หาญอุตสาหะ. (2564). *ลูกค้ายุคนี้ตัดสินใจเลือกซื้อสินค้าจากอะไร?*. สืบค้นจาก .www.krungsri.com/th/plearn-plearn/customers-decide-to-buy.

วัชรี จงแจ่ม. (2563). *การสร้างความภักดีต่อตราสินค้าของร้านสะดวกซื้อเซเว่นอีเลฟเว่นสาขาถนนบางบอน 3 เขตบางบอน กรุงเทพมหานคร*. การค้นคว้าอิสระ. บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยราชภัฏเลย.

อภิเษก เทวินทรภักติ. (2564). *Beryl8 Plus เผย 5 เทรนด์ CRM กุญแจสำคัญสำหรับการทำดิจิทัลทรานส์ฟอร์เมชั่น*. สืบค้นจาก https://adaddictth.com/news/Beryl8Plus-5-Treand-CRM.

เอริสา ยุติธรรมดำรง. (2562). *การสื่อสารการตลาด 4.0: ความท้าทายของผู้ประกอบการธุรกิจอาหารเสริมและเครื่องดื่มสุขภาพสำหรับผู้บริโภคสูงอายุ*. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยรัตนบัณฑิต.

Bourdeau, L. B. (2005). *A New Examination of Service Loyalty: Identification of the Antecedents and Outcomes of Additional Loyalty Framework*. Doctoral Thesis, Florida University.

Faed, A., Hussain, O.K., & Chang, E. (2014). A methodology to map customer complaints and measure customer satisfaction and loyalty. *Service Oriented Computing and Applications, 8*(1), 33-53.

Frederick Newell. (1999). *Loyalty COM*. McGraw-Hill: New York.

Gronroos, C. (2000). *Service Management and Marketing: A Customer Relationship Management Approach*. John Wiley and Sons, Ltd., Hoboken.

Jes O'Reilly. (2020). นักการตลาดไทยมอง ‘นวัตกรรม’ คือกลยุทธ์สำคัญที่จะปฏิวัติการตลาด. สืบค้นจาก https://marketeeronline.co/archives/176715.

Lawson-Body, A., & Limayem M. (2004). The Impact of Customer Relationship Management on Customer Loyalty: The Moderating Role of Web Site Characteristics. *Journal of Computer-Mediated Communication, 9*(3), 428-448.

Lynne Capozzi. (2020). *5 Ways CMOs Are Using Data to Drive Customer Loyalty in 2020*. Retrieved from www.cmswire.com/digital-marketing/-ways-cmos-are-using-data-to-drive-customer-loyalty-in-2020/.

Michele, O., Audrey, G., & David, C. (2009). Innovative marketing in SMEs: an empirical study. *Taylor & Francis, 7*(5), 383-396.

Kotler, P. (1997). *Marketing management: analysis, planning, implementation and control*. 5th ed. Englewood Cliffs, NJ: Prentice Hall.

Pong, J. L. T., Yee, E. T. P. (2001). *An integrated model of service loyalty. Academy of Business & Administrative Sciences, International conferences*. Brussels, Belgium.

Pungpho, K., & Wanarat, S. (2017). A Structural Equation Model for Logistics Service Quality to Measurement Passenger Loyalty at Suvarnabhumi Airport, Thailand. *PSAKU International Journal of Interdisciplinary Research, 6*(1), 79-91.

Rungsrisawat, S., Namdej, N., & Jermsittiparsert, K. (2019). Role of Physical Environment to Create Corporate Image and Customer Loyalty of Thai Airline Customers: The Moderating Role of Perceived Value. *International Journal of Innovation, Creativity and Change, 8*(8), 296-314.

Sangperm, N., & Pungpho, K. (2020). Exploring the Nexus Between Bonding, Communication, Customer Satisfaction and Customer Loyalty: A Case of Higher Education Institutes in Thailand. *Asian Administration and Management Review, 3*(2), 25-38.

Wajeetongratana, P., Joemsittiprasert, W., & Jermsittiparsert, K. (2019). Determinants of Loyalty Intentions among Thai Banking Customers: A Knowledge-Based Perspective. *International Journal of Innovation, Creativity and Change, 8*(8), 277-295.

Wang, T., & Chaipoopirutana, S. (2015). A Study of the Factors Influencing Customer Loyalty: A Case Study of Thai Airways. *PSAKU International Journal of Interdisciplinary Research, 4*(2), 67-76.

Wangchan, R., & Worapishet, T. 2019. Factors Influencing Customer Loyalty in Hotel Business: Case Study of Five-Star Hotels in Bangkok, Thailand. *Asian Administration and Management Review, 2*(1), 86-96.

Zeithaml, V. A., Parasuraman, & L. L., Berry. (1990). *Delivering Quality Service: Balancing Customer Perceptions*. New York: The Free Press.

กระบวนการวิเคราะห์และออกแบบแอปพลิเคชัน: การประยุกต์ใช้การออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีน

Application analysis and design procedure: Applied application design for management of products import from China

วิธิญญา ศรีดี / Witinya Sridee
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: s63463829047@ssru.ac.th

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

วิไลลักษณ์ รักบำรุง / Wilailuk Rakbumrung
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: wilailuk.ra@ssru.ac.th

บทคัดย่อ

ปัจจุบันสถานการณ์โรคระบาดโคโรนาไวรัส หรือโควิด-19 จัดเป็นภาวะวิกฤตระดับโลกที่มีผลกระทบต่อสภาพสังคม และเศรษฐกิจ จนนำไปสู่รูปแบบการดำเนินชีวิตของคนเปลี่ยนไป แม้แต่การประกอบการธุรกิจโดยเฉพาะธุรกิจพาณิชย์อิเล็กทรอนิกส์เกิดขึ้นเป็นจำนวนมาก การนำแอปพลิเคชันมาใช้เป็นเครื่องมือในการค้นหาสินค้าที่ต้องการ ทำให้การส่งออกและนำเข้าสินค้าจากต่างประเทศมีการพัฒนาขึ้นอย่างต่อเนื่อง สำหรับประเทศไทยได้นำเข้าสินค้าจากสาธารณรัฐประชาชนจีนเข้ามาขายในประเทศ โดยตลาดหลัก คือ รูปแบบการให้บริการผ่านธุรกิจพาณิชย์อิเล็กทรอนิกส์ บทความนี้จึงมีวัตถุประสงค์ เพื่อศึกษาการประยุกต์ใช้การออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีน ผู้เขียนเสนอแบบจำลองการพัฒนา

แอปพลิเคชันแบบเร่งรัดมาประยุกต์ได้ ได้แก่ การกำหนดความต้องการ การออกแบบโดยผู้ใช้ การสร้างระบบ และการทดสอบระบบ เป็นกระบวนการสามารถนำมาประยุกต์ใช้ออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนได้ ซึ่งมีข้อดีคือ สามารถพัฒนาระบบได้อย่างรวดเร็ว ทั้งนี้ควรมีการศึกษาความต้องการของผู้ใช้แอปพลิเคชัน การออกแบบตามความต้องการของผู้ใช้ รูปแบบการใช้งาน ควรมีความง่ายต่อการใช้งาน และเห็นถึงประโยชน์ที่จะได้รับ ให้ผู้ใช้งานเกิดทัศนคติที่ดี และมีพฤติกรรมแนวโน้มที่จะใช้งาน

คำสำคัญ: กระบวนการวิเคราะห์และออกแบบ, แอปพลิเคชัน, การนำเข้าสินค้า

Abstract

Due to the current pandemic situation of coronavirus outbreak (COVID-19) that becomes a global crisis and effect both of our society and economy which changes our ways of life and businesses, especially in E-Commerce business. Application have been used as a tool to search for products, which helps to continuingly improve the process of import and export. For Thailand, we are importing products from People’s Republic of China with the target market of service provider for E-Commerce. The purpose of this article is to study on applied application design for management of products import from China, which the study tells us that Rapid Application Development (RAD) such as specifying our demand, design direction by user, create system with rapid applied software, and changes in the system are procedure to applied on application design for management of products import from China, with strong point of prompt system development, as there are tools and software to support this system development. Thus, further study on demand of application users with easy-to-use interface and allow users to see the benefit that they can receive to be able to suitably design the application for management of products import for users.

Keyword: System analysis and design, application, products import

บทนำ

การแพร่ระบาดของไวรัสโควิด-19 ได้สร้างภาวะวิกฤติในทุกด้าน โดยเฉพาะด้านเศรษฐกิจที่ส่งผลกระทบเป็นอย่างมาก สถานการณ์การระบาดของไวรัสโคโรนา หรือ COVID-19 รัฐบาลต้องใช้

มาตรการที่เข้มข้นเพื่อควบคุมการระบาด ส่งผลให้เศรษฐกิจหยุดชะงัก ซึ่งมาตรการต่างๆ นอกจากจะส่งผลกระทบต่อการดำเนินชีวิตแล้ว ยังส่งผลกระทบต่อภาคธุรกิจและเศรษฐกิจโดยรวมของประเทศไทยอีกด้วย จากสถานการณ์ดังกล่าวทำให้สภาพเศรษฐกิจโลกลดลง 3.2% และเศรษฐกิจอาเซียนจะลดลงราว 2.1-5.4% จากสถานการณ์ปกติ นอกจากนี้ยังส่งผลให้รูปแบบการดำเนินชีวิตของคนเปลี่ยนไป เกิดวิถีชีวิตใหม่ หรือ New Normal แม้แต่การประกอบการธุรกิจ โดยเฉพาะธุรกิจพาณิชย์อิเล็กทรอนิกส์ (E-Commerce) ก็เกิดขึ้นเป็นจำนวนมาก โดยมีการทำธุรกรรมซื้อขาย หรือแลกเปลี่ยนสินค้า และบริการบนอินเทอร์เน็ต โดยใช้เว็บไซต์ หรือแอปพลิเคชัน (Application) เป็นสื่อในการนำเสนอสินค้า ทำให้ผู้เข้าใช้บริการจากทุกที่ทั่วประเทศหรือทุกมุมโลกสามารถเข้าถึงร้านค้าได้ง่ายดายและตลอดเวลา 24 ชั่วโมง ทั้งนี้อุปกรณ์ที่ใช้เพื่อเข้าถึงอินเทอร์เน็ตมีอยู่เป็นจำนวนหลากหลายชนิด อาทิ สมาร์ทโฟน (Smartphone) แท็บเล็ต (Tablet) คอมพิวเตอร์ จากผลสำรวจพบว่า ปี 2562 ที่ผ่านมา คนไทยใช้อินเทอร์เน็ตเฉลี่ยอยู่ที่ 10 ชั่วโมง กับอีก 22 นาที ต่อวัน แต่ก็นับว่าทิ้งห่างจาก ปี 2556-2560 อยู่มาก โดยมีอัตราการเติบโตเฉลี่ย 14.5% ต่อปี ช่องทางที่ผู้คนใช้ติดต่อสื่อสารออนไลน์ แอปพลิเคชันไลน์ เป็นช่องทางที่ใช้ในการติดต่อสื่อสารออนไลน์ คิดเป็น 98.5% (สำนักงานพัฒนาธุรกรรมทางอิเล็กทรอนิกส์, 2563)

จากธุรกิจพาณิชย์อิเล็กทรอนิกส์ดังกล่าว ทำให้การส่งออกและนำเข้าสินค้าจากต่างประเทศ มีการพัฒนาขึ้นอย่างต่อเนื่อง โดยเฉพาะการค้าออนไลน์ของสาธารณรัฐประชาชนจีน สำหรับประเทศไทย การนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนเข้ามาขายในประเทศนั้น จึงไม่ใช่เรื่องใหม่สำหรับผู้ประกอบการ

ทั้งนี้การสั่งซื้อและนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนผ่านช่องทางแอปพลิเคชันของสาธารณรัฐประชาชนจีนแต่ละช่องทาง จะมีรูปแบบการใช้งานและกลุ่มลูกค้าที่แตกต่างกัน และด้วยความที่เป็นภาษาจีน แม้ว่าจะมีระบบแปลเป็นภาษาไทยแล้วก็ตาม ประโยคถูกแปลเป็นภาษาไทยที่ไม่ถูกต้องตามหลักไวยากรณ์ และมีบางคำศัพท์แปลความหมายผิด จึงทำให้เกิดความเข้าใจความหมายผิด เกิดความสับสนในขั้นตอนการสั่งซื้อและเงื่อนไขต่างๆ ในการสั่งซื้อสินค้ารวมทั้งการทำธุรกรรมทางด้านการเงินมีขั้นตอนที่ยุ่งยาก รวมถึงแพลตฟอร์มต่างๆ อย่างแอปพลิชันมีฟังก์ชันการทำงานที่ซับซ้อน ใช้งานยาก และยังไม่สอดคล้องกับความต้องการของผู้ใช้งาน หากผู้ประกอบการนำเข้าสินค้าเองโดยไม่ผ่านตัวแทนหรือตัวกลางอย่างบริษัทรับนำเข้าสินค้าจะทำให้เกิดกระบวนการที่ยุ่งยาก ซับซ้อน เช่น ต้องจัดเตรียมเอกสารข้อมูลสำคัญเพื่อการนำเข้าสินค้า ตั้งแต่ใบขนส่งสินค้า บัญชีราคาสินค้า เป็นต้น (สำนักงานพัฒนาธุรกรรมทางอิเล็กทรอนิกส์, 2563)

จากความสำคัญและปัญหาข้างต้น ผู้เขียนจึงสนใจจะศึกษาศึกษากระบวนการวิเคราะห์และออกแบบแอปพลิเคชัน: การประยุกต์ใช้การออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้า

สินค้าจากสาธารณรัฐประชาชนจีน ว่ามีกระบวนการใดบ้างที่สามารถประยุกต์ใช้การออกแบบแอปพลิเคชัน การบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีน เพื่อเป็นข้อมูลเสนอแนะต่อผู้ประกอบการในพัฒนา และปรับปรุงในการพัฒนาแอปพลิเคชันต่อไป

แอปพลิเคชัน

ความหมายของแอปพลิเคชัน

ความหมายของแอปพลิเคชันมีนักวิชาการนิยามให้ความหมายมากมาย โดยนักวิชาการต่างนิยามให้ความหมายที่แตกต่างกันออกไป ดังนี้ ธันวา ช่างบุ (2562) ได้ให้ความหมายของแอปพลิเคชัน ไว้ว่า หมายถึง โปรแกรมประยุกต์ที่ออกแบบมาให้ทำงานเฉพาะด้าน และใช้งานผ่านบนอุปกรณ์พกพาได้ ยกตัวอย่างเช่น แท็บเล็ต สมาร์ทโฟน เป็นต้น ในขณะที่ กณพ วัฒนา และคณะ (2556) ได้อธิบายว่า แอปพลิเคชัน คือ “โปรแกรมประเภทหนึ่งที่ถูกสร้างขึ้นเพื่อใช้งานบนมือถือหรือแท็บเล็ต” สำหรับ อรลดา แซ่โค้ว (2558) ได้อธิบายความหมายของแอปพลิเคชัน คือ โปรแกรมประยุกต์ที่เข้าถึงด้วยโปรแกรมค้นดูผ่านเครือข่ายคอมพิวเตอร์อย่างอินเทอร์เน็ตหรืออินทราเน็ต แอปพลิเคชันเป็นที่นิยมเนื่องจากความสามารถในการอัปเดตและดูแลโดยไม่ต้องแจกจ่ายและติดตั้งซอฟต์แวร์บนเครื่องผู้ใช้ นอกจากนี้ ศูนย์ข้อมูล Data Center Building Blocks Page ได้ให้ความหมายของแอปพลิเคชัน ว่าเป็นโปรแกรมที่ออกแบบมาช่วยให้สามารถทำสิ่งต่างๆ เช่น สร้างเอกสาร แก้ไขรูปภาพ และฟังเพลงได้โดยไม่จำเป็นต้องติดตั้งซอฟต์แวร์ที่ซับซ้อน (พรทิพย์ วงศ์สินอุดม, 2558)

จากความหมายของนวัตกรรมข้างต้น สามารถสรุปความหมายของแอปพลิเคชัน หมายถึง โปรแกรมประยุกต์ที่ออกแบบมาให้ทำงานเฉพาะด้าน ที่ช่วยอำนวยความสะดวกในด้านต่างๆ ออกแบบมาสำหรับแท็บเล็ต หรืออุปกรณ์มือถือ เรารู้จักกันในแต่ละระบบปฏิบัติการจะมีผู้พัฒนาแอปพลิเคชันมากมายเพื่อตอบสนองความต้องการของผู้ใช้

องค์ประกอบของแอปพลิเคชัน

องค์ประกอบของแอปพลิเคชัน แบ่งออกเป็น 4 ประเภท ได้แก่ (พรทิพย์ วงศ์สินอุดม, 2558)

1) Activity คือ Application Component ที่ใช้ในการควบคุมการสร้าง User Interface เช่น การแสดงผลหน้าจอรายการอีเมล, การแสดงหน้าจอแบบฟอร์มการส่งอีเมล เป็นต้น รวมถึงควบคุมการมีปฏิสัมพันธ์ระหว่างผู้ใช้กับ User Interface ด้วย

2) Service คือ Application Component ที่ไม่มี User Interface และจะทำการประมวลผล Background กล่าวคือ เป็นการประมวลผลที่สามารถทำงานขนานกันกับการทำงานอื่นๆ ของผู้ใช้ ทั้งนี้ก็เพื่อทำให้เกิดการทำงาน โดยที่ผู้ใช้ไม่จำเป็นต้องอยู่ในหน้าจอนั้นๆ ก็ได้

3) Content Provider คือ Application Component ที่ทำหน้าที่ในการควบคุมข้อมูลใดๆ ของ Application ที่ต้องการ Share ให้ Application อื่นๆ สามารถนำข้อมูลนั้นๆ ไปใช้งานได้

4) Broadcast Receiver คือ Application Component ที่ไม่มี User Interface โดยจะทำหน้าที่รับรู้สิ่งที่เกิดขึ้นของ System และนำมาบอกให้ผู้ใช้ได้รับรู้

โดยสรุปจากการทบทวนวรรณกรรม พบว่า แอปพลิเคชันช่วยเป็นตัวกลางการสื่อสารระหว่างผู้ประกอบการกับลูกค้า ด้วยการแบ่งปันทรัพยากรเดียวกันไม่ต่างจากเว็บไซต์ ช่วยให้เราเข้าใจพฤติกรรมของผู้ใช้งาน และวิเคราะห์สิ่งที่ผู้ใช้ต้องการได้อย่างแม่นยำ นอกจากนี้ แอปพลิเคชันยังมีข้อดีและข้อเสีย ที่ผู้ประกอบการจะต้องศึกษาก่อนที่จะเลือกใช้ แอปพลิเคชันเพื่อให้เกิดประโชน์กับธุรกิจให้มากที่สุด

ทฤษฎีการวิเคราะห์และออกแบบระบบแอปพลิเคชัน

มีนักวิชาการได้เสนอทฤษฎีการวิเคราะห์และออกแบบระบบแอปพลิเคชัน ไว้หลายท่าน โดยผู้เขียนขอยกตัวอย่าง ดังนี้

ขั้นตอนการพัฒนาระบบ

ขั้นตอนของการพัฒนาระบบ มีกรอบการทำงานที่มีโครงสร้างชัดเจน มีการลำดับกิจกรรมที่แน่นอน ดังนี้ (สุนทร คล้ายสุบรรณ และคณะ, 2561)

1) การกำหนดความต้องการของระบบ (Requirement Definition) ในขั้นตอนนี้ ผู้พัฒนาระบบจะต้องค้นหาปัญหา และศึกษาทำความเข้าใจปัญหาข้อเท็จจริงต่างๆ ที่เกิดขึ้นจากการทำงานในระบบงานเดิม โดยผู้พัฒนาระบบจะต้องทำความเข้าใจปัญหาอย่างถ่องแท้คิดหาแนวทาง และวัตถุประสงค์ในการแก้ปัญหา ศึกษาความเป็นไปได้ในการแก้ปัญหา รวบรวมความต้องการ และสรุปข้อกำหนด ต่างๆ ให้ชัดเจน ถูกต้อง และเป็นที่ยอมรับทั้งสองฝ่าย พร้อมทั้งกำหนดแผนการดำเนินกิจกรรมซึ่ง แบ่งออกเป็น 3 ขั้นตอนย่อย คือ

1.1) การกำหนดปัญหา (Problem Definition) เป็นขั้นตอนที่ผู้พัฒนาระบบเข้าไปทำความเข้าใจปัญหา คือ การทำความเข้าใจกับปัญหาที่เกิดขึ้นอย่างถ่องแท้ว่าปัญหาที่แท้จริงคืออะไร พร้อมทั้งคิดหาแนวทางหรือสถานการณ์ที่ผู้พัฒนาระบบเชื่อว่าสามารถปรับปรุงระบบให้ดีขึ้น

1.2) การศึกษาความเป็นไปได้ (Feasibility Study) เป็นขั้นตอนที่ผู้พัฒนาระบบทำการศึกษาความเป็นไปได้ในการดำเนินการปรับปรุงระบบ พิจารณาถึงความพร้อมในด้านต่างๆ รวมถึงความเสี่ยงที่อาจส่งผลกระทบต่อความล้มเหลวในการปรับปรุงระบบ โดยทำการศึกษาความเป็นไปได้ในแง่มุมต่างๆ เช่น (1) ความเป็นไปได้ทางเทคนิค (2) ความเป็นไปได้ทางเศรษฐศาสตร์ (3) ความเป็นไปได้

ด้านการปฏิบัติงาน (4) ความเป็นไปได้ทางด้านเวลาในการดำเนินการ และ (5) การกำหนดความต้องการของระบบ

2) การวิเคราะห์ระบบ (System Analysis) เป็นขั้นตอนการวิเคราะห์ระบบงานปัจจุบันในลักษณะของการพัฒนาแนวคิดสำหรับระบบใหม่ วัตถุประสงค์หลักในการวิเคราะห์ระบบ คือ ต้องศึกษาและทำความเข้าใจเกี่ยวกับความต้องการต่างๆ ตามที่ได้รวบรวมจากขั้นตอนการกำหนดความต้องการของระบบ แล้วทำการวิเคราะห์เพื่อประเมินว่าระบบใหม่ควรมีหน้าที่อะไรบ้างที่ต้องดำเนินการ

3) การออกแบบระบบ (System Design) ในขั้นตอนนี้ผู้พัฒนาระบบจะออกแบบระบบสารสนเทศที่สอดคล้องกับความต้องการที่ได้ระบุไว้ในเอกสารขั้นตอนของการวิเคราะห์ระบบ ในขณะที่แบบจำลองเชิงกายภาพจะนำแบบจำลองเชิงตรรกะมาพัฒนาต่อด้วยการมุ่งเน้นว่าระบบจะดำเนินงานอย่างไร เพื่อให้เกิดผลตามความต้องการ โดยระบุถึงคุณลักษณะของอุปกรณ์ และเทคโนโลยีที่จะนำมาใช้ นอกจากนี้นักวิเคราะห์ระบบอาจจะมีการตรวจสอบความพึงพอใจในรูปแบบและลักษณะการทำงานที่ออกแบบไว้โดยอาจจะมีการสร้างตัวต้นแบบ (Prototype) เพื่อให้ผู้ใช้ได้ทดลองใช้งาน

4) การพัฒนาระบบ (System Development) เป็นขั้นตอนที่นำเอาระบบที่ได้ออกแบบไว้มาทบทวนเพื่อพัฒนาโปรแกรม และการทดสอบโปรแกรม ในกระบวนการนี้โปรแกรมเมอร์จะต้องพัฒนาโปรแกรมให้เป็นไปตามคุณลักษณะและรูปแบบตามที่นักวิเคราะห์ระบบได้กำหนดไว้ การเขียนชุดคำสั่งเพื่อสร้างระบบงานทางคอมพิวเตอร์โดยโปรแกรมเมอร์ สามารถนำเครื่องมือเข้ามาช่วยในการพัฒนาโปรแกรม เพื่อช่วยให้ระบบงานสามารถพัฒนาได้เร็วขึ้นและมีคุณภาพ

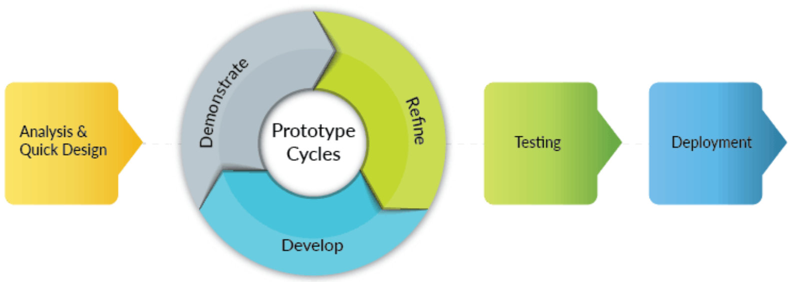
5) การทดสอบระบบ (System Testing) เมื่อได้พัฒนาโปรแกรมแล้ว ยังไม่สามารถนำระบบไปใช้งานได้ทันที จำเป็นต้องดำเนินการทดสอบระบบก่อนที่จะนำระบบไปใช้งานจริงการทดสอบเบื้องต้น หากพบข้อผิดพลาดจึงทำการปรับปรุงแก้ไขให้ถูกต้อง โดยการทดสอบระบบนี้จะมีการตรวจสอบอยู่ 2 ส่วน คือ การตรวจสอบรูปแบบภาษาเขียน (Syntax) และการตรวจสอบการทำงานของระบบว่าตรงกับความต้องการของผู้ใช้หรือไม่

6) การติดตั้งระบบ (System Implement) เมื่อทำการทดสอบระบบจนมั่นใจว่าระบบสามารถทำงานได้จริง และตรงกับความต้องการของผู้ใช้ระบบ ตลอดจนพร้อมที่จะนำไปติดตั้งเพื่อใช้งานในสถานการณ์จริง จึงนำระบบไปติดตั้งการติดตั้งระบบ ดังนั้น จึงควรเลือกแนวทางที่เหมาะสมในการติดตั้งด้วย ซึ่งแบ่งออกเป็น 4 แนวทาง ดังนี้ (1) การติดตั้งแบบทันทีทันใด (2) การติดตั้งแบบขนาน (3) การติดตั้งแบบนำร่อง และ (4) การติดตั้งแบบทยอยติดตั้งเป็นระยะ

7) การบำรุงรักษาระบบ (System Maintenance) หลังจากที่ระบบงานที่พัฒนาขึ้นมาใหม่ได้ถูกนำไปใช้งานเป็นที่เรียบร้อยแล้ว หากพบข้อผิดพลาดหรือข้อบกพร่องจากการทำงานของระบบงานใหม่ผู้พัฒนาระบบจึงจำเป็นต้องดำเนินการติดตามและแก้ไขให้ถูกต้อง

แบบจำลองการพัฒนาแอปพลิเคชันแบบเร่งรัด (Rapid Application Development Model

แบบจำลองการพัฒนาแอปพลิเคชันแบบเร่งรัด (Rapid Application Development: RAD) ถูกพัฒนาขึ้นเพื่อแก้ไขจุดอ่อนของ Structured Design ด้วยการพัฒนาระบบให้มีขั้นตอนการทำงานที่รวบรัดมากขึ้น ด้วยการเลือกใช้เครื่องมือ (Tools) และเทคนิค (Techniques) ต่างๆ เพื่อช่วยให้การพัฒนาระบบนั้นดำเนินการได้อย่างรวดเร็ว อีกทั้งผู้ใช้ระบบยังสามารถทดลองใช้โปรแกรมต้นแบบเพื่อบอกนักวิเคราะห์ระบบได้ว่า ระบบที่ออกแบบมานั้นถูกต้องหรือไม่ และมีข้อผิดพลาดใดเกิดขึ้นบ้าง จากที่กล่าวไว้ข้างต้นว่า Methodology แบบ RAD นี้ได้มีการนำเทคนิค และเครื่องมือชนิดต่างๆ เข้ามาสนับสนุนการพัฒนาระบบให้สามารถดำเนินการในขั้นตอนต่างๆ ใน Systems Development Life Cycle (SDLC) ได้ด้วยการใช้ระยะเวลาที่น้อยกว่าแบบ Structured Systems Analysis and Design Method (SSADM) (รัชนีวรรณ กอวิรัตน์, 2560)



ภาพที่ 1 Rapid Application Development Model
ที่มา: รัชนีวรรณ กอวิรัตน์ (2560)

จากภาพที่ 1 ขั้นตอนการทำงานของวงจรการพัฒนาแบบ RAD ประกอบไปด้วย 4 ส่วน ดังนี้ (1) การกำหนดความต้องการ (Planning) (2) การออกแบบโดยผู้ใช้ (3) การสร้างระบบโดยการใช้ตัวซอฟต์แวร์ประยุกต์อย่างเร็ว และ (4) การเปลี่ยนระบบ โดยการรวมขั้นตอนการทำงานของวงจรการพัฒนาระบบ (SDLC) เพื่อให้เป็นวงจรการพัฒนาแบบ RAD

นอกจากนี้วิธีการพัฒนาระบบที่มีแนวทางในการพัฒนาตามแบบ RAD Methodology ยังมีการแตกแขนงออกไปอีกหลายวิธี เช่น Phased Development-based Methodology เป็นต้น โดยวงจรการพัฒนาแบบ RAD มีข้อดีคือ สามารถพัฒนาระบบได้อย่างรวดเร็ว เพราะมีการใช้เครื่องมือ หรือ

ซอฟต์แวร์ในการพัฒนาระบบ ส่วนข้อเสียของ RAD คือ การลดขนาดระบบลง (Reduced Scalability) ทำให้มีความยืดหยุ่นน้อย เนื่องจากพัฒนาจากต้นแบบ นอกจากนี้คุณลักษณะยังลดน้อยลง (Reduced Features) เพราะถูกจำกัดด้วยเวลา อาจจะทำให้ได้ระบบที่ไม่สมบูรณ์

ในบทความฉบับนี้ผู้เขียนขอเสนอแบบจำลองการพัฒนาแอปพลิเคชันแบบเร่งรัด (Rapid Application Development Model) เพื่อเป็นข้อเสนอแนะในการประยุกต์ใช้การออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนในลำดับต่อไป

อิทธิพลของตลาดสินค้าออนไลน์จีนต่อตลาดสินค้าออนไลน์ของประเทศไทย

การเปิดบริการเว็บไซต์ชอปปิงออนไลน์ของประเทศไทยมีมาระยะเวลาไม่นานนัก และมีการพัฒนาที่ค่อนข้างช้ากว่าสาธารณรัฐประชาชนจีน การเติบโตทางด้านระบบออนไลน์ชอปปิงของประเทศไทยพึ่งจะพัฒนาอย่างรวดเร็วในไม่กี่ปีที่ผ่านมา เห็นได้จากกระแสการตอบรับของสังคมต่อการซื้อขายของผ่านทางโซเชียลมีเดียของประเทศไทย มีแนวทางชัดเจนขึ้น มียอดการสั่งซื้อต่อวันที่เพิ่มมากขึ้น ในขณะเดียวกันตัวแทนรับพรีออเดอร์สินค้าจากสาธารณรัฐประชาชนจีน ก็เริ่มมีมากขึ้นตามความต้องการของสังคมที่ตอบรับความร่วมมืออาเซียน และแนวการปรับเปลี่ยนทางด้านเศรษฐกิจโลก สิ่งเหล่านี้คือความเป็นไปในการพัฒนาการขายสินค้าแบบไร้พรหมแดนจากการเปลี่ยนแปลงที่เห็นได้ชัดที่สุด ของตลาดสินค้าออนไลน์ประเทศไทย คือ บริษัท Lazada เว็บไซต์ชอปปิงออนไลน์ที่ให้บริการในแถบเอเชียตะวันออกเฉียงใต้ ที่พึ่งถูกกลุ่มบริษัท Alibaba เข้ามาเป็นผู้ถือหุ้นรายใหญ่ เป็นข้อมูลที่อ้างจากเว็บไซต์ MarketingOop.com การเพิ่มดีลโปรโมชัน หรือแม้กระทั่งการนำเข้าสินค้าจากต่างประเทศเองก็มีกลิ่นอายของการค้าขายแบบชาวจีนเข้ามามากขึ้น ร้านค้าบางร้านมีหน้าร้านที่สาธารณรัฐประชาชนจีน และส่งสินค้ามาจากสาธารณรัฐประชาชนจีนโดยตรง เช่นเดียวกับ Ali-Express อีกช่องทางของนักชอปปิงออนไลน์ชาวไทยที่นิยมเลือกซื้อสินค้าจากสาธารณรัฐประชาชนจีนผ่านช่องทางนี้ นับเป็นการรวมตลาดระหว่างไทย-จีน ไปโดยปริยาย และนำสินค้าเข้ามาในประเทศไทยผ่านบริษัทขนส่งเอกชนระหว่างไทย-จีน กำลังได้รับความนิยมจากผู้บริโภคชาวไทย ด้วยราคาที่ถูกและสินค้าที่มีรูปแบบทันสมัย การขนส่งที่ใช้ระยะเวลาสั้น ชาวไทยจึงนิยมเลือกซื้อสินค้าผ่านช่องทางนี้อย่างต่อเนื่อง ในด้านของชาวจีนมีการเข้ามาทำตลาดในประเทศไทยด้วยการขายสินค้าจากสาธารณรัฐประชาชนจีนด้วยตนเอง ในลักษณะของการเช่าพื้นที่ร้านค้าตามห้างสรรพสินค้า หรือการออกซุ้มประชาสัมพันธ์บริษัทตามงานประชุมต่างๆ มีเพิ่มมากขึ้น การเปลี่ยนแปลงนี้หากวิเคราะห์ในเชิงได้เปรียบเสียเปรียบแล้ว ยังเป็นข้อมูลที่ต้องศึกษาโดยละเอียด ซึ่งมีผลต่อโครงสร้างทางเศรษฐกิจของไทยในอนาคตในด้านการทำตลาดสินค้าจากไทยไปสาธารณรัฐประชาชนจีนผ่านช่องทางออนไลน์สำหรับบุคคลทั่วไปแล้ว ยังมีรายละเอียดปลีกย่อย

และเงื่อนไขต่างๆ อีกมากมายที่ต้องศึกษาข้อมูลเชิงลึกอย่างละเอียด สิ่งที่เราควรทำ คือ วิเคราะห์ตลาดความต้องการของชาวจีนเปิดช่องทางในการผลิตสินค้าแลกเปลี่ยนระหว่างไทย-จีน รวมถึงการเพิ่มมูลค่าสินค้าด้วยภาษาที่ตรงกลุ่มเป้าหมายมากยิ่งขึ้น (ปิยวัช วสุสิริกุล และ Rainer Hans Stasiewski, 2559)

ข้อเสนอแนะการนำกระบวนการวิเคราะห์และออกแบบแอปพลิเคชันมาประยุกต์ใช้การออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีน

ในปัจจุบันเทคโนโลยีได้เข้ามามีบทบาทที่สำคัญต่อธุรกิจการค้าเป็นอย่างมากรวมทั้งธุรกิจการนำเข้าสินค้า บุคคลที่มีความรู้ความสามารถ หรือมีความเชี่ยวชาญทางด้านเทคโนโลยีสมัยใหม่ เช่น สามารถออกแบบแอปพลิเคชันการบริหารจัดการ เป็นต้น ซึ่งมีวัตถุประสงค์เพื่อเพิ่มช่องทางในการเข้าถึงการนำเข้าสินค้าเพิ่มมากขึ้น โดยเฉพาะการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีน ผู้เขียนจึงมีข้อเสนอแนะต่อกระบวนการวิเคราะห์และออกแบบแอปพลิเคชัน โดยใช้แบบจำลองการพัฒนาแอปพลิเคชันแบบเร่งรัด (Rapid Application Development: RAD) ดังนี้

1) การกำหนดความต้องการ (Planning) ในขั้นตอนนี้นักวิเคราะห์ระบบจะต้องค้นหาปัญหาและศึกษาทำความเข้าใจปัญหา ข้อเท็จจริงต่างๆ ที่เกิดขึ้นจากการทำงานในระบบงานเดิม นักวิเคราะห์ระบบต้องทำความเข้าใจปัญหาอย่างถ่องแท้ คิดหาแนวทางและวัตถุประสงค์ในการแก้ปัญหา ศึกษาความเป็นไปได้ในการแก้ปัญหา รวบรวมความต้องการและสรุปข้อกำหนดต่างๆ ให้ชัดเจน ถูกต้อง และเป็นที่ยอมรับทั้งสองฝ่าย พร้อมทั้งกำหนดแผนการดำเนินกิจกรรม ทั้งนี้ผู้พัฒนาแอปพลิเคชันควรศึกษาปัญหา และความต้องการด้านการพัฒนาแอปพลิเคชันการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีน ซึ่งสามารถทำได้หลายวิธี อาทิ โดยใช้การสัมภาษณ์แบบกึ่งโครงสร้างกับกลุ่มผู้ให้ข้อมูลสำคัญ ผู้วิจัยพิจารณาจากความอิ่มตัว (Data saturation) และความเพียงพอของข้อมูล (Data Sufficiency) หรือการสนทนากลุ่ม (Focus group) นอกจากนี้ควรมีการวางแผนการหารายได้จากแอปพลิเคชัน การวางแผนการตลาด ที่จะนำแอปพลิเคชันสู่เชิงพาณิชย์ สอดคล้องกับงานวิจัยของพัชรินทร์ บุญช่วย และ วิไลลักษณ์ รักบำรุง (2563) ได้ออกแบบต้นแบบ การพัฒนาต้นแบบนวัตกรรมการบริหารจัดการงานก่อสร้างอาคารพักอาศัย บริษัท เซนจิเนียร์ส จำกัด โดยมีการศึกษาปัญหา และความต้องการของผู้ใช้งานก่อนที่จะพัฒนาต้นแบบนวัตกรรม

2) การออกแบบโดยผู้ใช้ โดยการออกแบบระบบจะประกอบด้วยการออกแบบที่เกี่ยวข้องกับฮาร์ดแวร์ ซอฟต์แวร์ และระบบเครือข่าย การออกแบบรายงาน การออกแบบหน้าจอนำเข้าข้อมูล การออกแบบรูปแบบข้อมูลที่นำเข้า และรูปแบบการรับข้อมูล การออกแบบผังระบบงาน การออกแบบฐานข้อมูล การสร้างต้นแบบและการออกแบบโปรแกรม ซึ่งกระบวนการนี้ผู้พัฒนาแอป

พลิเคชันควรออกแบบให้สอดคล้องกับความต้องการของผู้ใช้ตามที่ได้เก็บข้อมูลมาในข้อที่ 1 ซึ่งการออกแบบ ต้องพิจารณาถึง User Experience: UX คือนักออกแบบประสบการณ์ผู้ใช้ทำความเข้าใจถึงความต้องการของผู้ใช้งาน เพื่อให้ทราบถึงปัญหาของผู้ใช้งาน เฟ้นหาไอเดียที่จะสร้างสรรค์ ออกแบบสินค้าและบริการให้ตรงความต้องการผู้ใช้มากที่สุด ซึ่งหน้าที่หลักๆ ของ UX Design มีดังนี้ คือ รวบรวมข้อมูลเกี่ยวกับผู้ใช้งาน รวมถึงทำการค้นคว้า ออกแบบ ทดสอบ และประเมินผลสิ่งต่างๆ ที่เกี่ยวข้องกับผู้ใช้งาน และทำการออกแบบต่างๆ เพื่อนำมาประยุกต์กับการออกแบบประสบการณ์ผู้ใช้ (User Experience) เช่น Design Thinking, Design Sprint และ Lean UX และ User Interface: UI คือ นักออกแบบส่วนติดต่อผู้ใช้ UX Design ควรมีทักษะทั้งด้าน Hard Skill และ Soft Skil โดยที่ทักษะด้าน Hard Skill ที่ต้องมี ไม่ว่าจะเป็นการพัฒนา Customer Journey รวมไปถึง User Flow ร่างภาพต้นแบบ (Wireframe) การสร้างต้นแบบ (Prototype) และทดสอบกับผู้ใช้ (Testing) มีความรู้ความสามารถหลักในการออกแบบต่างๆ เช่น รู้องค์ประกอบศิลป์ การออกแบบ UI สำหรับเว็บไซต์ และโทรศัพท์มือถือ มีความเข้าใจการออกแบบประสบการณ์ผู้ใช้ เพื่อตอบโจทย์ความต้องการ และปัญหาที่แท้จริง

3) การพัฒนาระบบโดยการใช้ตัวซอฟต์แวร์ประยุกต์อย่างเร็ว (RAD Software) โดยมุ่งเน้นไปที่งานพัฒนาโปรแกรม และแอปพลิเคชันที่คล้ายกับ SDLC อย่างไรก็ตามใน RAD ทั้งนี้เมื่อโปรแกรมได้พัฒนาขึ้นมาแล้ว ยังไม่สามารถนำระบบไปใช้งานได้ทันที จำเป็นต้องดำเนินการทดสอบระบบก่อนที่จะนำระบบไปใช้งานจริง การทดสอบเบื้องต้นด้วยการสร้างข้อมูลจำลองขึ้นมาเพื่อตรวจสอบการทำงานของระบบงาน ซึ่งหลังจากการสร้างระบบแล้วควรนำแอปพลิเคชัน ไปให้ผู้เชี่ยวชาญตรวจสอบคุณภาพของแอปพลิเคชันก่อนนำไปทดสอบระบบ สอดคล้องกับ Whitten, Lonnie และ Kevin (2003) ที่ได้อธิบายวิธีการวิเคราะห์และออกแบบระบบว่า การพัฒนาระบบอย่างเร็วผู้พัฒนาระบบจะต้องนำเอาต้นแบบที่พัฒนามาให้ผู้เชี่ยวชาญได้ทำการทดลองใช้ โดยข้อมูลความคิดเห็นและข้อเสนอแนะจากผู้เชี่ยวชาญจะถูกรวบรวมไปเพื่อปรับปรุงก่อนนำไปทดสอบระบบ

4) การทดสอบระบบ เพื่อนำแอปพลิเคชันที่พัฒนาขึ้นไปทดสอบกับกลุ่มผู้ใช้งาน โดยเมื่อทำการทดสอบระบบจนมั่นใจว่าระบบที่ได้รับการทดสอบนั้นพร้อมที่จะนำไปติดตั้งเพื่อใช้งานบนสถานการณ์จริง หลังจากที่ระบบงานที่พัฒนาขึ้นมาใหม่ได้ถูกนำไปใช้งานเป็นที่เรียบร้อยแล้ว หากพบข้อผิดพลาดหรือข้อบกพร่องจากการทำงานของระบบงานใหม่ต้องดำเนินการติดตามและแก้ไขให้ถูกต้อง สอดคล้องกับงานวิจัยของ สุรินทร์ อุ่นแสน และคณะ (2561) ได้พัฒนาแอปพลิเคชันสำหรับคัดกรองพฤติกรรมเสี่ยงของนักเรียนวัยรุ่น โดยมีการทดสอบระบบ และนำผลจากการ

ทดสอบไปปรับปรุง และแก้ไขแอปพลิเคชัน เพื่อให้สามารถทำงานได้ตรงตามความต้องการของผู้ใช้และทำงานได้อย่างมีประสิทธิภาพต่อไป

ทั้งนี้การพัฒนาแอปพลิเคชันควรมีการศึกษาถึงปัจจัยที่ส่งผลต่อการยอมรับ อาทิ ความง่ายต่อการใช้งาน ประโยชน์ที่ได้รับ ทัศนคติของผู้ใช้งาน รวมถึง พฤติกรรมแนวโน้มจะใช้งาน ที่จะส่งผลต่อการยอมรับและดาวน์โหลดไปใช้งานในลำดับต่อไป ซึ่งสอดคล้องกับแนวคิดของ Davis (1989) ที่ได้เสนอแนวคิดการยอมรับเทคโนโลยี เมื่อมีการสร้างเทคโนโลยีใหม่ มีการศึกษาการยอมรับการใช้งานในด้านสร้างการรับรู้ถึงความง่ายต่อการใช้งาน ประโยชน์ในการใช้งาน ซึ่งส่งผลต่อทัศนคติที่ดีต่อการใช้งานของผู้ใช้ ทำให้เกิดความตั้งใจในการใช้เทคโนโลยี สุดท้ายจะมีการใช้จริง

บทสรุป

ปัจจุบันสถานการณ์โรคระบาดโคโรนาไวรัส หรือโควิด-19 นั้น จัดเป็นภาวะวิกฤตระดับโลกที่มีผลกระทบต่อสภาพสังคมและเศรษฐกิจ จนนำไปสู่รูปแบบการดำเนินชีวิตของคนเปลี่ยนไป แม้แต่การประกอบการธุรกิจ โดยเฉพาะธุรกิจพาณิชย์อิเล็กทรอนิกส์ (E-Commerce) เกิดขึ้นเป็นจำนวนมาก ธุรกิจพาณิชย์อิเล็กทรอนิกส์ คือ การทำธุรกรรมซื้อขาย หรือแลกเปลี่ยนสินค้าและบริการบนอินเทอร์เน็ต โดยใช้เว็บไซต์ หรือแอปพลิเคชัน โดยถูกนำมาใช้เป็นเครื่องมือในการค้นหาสินค้าที่ต้องการ โดยวิธีการนำรูปภาพหรือคีย์เวิร์ดที่เกี่ยวข้องไปทำการค้นหาสินค้าผ่านทาง Search Engines Site เพื่อศึกษาดูข้อมูลรายละเอียด ภาพสินค้า ราคา และความน่าเชื่อถือของร้านค้า เพื่อการประกอบการตัดสินใจซื้อ ทำให้การส่งออกและนำเข้าสินค้าจากต่างประเทศ มีการพัฒนาขึ้นอย่างต่อเนื่อง สำหรับประเทศไทย การนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนเข้ามาขายในประเทศนั้นจึงไม่ใช่เรื่องใหม่สำหรับผู้ประกอบการในประเทศไทย โดยตลาดหลักในรูปแบบการให้บริการผ่านธุรกิจพาณิชย์อิเล็กทรอนิกส์ของสาธารณรัฐประชาชนจีน เติบโตขึ้นตามลำดับ

ทั้งนี้การสั่งซื้อและนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนผ่านช่องทางแอปพลิเคชันเป็นสิ่งสำคัญที่ผู้ประกอบการต้องเรียนรู้ และพัฒนาแอปพลิเคชันให้สามารถใช้งานได้อย่างสะดวก เพื่อให้เกิดประโยชน์ต่อธุรกิจ

จากการศึกษา ผู้เขียนเสนอ แบบจำลองการพัฒนาแอปพลิเคชันแบบเร่งรัด (Rapid Application Development: RAD) ได้แก่ การกำหนดความต้องการ การออกแบบโดยผู้ใช้ การสร้างระบบโดยการใช้ตัวซอฟต์แวร์ประยุกต์อย่างเร็ว และการทดสอบระบบ เป็นกระบวนการสามารถนำมาประยุกต์ใช้การออกแบบแอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนได้ ซึ่งมีข้อดีคือ สามารถพัฒนาระบบได้อย่างรวดเร็ว เพราะมีการใช้เครื่องมือ หรือซอฟต์แวร์ในการพัฒนาระบบ ทั้งนี้ต้องมีการศึกษาความต้องการของผู้ใช้แอปพลิเคชัน การออกแบบตามความ

ต้องการของผู้ใช้ รูปแบบการใช้งานควรมีความง่ายต่อการใช้งาน และเห็นถึงประโยชน์ที่จะได้รับ เพื่อให้สามารถออกแบบ แอปพลิเคชันการบริหารจัดการการนำเข้าสินค้าจากสาธารณรัฐประชาชนจีนได้อย่างเหมาะสมกับผู้ใช้งานต่อไป

เอกสารอ้างอิง

กณพ วัฒนา, กุสุมา ผลาพรม, สุทิติ ขัตติยะ และสมิตร ส่งพิริยะกิจ. (2556). การพัฒนาโปรแกรมบนคอมพิวเตอร์ชนิดพกพา (TABLET) ในการเพิ่มประสิทธิภาพการตรวจงานก่อสร้าง. *วารสารวิชาการเทคโนโลยีอุตสาหกรรม, 9*(2).

ธันวา ช่างบุ. (2562). *การพัฒนาแอปพลิเคชันสำหรับสั่งซื้ออาหารออนไลน์ในพื้นที่เทศบาลนครพิษณุโลก จังหวัดพิษณุโลก*, มหาวิทยาลัยนเรศวร.

ปิยวัช วสุสิริกุล และ Rainer Hans Stasiewski. (2559). *การเติบโตของตลาดออนไลน์จีน*. การค้นคว้าอิสระ,มหาวิทยาลัยเทคโนโลยีราชมงคลกรุงเทพ.

พัชรินทร์ บุญช่วย และวิไลลักษณ์ รักบำรุง. (2563). *ต้นแบบนวัตกรรมการบริหารจัดการงานก่อสร้างอาคารพักอาศัย*. การค้นคว้าอิสระ วิทยาลัยนวัตกรรมและการจัดการ, มหาวิทยาลัยราชภัฏสวนสุนันทา.

พรทิพย์ วงศ์สินอุดม. (2558). *การพัฒนาแอปพลิเคชันบทเรียนบนคอมพิวเตอร์พกพา ร่วมกับการเรียนแบบเพื่อนช่วยเพื่อนที่ส่งผลต่อการเรียนรู้ร่วมกันของนักเรียนระดับชั้นประถมศึกษาปีที่ 3 จังหวัดเพชรบุรี*. การค้นคว้าอิสระ, มหาวิทยาลัยศิลปากร.

รัชนีวรรณ กอวิรัตน์. (2560). มาทำความรู้จัก Rapid Application Development (RAD) กันว่าคืออะไร. สืบค้นจากwww.glurgeek.com.

สุรินทร์ อุ่นแสน ปัณณรัตน์ วงศ์พัฒนานิภาส และณัฐรดี อนุพงค์. (2561). การพัฒนาแอปพลิเคชันสำหรับคัดกรองพฤติกรรมเสี่ยงของนักเรียนวัยรุ่น. *Veridian E-Journal, 11*(3).

สุนทร คล้ายสุบรรณ์, อรทัย ทองฤกษ์ฤทธิ์ และเบญจมาศ ฉลาดการณ์. (2561). *การพัฒนาระบบสารสนเทศด้านการวิจัยของสำนักงานปลัดกระทรวงศึกษาธิการ*. สำนักนโยบายและยุทธศาสตร์ สำนักงานปลัดกระทรวงศึกษาธิการ.

สำนักงานพัฒนาธุรกรรมทางอิเล็กทรอนิกส์. (2563). ETDA เผยมูลค่า e-Commerce ไทยปี 62 คาดพุ่ง 4.02 ล้านล้านบาท. สืบค้นจาก www.etda.or.th.

อรลดา แซ่โค้ว. (2558). *เว็บแอพพลิเคชั่นการจัดการความรู้ผ่านโทรศัพท์เคลื่อนที่ สำหรับนักศึกษาระดับปริญญาตรี. มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี*. การค้นตว้าอิสระ คณะครุศาสตร์อุตสาหกรรม. สาขาวิชาเทคโนโลยีการบริหารการศึกษา.

Davis, F.D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

Whitten, J. L.; Lonnie D. B., Kevin C. D. (2003). *Systems Analysis and Design Methods*. 6th ed.Mcgraw-Hill.

นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจซื้ออาหารโฮมเมด

Service Innovation Affecting Decision to Purchase Homemade Food

วิรัช วัฒนกิตติคุณ / Wirach Wattanakittikun
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: s63463A829002@ssru.ac.th

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

ศุภรา เจริญภูมิ / Suppara Charoenpoom
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: suppara.ch@ssru.ac.th

บทคัดย่อ

บทความนี้เป็นการทบทวนวรรณกรรมเพื่อสร้างกรอบแนวคิดการวิจัยที่แสดงถึงอิทธิพลของนวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจซื้ออาหารโฮมเมด ผลจากการศึกษาพบว่า นวัตกรรมการบริการ ประกอบด้วยปัจจัยย่อย 4 ด้าน คือ ด้านสารสนเทศ ด้านกระบวนการ ด้านเทคโนโลยี และด้านสภาพแวดล้อม โดยปัจจัยดังกล่าวมีความสัมพันธ์กับการตัดสินใจซื้ออาหารโฮมเมด ที่ประกอบไปด้วย 5 ขั้นตอน ได้แก่ การรับรู้ถึงปัญหา การค้นหาข้อมูล การประเมินทางเลือก การตัดสินใจซื้อ และความรู้สึกภายหลังการซื้อ โดยเนื้อหาส่วนใหญ่ของบทความได้รวบรวมแนวคิดและทฤษฎีของนักวิชาการอย่างหลากหลาย เพื่อให้ทราบถึงรายละเอียดของนวัตกรรมการบริการและการตัดสินใจซื้อที่มีความชัดเจน และผู้ประกอบธุรกิจบริการทั่วไปสามารถนำข้อค้นพบด้านนวัตกรรมการบริการนี้ไปเป็นเครื่องมือในการจัดการธุรกิจของตนให้บรรลุเป้าหมายหรือจุดประสงค์ที่ตั้งไว้ ซึ่งถือเป็นผลลัพธ์ที่ทุกองค์กรปรารถนา

คำสำคัญ: นวัตกรรมการบริการ, การตัดสินใจซื้อ, อาหารโฮมเมด

Abstract

This paper reviews the literature to create a research conceptual framework demonstrating the influence of service innovations on homemade food purchasing decisions. The results of the study found that service innovation. It consists of 4 sub-factors, information, process, technology, and environment. These factors are related to the decision to buy homemade food, which consists of 5 steps: problem recognition, searching for information, alternative assessment, purchasing decisions, and feeling after purchase. Most of the content in the article has been compiled from ideas and theories of scholars for acknowledge the details of service innovation and obvious purchasing decision and the service providers can use these service innovation findings as a tool to achieve their business management, target or intended purpose. This is the result that every organization desires.

Keywords: Service Innovation, Decision to Purchase, Homemade Food

บทนำ

ปัจจุบันความก้าวหน้าทางเทคโนโลยีทำให้พฤติกรรมการบริโภคของคนในสังคมเมืองเปลี่ยนแปลงไป การดำเนินชีวิตที่ต้องเร่งรีบแข่งขันกับเวลาตลอดทั้งวัน ทำให้ผู้คนไม่มีเวลาแสวงหาสิ่งที่ตัวเองต้องการ โดยแท้จริงด้วยข้อจำกัดด้านเวลาและความต้องการด้านความสะดวกสบาย ส่งผลให้ผู้คนมองหาช่องทางที่จะตอบสนองความต้องการของตัวเองมากขึ้น (ยง ภู่วรวรรณ, 2563) ธุรกิจร้านอาหารเป็นหนึ่งในทางเลือกและเป็นธุรกิจที่มีความสำคัญยิ่งต่อภาคบริการและเศรษฐกิจของไทย มีมูลค่าหมุนเวียนไม่ต่ำกว่า 4 แสนล้านบาท คิดเป็นสัดส่วนร้อยละ 4.7 ของผลิตภัณฑ์มวลรวมของประเทศในภาคบริการ โดยในช่วง 4-5 ปีที่ผ่านมา ธุรกิจร้านอาหารมีการขยายตัวจากการลงทุนของผู้ประกอบการรายเดิมและรายใหม่ โดยต้นปี พ.ศ.2563 ศูนย์วิจัยกสิกรไทยคาดการณ์ว่าธุรกิจร้านอาหารจะมีมูลค่ารวมอยู่ที่ 4.39 แสนล้านบาทหรือขยายตัวร้อยละ 1.4-2.4 จากปี พ.ศ.2562 แต่ในเวลาต่อมาศูนย์วิจัยกสิกรไทยได้ปรับประมาณการรายได้ของธุรกิจร้านอาหารในปี พ.ศ.2563 ลงเหลือ 4.02-4.12 แสนล้านบาทหรือลดลง 2.65-3.65 หมื่นล้านบาท ซึ่งเป็นการขยายตัวในอัตราที่ชะลอลงและมีโจทย์ท้าทายรอบด้านรออยู่ อาทิ ต้นทุนทางธุรกิจที่สูงขึ้น พฤติกรรมและความต้องการของผู้บริโภคที่เปลี่ยนแปลงไปอย่างรวดเร็ว

ธุรกิจอาหารโฮมเมดคือการนำอาหารผลิตจากครอบครัวมาสู่รูปแบบร้านอาหาร ซึ่งเป็นอาหารที่มีการปรุงแต่งโดยใช้สูตรเฉพาะ หรือจากการคิดค้นขึ้นมาเอง หรือสืบทอดจากรุ่นสู่รุ่น การคัดสรรวัตถุดิบที่มีคุณภาพซึ่งหาได้จากถิ่นกำเนิด มีความสดใหม่ สะอาด และการปรุงอาหารมีความพิถีพิถัน ให้ความรู้สึกที่อบอุ่น เนื่องจากเป็นอาหารที่ทำให้คนในครอบครัวรับประทาน และเป็นอาหารสูตรเฉพาะของแต่ละครอบครัว (กนกภรณ์ โกศลวรวัฒนกุล, 2563) ธุรกิจอาหารโฮมเมดที่แท้จริงจะไม่ใช้เครื่องจักรในลักษณะของอุตสาหกรรมในการผลิต แต่เป็นการผลิตในรูปแบบของครอบครัว ที่ผลิตในจำนวนที่ไม่มากแบบวันต่อวันหรือตามความต้องการของลูกค้า โดยกลุ่มเป้าหมายหลักของตลาดธุรกิจอาหารโฮมเมดคือกลุ่มนักศึกษาและ วัยทำงาน ด้วยเสน่ห์ที่กล่าวมาของอาหารโฮมเมด ทำให้ผู้ประกอบการเอสเอ็มอีรายใหม่พยายามวางตำแหน่งสินค้าของตนเองให้อยู่ในจำพวกอาหารโฮมเมดเพื่อเพิ่มมูลค่าให้แก่สินค้าของตน (เปี่ยมจิต คหกิจโกศล, 2559) แม้ว่าอาหารโฮมเมดจะมีจุดเด่นที่รสชาติ วัตถุดิบ ที่มีคุณภาพ และการปรุงอาหารมีความพิถีพิถันดังที่กล่าวมาข้างต้น แต่จากสถานการณ์การแพร่ระบาดของไวรัสโควิด-19 ส่งผลให้ผู้ประกอบการร้านอาหารต่างๆ ได้รับผลกระทบต่อรายได้ ผู้วิจัยในฐานะที่เป็นผู้ประกอบการร้านอาหารโฮมเมดจึงสนใจที่จะทำการศึกษาข้อมูลแนวคิดทฤษฎี และงานวิจัยที่เกี่ยวข้องเพื่อสร้างกรอบแนวคิดในการพัฒนาไปสู่งานวิจัยที่สมบูรณ์ในอนาคต ของการศึกษาปัจจัยนวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจซื้ออาหารโฮมเมด

การทบทวนวรรณกรรม

แนวคิดและทฤษฎีเกี่ยวกับนวัตกรรมการบริการ

ความหมายของนวัตกรรม

สมนึก เอื้อจิระพงษ์พันธ์ และคณะ (2553) กล่าวว่า ความสามารถทางนวัตกรรมมีด้วยกัน 2 ด้าน คือ ความสามารถทางนวัตกรรมผลิตภัณฑ์ และความสามารถทางนวัตกรรมกระบวนการ สร้างประโยชน์ต่อการเป็นผู้ประกอบการ ดังนี้

ความสามารถทางนวัตกรรมผลิตภัณฑ์ (Product Innovativeness) บอกถึงความสามารถของธุรกิจในการสร้างและใช้ความคิดใหม่ ทำให้เกิดการพัฒนาผลิตภัณฑ์หรือบริการใหม่ และ ส่งผลประโยชน์ในทางเศรษฐกิจแก่ธุรกิจ โดยมีลักษณะของความใหม่ (Newness) ความเป็นเอกลักษณ์ (Uniqueness) และความเป็นผลิตภัณฑ์ต้นแบบ (Originality)

ความสามารถทางนวัตกรรมกระบวนการ (Process Innovativeness) โดยมีความสามารถทางนวัตกรรมเทคโนโลยีเป็นส่วนหนึ่งที่แฝงอยู่ในความสามารถทางนวัตกรรมผลิตภัณฑ์และกระบวนการ โดยจะให้น้ำหนักเกี่ยวกับนวัตกรรมกระบวนการเป็นส่วนใหญ่ เพราะกระบวนการ

(Process) เป็นเรื่องเกี่ยวกับด้านวิธีและขั้นตอนการผลิตและระบบการบริหาร ซึ่งถูกพัฒนาเป็นนวัตกรรมด้วยเทคโนโลยีใหม่ ความสามารถทางนวัตกรรมกระบวนการจึงเป็นสิ่งที่มีการพิจารณาถึงความสามารถในการปรับใช้เทคโนโลยีใหม่ และการเปลี่ยนแปลงเทคโนโลยีที่นำมาปรับใช้ในกระบวนการผลิต และสร้างผลิตภัณฑ์หรือบริการใหม่ของธุรกิจ

Morton (1998) ได้ให้ความหมายของนวัตกรรมว่า เป็นการทำให้ใหม่ขึ้นอีกครั้ง (Renewal) ซึ่งเป็นการปรับปรุงสิ่งเก่า และพัฒนาศักยภาพของบุคลากร ตลอดจนหน่วยงานหรือองค์การนั้นๆ นวัตกรรมอาจไม่ใช่การขจัดหรือล้มล้างสิ่งเก่าๆ ให้หมดสิ้นไป แต่เป็นการปรับปรุง เสริมแต่ง และพัฒนา

Michael E. Porter (1990) ได้ให้ความหมายของนวัตกรรมไว้ว่า เป็นสิ่งสำคัญที่ทำให้องค์การ มีศักยภาพในการแข่งขัน และได้มองนวัตกรรมในความหมายที่กว้าง โดยรวมเอาเทคโนโลยีใหม่และแนวทาง ในการทำสิ่งต่างๆ เข้าไว้ด้วยกันPeter F. Drucker (1985) ได้ให้คำนิยามนวัตกรรมในมุมมองที่เกี่ยวข้องกับผู้ประกอบการว่านวัตกรรมคือเครื่องมือที่สำคัญสำหรับผู้ประกอบการในการแสวงหาผลประโยชน์และโอกาสจากการเปลี่ยนแปลงต่างๆ เพื่อสร้างธุรกิจและบริการที่แตกต่างจากคู่แข่งนวัตกรรม เป็นความสามารถที่ถูกแสดงออกมาในรูปแบบของการฝึกฝนศักยภาพในการเรียนรู้ และการนำไปปฏิบัติได้จริง

กล่าวโดยสรุป นวัตกรรมหมายถึง การนำความรู้ ทักษะ ประสบการณ์ ความคิดสร้างสรรค์ การเข้าใจถึงปัญหาของผู้บริโภคและความต้องการในรูปแบบต่างๆ ของผู้บริโภค ก่อให้เกิดการสร้างหรือพัฒนาเป็นผลิตภัณฑ์ใหม่หรือรูปแบบการบริการใหม่ หรือเกิดกระบวนการใหม่ รวมทั้งเกิดประโยชน์การเพิ่มมูลค่าสินค้า ระบบเชิงเศรษฐกิจและสังคม

ความหมายของนวัตกรรมการบริการ

ชัชพล ทรงสุนทรวงศ์ (2559) ให้ความหมาย นวัตกรรมการบริการ หมายถึง การนำความคิดแนวทางการการดำเนินงาน หรือเทคโนโลยีใหม่ๆ มาใช้ตอบสนองความต้องการและสร้างความพึงพอใจให้กับผู้บริโภค อีกทั้งยังเป็นการยกระดับประสิทธิภาพ เพิ่มประสิทธิผลของการบริการ และสร้างมูลค่าเพิ่มให้กับธุรกิจ

วลัยลักษณ์ รัตนวงศ์ณัฐธิดา สุวรรณโณ และธีรศักดิ์จินดาบถ (2557) กล่าวว่า นวัตกรรม การบริการ หมายถึง ความคิดสร้างสรรค์ของกระบวนการพัฒนาสินค้าและบริการใหม่ หรือเกิดกิจกรรมใหม่ๆ เพื่อตอบสนองความต้องการหลากหลายของผู้บริโภค โดยการบูรณาการศักยภาพการบริหารจัดการขององค์กร รวมถึงการสร้างปฏิสัมพันธ์กับผู้บริโภคเพื่อก่อให้เกิดการสร้างคุณค่าของบริการ

อัญชิสา ชูศรี (2557) ให้ความหมาย นวัตกรรมการบริการ หมายถึง การสร้างสรรค์ ในกระบวนการผลิตสินค้าและบริการให้มีความทันสมัย หรือการสร้างความสามารถในการตอบสนองความ

ต้องการของผู้บริโภคที่มีความหลากหลายที่มากขึ้น และเป็นการสร้างความสัมพันธ์กับผู้บริโภค ด้วยนวัตกรรมที่เป็นการสร้างมูลค่าให้กับธุรกิจเพิ่มขึ้น

Makoto Usui (2012) กล่าวว่า นวัตกรรมการบริการคือ การยกระดับประสิทธิภาพไปพร้อมกับการเพิ่มประสิทธิผลของระดับการบริการและการสร้างมูลค่าเพิ่ม รวมถึงการกระชับการบริการที่นำเสนอและการปรับให้มีความพอเหมาะพอดี นวัตกรรมการบริการยังเป็นบริการใหม่ที่มีลักษณะของการปฏิรูปจากเดิม โดยคำนึงถึงปัจจัยทางสังคม โครงสร้างของระบบที่เป็นอยู่ และการให้ความสำคัญกับคน

Van Ark (2003) กล่าวว่า นวัตกรรมการบริการเป็นข้อสรุปใหม่เกี่ยวกับเรื่องการบริการสำหรับธุรกิจในอันที่จะพัฒนาการสร้างปฏิสัมพันธ์กับผู้บริโภคในเรื่องระบบการส่งมอบการบริการ

ประเภทของนวัตกรรมการบริการ

การนำนวัตกรรมมาพัฒนาปรับปรุงรูปแบบและขั้นตอนต่างๆ ของการให้บริการในภาคธุรกิจ เพื่อจะได้บริการตรงกับความต้องการของผู้บริโภค โดยเน้นการอำนวยความสะดวกและเกิดความรวดเร็วในการเข้ารับบริการ ซึ่งประโยชน์ที่ได้รับคือ การเกิดความแตกต่างในการบริการ สร้างความพึงพอใจแก่ผู้บริโภค ทั้งนี้ พฤทธิ์ เทศจีบ (2561) ได้กล่าวไว้ว่า นวัตกรรมบริการเป็นการพัฒนาบริการใหม่ หรือ ปรับปรุงกระบวนการ ในการให้บริการ เพื่อตอบสนองความต้องการของผู้บริโภคที่มีความหลากหลาย และได้แบ่งประเภทนวัตกรรมการบริการออกเป็น 3 ประเภท ดังนี้

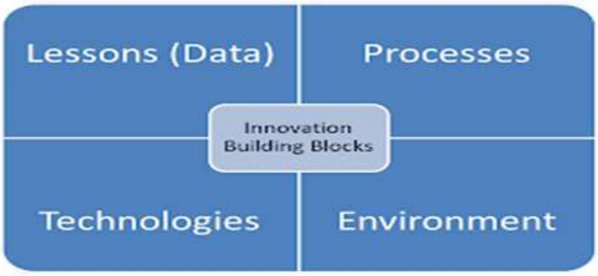
นวัตกรรมการบริการและผลิตภัณฑ์ด้านการบริการ เป็นการออกแบบปรับปรุงการบริการเดิมหรือสร้างรูปแบบการบริการใหม่ โดยอาจมีการนำเทคโนโลยีเข้ามาใช้เป็นองค์ประกอบการสร้างนวัตกรรมการบริการและผลิตภัณฑ์ด้านการบริการ

นวัตกรรมในกระบวนการบริการ เป็นการปรับปรุงหรือออกแบบกระบวนการในการสร้างการบริการใหม่ ซึ่งอาจรวมถึงระบบการส่งมอบสินค้า นวัตกรรมประเภทนี้อาจเป็นเทคโนโลยีเทคนิคหรือความชำนาญที่เกี่ยวข้องการการให้บริการลูกค้า เช่น การปรับโครงสร้างการปฏิบัติงาน เป็นต้น

นวัตกรรมในธุรกิจการบริการและอุตสาหกรรมการบริการ เป็นการสร้างนวัตกรรมขององค์กรรวมทั้งนวัตกรรมเกี่ยวกับผลิตภัณฑ์การบริการและกระบวนการบริการ การจัดการกระบวนการและนวัตกรรมการบริการ

องค์ประกอบของนวัตกรรมการบริการ

Service Research and Innovation Institute (SRII) Asia Summit (2013) ได้ทำการ สรุปไว้ว่าการสร้างนวัตกรรมบริการต้องอาศัยกรอบ (Framework) เพื่อใช้เป็นหลักยึดในกระบวนการของนวัตกรรมบริการ กรอบดังกล่าวเป็นส่วนประกอบโครงสร้าง หรือ Building Block ของนวัตกรรมบริการที่มีองค์ประกอบ 4 ส่วน โดยมีรายละเอียดดังแสดงในภาพที่ 1



ภาพที่ 1 ส่วนประกอบโครงสร้างนวัตกรรมการบริการ
ที่มา: กระทรวงวิทยาศาสตร์และเทคโนโลยี (2556)

จากภาพที่ 1 แสดงส่วนประกอบในการสร้างนวัตกรรมการบริการมีองค์ประกอบ 4 ส่วน ได้แก่ ข้อมูลสารสนเทศ (Data) หมายถึง วัตถุประสงค์หรือเป้าหมายของคุณค่าที่คาดหวังจากผลงานของนวัตกรรมการบริการ รวมทั้งประเด็นเงื่อนไขข้อจำกัด กล่าวโดยสรุปคือ การหาวิธีที่แก้ไขปัญหาให้กับลูกค้าหรือผู้รับบริการ ตัวอย่างเช่น ลูกค้าที่รับบริการใช้รถยนต์เพื่อเดินทางไปสถานที่ต่างๆ ข้อมูลนี้หมายถึง ลักษณะการบริการเช่ารถยนต์ เงื่อนไขที่เกี่ยวข้องการให้ความสะดวกแก่ผู้ใช้บริการที่ต้องรู้ตำแหน่งรับ-ส่งของรถ สามารถเปิดประตูและสตาร์ทเครื่องยนต์ได้โดยอาศัยกุญแจอิเล็กทรอนิกส์พิเศษ มีระบบการชำระเงินที่สะดวก เป็นต้น อาจถือได้ว่าเป็นคุณลักษณะหรือ Specification ของกลุ่มข้อเสนอที่จะถูกสร้างขึ้น

กระบวนการ (Process) หมายถึง ขั้นตอนการให้บริการในฝั่งผู้ให้บริการ และกระบวนการใช้บริการในฝั่งของผู้ใช้บริการเป็นส่วนสำคัญของนวัตกรรมการบริการ และเป็นทรัพย์สิน ทางปัญญาที่มีคุณค่ามาก เพราะจะเป็นส่วนที่มาจากแนวความคิดใหม่ๆ ที่ถือว่าเป็นนวัตกรรม โดยเฉพาะในยุคที่พัฒนาการด้านไอซีทีได้ก้าวหน้าไปมาก นวัตกรรมการบริการจะต้องสร้างขึ้นบนพื้นฐานของการใช้เทคโนโลยีสารสนเทศและการสื่อสาร โดยเฉพาะบรอดแบรนด์อินเทอร์เน็ตและอุปกรณ์พกพาไร้สาย

เทคโนโลยี (Technologies) เป็นเครื่องมือในการสนับสนุนกระบวนการ ที่เป็น ส่วนหนึ่งของข้อเสนอเพื่อสร้างคุณค่า รวมทั้งการเชื่อมโยงทรัพยากรทั้งจากแหล่งภายในและภายนอกองค์กรเพื่อร่วมกันสร้างข้อเสนอและสร้างคุณค่า จำเป็นต้องอาศัยระบบบริการที่เป็นระบบไอซีที ที่สำคัญระบบบริการที่เป็นไอซีทียังใช้เป็นระบบส่งมอบข้อเสนอให้ลูกค้านำไปสร้างคุณค่า ระบบบริการนี้จะถูกออกแบบให้สัมพันธ์กับข้อเสนอและกระบวนการสร้างคุณค่า การออกแบบระบบบริการถือว่าเป็นส่วนสำคัญอีกส่วนหนึ่งของนวัตกรรมการบริการ ตัวอย่างเช่น บริการรถยนต์เพื่อเดินทางสัญจร ประกอบด้วยเทคโนโลยีหลายด้าน เช่น เทคโนโลยีการใช้รหัสดาวน์โหลดลงในบัตรหรือในเครื่องโทรศัพท์เพื่อใช้เป็นกุญแจเปิดรถและสตาร์ทเครื่องยนต์ ระบบรับสัญญาณดาวเทียมเพื่อระบุ

ตำแหน่งของรถยนต์ ระบบการชำระเงินออนไลน์ ระบบบริหารข้อมูลของสมาชิก ระบบควบคุมคุณภาพผลิตภัณฑ์ เป็นต้น

สภาพแวดล้อม (Environment) หมายถึง การรับรู้ถึงข้อมูลประวัติและภาวะการณ์ ของผู้รับบริการที่จะช่วยให้การสร้างคุณค่าร่วมกันระหว่างผู้ให้บริการกับผู้รับบริการเป็นไปอย่างมีประสิทธิผล โดยเป็นลักษณะของการพยายามเข้าใจบริบทต่างๆ ของผู้บริโภคเพื่อจะได้สามารถตอบคำถามลูกค้าในบริบทต่างๆ ได้ นอกจากนี้อาจหมายถึงสภาพแวดล้อมด้านอื่นๆ ที่ส่งผลต่อการออกแบบข้อเสนอและระบบบริการ ที่นำไปสู่การสนับสนุนให้ลูกค้าสร้างคุณค่าได้เต็มที่ ตัวอย่างเช่น ในรูปแบบธุรกิจของ IKEA การบริการให้ลูกค้ามีบ้านที่น่าอยู่ มีห้องรับแขกที่สบายตา สบายกาย จำเป็นต้องให้ลูกค้ามีส่วนในการออกแบบและเลือกรูปแบบเฟอร์นิเจอร์ที่เหมาะกับรสนิยมของตนเอง ซึ่งหมายถึงต้องมีสถานที่ที่แสดงการวางตำแหน่งเฟอร์นิเจอร์ลักษณะต่างๆ ให้ลูกค้าเกิดความคิด นอกจากนี้ ในกรณีที่ลูกค้าพาสมาชิกครอบครัวมาร่วมกันเลือกรูปแบบสินค้า หรืออาจมีนักออกแบบภายในมาช่วยกันออกแบบและเลือกเฟอร์นิเจอร์ เพื่อให้เกิดความพอใจแก่ทุกฝ่าย รวมทั้งในบางกรณี ลูกค้าอาจพาลูกหลานตัวน้อยๆ ไปร่วมสนุกด้วย ห้าง IKEA จะต้องจัดสถานที่โชว์รูมที่มี ขนาดใหญ่กว่าร้านเฟอร์นิเจอร์ทั่วไป พร้อมเครื่องมือ-เครื่องใช้อำนวยความสะดวกหลายอย่าง ตั้งแต่ ร้านอาหาร ที่นั่งเพื่อการปรึกษาหารือ รวมทั้งสถานที่เด็กเล่น ที่จะสนองตอบความต้องการของผู้บริโภคในบริบทที่แตกต่างกันได้

กล่าวโดยสรุป นวัตกรรมการบริการเป็นการนำความคิดหรือแนวทางการการดำเนินงานด้วยการนำเทคโนโลยีใหม่ๆ มาใช้เพื่อตอบสนองความต้องการและสร้างความพึงพอใจให้กับผู้บริโภคโดยมีองค์ประกอบสำคัญ 4 ประการได้แก่ ข้อมูลสารสนเทศ กระบวนการ เทคโนโลยี และสภาพแวดล้อม

แนวคิดและทฤษฎีเกี่ยวกับการตัดสินใจซื้อ

ความหมายการตัดสินใจซื้อ

ณัฐธิดา เทพสุทิน (2558) กล่าวว่า การตัดสินใจซื้อเป็นขั้นตอนที่ผู้บริโภคพร้อมจะตัดสินใจซื้อ โดยผู้บริโภคจะเลือกจากทางเลือกต่างๆ ได้แก่ ผลิตภัณฑ์ แบรนด์ ตัวแทนการขาย ปริมาณในการซื้อ เวลาในการซื้อ และวิธีการชำระเงิน

สุทามาศ จันทรถาวร (2556) กล่าวว่า การตัดสินใจซื้อ คือ กระบวนการคัดเลือก แนวทางปฏิบัติจากทางเลือกต่างๆ เพื่อให้บรรลุวัตถุประสงค์ที่ต้องการ ซึ่งจัดเป็นส่วนหนึ่งของกระบวนการแก้ไขปัญหา

Armstrong & Kotler (2005 อ้างถึงใน Zhang Ziyue, 2560) กล่าวว่า การตัดสินใจซื้อของผู้บริโภค หมายถึง พฤติกรรมการซื้อของผู้ใช้สินค้าหรือการบริการ โดยอาจจะเป็นรูปแบบการซื้อทั้งสินค้าหรือบริการเพื่อสนองความต้องการของผู้บริโภค ซึ่งอยู่ในขั้นตอนการตัดสินใจสุดท้าย

Solomon (2013) ให้ความหมายของพฤติกรรมผู้บริโภคว่าเป็นกระบวนที่เกี่ยวข้องกับการเลือกซื้อสินค้าและบริการ รวมถึงประสบการณ์ที่เกี่ยวข้องกับบุคคลหรือกลุ่มบุคคล โดยมีจุดมุ่งหมายเพื่อตอบสนองตามความต้องการของบุคคลและหรือกลุ่มบุคคล

กระบวนการตัดสินใจซื้อ

Kotler & Keller (2016) กล่าว่า การตัดสินใจซื้อของผู้บริโภคที่แสดงถึงการตัดสินใจซื้อ โดยมีกระบวนการตัดสินใจ 5 ขั้นตอน ขั้นตอนแรกได้แก่ การรับรู้ถึงความต้องการ (Need Arousal) หรือการรับรู้ถึงปัญหา (Problem recognition) เป็นพฤติกรรมการซื้อที่มีจุดเริ่มต้นจากผู้บริโภค การที่บุคคลรับรู้ถึงความต้องการภายในของตนซึ่งอาจเกิดขึ้นเอง เช่น ความหิว หรือเกิดจากสิ่งกระตุ้นภายนอก เช่น สื่อโฆษณาที่จูงใจ หรือรับรู้จากรอบตัวใช้ผลิตภัณฑ์หรือสินค้านั้นๆ ขั้นตอนที่สองได้แก่ การค้นหาข้อมูล (Information Search) เป็นพฤติกรรมหลังผู้บริโภคเกิดความต้องการ ผู้บริโภคจะดำเนินการแสวงหาข้อมูลตัวผลิตภัณฑ์เพื่อใช้ประกอบการตัดสินใจ ขั้นตอนที่สามได้แก่ การประเมินผลทางเลือก (Evaluation of Alternative) ผู้บริโภคจะนำข้อมูลที่ได้รวบรวมไว้มาจัดเก็บหมวดหมู่และทำการวิเคราะห์ ขั้นตอนที่สี่ได้แก่ การตัดสินใจซื้อ (Purchase Decision) ภายหลังจากมีการประเมินทางเลือกในขั้นตอนที่ 3 จะช่วยให้ผู้บริโภคกำหนดความพอใจระหว่างผลิตภัณฑ์ต่างๆ ที่ผู้บริโภคชอบมากที่สุด การตัดสินใจซื้อจึงเกิดขึ้นหลังจากประเมินทางเลือก และขั้นตอนสุดท้ายได้แก่ ความรู้สึกภายหลังการซื้อ (Post Purchase Behavior) ความรู้สึกพอใจหรือไม่พอใจภายหลังจากมีการซื้อสินค้าไปใช้แล้ว ความรู้สึกขึ้นอยู่กับคุณสมบัติของผลิตภัณฑ์และความคาดหวังของผู้บริโภคว่าผลิตภัณฑ์ที่ซื้อไปนั้นสามารถตอบสนองความต้องการได้จริงหรือไม่

ปัจจัยที่มีอิทธิพลต่อกระบวนการตัดสินใจซื้อของผู้บริโภค

พฤติกรรมผู้บริโภคถูกกำหนดด้วยลักษณะทางกายภาพ และลักษณะทางกายภาพถูกกำหนดด้วยสภาพจิตวิทยา โดยสภาพจิตวิทยาถูกกำหนดด้วยครอบครัวและครอบครัวถูกกำหนดด้วยสังคม รวมถึงสังคม จะถูกกำหนดด้วยวัฒนธรรมของแต่ละท้องถิ่น ด้วยสาเหตุนี้นักการตลาดจำเป็นต้องศึกษาพฤติกรรมการซื้อและพฤติกรรมการใช้ของบริโภค ปัจจัยที่มีอิทธิพลต่อพฤติกรรมการซื้อของผู้บริโภค ประกอบด้วย ปัจจัยภายนอก และปัจจัยภายใน โดยที่ปัจจัยภายนอกประกอบด้วย ปัจจัยด้านวัฒนธรรม และด้านสังคม ส่วนปัจจัยภายในประกอบด้วย การจูงใจ การรับรู้ การเรียนรู้ ความเชื่อถือ ทัศนคติ บุคลิกภาพ และความรู้สึกนึกคิดของตนเอง(Kotler & Keller, 2016)

งานวิจัยที่เกี่ยวข้อง

นุช สิงห์แก้ว (2563) ศึกษาเรื่อง ปัจจัยที่มีผลต่อการตัดสินใจใช้บริการสั่งอาหารผ่านสื่อออนไลน์ของผู้บริโภคในเขตกรุงเทพมหานคร เป็นการวิจัยเชิงปริมาณ เก็บข้อมูลจากกลุ่มตัวอย่างได้แก่ประชากรเขตบางกะปิที่เคยใช้บริการสั่งอาหารผ่านสื่อออนไลน์ จำนวน 400 คน วิเคราะห์ข้อมูลโดยใช้การถดถอยพหุคูณผลการวิจัยพบว่า ปัจจัยด้านกระบวนการ ด้านลักษณะทางกายภาพ ด้านการส่งเสริมการตลาด ด้านราคา และด้านผลิตภัณฑ์มีผลต่อการตัดสินใจใช้บริการสั่งอาหารผ่านสื่อออนไลน์ของผู้บริโภคในเขตกรุงเทพมหานคร ตามลำดับ ณัฐศาสตร์ ปัญญานะ และวัชรพจน์ ทรัพย์สงวนบุญ (2562) ศึกษาเรื่อง ปัจจัยที่มีผลต่อการตัดสินใจใช้บริการอาหารตามสั่งแบบจัดส่ง เป็นการวิจัยเชิงปริมาณ เก็บข้อมูลจากกลุ่มตัวอย่างได้แก่ บุคลากรในมหาวิทยาลัยและผู้ที่อาศัยอยู่ในพื้นที่ใกล้เคียงกับมหาวิทยาลัยในเขตกรุงเทพมหานคร จำนวน 400 คน วิเคราะห์ข้อมูลด้วยค่าสถิติเพียร์สันไคสแควร์ ผลการวิจัยพบว่า ผู้บริโภคให้ความสำคัญกับปัจจัย ด้านกระบวนการ ด้านการนำสร้างและนำเสนอลักษณะทางกายภาพมากที่สุด โดยปัจจัยด้านผลิตภัณฑ์ ด้านช่องทางการจัดจำหน่าย ด้านการส่งเสริมการตลาด ด้านการนำสร้างและนำเสนอทางกายภาพมีผลต่อ การตัดสินใจใช้บริการอาหารตามสั่งแบบจัดส่ง นอกจากนี้ ณัฐนรี เศวตะดุล (2564) ศึกษาเรื่อง นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจใช้บริการร้านเมาท์เท่นคาเฟ่ จังหวัดระนอง เป็นการวิจัยเชิงปริมาณ เก็บข้อมูลจากกลุ่มตัวอย่างลูกค้าที่มาใช้บริการร้านเมาท์เท่นคาเฟ่ จังหวัดระนอง จำนวน 300 คน วิเคราะห์ข้อมูลด้วยการถดถอยเชิงเส้นพหุคูณ ผลการวิจัยพบว่า ปัจจัยด้านข้อมูลสารสนเทศ กระบวนการ เทคโนโลยี และสภาพแวดล้อม มีผลต่อการตัดสินใจใช้บริการร้านเมาท์เท่นคาเฟ่ จังหวัดระนอง

บทสรุป

นวัตกรรมการบริการเป็นเครื่องมือและกลยุทธ์สำคัญที่จำเป็นต่อการพัฒนาคุณภาพการดำเนินธุรกิจอาหารโฮมเมดเพื่อให้ผู้ประกอบการสามารถตอบสนองความต้องการของผู้บริโภคและช่วยให้ผู้บริโภคสามารถตัดสินใจซื้ออาหาร

โฮมเมดได้อย่างมั่นใจ จากการทบทวนวรรณกรรมที่เกี่ยวข้องผู้วิจัยนำมาใช้เป็นแนวทาง ในการสร้างกรอบแนวคิด ดังแสดงในภาพที่ 2

นวัตกรรมการบริการ

1) ด้านข้อมูลสารสนเทศ
2) ด้านกระบวนการ
3) ด้านเทคโนโลยี
4) ด้านสภาพแวดล้อม

→ การตัดสินใจซื้ออาหารโฮมเมด

ภาพที่ 2 กรอบแนวคิด

จากภาพที่ 2 แสดงให้เห็นถึงกรอบแนวคิดนวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจซื้ออาหารโฮมเมดโดยใช้แนวทางนวัตกรรมการบริการของกระทรวงวิทยาศาสตร์และเทคโนโลยี (2556) ที่มีองค์ประกอบสำคัญ 4 ด้าน ด้านแรกได้แก่ ข้อมูลสารสนเทศ เป็นการหาวิธีที่แก้ไขปัญหาให้กับผู้บริโภค ด้านที่สองได้แก่ กระบวนการ เป็นขั้นตอนการให้บริการบนพื้นฐานของการนำเทคโนโลยีสารสนเทศและการสื่อสารมาใช้ให้เกิดประโยชน์และสร้างคุณค่าให้กับผู้บริโภค ด้านที่สามได้แก่ เทคโนโลยี เป็นเครื่องมือในการสนับสนุนกระบวนการที่เชื่อมโยงทรัพยากรทั้งจากแหล่งภายในและภายนอกของผู้ประกอบการ และด้านสุดท้ายได้แก่ สภาพแวดล้อม ซึ่งหมายถึงสภาพแวดล้อมต่างๆ ที่มีส่วนต่อการสนับสนุนให้ผู้บริโภคได้รับประโยชน์ได้อย่างเต็มที่ โดยที่องค์ประกอบสำคัญทั้ง 4 ด้านดังกล่าวมีอิทธิพลต่อการตัดสินใจซื้ออาหารโฮมเมด

เอกสารอ้างอิง

กนกภรณ์ โกศลวรวัฒนกุล. (2563). การศึกษาบุคลิกภาพและอัตลักษณ์องค์กรเพื่อพัฒนาธุรกิจอาหารโฮมเมด. *วารสารนิเทศศาสตร์ปริทัศน์, 3*(24).

กระทรวงวิทยาศาสตร์และเทคโนโลยี. (2556). *Service Research and Innovation Institute Asia Summit 2013*.สืบค้นจาก http://ictandservices.blogspot.com/.

ชัชพล ทรงสุนทรวงศ์. (2559). นวัตกรรมการบริการ: กลยุทธ์ที่สร้างความได้เปรียบทางการแข่งขันขององค์การธุรกิจบริการ. *วารสารการจัดการสมัยใหม่, 14*(2).

ณัฐธิดา เทพสุทิน. (2558). ปัจจัยที่มีอิทธิพลต่อการตัดสินใจเลือกใช้บริการโรงแรมระดับ4 ดาวขึ้นไปของนักท่องเที่ยวชาวไทยในเขตเทศบาลเมืองพัทยา. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

ณัฐนรี เศวตะดุล. (2564). *นวัตกรรมการบริการที่ส่งผลต่อการตัดสินใจใช้บริการร้านเมาท์เท่นคาเฟ่ จังหวัดระนอง.การจัดการมหาบัณฑิต*. การค้นคว้าอิสระ วิทยาลัยนวัตกรรมและการจัดการ, มหาวิทยาลัยราชภัฏสวนสุนันทา.

ณัฐศาสตร์ ปัญญานะ และวัชรพจน์ ทรัพย์สงวนบุญ. (2562). *ปัจจัยที่มีผลต่อการตัดสินใจใช้บริการอาหารตามสั่งแบบจัดส่ง*. การค้นคว้าอิสระ วิทยาลัยการจัดการและนวัตกรรม, มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี.

นุช สิงห์แก้ว. (2563). *ปัจจัยที่มีผลต่อการตัดสินใจใช้บริการสั่งอาหารผ่านสื่อออนไลน์ของผู้บริโภคในเขตกรุงเทพมหานคร*. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยรามคำแหง.

พฤทธิ์ เทศจีบ. (2561). *การพัฒนานวัตกรรมบริการของธุรกิจในยุคดิจิทัล*. การประชุมวิชาการและเสนอผลงานวิชาการระดับชาติ UTCC Academic Day ครั้งที่ 2 มหาวิทยาลัยหอการค้าไทย. วันที่ 8 มิถุนายน 2561.

เปี่ยมจิต คหกิจโกศล. (2559). มติชนอคาเด จับกระแสโฮมเมด. *วารสารมติชนบท เทคโนโลยีชาวบ้าน, 12*(1).

มาโคโตะยูซูอิ. (2555). *นวัตกรรมการบริการ (Service Innovation) เบื้องหลังความสำเร็จของเซเว่นอีเลฟเว่น เจแปน และธุรกิจบริการยุคใหม่*. พิมพ์ครั้งที่ 2. กรุงเทพฯ: สมาคมส่งเสริมเทคโนโลยี (ไทย-ญี่ปุ่น).

ยง ภู่วรวรรณ. (2563). *ผลกระทบจากโควิด-19 ระบาด*. สืบค้นจาก:https://learningcovid.ku.ac.th/.course/?c=7&l=2.

วลัยลักษณ์ รัตนวงศ์ณัฐธิดา สุวรรณโณ และ ธีรศักดิ์ จินดาบถ. (2557). การวัดนวัตกรรมการบริการของธุรกิจท่องเที่ยวไทย: วิสาหกิจขนาดกลางและขนาดย่อม. *Journal of Management Sciences, 31*(1).

สมนึก เอื้อจิระพงษ์พันธ์ และคณะ. (2553). ความหมาย ประเภท และความสำคัญของนวัตกรรมที่มีต่อผู้ประกอบการ. คณะพาณิชยศาสตร์และการบัญชี มหาวิทยาลัยธรรมศาสตร์. *วารสารบริหารธุรกิจ, 33*(128).

สุทามาศ จันทรถาวร. (2556). *ปัจจัยส่วนประสมทางการตลาดที่ส่งผลต่อการตัดสินใจเลือกซื้อสินค้าบน Facebook ของประชากรในเขตกรุงเทพมหานคร*. การค้นคว้าอิสระ, มหาวิทยาลัยรังสิต.

อัญชิสา ชูศรี. (2557). *นวัตกรรมบริการการแสดงความรับผิดชอบต่อสังคม และการตลาดแบบปากต่อปากที่ส่งผลต่อการตัดสินใจเข้ารับบริการหอผู้ป่วยโรงพยาบาลเอกชนในเขตกรุงเทพมหานคร*. การค้นคว้าอิสระปริญญามหาบัณฑิต, มหาวิทยาลัยกรุงเทพ.

Kotler, P., & Keller, K. (2016). Marketing Management. 15th ed. NewYork: Pearson Education Inc.

Michael E. Porter. (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Morton, H.L. (1998). *Logic Design and Computer Organization*. Reading: Addison-Wesley.

Peter F. Drucker. (1985). The Discipline of Innovation, *Harvard Business Review*.

Solomon, M. R. (2013). *Consumer Behavior; Buying Having, and Being*. New Jersey: Pearson Prentice Hall.

Van Ark, B., Broersma, L. & den Hertog, P. (2003). Services Innovation, Performance and Policy. A review: on the Soft Side of innovation: Services Innovation and its Policy Implications. *Economist, 151*(4), 433.

Zhang Ziyue. (2560). ปัจจัยทางการตลาดที่ส่งผลต่อการตัดสินใจเลือกใช้บริการโรงแรมระดับ 3 ดาวในเขตกรุงเทพมหานคร. การค้นคว้าอิสระ ศิลปศาสตรมหาบัณฑิต, มหาวิทยาลัยกรุงเทพ.

นวัตกรรมบริการที่ส่งผลต่อการตัดสินใจเลือกใช้บริการ บริษัทจัดสวน

Service innovation that affects the decision to use landscaping services

นิชานาถ อมรกิติพล / Nichanath Amornkitiphon
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: ninekiniewu@gmail.com

ทวีป พรหมอยู่ / Taweep Promyoo
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University

บทคัดย่อ

บทความนี้มีวัตถุประสงค์ เพื่อศึกษาระดับนวัตกรรมบริการ และระดับการตัดสินใจใช้บริการจัดสวน เพื่อศึกษานวัตกรรมบริการที่ส่งผลต่อการตัดสินใจใช้บริการจัดสวน จากการทบทวนวรรณกรรมพบว่า นวัตกรรมบริการที่ส่งผลต่อการตัดสินใจใช้บริการจัดสวน ทั้ง 4 ด้าน คือ 1) ด้านข้อมูลสารสนเทศ 2) ด้านกระบวนการ 3) ด้านเทคโนโลยี 4) ด้านสภาพแวดล้อม ส่งผลต่อการตัดสินใจใช้บริการจัดสวน องค์ความรู้/ข้อค้นพบจากบทความนี้ จะเป็นแนวทางในการศึกษาวิจัยนวัตกรรมบริการที่ส่งผลต่อการตัดสินใจเลือกใช้บริการ บริษัทจัดสวน และสามารถนำไปเป็นข้อมูลสำหรับการเพื่อประโยชน์แก่องค์กรธุรกิจ และผู้สนใจทั่วไป

คำสำคัญ: นวัตกรรมบริการ, การตัดสินใจเลือกใช้บริการ, การทบทวนวรรณกรรม

Abstract

This article is intended to study the level of service innovation and the level of decision-making to use landscaping services To study service innovations that affect the decision to use landscaping services From the literature review, it was found that Service innovations that affect the decision to use landscaping services in 4 areas: 1) Information 2) Process 3) Technology 4) Environment Affects the decision to use landscaping services Knowledge/findings from this article will be a guideline for research studies Service innovation that affects the decision to use the service

gardening company and can be used as information for the benefit of business organizations. and general public.

Keywords: service innovation, service decision, literature review

บทนำ

ธุรกิจจัดสวนมีจุดมุ่งหมายเพื่อจัดแต่ง ดูแลให้พื้นที่บริเวณน่าอยู่ ธุรกิจจัดสวนเป็นธุรกิจให้บริการแก่ลูกค้าที่ไม่สามารถจัดสวนเองได้เพราะมีปัญหาหรืออุปสรรค ด้านความรู้ ความเข้าใจ ในเรื่องของบริเวณพื้นที่ที่ต้องการจัดสวน เรื่องต้นไม้ ดอกไม้ ไม้ดอก ไม้ประดับและหญ้าที่มีการปลูกในพื้นที่ที่ต้องการ ในการดูแลรักษาที่มีความแตกต่างกันไปในแต่ละแบบ

ธุรกิจจัดสวนมีการขยายตัวในการเติบโตขึ้นอย่างต่อเนื่อง ในขณะเดียวกันก็มีการสร้างมาตรฐานในด้านความสวยงามของการจัดสวนที่พัฒนาไปตามยุคสมัยและความชอบที่แตกต่างกัน และการจัดสวนที่สามารถทำให้เกิดพื้นที่ใช้สอยพร้อมกับความสวยงามในพื้นที่มากยิ่งขึ้น

โรคระบาดโควิด-19 คือ โรคติดต่อซึ่งเกิดจากไวรัสโคโรนาที่เริ่มมีการระบาดในเมืองอู่ฮั่น ประเทศจีน เมื่อเดือนธันวาคม พ.ศ.2563 โรคโควิด-19 มีการระบาดใหญ่ที่ส่งผลไปทั่วโลกอย่างรวดเร็ว มีการแพร่กระจายที่เป็นวงกว้าง จึงส่งผลทำให้เกิดการกระทบเชิงลบต่อเศรษฐกิจและสังคม ส่งผลให้เศรษฐกิจหยุดชะงัก ผู้คนจำนวนมากหยุดการใช้จ่ายที่ไม่มีความจำเป็นต่อการดำเนินชีวิต รวมถึงการจ้างบริษัทจัดสวน ทำให้ผู้ประกอบการและพนักงานต่างได้รับผลกระทบกันอย่างทั่วหน้า (กรมควบคุมโรค กระทรวงสาธารณสุข, 2563)

จากการทบทวนวรรณกรรม เพื่อศึกษากรอบแนวคิดที่เกี่ยวข้องกับนวัตกรรมบริการที่ส่งผลต่อการตัดสินใจเลือกใช้บริการ บริษัทจัดสวน มีรายละเอียดของเนื้อหาที่มีส่วนเกี่ยวข้อง ดังนี้

การทบทวนวรรณกรรม

แนวคิดและทฤษฎีที่เกี่ยวข้องกับนวัตกรรม

Mckeown (2008) ได้ให้ความหมายไว้ว่า นวัตกรรม (Innovation) หมายถึง การสร้างสรรค์ที่นำไปสู่การเปลี่ยนแปลงเพื่อก่อให้เกิดคุณค่า เป็นความคิดหรือการกระทำสิ่งต่างๆ ด้วยวิธีใหม่ๆ ซึ่งจะมีการคิดและการกระทำขึ้นมาอยู่เสมอ

นวัตกรรมจึงเป็นสิ่งที่เกิดขึ้นใหม่ได้อยู่ตลอดเรื่อยๆ ตามความปรารถนาของมนุษย์ที่มีอยู่อย่างไม่จำกัด ความต้องการคิดค้นหาวิธีการแก้ปัญหาที่เกิดขึ้น โดยสิ่งใดที่คิดและทำมาแล้วถือว่าหมดความเป็นนวัตกรรมไป และมักจะมีการสร้างสิ่งใหม่ให้เกิดขึ้นมาแทนที่ และยังอาจหมายถึงการ

เปลี่ยนแปลงทางความคิด ไม่ว่าการเปลี่ยนนั้นจะเกิดขึ้นจากการปฏิวัติ การเปลี่ยนอย่างถอนรากถอนโคน หรือการพัฒนาต่อยอด มักมีการแยกแยะความแตกต่างอย่างชัดเจน ระหว่างการประดิษฐ์คิดค้น ความคิดริเริ่ม และนวัตกรรม อันหมายถึงความคิดริเริ่มที่นำมาประยุกต์ใช้อย่างสัมฤทธิ์ผล

ปีเตอร์ ดรักเกอร์ (Peter Drucker, 1985,1993 อ้างใน สมนึก เอื้อจิระพงษ์พันธ์ และคณะ, 2553) ได้ให้ความหมายของคำว่า นวัตกรรม ไว้ว่า นวัตกรรมนั้นเป็นเครื่องมือของผู้ประกอบการในการสร้างศักยภาพการแข่งขันในเชิงธุรกิจและความมั่นคง โดยแสวงหาโอกาสและประโยชน์จากการเปลี่ยนแปลงเพื่อนำไปสร้างความแตกต่างให้กับสินค้าหรือบริการของธุรกิจ และโดยการใช้เทคโนโลยีที่มีอยู่ หรือสร้างใหม่ รวมทั้งเป็นการพัฒนาความรู้ใหม่ๆ

สมนึก เอื้อจิระพงษ์พันธ์ และคณะ (2553) ได้ให้ความหมายของคำว่า นวัตกรรม ไว้ว่า นวัตกรรมคือสิ่งใหม่ที่เกิดขึ้นจากการใช้ความรู้ทักษะ ประสบการณ์และความคิดสร้างสรรค์ในการพัฒนาขึ้น ซึ่งอาจจะมีลักษณะเป็นผลิตภัณฑ์ใหม่ บริการใหม่ หรือกระบวนการใหม่ ที่ก่อให้เกิดประโยชน์ในเชิงเศรษฐกิจและสังคม

สำนักงานนวัตกรรมแห่งชาติ (2549) ได้ให้ความหมายของคำว่า นวัตกรรม ไว้ว่า เป็นสิ่งใหม่ที่เกิดจากการใช้ความรู้และความคิดสร้างสรรค์ที่มีประโยชน์ต่อเศรษฐกิจและสังคม นวัตกรรมเป็นกระบวนการที่เกิดจากการนำความรู้และความคิดสร้างสรรค์มาผนวกกับความสามารถในการบริหารจัดการ เพื่อสร้างให้เกิดเป็นธุรกิจนวัตกรรมหรือธุรกิจใหม่ที่ส่งผลต่อการเพิ่มขีดความสามารถในการแข่งขัน และเพื่อนำไปสู่การเปลี่ยนแปลงเพื่อก่อให้เกิดคุณค่า นวัตกรรมสามารถแบ่งออกเป็น 4 รูปแบบ คือ 1) นวัตกรรมด้านผลิตภัณฑ์ 2) นวัตกรรมด้านบริการ 3) นวัตกรรมด้านกระบวนการผลิต 4) รูปแบบธุรกิจใหม่

แนวคิดและทฤษฎีที่เกี่ยวข้องกับนวัตกรรมบริการ

นวัตกรรมบริการเป็นเครื่องมือที่สำคัญในทางธุรกิจที่นำไปสู่การสร้างความได้เปรียบทางการแข่งขัน (Weng et al., 2012) โดยนวัตกรรมบริการ เป็นการนำนวัตกรรมมาพัฒนาและปรับปรุงรูปแบบ ขั้นตอนของการให้บริการ เพื่อมีการให้บริการตรงต่อความต้องการ ความพึงพอใจของลูกค้า โดยจะเน้นในเรื่องของการอำนวยความสะดวก ความรวดเร็วในการเข้ารับบริการ ในส่วนของประโยชน์ของนวัตกรรมบริการในเชิงธุรกิจนั้น คือ การช่วยสร้างความแตกต่างในการบริการเพื่อนำไปสู่การสร้างความพึงพอใจให้กับลูกค้าที่เข้ามาใช้บริการ

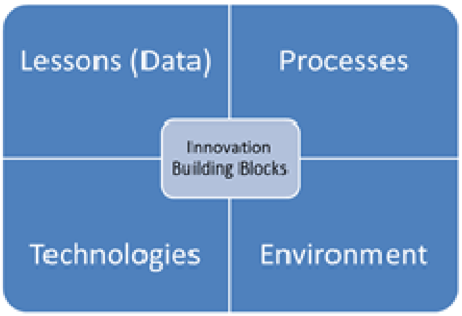
มาโคโตะ ยูซูอิ (Makoto Usui, 2555: 26-27) ได้เรียบเรียงความคิดเพื่อนิยามคำว่า “นวัตกรรมบริการ” ไว้ดังนี้ นวัตกรรมบริการ คือ การยกระดับประสิทธิภาพไปพร้อมกับการเพิ่มประสิทธิผลของระดับการบริการและการสร้างมูลค่าเพิ่ม การกระชับบริการที่นำเสนอ และการปรับให้มีความพอเหมาะ เรื่องสำคัญในนวัตกรรมบริการไม่ใช่แต่เพียงทำให้การบริการมีความหลากหลายเพิ่มขึ้น

หรือเพิ่มมูลค่าให้สูงขึ้นเท่านั้น แต่หมายถึงการกระชับบริการที่นำเสนอ และการปรับให้มีความพอเหมาะพอดีขึ้นก็ได้ นวัตกรรมบริการต้องหลุดพ้นจากความสัมพันธ์ทางเดียว คือ จากผู้นำเสนอไปยังผู้รับบริการ มาเป็นการที่ทั้งสองฝ่ายร่วมสร้างคุณค่าที่เหมาะสม

อัญชิสา ชูศรี (2557) ได้ให้ความหมายของ นวัตกรรมบริการ ไว้ว่า นวัตกรรมบริการ หมายถึง ความคิดสร้างสรรค์ในกระบวนการพัฒนาสินค้าและบริการใหม่ หรือกิจกรรมใหม่ๆ เพื่อตอบสนองความต้องการอันหลากหลายของลูกค้า โดยเป็นการบูรณาการในด้านศักยภาพการบริหารจัดการขององค์กร รวมถึงการสร้างปฏิสัมพันธ์กับลูกค้า เพื่อก่อให้เกิดการสร้างคุณค่าของการบริการ

องค์ประกอบของนวัตกรรมบริการ

Service Research and Innovation Institute (SRII) Asia Summit (2013) อ้างใน อัญชิสา ชูศรี (2557) ได้ทำการสรุป นวัตกรรมบริการ ไว้ว่า การสร้างนวัตกรรมบริการต้องอาศัยกรอบ (Framework) เพื่อใช้เป็นหลักยึดในกระบวนการของนวัตกรรมบริการ กรอบดังกล่าวเป็นส่วนประกอบโครงสร้าง หรือ Building Block ของนวัตกรรมบริการที่ประกอบด้วย 4 ประเภท ดังภาพที่ 1



ภาพที่ 1 นวัตกรรมบริการประกอบด้วย 4 ประเภท

ที่มา: Service Research and Innovation Institute Asia Summit 2013.

1) ด้านข้อมูลสารสนเทศ (Information) หมายถึง วัตถุประสงค์หรือเป้าหมายของคุณค่า (Value) ที่มีการคาดหวังจากผลงานของนวัตกรรมเงื่อนไขที่มีความเกี่ยวข้องกับการให้ความสะดวกสบายแก่ลูกค้าที่เป็นผู้มาใช้บริการ

2) ด้านกระบวนการ (Process) หมายถึง กระบวนการในการให้บริการของบริษัท และกระบวนการในการใช้บริการของลูกค้าของบริษัท เป็นส่วนสำคัญของนวัตกรรมบริการ

3) ด้านเทคโนโลยี (Technologies) เพื่อสนับสนุนกระบวนการที่เป็นส่วนหนึ่งของข้อเสนอเพื่อสร้างคุณค่า รวมทั้งการเชื่อมโยงทรัพยากรทั้งจากแหล่งภายในและภายนอกองค์กรเพื่อร่วมกันสร้าง

ข้อเสนอและสร้างคุณค่า ระบบบริการนี้จะถูกออกแบบให้สอดคล้องกับข้อเสนอและกระบวนการสร้างคุณค่า การออกแบบระบบบริการถือว่าเป็นส่วนสำคัญอีกส่วนหนึ่งของนวัตกรรมบริการ

4) ด้านสภาพแวดล้อม (Environment) หมายถึงการรับรู้เกี่ยวกับรายละเอียดและภาวการณ์ (Profile) ของลูกค้า ที่จะช่วยให้การสร้างคุณค่าร่วมกันระหว่างบริษัทและลูกค้าให้เป็นไปอย่างมีประสิทธิผล เพื่อจะได้สามารถตอบโจทย์ลูกค้าในบริบทต่างๆได้ นอกจากนี้ยังอาจหมายถึงสภาพแวดล้อมด้านอื่นๆ ที่มีนัยสำคัญต่อการออกแบบข้อเสนอ และระบบบริการที่นำไปสู่การสนับสนุนให้ลูกค้าสร้างคุณค่าได้เต็มที่ เพื่อให้เกิดความพึงพอใจแก่ลูกค้า ที่จะสนองตอบความต้องการของลูกค้า ทั้งหมดนี้ถือว่าเป็นสภาพแวดล้อมที่นักสร้างนวัตกรรมบริการต้องให้ความตระหนักและเป็นส่วนหนึ่งของนวัตกรรมบริการที่มาในรูปของข้อเสนอแบบเบ็ดเสร็จ

แนวคิดทฤษฎีที่เกี่ยวข้องกับการตัดสินใจเลือกใช้บริการ

การตัดสินใจเลือกใช้บริการ คือ ลำดับขั้นตอนของลูกค้าที่ใช้ในการตัดสินใจซื้อการใช้บริการ ประกอบด้วย 5 ขั้นตอน ซึ่งลูกค้าอาจจะไม่จำเป็นที่จะต้องใช้ทุกขั้นตอนในการตัดสินใช้บริการ ลูกค้าอาจจะมีการข้ามบางขั้นตอนไปหรือมีการย้อนกลับไปยังขั้นตอนก่อนหน้า กระบวนการตัดสินใจซื้อจะเริ่มต้นก่อนการใช้จริง และจะมีผลกระทบหลังการใช้ (Kotler & Keller, 2012)

กระบวนการตัดสินใจใช้บริการของ Kotler & Keller มี 5 ขั้นตอนดังนี้

1) การรับรู้ถึงปัญหา หรือการยอมรับปัญหา (problem recognition) เป็นขั้นตอนแรกที่เกิดขึ้น โดยลูกค้าจะทราบถึงปัญหา หรือความต้องการ

2) การค้นหาข้อมูล หรือ การเสาะแสวงหาสารสนเทศ (information search) หลังจากที่ลูกค้าทราบถึงปัญหา ลูกค้าจะทำการค้นหาข้อมูลสารสนเทศเกี่ยวกับวิธีแก้ปัญหาเพื่อประกอบการตัดสินใจ ลูกค้าจะไปแสวงหามาจากสี่แหล่งด้วยกันคือ 1) แหล่งบุคคล (personal source) 2) แหล่งการค้า (commercial source) 3) แหล่งสาธารณะ (public source)

4) แหล่งประสบการณ์ (experience source) ผลจากการเสาะแสวงหา จะทำให้ลูกค้าประเมินทางเลือกต่อไป

3) การประเมินทางเลือก เมื่อถึงขั้นตอนนี้ ลูกค้าจะมีการประเมินทางเลือก โดยลูกค้านั้นจะกำหนดกฎเกณฑ์ หรือคุณสมบัติที่จำใช้ในการประเมินทางเลือกจากปัจจัยต่างๆขึ้นมาเพื่อวัดและเปรียบเทียบคุณค่า ซึ่งลูกค้าจะเปรียบเทียบเพื่อทำการตัดสินใจในการเลือกใช้บริการ ที่ดีที่สุดสำหรับตัวของลูกค้า

4) การตัดสินใจใช้บริการ เป็นขั้นตอนสุดท้ายหลังเกิดขั้นตอนการประเมินผลทางเลือก ในขั้นตอนนี้ลูกค้าจะปฏิเสธสินค้า การบริการที่ตนไม่พอใจหรือมีความพอใจน้อย และมีความตั้งใจที่จะซื้อ

สินค้า หรือบริการที่ลูกค้ามีความพึงพอใจมากที่สุด ซึ่งหลังจากที่ลูกค้าได้ทำการประเมินทางเลือกแล้ว ลูกค้าจะมีความตั้งใจใช้บริการ คือการที่ลูกค้ามีความต้องการที่จะใช้การบริการ

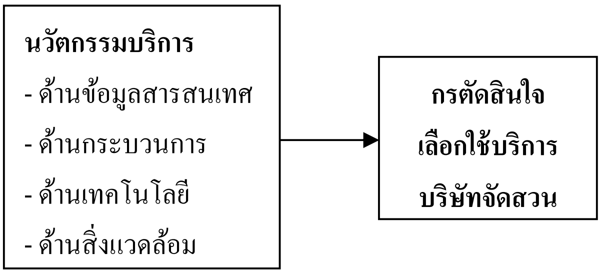
5) พฤติกรรมหลังการซื้อ หลังจากที่ลูกค้าได้มีการใช้บริการแล้ว ลูกค้าจะมีการเปรียบเทียบการให้บริการกับความคาดหวัง ทั้งก่อนให้บริการ ระหว่างการได้รับบริการ และหลังจากการได้รับการบริการ ลูกค้าจะตัดสินใจถึงความพึงพอใจซึ่งจะส่งผลต่อพฤติกรรมต่อการใช้บริการในครั้งต่อไปในอนาคต ถ้าการบริการสร้างความพึงพอใจและตอบสนองต่อความต้องการของลูกค้าได้ ลูกค้าจะกลับมาใช้บริการใหม่และเป็นลูกค้าประจำ แต่ถ้าบริษัทฯไม่สามารถตอบสนอง และสร้างความพึงพอใจให้กับลูกค้าได้ ในกรณีที่ลูกค้าที่เข้ามารับบริการมีความไม่พอใจจากการได้รับบริการ ลูกค้าอาจจะเก็บความรู้สึกที่ไม่พอใจนั้นเอาไว้อย่างเงียบๆก็ได้ หรืออาจจะมีปฏิกิริยาในการตอบโต้กับบริษัทฯก็ได้ ซึ่งเป้าหมายของการตอบโต้กลับนั้นอาจจะเป็นในเรื่องของผลิตภัณฑ์หรือการบริการหรือในตัวของบริษัทฯก็เป็นได้ลูกค้าก็จะเปลี่ยนไปใช้บริการกับบริษัทอื่น

บทสรุป

โดยสรุปการวิจัยแสดงให้เห็นว่า การสร้างนวัตกรรมให้กับบริษัทจัดสวน ทั้งเป็นการเก็บรวบรวมข้อมูล เก็บข้อมูลด้านความรู้ทางเทคโนโลยี ด้านประสบการณ์ต่างๆที่เคยผ่านมา การนำเสนอความคิดสร้างสรรค์ การนำเสนอสิ่งแปลกใหม่ การส่งมอบให้ถึงมือลูกค้า การตอบสนองต่อความต้องการของลูกค้าได้ ไม่เพียงแต่จะส่งผลดีกับผลประโยชน์ในธุรกิจบริษัทเท่านั้น แต่มีส่วนช่วยในเรื่องของเศรษฐกิจให้เติบโตตามไปด้วย และนวัตกรรมก็มีส่วนช่วยผู้ประกอบการในการแข่งขันและนำหน้าคู่แข่ง

จากการศึกษานวัตกรรมบริการกับการตัดสินใจเลือกใช้บริการ เรื่องสำคัญที่จะสามารถทำให้ธุรกิจของบริษัทอยู่รอดนั้นคือต้องศึกษาและนำนวัตกรรมบริการที่ประกอบด้วย 4 ประเภท ได้แก่ ด้านข้อมูลสารสนเทศ ด้านกระบวนการ ด้านเทคโนโลยี และด้านสิ่งแวดล้อม มาประยุกต์ใช้ให้เข้ากับธุรกิจของบริษัทจัดสวน เพื่อที่จะได้สร้างสรรค์ในการนำเสนอสิ่งแปลกใหม่ในการบริการจัดสวนรวมถึงการส่งมอบแก่ลูกค้า นวัตกรรมบริการนั้นยังมีส่วนเกี่ยวข้องกับการตัดสินใจเลือกใช้บริการที่เป็นขั้นตอนในการเลือกใช้บริการกับบริษัทจัดสวน ต่อการตัดสินใจของลูกค้าที่มี 5 ขั้นตอนได้แก่ การรับรู้ถึงปัญหาหรือการยอมรับปัญหา การค้นหาข้อมูลหรือการเสาะแสวงหาสารสนเทศการประเมินทางเลือก การตัดสินใจใช้บริการ และพฤติกรรมหลังการซื้อ ที่ทำให้เกิดจุดเด่นของการบริการ

นอกจากนี้ ผลจากการศึกษา ยังสามารถสร้างเป็นกรอบแนวคิดที่แสดงความสัมพันธ์ของนวัตกรรมบริการกับการตัดสินใจใช้บริการ การประยุกต์กับธุรกิจบริการจัดสวน ได้ดังนี้



ภาพที่ 2 กรอบแนวคิดในการวิจัย

เอกสารอ้างอิง

กรมควบคุมโรค กระทรวงสาธารณสุข. (2563). โรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19)

กระทรวงวิทยาศาสตร์และเทคโนโลยี. (2556). *Service Research and Innovation Institute Asia Summit 2013*.สืบค้นจาก http://ictandservices.blogspot.com/2013/09/methodmodel-and-tool-1.html.

มาโคโตะ ยูซูอิ. (2555). *นวัตกรรมการบริการ (Service Innovation) เบื้องหลังความสำเร็จของเซเว่นอีเลฟเว่น เจแปน และธุรกิจบริการยุคใหม่*. พิมพ์ครั้งที่ 2. กรุงเทพฯ: สมาคมส่งเสริมเทคโนโลยี (ไทย-ญี่ปุ่น)

สมนึก เอื้อจิระพงษ์พันธ์ และคณะ. (2553). ความหมาย ประเภท และความสำคัญของนวัตกรรมที่มีต่อผู้ประกอบการ. *วารสารบริหารธุรกิจ, 33*(128).

สำนักงานนวัตกรรมแห่งชาติ. (2549). *การจัดการนวัตกรรมสำหรับผู้บริหาร*. กรุงเทพมหานคร: สำนักงานนวัตกรรมแห่งชาติ

อัญชิสา ชูศร. (2557). *นวัตกรรมบริการการแสดงความรับผิดชอบต่อสังคม และการตลาดแบบปากต่อปากที่ส่งผลต่อการตัดสินใจเข้ารับบริการหอผู้ป่วย โรงพยาบาลเอกชนในเขตกรุงเทพมหานคร*. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยกรุงเทพ.

Gurteen, D. (1998). Knowledge, Creativity and Innovation. *Journal of Knowledge Management, 2*(1). 5-13.

Daft, R.L. (1998). *Management*. 4th ed. New YorK: The Dryden Press Harcourt Brace College Publisherrs

Drejer, I. (2004). Identifying Innovation in Surveys of Services: A Schumpeterian Perspective. *Research Policy, 33*(3), 551-562.

นวัตกรรมการตลาดสำหรับการให้บริการติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม

Marketing Innovation for Solar Rooftop Installation Service in Factory

อรพิมล ณ นคร / Ornpimon Na Nakorn
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: ornpimonn@gmail.com

ปรเมษฐ์ แสงอ่อน / Poramet Sang-on
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: poramet.sa@ssru.ac.th

ศุภรา เจริญภูมิ / Suppara Charoenpoom
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: suppara.ch@ssru.ac.th

บทคัดย่อ

บทความนวัตกรรมการตลาดสำหรับการให้บริการติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม มีวัตถุประสงค์เพื่อทบทวนวรรณกรรมที่เกี่ยวข้องกับนวัตกรรมการตลาดและสร้างกรอบแนวคิดเพื่อนำไปพัฒนาสู่งานวิจัยนวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรรม ที่สมบูรณ์ต่อไปในอนาคต ผลการศึกษาพบว่า นวัตกรรมการตลาด ประกอบด้วยปัจจัย 6 ด้าน ได้แก่ ด้านคุณค่าเฉพาะตัว ด้านการมุ่งเน้นที่ตัวลูกค้า ด้านการมุ่งตลาดเฉพาะกลุ่ม ด้านความหลากหลาย ของผลิตภัณฑ์ ด้านการเปลี่ยนแปลง และด้านการสื่อสารการตลาดแบบบูรณาการ โดยปัจจัยดังกล่าวส่งผลต่อการตัดสินใจติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม เนื้อหาส่วนใหญ่ของบทความได้รวบรวมแนวคิดและทฤษฎีของนักวิชาการอย่างหลากหลาย เพื่อให้ทราบถึงรายละเอียดของนวัตกรรมการตลาดและการตัดสินใจซื้อที่มีความชัดเจนมากขึ้น องค์ความรู้และข้อค้นพบจากบทความนี้ สามารถใช้เป็นแนวทางในการวิจัยนวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรรม ได้ และผู้ประกอบการธุรกิจ

บริการทั่วไปสามารถนำข้อค้นพบด้านนวัตกรรมการตลาดนี้ไปใช้เป็นเครื่องมือในการพัฒนาและสร้างความได้เปรียบในการแข่งขันแบบยั่งยืนให้กับธุรกิจต่อไป

คำสำคัญ: นวัตกรรมการตลาด, การตัดสินใจซื้อ, โซลาร์รูฟท็อป

Abstract

The article entitled Marketing Innovation for Solar Rooftop Installation Service in Factory aimed to review the literature related in marketing innovation and created conceptual framework, which to be developed for marketing innovation affected to complete the factory solar rooftop installation decision in the future. The finding revealed that marketing innovation consists of 6 factors: Unique Proposition, Customer Focus, Market Focus, Modification, Product Variety, and Integrated Marketing Communication. These factors affected installation decision for solar rooftop installation in factory. Most of the detail in this article collected concepts and theories of scholars for recognized the information of marketing innovation and more obviously in the purchasing decision. Knowledge and finding from this article can be used as a guideline in marketing innovation affected solar rooftop installation of factory and enterprise executive can use this finding result in marketing innovation from this article to be an instrument for develop and crate advantage sustainable competitive for the business in the future.

Keywords: Marketing Innovation, Purchase Decision, Solar Rooftop

บทนำ

การใช้พลังงานสิ้นเปลืองเพื่อผลิตพลังงานไฟฟ้า ส่งผลกระทบต่อสิ่งแวดล้อมเป็นอย่างมาก โดยเฉพาะทำให้เกิดปรากฏการณ์เรือนกระจก (Greenhouse Effect) หรือภาวะโลกร้อน ซึ่งไม่ใช่ปัญหาใหม่ แต่เป็นปัญหาที่ต้องวางแผนและดำเนินการแก้ไขในระยะยาว จากปัญหาอุณหภูมิโลกที่สูงขึ้นเรื่อยๆ ส่งผลกระทบต่อระบบนิเวศน์ต่างๆ เป็นวงกว้าง ทุกประเทศทั่วโลกจึงให้ความสำคัญกับการแก้ไขปัญหาภาวะ โลกร้อน ด้วยการลดการพึ่งพาพลังงานจากฟอสซิล ถ่านหิน หรือน้ำมันดิบ และเพิ่มการใช้พลังงานหมุนเวียนมากขึ้น เช่น กลุ่มประเทศยุโรป ให้ความสำคัญกับสภาพอากาศและสิ่งแวดล้อม โดยตั้งเป้าหมายว่า จะลดการปล่อยก๊าซเรือนกระจกอย่างน้อยร้อยละ 55 ภายในปีค.ศ.2030 และตั้งเป้าว่าจะปลอดคาร์บอน ในปี ค.ศ.2050 ซึ่งหนึ่งในแผนงานที่จะทำให้

บรรลุเป้าหมายคือ การเพิ่มการใช้พลังงานหมุนเวียนหรือพลังงานสะอาด อาทิ พลังงานลม และพลังงานแสงอาทิตย์ ในปัจจุบันกลุ่มประเทศในยุโรปได้นำพลังงานหมุนเวียน มาใช้ในการผลิตไฟฟ้ามากขึ้น โดยในปีค.ศ.2020 มีการใช้พลังงานหมุนเวียนในการผลิตไฟฟ้าร้อยละ 38 ซึ่งมากกว่าการใช้เชื้อเพลิงฟอสซิลร้อยละ 37 โดยหลักมาจากการใช้พลังงานแสงอาทิตย์และพลังงานลม ที่เพิ่มขึ้นประมาณ 2 เท่าจากปี ค.ศ.2015 (กรุงเทพธุรกิจ, 2564)

รัฐบาลไทยจึงได้กำหนดเป้าหมายการลดการปลดปล่อยก๊าซเรือนกระจกร้อยละ 20-25 ภายใน ปี พ.ศ.2573 โดยสำนักงานนโยบายและแผนพลังงาน กระทรวงพลังงานได้มีแผนการผลิตไฟฟ้าจากพลังงานหมุนเวียนด้วยพลังงานจากแสงอาทิตย์มากถึง 10,000 เมกะวัตต์ ซึ่งได้รวมโครงการพลังงานแสงอาทิตย์ (โซลาร์ภาคประชาชน) จำนวน 1,000 เมกะวัตต์ ที่มุ่งเน้นการกระจายรายได้และอำนาจในการเป็นเจ้าของและรักษาระบบส่ง-จ่ายไฟฟ้า เพื่อรองรับการเปลี่ยนแปลงของผู้บริโภคและเพื่อให้ประชาชนสามารถผลิตไฟฟ้าใช้ได้เองผ่านเทคโนโลยีของเซลล์แสงอาทิตย์ (Solar Cells) แบบติดตั้งบนหลังคาหรือโซลาร์รูฟท็อปได้อย่างเสรี นอกจากนี้ยังสามารถนำส่วนที่ผลิตเกินจากการใช้เองนั้นมาขายให้กับการไฟฟ้านครหลวงและการไฟฟ้า ส่วนภูมิภาคได้อีกด้วย (กระทรวงพลังงาน, 2561) ส่งผลให้หน่วยงานเอกชน โรงงานอุตสาหกรรมรวมถึงภาครัฐและสถานศึกษาชั้นนำมีการตื่นตัว โดยภาคธุรกิจมีการลงทุนจัดจำหน่ายอุปกรณ์เซลล์แสงอาทิตย์ขยายเพิ่ม มากขึ้น ด้านผู้บริโภคอย่างเช่น โรงงานอุตสาหกรรมได้ซื้อระบบและว่าจ้างภาคธุรกิจให้ทำการติดตั้งระบบเซลล์แสงอาทิตย์บนหลังคาของโรงงานและอาคาร เพื่อผลิตพลังงานไฟฟ้าใช้เองเพิ่มขึ้นอย่างแพร่หลายมากขึ้น (ชัยรัฐ ภัทรเวท และศุภฤกษ์ สุขสมาน, 2563) ในขณะเดียวกันก็ยังมีโรงงานอุตสาหกรรมอีกจำนวนหนึ่ง ที่ยังไม่ได้มีการเปลี่ยนแปลงระบบการผลิตกระแสไฟฟ้าด้วยโซลาร์รูฟท็อป จากข้อมูลดังกล่าวข้างต้น ผู้วิจัย ในฐานะเป็นผู้ให้บริการติดตั้งโซลาร์รูฟท็อปให้กับโรงงานอุตสาหกรรม จึงสนใจที่จะศึกษาข้อมูลแนวคิด ทฤษฎี และงานวิจัยที่เกี่ยวข้อง เพื่อสร้างกรอบแนวคิดในการพัฒนาไปสู่งานวิจัยที่สมบูรณ์ในอนาคตของการศึกษาปัจจัยนวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม

การทบทวนวรรณกรรม

แนวคิดและทฤษฎีเกี่ยวกับนวัตกรรมการตลาด

1.1) ความหมายและแนวคิดของการตลาด

การตลาด (Marketing) หมายถึง กิจกรรมต่างๆ ทางธุรกิจที่เกิดขึ้นเพื่อให้ผลิตภัณฑ์หรือบริการเปลี่ยนจากผู้ผลิตไปสู่ผู้บริโภค (Drucker, 1973) สามารถตอบสนองความพึงพอใจและความต้องการต่างๆ ของผู้บริโภคได้ (Kotler, 2000) โดยมีองค์ประกอบสำคัญ 3 ส่วน คือ

1.1.1) การให้ความสำคัญแก่ลูกค้า (Customer Orientation) หมายถึง ความต้องการของลูกค้าเป็นตัวชี้ว่าผู้ผลิตจะผลิตสิ่งใดเพื่อตอบสนองให้ตรงตามที่ลูกค้าต้องการ

1.1.2) การให้ความสำคัญในส่วนของกำไร (Profit Orientation) กำไรเป็นส่วนสำคัญที่สุดของการประกอบธุรกิจ เป็นสิ่งที่บอกว่าธุรกิจเติบโตเพิ่มขึ้นเท่าไร แต่การทำกำไรต้องดูทั้งปัจจัยภายใน อาทิ โครงสร้างองค์กร กระบวนการทำงาน วัฒนธรรม และบุคลากรที่อยู่ภายในองค์กร เป็นต้น ปัจจัยภายนอก อาทิ สภาวะเศรษฐกิจ คู่แข่งขัน การเปลี่ยนไปของเทคโนโลยี เป็นต้น

1.1.3) การบูรณาการทางการตลาด (Integrated Marketing) คือ การร่วมมือกันทำงาน ทั้งฝ่ายการพัฒนาผลิตภัณฑ์ (Product Development) ฝ่ายการโฆษณา (Advertising) และฝ่าย การขาย (Sales) มาร่วมกันทำงานกับฝ่ายการตลาด โดยนักการตลาดต้องศึกษาให้ทราบถึงความต้องการของลูกค้าว่าลูกค้าต้องการผลิตภัณฑ์ที่มีคุณสมบัติอย่างไร เพื่อฝ่ายผลิตจะสามารถผลิตได้ตรงความต้องการลูกค้า แนวทางการตลาดแบบเดิมอาจจะไม่เพียงพอต่อการแข่งขันด้านการตลาด ในธุรกิจยุคปัจจุบันจึงมีการศึกษาวิจัยนวัตกรรมการตลาดขึ้นมาเพื่อช่วยสร้างความได้เปรียบทางการแข่งขัน

1.2) นวัตกรรมการตลาด

Naidoo (2010) โดยที่ OECD (2005) ระบุว่า นวัตกรรมการตลาดเป็นวิธีทางการตลาด แบบใหม่ที่เกี่ยวข้องกับการเปลี่ยนแปลงที่สำคัญในเรื่องของบรรจุภัณฑ์ (Packaging) การออกแบบผลิตภัณฑ์ (Product Design) การส่งเสริมการขายผลิตภัณฑ์ (Product Promotion) การกำหนดราคาผลิตภัณฑ์ (Product Pricing) และการจัดวางผลิตภัณฑ์ (Product Placement)

Michele, Audrey, and David (2009) ได้ทำการศึกษางานวิจัยที่เกี่ยวข้องกับนวัตกรรมการตลาดในธุรกิจขนาดย่อม (SMEs) ผู้วิจัยได้ทำการทบทวนวรรณกรรมเพื่อให้ได้องค์ประกอบของนวัตกรรมการตลาดสำหรับธุรกิจขนาดย่อม รวมทั้งการสัมภาษณ์และสังเกตการณ์ในธุรกิจขนาดย่อม เพื่อนำมาพัฒนากรอบแนวคิดในการทำการตลาดเชิงนวัตกรรม โดยในงานวิจัยพบว่า องค์ประกอบสำคัญสำหรับนวัตกรรมการตลาดในธุรกิจขนาดย่อม ประกอบด้วย 6 องค์ประกอบ ได้แก่

1.2.1) คุณค่าเฉพาะตัว (Unique Proposition) คือ สิ่งที่เป็นเอกลักษณ์ มีคุณค่าเฉพาะตัวไม่ซ้ำใคร ซึ่งคุณค่าเฉพาะตัวนี้เป็นการสร้างมูลค่าเพิ่มทางการตลาดที่จะช่วยให้บรรลุความได้เปรียบทางการแข่งขัน คุณค่าเฉพาะตัวเป็นเอกลักษณ์ของผลิตภัณฑ์หรือบริการที่สามารถตอบสนองความต้องการของลูกค้าได้อย่างที่ไม่มีผลิตภัณฑ์อื่นเสนอได้ สามารถแก้ไขปัญหาของลูกค้าได้ และยากที่ผลิตภัณฑ์หรือบริการอื่นจะลอกเลียนแบบได้ ตัวอย่างเช่น คุณค่าเฉพาะตัวของการขายผลิตภัณฑ์ IT ของ บริษัท Advice คือความรวดเร็วในการส่งผลิตภัณฑ์ ลูกค้าสามารถสั่งซื้อผลิตภัณฑ์ได้ทุกช่องทางทั้ง หน้าร้าน โทรศัพท์ เว็บไซต์แอพพลิเคชั่น โซเชียลมีเดีย และสามารถจัดส่งผลิตภัณฑ์ถึง

มือลูกค้าได้ภายในสองชั่วโมง หรือ คุณค่าเฉพาะตัวของรถยนต์ไฟฟ้า Aura Good Cat คือการชาร์ตไฟฟ้าที่ไหนก็ได้อย่างรวดเร็วภายในระยะเวลาไม่เกิน 30 นาที และวิ่งได้ 140 กิโลเมตร เป็นต้น

1.2.2) การมุ่งเน้นที่ตัวลูกค้า (Customer Focus) คือ ความพึงพอใจของลูกค้า และการกำหนดเป้าหมายของลูกค้าเป็นสิ่งสำคัญในการจะนำไปสู่ความสำเร็จทางธุรกิจ โดยต้องยึดลูกค้า เป็นศูนย์กลางเพื่อตอบสนองต่อความต้องการของลูกค้า โดยมุ่งเน้นไปที่การสร้างความพึงพอใจให้เกิดขึ้น แก่ลูกค้า ทั้งลูกค้าภายนอกและลูกค้าภายใน การมุ่งเน้นที่ตัวลูกค้าถือเป็นวัฒนธรรมการให้บริการขององค์กรเพื่อยกระดับความสัมพันธ์ที่มีกับลูกค้าให้แน่นแฟ้นยิ่งขึ้นในทุกขั้นตอนการตัดสินใจของลูกค้า ซึ่งประกอบด้วยการทำกลยุทธ์การตลาดด้วยความจริงใจ ความโปร่งใสของการตั้งกลยุทธ์ด้านราคา และการส่งมอบผลิตภัณฑ์หรือบริการที่มีคุณภาพตามที่ระบุไว้ เป็นต้น

1.2.3) การมุ่งตลาดเฉพาะกลุ่ม (Market Focus) คือ การยึดตลาดเป็นศูนย์กลางโดยก่อนจะตัดสินใจเลือกจับตลาดไหนเพื่อจำหน่ายผลิตภัณฑ์ให้กับกลุ่มคนเฉพาะกลุ่ม (Niche Market) ต้องอาศัยการวิเคราะห์สภาพแวดล้อม ปัจจัยต่างๆ วิสัยทัศน์ และประสบการณ์ เพื่อจะนำไปสู่การเป็น ผู้นำตลาดและผลกำไรที่ตามมา การมุ่งตลาดเฉพาะส่วนจะเป็นฐานในการสร้างความได้เปรียบขององค์การในตลาดเฉพาะกลุ่ม ผ่านกลยุทธ์การสร้างความแตกต่าง นำเสนอรูปแบบของผลิตภัณฑ์หรือบริการให้มีความแตกต่าง น่าสนใจ ตัวอย่างเช่น การสร้างความแตกต่างในด้านความปลอดภัยของข้อมูลสำหรับผลิตภัณฑ์ประเภทคอมพิวเตอร์เมนเฟรม เป็นต้น

1.2.4) การเปลี่ยนแปลง (Modification) คือ ความสามารถในการปรับเปลี่ยนนวัตกรรมให้ตรงกับความต้องการของผู้บริโภคอย่างรวดเร็ว โดยปัจจัยด้านนวัตกรรมมีองค์ประกอบ สำคัญคือ ด้านนวัตกรรมผลิตภัณฑ์ ที่ผู้ประกอบการต้องดำเนินการเพิ่มคุณภาพการผลิตของผลิตภัณฑ์และบริการปรับปรุงกระบวนการผลิตและบริการพัฒนาผลิตภัณฑ์หรือบริการใหม่ เพื่อเพิ่มความพึงพอใจของลูกค้า ด้านนวัตกรรมกระบวนการ ผู้ประกอบการต้องการพัฒนาระบบการจัดการ เพิ่มแนวทางการดำเนินธุรกิจและการดำเนินงานของกิจการใหม่ มีวิธีการใหม่ หรือเทคโนโลยีใหม่ ใช้สนับสนุนการตัดสินใจ กำหนดโครงสร้างองค์กร เพื่ออำนวยความสะดวกในการทำงานเป็นทีมหรือการประสานงาน พัฒนากระบวนการต่างๆ ในการดำเนินงาน พัฒนาระบบการจัดการ ข้อมูลภายในและการแชร์ข้อมูล เพิ่มคุณภาพผลผลิตในกระบวนการผลิตด้วยเทคนิค เครื่องจักรกล หรือ เทคโนโลยีมีวิธีการจัดการและควบคุมคุณภาพ และต้องมีความสามารถในการปรับเปลี่ยนผลิตภัณฑ์หรือกระบวนการอย่างรวดเร็วเพื่อตอบสนองความเปลี่ยนแปลงของลูกค้า

1.2.5) ความหลากหลายของผลิตภัณฑ์ (Product Variety) คือ การพัฒนาต่อยอดผลิตภัณฑ์ เป็นสิ่งที่ทำธุรกิจมีความเจริญก้าวหน้าขึ้นอย่างต่อเนื่อง ผู้บริหารการขายและการตลาด ต้องสังเคราะห์ว่าตลาดเป้าหมายหรือผู้บริโภคต้องการองค์ประกอบส่วนไหน เพื่อนำไปประกอบการพิจารณา

กำหนดแนวความคิดหลักดำเนินกลยุทธ์ทางการตลาด โดยแบ่งองค์ประกอบของผลิตภัณฑ์ ดังต่อไปนี้ ตัวผลิตภัณฑ์หลัก หมายถึง คุณประโยชน์ คุณค่า และคุณสมบัติขั้นพื้นฐาน ในการตอบสนองความต้องการโดยตรง เช่น ผลิตภัณฑ์สระผม ต้องสามารถทำความสะอาดเส้นผมให้สะอาดได้ ส่วนควบของผลิตภัณฑ์ หมายถึง คุณค่าที่เพิ่มเติมจากผลิตภัณฑ์หลักทำให้ผลิตภัณฑ์ชิ้นนี้แตกต่างจากผลิตภัณฑ์ของคู่แข่ง เช่น กลิ่นหอมมะลิ เช่น ผลิตจากวัตถุดิบที่ไม่ทำลายสิ่งแวดล้อม ส่วนเพิ่มที่คาดหวังจากผลิตภัณฑ์หมายถึง ประโยชน์คุณค่าที่แอบแฝงอื่นๆ ที่ตลาดเป้าหมายคาดหวังว่าจะได้รับจากผลิตภัณฑ์แก่นแท้และผลิตภัณฑ์ ส่วนควบ เช่น การใช้โทรศัพท์ iPhone จะทำให้ผู้ใช้ดูเป็นคนที่มีฐานะและสังคมดีกว่าคนที่ใช้โทรศัพท์ Huawei ส่วนที่ต้องการบ่งชี้ความแตกต่าง หมายถึง องค์ประกอบที่ใช้ในการติดต่อสื่อสารสร้างความแตกต่างของผลิตภัณฑ์ เช่น ยี่ห้อของสินค้า และศักยภาพที่ยั่งยืนของผลิตภัณฑ์ หมายถึง ส่วนที่ให้ผู้บริโภคได้รับความต่อเนื่องจากการใช้องค์ประกอบผลิตภัณฑ์ไปสู่อนาคต อันเนื่องจากการใช้ผลิตภัณฑ์ต่างๆ ทั้งหมด เช่น ความล้ำยุคของผลิตภัณฑ์ซึ่งเหนือกว่าคู่แข่งขัน เพื่อทำให้สามารถสร้างความหลากหลายให้แก่ผลิตภัณฑ์สามารถตอบสนองความต้องการของผู้บริโภคได้ครบถ้วน

1.2.6) การสื่อสารการตลาดแบบบูรณาการ (Integrated Marketing Communication) คือ การใช้ช่องทางในการโฆษณาและประชาสัมพันธ์ร่วมกันหลายๆ ช่องทาง เพื่อสร้าง การรับรู้และยอมรับผลิตภัณฑ์ให้แก่ลูกค้า การส่งเสริมการตลาดเป็นเครื่องมือหนึ่งที่มีความสำคัญในการติดต่อสื่อสารให้ผู้ใช้ผลิตภัณฑ์หรือบริการเกิดทัศนคติที่ดีต่อการใช้ผลิตภัณฑ์ และกระตุ้นการตัดสินใจซื้อผลิตภัณฑ์ Philip Kotler กล่าวว่าการส่งเสริมการตลาดคือ การใช้เครื่องมืออื่นๆ ของส่วนประสมการตลาด ในการขับเคลื่อนและสื่อสาร เชิญชวนลูกค้ากลุ่มเป้าหมายให้สนใจ ติดตาม และตัดสินใจซื้อผลิตภัณฑ์

แนวคิดและทฤษฎีเกี่ยวกับการตัดสินใจซื้อ

2.1) ความหมายการตัดสินใจซื้อ

อุบลรัตน์ ชมรัตน์ (2558) กล่าวว่า การตัดสินใจซื้อ หมายถึง การเลือกการปฏิบัติที่เห็นว่า ดีที่สุดจากหลายๆ ทางที่มีอยู่ โดยการพิจารณาอย่างรอบคอบ เพื่อเลือกสิ่งที่ดีที่สุดในการปฏิบัติให้บรรลุวัตถุประสงค์ที่ต้องการ

ณัฐธิดา เทพสุทิน (2558) กล่าวว่า การตัดสินใจซื้อ (Purchase Decision) เป็นขั้นตอนที่ผู้บริโภคพร้อมจะตัดสินใจซื้อ โดยผู้บริโภคจะเลือกจากทางเลือกต่างๆ ได้แก่ ผลิตภัณฑ์ แบรนด์ ตัวแทนการขาย ปริมาณในการซื้อ เวลาในการซื้อ และวิธีการชำระเงิน

Schiffman & Kanuk (2007) กล่าวว่า การตัดสินใจซื้อเป็นขั้นตอนในการเลือกซื้อสินค้าของผู้บริโภค โดยจะพิจารณาในส่วนที่เกี่ยวข้องกับกระบวนการตัดสินใจ ในด้านจิตใจที่เกี่ยวข้องกับ

ความรู้สึก นึกคิด และด้านพฤติกรรมที่เกี่ยวข้องกับทางกายภาพ ซึ่งการซื้อเป็นกิจกรรมทางด้านจิตใจและกายภาพ สามารถเกิดขึ้นได้ในช่วงระยะเวลาหนึ่ง ทำให้เกิดการซื้อ และอาจเกิดการตัดสินใจซื้อตามบุคคลอื่น การศึกษาการตัดสินใจซื้อของผู้บริโภคในการใช้ทรัพยากรที่มีอยู่ทั้งเงิน เวลา และกำลังเพื่อบริโภคผลิตภัณฑ์และ บริการต่างๆ ซึ่งประกอบด้วย ซื้ออะไร ทำไมจึงซื้อ ซื้อเมื่อไร อย่างไร ที่ไหน และบ่อยแค่ไหน

Kotler (2000) กล่าวว่า การตัดสินใจซื้อเป็นตัวชี้วัดที่สำคัญที่สุดของความสำเร็จในมุมของการตลาดและธุรกิจ โดยผู้บริโภคจะเริ่มรู้จักและมีความคุ้นเคยกับตราสินค้ามากขึ้น เกิดจากการที่พวกเขา ได้รับรู้ข้อดีของตราสินค้านั้น แล้วเกิดการชื่นชอบ เมื่อเกิดความต้องการพวกเขาก็จะค้นหาข้อมูลของตราสินค้านั้นๆ ด้วยตนเองเพิ่มเติม

2.2) กระบวนการตัดสินใจซื้อ

ขั้นตอนในการเลือกซื้อผลิตภัณฑ์ ผู้บริโภคจะพิจารณาในส่วนที่เกี่ยวข้องกับกระบวนการตัดสินใจทั้งด้านจิตใจ และพฤติกรรมทางกายภาพ การซื้อเป็นกิจกรรมด้านจิตใจและกายภาพ ซึ่งเกิดขึ้นในช่วงระยะเวลาหนึ่ง กิจกรรมเหล่านี้ทำให้เกิดการซื้อและเกิดพฤติกรรมการซื้อตามบุคคลอื่น ขั้นตอนการตัดสินใจซื้อพบว่าผู้บริโภคจะมีกระบวนการ 5 ขั้นตอน ดังนี้ (Schiffman & Kanuk, 2007)

2.2.1) การรับรู้ถึงความต้องการ (Need Recognition) หรือการรับรู้ปัญหา (Problem Recognition) หมายถึง การที่บุคคลรับรู้ถึงความต้องการที่เกิดจากภายในของตนเอง ซึ่งอาจเกิดจากสิ่งกระตุ้น เช่น ความหิว ความอยาก ความต้องการ ความเจ็บ เป็นต้น ซึ่งรวมถึงความต้องการของร่างกาย และความต้องการที่เป็นปรารถนาทางด้านจิตวิทยา

2.2.2) การค้นหาข้อมูล (Information Search) ถ้าความต้องการถูกกระตุ้นมากพอ และสิ่งที่สามารถสนองความต้องการอยู่ใกล้กับผู้บริโภค ผู้บริโภคจะเริ่มเกิดความพอใจในทันที หากยังไม่เกิดความพอใจ ความต้องการจะถูกบันทึก เพื่อหาความต้องการมาสนองความต้องการในภายหลัง

2.2.3) การประเมินทางเลือก (Evaluation of Alternative) เมื่อผู้บริโภคได้ข้อมูลมาแล้วจากขั้นที่2 จะเกิดความเข้าใจและประเมินทางเลือก ซึ่งนักการตลาดจำเป็นต้องมีความรู้ถึงวิธีการให้รู้ทันว่าผู้บริโภคจะใช้การประเมินผลในทางใด

2.2.4) การตัดสินใจซื้อ (Purchase Decision) จากการประเมินผลทางเลือกในขั้นที่ 3 นั้น จะช่วยให้ผู้บริโภคกำหนดความพอใจระหว่างผลิตภัณฑ์หรือบริการต่างๆ ที่เป็นทางเลือกทั่วไป โดยจะเลือกซื้อผลิตภัณฑ์ที่ชอบมากที่สุด การตัดสินใจซื้อเกิดขึ้นหลังจากประเมินทางเลือกแล้ว

2.3) การตัดสินใจซื้อผลิตภัณฑ์ที่เป็นมิตรต่อสิ่งแวดล้อม

การตัดสินใจซื้อผลิตภัณฑ์ที่เป็นมิตรต่อสิ่งแวดล้อม (Green Product Purchase Decisions) ผู้บริโภคที่ซื้อผลิตภัณฑ์กลุ่มนี้ เป็นผู้ที่มีความสนใจเกี่ยวกับพฤติกรรมการบริโภคที่จะส่งผลกระทบต่อสิ่งแวดล้อม และพร้อมที่จะปรับเปลี่ยนพฤติกรรมการบริโภคของตนเองเพื่อลดผลกระทบต่อสิ่งแวดล้อม การตัดสินใจเลือกซื้อผลิตภัณฑ์ของผู้บริโภคกลุ่มนี้ อธิบายอยู่ในรูปแบบต่างๆ เช่น การสนับสนุนบริษัทที่มีภาพลักษณ์เป็นมิตรต่อสิ่งแวดล้อม การเลือกซื้อผลิตภัณฑ์ที่เป็นมิตรต่อสิ่งแวดล้อม (Albayrak et al., 2013; Schlegelmilch et al., 1996 อ้างถึงใน สิริพัฒนัญ ชินเศรษฐพงศ์, 2561) การปรับเปลี่ยนพฤติกรรมเพื่อการบริโภคอย่างยั่งยืน (Gadenne et al., 2011 อ้างถึงใน สิริพัฒนัญ ชินเศรษฐพงศ์, 2561) และสัดส่วนของการซื้อผลิตภัณฑ์ที่เป็นมิตรต่อสิ่งแวดล้อมที่เพิ่มขึ้น (Essoussi and Linton, 2010)

การตัดสินใจซื้อผลิตภัณฑ์ของผู้บริโภคที่เป็นมิตรต่อสิ่งแวดล้อมสามารถถูกโน้มน้าวได้ด้วยตัวแปร 2 ชนิด คือ (Vermeir and Verbeke, 2004)

2.3.1) ตัวแปรภายใน เช่น การตระหนักรู้ถึงความรับผิดชอบของตนเองที่มีต่อ สิ่งแวดล้อม ความอยากรู้อยากเห็น การทำเพื่อผลประโยชน์ต่อตนเอง และความตั้งใจที่จะลดผลกระทบต่อทรัพยากรที่มีอยู่อย่างจำกัดและต่อสิ่งแวดล้อม

2.3.2) ตัวแปรภายนอก เช่น ภาพลักษณ์ในสังคมของผลิตภัณฑ์นั้นๆ และคุณลักษณะ ต่างๆ ของผลิตภัณฑ์ (คุณภาพ ความปลอดภัย ความมีประสิทธิภาพ ราคา รายการส่งเสริมการขาย และผลกระทบต่อสิ่งแวดล้อม) พฤติกรรมที่แท้จริงนั้นเกิดขึ้นมาจากนิสัยส่วนตัวของผู้บริโภค ความรู้เรื่องผลิตภัณฑ์ของผู้บริโภค และตัวแปรตามสถานการณ์ต่างๆ เช่น รายการส่งเสริมการขาย เป็นต้น

งานวิจัยที่เกี่ยวข้อง

จุฑาพัฒน์ ธิโสภา และศุภชาต เอี่ยมรัตนกูล (2562) ได้ศึกษาปัจจัยที่มีผลต่อการตัดสินใจเลือกติดตั้งระบบผลิตไฟฟ้าด้วยแสงอาทิตย์สำหรับบ้านอยู่อาศัย เป็นการวิจัยผสมผสานเชิงคุณภาพและเชิงปริมาณ เก็บข้อมูลจากกลุ่มตัวอย่างได้แก่ ผู้เชี่ยวชาญในธุรกิจพลังงานจำนวน 20 คน และเก็บข้อมูลความพึงพอใจของปัจจัยต่างๆ จากกลุ่มผู้บริโภค จำนวน 400 คน วิเคราะห์ข้อมูลด้วยเชิงลำดับชั้น ผลการวิจัยเชิงปริมาณพบว่า ปัจจัยที่มีผลต่อตัดสินใจเลือกติดตั้งระบบผลิตไฟฟ้าด้วยแสงอาทิตย์สำหรับบ้านอยู่อาศัย ได้แก่ ปัจจัยด้าน ความน่าเชื่อถือของผู้ติดตั้ง ด้านคุณภาพบริการ และด้านส่วนประสมทางการตลาด 4P นอกจากนี้ บุญสม ลีชยากิตติกร (2558) ได้ศึกษานวัตกรรมการตลาดที่ส่งผลต่อความจงรักภักดีต่อผลิตภัณฑ์สมุนไพรบรรเทาปวด เป็นการวิจัยเชิงปริมาณ เก็บข้อมูลจากกลุ่มตัวอย่างผู้บริโภคที่เป็นผู้ที่ใส่ใจเรื่องสุขภาพและการออกกำลังกายในเขตพื้นที่กรุงเทพมหานคร จำนวน 438 คน วิเคราะห์ข้อมูลโดยใช้เทคนิคการวิเคราะห์ปัจจัยเชิงสำรวจและ

การวิเคราะห์สมการโครงสร้าง ผลการวิจัยพบว่า นวัตกรรมการตลาดที่ส่งผลต่อพฤติกรรมการซื้อและความจงรักภักดีต่อผลิตภัณฑ์สมุนไพรบรรเทาปวด ประกอบด้วย 5 ด้าน ตามลำดับ ได้แก่ ด้านการสื่อสารการตลาดแบบบูรณาการ ด้านความหลากหลายของผลิตภัณฑ์ ด้านการมุ่งเน้นที่ตัวลูกค้า ด้านการมุ่งตลาดเฉพาะกลุ่ม และด้านคุณค่าเฉพาะตัว

ทั้งนี้ Marius, Johan, and Neels (2013) ได้ศึกษาการมุ่งตลาดเฉพาะกลุ่มในธุรกิจท่องเที่ยว โดยมีการเก็บข้อมูลนักท่องเที่ยวของบริษัทผู้ประกอบการท่องเที่ยวในประเทศแอฟริกาใต้ส่งผลให้ผู้ประกอบการเข้าใจความต้องการของลูกค้ามากขึ้น และนำข้อมูลที่ได้ไปวางกลยุทธ์การตลาด เช่น มุ่งเน้นที่ตัวลูกค้าได้ว่าต้องการอะไรที่สร้างความพึงพอใจให้แก่ลูกค้า และยังสามารถออกแพ็กเก็จการท่องเที่ยวที่ตอบสนองการตัดสินใจใช้บริการจากลูกค้าเฉพาะกลุ่มได้ นอกจากนี้ Manar, May, and Olga (2012) ได้ศึกษาการทำการตลาดแบบมุ่งเน้นตัวลูกค้าเป็นหลักโดยได้กล่าวไว้ว่า การสังเกตพฤติกรรมและสำรวจความต้องการของนักศึกษาก่อนที่จะเลือกลงทะเบียนวิชาเรียน เพื่อจะดูว่านักศึกษาเลือกลงวิชาโดยใช้เหตุผลอะไรในการเลือกลงวิชา เช่น เลือกเพราะสนใจวิชานั้น เลือกลงเรียนตามเพื่อน ชื่อวิชาน่าสนใจ อาจารย์ผู้สอนน่าสนใจ วันเวลาเรียนเหมาะสม หรือ วิชานั้นเรียนแล้วนำไปใช้ได้จริงหลังจบการศึกษา เป็นต้น โดยจะรวบรวมความต้องการของนักศึกษาทั้งหมดที่ได้ทำการสำรวจและนำมาประมวลผลเพื่อหาสาเหตุส่วนใหญ่ที่เลือกลงวิชานั้น แล้วนำไปทำกลยุทธ์การตลาดในการประชาสัมพันธ์วิชาในสาย IT เพื่อจะดึงดูดการตัดสินใจและช่วยตอบสนองความต้องการของนักศึกษาให้มาลงทะเบียนเรียน

บทสรุป

นวัตกรรมการตลาดเป็นเครื่องมือในรูปแบบกระบวนการหรือกิจกรรมทางการตลาดที่สำคัญ ต่อผู้ประกอบการธุรกิจการให้บริการติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม เพื่อให้ธุรกิจสามารถแข่งขันและสามารถส่งต่อผลิตภัณฑ์หรือการบริการสู่ผู้บริโภคได้ จากการทบทวนวรรณกรรมที่เกี่ยวข้องผู้วิจัยนำมาใช้เป็นแนวทางในการสร้างกรอบแนวคิด ดังแสดงในภาพที่ 1

นวัตกรรมการตลาด

1) ด้านคุณค่าเฉพาะตัว
2) ด้านการมุ่งเน้นที่ตัวลูกค้า
3) ด้านการมุ่งตลาดเฉพาะกลุ่ม
4) ด้านความหลากหลายของผลิตภัณฑ์
5) ด้านการเปลี่ยนแปลง
6) ด้านการสื่อสารการตลาดแบบบูรณาการ

→ การตัดสินใจติดตั้งโซลาร์รูฟท็อป ในโรงงานอุตสาหกรรม

ภาพที่ 1 กรอบแนวคิด

จากภาพที่ 1 แสดงให้เห็นถึงกรอบแนวคิดนวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม โดยใช้แนวทางนวัตกรรมการตลาดของ Michele, Audrey, and David (2009) ที่มีองค์ประกอบสำคัญ 6 ด้าน ได้แก่ ด้านคุณค่าเฉพาะตัว ด้านการมุ่งเน้นที่ตัวลูกค้า ด้านการมุ่งตลาดเฉพาะกลุ่ม ด้านความหลากหลายของผลิตภัณฑ์ ด้านการเปลี่ยนแปลง และด้านการสื่อสารการตลาดแบบบูรณาการ โดยปัจจัยดังกล่าวส่งผลต่อการตัดสินใจติดตั้งโซลาร์รูฟท็อปในโรงงานอุตสาหกรรม ทั้งนี้นวัตกรรมการตลาดจะเป็นเครื่องมือที่ช่วยพัฒนาและสร้างความได้เปรียบในการแข่งขันแบบยั่งยืนแก่ผู้ประกอบการธุรกิจการให้บริการติดตั้งโซลาร์รูฟท็อปบนพื้นฐานความแตกต่างและกลยุทธ์ผู้นำด้านต้นทุน

เอกสารอ้างอิง

กรุงเทพธุรกิจ. (2564). *ปัญหาและทางออก "วิกฤติพลังงาน" ในยุโรป*. สืบค้นจาก www.bangkokbiznews.com/pr-news/business/965157.

กระทรวงพลังงาน. (2561). *คู่มือแผนพัฒนากำลังการผลิตไฟฟ้า (Power Development Plan: PDP)*. กรุงเทพฯ: กระทรวงพลังงาน.

________. (2561). *แผนพัฒนากำลังผลิตไฟฟ้าของประเทศไทย*. สืบค้นจาก www.eppo.go.th/images/POLICY/PDF/PDP2018.pdf.

จุฑาพัฒน์ ธิโสภา และ ศุภชาต เอี่ยมรัตนกูล. (2562). ปัจจัยที่มีผลต่อการตัดสินใจเลือกติดตั้งระบบผลิตไฟฟ้าด้วยแสงอาทิตย์ สำหรับบ้านอยู่อาศัยโดยวิธีการวิเคราะห์เชิงลำดับชั้น. *วารสารสหวิทยาการวิจัย: ฉบับบัณฑิตศึกษา, 8*(2).

ชัยรัฐ ภัทรเวท และ ศุภฤกษ์ สุขสมาน. (2563). *ปัจจัยที่มีผลต่อการตัดสินใจเลือกใช้บริการติดตั้งโซลาร์ รูฟท็อปในกลุ่มโรงงานอุตสาหกรรม*. การประชุมนำเสนอผลงานวิจัยระดับบัณฑิตศึกษาครั้งที่ 15 ปี พ.ศ.2563.

ณัฐธิดา เทพสุทิน. (2558). *ปัจจัยที่มีอิทธิพลต่อการตัดสินใจเลือกใช้บริการโรงแรมระดับ 4 ดาวขึ้นไปของนักท่องเที่ยวชาวไทยในเขตเทศบาลเมืองพัทยา*. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

บุญสม ลีชยากิตติกร. (2558). *นวัตกรรมการตลาดสำหรับผลิตภัณฑ์สมุนไพร*. การค้นคว้าอิสระวิทยาศาสตร์มหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

สิริพัฒนัญ ชินเศรษฐพงศ์. (2561). *ปัจจัยที่ส่งผลต่อการตัดสินใจซื้อสินค้าที่เป็นมิตรต่อสิ่งแวดล้อมของผู้บริโภค*.การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

อุบลรัตน์ ชมรัตน์. (2558). *ปัจจัยที่ส่งผลต่อการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารเพื่อสุขภาพชนิดแคปซูลของคนวัยทำงานในกรุงเทพมหานคร*. การค้นคว้าอิสระ บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยกรุงเทพ.

Drucker, P. F. (1973). *Management: Tasks, Responsibilities, Practices*. New York.

Essoussi, L.H. and Linton, J.D. (2010). New or Recycled Products: How Much are Consumers Willing to Pay?. *Journal of Consumer Marketing, 27*(5), 458-468.

Kotler, P. (2000). *Marketing Management*. 10th ed. New Jersey: Pearson Prentice Hall.

Manar, T. A., May, B. E., & Olga, O. (2012). An Innovative Marketing Strategy to Promote our College of IT: Zayed University Case Study. *Issues in Informing Science and Information Technology, 7*, 161-175.

Marius, P., Johan, J. W., & Neels, H. H. (2013). An innovative marketing information system: a management tool for South African tour operators. *Procedia-Social and Behavioral Sciences 99*, 733-741.

Michele, O., Audrey, G., & David, C. (2009, October). Innovative Marketing in SMEs: an Empirical Study. *Taylor & Francis, 7*(5), 383-396.

Naidoo, V. (2010). Firm Survival Through a Crisis: The Influence of Market Orientation, Marketing Innovation and Business Strategy. *Industrial Marketing Management, 10*.

Schiffman, L., & Kanuk, L. (2007). *Customer Behavior*. Singapore: Prentice-Hall.

Vermeir, I., & Verbeke, W. (2004). Sustainable Food Consumption: Exploring the Consumer' Attitude-Behavioural Intention' Gap. *Journal of Agricultural and Environmental Ethics, 19*(2), 169-194.

นวัตกรรมบริการกับการตัดสินใจซื้อ การประยุกต์กับธุรกิจประกัน

The Service Innovation and Purchasing Decisions Application to Insurance Business

ณัชทิชา อมรกิติพล
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University

ทวีป พรหมอยู่
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: deeneenong@gmail.com

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์ เพื่อศึกษากรอบแนวคิดของการวิจัยที่แสดงความสัมพันธ์ระหว่างนวัตกรรมบริการกับการตัดสินใจซื้อ จากการทบทวนวรรณกรรม พบว่า นวัตกรรมผลิตภัณฑ์ นวัตกรรมกระบวนการ นวัตกรรมสิ่งแวดล้อม และนวัตกรรมเทคโนโลยี โดยมีความสัมพันธ์กับการตัดสินใจใช้บริการกระบวนการตัดสินใจของผู้บริโภค ซึ่งแบ่งออกเป็น 5 ลำดับขั้น โดยเริ่มจากพฤติกรรมก่อนการซื้อ แสวงหาทางเลือก การประเมินผลทางเลือก การตัดสินใจซื้อ การประเมินผลหลังการซื้อ องค์ความรู้/ข้อค้นพบจากบทความนี้ ทำให้ทราบถึงนวัตกรรมบริการกับการตัดสินใจซื้อ การประยุกต์กับธุรกิจประกัน สามารถนำไปเป็นแนวทางในการพัฒนา ยังสามารถนำไปสร้างเป็นกรอบแนวคิดที่แสดงความสัมพันธ์ระหว่างนวัตกรรมบริการกับการตัดสินใจซื้อ สำหรับการศึกษาวิจัย ต่อไปได้ด้วย

คำสำคัญ: นวัตกรรมบริการ, การตัดสินใจซื้อ, ธุรกิจประกัน

Abstract

This research aims to study the conceptual framework of research the relationship service innovation and purchasing decisions. From the literature review, it was found that product innovation process innovation environmental innovation and technological innovation It is related to the decision to use the service, the decision-making process of the consumer. which is divided into 5 hierarchies, starting from the behavior before buying seek alternatives Alternative evaluation purchase decision Evaluation after purchase Knowledge/findings from this article Make them aware of service innovations and purchasing decisions Application to insurance business can be used as a guideline for development It can also be used to create a conceptual framework showing the relationship service innovation and purchasing decisions. for further research studies.

Keywords: service innovation, purchase decision, insurance business

บทนำ

ธุรกิจประกันภัย จากปีที่ผ่านมา อุตสาหกรรมประกันภัยไทยประสบกับบททดสอบใหม่ที่ท้าทายจากการเปลี่ยนแปลงของโลกยุคใหม่ เศรษฐกิจในประเทศไทยได้รับผลกระทบจากระบบเศรษฐกิจโลก การเข้าสู่สังคมผู้สูงอายุ ความก้าวหน้าทางเทคโนโลยี และการแพร่ระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 ซึ่งเป็นรูปแบบที่ธุรกิจประกันภัยไทยยังไม่เคยประสบมา บริษัทประกันชีวิต เพื่อรับประกันต่อความสูญเสียหรือความเสียหายต่อบุคคลหรือกลุ่มบุคคล โดยสัญญาว่าจะจ่ายชดเชยให้แก่ผู้เอาประกันภัย หรือผู้รับผลประโยชน์ และอาจมีความคุ้มครองอื่นๆ โดยสามารถศึกษารายละเอียดของประกันภัยประเภทต่างๆ ผู้วิจัยจึงมีความมุ่งมั่นที่จะศึกษาเพื่อให้ได้รับข้อมูลที่เป็นประโยชน์ต่อการนำไปใช้ประกอบการตัดสินใจ ในการวางแผน การกำหนดกลยุทธ์ ผู้วิจัยจึงเลือกทำการวิจัยนวัตกรรมบริการกับการตัดสินใจซื้อ การประยุกต์กับธุรกิจประกัน ถึงระดับนวัตกรรมบริการ ระดับการตัดสินใจซื้อกรมธรรม์กับธุรกิจประกัน และการส่งผลของปัจจัยนวัตกรรมบริการที่มีต่อการตัดสินใจซื้อ เพื่อเป็นกรณีศึกษา

เนื้อหาบทความปริทัศน์

แนวคิดทฤษฎีที่เกี่ยวกับนวัตกรรมบริการ

นวัตกรรม (Innovation) เป็นส่วนสำคัญในกระบวนการดำเนินธุรกิจ ที่แสดงให้เห็นถึงการริเริ่มประกอบกับการนำความคิดริเริ่มเหล่านั้นมาใช้ให้เกิดผลประโยชน์ ซึ่งในกระบวนการทางนวัตกรรม จะเป็นตัวช่วยในส่วนที่สำคัญที่สามารถทำให้องค์กรดำรงอยู่และเจริญเติบโต

Read ที่ได้กล่าวถึงความสำคัญของ “นวัตกรรม” ว่า องค์กรที่อยู่ในสภาพแวดล้อมปัจจุบันต้องพบกับการแข่งขันที่มีความรุนแรง ความต้องการของผู้ซื้อสินค้าหรือผู้ใช้บริการมีการเปลี่ยนแปลงอย่าง

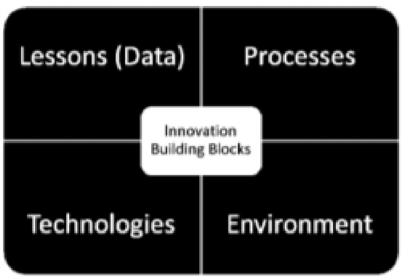
รวดเร็ว รวมทั้งมีการไหลเวียนของสารสนเทศและเทคโนโลยีใหม่ๆเพิ่มขึ้น ผลจากความเปลี่ยนแปลงที่เกิดขึ้น ทำให้นักวิชาการให้ความสนใจกับ "นวัตกรรม" ในฐานะที่เป็นองค์ประกอบสำคัญในการสร้างความสามารถในการทำกำไร และนำไปสู่ความได้เปรียบในการแข่งขันขององค์กร (Read, 2000 อ้างถึงใน พยัต วุฒิรงค์, 2557)

จิราวรรณ วุฒิสวัสดิ์ (2557) ให้คำนิยามความหมายของ นวัตกรรม ไว้ว่า หมายถึงการปรับปรุงของเก่าให้ใหม่ขึ้น และรวมไปถึงการพัฒนาศักยภาพของบุคลากรตลอดจนถึงหน่วยงานหรือองค์กรนั้นๆ นวัตกรรมเป็นการปรับปรุงและพัฒนาเพื่อความอยู่รอดขององค์กร

นวัตกรรมบริการ (Service Innovation) เป็นแนวคิดที่ถูกพัฒนามาจากทฤษฎีนวัตกรรมของ Schumpeter เป็นอีกหนึ่งแนวคิดเชิงกลยุทธ์ที่ได้รับความสนใจ นวัตกรรมบริการเป็นเครื่องมือที่สำคัญในทางธุรกิจที่นำไปสู่การสร้างความได้เปรียบทางการแข่งขัน นวัตกรรมบริการ เป็นการนำนวัตกรรมมาพัฒนาและปรับปรุงรูปแบบขั้นตอนของการให้บริการ เพื่อการให้บริการที่ตรงต่อความต้องการของลูกค้า รวมถึงความพึงพอใจของลูกค้า โดยจะมีการเน้นในเรื่องของการอำนวยความสะดวก ความรวดเร็วของการบริการ ประโยชน์ของนวัตกรรมบริการในเชิงธุรกิจ คือ การช่วยสร้างความแตกต่างในการบริการกับลูกค้า เพื่อนำไปสู่การสร้างความพึงพอใจให้กับลูกค้า (วลัยลักษณ์ รัตนวงศ์, ณัฐธิดา สุวรรณโณ และธีรศักดิ์ จินดาบถ, 2557)

นวัตกรรมบริการเป็นแนวคิดในเรื่องของการบริการลูกค้า ในการตอบสนองความพึงพอใจแก่ลูกค้าอย่างเต็มที่ และเพื่อเป็นการปรับปรุง การช่วยเพิ่มผลกำไรให้กับธุรกิจ การบริการสามารถอธิบายเป็นกระบวนการที่ถูกโอนย้ายไปยังลูกค้า และเป็นการโต้ตอบระหว่างผู้ให้บริการและลูกค้า ซึ่งลูกค้ามีอิทธิพลมากต่อการปรับปรุงกระบวนการ (นฤดี จิยะวรนันท์ และภูมิพร ธรรมสถิตเดช, 2555)

องค์ประกอบของกรอบนวัตกรรมบริการ Service Research and Innovation Institute (SRII) Asia Summit (2013) ได้ทำการสรุปนวัตกรรมบริการไว้ว่า การสร้างนวัตกรรมบริการต้องอาศัยกรอบ (Framework) เพื่อใช้เป็นหลักยึดในกระบวนการของนวัตกรรมบริการที่ประกอบด้วย 4 ประเภท (Food and Agriculture Organization ot the United Nation (FAO), 2013, Manoo, 2013) ดังภาพที่ 1



ภาพที่ 1 นวัตกรรมบริการ 4 ประเภท

ที่มา: (Manoo, 2556)

จากภาพที่ 1 อธิบายได้ดังนี้

ด้านข้อมูล (Data) หมายถึง วัตถุประสงค์หรือเป้าหมายของคุณค่า (Value) ที่มีการคาดหวังจากผลงานของนวัตกรรมบริการ รวมทั้งประเด็นเงื่อนไขข้อจำกัด

ด้านกระบวนการ (Process) หมายถึง กระบวนการในการให้บริการของบริษัท และกระบวนการในการใช้บริการของลูกค้าของบริษัท เป็นส่วนสำคัญของนวัตกรรมบริการ และเป็นทรัพย์สินที่มีคุณค่าอย่างมาก เพราะจะเป็นส่วนที่มาจากแนวความคิดใหม่

ด้านเทคโนโลยี (Technologies) เพื่อสนับสนุนกระบวนการที่เป็นส่วนหนึ่งของข้อเสนอเพื่อสร้างคุณค่า รวมทั้งการเชื่อมโยงทรัพยากรทั้งจากแหล่งภายในและภายนอกองค์กรเพื่อร่วมกันสร้างข้อเสนอและสร้างคุณค่า จำเป็นต้องอาศัยระบบบริการ (Service System) ที่ระบบบริการนี้จะถูกออกแบบให้สอดคล้องกับข้อเสนอและกระบวนการสร้างคุณค่า การออกแบบระบบบริการถือว่าเป็นส่วนสำคัญอีกส่วนหนึ่งของนวัตกรรมบริการ

ด้านสิ่งแวดล้อม (Environment) หมายถึง การรับรู้เกี่ยวกับรายละเอียดและภาวการณ์ (Profile) ของลูกค้า ที่จะช่วยให้การสร้างคุณค่าร่วมกันระหว่างบริษัทและลูกค้าให้เป็นไปอย่างมีประสิทธิผล เป็นเรื่องของพยายามเข้าใจบริบทต่างๆ ของลูกค้าเพื่อจะได้สามารถตอบโจทย์ลูกค้าในบริบทต่างๆ ได้

แนวคิดทฤษฎีที่เกี่ยวกับการตัดสินใจซื้อ

การตัดสินใจซื้อ หมายถึง กระบวนการตัดสินใจซื้อของผู้บริโภค เป็นขั้นตอนในการเลือกซื้อผลิตภัณฑ์จากสองทางเลือกขึ้นไปพฤติกรรมผู้บริโภคจะพิจารณาในส่วนที่เกี่ยวข้องกับกระบวนการตัดสินใจ ทั้งด้านจิตใจ (ความรู้สึกนึกคิด) และพฤติกรรมทางกายภาพ การซื้อเป็นกิจกรรมด้านจิตใจ และกายภาพ ซึ่งเกิดขึ้นในช่วงระยะเวลาหนึ่ง (Schiffman and Kanuk, 2007) ผู้บริโภคมีกระบวนการในการซื้อสินค้าอยู่ 5 ขั้นตอน ได้แก่ 1) การรับรู้ปัญหา ที่ทำให้เกิดความต้องการที่จะแก้ไขปัญหา จึงนำไปสู่ขั้นที่ 2) การค้นหาข้อมูล เมื่อได้ข้อมูลมาแล้วจึงเกิดขั้นที่ 3) การประเมินทางเลือก เมื่อได้ทางเลือกที่คิดว่าดีที่สุดแล้ว จึงไปสู่ขั้นที่ 4) การตัดสินใจซื้อ และเมื่อซื้อไปแล้ว จึงเกิดขั้นที่ 5) พฤติกรรมหลังการซื้อ ซึ่งผู้ซื้อมักจะมีความพึงพอใจเมื่อได้สินค้าตามต้องการหรือการบริการที่ดี

คอทเลอร์ (Kotler, 2003) ได้กล่าวถึงรูปแบบกระบวนการตัดสินใจซื้อที่มีอยู่ 5 ขั้นตอน ดังภาพที่ 2

ภาพที่ 2 ขั้นตอนของกระบวนการตัดสินใจซื้อ (Stage of the buying decision process)

ที่มา: ดัดแปลงจาก Kotler (2003)

จากภาพ 2 มีรายละเอียดดังนี้

1) การรับรู้ปัญหา หรือการรับรู้ความต้องการ จะเริ่มเมื่อผู้ซื้อรับรู้ปัญหาหรือความต้องการของตนเองเกิดมาจากสิ่งกระตุ้นภายในและภายนอก จนเพิ่มระดับจนเกิดเป็นแรงขับเคลื่อน

2) การค้นข้อมูล การกระตุ้นให้เกิดความต้องการ ทำให้ผู้บริโภคค้นหาข้อมูลในสิ่งที่ต้องการเพิ่มเติม

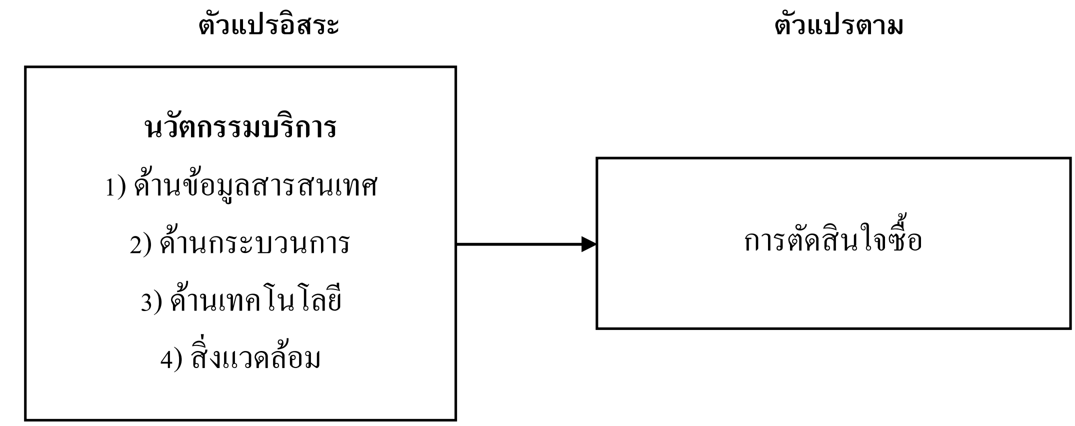
3) การประเมินทางเลือก เมื่อผู้บริโภคได้ข้อมูลที่ต้องการมาแล้ว จากการค้นหาข้อมูลในข้อ 2 ผู้บริโภคจะเกิดความเข้าใจและประเมินผลทางเลือกต่างๆ ขั้นตอนนี้ต้องอาศัยเกณฑ์ในการประเมิน ซึ่งประกอบด้วยมาตรฐานและคุณสมบัติที่ผู้บริโภคต้องการใช้ในการเปรียบเทียบระหว่างตราสินค้าหรือผลลัพธ์ จากการซื้อและบริโภค

4) การตัดสินใจซื้อ การประเมินผลจะช่วยให้ผู้บริโภคกำหนดความพอใจระหว่างผลิตภัณฑ์ต่างๆ ที่เป็นทางเลือกโดยทั่วๆ ไป ผู้บริโภคจะตัดสินใจซื้อผลิตภัณฑ์ที่เขาชอบมากที่สุดและปัจจัยต่างๆ ที่เกิดขึ้นระหว่างการประเมินผลพฤติกรรมและการตัดสินใจซื้อ

5) พฤติกรรมหลังการซื้อ หลังจากการซื้อและทดลองใช้ผลิตภัณฑ์ไปแล้วผู้บริโภคจะมีประสบการณ์ เกี่ยวกับความพอใจให้แก่ผู้ซื้อ ผู้ซื้อจะมีทัศนคติที่ดีต่อสินค้า จะทำให้เกิดการซื้อผลิตภัณฑ์ซ้ำ แต่ในทางตรงกันข้าม ถ้าผู้บริโภคไม่มีความพึงพอใจในสินค้าอาจทำให้เลิกซื้อผลิตภัณฑ์ไปเลย

กรอบแนวคิดของการวิจัย

การวิจัยในครั้งนี้ใช้แนวคิดตามทฤษฎีนวัตกรรมบริการของ Asia Summit (2013) ประกอบตัวตัวแปรต้นที่กำหนด คือ ด้านข้อมูลสารสนเทศ ด้านกระบวนการ ด้านเทคโนโลยี และด้านสิ่งแวดล้อม และตัวแปรตามที่กำหนด คือ นวัตกรรมบริการกับการตัดสินใจซื้อ การประยุกต์กับธุรกิจประกัน



ภาพที่ 3 กรอบแนวคิดของการวิจัย

บทสรุป

โดยสรุป พบว่า นวัตกรรมบริการกับการตัดสินใจซื้อ การประยุกต์กับธุรกิจประกัน ซึ่งจะทำหน้าเป็นตัวแปรอิสระทั้ง 4 ด้าน คือ ด้านข้อมูลสารสนเทศ ด้านกระบวนการ ด้านเทคโนโลยี ด้านสิ่งแวดล้อม มีความสัมพันธ์กับการตัดสินใจซื้อประกันของลูกค้า

เอกสารอ้างอิง

ไทยรัฐออนไลน์. (2564). *รู้จัก "นวัตกรรม" คืออะไร มีกี่ประเภท ประยุกต์ใช้กับอะไรได้บ้าง*. สืบค้นจาก www.thairath.co.th/lifestyle/life/2225171.

วีรินยาอร เหลืองบริบูรณ์. (2564). *นวัตกรรม คือ อะไร?*. สืบค้นจาก www.schoolofchangemakers.com/knowledge/28953/.

สถาบันพัฒนาบุคลากรแห่งอนาคต. (2564). *Service Innovation Masterclass 2021*. สืบค้นจาก www.career4future.com/sim/.

สำนักงานคณะกรรมการกำกับและส่งเสริมการประกอบธุรกิจประกันภัย. (2564). *แผนพัฒนาการประกันภัย ฉบับที่ 4 (พ.ศ.2564-2568)*. สืบค้นจาก www.oic.or.th/.

สำนักงานนวัตกรรมแห่งชาติ. (2560). *รายงานประจำปี 2550*. กรุงเทพฯ: สำนักงานนวัตกรรมแห่งชาติ กระทรวงวิทยาศาสตร์และเทคโนโลยี.

สุชาติ ชื่อลือชา. (2562). *ความสัมพันธ์ระหว่างนวัตกรรมบริการและการตัดสินใจใช้บริการโรงพยาบาลเกษมราษฎร์ บางแค*. กรุงเทพฯ: มหาวิทยาลัยสยาม.

สำนักงานนวัตกรรมแห่งชาติ. (2560). *รายงานประจำปี 2550*. กรุงเทพฯ: สำนักงานนวัตกรรมแห่งชาติ กระทรวงวิทยาศาสตร์และเทคโนโลยี.

Warakon S. (2019). *ประเภทของนวัตกรรม*. สืบค้นจาก https://warakon.home.blog/2019/08/21/ประเภทของนวัตกรรม/.

Warakon S. (2019). *ความสำคัญของนวัตกรรม*. สืบค้นจาก https://warakon.home.blog/2019/08/21/ความสำคัญของนวัตกรรม/.

นวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ

Marketing innovations that affect the purchasing decision of herbal health supplements

ทวีนันท์ ช่วยนา / Thaweenan Chuayna
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: s62463829054@ssru.ac.th

ทวีป พรหมอยู่ / Taweep Promyoo
วิทยาลัยนวัตกรรมการจัดการ มหาวิทยาราชภัฏสวนสุนันทา / College of Innovation Management, Suan Sunandha Rajabhat University
E-mail: taweep.pr@ssru.ac.th

บทคัดย่อ

บทความนี้เป็นการนำเสนอผลการทบทวนวรรณกรรมเกี่ยวกับนวัตกรรมทางการตลาดที่ส่งผลต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ โดยมีวัตถุประสงค์เพื่อศึกษานวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ รวมถึงการเสนอแนวทางการนำนวัตกรรมการตลาดไปใช้สำหรับผลิตภัณฑ์สมุนไพรเสริมสุขภาพ ซึ่งพบว่า นวัตกรรมการตลาด ซึ่งประกอบไปด้วย 1) คุณค่าเฉพาะตัว 2) การมุ่งเน้น ที่ตัวลูกค้า 3) การมุ่งตลาดเฉพาะกลุ่ม 4) การเปลี่ยนแปลง 5) ความหลากหลายของผลิตภัณฑ์ 6) การสื่อสารการตลาดแบบบูรณาการ เป็นกระบวนการและปัจจัยสำคัญที่ช่วยในการปรับปรุงส่วนประสมทางการตลาด อันได้แก่ ผลิตภัณฑ์ การจัดจำหน่าย การกำหนดราคา การส่งเสริมการตลาด ให้ดียิ่งขึ้น เพื่อให้สามารถกำหนดกลยุทธ์ และแผนธุรกิจให้ชัดเจน และสอดคล้องกับความต้องการของตลาดเป้าหมาย องค์ความรู้ และ/หรือข้อค้นพบจากบทความนี้ จะเป็นแนวทางในการศึกษาวิจัย นำวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ และสามารถนำไปเป็นข้อมูลสำหรับการพัฒนาธุรกิจสมุนไพรเสริมสุขภาพให้มีประสิทธิภาพเพิ่มมากขึ้นต่อไป เพื่อประโยชน์แก่องค์กรธุรกิจ และผู้สนใจทั่วไป

คำสำคัญ: นวัตกรรมการตลาด, สมุนไพร, การตัดสินใจซื้อ

Abstract

This article presents the results of a literature review on marketing innovations affecting purchasing decisions of herbal supplements. The objective of this study was to study marketing innovations that affect the purchasing decision of herbal dietary supplements. Including offering guidelines for marketing innovations for herbal health food supplements, it was found that marketing innovations consisted of: 1) Personal values 2) Focusing on customers 3) Focusing on specific markets. 4) Changes 5) Product Diversity 6) Integrated Marketing Communications It is a process and important factor that helps to improve the marketing mix such as Product (Product), Distribution (Place), Setting the Price (Price), Marketing (Promotion) so that it can define a strategy and business plan that is clear and consistent with target market needs Knowledge and/or research results from this article will be a guideline for research studies Use marketing innovations that affect the purchasing decision of herbal supplements for health purposes as information to develop the herbal supplement business to be more efficient. For the benefit of business organizations and general interested people

Keywords: Marketing Innovation, Herbs, Purchasing Decision

บทนำ

ปัจจุบันผลิตภัณฑ์สมุนไพรมีผู้บริโภคหันมาให้ความสนใจมากขึ้นอย่างต่อเนื่อง ส่งผลทำให้ตลาดผลิตภัณฑ์สมุนไพรที่มีอัตราเติบโตเพิ่มขึ้นเติบโตแบบก้าวกระโดด เพราะเป็นทางเลือกในการดูแลสุขภาพที่มีความปลอดภัยและมาจากธรรมชาติ ซึ่งในตลาดการค้าโลกพบว่ามูลค่าทางการตลาดของสมุนไพรรวมกัน ประมาณ 9.18 หมื่นล้านเหรียญดอลลาร์สหรัฐ โดยประเทศที่มีมูลค่าทางการตลาดของสมุนไพรสูง ได้แก่ ประเทศเยอรมนี ประเทศในแถบภูมิภาคเอเชีย ประเทศญี่ปุ่น และประเทศฝรั่งเศส มีอัตราการขยายตัวของการบริโภคผลิตภัณฑ์สมุนไพรในแต่ละประเภทอยู่ที่ร้อยละ 3-12 ซึ่งกลุ่มสินค้าที่มีศักยภาพมากที่สุดในตลาดสมุนไพร ได้แก่ อาหารเสริม (Nutraceuticals) และเวชสำอาง (Cosmeceuticals) (แผนแม่บทแห่งชาติว่าด้วยการพัฒนาสมุนไพรไทยฉบับที่ 1 พ.ศ. 2560-2564, 2560)

สำหรับตลาดสมุนไพรในประเทศ จากข้อมูลวิจัยของศูนย์วิจัยกสิกรไทยประเมินว่าในปี 2562 ตลาดสมุนไพรที่ใช้เป็นวัตถุดิบในการผลิตผลิตภัณฑ์ในอุตสาหกรรมต่อเนื่องจะมีมูลค่าไม่ต่ำกว่า 18,200 ล้านบาท และน่าจะมีโอกาสพุ่งไปสู่ระดับ 20,000 ล้านบาท ได้ภายในปี 2563 โดยมีปัจจัย

หนุนจากเทรนด์การบริโภคของคนรุ่นใหม่ที่นิยมใช้สมุนไพรเป็นทางเลือกในการดูแลสุขภาพ รวมถึงนโยบายของรัฐที่ส่งเสริมการใช้สมุนไพรแก่ผู้มีส่วนเกี่ยวข้อง ในอุตสาหกรรมสมุนไพร ผ่านแผนแม่บทว่าด้วยการพัฒนาสมุนไพรปี 2560-2564 และการดำเนินงานของกระทรวงสาธารณสุขที่ส่งเสริมให้โรงพยาบาลและสถานพยาบาลใช้สมุนไพรทดแทนการนำเข้าแผนปัจจุบันมากขึ้น โดยการเพิ่มรายการสมุนไพรเข้าไว้ในบัญชียาหลักแห่งชาติ และส่งเสริมให้โรงพยาบาล/สถานพยาบาลใช้สมุนไพรทดแทนการนำเข้ายาแผนปัจจุบัน และการส่งเสริมสนับสนุนการใช้สมุนไพรผ่านการดำเนินงานภายใต้งบประมาณการปฏิบัติงานโครงการด้านต่างๆ ของภาครัฐ เช่น การส่งเสริมคุณภาพวัตถุดิบ การส่งเสริมการแปรรูปผลิตภัณฑ์ และบรรจุภัณฑ์ และ/หรือ การส่งเสริมการเพิ่มช่องทางทางการตลาด โดยคาดการณ์ว่าในอนาคตตลาดที่สามารถรองรับ และมีความต้องการสมุนไพรสูง ได้แก่ กลุ่มธุรกิจด้านการแพทย์และความงาม รวมถึงกลุ่มนักท่องเที่ยวและตลาดส่งออก เช่น ญี่ปุ่น จีน และอเมริกา เป็นต้น (ศูนย์วิจัยกสิกรไทย, 2562) แต่เนื่องจากปัจจุบันการแปรรูปผลิตภัณฑ์สมุนไพรของไทยยังมีข้อบกพร่องไม่ว่าจะเป็นการผลิตที่มีมาตรฐาน รูปแบบการทำการตลาดแบบเดิม ที่ขาดการพัฒนาต่อยอด ไม่สอดคล้องกับความต้องการของผู้บริโภคในปัจจุบัน อีกทั้งไม่ใช้ช่องทางในการโฆษณาและประชาสัมพันธ์ร่วมกันหลายๆ ช่องทาง เพื่อสร้างการรับรู้และยอมรับผลิตภัณฑ์ให้แก่ลูกค้า ซึ่งส่งผลทำให้เกิดปัญหากับผลิตภัณฑ์สมุนไพรไทยที่ทำให้ผู้บริโภคยังไม่เป็นที่รู้จัก หรือไม่ซื้อซ้ำ หรือไม่มีการบอกต่อ

ดังนั้น หากศึกษาปัจจัยที่ส่งผลต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ โดยนำ“นวัตกรรมการตลาด (Marketing Innovation)”เข้ามาใช้ ผู้ประกอบการจะสามารถกำหนดมาตรการทางการตลาดที่สอดคล้องและเหมาะสมกลุ่มลูกค้าเป้าหมายรวมถึงเป็นข้อมูลทางการตลาดที่จะช่วยให้ผู้ประกอบการมีความสามารถในการพัฒนาผลิตภัณฑ์ ให้ตรงใจและสอดคล้องกับความต้องการใช้ของกลุ่มผู้บริโภค

แนวคิดเกี่ยวกับสมุนไพรเสริมสุขภาพ

ปัจจุบัน กระแสความนิยมผลิตภัณฑ์ที่มาจากธรรมชาติมีเพิ่มมากขึ้น ทั้งในรูปยาสมุนไพร อาหารเสริมและเครื่องสำอาง ทำให้คนส่วนใหญ่นิยมนำผลิตภัณฑ์จากธรรมชาติหรือสมุนไพรมาใช้ทดแทนสารที่มาจากการสังเคราะห์ทางเคมีซึ่งมีราคาแพง และมีผลข้างเคียงสูง ทั้งยังเป็นการช่วยลดการนำเข้ายาแผนปัจจุบันจากต่างประเทศ ซึ่งช่วยลดการเสียดุลการค้า ขณะเดียวกันก็จะสามารถส่งออกวัตถุดิบสมุนไพรซึ่งมีมูลค่าการตลาดต่ำ ให้เป็นการส่งออกในลักษณะการพัฒนาเป็นผลิตภัณฑ์ที่มีมาตรฐานและมูลค่าสูงได้ จึงเป็นข้อได้เปรียบและโอกาสดีของประเทศไทย เนื่องจากสภาพภูมิประเทศของไทยมีความหลากหลายทางชีวภาพ (Biodiversity) และมีความพร้อมที่จะนำ

สมุนไพรไปใช้ใน อุตสาหกรรมหลายประเภท เช่น อุตสาหกรรมอาหารและเครื่องดื่ม อุตสาหกรรมยาสมุนไพร อุตสาหกรรมสมุนไพรแปรรูป (สารสกัด เครื่องสำอาง/ผลิตภัณฑ์สปา ฯลฯ) เป็นต้น ซึ่งสมุนไพรบางรายการเป็นที่ต้องการอย่างมาก และสร้างรายได้มหาศาล จากบริบทดังกล่าว รัฐบาลไทยจึงได้กำหนดแผนแม่บทแห่งชาติว่าด้วยการพัฒนาสมุนไพรไทยฉบับแรก พ.ศ.2560-2564 เพื่อส่งเสริมการพัฒนาสมุนไพรไทยทั้งระบบ อย่างยั่งยืน ให้เป็นที่ยอมรับของนานาชาติ และผลักดันสมุนไพรให้เป็นพืชเศรษฐกิจ ตัวใหม่ขับเคลื่อน Thailand 4.0 สร้างมูลค่าเพิ่มแก่ผลิตภัณฑ์จากสมุนไพร และ สามารถแก้ไขปัญหาเพื่อหลุดพ้นจากกับดักประเทศรายได้ปานกลาง ความเหลื่อมล้ำ ความไม่สมดุล และการกระจายความมั่งคั่งและโอกาสของประชาชน ไทยเป็นคลังสมุนไพรของภูมิภาคและของโลกที่มีวัตถุดิบพืชสมุนไพรมากมายพร้อมกำหนดพระราชบัญญัติผลิตภัณฑ์สมุนไพร พ.ศ.2562 และให้ความหมายของ“ผลิตภัณฑ์สมุนไพร” ดังนี้

(1) ยาจากสมุนไพร หมายความรวมถึงยาแผนไทย ยาพัฒนาจากสมุนไพร ยาแผนโบราณที่ใช้กับมนุษย์ตามกฎหมายว่าด้วยยา หรือยาตามองค์ความรู้การแพทย์ทางเลือกตามที่รัฐมนตรีโดยคำแนะนำของคณะกรรมการประกาศกำหนด เพื่อการบำบัด รักษา และบรรเทาความเจ็บป่วยของมนุษย์ หรือการป้องกันโรค

(2) ผลิตภัณฑ์จากสมุนไพร หรือผลิตภัณฑ์ที่มีส่วนประกอบสำคัญที่เป็นหรือแปรสภาพจากสมุนไพร ซึ่งพร้อมที่จะนำไปใช้แก่มนุษย์ เพื่อให้เกิดผลต่อสุขภาพหรือการทำงานของ ร่างกายให้ดีขึ้น เสริมสร้างโครงสร้างหรือการทำงานของร่างกาย หรือลดปัจจัยเสี่ยงของการเกิดโรค

(3) วัตถุที่มุ่งหมายสำหรับใช้เป็นส่วนผสมในการผลิตผลิตภัณฑ์สมุนไพร

(4) วัตถุอื่นตามที่รัฐมนตรีโดยคำแนะนำของคณะกรรมการประกาศกำหนดให้เป็นผลิตภัณฑ์สมุนไพร

ทั้งนี้ วัตถุดิบสมุนไพรที่มีใช้ในประเทศไทยส่วนใหญ่ได้มาจาก 3 แหล่ง ได้แก่ (1) ได้จากการปลูกซึ่งมีกระจายทั่วประเทศ ส่วนใหญ่เป็นการเพาะปลูกแบบผสมผสานในครัวเรือนมากกว่าผลิตเพื่อการค้า (2) ได้จากแหล่งธรรมชาติ ประมาณร้อยละ 70-80 ของผลผลิตที่ขายอยู่ในท้องตลาดปัจจุบันเป็นสมุนไพรที่ได้จากป่าธรรมชาติ ไม่มีการปลูกหรือขยายพันธุ์ทดแทน (3) ได้จากการนำเข้า ปัจจุบันการนำเข้า มีปริมาณค่อนข้างสูง ส่วนใหญ่เป็นการนำเข้าในรูปวัตถุดิบและสารสกัดเพื่อนำมาใช้ทำยา และหากจำแนกประเภทพืชสมุนไพรที่มีใช้กันทั่วไป สามารถพิจารณาการจำแนกได้ 2 ลักษณะ คือ (1) จำแนกตามลักษณะการใช้ประโยชน์ ได้แก่ น้ำมันหอมระเหย ยา ผลิตภัณฑ์เสริมอาหารและเครื่องดื่ม เครื่องสำอางและผลิตภัณฑ์ ป้องกันและกำจัดศัตรูพืช และ (2) จำแนกตามลักษณะภายนอกของพืช ได้แก่ ราก ลำต้น ใบ ดอกและผล ดังนั้น เพื่อให้เกิดการขับเคลื่อนเศรษฐกิจในการพัฒนาอุตสาหกรรมสมุนไพรทั้งระบบในยุค Thailand 4.0 จึงต้องใช้นวัตกรรมใน

การขับเคลื่อน (Innovation-Driven Economy) โดยต้องครอบคลุมตั้งแต่การจัดการ การส่งต่อวัตถุดิบ การผลิต/การแปรรูปสินค้าและบริการ รวมถึงการตลาด ตั้งแต่ต้นน้ำ กลางน้ำ และปลายน้ำ ได้แก่ การพัฒนา Smart Farmers, Smart Workers, Smart Entrepreneurs และ Smart Traders และเปิดโอกาสให้ทุกภาคส่วนทั้งชุมชน ประชาสังคม ภาครัฐและเอกชน มีส่วนร่วมพัฒนาพืชสมุนไพรของไทยให้ได้มาตรฐาน เชื่อมโยงกันอย่างเป็นระบบในการพัฒนาระบบ

ที่มา: เอกสารประกอบการประชุมคณะทำงานสมุนไพรภายใต้คณะอนุกรรมการเร่งรัดนโยบายเขตพัฒนาเศรษฐกิจพิเศษคลัสเตอร์การแพทย์ครบวงจร

และด้วยมูลค่าทางการตลาดของสมุนไพรภายในประเทศไทยกว่า 18,200 ล้านบาท และ มีแนวโน้มที่จะเติบโตขึ้นเรื่อยๆ ทำให้ตลาดสมุนไพรกลายเป็นดาวเด่นในแวดวงธุรกิจสุขภาพและ ความงาม เนื่องจากถูกนำมาใช้เป็นวัตถุดิบในการผลิตสินค้าในธุรกิจนี้ และ ยังสามารถต่อยอดพัฒนาไปสู่ผลิตภัณฑ์อื่นได้อย่างหลากหลาย ถึงแม้ว่าส่วนใหญ่ยังเน้นผลิตเพื่อการบริโภคในประเทศเป็นหลัก โดยผู้ผลิตที่สำคัญ คือ กลุ่มเกษตรกร วิสาหกิจชุมชน และ ธุรกิจ SMEs ซึ่งผู้ประกอบการ SME ไทย จะกระจุกตัวอยู่ในผลิตภัณฑ์ต้นน้ำและกลางน้ำมากที่สุด กล่าวคือเป็นการผลิตสมุนไพรสด หรือหากเป็นสมุนไพรแปรรูป ก็จะมีนวัตกรรมที่ไม่สูงมาก เช่น บด อัดเม็ด/แคปซูล ทำให้ผลิตภัณฑ์สมุนไพรไม่น่าสนใจ ไม่ดึงดูดให้คนอยากทดลองใช้และสนใจซื้อ ส่งผลให้มูลค่าของผลิตภัณฑ์สมุนไพรที่ผลิตขึ้นจึงไม่สูงมากนัก และผู้บริโภครู้จักแต่ไม่กล้าซื้อใช้ ดังนั้นหากมีการดำเนินงานเพื่อศึกษาปัจจัยที่ส่งเสริมผลิตภัณฑ์สมุนไพร หรือสร้างความเชื่อมั่นให้แก่ผู้ใช้ผลิตภัณฑ์สมุนไพรได้ ก็จะทำให้ผู้ประกอบการธุรกิจ SME มีแนวทางในการพัฒนา และกล้าลงทุน หรือต่อยอดการพัฒนาผลิตภัณฑ์สมุนไพรใหม่ๆ ได้

แนวคิดเกี่ยวกับนวัตกรรม

นวัตกรรม (Innovation) มีรากศัพท์มาจาก Innovare ในภาษาลาติน แปลว่า ทำสิ่งใหม่ขึ้นมา และสำนักงานนวัตกรรมแห่งชาติ ซึ่งเป็นหน่วยงานที่ทำหน้าที่เป็นตัวแทนให้การส่งเสริม และพัฒนานวัตกรรมของประเทศ ได้กำหนดความหมายของนวัตกรรมไว้ว่า นวัตกรรม คือ “สิ่งใหม่ที่เกิดจากการใช้ความรู้ และความคิด สร้างสรรค์ที่มีประโยชน์ต่อเศรษฐกิจและสังคม”การจำแนกประเภทของนวัตกรรม สามารถแบ่งได้หลายประเภท ตามลักษณะขอบเขต และวัตถุประสงค์ของการนำไปใช้ ซึ่งการจำแนกที่สามารถพบได้บ่อย และมีการนำไปใช้ประโยชน์ สามารถสรุปได้ 7 ประเภท (โรจนศักดิ แสงธศิริวิไล, 2556) ดังนี้

1) นวัตกรรมด้านสินค้า (Product Innovation) คือ การพัฒนาสินค้าใหม่และการปรับปรุงสินค้าให้มีประสิทธิภาพมากขึ้น เช่น โทรศัพท์มือถือ รถยนต์ มีนวัตกรรมใหม่ๆ ที่ทำให้สินค้ามีคุณสมบัติที่ดีขึ้น และสามารถตอบสนองความต้องการของลูกค้าได้มากขึ้น

2) นวัตกรรมด้านกระบวนการ (Process Innovation) คือ การพัฒนากระบวนการปฏิบัติงานรูปแบบใหม่ให้เกิดประสิทธิภาพสูงสุด เช่น เป็นกระบวนการใหม่ที่ทำให้ตอบสนองความต้องการของลูกค้าได้ดีขึ้น และยังสามารถบริหารจัดการสินค้าคงคลังได้อย่างมีประสิทธิภาพมากยิ่งขึ้น

3) นวัตกรรมที่เกี่ยวกับองค์กร (Organizational Innovation) คือ การปรับโครงสร้างองค์กรใหม่และกระบวนการปฏิบัติงานใหม่ เช่น การปรับเปลี่ยนแผนกการปฏิบัติงานใหม่ การปรับเปลี่ยนระบบการสื่อสารภายในองค์กรให้เกิดประสิทธิภาพ และการปรับเปลี่ยนกระบวนการการปฏิบัติงานด้านบัญชี นวัตกรรมที่เกี่ยวกับองค์กรทำให้องค์กรสามารถปฏิบัติงานได้อย่างมีประสิทธิภาพ ส่งผลให้ผู้ที่เกี่ยวข้องทั้งหมด (Stakeholders) เกิดความพึงพอใจมากยิ่งขึ้น

4) นวัตกรรมด้านการจัดการ (Management Innovation) คือ การสร้างสรรค์แนวทางการจัดการรูปแบบใหม่ให้องค์กรสามารถเพิ่มประสิทธิภาพในการปฏิบัติงานได้ดีขึ้น เช่น การนำการจัดการควบคุมคุณภาพรวม (Total Quality Management) มาใช้ในการควบคุมคุณภาพการปฏิบัติงาน

5) นวัตกรรมด้านการผลิต (Production Innovation) คือ การสร้างสรรค์ระบบการผลิตให้เกิดประสิทธิภาพสูงสุดและต้นทุนต่ำ เช่น Quality Circles, Just in Time

6) นวัตกรรมด้านการตลาดและการพาณิชย์ (Marketing/Commercial Innovation) คือ การสร้างสรรค์สิ่งใหม่ๆ ทางการตลาด เช่น ข้อตกลงทางการเงินรูปแบบใหม่ วิธีการขายรูปแบบใหม่เป็นการขายโดยไม่ผ่านคนกลาง และการพาณิชย์เชิงอิเล็กทรอนิคส์ (e-Commerce)

7) นวัตกรรมด้านบริการ (Service Innovation) เป็นการสร้างสรรค์บริการรูปแบบใหม่ๆ เช่น การให้บริการทางการเงินโดยใช้เทคโนโลยีสื่อสารทางอินเทอร์เน็ต ซึ่งธนาคารได้นำมาใช้ เรียกว่า e-Banking

แนวคิดเกี่ยวกับการนวัตกรรมการตลาด

การตลาด (Marketing) หมายถึง กิจกรรมต่างๆทางธุรกิจที่เกิดขึ้น เพื่อให้สินค้าหรือบริการเปลี่ยนจากผู้ผลิตไปสู่ผู้บริโภค (Drucker, 1973) สามารถตอบสนองความพอใจ และความ ต้องการต่างๆของผู้บริโภคได้ (Kotler, Principles of Marketing, 1980) โดยกิจกรรมทางการตลาด ถูกกำหนดขึ้นเพื่อวางแผนการดำเนินงาน การกำหนดราคา ส่งเสริมการจำหน่าย การกระจายสินค้า และบริการ ซึ่งกิจกรรมทางการตลาดสามารถแบ่งงานที่ต้องทำออกเป็น ผู้ขายต้องค้นหาว่าผู้ซื้ออยู่ที่ไหน มีใครบ้าง ต้องดูว่าความต้องการเป็นอย่างไร ต้องการอะไร จากนั้นก็ต้องออกแบบผลิตภัณฑ์ มีส่งเสริมให้เกิดความสนใจในตัวผลิตภัณฑ์ การนำผลิตภัณฑ์ออกจำหน่าย รวมถึงช่องทางการเข้าถึงและการขนส่ง

ในทางการตลาดการให้ความสำคัญกับผลิตภัณฑ์และการยอมรับความต้องการของลูกค้าเป็นสิ่งสำคัญอันดับต้นๆ ดังนั้นการวางแผนและการดำเนินกิจกรรมต่างๆทางการตลาดต้องมุ่งเน้นไปที่ความต้องการของลูกค้า เพื่อตอบสนองความต้องการของลูกค้าให้ได้มากที่สุด และนำมาซึ่งผลกำไรแก่บริษัท ประกอบด้วยส่วนที่สำคัญ 3 ส่วนดังนี้

1) การให้ความสำคัญแก่ลูกค้า (Customer Orientation) หมายถึง การที่ให้ความต้องการของลูกค้าเป็นตัวชี้ว่าผู้ผลิตจะผลิตสิ่งใดเพื่อตอบสนองให้ตรงตามความต้องการของลูกค้า

2) การให้ความสำคัญในส่วนของกำไร (Profit Orientation) กำไรเป็นส่วนสำคัญที่สุดของการประกอบธุรกิจ เป็นสิ่งที่บอกว่าธุรกิจเติบโตเพิ่มขึ้นเท่าไร แต่การทำกำไรต้องดูทั้งปัจจัยภายในอาทิโครงสร้างองค์กร กระบวนการทำงาน วัฒนธรรม และบุคลากรที่อยู่ภายในองค์กร เป็นต้น ปัจจัยภายนอกอาทิสภาวะเศรษฐกิจ คู่แข่งขันการเปลี่ยนไปของเทคโนโลยีเป็นต้น

3) การบูรณาการทางการตลาด (Integrated Marketing) คือ การร่วมมือกันทำงานทั้งฝ่ายการพัฒนาผลิตภัณฑ์ (Product Development) ฝ่ายการโฆษณา (Advertising) และฝ่ายการขาย (Sales) มาร่วมกันทำงานกับฝ่ายการตลาด โดยนักการตลาดต้องศึกษาให้ทราบถึงความต้องการ ของลูกค้า ว่าลูกค้าต้องการสินค้าที่มีคุณสมบัติอย่างไร เพื่อฝ่ายผลิตจะสามารถผลิตได้ตรงความ ต้องการลูกค้า ธุรกิจส่วนใหญ่มีรากฐานที่ลูกค้า โดยต้องเข้าใจและตอบสนองความต้องการของลูกค้า ทำให้การตลาดมีความสำคัญมากขึ้น โดยเฉพาะในธุรกิจที่มีการแข่งขันกันมาก จึงทำให้การตลาดเข้ามามีบทบาทและเป็นสิ่งจำเป็นในการประกอบธุรกิจสมัยใหม่ ซึ่งถ้ามีแต่การตลาดแบบเดิมอาจจะไม่เพียงพอต่อการแข่งขันด้านการตลาดในธุรกิจยุคปัจจุบัน จึงมีการศึกษาวิจัยนวัตกรรมการตลาดขึ้นมา เพื่อช่วยสร้างความได้เปรียบทางการแข่งขัน

นวัตกรรมการตลาด (Marketing Innovation) เป็นกระบวนการทางการตลาดที่กำหนดขึ้นเพื่อทำการปรับปรุงส่วนประสมทางการตลาด (Marketing Mix) ช่วยให้ธุรกิจสามารถแข่งขันและอยู่รอด

ภายใต้ความท้าทายทางเศรษฐกิจในปัจจุบัน นวัตกรรมการตลาดเข้าช่วยในการพัฒนาและสร้างความเปรียบในการแข่งขันแบบยั่งยืนบนพื้นฐานของความแตกต่างและกลยุทธ์ผู้นำด้านต้นทุน (Naidoo, 2010 และบุญสม, 2558) โดยที่ OECD (2005) ระบุว่านวัตกรรมการตลาดเป็นวิธีทางการตลาด แบบใหม่ที่เกี่ยวข้องกับการเปลี่ยนแปลงที่สำคัญในเรื่องของบรรจุภัณฑ์(Packaging) การออกแบบผลิตภัณฑ์ (Product Design) การส่งเสริมการขายผลิตภัณฑ์ (Product Promotion) การกำหนดราคาผลิตภัณฑ์ (Product Pricing) และการจัดวางผลิตภัณฑ์ (Product Placement) นอกจากนี้ นวัตกรรมทางการตลาดของธุรกิจขนาดย่อม (SMEs) หรือธุรกิจที่เป็นอิสระมีเอกชนเป็นเจ้าของดำเนินการโดยเจ้าของเอง ไม่เป็นเครื่องมือของธุรกิจใด ไม่ตกอยู่ภายใต้อิทธิพล ของบุคคล หรือธุรกิจอื่น มีต้นทุนในการดำเนินงานต่ำ และมีพนักงานจำนวนไม่มากมีองค์ประกอบสำคัญของนวัตกรรมทางการตลาด (Michele, Audrey, and David. 2009) ดังนี้

1) คุณค่าเฉพาะตัว (Unique Proposition) คือ สิ่งที่เป็นเอกลักษณ์ มีคุณค่าเฉพาะตัวไม่ซ้ำใคร ทำให้สามารถสร้างมูลค่าเพิ่มทางการตลาดที่จะช่วยให้บรรลุความได้เปรียบทางการแข่งขัน กิจกรรมทางการตลาด สามารถสร้างนวัตกรรมขั้นสูงได้ ซึ่งไม่ได้ขึ้นอยู่กับความคิดริเริ่มใหม่เพียงอย่างเดียว แต่ยังสามารถปรับเปลี่ยนแนวคิดหรือการปฏิบัติที่ทำอยู่ในปัจจุบัน เพื่อจะสร้างให้เกิดคุณค่าเฉพาะตัว

2) การมุ่งเน้นที่ตัวลูกค้า (Customer Focus) คือ ความพึงพอใจของลูกค้า และการกำหนดเป้าหมายของลูกค้าเป็นสิ่งสำคัญในการจะนำไปสู่ความสำเร็จทางธุรกิจ โดยต้องยึดลูกค้าเป็นศูนย์กลางเพื่อตอบสนองต่อความต้องการของลูกค้า โดยมุ่งเน้นไปที่การสร้างความพึงพอใจให้เกิดขึ้นแก่ลูกค้า

3) การมุ่งตลาดเฉพาะกลุ่ม (Market Focus) คือ การยึดตลาดเป็นศูนย์กลาง โดยก่อนจะตัดสินใจเลือกจับตลาดไหนเพื่อจำหน่ายผลิตภัณฑ์ให้กับกลุ่มคนเฉพาะกลุ่ม (Niche Market) ต้องอาศัยการวิเคราะห์สภาพแวดล้อมปัจจัยต่างๆ วิสัยทัศน์ และประสบการณ์ เพื่อจะนำไปสู่การเป็นผู้นำตลาดและผลกำไรที่ตามมา การนำานวัตกรรมมาใช้ในธุรกิจถือเป็นการสร้าง ความได้เปรียบทางการแข่งขันแบบยั่งยืน ซึ่งเป็นปัจจัยสำคัญในการอยู่รอดของธุรกิจ ความสำเร็จ การทำกำไร และการเติบโตทางธุรกิจในระยะยาว

4) การเปลี่ยนแปลง (Modification) คือ องค์กรมีสามารถในการเปลี่ยนแปลงสายการผลิตจากรูปแบบเดิมที่ต้องผลิตครั้งละมากๆ ไปสู่การผลิตรูปแบบใหม่ที่เป็นไป ตามความต้องการลูกค้าเฉพาะ เช่น การรับผลิตตาม Order ที่สั่ง

5) ความหลากหลายของผลิตภัณฑ์ (Product Variety) คือ การพัฒนาต่อยอดผลิตภัณฑ์ เป็นสิ่งที่ทำธุรกิจมีความเจริญก้าวหน้าขึ้นอย่างต่อเนื่อง ดังนั้นต้องหาแนวทางการต่อยอดให้กับผลิตภัณฑ์อยู่อย่างสม่ำเสมอ คือ สร้างผลิตภัณฑ์ใหม่ที่รองรับกับผลิตภัณฑ์ตัวหลัก, สร้าง ผลิตภัณฑ์ใหม่โดยต่อ

ยอดจากคุณสมบัติของผลิตภัณฑ์เดิม มองไปที่ความต้องการของตลาด และนำเสนอผลิตภัณฑ์ที่คิดค้นขึ้นมาใหม่

6) การสื่อสารการตลาดแบบบูรณาการ (Integrated Marketing Communication) คือ การใช้ช่องทางในการโฆษณาและประชาสัมพันธ์ร่วมกันหลายๆช่องทางเพื่อ สร้างการรับรู้และยอมรับผลิตภัณฑ์ให้แก่ลูกค้าจากหลักการนวัตกรรมการตลาด หากมีการศึกษา และนำมาประยุกต์ใช้ให้เหมาะสมกับธุรกิจ โดยเฉพาะการทำธุรกิจในยุคปัจจุบันที่มีการแข่งขันทางการตลาดสูง และต้องมีการปรับตัวอยู่ตลอดเวลา จะช่วยทำให้สินค้าของธุรกิจสามารถตอบสนองต่อความต้องการของตลาดได้มากยิ่งขึ้น และธุรกิจมีความยั่งยืน โดยผู้วิจัยจึงได้ศึกษาถึงปัจจัยของนวัตกรรมทางการตลาดที่จะส่งผลต่อการตัดสินใจซื้อของผู้บริโภค

แนวคิดเกี่ยวกับการตัดสินใจซื้อ

ศิริวรรณ เสรีรัตน์ และคณะ (2541: 124-125) อ้างอิงจาก Kotler, Philip. (1999). Marketing Management ได้ให้ความหมายของพฤติกรรมผู้บริโภค (Consumer behavior) หมายถึง การกระทำของบุคคลใดบุคคลหนึ่งเกี่ยวข้องโดยตรงกับการจัดหาให้ได้มาแล้วซึ่งการใช้สินค้าและบริการ ทั้งนี้หมายรวมถึง กระบวนการตัดสินใจ และการกระทำของบุคคลที่เกี่ยวกับการซื้อและการใช้สินค้า การศึกษาพฤติกรรมของผู้บริโภค จึงเป็นวิธีการศึกษาที่แต่ละบุคคลทำการตัดสินใจที่จะใช้ทรัพยากร เช่น เวลา บุคลากร และอื่นๆ เกี่ยวกับการบริโภคสินค้า ซึ่งนักการตลาดต้องศึกษาว่าสินค้าที่เขาจะเสนอนั้น ใครคือผู้บริโภค (Who) ผู้บริโภคซื้ออะไร (What) ทำไมจึงซื้อ (Why) ซื้ออย่างไร (How) ซื้อเมื่อไร (When) ซื้อที่ไหน (Where) ซื้อและใช้บ่อยครั้งเพียงใด (How often) รวมทั้งการศึกษาว่าใครมีอิทธิพลต่อการซื้อเพื่อหาคำตอบ 7 ประการเกี่ยวกับพฤติกรรมผู้บริโภค ซึ่งเป็นการแสดงออกของแต่ละบุคคลที่เกี่ยวข้องโดยตรงกับการใช้สินค้า และบริการทางเศรษฐกิจ รวมทั้งกระบวนการตัดสินใจที่มีผลต่อการแสดงออก โดยปัจจัยที่มีผลต่อพฤติกรรมการซื้อของผู้บริโภค ได้แก่ ปัจจัยทางวัฒนธรรม ปัจจัยทางสังคม ปัจจัยส่วนบุคคล และ ปัจจัยทางจิตวิทยา

แนวคิดเกี่ยวกับการตัดสินใจ

การตัดสินใจ คือ กระบวนการในการเลือกทางเลือกทางใดทางหนึ่งเพื่อให้ได้มาซึ่งสิ่งที่ต้องการรวมไปถึงการตัดสินใจซื้อของผู้บริโภคในการตัดสินใจเลือกซื้อสินค้าและบริการ ซึ่งกระบวนการตัดสินใจซื้อประกอบด้วย

1) การรับรู้ถึงความต้องการหรือปัญหา (Problem/Need Recognition) ในขั้นตอนแรกผู้บริโภคจะตระหนักถึงปัญหาหรือความต้องการในสินค้าหรือการบริการซึ่งความต้องการหรือปัญหานั้นเกิดขึ้นมาจากความจำเป็น (Needs) ซึ่งเกิดจากสิ่งกระตุ้น หรือสิ่งเร้า 2 ทางได้แก่

(1) สิ่งกระตุ้นภายใน (Internal Stimuli) เช่น ความรู้สึกหิวข้าว กระหายน้ำ เป็นต้น

(2) สิ่งกระตุ้นภายนอก (External Stimuli) อาจจะเกิดจากการกระตุ้นของส่วนประสม ทางการตลาด (4 P's) เช่น เห็นขนมเค้กน่ากิน จึงรู้สึกหิว, เห็นโฆษณาสินค้าในโทรทัศน์ กิจกรรม ส่งเสริมการตลาดจึงเกิดความรู้สึกอยากซื้อ อยากได้, เห็นเพื่อนมีรถใหม่แล้วอยากได้ เป็นต้น

2) การแสวงหาข้อมูล (Information Search) เมื่อผู้บริโภคทราบถึงความต้องการในสินค้าหรือบริการแล้ว ลำดับขั้นต่อไปผู้บริโภคก็จะทำการแสวงหาข้อมูล เพื่อใช้ประกอบการตัดสินใจ โดยแหล่งข้อมูลของผู้บริโภค แบ่งเป็น

(1) แหล่งบุคคล (Personal Sources) เช่น การสอบถามจากเพื่อน ครอบครัว คนรู้จักที่มีประสบการณ์ในการใช้สินค้าหรือบริการนั้นๆ

(2) แหล่งทางการค้า (Commercial Sources) เช่น การหาข้อมูลจากโฆษณาตามสื่อต่างๆ พนักงานขาย ร้านค้าบรรจุภัณฑ์

(3) แหล่งสาธารณชน (Public Sources) เช่น การสอบถามจากรายละเอียด ของสินค้าหรือบริการจากสื่อมวลชนหรือองค์กรคุ้มครองผู้บริโภค

(4) แหล่งประสบการณ์ (Experiential Sources) เกิดจากการประสบการณ์ส่วนตัวของ ผู้บริโภคที่เคยทดลองใช้ผลิตภัณฑ์นั้นๆ มาก่อน

3) การประเมินทางเลือก (Evaluation of Alternatives) เมื่อได้ข้อมูลจากขั้นตอนที่ 2 แล้ว ในขั้นต่อไปผู้บริโภคก็จะทำการประเมินทางเลือก โดยในการประเมินทางเลือกนั้น ผู้บริโภคต้องกำหนดเกณฑ์หรือคุณสมบัติที่จะใช้ในการประเมิน เช่น ยี่ห้อ ราคา รูปแบบ บริการหลังการขาย ราคาขายต่อหน่วย เป็นต้น

4) การตัดสินใจซื้อ (Purchase Decision) หลังจากที่ได้ทำการประเมินทางเลือกแล้ว ผู้บริโภคก็จะเข้าสู่ในขั้นของการตัดสินใจซื้อ ซึ่งต้องมีการตัดสินใจในด้านต่างๆ ดังนี้

(1) ตรายี่ห้อที่ซื้อ (Brand Decision)

(2) ร้านค้าที่ซื้อ (Vendor Decision)

(3) ปริมาณที่ซื้อ (Quantity Decision)

(4) เวลาที่ซื้อ (Timing Decision)

(5) วิธีการในการชำระเงิน (Payment-method Decision)

5) พฤติกรรมภายหลังการซื้อ (Post purchase Behavior) หลังจากที่ลูกค้าได้ทำการตัดสินใจซื้อสินค้าหรือบริการไปแล้วนั้น นักการตลาดจะต้องทำการตรวจสอบความพึงพอใจภายหลังการซื้อ ซึ่งความพึงพอใจนั้นเกิดขึ้นจากการที่ลูกค้าทำการเปรียบเทียบสิ่งที่เกิดขึ้นจริง กับสิ่งที่คาดหวัง ถ้าคุณค่าของสินค้าหรือบริการที่ได้รับจริงตรงกับที่คาดหวังหรือสูงกว่าที่ได้คาดหวังเอาไว้ ลูกค้าก็จะเกิดความพึงพอใจในสินค้าหรือบริการนั้น โดยถ้าลูกค้ามีความพึงพอใจก็จะเกิดพฤติกรรมในการซื้อซ้ำ หรือบอกต่อ เป็นต้น แต่เมื่อใดก็ตามที่คุณค่าที่ได้รับจริงต่ำกว่าที่ได้คาดหวังเอาไว้ลูกค้าก็จะเกิดความไม่พึงพอใจ พฤติกรรมที่ตามมาก็คือลูกค้าจะเปลี่ยนไปใช้ผลิตภัณฑ์ของคู่แข่งขันและมีการบอกต่อไปยังผู้บริโภคคนอื่นๆ ด้วย

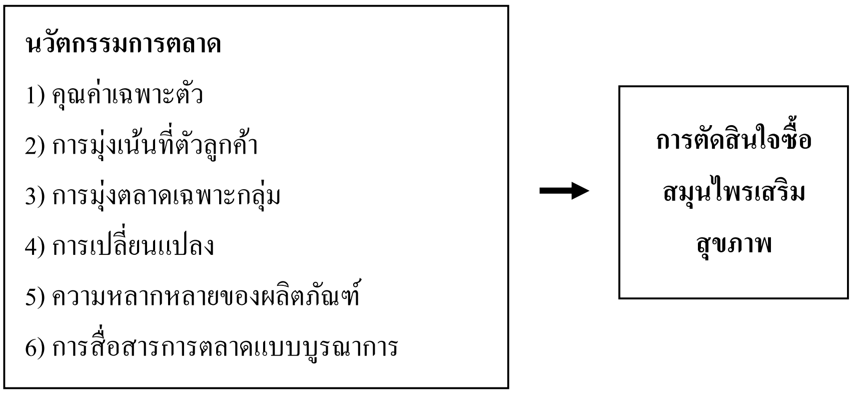
ด้วยเหตุนี้นักการตลาดจึงต้องทำการตรวจสอบความพึงพอใจของลูกค้าหลังจากที่ลูกค้าซื้อสินค้าหรือบริการไปแล้ว โดยอาจจะทำผ่านการใช้แบบสำรวจความพึงพอใจ หรือจัดตั้งศูนย์รับข้อร้องเรียนของลูกค้า (Call Center) เป็นต้น

จากแนวคิดการตัดสินใจ สรุปได้ว่า การตัดสินใจ เป็นกระบวนการที่ผู้บริโภคตัดสินใจว่าจะซื้อผลิตภัณฑ์หรือบริการใด โดยมีปัจจัย คือ ข้อมูลเกี่ยวกับตัวสินค้า สังคมและกลุ่มทางสังคม ทัศนคติของผู้บริโภค เวลาและโอกาส ดังนั้นหากมีการศึกษาถึงปัจจัยที่จะช่วยส่งเสริมสินค้า หรือบริการของธุรกิจให้สอดคล้องต่อความต้องการ และกระตุ้นให้ผู้บริโภคเกิดการตัดสินใจในการซื้อสินค้าและบริการได้ จะเป็นการช่วยธุรกิจให้สามารถดำเนินต่อไปได้อย่างยั่งยืน

บทสรุป

นวัตกรรมการตลาดที่ส่งผลต่อการตัดสินใจซื้อ ก็คือปัจจัยที่ส่งผลต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ ซึ่งทำหน้าที่เป็นตัวแปรอิสระประกอบด้วย 6 ด้าน ได้แก่ คุณค่าเฉพาะตัว การมุ่งเน้นที่ตัวลูกค้า การมุ่งตลาดเฉพาะกลุ่ม การเปลี่ยนแปลงความหลากหลายของผลิตภัณฑ์ และการสื่อสารการตลาดแบบบูรณาการ จากการศึกษางานวิจัยที่เกี่ยวข้องพบว่า มีความสัมพันธ์กับการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ จึงสามารถตั้งเป็นสมมติฐานเบื้องต้นได้ว่า นวัตกรรมการตลาดมีความสัมพันธ์ต่อการตัดสินใจซื้อสมุนไพรเสริมสุขภาพ ซึ่งทำหน้าที่เป็นตัวแปรตาม โดยทำให้ผู้บริโภคเกิดการเลือกซื้อ หรือซื้อซ้ำ หรือบอกต่อในการใช้สินค้า องค์ความรู้/ข้อค้นพบจากบทความนี้ เพื่อนำไปเป็นหลักในการพัฒนาผลิตภัณฑ์สมุนไพรเสริมสุขภาพ ซึ่งจะมีประโยชน์ที่จะช่วยส่งเสริมการแปรรูปผลิตภัณฑ์สมุนไพรให้สอดคล้องกับความต้องการของตลาด เพื่อสร้างความได้เปรียบทางการแข่งขันอย่างยั่งยืนให้แก่ เกษตรกร ผู้แปรรูป และผู้ประกอบธุรกิจการค้าสมุนไพรสริมสุขภาพของไทยอย่างยั่งยืน

จากการทบทวนวรรณกรรม แนวคิดทฤษฎีและงานวิจัยที่เกี่ยวข้องและจากแนวคิดของ Michele, Audrey, and David (2009) ที่ได้ทำการศึกษางานวิจัยที่ เกี่ยวข้องกับนวัตกรรมการตลาดในธุรกิจขนาดย่อม (SMEs) ผู้วิจัยได้กำหนดเป็นกรอบแนวคิดในการวิจัย ดังภาพที่ 2



ภาพที่ 2 กรอบแนวคิดของการวิจัย

เอกสารอ้างอิง

กรมการแพทย์แผนไทยและการแพทย์ทางเลือก กระทรวงสาธารณสุข. (2559). *แผนแม่บทแห่งชาติว่าด้วยการพัฒนาสมุนไพรไทย ฉบับที่ 1 พ.ศ.2560-2564.*

ทองปัญญา ลพสุนทร. (2559). *นวัตกรรมและการสื่อสารการตลาดแบบบูรณาการที่มีผลกับการตัดสินใจซื้อระบบป้องกันไฟลามแบบเชิงรับ ของ บริษัท ฮิลติ (ไทยแลนด์) สาขาชลบุรี.* การค้นคว้าอิสระ วิทยานิพนธ์ปริญญามหาบัณฑิต, มหาวิทยาลัยบูรพา.

บุญสม ลีชยากิตติกร. (2558). *นวัตกรรมตลาดสำหรับผลิตภัณฑ์สมุนไพร.* การค้นคว้าอิสระวิทยานิพนธ์ปริญญามหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

พระราชบัญญัติผลิตภัณฑ์สมุนไพร พุทธศักราช 2562. (2562) ราชกิจจานุเบกษา, น.12.

โรจนศักดิ แสงธศิริวิไล. (2556). *การนำนวัตกรรมการตลาดมาประยุกต์ใช้ทางธุรกิจ เพื่อเสริมศักยภาพการแข่งขัน(ตอนที่ 2).* สืบค้นจาก https://dba3-rojanasak.blogspot.com/2013/09/2-3-type-of-innovation-ntrott-2005-p.html.

วรเทพ ตรีวิจิตร, ภัทรพล ชุ่มมี และ ปรีชา คำมาดี. (2562). กลยุทธ์ทางการตลาดและนวัตกรรมการส่งออกทาส่งผลต่อผลการดำเนินการส่งออกธุรกิจอาหารทะเลขนาดเล็กในประเทศไทย. *วิทยาการจัดการปริทัศน์, 21*(2), 81-88.

ศิริวรรณ เสรีรัตน์ และ คณะ. (2541). การบริหารการตลาดยุคใหม่ (ปรับปรุงใหม่). กรุงเทพฯ: ธีระฟิล์มและไซเท็กซ์.

ศูนย์วิจัยกสิกรไทย. (2562). *ถึงเวลาโกยเงิน SME รุกตลาดสมุนไพร*. สืบค้นจาก www.kasikornbank.com/th/business/sme/KSMEKnowledge/article/KSMEAnalysis/Documents/Herb_Market.pdf.

Drucker, P. F. (1973). *Management: Tasks, responsibility, practices*. NY: Harper & Row.

Kotler, P., & Armstrong, G. (1980). *Principles of marketing*. 4th ed. NJ: Prentice-Hall.

Michele, O., Audrey, G., & David, C. (2009). Innovative marketing in SMEs: an empirical study. *Taylor & Francis, 7*(5), 383-396.

Naidoo, V. (2010). Firm Survival Through a Crisis: The Influence of Market Orientation, Marketing Innovation and Business Strategy. *Industrial Marketing Management, 39*(8), 1311-1320.

การตัดสินใจที่มีอิทธิพลต่อการเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ในเขตกรุงเทพมหานคร

Decisions that influence the purchase dietary supplement Proflex Whey Protein in Bangkok

ชิดชนก ลิ้มวัฒนะ / Chidchanok Limvattana
บัณฑิตวิทยาลัย มหาวิทยาลัยกรุงเทพ / Graduate school, Bangkok University
E-mail: chidchanok.limv@bumail.net

บทคัดย่อ

ในปัจจุบันตลาดอาหารเสริมเพื่อสุขภาพเวย์โปรตีนมีการแข่งขันที่สูงในแต่ละแบรนด์ เพื่อที่จะให้ผู้บริโภคได้มีทางเลือกผลิตภัณฑ์ที่ตรงต่อความต้องการของตนเอง ดังนั้น ผู้วิจัยจึงเลือกผลิตภัณฑ์เสริมอาหารเพื่อสุขภาพเวย์โปรตีนของ Proflex Whey Protein ซึ่งกำลังเป็นที่นิยมของคนในประเทศไทยอยู่อันดับต้นๆ ของตลาดอาหารเสริมเพื่อสุขภาพ ซึ่งมีจุดประสงค์เพื่อศึกษาเกี่ยวกับการตัดสินใจที่มีอิทธิพลต่อการเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ในเขตกรุงเทพมหานคร โดยใช้ปัจจัยด้านประชากรศาสตร์ ประกอบไปด้วย เพศ อายุ ระดับการศึกษา อาชีพ และรายได้เฉลี่ย ปัจจัยส่วนประสมทางการตลาด ประกอบไปด้วย 4 ด้าน ได้แก่ ปัจจัยด้านผลิตภัณฑ์ ปัจจัยด้านราคา ปัจจัยด้านช่องทางการจัดจำหน่าย ปัจจัยด้านการส่งเสริมการตลาด และปัจจัยด้านการรับสื่อของผู้บริโภค โดยประชากรที่นำมาเป็นกลุ่มตัวอย่างเพื่อทำการศึกษานั้น คือกลุ่มผู้บริโภคในเขตกรุงเทพมหานคร ซึ่งผู้วิจัยใช้วิธีการเก็บรวบรวมข้อมูลจากกลุ่มตัวอย่างด้วยวิธีแบบสอบถามออนไลน์ และสัมภาษณ์ผ่านวิดีโอคอล รวมทั้งสิ้น 410 คน ซึ่งพบว่า ปัจจัยด้านประชากรณ์ศาตร์ ไม่มีผลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ยกเว้นปัจจัยด้านเพศที่มีผลต่อการตัดสินใจเนื่องจาก เพศชายให้ความสำคัญกับผลิตภัณฑ์เวย์โปรตีนมากกว่าเพศหญิง และปัจจัยส่วนประสมทางการตลาดและปัจจัยด้านการรับสื่อของผู้บริโภคมีผลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein อยู่ในระดับมาก

คำสำคัญ: ประชากรณ์ศาสตร์, ส่วนประสมทางการตลาด, การรับสื่อ, การตัดสินใจ

Abstract

Currently, the market for whey protein health supplements is highly competitive in each brand in order to provide consumers with a choice of products that meet their needs, the researcher therefore chose Proflex Whey Protein for health food supplements, which are popular among thai people at the top of the health food supplement market. The purpose of this research was to study the decision making influence on purchasing Proflex Whey Protein dietary supplement in Bangkok. Demographic factors were used, including sex, age, education level, occupation, and average income. Marketing mix factors consist of 4 aspects, namely product factors price factor Distribution Channel Factors Marketing Promotion Factors and factors in receiving media of consumers. The population that was taken as a sample for the study was the consumer group in Bangkok. The researcher used the method of collecting data from the sample by using an online questionnaire and interviewed via video call, a total of 410 people, which found that the demographic factor It does not affect the decision to purchase Proflex Whey Protein supplements with the exception of gender factors affecting decision making because Males prioritize whey protein products more than females and marketing mix factors and consumer media exposure factors Influence on the decision to buy food supplement Proflex Whey Protein is at a high level.

Keywords: demographics, marketing mix, media exposure, decision making

บทนำ

ปัจจุบันสถิติรายได้ภาพรวมของอาหารเสริมทั่วโลกในปี ค.ศ.2020 มีมูลค่าอยู่ที่ 150 พันล้านเหรียญสหรัฐ และมีอัตราเติบโตเฉลี่ยสะสมต่อปีอยู่ที่ 5.7 เปอร์เซ็นต์ (ปี ค.ศ.2006-2020) ถึงแม้ว่าในปี ค.ศ. 2009 และปี ค.ศ.2015 จะเกิดความผัวผันทางเศรษฐกิจที่ส่งผลกระทบทำให้อัตราการเจริญเติบโตของตลาดดังกล่าวลดลง แต่ในปีถัดมาตลาดอาหารเสริมก็กลับมาเติบโตอย่างต่อเนื่อง โดยอ้างอิงจากวารสาร Nutrition Business Journal (NBJ) โดยระบุว่า รายได้ของตลาดอาหารเสริมทั่วโลกอาจจะมีมูลค่าเพิ่มถึง 155 พันล้านเหรียญสหรัฐ และในปี ค.ศ.2020 รายได้โดยส่วนใหญ่จะมาจากการเติบโตในภูมิภาคเอเชียและภูมิภาคยุโรปตะวันออก โดยจากการคาดการณ์โดยประมาณว่าจะมีอัตราการเติบโตเฉลี่ยสะสม 9 เปอร์เซ็นต์ต่อไป

เมื่อพูดถึงการเลือกผลิตภัณฑ์อาหารเสริมเวย์โปรตีน (Whey Protein) ให้เหมาะสมกับร่างกายและความจำเป็นที่ร่างกายควรได้รับ ต้องคำนึงถึงปริมาณที่เหมาะสมของแต่ละคนไม่ว่าจะเป็น เพศ อายุ

รวมถึงไลฟ์สไตล์ เพราะความต้องการโปรตีนของร่างกายของแต่ละคนแตกต่างกัน เช่น คนที่ชื่นชอบการออกกำลังกายก็ต้องมีความต้องการโปรตีนมากกว่าคนที่ไม่ออกกำลังกาย หรือผู้ป่วยบางคนก็มีความต้องการโปรตีนมากกว่าคนทั่วไปเช่นกัน ดังนั้นในตลาดเวย์โปรตีน จะมีโปรตีนที่เป็นหลักๆอยู่ 2 ประเภท ประเภทแรกคือ เวย์โปรตีน คอนเซนเทรท (Whey Protein Concentrate) เป็นเวย์โปรตีนที่มีความเข้มข้นอยู่ที่ประมาณ 70-80% และประกอบไปด้วยกรดอะมิโนครบทั้ง 20 ชนิด และกรดอะมิโนที่จำเป็นต่อร่างกายอีก 8 ชนิด ที่ร่างกายของคนเราไม่สามารถสร้างมาเอง ช่วยเสริมสร้างกล้ามเนื้อและซ่อมแซมกล้ามเนื้อส่วนที่สึกหรอจากการออกกำลังกาย ช่วยลดความตึงเครียดไม่ทำให้ร่างกายอ่อนเพลีย ช่วยทำให้ผู้ป่วยระยะพักฟื้น สามารถฟื้นไข้ได้รวดเร็ว อีกทั้งยังช่วยลดความอยากอาหาร และช่วยให้ผู้ที่ขาดโปรตีน หรือหรือผู้ที่ต้องการโปรตีนเพื่อซ่อมแซมเนื้อเยื่อในร่างกายให้แข็งแรงสมบูรณ์ได้รวดเร็วยิ่งขึ้น อาทิเช่น ผู้สูงอายุ ผู้ป่วยโรคเบาหวาน เป็นต้น และประเภทที่ 2 คือ เวย์โปรตีน ไอโซเลต (Whey Protein Isolate) คือ การนำโปรตีนมาผ่านกระบวนการผลิตเพิ่ม ทำให้มีความเข้มข้นของโปรตีนสูงมากกว่า 90% มีส่วนช่วยเสริมสร้างกล้ามเนื้อและซ่อมแซมกล้ามเนื้อส่วนที่สึกหรอจากการออกกำลังกาย ช่วยลดความตึงเครียดไม่ทำให้ร่างกายอ่อนเพลีย ช่วยทำให้ผู้ป่วยระยะพักฟื้น มีแรงฟื้นไข้ และกลับมามีสุขภาพแข็งแรงได้เร็ว สามารถลดความอยากอาหาร จึงทำให้สามารถควบคุมน้ำหนักได้ ช่วยเสริมสร้างกล้ามเนื้อของง่างกายให้เห็นได้ชัดเจนขึ้น กระชับสันส่วนต่างๆ ของร่างกายทำให้รูปร่างสมส่วนมากขึ้น

ในปัจจุบันจะเห็นได้ว่ามีตลาดอาหารเสริมเพื่อสุขภาพเวย์โปรตีนมีการแข่งขันที่สูงในแต่ละแบรนด์ เพื่อที่จะให้ผู้บริโภคได้มีทางเลือกผลิตภัณฑ์ที่ตรงต่อความต้องการของตนเอง ดังนั้น ผู้วิจัยจึงเลือกผลิตภัณฑ์เสริมอาหารเพื่อสุขภาพเวย์โปรตีนของ Proflex Whey Protein ซึ่งกำลังเป็นที่นิยมของคนในประเทศไทยอยู่อันดับแรกๆของตลาดอาหารเสริมเพื่อสุขภาพ เพราะโปรตีนได้นำเข้าจากประเทศอเมริกาและยังมีอุตสาหกรรมการผลิตที่ได้มาตรฐาน ซึ่งผลิตภัณฑ์ของทาง Proflex Whey Protein ได้มีการกำหนดผลิตภัณฑ์ที่เป็นรูปแบบเฉพาะของกลุ่มเป้าหมายในแต่ละกลุ่ม เนื่องจากผลิตภัณฑ์เสริมอาหารเพื่อสุขภาพเวย์โปรตีนของ Proflex Whey Protein ไม่เพียงแต่มีผลิตภัณฑ์สำหรับผู้ที่ต้องการลดน้ำหนัก เพิ่มน้ำหนัก หรือต้องการมีสุขภาพที่ดีเพียงเท่านั้น ยังมีผลิตภัณฑ์เวย์โปรตีนสำหรับผู้สูงอายุโดยเฉพาะที่อายุตั้งแต่ 50 ปีขึ้นไป สำหรับช่วยเสริมอาหาร ซ่อมแซมมวลกล้ามเนื้อ เพิ่มสารต่อต้านอนุมูลอิสระ เพิ่มการดูดซึมของแคลเซียม รวมไปถึงช่วยป้องกันการเสื่อมสภาพของเซลล์ในร่างกาย เป็นต้น แม้อุตสาหกรรมผลิตภัณฑ์อาหารเสริมเพื่อสุขภาพเวย์โปรตีนจะมีการเติบโตอย่างต่อเนื่อง แต่ยังคงมีช่องว่างในทางตลาดอีกมากมาย ผู้ประกอบการของแต่ละแบรนด์จึงจะต้องมีความเข้าใจความต้องการของผู้บริโภคให้เพิ่มมากขึ้น เพื่อจะนำไปสู่การพัฒนาสินค้าและผลิตภัณฑ์ อีกทั้งยังดำเนินกิจกรรมทางการตลาดเพื่อที่จะสามารถตอบสนองความ

ต้องการหรือปัญหาของผู้บริโภคเพิ่มมากขึ้น ผู้วิจัยจึงมีความสนใจที่จะศึกษาเกี่ยวกับการตัดสินใจที่มีอิทธิพลต่อการเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ในเขตกรุงเทพมหานคร เพื่อที่จะได้ทราบถึงปัจจัยใดบ้างที่ส่งผลต่อการเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein

วิธีการวิจัย

ประชากรและตัวอย่าง

1) กลุ่มประชากรเป้าหมาย (Population) ที่เป็นกลุ่มเป้าหมายในการวิจัยครั้งนี้ ได้แก่ นักกีฬา ผู้ที่ออกกำลังกายเป็นประจำ และประชากรที่เคยซื้อและไม่เคยซื้อผลิตภัณฑ์เสริมอาหารทุกประเภทจากทุกช่องทางการจัดจำหน่าย โดยอาศัยอยู่ในเขตกรุงเทพมหานคร

2) การกำหนดขนาดของกลุ่มตัวอย่าง การวิจัยในครั้งนี้เป็นการศึกษากลุ่มตัวอย่างที่เป็นผู้ที่เคยซื้อและไม่เคยซื้อผลิตภัณฑ์เสริม อาหารทุกประเภทจากทุกช่องทางการจัดจำหน่าย โดยอาศัยอยู่ในเขตกรุงเทพมหานคร ซึ่งเป็นประชากรกลุ่มขนาดใหญ่ โดยผู้วิจัยได้กำหนดขนาดตัวอย่างโดยใช้ตารางของ Yamane (1967) ซึ่งมีระดับความเชื่อมั่นอยู่ที่ร้อยละ 95 และค่าความคลาดเคลื่อนที่ระดับร้อยละ 0.05 โดยสูตร Taro Yamane

วิธีการสุ่มตัวอย่าง

ผู้วิจัยได้เลือกใช้วิธีการสุ่มตัวอย่างแบบ การเลือกตัวอย่างแบบเจาะจง (Purposive Sampling) และการเลือกตัวอย่างแบบลูกโซ่ (Snowball Sampling) ซึ่งได้ดำเนินการ ดังนี้

1) หาผู้เชี่ยวชาญ นักกีฬาและบุคคลที่ออกกำลังกายเป็นประจำ ที่มีแนวโน้มว่าเคยเลือกซื้อผลิตภัณฑ์ Whey Protein

2) ให้ผู้เชี่ยวชาญและบุคคลที่ออกกำลังกายเป็นประจำดังกล่าว กระจายแบบสอบถามโดยใช้วิธีการแนะนำปากต่อปาก

3) กำหนดขนาดของตัวอย่างไว้จากตารางสำเร็จรูปและซึ่งได้จำนวน 400 คน

การเก็บรวบรวมและการวิเคราะห์ข้อมูล

การเลือกกลุ่มตัวอย่างแบบเฉพาะเจาะจง (Judgment or Purposive Sampling) และการเลือกตัวอย่างแบบลูกโซ่ (Snowball Sampling) คือ การเลือกแจกแบบสอบถามเฉพาะกลุ่มตัวอย่างที่อาศัย ทำงานหรือกำลังศึกษาในเขตกรุงเทพมหานคร ที่เป็นนักกีฬาหรือผู้ที่ออกกำลังกายเป็นประจำ และให้บุคคลเหล่านั้นช่วยกระจายแบบสอบถามแบบปากต่อปาก เนื่องจากบุคคลเหล่านั้นมีสังคมที่เป็นนักกีฬาหรือออกกำลังกายเป็นประจำ เพื่อให้การวิจัยในครั้งนี้ได้ข้อมูลอย่างถูกต้องและครอบคลุมให้ได้มากที่สุด ซึ่งเป็นการเลือกกลุ่มตัวอย่างโดยไม่ใช้ความน่าจะเป็น (Nonprobability Sampling)

ในการเก็บรวบรวมข้อมูล โดยการทำการแจกแบบสอบถามออนไลน์ เนื่องจากเป็นวิธีการที่กลุ่มตัวอย่างสามารถเข้าถึงข้อมูลได้ง่าย อีกทั้งยังเป็นการลดระยะเวลาและสามารถประหยัดค่าใช้จ่ายในการเก็บข้อมูล และทำการถอดบทสัมภาษณ์เชิงลึก (Depth Interview) กับผู้ให้ข้อมูลที่เคยซื้อและไม่เคยซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein และทำการเก็บข้อมูลจากแหล่งข้อมูลปฐมภูมิ (Primary Data) ได้ใช้วิธีการแจกแบบสอบถามให้แก่กลุ่มตัวอย่างจำนวน 400 คน และดำเนินการโดยส่งแบบสอบถามออนไลน์ผ่านทาง Social Network โดยในขั้นตอนแรกเลือกกลุ่มตัวอย่างที่เป็นผู้เชี่ยวชาญด้านการออกกำลังกาย นักกีฬา ผู้ที่ออกกำลังกายเป็นประจำ และให้บุคคลเหล่านั้นได้ทำการกระจายแบบสอบถามแบบปากต่อปากหรือบอกต่อ เนื่องจากบุคคลเหล่านั้นสามารถเข้าถึงกลุ่มคนที่เป็นเป้าหมายในการทำการวิจัยในครั้งนี้ และทำการสัมภาษณ์ผ่านทางวิดีโอคอลกับกลุ่มตัวอย่างจำนวน 10 คน

การทบทวนวรรณกรรม

ความหมายของการตัดสินใจ วิชัย โถสุวรรณจินดา (2535, หน้า 185) กล่าวไว้ว่า การตัดสินใจ หมายถึง การเลือกทางเลือกใดทางเลือกหนึ่งในหลายๆทาง โดยประเมินช่องทางการแก้ไขปัญหาที่ดีที่สุดเพียง 1 วิธีการเพื่อตอบสนองความต้องการหรือเป้าหมายของผู้เลือกได้ , กรองแก้ว อยู่สุข (2537, หน้า 147) กล่าวไว้ว่า การตัดสินใจ หมายถึง การตัดสินใจใช้สิ่งหนึ่งหรือหลายๆ สิ่ง หรือเลือกที่จะกระทำการอย่างใดอย่างหนึ่งจากหลายๆ อย่าง โดยช่องทางที่เลือกนั้นเป็นการเลือกที่ผ่านการพิจารณาอย่างรอบคอบแล้วว่าถูกต้อง เหมาะสม หรือดีที่สุด, กวี วงศ์พุฒ (2539, หน้า 61) กล่าวไว้ว่า การตัดสินใจ หมายถึง การประเมินในการเลือกทางออกที่ดีที่สุดจากทางออกหลายๆ ทาง โดยผู้นำต้องทำการตัดสินใจอย่างมีหลักเหตุและผล เพื่อใช้เป็นแนวทางในการดำเนินงานต่างๆ ซึ่งการตัดสินใจเลือกทางเลือกดังกล่าวจะทำให้เกิดผลตอบแทนสูงที่สุด

ดังนั้น กล่าวโดยสรุป การตัดสินใจ หมายถึง การพิจารณาทางเลือกทางใดทางหนึ่ง จากทางเลือก 2 ทางขึ้นไป โดยใช้ข้อมูล ความรู้ หลักการ และเหตุผลในการวิเคราะห์และพิจารณาทางเลือกที่มีอย่างรอบคอบ เพื่อหาทางออกที่ให้ผลตอบแทนสูงที่สุด และเหมาะสมที่สุด จากหลายๆ ทางออกที่มีอยู่ โดยเลือกเฉพาะทางออกที่สามารถตอบสนองเป้าหมายได้อย่างมีประสิทธิภาพ

ทฤษฎีและแนวคิดเกี่ยวกับลักษณะประชากรศาสตร์ ศิวฤทธิ์ พงศกรรังศิลป์ (2547, น. 29) กล่าวว่า ปัจจัยด้านประชากรศาสตร์ ได้แก่ เพศ อายุ อาชีพ รายได้ การศึกษา เชื้อชาติ ศาสนา อัตราการเกิด อัตราการตาย จำนวนประชากร ซึ่งมีอิทธิพลต่อการดำเนินธุรกิจเนื่องจากเป็นปัจจัยที่เกี่ยวข้องกับบุคคล โดยบุคคลก็คือ ลูกค้าหรือกลุ่มเป้าหมาย รวมถึงผู้ที่คาดว่าจะเป็นผู้ที่มาใช้บริการในอนาคต และปัจจัยต่างๆ เหล่านี้มีส่วนทำให้ผู้บริโภคแสดงพฤติกรรมต่างกันจึงสามารถนำปัจจัยด้าน

ประชากรศาสตร์มาเป็นเกณฑ์ในการแบ่งส่วนและเลือกตลาดเป้าหมายได้ และแม้ว่านักการตลาดจะสามารถหาโอกาสทางการตลาดจากปัจจัยด้านประชากรศาสตร์ได้ แต่ก็ควรที่จะติดตามและวิเคราะห์การเปลี่ยนแปลงของปัจจัยดังกล่าวด้วย

ทฤษฎีและแนวคิดเกี่ยวกับปัจจัยส่วนประสมด้านการตลาด Kotler (2000, p. 14) ได้กล่าวไว้ว่า ส่วนประสมทางการตลาด เป็นองค์ประกอบของเครื่องมือทางการตลาดที่องค์การใช้ในการดำเนินงานเพื่อแสวงหาแนวทางการในการผลิตสินค้าหรือรูปแบบการให้บริการที่ตรงตามความต้องการ และความคาดหวังของผู้บริโภคและผู้ใช้บริการได้ , ธงชัย สันติวงษ์ (2540, หน้า 34) ได้กล่าวไว้ว่า ส่วนประสมทางการตลาด หมายถึง การหลอมรวมของปัจจัยด้านการตลาดทั้งในเรื่องของการกำหนดราคา การส่งเสริมการขาย การส่งเสริมทางการตลาด และรูปแบบการจัดจำหน่าย ซึ่งปัจจัยต่างๆ ถูกออกแบบขึ้นมาเพื่อใช้สำหรับการตอบสนองต่อความต้องการของผู้บริโภคที่เป็นกลุ่มเป้าหมายของธุรกิจ , ศิริวรรณ เสรีรัตน์และคณะ (2546, หน้า 53) ได้กล่าวไว้ว่า ส่วนประสมทางการตลาด ว่าเป็นปัจจัยทางการตลาดที่สามารถควบคุมได้ ซึ่งธุรกิจจะใช้เครื่องมือนี้เพื่อตอบสนองต่อความต้องการของลูกค้าให้เกิดความพึงพอใจสูงสุดต่อผลิตภัณฑ์ จากความหมายของส่วนประสมทางการตลาด ผู้วิจัยสามารถสรุปได้ว่า ส่วนประสมทางการตลาด หมายถึง ปัจจัยทางการตลาดที่สามารถควบคุมได้ ซึ่งเป็นองค์ประกอบของเครื่องมือทางการตลาดที่ธุรกิจจะใช้เพื่อตอบสนองความต้องการให้กับกลุ่มลูกค้าเป้าหมาย

ทฤษฎีและแนวคิดเกี่ยวกับการรับสื่อของผู้บริโภค ในโลกยุคปัจจุบันที่ความได้เปรียบด้านข้อมูลถือเป็นสิ่งสำคัญต่อการดำรงชีวิตของมนุษย์ ทำให้อาจปฏิเสธไม่ได้ว่าข่าวสารต่างๆ ถือเป็นสิ่งจำเป็นสำหรับการดำเนินชีวิตในปัจจุบัน ข่าวสารทำให้ทันต่อเหตุการณ์และยังมีส่วนสำคัญในการตัดสินใจของผู้บริโภค ซึ่งช่องทางการเลือกที่จะเปิดรับข้อมูลข่าวสารจากแหล่งต่างๆ ทำให้ข้อมูลข่าวสารที่ผู้บริโภคแต่ละคนได้รับนั้นแตกต่างกัน Klapper (1960) ได้กล่าวไว้ว่า สื่อมวลชนเป็นเพียงสื่อกลางในการโน้มน้าว ซึ่งผู้รับสารไม่ได้มีอิทธิพลโดยตรงต่อผู้รับสาร โดยผู้บริโภคจะเป็นผู้เลือกรับรู้ข้อมูลข่าวสารด้วยตัวเอง โดยกระบวนการเลือกรับสาร (Selective Processes) เปรียบเสมือนการคัดกรอง (Filters) ที่ช่วยกลั่นกรองข้อมูลต่างๆ การรับรู้ข่าวสารของผู้บริโภคมี 4 ขั้นตอน ดังนี้

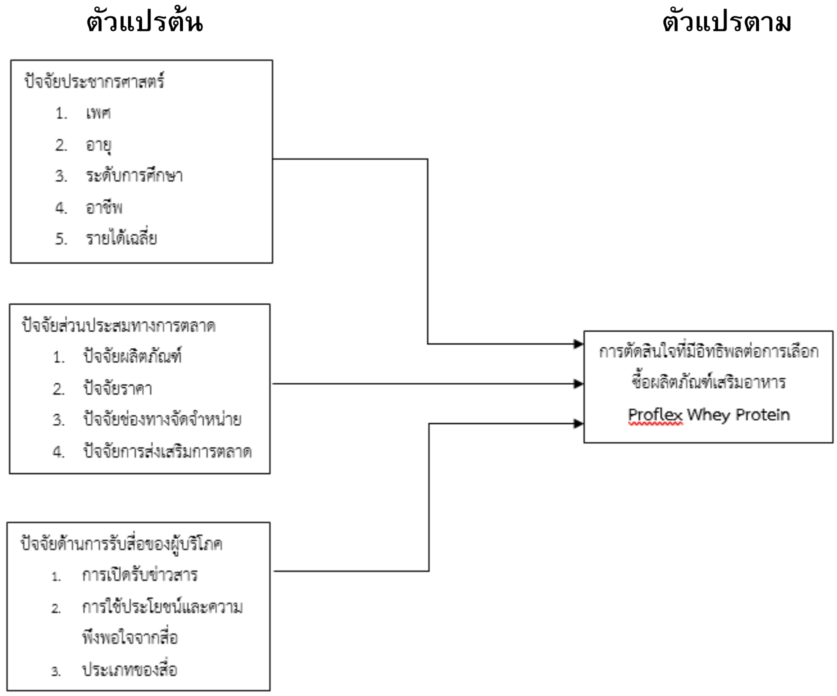
1) การเลือกเปิดรับ (Selective Exposure) คือ การที่ผู้รับสารจะเลือกเปิดรับสื่อหรือข่าวสารจากแหล่งข่าวสารจากที่มีอยู่หลายแหล่งตามความสนใจ ความชอบ ความเชื่อ และความต้องการส่วนบุคคล รวมถึงความรู้ และความเชี่ยวชาญ ในการหาช่องทางรับข้อมูลที่น่าเชื่อถือ และการรับรู้ข่าวสาร ซึ่งปัจจัยเหล่านี้จะมีความแตกต่างกันไปตามพื้นฐานของตัวบุคคล โดยอาจเลือกรับข่าวสารได้ จากสื่อต่างๆ เช่น หนังสือพิมพ์ โทรทัศน์ วิทยุ อินเตอร์เน็ต เป็นต้น

2) การเลือกให้ความสนใจ (Selective Attention) คือ ผู้รับข่าวสารมีกระบวนการในการเลือกสนใจข้อมูลจากแหล่งใดแหล่งหนึ่งที่ตนเองเชื่อถือ โดยจะเลือกตามความคิดเห็น ความชอบ และ ความสนใจส่วนบุคคล เพื่อสนับสนุนความเชื่อเดิมของตน และจะหลีกเลี่ยงข้อมูลข่าวสารที่มีความขัดแย้งกับความเชื่อ ทัศนคติ และความรู้ของตนเอง เพื่อหลีกเลี่ยงความกัลวลใจเนื่องจากความไม่สอดคล้องทางด้านความเข้าใจ (Cognitive Dissonance)

3) การเลือกรับรู้และแปลความหมาย (Selective Perception and Interpretation) คือ ผู้รับสารเมื่อสนใจข้อมูลข่าวสารนั้นแล้วจะมีการรับรู้และแปลความข้อมูลข่าวสาร แต่การตีความนั้นจะมีความแตกต่างกันตามความเชื่อ ความชอบ ทัศนคติ ประสบการณ์ ความต้องการ ความคาดหวัง แรงจูงใจ สภาวะทางร่างกายและอารมณ์ ซึ่งจะทำให้มีการบินเบือนข่าวสารเพื่อตอบสนองความต้องการของผู้รับสาร

4) การเลือกจดจำ (Selective Retention) คือ ผู้รับสารเมื่อตีความข้อมูลข่าวสาร แล้วจะเลือกจดจำข้อมูลที่ตรงกับความสนใจ ความต้องการ ทัศนคติของตนเอง โดยที่จะไม่นำสิ่งที่ตนเองไม่สนใจหรือไม่เห็นด้วยไปถ่ายทอดต่อ ซึ่งข่าวสารที่เลือกจดจำนั้นจะส่งผลให้ทัศนคติ ค่านิยม และความเชื่อที่มีอยู่เดิมของผู้รับสารแข็งแรงยิ่งขึ้นเพื่อที่จะนำข้อมูลไปใช้ประโยชน์ในอนาคต

กรอบแนวคิดการวิจัย



ภาพที่ 1 กรอบแนวคิดการวิจัย

ผลการวิจัย

โดยกลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่เคยซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein จำนวน 371 คน (คิดเป็นร้อยละ 92.8) และไม่เคยซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein จำนวน 29 คน (คิดเป็นร้อยละ 7.2) เหตุผลของกลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่ไม่เลือกซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein เพราะ ทานอาหารเสริมอื่นๆ อยู่แล้ว จำนวน 14 คน (คิดเป็นร้อยละ 3.5) ไม่จำเป็นต่อร่างกาย จำนวน 11 คน (คิดเป็นร้อยละ 2.8) ราคาแพง จำนวน 4 คน (คิดเป็นร้อยละ 1.0) และหาซื้อได้ยากจำนวน 0 คน (คิดเป็นร้อยละ 0) ตามลำดับ กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่ไม่เคยเลือกซื้อผลิตภัณฑ์เสริมอาหารจากแบรนด์ Proflex Whey Protein จำนวน 185 คน (คิดเป็นร้อยละ 46.3) และเคยซื้อผลิตภัณฑ์เสริมอาหารจากแบรนด์ Proflex Whey Protein จำนวน 186 คน (คิดเป็นร้อยละ 46.5) กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่ให้เหตุผลว่าไม่เลือกซื้อผลิตภัณฑ์เสริมอาหารจากแบรนด์ Proflex Whey Protein เนื่องจาก ไม่รู้จักแบรนด์นี้ จำนวน 66 คน (คิดเป็นร้อยละ 16.5) ประโยชน์และคุณภาพไม่ตรงตามที่ต้องการ จำนวน 51 คน (คิดเป็นร้อยละ 12.8) หาซื้อได้ยาก จำนวน 35 คน (คิดเป็นร้อยละ 8.8) แบรนด์อื่นๆน่าซื้อมากกว่า จำนวน 21 คน (คิดเป็นร้อยละ 5.3) ราคาแพง จำนวน 13 คน (คิดเป็นร้อยละ 3.3) ตามลำดับ กลุ่มตัวอย่างที่ตอบแบบสอบถามที่เคยเลือกซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein จากแบรนด์อื่นๆ โดยแบรนด์ที่ได้รับความนิยมมากที่สุดได้แก่ BAAM จำนวน 216 คน (คิดเป็นร้อยละ 54) Proflex Whey จำนวน 166 คน (คิดเป็นร้อยละ 41.5) Vitaxtrong จำนวน 69 คน (คิดเป็นร้อยละ 17.3) ตามลำดับ กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่ซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein จากทางร้านค้าออนไลน์ จำนวน 193 (คิดเป็นร้อยละ 48.3) กลุ่มตัวอย่างที่ตอบแบบสอบถามที่เคยซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein โดยส่วนใหญ่มีบุคคลที่มีส่วนช่วยในการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein ได้แก่ สื่อออนไลน์ (Facebook, Instagram, Youtube, Twister, Tiktok) จำนวน 164 คน (คิดเป็นร้อยละ 41.0) กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่ที่เคยซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein มักหาข้อมูลจากอินเทอร์เน็ต จำนวน 181 คน (คิดเป็นร้อยละ 45.3)

ตารางที่ 1 จำนวนร้อยละของผู้ตอบแบบสอบถาม เคยซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein หรือไม่

เคยซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein	จำนวน	ร้อยละ
เคย	371	92.8
ไม่เคย	29	7.2
รวม	**400**	**100**

ตารางที่ 2 จำนวนร้อยละของผู้ตอบแบบสอบถาม เหตุผลที่ไม่เลือกซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein

เหตุผลที่ไม่เลือกซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein	จำนวน	ร้อยละ
ไม่จำเป็นต่อร่างกาย	11	2.8
ทานอาหารเสริมอื่นๆ อยู่แล้ว	14	3.5
ราคาแพง	4	1.0
หาซื้อได้ยาก	0	0
รวม	**29**	**7.2**

ตารางที่ 3 จำนวนร้อยละของผู้ตอบแบบสอบถาม เคยเลือกซื้อผลิตภัณฑ์เสริมอาหารจากแบรนด์ Proflex Whey Protein หรือไม่

เคยเลือกซื้อผลิตภัณฑ์เสริมอาหารจากแบรนด์ Proflex Whey Protein	จำนวน	ร้อยละ
เคย	185	46.3
ไม่เคย	186	46.5
รวม	**371**	**92.8**

ตารางที่ 4 จำนวนร้อยละของผู้ตอบแบบสอบถาม เหตุผลที่ไม่เลือกซื้อผลิตภัณฑ์เสริมอาหาร จากแบรนด์ Proflex Whey Protein

เหตุผลที่ไม่เลือกซื้อผลิตภัณฑ์เสริมอาหารจากแบรนด์ Proflex Whey Protein	**จำนวน**	**ร้อยละ**
ราคาแพง	13	3.3
หาซื้อได้ยาก	35	8.8
ประโยชน์และคุณภาพไม่ตรงตามที่ต้องการ	51	12.8
ไม่รู้จักแบรนด์นี้	66	16.5
แบรนด์อื่นๆ น่าซื้อมากกว่า	21	5.3
รวม	**186**	**46.5**

ตารางที่ 5 จำนวนร้อยละของผู้ตอบแบบสอบ ถามผลิตภัณฑ์เสริมอาหาร Whey Protein จากแบรนด์อื่นๆ ที่ผู้ตอบแบบสอบถามเคยซื้อ

ผลิตภัณฑ์เสริมอาหาร Whey Protein จากแบรนด์อื่นๆ ที่ผู้ตอบแบบสอบถามเคยซื้อ	**จำนวน**	**ร้อยละ**
Proflex Whey	166	41.5
Ultimate Nutrition	66	16.5
BAAM	216	54
Mutant	77	19.3
Vitaxtrong	69	17.3
Optimum	69	17.3
LOWELL	44	11.0
Whey WWL	59	14.8
Dymatize	52	13.0
Nar Labs	8	2.0
อื่น ๆ	0	0
รวม	**826**	**100**

ตารางที่ 6 จำนวนร้อยละของผู้ตอบแบบสอบถาม ช่องทางในการซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein

ช่องทางในการซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein	จำนวน	ร้อยละ
ร้านค้าออนไลน์	193	48.3
Boots / Watsons	45	11.3
ร้านขายยา	60	15.0
ห้างสรรพสินค้า	45	11.3
ตัวแทนของผลิตภัณฑ์เสริมอาหารยี่ห้อนั้นๆ	28	7.0
รวม	**371**	**92.8**

ตารางที่ 7 จำนวนร้อยละของผู้ตอบแบบสอบถาม บุคคลใดที่มีส่วนช่วยในการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein

บุคคลใดที่มีส่วนช่วยในการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein	จำนวน	ร้อยละ
ตนเอง	88	22.0
สื่อออนไลน์ (Facebook, Instagram, Youtube, Twister, Tiktok)	164	41.0
ดารา / บุคคลที่มีชื่อเสียง	106	26.5
สื่อสิ่งพิมพ์ เช่น หนังสือพิมพ์ นิตยสาร ใบปลิว	9	2.3
วิทยุ / พอสแคส	4	1.0
รวม	**371**	**92.8**

ด้านประชากรศาสตร์ กลุ่มตัวอย่างที่ตอบแบบสอบถามส่วนใหญ่เป็นเพศชาย จำนวน 250 คน (คิดเป็นร้อยละ 62.5) และเพศหญิง จำนวน 150 คน (คิดเป็นร้อยละ 37.5) กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่มีอายุ 26-30 ปี จำนวน 196 คน (คิดเป็นร้อยละ 49) กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่มีการศึกษาอยู่ในระดับปริญญาตรีหรือเทียบเท่า จำนวน 334 คน (คิดเป็นร้อยละ 83.5) กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่มีอาชีพเป็นพนักงานบริษัทเอกชน จำนวน 129 คน (คิดเป็นร้อยละ 32.3)กลุ่มตัวอย่างที่ตอบแบบสอบถามโดยส่วนใหญ่มีรายได้เฉลี่ย 20,001-25,000 บาท จำนวน 113 คน (คิดเป็นร้อยละ 28.2)

ตารางที่ 8 จำนวนร้อยละของผู้ตอบแบบสอบถามโดยจำแนกตามเพศ

เพศ	จำนวน	ร้อยละ
ชาย	250	62.5
หญิง	150	37.5
รวม	**400**	**100**

ตารางที่ 9 จำนวนร้อยละของผู้ตอบแบบสอบถามโดยจำแนกตามอายุ

อายุ	จำนวน	ร้อยละ
ต่ำกว่า 20 ปี	7	1.8
21-25 ปี	135	33.8
26-30 ปี	196	49
31-40 ปี	56	14
41-50 ปี	3	0.7
51 ปีขึ้นไป	3	0.7
รวม	**400**	**100**

ตารางที่ 10 จำนวนร้อยละของผู้ตอบแบบสอบถามโดยจำแนกตามระดับการศึกษา

ระดับการศึกษา	จำนวน	ร้อยละ
ต่ำกว่าปริญญาตรี	21	5.2
ปริญญาตรีหรือเทียบเท่า	334	83.5
ปริญญาโทหรือเทียบเท่า	45	11.3
ปริญญาเอกหรือเทียบเท่า	0	0
รวม	**400**	**100**

ตารางที่ 11 จำนวนร้อยละของผู้ตอบแบบสอบถามโดยจำแนกตามอาชีพ

อาชีพ	**จำนวน**	**ร้อยละ**
นักเรียน / นักศึกษา	45	11.2
พนักงานบริษัทเอกชน	129	32.3
ข้าราชการ / รัฐวิสาหกิจ	74	18.5
ธุรกิจส่วนตัว	98	24.5
ค้าขายอิสระ	54	13.5
รวม	**400**	**100**

ตารางที่ 12 จำนวนร้อยละของผู้ตอบแบบสอบถามโดยจำแนกตามรายได้เฉลี่ย

รายได้เฉลี่ย	**จำนวน**	**ร้อยละ**
ต่ำกว่า 15,000 บาท	24	6
15,001-20,000 บาท	96	24
20,001-25,000 บาท	113	28.2
25,001-30,000 บาท	86	21.5
30,001-35,000 บาท	46	11.5
35,001 ขึ้นไป บาท	35	8.8
รวม	**400**	**100**

ด้านส่วนประสมทางการตลาด แสดงให้เห็นว่าผู้ที่ตอบแบบสอบถามมีความคิดเห็น โดยรวมด้านปัจจัยส่วนประสมทางการตลาดอยู่ในระดับที่เห็นด้วยมากอยู่ที่ 4.13 และเมื่อพิจารณาแต่ละปัจจัยของส่วนประสมทางการตลาด โดยจำแนกออกเป็น 1) ปัจจัยด้านผลิตภัณฑ์ ผลปรากฏว่าผู้ตอบแบบสอบถามมีความคิดเห็นอยู่ที่ระดับมากที่สุด คือ ผลิตภัณฑ์มีเครื่องหมายรับรองจาก อย. และเครื่องหมายรับรองการผลิตที่น่าเชื่อถือ (ค่าเฉลี่ยเท่ากับ 4.35)

2) ปัจจัยด้านราคา ผลปรากฏว่าผู้ตอบแบบสอบถามมีความคิดเห็นอยู่ที่ระดับมากที่สุด คือ ผลิตภัณฑ์มีราคาที่เหมาะสมกับแบรนด์ของสินค้า (ค่าเฉลี่ยเท่ากับ 4.25) 3) ปัจจัยด้านช่องทางการจัดจำหน่าย ผลปรากฏว่าผู้ตอบแบบสอบถามมีความคิดเห็นอยู่ที่ระดับมากที่สุด คือ สถานที่จัดจำหน่ายมีความน่าเชื่อถือ (ค่าเฉลี่ยเท่ากับ 4.21)

4) ด้านการส่งเสริมทางการตลาด ผลปรากฏว่าผู้ตอบแบบสอบถามมีความคิดเห็นอยู่ที่ระดับมากที่สุด คือ มีการจัดโปรโมชั่นที่น่าสนใจอยู่เสมอ (ค่าเฉลี่ยเท่ากับ 4.20)

ด้านผลิตภัณฑ์	$\bar{X}$	$S.D$	การแปลผล
1) ผลิตภัณฑ์มีประโยชน์ตรงตามความต้องการ	3.94	.665	เห็นด้วยมาก
2) ผลิตภัณฑ์มีตราสินค้าที่มีชื่อเสียงเป็นที่นิยมและเชื่อถือได้	4.32	.678	เห็นด้วยมากที่สุด
1) ผลิตภัณฑ์มีเครื่องหมายรับรองจาก อย. และเครื่องหมายรับรองการผลิตที่น่าเชื่อถือ	4.35	.674	เห็นด้วยมากที่สุด
2) บรรจุภัณฑ์สวยงาม มีฉลากสินค้าที่สามารถอ่านได้เข้าใจได้ง่าย	4.16	.676	เห็นด้วยมาก
3) ผลิตภัณฑ์มีรูปแบบที่สามารถรับประทานได้ง่าย เหมาะกับการใช้ในชีวิตประจำวัน	4.31	.690	เห็นด้วยมากที่สุด
ด้านราคา	$\bar{X}$	$S.D$	**การแปลผล**
1) ผลิตภัณฑ์มีราคาที่เหมาะสมกับคุณภาพและประโยชน์ที่ได้รับ	3.89	.695	เห็นด้วยมาก
2) ผลิตภัณฑ์มีราคาถูกกว่าเมื่อเทียบกับผลิตภัณฑ์แบรนด์อื่นๆ ในรูปแบบเดียวกัน	4.21	.732	เห็นด้วยมากที่สุด
3) ผลิตภัณฑ์มีราคาที่เหมาะสมกับปริมาณที่ได้รับ	4.16	.714	เห็นด้วยมาก
4) ผลิตภัณฑ์มีราคาที่เหมาะสมกับแบรนด์ของสินค้า	4.25	.697	เห็นด้วยมากที่สุด
ด้านช่องทางการจัดจำหน่าย	$\bar{X}$	$S.D$	**การแปลผล**
1) สามารถหาซื้อผลิตภัณฑ์ได้สะดวกและมีจำหน่ายตามท้องตลาดทั่วๆ ไป	3.86	.710	เห็นด้วยมาก
2) สถานที่จัดจำหน่ายมีความน่าเชื่อถือ	4.21	.691	เห็นด้วยมากที่สุด
3) สถานที่จัดจำหน่ายมีผู้ที่คอยให้คำแนะนำเกี่ยวกับผลิตภัณฑ์ได้อย่างถูกต้อง	4.19	.772	เห็นด้วยมาก
4) สถานที่จัดจำหน่ายมีช่องทางในการติดต่อกับผู้ผลิตหรือผู้จัดจำหน่ายที่ชัดเจน	4.15	.733	เห็นด้วยมาก
ด้านการส่งเสริมทางการตลาด			
1) มีการโฆษณาโดยการให้ข้อมูลที่น่าเชื่อถือ	3.97	.654	เห็นด้วยมาก

2) มีการโฆษณาและประชาสัมพันธ์ผ่าน Social Media ที่หลากหลาย	4.17	.812	เห็นด้วยมาก
3) มีการจัดโปรโมชั่นที่น่าสนใจอยู่เสมอ	4.20	.894	เห็นด้วยมาก
4) มีการจัดกิจกรรมส่งเสริมการขายผ่านทางช่องทางต่างๆอย่างต่อเนื่อง	4.08	.854	เห็นด้วยมาก
5) สามารถเปลี่ยนสินค้าได้ หากสรรพคุณไม่ตรงตามที่ลูกค้าต้องการ	4.06	.926	เห็นด้วยมาก
รวม	**4.13**	**0.737**	เห็นด้วยมาก

ด้านการรับสื่อของผู้บริโภค แสดงให้เห็นว่าผู้ที่ตอบแบบสอบถามมีความคิดเห็น โดยรวมเกี่ยวกับปัจจัยด้านการรับสื่อของผู้บริโภค อยู่ในระดับที่เห็นด้วยมากอยู่ที่ 4.11 และเมื่อพิจารณาผลปรากฏว่าผู้ตอบแบบสอบถามมีความคิดเห็นอยู่ที่ระดับมากที่สุด คือ ข่าวสารและข้อมูลจากสื่อ Online ต่างๆ ในปัจจุบันสามารถเข้าถึงได้ง่ายและสะดวกต่อชีวิตประจำวัน (ค่าเฉลี่ยเท่ากับ 4.32)

ด้านการรับสื่อของผู้บริโภค	$\bar{X}$	$S.D$	**การแปลผล**
1) ท่านเป็นคนที่ชอบรับข้อมูลข่าวสารจากสื่อ Online ต่างๆ	3.82	.745	เห็นด้วยมาก
2) ท่านคิดว่าข่าวสารและข้อมูลจากสื่อ Online ต่างๆ ในปัจจุบันมีความน่าเชื่อถือและตรงไปตรงมา	4.20	.701	เห็นด้วยมาก
3) ท่านคิดว่าข่าวสารและข้อมูลจากสื่อ Online ต่างๆ ในปัจจุบันสามารถเข้าถึงได้ง่ายและสะดวกต่อชีวิตประจำวัน	4.32	.710	เห็นด้วยมากที่สุด
4) ข้อมูลผลิตภัณฑ์จากสื่อ Online ต่างๆ สามารถโน้มน้าวให้ท่านตัดสินใจซื้อผลิตภัณฑ์นั้นได้ง่ายขึ้น	4.15	.712	เห็นด้วยมาก
5) ท่านมีแนวโน้มจะเลือกซื้อผลิตภัณฑ์แบรนด์ที่ท่านเคยเห็นจากสื่อ Online มากกว่า	4.10	.791	เห็นด้วยมาก
รวม	**4.11**	**0.731**	เห็นด้วยมาก

การทดสอบสมมติฐานของการวิจัย

จากผลการทดสอบสมมติฐานปัจจัยด้านประชากรศาสตร์ ด้านเพศ ผลจากการทดสอบสมมติฐานพบว่า ปัจจัยด้านเพศ มีอิทธิพลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein และผลดังกล่าวมีความสอดคล้องกับทฤษฎีแนวคิดของ ภาวิณี ตันติผาติและ กิตติพันธ์ คงสวัสดิ์เกียรติ (2554) ที่ศึกษาการตัดสินใจซื้อผลิตภัณฑ์อาหารเสริมเพื่อสุขภาพของผู้บริโภคในเขตกรุงเทพมหานคร กล่าวว่า เพศที่ต่างกันมีผลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหารเพื่อสุขภาพของผู้บริโภคในเขตกรุงเทพมหานครที่แตกต่างกันอย่างมีนัยสำคัญ เนื่องจากเพศชายมีเกณฑ์ที่จะเลือกซื้อผลิตภัณฑ์อาหารเสริมบำรุงสุขภาพมากกว่า และสอดคล้องกับทฤษฎีแนวคิดของงานวิจัยของสุภาพร ชุมทอง (2552)

จากผลการทดสอบสมมติฐานปัจจัยด้านประชากรศาสตร์ ด้านอายุ ผลจากการทดสอบสมมติฐานพบว่า ปัจจัยด้านอายุ ไม่ส่งผลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein และผลดังกล่าวมีความสอดคล้องกับทฤษฎีแนวคิดของจากการศึกษางานวิจัยของ นัทธมน เดชประภัสสร (2558) ที่ได้ทำ การศึกษาถึงปัจจัยที่มีผลต่อการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารทางอินเทอร์เน็ต พบว่าระดับการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารในแต่ละช่วงอายุไม่แตกต่างกัน เนื่องจากทุกวัยต่างให้ความสำคัญกับสุขภาพเช่นกัน

จากผลการทดสอบสมมติฐานปัจจัยด้านประชากรศาสตร์ ด้านระดับการศึกษา ผลจากการทดสอบสมมติฐานพบว่า ปัจจัยด้านระดับการศึกษา ไม่มีอิทธิพลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein และผลดังกล่าวมีความสอดคล้องกับทฤษฎีแนวคิดของจากการศึกษางานวิจัยของ ธัญญพัสส์ เกตุประดิษฐ์ (2554) ที่ศึกษาถึงปัจจัยที่มีอิทธิพลต่อการตัดสินเลือกซื้อสินค้าทางอินเทอร์เน็ตในเขตกรุงเทพมหานคร พบว่า ระดับการศึกษาที่ต่างกัน ไม่มีผลต่อการตัดสินเลือกซื้อสินค้าทางอินเทอร์เน็ตที่แตกต่างกันอย่างมีนัยสำคัญ เพราะการสื่อสารและการเข้าถึงกลุ่มผู้บริโภคผ่านช่องทางออนไลน์สามารถเข้าถึงผู้บริโภคได้ครอบคลุมทุกระดับการศึกษา

จากผลการทดสอบสมมติฐานปัจจัยด้านประชากรศาสตร์ ด้านอาชีพ ผลจากการทดสอบสมมติฐานพบว่า ปัจจัยด้านอาชีพ ไม่มีอิทธิพลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein และผลดังกล่าวมีความสอดคล้องกับทฤษฎีแนวคิดของจากการศึกษางานวิจัยของสุภาพร ชุ่มสกุล (2554) ที่ได้ศึกษาถึง ปัจจัยที่มีผลต่อการตัดสินใจซื้อสินค้าหรือบริการผ่านอินเทอร์เน็ต พบว่าอาชีพที่ต่างกัน ไม่มีผลต่อการตัดสินใจเลือกซื้อสินค้าหรือบริการผ่านอินเทอร์เน็ต อย่างมีนัยสำคัญ เพราะไม่ว่าอาชีพไหนถ้ามีความต้องการที่จะซื้อสินค้า ก็สามารถซื้อได้ทั้งนั้น

จากผลการทดสอบสมมติฐานปัจจัยด้านประชากรศาสตร์ ด้านรายได้เฉลี่ย ผลจากการทดสอบสมมติฐานพบว่า ปัจจัยด้านรายได้เฉลี่ย ไม่มีอิทธิพลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร

Proflex Whey Protein และผลดังกล่าวมีความสอดคล้องกับทฤษฎีแนวคิดของจากการศึกษางานวิจัยของวิศรุต เลี้ยงบุญเลิศชัย (2557) ที่ศึกษาถึงปัจจัยที่มีผลต่อการตัดสินใจซื้อ ผลิตภัณฑ์เสริมอาหารของประชากรในเขตกรุงเทพมหานครและปริมณฑล พบว่ารายได้เฉลี่ย ที่ต่างกันไม่ส่งผลต่อการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารที่แตกต่างกันอย่างมีนัยสำคัญทางสถิติ

จากผลการทดสอบสมมติฐานปัจจัยส่วนประสมทางการตลาด (4Ps) ได้แก่ ด้านผลิตภัณฑ์ ด้านราคา ด้านการจัดจำหน่าย และด้านส่งเสริมการขาย ที่มีอิทธิพลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ในเขตกรุงเทพมหานคร ผลจากการทดสอบสมมติฐาน พบว่า ปัจจัยส่วนประสมทางการตลาด (4Ps) ดังกล่าว มีอิทธิพลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ซึ่งเป็นไปตามทฤษฎีของ Kolter,Philip (2003) ที่ได้กล่าวไว้ว่า ส่วนประสมทางการตลาด เป็นองค์ประกอบของเครื่องมือทางการตลาดที่องค์การใช้ในการปฏิบัติตามเป้าหมายทางการตลาด โดยมีการใช้เครื่องมือ ได้แก่ ด้านผลิตภัณฑ์ ด้านราคา ด้านการจัดจำหน่าย และด้านส่งเสริมการขาย นี้เพื่อสร้างความพึงพอใจ และตอบสนองความต้องการของผู้บริโภค ทั้งนี้ยังสอดคล้องกับทฤษฎีแนวคิดของจากการศึกษางานวิจัยของ นัทธมน เดชประภัสสร (2558) ที่ได้ทำการศึกษาถึงปัจจัยที่มีผลต่อการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารทางอินเทอร์เน็ต พบว่าปัจจัยด้านผลิตภัณฑ์ส่งผลเชิงบวกต่อการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารทางอินเทอร์เน็ตของผู้บริโภค โดยกลุ่มตัวอย่างให้ความสำคัญกับสรรพคุณของผลิตภัณฑ์ต้องตรงกับความต้องการและผลิตภัณฑ์ต้องมีคุณภาพและผลิตภัณฑ์ที่มีภาพลักษณ์ของตราสินค้าที่ดี มีชื่อเสียง น่าเชื่อถือ จะทำให้ผู้บริโภคเกิดความมั่นใจในคุณภาพของผลิตภัณฑ์ ร่วมกับลักษณะของบรรจุภัณฑ์จะช่วยดึงดูดผู้บริโภคให้ซื้อสินค้า

จากผลการทดสอบสมมติฐานปัจจัยด้านการรับสื่อของ ผลจากการทดสอบสมมติฐาน พบว่าปัจจัยด้านการรับสื่อของผู้บริโภค มีอิทธิพลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ซึ่งเป็นไปตามทฤษฎีของ Klapper (1960) ที่ให้ความหมายของการเลือกรับสารว่าสื่อมวลชนเป็นเพียงสื่อกลางในการโน้มน้าวผู้รับสารไม่ได้มีอิทธิพลต่อ ผู้รับสารโดยตรง โดยผู้รับสารจะเป็นผู้เลือกรับรู้ข้อมูลข่าวสารเอง โดยกระบวนการเลือกรับสาร (Selective Processes) เปรียบเสมือนเป็นตัวกรอง (Filters) ทั้งนี้ยังสอดคล้องกับทฤษฎีแนวคิดของจากการศึกษางานวิจัยของ เกวลี เพ็ชรเนียม (2560) ที่ศึกษาถึงสื่อโฆษณาการตลาดดิจิทัลที่มีผลต่อการตัดสินใจซื้อสินค้าของผู้บริโภคในเขตกรุงเทพมหานคร พบว่าสื่อดิจิทัลที่มีอิทธิพลต่อการตัดสินใจซื้อสินค้าของผู้บริโภคโดยภาพรวมอยู่ในระดับส่งผลมาก ด้านที่มีอิทธิพลมากที่สุด คือ ด้านความน่าสนใจ รองลงมาคือด้านการจดจำ และด้านความน่าเชื่อถือตามลำดับและผู้บริโภคที่มี เพศ ระดับการศึกษา รายได้ สถานภาพ แตกต่างกันจะมีสื่อโฆษณาการตลาดดิจิทัลที่มีผลต่อการตัดสินใจซื้อสินค้า

แตกต่างกัน และยังพบว่าพฤติกรรมการใช้สื่อดิจิทัลมีผลต่อสื่อโฆษณา การตลาดดิจิทัลที่มีผลต่อการตัดสินใจซื้อสินค้าของผู้บริโภคในเขตกรุงเทพมหานคร

สรุปและอภิปรายผลการวิจัย

จากที่ได้วิเคราะห์ผลการสัมภาษณ์และผลจากการเก็บแบบสอบถาม ผลปรากฏว่าส่วนใหญ่เป็น เพศชาย ที่อาศัยอยู่ในเขตกรุงเทพมหานคร ออกกำลังกายเป็นประจำ มีทั้งบริโภคผลิตภัณฑ์เสริมอาหาร Whey Protein และไม่ได้บริโภคผลิตภัณฑ์เสริมอาหาร Whey Protein โดยเมื่อพิจารณาในแต่ละปัจจัยว่าผู้ตอบแบบสอบถามกับผู้ให้สัมภาษณ์มีความคิดเห็นตรงกันในด้านใดบ้าง ผลปรากฏว่าเมื่อพิจารณาด้านผลการวิเคราะห์เนื้อหาด้านพฤติกรรมและการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Proflex Whey Protein ในผลการศึกษาเชิงคุณภาพและเชิงปริมาณ ผลปรากฏว่า สอดคล้องกันกับจำนวนผู้ที่เลือกใช้ผลิตภัณฑ์เสริมอาหาร Whey Protein โดยอ้างอิงจากคนที่เลือกใช้ผลิตภัณฑ์เสริมอาหาร Whey Protein มีสัดส่วนที่มากกว่าคนที่ไม่ได้เลือกใช้ โดยเหตุผลของคนที่ไม่เลือกใช้ส่วนใหญ่ คือ ทานอาหารเสริมอื่นๆ อยู่แล้ว ส่วนด้านผลการวิเคราะห์เนื้อหาปัจจัยด้านส่วนประสมทางการตลาด (4Ps) ในผลการศึกษาเชิงคุณภาพและเชิงปริมาณ ผลปรากฏว่า ผู้ที่ให้สัมภาษณ์และตอบแบบสอบถามมีความคิดเห็นตรงกัน เกี่ยวกับปัจจัยด้านส่วนประสมทางการตลาดว่ามีผลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein และเมื่อพิจารณาเป็นรายด้านพบว่า ปัจจัยด้านผลิตภัณฑ์ มีผลต่อการตัดสินใจเป็นอย่างมาก เพราะผลิตภัณฑ์ต้องมีตราสินค้าที่มีชื่อเสียงเป็นที่นิยมและเชื่อถือได้ ผ่านการรับรองจากองค์การต่างๆ ปัจจัยด้านราคา ต้องมีความเหมาะสมกับแบรนด์ และต้องมีราคาไม่แพงเมื่อเปรียบเทียบกับแบรนด์อื่นๆ ปัจจัยด้านช่องทางการจัดจำหน่าย ต้องสามารถหาซื้อได้ง่าย ตามร้านค้าทั่วๆ ไป และปัจจัยด้านการส่งเสริมทางการตลาด ต้องมีการจัดโปรโมชั่นที่น่าสนใจอยู่เสมอ เพื่อเป็นการกระตุ้นให้เกิดการซื้อของผู้บริโภค และเมื่อพิจารณาด้านผลการวิเคราะห์เนื้อหาปัจจัยด้านการรับสื่อของผู้บริโภค ในผลการศึกษาเชิงคุณภาพและเชิงปริมาณ ผลปรากฏว่า ผู้ที่ให้สัมภาษณ์และตอบแบบสอบถามมีความคิดเห็นตรงกันเกี่ยวกับปัจจัยด้านการรับสื่อของผู้บริโภคว่ามีผลต่อการตัดสินใจเลือกซื้อผลิตภัณฑ์เสริมอาหาร Whey Protein ผลปรากฏว่าผู้บริโภคให้ความคิดเห็นตรงกันว่า ข่าวสารและข้อมูลจากสื่อออนไลน์ต่างๆ ในปัจจุบันสามารถเข้าถึงได้ง่ายและสะดวกต่อชีวิตประจำวัน ทำให้เมื่ออยากรู้ข้อมูลอะไร ก็จะหาจากสื่อออนไลน์ แต่การรับสื่อก็ควรจะพิจารณาด้วยตนเองด้วย ไม่ควรเชื่อสื่อทั้งหมด การรับสื่อต่อการเลือกซื้อสินค้าก็มีส่วนที่ทำให้สามารถโน้มน้าวใจให้ตัดสินใจซื้อผลิตภัณฑ์นั้นได้และง่ายขึ้น และทั้งผู้ตอบแบบสอบถามและผู้ให้สัมภาษณ์ส่วนใหญ่เปิดรับข้อมูลจากสื่อออนไลน์เป็นหลัก

เอกสารอ้างอิง

วิชัย โถสุวรรณ. (2535). *ความลับองค์การ: พฤติกรรมองค์การสมัยใหม่*. พิมพ์ครั้งที่ 2. กรุงเทพฯ: ดีไลท์.

กรองแก้ว อยู่สุข. (2537). *พฤติกรรมองค์การ*. กรุงเทพฯ: คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรมหาวิทยาลัย

กวี วงศ์พุฒ. (2539). *ภาวะผู้นำ*. พิมพ์ครั้งที่ 4. กรุงเทพฯ: บี.เคอินเตอร์ปรินส์.

ศิวฤทธ์ พงสกรรังศิลป์. (2547). *วิชาหลักการตลาด*. พิมพ์ครั้งที่ 1. กรุงเทพฯ: สำนักพิมพ์ท็อป จำกัด.

ธงชัย สันติวงษ์. (2540). *พฤติกรรมผู้บริโภคทางการตลาด*. กรุงเทพมหานคร: ไทยวัฒนาพานิช.

ภาวินี ตันติผาติ และ กิตติพันธ์ คงสวัสดิ์เกียรติ. (2554). การตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารเพื่อสุขภาพของผู้บริโภคในเขตกรุงเทพมหานคร. *วารสาร การเงิน การลงทุน การตลาดและการบริหารธุรกิจ, 1*(1).

สุภาพร ชุมทอง. (2553). อิทธิพลของเครื่องมือการสื่อสารการตลาดแบบบูรณาการที่มีต่อพฤติกรรมการซื้อผลิตภัณฑ์เสริมอาหารบำรุงสมองและความจำ. วารสารสหศาสตร์ศรีปทุม. ชลบุรี. มหาวิทยาลัยศรีนครินทรวิโรฒ.

วิศรุต เลี้ยงบุญเลิศชัย. (2557). ปัจจัยที่มีผลต่อการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารของประชากรในเขตกรุงเทพมหานครและปริมณฑล. การค้นคว้าอิสระ ปริญญามหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

นัทธมน เดชประภัสสร. (2559). *ปัจจัยที่มีผลต่อการตัดสินใจซื้อผลิตภัณฑ์เสริมอาหารทางอินเทอร์เน็ต*. การค้นคว้าอิสระปริญญามหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

Kolter, P. (2003). *Marketing Management*. 11th ed. NJ: Prentice-Hall.

Kotler, P. (2000). *Marketing Management.* The Millennium edition. New Jersey: Prentic-Hall

Klapper, J. T. (1960). *The effects of mass communication*. New York: The Free Press.

Etzel, M. J., Walker, B. J., & Stanton, W. J. (2001). *Marketing*. 12th ed. Boston: McGraw-Hill.

ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

Effectiveness of the Elderly Allowance Policy of the Pak Phraek Subdistrict Administration Organization, Bang Saphan Noi District, Prachuap Khiri Khan Province

สถาพร ถาวรนุรักษ์ / Sathaporn Thawornnurak
หลักสูตรรัฐประศาสนศาตรมหาบัณฑิต มหาวิทยาลัยนานาชาติแสตมฟอร์ด / Master of Public Administration, Stamford International University
E-mail: tawornnurak.boom@gmail.com

นิตยา สินเธาว์ / Nittaya Sintao*
หลักสูตรรัฐประศาสนศาตรมหาบัณฑิต มหาวิทยาลัยนานาชาติแสตมฟอร์ด / Master of Public Administration, Stamford International University
Corresponding author: E-mail: nitppm2@gmail.com

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ (1) ศึกษาระดับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก (2) ศึกษาปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ (3) ศึกษาปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ กลุ่มตัวอย่าง ได้แก่ ผู้สูงอายุที่ได้รับเบี้ยยังชีพผู้สูงอายุจากองค์การบริหารส่วนตำบลปากแพรก จำนวน 138 คน วิเคราะห์ข้อมูลโดยใช้ค่าสถิติเชิงพรรณนา ได้แก่ ค่าร้อยละ ค่าเฉลี่ย ค่าเบี่ยงเบนมาตรฐาน และสถิติเชิงอนุมาน โดยใช้สถิติค่าไคสแควร์ และการวิเคราะห์การถดถอยพหุคูณ ผลการศึกษา พบว่า (1) ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ อยู่ในระดับมาก (2) ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ อยู่ในระดับมาก (3) ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ด้านเงื่อนไขทางเศรษฐกิจสังคมและการเมือง มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.001 ด้านลักษณะองค์การที่นำนโยบายไปปฏิบัติ มีนัยสำคัญที่ระดับ 0.01 ด้านมาตรฐานและ

วัตถุประสงค์ของนโยบาย ด้านทรัพยากรนโยบาย ด้านการสื่อสารระหว่างองค์การกับผู้รับบริการและด้านความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ มีนัยสำคัญที่ระดับ 0.05

คำสำคัญ: ประสิทธิผล, การนำนโยบายไปปฏิบัติ, นโยบายเบี้ยยังชีพผู้สูงอายุ,
องค์การบริหารส่วนตำบลปากแพรก

Abstract

This research aimed to study: (1) level of effectiveness of the elderly allowance policy of the Pak Phraek Subdistrict Administration Organization Bang Saphan Noi District (2) factors affecting the policy implementation (3) factors that affect the policy implementation There is a causal relationship between the effectiveness of the elderly allowance policy. The sample group used in the research was the elderly who received the living allowance from the Pak Phraek Subdistrict Administration Organization. Bang Saphan Noi District Prachuap Khiri Khan Province, amount 138 people. Data were treated and analyzed by using descriptive and Inferential Statistics methods, which were percentage, mean, standard deviation, Chi-square test and Multiple Regression Analysis. Research results showed that: (1) the effectiveness of the policy implementation of the elderly pension the effectiveness was at a high level. (2) Factors affecting the implementation of the policy. It affects the implementation of the policy at a high level. (3) Factors affecting the implementation of the policy in terms of economic, social and political conditions there was a cause-effect relationship with the effectiveness of the policy implementation of the elderly pension. It was statistically significant at the 0.001 level in terms of organizational characteristics that implement policies. There was a statistically significant level of 0.01 in terms of standards and policy objectives. Policy Resources communication between the organization and the service recipient and the cooperation or response of policy leaders to implement It was statistically significant at the 0.05 level.

Keywords: Effectiveness, Policy implementation, Elderly living allowance policy,
Pak Phraek Subdistrict Administration Organization

บทนำ

ปัจจุบันประเทศไทยมีการเปลี่ยนแปลงทางประชากรค่อนข้างสูง โดยมีจำนวนประชากรผู้สูงอายุที่เพิ่มขึ้นอย่างรวดเร็ว การเข้าสู่การเป็นสังคมผู้สูงอายุเป็นสถานการณ์ที่ทุกฝ่ายจะต้องทำความเข้าใจและตระหนักถึงผลกระทบที่เกิดขึ้น ทั้งทางด้านเศรษฐกิจและสังคม รัฐมีการจัดสวัสดิการต่างๆ เพื่อตอบสนองความต้องการของผู้สูงอายุให้มีคุณภาพชีวิตที่ดีขึ้นในอดีตที่ผ่านมา อาจกล่าวได้ว่าผู้สูงอายุในสังคมไทยมีสถานภาพทางสังคมสูงได้รับการยกย่องนับถือโดยทั่วไป เนื่องจากผู้สูงอายุส่วนใหญ่อาศัยอยู่ในภูมิลำเนาของตน และมักมีบุตรหลานอาศัยอยู่ด้วย ซึ่งเมื่อแต่งงานกันมักจะตั้งครอบครัวอยู่ในบริเวณเดียวกัน อันเป็นลักษณะของครอบครัวขยาย หากแต่ในปัจจุบันโครงสร้างครอบครัวเริ่มเปลี่ยนแปลงไป กลายเป็นครอบครัวเดี่ยว ทั้งนี้เป็นผลมาจากอิทธิพลตะวันตก ตลอดจนความทันสมัยและเทคโนโลยีต่างๆ ซึ่งส่งผลให้สถานภาพทางสังคมของผู้สูงอายุเปลี่ยนแปลงไป ความเคารพนับถือที่ผู้สูงอายุได้รับจากครอบครัวและชุมชนก็ลดน้อยลงการสงเคราะห์ผู้สูงอายุจึงเป็นภารกิจหน้าที่หนึ่งขององค์กรปกครองส่วนท้องถิ่นในการจัดการบริการสาธารณะเพื่อประชาชน ซึ่งได้กำหนดไว้ในพระราชกำหนดแผนและขั้นตอนการกระจายอำนาจให้แก่องค์กรปกครองส่วนท้องถิ่น พ.ศ.2542 พระราชบัญญัติเทศบาล พ.ศ.2496 และพระราชบัญญัติสภาตำบลและองค์การบริหารส่วนตำบล พ.ศ.2537 ผู้สูงอายุในวารสารวิชาการมหาวิทยาลัยปทุมธานี 140 ปีที่ 6 ฉบับที่ 3 กันยายน-ธันวาคม 2557 ฐานะที่เป็นกลุ่มคนที่ยังไม่มีความมั่นคงในการดำรงชีพเพียงพอ และยังประสบปัญหาต่างๆ ทั้งทางด้านสุขภาพ ที่อยู่อาศัย การขาดรายได้ จึงมีความจำเป็นที่จะต้องมีการสงเคราะห์ เพื่อแก้ไขปัญหาความเดือดร้อนของผู้สูงอายุรวมถึงการพัฒนาคุณภาพชีวิตของผู้สูงอายุให้มีศักยภาพสูงขึ้น (สิทธิชัย บัวขาว 2557: 139-140)

ในปัจจุบันมีการปรับเงินสงเคราะห์เบี้ยยังชีพผู้สูงอายุเป็นขั้นบันได คือ ผู้สูงอายุที่มีอายุ 60-69 ปี ได้รับเบี้ยยังชีพ อัตรา 600 บาท/คน/เดือน ผู้สูงอายุที่มีอายุ 70-79 ปี ได้รับเบี้ยยังชีพ อัตรา 700 บาท/คน/เดือน ผู้สูงอายุที่มีอายุ 80-89 ปี ได้รับเบี้ยยังชีพอัตรา 800 บาท/คน/เดือน ผู้สูงอายุที่มีอายุ 90 ปีขึ้นไป ได้รับเบี้ยยังชีพ อัตรา 1,000 บาท/คน/เดือน การเปลี่ยนนโยบายของรัฐปรับเบี้ยยังชีพให้เพิ่มขึ้น เพื่อที่จะให้ผู้สูงอายุมีคุณภาพที่ดี สามารถดำรงชีวิตอยู่ได้ในระดับหนึ่ง การจัดสวัสดิการเบี้ยผู้สูงอายุบนพื้นฐานของความเป็นมนุษย์หรืออาจกล่าวได้ว่ารัฐบาลจะสามารถจัดสรรงบประมาณเพื่อสนองต่อความต้องการของประชากรในประเทศได้ทั้งหมด แต่ถ้าหากรัฐบาลจะจัดสรรสวัสดิการเบี้ยยังชีพให้ผู้สูงอายุได้อย่างเป็นธรรม และเท่าเทียมกันทั้งหมดทั้งที่อยู่ในพื้นที่เขตเมือง ตลอดจนในพื้นที่ชนบท จะเป็นวิธีการที่อยู่บนพื้นฐานความเป็นจริงที่สามารถลงมือปฏิบัติช่วยเหลือได้อย่างเป็นรูปธรรมมากกว่า (รุจิราภรณ์ นาแข็งฤทธิ์, 2558: 1-3)

การดำเนินงานนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ ดำเนินงานเป็นไปตามแนวทางหลักเกณฑ์ และวิธีการตามที่กระทรวงมหาดไทยกำหนด งบประมาณที่ได้รับการจัดสรรเป็นเงินอุดหนุนจากส่วนกลาง เพื่อจ่ายให้แก่ผู้สูงอายุตามบัญชีรายชื่อ ซึ่งในปัจจุบันองค์กรปกครองส่วนท้องถิ่น จ่ายเงินสงเคราะห์เบี้ยยังชีพ โดยมีการจ่ายเป็นเงินสดหรือผู้รับมอบอำนาจตามหนังสือมอบอำนาจจากผู้สูงอายุผู้มีสิทธิได้รับเบี้ยยังชีพ และการจ่ายโดยการโอนเงินเข้าบัญชีของผู้สูงอายุหรือผู้รับมอบอำนาจตามหนังสือมอบอำนาจจากผู้สูงอายุผู้มีสิทธิได้รับเบี้ยยังชีพอีกด้วย

สภาพปัญหา ในการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ มีปัญหาต่างๆ เช่น เกิดปัญหาในขั้นตอนของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติ ปัญหาจากการขาดความรู้ ความเข้าใจของเจ้าหน้าที่ผู้รับผิดชอบงานด้านเบี้ยยังชีพผู้สูงอายุ ปัญหาจากปัจจัยภายนอก สังคม เศรษฐกิจ และการเมือง ปัญหาด้านกฎระเบียบ ข้อบังคับ ปัญหาจำนวนผู้สูงอายุในเขตมีจำนวนเพิ่มมากขึ้น ปัญหาผู้ที่มีอายุหกสิบปีบริบูรณ์ขึ้นไปยังไม่ได้รับเงินสงเคราะห์เบี้ยยังชีพในบางส่วนเนื่องจากการประชาสัมพันธ์อาจจะไม่ทั่วถึง ปัญหาการเบิกจ่ายงบประมาณจากกรมส่งเสริมการปกครองท้องถิ่นล่าช้า เป็นต้น

ผู้วิจัยในฐานะที่เป็นเจ้าหน้าที่ผู้ปฏิบัติและรับผิดชอบงานด้านการจ่ายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก เห็นว่ายังประสบปัญหาอีกในหลายๆ ด้าน เช่น กระบวนการปฏิบัติงานของเจ้าหน้าที่ผู้ให้บริการ และผู้สูงอายุที่เป็นผู้รับบริการที่มีความเข้าใจไม่ถูกต้องเกี่ยวกับการขึ้นทะเบียนเพื่อรับเงินเบี้ยยังชีพ วิธีการรับเงิน จำนวนเงินที่จะได้รับโดยนับช่วงอายุตามปีงบประมาณ ขั้นตอนต่างๆ ในการนำนโยบายไปปฏิบัติตั้งแต่ต้นจนจบยังขาดความรู้ ความเข้าใจของทั้งตัวเจ้าหน้าที่เอง และผู้สูงอายุที่รับบริการ เป็นต้น จึงมีความสนใจที่จะทำการวิจัยถึงสภาพปัญหาที่เกิดขึ้นอย่างเป็นระบบเพื่อพัฒนาการจ่ายเบี้ยยังชีพผู้สูงอายุให้มีประสิทธิภาพมากขึ้น สามารถให้บริการผู้สูงอายุอย่างถูกต้อง เป็นการรักษาสิทธิของผู้สูงอายุและรักษาไว้ซึ่งความถูกต้องตามระเบียบหลักเกณฑ์ในการปฏิบัติหน้าที่ของเจ้าหน้าที่ที่เกี่ยวข้องทุกส่วนต่อไป ด้วยเหตุนี้ผู้วิจัยจึงมีความสนใจที่จะวิจัยเรื่อง “ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์” และมีปัจจัยรวมถึงปัญหาและอุปสรรคใดบ้างที่มีผลต่อการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

คำถามการวิจัย 1) ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อยู่ในระดับใด 2) ปัจจัยที่มีผลต่อการนำ

นโยบายไปปฏิบัติ มีอะไรบ้าง และ 3) ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ หรือไม่

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ (1) ศึกษาระดับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ ขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ (2) ศึกษาปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ (3) ศึกษาปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ

การทบทวนวรรณกรรม

ชญาณิศา รักษาเวียง (2563: 44-45) วิจัยเรื่องประสิทธิผลการดำเนินงานตามนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลหนองพลับ อำเภอหัวหิน จังหวัดประจวบคีรีขันธ์ ผลการวิจัยพบว่า ประสิทธิผลการดำเนินงานตามนโยบายเบี้ยยังชีพผู้สูงอายุ ขององค์การบริหารส่วนตำบลหนองพลับ อำเภอหัวหิน จังหวัดประจวบคีรีขันธ์ พบว่า ในภาพรวมมีประสิทธิผลอยู่ในระดับมากที่สุด โดยทุกด้านมีประสิทธิผลการดำเนินงานตามนโยบายเบี้ยยังชีพผู้สูงอายุอยู่ในระดับมากที่สุด เรียงลำดับดังนี้ ด้านขั้นตอนการเบิกจ่ายเบี้ยยังชีพผู้สูงอายุ ด้านความพึงพอใจของผู้สูงอายุ และด้านคุณภาพชีวิตของผู้สูงอายุ

เอนก ศรีนันท์ และ นิเทศ ตินณะกุล (2563: 20) วิจัยเรื่อง ปัจจัยที่ส่งผลต่อประสิทธิผลการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติของเทศบาลเมืองในจังหวัดปทุมธานี ผลการวิจัยพบว่า ปัจจัยที่ส่งผลต่อประสิทธิผลการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติ ด้านวัตถุประสงค์หรือมาตรฐานของนโยบาย อยู่ในระดับมาก ด้านการสื่อสารและการทำให้ปฏิบัติตามนโยบายด้านการปฏิบัติ อยู่ในระดับมาก คุณสมบัติของหน่วยงานที่รับผิดชอบนโยบาย อยู่ในระดับมาก ด้านสภาพสังคมเศรษฐกิจและการเมือง อยู่ในระดับมาก ด้านคุณสมบัติบุคลากรที่รับผิดชอบ อยู่ในระดับมาก ผลการวิเคราะห์ระดับประสิทธิผลการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติของเทศบาลเมืองในจังหวัดปทุมธานี โดยภาพรวมอยู่ในระดับมาก เมื่อพิจารณารายด้านข้อเรียงจากมากไปหาน้อยพบว่า ด้านคุณภาพของผู้สูงอายุดีขึ้น และด้านคุณสมบัติของบุคลากรผู้รับผิดชอบ และสมมติฐานการวิจัยทั้ง 5 ด้าน มีอยู่ 5 ด้าน คือด้านวัตถุประสงค์หรือมาตรฐานของนโยบาย, ด้านการสื่อสารและการทำให้ปฏิบัติตามนโยบาย, ด้านคุณสมบัติของหน่วยงานที่รับผิดชอบนโยบาย, ด้านสภาพสังคมเศรษฐกิจและการเมือง, และด้านคุณสมบัติของบุคลากรผู้รับผิดชอบของนโยบาย มีค่าสัมประสิทธิ์ในการทำนาย (R^2) เท่ากับ 0.729 จึงสามารถทำนาย ปัจจัยที่ส่งผลต่อประสิทธิผลการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติของเทศบาลเมืองในจังหวัดปทุมธานีได้ร้อยละ 72.89

นิติรัฐ เรืองกำเนิด (2563: 1,093) วิจัยเรื่อง การประเมินผลการนำนโยบายไปปฏิบัติ การจ่ายเงินสงเคราะห์เพื่อการยังชีพสำหรับผู้สูงอายุ ของเทศบาลเมืองปัตตานี อำเภอเมือง จังหวัดปัตตานี ผลการวิจัยพบว่า กลุ่มตัวอย่างที่มีอายุ การศึกษา อาชีพ สถานภาพ รายได้ และแหล่งที่มาของรายได้ต่างกัน มีระดับความคิดเห็นต่อโครงการจ่ายเงินสงเคราะห์เพื่อการยังชีพสำหรับผู้สูงอายุ โดยภาพรวมแตกต่างกัน อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 แต่ไม่สอดคล้องกันในด้านเพศ พบว่า กลุ่มตัวอย่าง ที่มีเพศแตกต่างกัน มีระดับความคิดเห็นต่อโครงการจ่ายเงินสงเคราะห์เพื่อการยังชีพสำหรับผู้สูงอายุ โดยรวมและรายด้านไม่แตกต่างกัน อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

เมธี ถูกแบบ (2555: 89-90) วิจัยเรื่องปัจจัยที่ส่งผลต่อความสำเร็จของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติ: ศึกษาองค์การบริหารส่วนตำบลในเขตอำเภอพนมไพร จังหวัดร้อยเอ็ด ผลการวิจัยพบว่า ผู้สูงอายุมีความคิดเห็นเกี่ยวกับปัจจัยที่ส่งผลต่อความสำเร็จของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติ อยู่ในระดับมาก ดังนี้ ปัจจัยด้านการสนับสนุนจากผู้นำชุมชนที่ผู้สูงอายุอาศัยอยู่ รองลงมาคือ ความต้องการของผู้สูงอายุ และท่าทีผู้สูงอายุต่อผู้ดำเนินการ ปัจจัยทั้ง 3 นี้ สามารถร่วมกันพยากรณ์ผลของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติได้อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 ส่วนในกลุ่มประชาคมระดับหมู่บ้านระดับท้องถิ่นพบว่า มีความคิดเห็นเกี่ยวกับปัจจัยที่ส่งผลต่อความสำเร็จของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติ อยู่ในระดับมาก เรียงตามลำดับดังนี้ ปัจจัยด้านมาตรฐานและวัตถุประสงค์ของนโยบาย รองลงมาคือ ลักษณะองค์การในการนำนโยบายไปปฏิบัติ เงื่อนไขเศรษฐกิจ สังคม และการเมือง การสื่อสารระหว่างองค์การและกิจกรรมในการนำนโยบายไปปฏิบัติ และทรัพยากร ซึ่งปัจจัยทั้ง 5 นี้ สามารถร่วมกันพยากรณ์ผลของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติได้อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

ธนวัฒน์ ปินตา, ปัญจพร คำโย, อุบลวรรณ สุภาแสน และเกศินี วีรศิลป์ (2561: 8-10) วิจัยเรื่องความพึงพอใจของผู้สูงอายุที่มีต่อการจัดการเงินสงเคราะห์เบี้ยยังชีพ ของเทศบาลตำบลร้องกวาง อำเภอร้องกวาง จังหวัดแพร่ ผลการวิจัยพบว่า การวิจัยครั้งนี้ทำให้ทราบว่า ผู้สูงอายุที่ตอบแบบสอบถามมีระดับความพึงพอใจของผู้สูงอายุต่อการจัดการเงินสงเคราะห์เบี้ยยังชีพในพื้นที่ของเทศบาลตำบลร้องกวาง อำเภอร้องกวาง จังหวัดแพร่ โดยภาพรวม อยู่ในระดับมาก และพบว่าผู้สูงอายุมีความพึงพอใจที่แตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01

ครรชิต บรรลุผล (2554:63-68) วิจัยเรื่องความพึงพอใจของผู้สูงอายุต่อการให้บริการสงเคราะห์เบี้ยยังชีพเชิงรุก ขององค์การบริหารส่วนตำบลคำแมด อำเภอซำสูง จังหวัดขอนแก่น ผลการวิจัยพบว่า ระดับความพึงพอใจของผู้สูงอายุต่อการให้บริการสงเคราะห์เบี้ยยังชีพเชิงรุก ขององค์การบริหารส่วนตำบลคำแมด อำเภอซำสูง จังหวัดขอนแก่น โดยรวมอยู่ในระดับมาก และพบว่ามีความสัมพันธ์เชิงบวกในระดับสูงมากในทิศทางเดียวกันอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

กรอบแนวคิดการวิจัย

ตัวแปรอิสระ

ลักษณะส่วนบุคคล
(1) เพศ
(2) อายุ
(3) ระดับการศึกษา
(4) สถานภาพสมรส
(5) อาชีพเสริม

ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ
(1) มาตรฐานและวัตถุประสงค์นโยบาย
(2) ทรัพยากรนโยบาย
(3) การสื่อสารระหว่างองค์การ
(4) ลักษณะขององค์การที่นำนโยบายไปปฏิบัติ
(5) ความร่วมมือหรือการตอบสนองของผู้นำนโยบายไปปฏิบัติ
(6) เงื่อนไขทางเศรษฐกิจ สังคม และ

ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ ขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์
(1) คุณภาพชีวิตของผู้สูงอายุ
(2) ความพึงพอใจของผู้สูงอายุ
(3) ความเสมอภาคในการให้บริการ

ภาพที่ 1 กรอบแนวคิดการวิจัย

H1: ลักษณะส่วนบุคคลมีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ ขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย

H2: ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผล กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ ขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย

วิธีการวิจัย

ประชากรและกลุ่มตัวอย่าง

ประชากรที่ใช้ในการวิจัย ได้แก่ ผู้สูงอายุที่ได้รับเบี้ยยังชีพผู้สูงอายุจากองค์การบริหารส่วนตำบลปากแพรก อำเภอ บางสะพานน้อย จังหวัดประจวบคีรีขันธ์ จำนวน 521 คน

กลุ่มตัวอย่างที่ใช้ในการวิจัย ได้แก่ ผู้สูงอายุที่ได้รับเบี้ยยังชีพผู้สูงอายุจากองค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ จำนวนทั้งสิ้น 138 คน ซึ่งผู้วิจัยใช้สูตรการคำนวณของ Samuel B.Green (1991: 499-510) และดำเนินการสุ่มตัวอย่างในการวิจัย โดยใช้วิธีการเลือกกลุ่มตัวอย่างแบบโควต้า (Quota sampling) ตามสัดส่วนของผู้สูงอายุ ที่ได้รับเบี้ยยังชีพผู้สูงอายุจากองค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

การเก็บรวบรวมและการวิเคราะห์ข้อมูล

เราเก็บรวบรวมข้อมูลจากผู้สูงอายุที่ได้รับเบี้ยยังชีพผู้สูงอายุจากองค์การบริหารส่วนตำบลปากแพรก อำเภอ บางสะพานน้อย จังหวัดประจวบคีรีขันธ์ จำนวน 138 คน ด้วยแบบสอบถามที่เราสร้างขึ้น ประกอบด้วย 4 ส่วน คือ 1) ลักษณะส่วนบุคคล ได้แก่ เพศ อายุ ระดับการศึกษา สถานภาพการสมรส และ อาชีพเสริม 2) ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ได้แก่ (1) มาตรฐานและวัตถุประสงค์นโยบาย (2) ทรัพยากรนโยบาย (3) การสื่อสารระหว่างองค์การ (4) ลักษณะองค์การที่นำนโยบายไปปฏิบัติ (5) ความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ และ (6) เงื่อนไขทางเศรษฐกิจ สังคม และการเมือง จำนวน 30 ข้อ และ 3) ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ ได้แก่ (1) คุณภาพชีวิตของผู้สูงอายุ (2) ความพึงพอใจของผู้สูงอายุ และ (3) ความเสมอภาคในการให้บริการ จำนวน 15 ข้อ และ 4) ข้อเสนอแนะปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ และประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ ถูกวัดโดยมาตรวัดแบบลิเคิร์ท (Likert Scale) ชนิด 5 ระดับ โดยที่ 5 หมายถึง มากที่สุด และ 1 หมายถึง น้อยที่สุด ส่วนความหมายของค่าเฉลี่ย ได้กำหนดแบ่งออกเป็น 5 ช่วง โดยใช้สูตรคำนวณพิสัย (Range)

ผู้วิจัยดำเนินการวิเคราะห์ข้อมูลด้วยสถิติ ประกอบด้วย ความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และ การวิเคราะห์ความสัมพันธ์ของลักษณะส่วนบุคคล กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ โดยใช้สถิติไคสแควร์ โดยกำหนดค่านัยสำคัญทางสถิติที่ระดับ 0.05 และวิเคราะห์ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผล กับประสิทธิผลการดำเนิน

นโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ โดยใช้การวิเคราะห์การถดถอยพหุคูณ (Multi Linear Regression Analysis)

ผลการวิจัย

ลักษณะส่วนบุคคลของผู้ตอบแบบสอบถาม

พบว่า ส่วนใหญ่เป็นเพศหญิง (ร้อยละ 55.80) มีอายุ 60-69 ปี ขึ้นไป (ร้อยละ 50.80) จบการศึกษาระดับประถมศึกษา (ร้อยละ 49.30) มีสถานภาพสมรส (ร้อยละ 65.30) และมีอาชีพเสริมเป็นเกษตรกร (ร้อยละ 53.60)

ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ

ในภาพรวม มีผลต่อการนำนโยบายไปปฏิบัติ อยู่ในระดับมาก มีค่าเฉลี่ยและส่วนเบี่ยงเบนมาตรฐาน ($\bar{X}$ = 3.99,S.D. = 0.47) เมื่อพิจารณารายด้าน พบว่า มีผลต่อการนำนโยบายไปปฏิบัติ อยู่ในระดับมากทุกด้าน เรียงตามลำดับดังนี้ ด้านทรัพยากรนโยบาย มีค่าเฉลี่ยสูงสุด ($\bar{X}$ = 4.13, S.D. = 0.63) ด้านลักษณะองค์การที่นำนโยบายไปปฏิบัติ ($\bar{X}$ = 4.11, S.D. = 0.61) ด้านความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ ($\bar{X}$ = 4.05, S.D. = 0.56) ด้านการสื่อสารระหว่างองค์การกับผู้รับบริการ ($\bar{X}$ = 3.94, S.D. = 0.53) ด้านเงื่อนไขทางเศรษฐกิจสังคมและการเมือง($\bar{X}$ = 3.85, S.D. = 0.58) และด้านมาตรฐานและวัตถุประสงค์ของนโยบาย ($\bar{X}$ = 3.84, S.D. = 0.54)

ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

ในภาพรวม มีประสิทธิผล อยู่ในระดับมาก มีค่าเฉลี่ยและส่วนเบี่ยงเบนมาตรฐาน ($\bar{X}$ = 3.87, S.D. = 0.58) เมื่อพิจารณารายด้าน พบว่า มีประสิทธิผล อยู่ในระดับมากทุกด้าน เรียงตามลำดับดังนี้ ด้านความพึงพอใจของผู้สูงอายุ มีค่าเฉลี่ยสูงสุด ($\bar{X}$ = 3.93, S.D. = 0.61) ด้านความเสมอภาคในการให้บริการ ($\bar{X}$ = 3.87, S.D. = 0.64) และด้านคุณภาพชีวิตของผู้สูงอายุ ($\bar{X}$ = 3.80, S.D. = 0.61)

ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

ในภาพรวมปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ด้านเงื่อนไขทางเศรษฐกิจสังคมและการเมือง มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอ บางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.001 และปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ด้านลักษณะองค์การที่นำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การ

บริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01 และปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ด้านมาตรฐานและวัตถุประสงค์ของนโยบาย ด้านทรัพยากรนโยบาย ด้านการสื่อสารระหว่างองค์การกับผู้รับบริการ และด้านความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

การทดสอบสมมติฐานของการวิจัย

ผลการวิเคราะห์ลักษณะส่วนบุคคลมีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

ตารางที่ 1 ลักษณะส่วนบุคคลมีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

ลักษณะส่วนบุคคล	**ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์**			
	คุณภาพชีวิตของผู้สูงอายุ	**ความพึงพอใจของผู้สูงอายุ**	**ความเสมอภาคในการให้บริการ**	**ภาพรวม**
เพศ	0.001^{***}	0.035^{*}	-	0.018^{*}
อายุ	-	-	-	-
ระดับการศึกษา	-	-	-	-
สถานภาพสมรส	-	-	-	-
อาชีพเสริม	-	0.011^{*}	0.022^{*}	0.006^{**}

จากตารางที่ 1 พบว่า ลักษณะส่วนบุคคล ในภาพรวมมีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ ได้แก่ อาชีพเสริม มีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01 และเพศ มีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

ผลการวิเคราะห์ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

ตารางที่ 2 ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ	**ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์**				
	B	**S.E.**	**สปส. Beta**	**t**	**Sig.**
(ค่าคงที่)	-0.441	0.182		-2.431*	0.016
มาตรฐานและวัตถุประสงค์ของนโยบาย	0.197	0.082	0.186	2.417*	0.017
ทรัพยากรนโยบาย	0.111	0.044	0.121	2.557*	0.012
การสื่อสารระหว่างองค์การกับผู้รับบริการ	0.136	0.058	0.126	2.346*	0.020
ลักษณะองค์การที่นำนโยบายไปปฏิบัติ	0.169	0.057	0.179	2.957**	0.004
ความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ	0.118	0.055	0.115	2.167*	0.032
เงื่อนไขทางเศรษฐกิจสังคมและการเมือง	0.359	0.073	0.363	4.891***	0.000

หมายเหตุ * $P \leq 0.05$ R = 0.912
** $P \leq 0.01$ R^2 = 0.832
*** $P \leq 0.001$ R^2 ปรับ = 0.824
F = 107.852
ระดับนัยสำคัญ = 0.000
Durbin-Watson = 2.069

จากตารางที่ 2 ผลการวิเคราะห์ข้อมูล พบว่า ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ จากการทดสอบความเป็นอิสระกันของความคลาดเคลื่อน (Durbin-Watson) ในครั้งนี้มีค่าเท่ากับ 2.069 โดยมีค่าความสัมพันธ์ระหว่างตัวแปรอิสระกับตัวแปรตาม (R) อยู่ในระดับ 0.912 และพิจารณาจากการปรับมาตรฐานของตัวแปร (Standardized Variables) ร้อยละ 82.40-83.20 ในการวิเคราะห์การถดถอยเชิงพหุ และค่า สปส. Beta เรียงตามลำดับดังนี้ ด้านเงื่อนไขทางเศรษฐกิจสังคมและการเมือง ($\beta_{\text{เงื่อนไขเศรษฐกิจสังคม}}$ = 0.363,Sig. = 0.000) ด้านลักษณะองค์การที่นำนโยบายไปปฏิบัติ ($\beta_{\text{ลักษณะองค์การ}}$ = 0.179, Sig. = 0.004) ด้านทรัพยากรนโยบาย ($\beta_{\text{ทรัพยากรนโยบาย}}$ = 0.121, Sig. = 0.012) ด้านมาตรฐานและวัตถุประสงค์ของนโยบาย ($\beta_{\text{มาตรฐาน}}$ = 0.186,Sig. = 0.017) ด้านการสื่อสารระหว่างองค์การกับผู้รับบริการ ($\beta_{\text{สื่อสารระหว่างองค์การ}}$ = 0.126, Sig. = 0.020) และด้านความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ ($\beta_{\text{ความตอบสนองของผู้นำ}}$ = 0.115, Sig. = 0.032) กล่าวคือ ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ ซึ่งเป็นผลมาจากปัจจัยด้านต่างๆ ได้แก่ ด้านเงื่อนไขทางเศรษฐกิจสังคมและการเมือง ด้านลักษณะองค์การที่นำนโยบายไปปฏิบัติ ด้านทรัพยากรนโยบาย ด้านมาตรฐานและวัตถุประสงค์ของนโยบาย ด้านการสื่อสารระหว่างองค์การกับผู้รับบริการ และด้านความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ

จากตาราง 2 สามารถเขียนสมการพยากรณ์ได้ดังนี้

$\hat{Y} = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6$

= -0.441 + 0.197 (มาตรฐานและวัตถุประสงค์ของนโยบาย) + 0.111 (ทรัพยากรนโยบาย) + 0.136 (การสื่อสารระหว่างองค์การกับผู้รับบริการ) + 0.169 (ลักษณะองค์การที่นำนโยบายไปปฏิบัติ) + 0.118 (ความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ) + 0.359 (เงื่อนไขทางเศรษฐกิจสังคมและการเมือง)

$\hat{Y}$ หมายถึง ประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์

สรุปและอภิปรายผลการวิจัย

ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ ปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ในภาพรวม ด้านเงื่อนไขทางเศรษฐกิจ สังคมและการเมือง มีความสัมพันธ์ เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอ บางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.001 และปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ด้านลักษณะองค์การที่นำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01 และปัจจัยที่มีผลต่อการนำนโยบายไปปฏิบัติ ด้านมาตรฐานและวัตถุประสงค์ของนโยบาย ด้านทรัพยากรนโยบาย ด้านการสื่อสารระหว่างองค์การกับผู้รับบริการ และด้านความร่วมมือหรือความตอบสนองของผู้นำนโยบายไปปฏิบัติ มีความสัมพันธ์เชิงเหตุ-ผลกับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 ทั้งนี้แสดงให้เห็นว่า มาตรฐานและวัตถุประสงค์นโยบาย ทรัพยากรนโยบาย การสื่อสารระหว่างองค์การ ลักษณะขององค์การที่นำนโยบายไปปฏิบัติ ความร่วมมือหรือการตอบสนองของผู้นำนโยบายไปปฏิบัติ และ เงื่อนไขทางเศรษฐกิจ สังคม และการเมือง เป็นสิ่งที่จะส่งผลต่อการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ ให้ประสบผลสำเร็จตามเป้าหมาย ทำให้ผู้สูงอายุมีคุณภาพชีวิตที่ดี มีความพึงพอใจในการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ และได้รับบริการอย่างเสมอภาคจากองค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ สอดคล้องกับงานวิจัยของ ชญาณิศา รักษาเวียง (2563: 44-45) วิจัยเรื่องประสิทธิผลการดำเนินงานตามนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลหนองพลับ อำเภอหัวหิน จังหวัดประจวบคีรีขันธ์ ผลการวิจัยพบว่า การให้บริการเบี้ยยังชีพผู้สูงอายุ ด้านความร่วมมือของผู้นำชุมชนมีผลต่อประสิทธิผลการดำเนินงานตามนโยบายเบี้ยยังชีพผู้สูงอายุ ขององค์การบริหารส่วนตำบลหนองพลับ อำเภอหัวหิน จังหวัดประจวบคีรีขันธ์ในทุกด้าน อย่างมีนัยสำคัญทางสถิติที่ระดับนัยสำคัญ 0.001 และยังสอดคล้องกับงานวิจัยของ เมธี ถูกแบบ (2555: 89-90) วิจัยเรื่องปัจจัยที่ส่งผลต่อความสำเร็จของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติ: ศึกษาองค์การบริหารส่วนตำบลในเขตอำเภอพนมไพร จังหวัดร้อยเอ็ด ผลการวิจัยพบว่า กลุ่มประชาคมระดับหมู่บ้านระดับท้องถิ่นพบว่า มีความคิดเห็นเกี่ยวกับปัจจัยที่ส่งผลต่อความสำเร็จของการนำนโยบายเบี้ยยังชีพ

ผู้สูงอายุไปปฏิบัติ ได้แก่ ปัจจัยด้านมาตรฐานและวัตถุประสงค์ของนโยบาย ลักษณะองค์การในการนำนโยบายไปปฏิบัติ เงื่อนไขเศรษฐกิจ สังคม และการเมือง การสื่อสารระหว่างองค์การและกิจกรรมในการนำนโยบายไปปฏิบัติ และทรัพยากร ซึ่งปัจจัยทั้ง 5 นี้ สามารถร่วมกันพยากรณ์ผลของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติได้อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

ลักษณะส่วนบุคคลมีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุ ขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย

พบว่า ลักษณะส่วนบุคคล ได้แก่ อาชีพเสริม มีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01 และเพศ มีความสัมพันธ์กับประสิทธิผลการดำเนินนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบล ปากแพรก อำเภอบางสะพานน้อย จังหวัดประจวบคีรีขันธ์ อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 สอดคล้องกับงานวิจัยของ นิติรัฐ เรืองกำเนิด (2563: 1,093) วิจัยเรื่อง การประเมินผลการนำนโยบายไปปฏิบัติ การจ่ายเงินสงเคราะห์เพื่อการยังชีพสำหรับผู้สูงอายุ ของเทศบาลเมืองปัตตานี อำเภอเมือง จังหวัดปัตตานี ผลการวิจัยพบว่า กลุ่มตัวอย่างที่มีอายุ การศึกษา อาชีพ สถานภาพ รายได้ และแหล่งที่มาของรายได้ต่างกัน มีระดับความคิดเห็นต่อโครงการจ่ายเงินสงเคราะห์เพื่อการยังชีพสำหรับผู้สูงอายุ โดยภาพรวมแตกต่างกัน อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 แต่ไม่สอดคล้องกันในด้านเพศ พบว่า กลุ่มตัวอย่าง ที่มีเพศแตกต่างกัน มีระดับความคิดเห็นต่อโครงการจ่ายเงินสงเคราะห์เพื่อการยังชีพสำหรับผู้สูงอายุ โดยรวมและรายด้านไม่แตกต่างกัน อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

เอกสารอ้างอิง

ครรชิต บรรลุผล. (2554). *ความพึงพอใจของผู้สูงอายุต่อการให้บริการสงเคราะห์เบี้ยยังชีพเชิงรุกขององค์การบริหารส่วนตำบลคำแมด อำเภอซำสูง จังหวัดขอนแก่น*. การค้นคว้าอิสระรัฐศาสตร์มหาบัณฑิต, มหาวิทยาลัยราชภัฏมหาสารคาม.

ชญาณิศา รักษาเวียง. (2563). ประสิทธิผลการดำเนินงานตามนโยบายเบี้ยยังชีพผู้สูงอายุขององค์การบริหารส่วนตำบลหนองพลับ อำเภอหัวหิน จังหวัดประจวบคีรีขันธ์. *วารสารบัณฑิตวิทยาลัย มหาวิทยาลัยราชภัฏจันทร์เกษม, 15*(1), 44-60.

ธนวัฒน์ ปินตา และคณะ. (2561). *ความพึงพอใจของผู้สูงอายุที่มีต่อการจัดการเงินสงเคราะห์เบี้ยยังชีพของเทศบาลตำบลร้องกวาง อำเภอร้องกวาง จังหวัดแพร่*. รายงานการประชุมวิชาการราชภัฏรัฐศาสตร์และรัฐประศาสนศาสตร์แห่งชาติครั้งที่ 1 รัฐศาสตร์และรัฐประศาสนศาสตร์ในศตวรรษที่ 21, 258-271.

นิติรัฐ เรืองกำเนิด. (2563). *การประเมินผลการนำนโยบายไปปฏิบัติ การจ่ายเงินสงเคราะห์เพื่อการยังชีพสำหรับผู้สูงอายุ ของเทศบาลเมืองปัตตานี อำเภอเมือง จังหวัดปัตตานี*. การประชุมหาดใหญ่วิชาการระดับชาติและนานาชาติครั้งที่ 11, 1,093-1,110.

เมธี ถูกแบบ. (2555). ปัจจัยที่ส่งผลต่อความสำเร็จของการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติ: ศึกษาองค์การบริหารส่วนตำบลในเขตอำเภอพนมไพร จังหวัดร้อยเอ็ด. *วารสารศรีนครินทรวิโรฒวิจัยและพัฒนา, 4*(7),89-102.

รุจิราภรณ์ นาแข็งฤทธิ์. (2558). *ความเป็นธรรมของระบบเบี้ยยังชีพผู้สูงอายุในเขตเมืองและเขตชนบท*. สารนิพนธ์พัฒนาแรงงานและสวัสดิการมหาบัณฑิต, มหาวิทยาลัยธรรมศาสตร์.

สิทธิชัย บัวขาว. (2557). คุณภาพชีวิตผู้สูงอายุหลังได้รับเบี้ยยังชีพขององค์การบริหารส่วนตำบลทุ่งเทิน อำเภอเดชอุดม จังหวัดอุบลราชธานี. *วารสารวิชาการมหาวิทยาลัยปทุมธานี, 6*(3), 138-145.

เอนก ศรีนันท์ และ นิเทศ ตินณะกุล. (2563). ปัจจัยที่ส่งผลต่อประสิทธิผลการนำนโยบายเบี้ยยังชีพผู้สูงอายุไปปฏิบัติของเทศบาลเมืองในจังหวัดปทุมธานี. *วารสารมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยเอเชียอาคเนย์, 4*(2), 8-26.

Green, S. B. (1991). How Many Subjects Dose It Take to Do a Regression Analysis?. *Multivariate Behavioral Research, 26*(3), 499-510.

แนวทางการลดค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนา: กรณีศึกษา สภาเกษตรกรจังหวัดปราจีนบุรี

Guidelines for reducing expenses in organizing training and seminars a case study of Prachinburi Farmers Council

จิราภรณ์ เพ็ญสุข / Jiraporn Pensuk
คณะบริหารธุรกิจ มหาวิทยาลัยหอการค้าไทย / Faculty of Business Administration, University of the Thai Chamber of Commerce
E-mail: kwanlambo@gmail.com

บทคัดย่อ

การอบรมสัมมนาเป็นกิจกรรมที่สำคัญขององค์กรและบ่อยครั้งที่องค์กรสูญเสียค่าใช้จ่ายโดยไม่เกิดความคุ้มค่า งานวิจัยนี้จัดทำขึ้นเพื่อศึกษาหาแนวทางการลดค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนาและเพื่อใช้เป็นแนวทางในการวางแผนด้านการบริหารจัดการ การจัดกิจกรรมอบรมสัมมนาโดยใช้สภาเกษตรกรจังหวัดปราจีนบุรีเป็นกรณีศึกษา ซึ่งพบปัญหาคือเกษตรกรไม่มาเข้าร่วมอบรมทำให้องค์กรสูญเสียค่าใช้จ่าย การวิจัยใช้การศึกษาปัจจัย 2 ปัจจัย ได้แก่ความพึงพอใจในการบริการและความพึงพอใจในการมีส่วนร่วม จากสมมติฐานที่คาดว่าการเข้าร่วมของเกษตรกรมาจากความพึงพอใจจาก 2 ปัจจัยดังกล่าว โดยเก็บรวบรวมข้อมูลจากเครือข่ายเกษตรกรจำนวน 300 คน ที่ระดับความเชื่อมั่นร้อยละ 95 ของ ทาโร่ ยามาเน่ ด้วยแบบสอบถามและสัมภาษณ์ผู้ที่เกี่ยวข้องจำนวน 25 คน และนำมาการวิเคราะห์ทางสถิติ แจกแจงความถี่ ร้อยละ ตามมาตรวัดแบบ Likert's Scale และเครื่องมือแผนผังก้างปลา ผลวิจัยพบว่าปัจจัยที่มีผลต่อการตัดสินใจไม่เข้าร่วมกิจกรรมของเกษตรกรไม่ได้เกิดจากสาเหตุที่เกษตรกรไม่พึงพอใจในการบริการและการมีส่วนร่วม แต่เกิดจากปัจจัยส่วนบุคคลที่ทำให้เกษตรกรไม่สามารถมาเข้าร่วมการอบรมสัมมนาได้และจากการศึกษาสาเหตุที่ทำให้สูญเสียค่าใช้จ่าย เกิดจากกระบวนการทำงานของบุคลากรภายในหน่วยงานที่ขาดประสิทธิภาพด้านการวางแผนและการปฏิบัติงาน และการใช้แนวทางในการปรับปรุงกระบวนการทำงานของพนักงาน จะสามารถแก้ไขปัญหาในการสูญเสียค่าใช้จ่ายขององค์กรได้

คำสำคัญ: ค่าใช้จ่าย, เกษตรกร, สภาเกษตรกรจังหวัดปราจีนบุรี, ความพึงพอใจ, สัมมนา

Abstract

Seminars are a crucial business activity, but they frequently cost more than they are worth. The goal of this study was to figure out how to cut the cost of training and seminars. And to be utilized as a planning tool for management Organizing events for training and seminars. Prachinburi Farmers Council is the organization of this case study. The issue was that the farmers did not show up for the training, resulting in a loss of funds for the organization. Two factor studies were employed in the study. There are two types of satisfaction: service satisfaction and involvement satisfaction. Farmers' participation was thought to be based on their satisfaction with these two elements. By gathering information from a group of 300 farmers. Taro Yamane's confidence level is 95 percent, based on a questionnaire and interviews with 25 people. as well as for statistical purposes Frequency distribution, percentage, and fishbone mapping tool based on Likert's Scale. Farmers' unhappiness with services and participation were not among the factors influencing their decision not to engage in events, according to the findings. However, farmers are unable to attend the training and seminars owing to personal reasons. Through the research of the causes for the loss of expenditures caused by inefficient work processes of personnel within the unit in planning and operations, as well as the application of guidelines to enhance employee work processes, will be able to solve the problem of the organization's cost loss.

Keywords: Expenses, Farmers, Prachinburi Farmers Council, Satisfaction, Seminar

บทนำ

การอบรมสัมมนาเป็นกิจกรรมที่สำคัญในการแลกเปลี่ยนความคิดเห็นและองค์ความรู้ระหว่างผู้เข้าร่วม ทำให้รู้ถึงข้อเท็จจริงทั้งหมดของปัญหาและความคิดเห็นที่มีต่อหัวข้อในการจัดอบรมสัมมนานั้นๆ รวมถึงเป็นการพัฒนาองค์ความรู้ของผู้ที่ได้รับการถ่ายทอดผ่านกิจกรรมอบรมสัมมนาเพื่อที่จะหาแนวทางการแก้ไขปัญหาหรือพัฒนาไปได้อย่างถูกวิธี ซึ่งทุกๆองค์กรต้องมีการจัดสรรงบประมาณเพื่อนำไปจัดกิจกรรมนี้ทั้งสิ้น รวมถึงหน่วยงานภาครัฐเช่นเดียวกัน ผลงานวิจัยของธรรมศักดิ์ รัตนธัญญา (2560-2561: 25-26) เรื่อง “แนวทางการใช้งบประมาณให้คุ้มค่าสำหรับการฝึกอบรมประชาชนเพื่อสนับสนุนงานของหน่วยงานภาครัฐ” พบข้อเท็จจริงจากรายงานการวิเคราะห์การจัดสรรงบประมาณจังหวัดและกลุ่มจังหวัดประจำปีงบประมาณ พ.ศ.2560 ร้อยละ 60.71 ในงบดำเนินงานทั้งหมดถูกนำไปใช้จ่ายในค่าจ้างเหมาบริการและค่าใช้จ่ายในการสัมมนา

และฝึกอบรม จึงมีการขอให้ทบทวนและหาแนวทางลดค่าใช้จ่ายในการจ้างเหมาบริการและค่าใช้จ่ายในการสัมมนาและฝึกอบรม เพื่อให้อยู่ในระดับที่เหมาะสมเนื่องจากงบประมาณที่ได้รับการจัดสรรมีอยู่อย่างจำกัด ประกอบกับการค้นหาข้อมูลปัญหาในการฝึกอบรม ของ เกื้อจิตร ชีระกาญจน์ (2560) ในบทความ:บทเรียนด้านการบริหารทรัพยากรมนุษย์ เรื่อง "ปัญหาในการฝึกอบรมและพัฒนา" ได้สรุปปัญหาที่พบเจอในการฝึกอบรมและพัฒนา อาทิ ปัญหาเกี่ยวกับงบประมาณ ปัญหาที่เกี่ยวกับผู้เข้ารับการฝึกอบรม ที่ถึงแม้ว่าการฝึกอบรมจะมีปัจจัยทุกอย่างอย่างเพียบพร้อมและสามารถดำเนินการได้อย่างดี แต่ถ้าหากผู้เข้ารับการอบรมไม่ให้ความร่วมมือ เช่น ก็ไม่เข้าร่วมกิจกรรม การไม่ให้ความร่วมมือ และการไม่สนใจกับการฝึกอบรม เป็นต้น ก็ส่งผลให้การฝึกอบรมนั้นล้มเหลวได้ รวมถึงยังกล่าวถึงปัญหาอีกหลายด้าน เช่น ปัญหาเกี่ยวกับกำลังเจ้าหน้าที่ ที่ถ้าหากมีไม่เพียงพอ ก็จะทำให้การดำเนินการไม่ราบรื่น ปัญหาเกี่ยวกับผู้รับผิดชอบโครงการฝึกอบรม หากผู้รับผิดชอบโครงการไม่รู้จักบทบาท หน้าที่ และความรับผิดชอบอย่างชัดเจน รวมถึงไม่เห็นความสำคัญของการฝึกอบรมและไม่รับผิดชอบต่องาน ก็ส่งผลให้เกิดความล้มเหลวได้เช่นกัน ซึ่งสอดคล้องกับปัญหาของสภาเกษตรกรจังหวัดปราจีนบุรีที่ใช้เป็นกรณีศึกษาในครั้งนี้ เนื่องจากองค์กรประสบปัญหาจากการที่เครือข่ายเกษตรกรที่ได้รับการประสานให้เข้าร่วมกิจกรรมอบรมสัมมนาไม่มาเข้าร่วมกิจกรรมอบรมสัมมนาเมื่อถึงวันจัดกิจกรรม ประกอบกับเมื่อศึกษาข้อมูลสถิติจำนวนเกษตรกรที่เข้าร่วมกิจกรรมย้อนหลัง 3 ปี พบว่าเกษตรกรไม่มาเข้าร่วมกิจกรรมในปีงบประมาณ 2561 ร้อยละ 40 ในปีงบประมาณ 2562 ร้อยละ 31.89 และในปีงบประมาณ 2563 ร้อยละ 42.21 ทำให้สภาเกษตรกรจังหวัดปราจีนบุรีต้องสูญเสียค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนา ในปีงบประมาณ 2561อยู่ที่ 104,000 บาท ในปีงบประมาณ 2562 อยู่ที่ 105,300 บาท และในปีงบประมาณ 2563 อยู่ที่ 133,900 บาท จากค่าใช้จ่ายที่สูญเสียไปในการจัดกิจกรรม ผู้วิจัยจึงต้องการทำการศึกษาสาเหตุที่เกษตรกรไม่มาเข้าร่วมกิจกรรม เพื่อใช้เป็นแนวทางในการลดค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนาของสภาเกษตรกรจังหวัดปราจีนบุรี ซึ่งผู้วิจัยได้ตั้งสมมติฐานว่าสาเหตุของการไม่เข้าร่วมกิจกรรมอบรมสัมมนาของเกษตรกรมีผลมาจากเกษตรกรไม่มีความพึงพอใจในการบริการและการมีส่วนร่วม เนื่องจากกิจกรรมหลักของหน่วยงานเป็นการจัดกิจกรรมอบรมสัมมนา จึงเกี่ยวข้องกับการการบริการและเนื่องจากหน่วยงานเป็นหน่วยงานภาครัฐที่เน้นการมีส่วนร่วมของเกษตรกรในการจัดกิจกรรม เพื่อตอบสนองปัญหาและความต้องการของเกษตรกรในพื้นที่เป็นหลัก ในการศึกษาความพึงพอใจในการบริการและการมีส่วนร่วมของเกษตรกรครั้งนี้ด้วย เพื่อนำข้อมูลที่ได้ไปใช้ในการพัฒนาและปรับปรุงการวางแผนการปฏิบัติงานให้มีประสิทธิภาพมากยิ่งขึ้น ผลงานวิจัยของ อาทิตย์ ทองพิมพ์ (2556: 49) เรื่อง "ปัจจัยที่เกี่ยวข้องกับความพึงพอใจของเกษตรกรต่อการดำเนินงาน โครงการขึ้นทะเบียนพืชเศรษฐกิจ ใน

อำเภอบางละมุง จังหวัดชลบุรี” ได้กำหนดประเด็นศึกษาเกี่ยวกับความพึงพอใจของเกษตรกรต่อการดำเนินโครงการขึ้นทะเบียนพืชเศรษฐกิจ ได้แก่ เพศ อายุ จำนวนสมาชิกครัวเรือน ระดับการศึกษา การเป็นสมาชิกองค์กร ประสบการณ์ในการผลิตผลผลิตทางการเกษตร ขนาดพื้นที่ผลิตผลผลิตทางการเกษตร ลักษณะการถือครองที่ดิน จำนวนแรงงานในครัวเรือน ผลผลิตทางการเกษตรที่ได้รับ รายได้จากการขายผลผลิต ต้นทุนการผลิต แหล่งเงินทุนและปัจจัยอื่นๆ มาเป็นข้อมูลปัจจัยพื้นฐานของเกษตรกร และใช้ปัจจัยที่มีผลต่อความพึงพอใจของเกษตรกร ได้แก่ การปฏิบัติงานของเจ้าหน้าที่ผู้ให้บริการ สื่อประชาสัมพันธ์และความเหมาะสมของระยะเวลาและสถานที่ ซึ่งเป็นรายละเอียดเกี่ยวกับการให้บริการของเจ้าหน้าที่ในการจัดกิจกรรม เช่นเดียวกับผลงานวิจัยของ เชาวนี โคมแก้ว (2555: 48) เรื่อง “ความพึงพอใจของเกษตรกรต่อการเข้าร่วมโครงการประกันรายได้เกษตรกรผู้ปลูกข้าว ปี 2553/2554 รอบที่ 2 ในเขตอำเภอพุทธมณฑล จังหวัดนครปฐม” ได้กำหนดปัจจัยพื้นฐานส่วนบุคคลของเกษตรกรในการศึกษาความพึงพอใจของเกษตรกรต่อการเข้าร่วมโครงการประกันรายได้ฯ ได้แก่ เพศ อายุ ระดับการศึกษา แรงงานในครัวเรือน พื้นที่การเพาะปลูก พื้นที่เข้าร่วมโครงการ พันธุ์พืช รายได้ การรับรู้ข่าว และความถี่ในการเข้าร่วมโครงการและใช้ปัจจัยด้านการประชาสัมพันธ์ การปฏิบัติงานของเจ้าหน้าที่ สถานที่และระยะเวลาเข้ามาวัดความพึงพอใจของเกษตรกร ซึ่งทั้งสองงานวิจัยบ่งบอกถึงความพึงพอใจในการให้บริการ ส่งผลทำให้เกษตรกรมาเข้าร่วมกิจกรรมและโครงการต่างๆ มากยิ่งขึ้น รวมถึงการเน้นการมีส่วนร่วมของเกษตรกรตั้งแต่ต้นน้ำ กลางน้ำและปลายน้ำสามารถสร้างการมีส่วนร่วมของเกษตรกรในการร่วมกำหนดแผนงานโครงการและกิจกรรมที่จะจัดขึ้นโดยหน่วยงานได้อีกด้วย ผลวิจัยของ วิษณุ หยกจินดา (2557: 70-71) เรื่อง “การมีส่วนร่วมของประชาชนในการพัฒนาชุมชนหมู่บ้านทุ่งกร่าง ตำบลทับไทร อำเภอโป่งน้ำร้อน จังหวัดจันทบุรี” ผู้วิจัยได้กล่าวไว้ว่าในทุกโครงการของการพัฒนาชุมชนนั้น ประชาชนที่อยู่ในหมู่บ้านทุกคนย่อมมีส่วนได้รับผลประโยชน์ไม่ว่าจะทางตรงหรือทางอ้อม ซึ่งโครงการทุกโครงการนั้นย่อมส่งผลให้ชีวิตความเป็นอยู่ของประชาชนดีขึ้น ซึ่งสอดคล้องกับระดับการประเมินผลการมีส่วนร่วมของประชาชนในชุมชนออกมาได้ในระดับมาก และการศึกษาถึงข้อจำกัดของเกษตรกรในการไม่มาเข้าร่วมกิจกรรมอบรมสัมมนา ผลวิจัยของรังสรรค์ เครือคำ (2554) เรื่อง “การมีส่วนร่วมของเกษตรกรในการพัฒนาการเกษตรและการจัดการทรัพยากรอย่างยั่งยืน บนพื้นที่สูงในเขตพื้นที่โครงการหลวง จังหวัดเชียงใหม่” ผลการวิจัยพบว่าปัญหาของเกษตรกรเกี่ยวกับการมีส่วนร่วมกับโครงการ คือเกษตรกรมีข้อจำกัดในเรื่องของเวลา เนื่องจากการทำการเกษตรจะต้องใช้เวลาในการดูแลฟาร์มค่อนข้างมาก และการขาดการมีส่วนร่วมในการออกแบบโครงการตั้งแต่ต้นทำให้รู้สึกว่าโครงการที่จัดขึ้นไม่เกี่ยวข้องกับตนเอง ซึ่งจะนำมาใช้ในการสำรวจถึงสาเหตุหลักของการไม่มาเข้าร่วมอบรมสัมมนา

ของเกษตรกรในครั้งนี้ด้วย และมีความเชื่อมโยงถึงการมีส่วนร่วมของเกษตรกรต่อโครงการที่จัดขึ้น พร้อมทั้งวิเคราะห์สาเหตุของการสูญเสียค่าใช้จ่ายจากบุคลากรภายในองค์กร รวมถึงหาแนวทางการลดค่าใช้จ่ายที่มาจากการปรับปรุงการทำงานของเจ้าหน้าที่ ผลการวิจัยของ วาม คำภา (2546) เรื่อง “การปรับปรุงการทำงานโดยเพิ่มประสิทธิภาพการรับส่งข้อมูลโดยใช้ WAP” ได้สรุปผลการวิจัยไว้ว่าจากการนำระบบติดต่อสอบถามข้อมูลผ่านทางโทรศัพท์มือถือมาประยุกต์ใช้ในการทำงานของพนักงานขาย สามารถลดค่าใช้จ่ายและเวลาในการทำงานลงได้ พร้อมยังช่วยส่งเสริมภาพลักษณ์และลดความผิดพลาดจากการปฏิบัติงานของพนักงานลงได้ ซึ่งบอกถึงการปรับปรุงคุณภาพจากภายในองค์กรที่สามารถลดค่าใช้จ่ายและเวลาในการทำงานได้

H1: ปัจจัยเฉพาะบุคคล ข้อมูลทั่วไปของผู้ทำแบบสอบถาม ได้แก่ เพศ อายุ สถานภาพ สถานะในครัวเรือน จำนวนสมาชิกในครัวเรือน ประเภทของการทำการเกษตรกรรม จำนวนสมาชิกในการทำการเกษตร จำนวนพื้นที่ในการทำการเกษตร รายได้ของครัวเรือนและรายจ่ายของครัวเรือน

H2: ปัจจัยที่มีผลต่อการเข้าร่วมและไม่เข้าร่วมกิจกรรมอบรมสัมมนาของเกษตรกร โดยวัดจากความพึงพอใจในการบริการและความพึงพอใจในการมีส่วนร่วม ซึ่งเป็นการวัดความพึงพอใจของเกษตรกรในเครือข่ายที่มีต่อคุณภาพในการให้บริการของหน่วยงานและความพึงพอใจในการส่งเสริมการมีส่วนร่วมในการจัดกิจกรรมอบรมสัมมนาโดยสภาเกษตรกรจังหวัดปราจีนบุรี โดยมีสมมติฐานว่าถ้าหากเกษตรกรมีความพึงพอใจมากเกษตรกรจะมาเข้าร่วมการอบรมสัมมนาที่จัดขึ้น พร้อมทั้งนำผลที่ได้ไปวิเคราะห์หาสาเหตุของการสูญเสียค่าใช้จ่ายและหาแนวทางในการลดค่าใช้จ่ายในการจัดอบรมสัมมนาของสภาเกษตรกรจังหวัดปราจีนบุรี โดยงานวิจัยนี้มีวัตถุประสงค์ คือ 1) เพื่อศึกษาหาแนวทางการลดค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนา และ 2)เพื่อใช้เป็นแนวทางในการวางแผนด้านการบริหารจัดการ การจัดกิจกรรมอบรมสัมมนา

วิธีการวิจัย

ประชากรและตัวอย่าง

สภาเกษตรกรจังหวัดปราจีนบุรี มีเครือข่ายเกษตรกรระดับ หมู่บ้าน ตำบล และอำเภอ โดยมีจำนวนทั้งหมด 658 คน และใช้การคำนวณหากลุ่มตัวอย่างเพื่อจัดทำแบบสอบถาม โดยใช้สูตรของ ทาโร่ ยามาเน่ พิชิต ฤทธิ์จรูญ (2549: 220) ที่ระดับความเชื่อมั่นร้อยละ 95 ความคลาดเคลื่อนร้อยละ 5 จะได้กลุ่มประชากรตัวอย่างที่ 249 คน ในการนี้จึงขอใช้จำนวนกลุ่มตัวอย่างที่ 300 คน โดยจะกระจายการเก็บแบบสอบถามให้ทั่วทุกอำเภอในจังหวัดปราจีนบุรี จังหวัดปราจีนบุรีมีจำนวนอำเภอทั้งสิ้น 7 อำเภอ ดังนั้นแล้วใช้การสุ่ม คือ จำนวนกลุ่มตัวอย่าง ÷ จำนวนอำเภอ โดยให้ทุกอำเภอ อำเภอละ 42 คน และกำหนดให้อำเภอเมือง 43 คน ระยะเวลาในการเก็บแบบสอบถามประมาณ 1 เดือน และ

จำนวนประชากรกลุ่มที่เลือกมาเพื่อทำการสัมภาษณ์เชิงลึก คือ ตัวแทนเกษตรกรของสภาเกษตรกรระดับอำเภอ ซึ่งเป็นสมาชิกของสภาเกษตรกรจังหวัดปราจีนบุรีโดยตำแหน่ง จำนวนทั้งสิ้น 19 คน รวมถึงเจ้าหน้าที่ของสำนักงานสภาเกษตรกรจังหวัดปราจีนบุรีเกี่ยวข้องกับการจัดกิจกรรม 6 คน

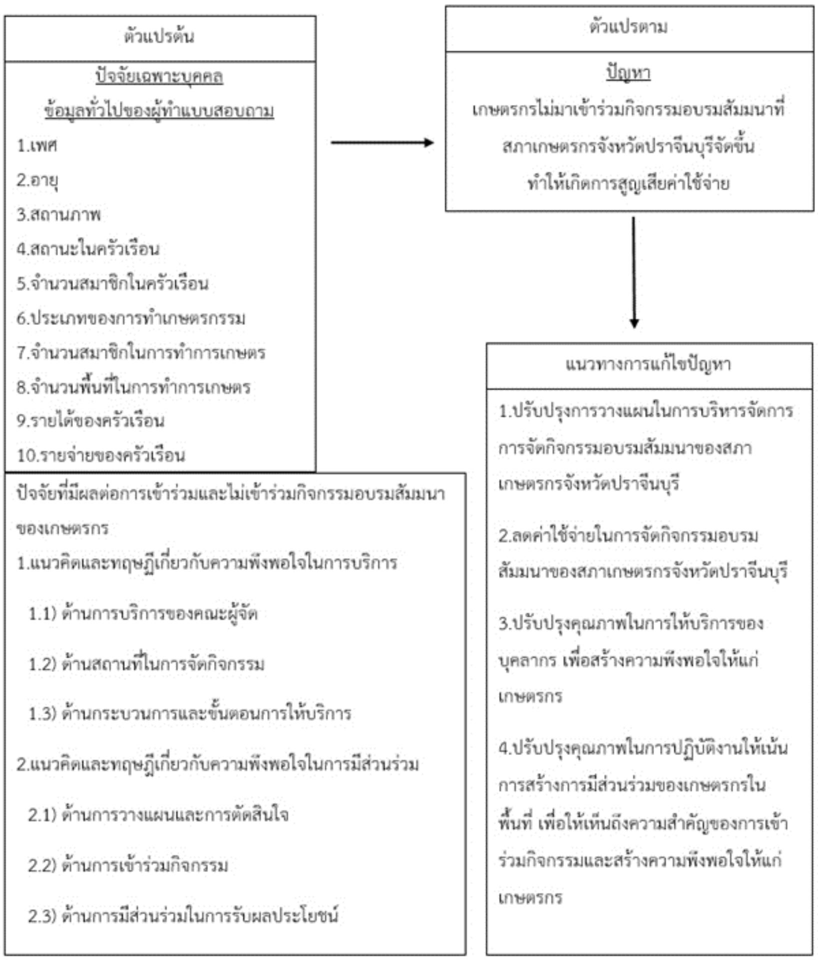
การเก็บรวบรวมและการวิเคราะห์ข้อมูล

การรวบรวมข้อมูลในครั้งนี้แบ่งเป็นเชิงปริมาณและเชิงคุณภาพ ดังนี้ 1) เชิงปริมาณ การเก็บแบบสอบถามกับเกษตรกรที่เป็นเครือข่ายของสภาเกษตรกรจังหวัดปราจีนบุรีระดับ หมู่บ้าน ตำบล และอำเภอ ถึงสาเหตุที่เกษตรกรไม่เข้าร่วมกิจกรรมที่จัดขึ้น จำนวน 300 คน 2) เชิงคุณภาพ การสัมภาษณ์เกษตรกรถึงปัจจัยที่มีผลต่อการเข้าร่วมกิจกรรมที่จัดขึ้นโดยสภาเกษตรกรจังหวัดปราจีนบุรี ข้อมูลที่ใช้ในการศึกษาครั้งนี้แบ่งออกเป็น 2 ส่วน คือ 1) ข้อมูลปฐมภูมิ ใช้วิธีการเก็บแบบสอบถามจำนวน 300 ชุด กลุ่มประชากรที่เลือกในการเก็บข้อมูล คือ เครือข่ายเกษตรกรของสภาเกษตรกรจังหวัดปราจีนบุรี และการสัมภาษณ์เชิงลึกแก่ผู้ที่เกี่ยวข้อง จำนวนทั้งสิ้น 25 คน 2) ข้อมูลแบบทุติยภูมิ ได้แก่ (1) ข้อมูลสถิติจำนวนเกษตรกรที่เข้าร่วมกิจกรรมของสภาเกษตรกรจังหวัดปราจีนบุรี ตั้งแต่ปีงบประมาณ 2561-2563 (2) ข้อมูลสถิติเงินงบประมาณที่ได้รับการจัดสรรให้สภาเกษตรกรจังหวัดปราจีนบุรี ตั้งแต่ปีงบประมาณ 2561-2564 (3) ข้อมูลสถิติผลการปฏิบัติงานของสำนักงานสภาเกษตรกรจังหวัดปราจีนบุรี ตั้งแต่ปีงบประมาณ 2561-2563

แบบสอบถามข้อมูลถึงความพึงพอใจในการมาเข้าร่วมกิจกรรมของสภาเกษตรกรจังหวัดปราจีนบุรี โดยแบ่งส่วนของแบบสอบถามออกเป็น 4 ส่วน ดังต่อไปนี้ ส่วนที่ 1 ข้อมูลทั่วไปของผู้ทำแบบสอบถาม จำนวน 10 ข้อ ส่วนที่ 2 ความพึงพอใจของเกษตรกรต่อการบริการและการมีส่วนร่วมในการจัดกิจกรรม/โครงการของสภาเกษตรกรจังหวัดปราจีนบุรี จำนวน 20 ข้อ โดยแบ่งเกณฑ์ระดับความพึงพอใจออกเป็น 5 ระดับ ตามมาตรวัดแบบ Likert's Scale วรรณพร ศิริวัฒน์ (2549: 35-38) โดยที่ 5 หมายถึง ระดับที่พึงพอใจมากที่สุด และ 1 หมายถึง ระดับความพึงพอใจน้อยที่สุด ส่วนที่ 3 ข้อมูลเกี่ยวกับการเข้าร่วมกิจกรรมที่จัดขึ้นโดยสภาเกษตรกรจังหวัดปราจีนบุรี โดยเป็นสาเหตุที่ท่านไม่สามารถมาเข้าร่วมกิจกรรมได้ ส่วนที่ 4 ความคิดเห็นและข้อเสนอแนะอื่นๆ

ผู้วิจัยใช้การวิเคราะห์ข้อมูลด้วยวิธีทางสถิติ แจกแจงความถี่ ร้อยละ ตามมาตรวัดแบบ Likert's Scale ใช้ในการวิเคราะห์ข้อมูลที่ได้จากการจัดเก็บแบบสอบถาม

กรอบแนวคิดการวิจัย



ภาพที่ 1 กรอบแนวคิดการวิจัย

ผลการวิจัย

ปัจจัยเฉพาะบุคคล

จากการสรุปข้อมูลทั่วไปของผู้ทำแบบสอบถามส่วนใหญ่เป็นเพศชายชาย จำนวน 246 คน คิดเป็นร้อยละ 82.00 อายุส่วนใหญ่อยู่ที่ 51-60 ปี จำนวน 151 คน คิดเป็นร้อยละ 50.33 มีสถานภาพสมรส จำนวน 181 คน คิดเป็นร้อยละ 60.33 เป็นเจ้าบ้านจำนวน 209 คน คิดเป็นร้อยละ 69.67 มีจำนวนสมาชิกในครัวเรือนอยู่ที่ 4 คนขึ้นไป จำนวน 178 คน คิดเป็นร้อยละ 59.34 ทำการเกษตรในด้านพืช จำนวน 196 คน คิดเป็นร้อยละ 65.33 และส่วนใหญ่สมาชิกที่ช่วยในการทำการเกษตรตั้งแต่ 4 คนขึ้นไป จำนวน 187 คน คิดเป็นร้อยละ 62.33 และมีพื้นที่ในการทำการเกษตรอยู่ที่ 5 ไร่ขึ้นไป จำนวน 229 คน คิดเป็นร้อยละ76.33 โดยมีรายได้ของครัวเรือนต่อเดือนมากกว่า 20,000 บาท

จำนวน 207 คน คิดเป็นร้อยละ 69.00 รายจ่ายของครัวเรือนต่อเดือนอยู่ที่ 10,001-20,000 บาท จำนวน 117 คน คิดเป็นร้อยละ 39.00

ความพึงพอใจในการบริการ

ระดับความพึงพอใจด้านการบริการที่มีต่อการจัดกิจกรรม/โครงการของสภาเกษตรกรจังหวัดปราจีนบุรี ด้านการบริการของคณะผู้จัด อยู่ในระดับความพึงพอใจมากถึงมากที่สุด ($\bar{x}$ = 4.34)

ระดับความพึงพอใจด้านการบริการที่มีต่อการจัดกิจกรรม/โครงการของสภาเกษตรกรจังหวัดปราจีนบุรี ด้านสถานที่ในการจัดกิจกรรม อยู่ในระดับความพึงพอใจมากที่สุด ($\bar{x}$ = 4.37)

ระดับความพึงพอใจด้านการบริการที่มีต่อการจัดกิจกรรม/โครงการของสภาเกษตรกรจังหวัดปราจีนบุรี ด้านกระบวนการและขั้นตอนการให้บริการ อยู่ในระดับความพึงพอใจมากที่สุด ($\bar{x}$ = 4.38)

ความพึงพอใจในการมีส่วนร่วม

ระดับความพึงพอใจด้านการมีส่วนร่วมของเกษตรกรที่มีต่อการจัดกิจกรรม/โครงการของสภาเกษตรกรจังหวัดปราจีนบุรี ด้านการวางแผนและการตัดสินใจ อยู่ในระดับความพึงพอใจมากถึงมากที่สุด ($\bar{x}$ = 4.27)

ระดับความพึงพอใจด้านการมีส่วนร่วมของเกษตรกรที่มีต่อการจัดกิจกรรม/โครงการของสภาเกษตรกรจังหวัดปราจีนบุรี ด้านการเข้าร่วมกิจกรรม อยู่ในระดับความพึงพอใจมากที่สุด ($\bar{x}$ = 4.30)

ระดับความพึงพอใจด้านการมีส่วนร่วมของเกษตรกรที่มีต่อการจัดกิจกรรม/โครงการของสภาเกษตรกรจังหวัดปราจีนบุรี ด้านการมีส่วนร่วมในการรับผลประโยชน์ อยู่ในระดับความพึงพอใจมากที่สุด ($\bar{x}$ = 4.37)

ความถี่และสาเหตุของการไม่เข้าร่วมกิจกรรม

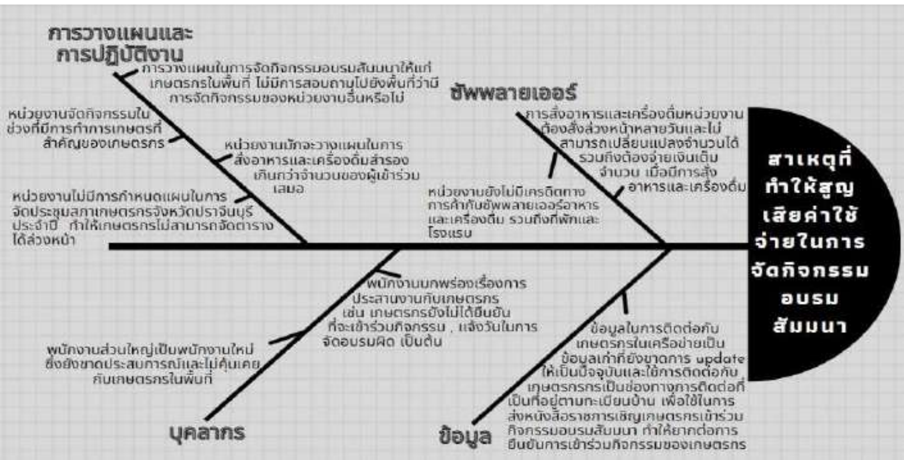
ความบ่อยครั้งของการเข้าร่วม/ไม่เข้าร่วมกิจกรรมของเกษตรกร มาเข้าร่วมกิจกรรมและไม่มาเข้าร่วมกิจกรรมในอัตราที่เท่ากัน จำนวน 105 คน คิดเป็นร้อยละ 35.00

เกษตรกรส่วนใหญ่มีสาเหตุของการไม่มาเข้าร่วมกิจกรรมที่จัดขึ้นโดยสภาเกษตรกรจังหวัดปราจีนบุรี มาจากการที่ต้องทำการเกษตรในแปลงของตน เนื่องจากเป็นช่วงเวลาที่สำคัญ เช่น ช่วงเก็บเกี่ยวผลผลิตต้องนำผลผลิตที่เก็บเกี่ยวไปขาย, ต้องพ่นยา ปุ๋ย และเคมีภัณฑ์เนื่องจากถึงรอบในการบำรุง, ช่วงเวลาในการหว่านข้าว, ช่วงที่ต้องดักกุ้งหรือจับปลาไปขาย เป็นต้น จำนวนทั้งสิ้น 163 คน จาก 300 คนที่ได้ทำแบบสอบถามนี้ คิดเป็นร้อยละ 54.33 ส่วนใหญ่มีความคิดเห็นต่อการเข้าร่วมหรือไม่เข้าร่วมกิจกรรมที่จัดขึ้นโดยสภาเกษตรกรจังหวัดปราจีนบุรีว่าการมาเข้าร่วมกิจกรรมเป็นเรื่องที่สำคัญและตัวของเกษตรกรจะได้รับประโยชน์จากการเข้าร่วม จำนวน 252 คน คิดเป็นร้อยละ 84.00 และเกษตรกรส่วนใหญ่ต้องการให้คณะผู้จัดกิจกรรมโทรแจ้งประสานให้เข้าร่วม

กิจกรรมเมื่อมีจัดกิจกรรมในครั้งต่อไป จำนวน 177 คน คิดเป็นร้อยละ 59.00 โดยมีระยะเวลาโทรแจ้งประสานเข้าร่วมกิจกรรมก่อนถึงวันที่จะจัดกิจกรรม 2 สัปดาห์ ก่อนถึงวันจัดกิจกรรม จำนวน 97 คน คิดเป็นร้อยละ 32.33 และมีช่องทางการประสานให้เข้าร่วมกิจกรรมที่เหมาะสมที่สุดสำหรับเกษตรกรส่วนใหญ่คือโทรศัพท์ จำนวน 213 คน คิดเป็นร้อยละ 71.00

การทดสอบสมมติฐานของการวิจัย

จากข้อมูลที่ได้จากการสัมภาษณ์และการรวบรวมแบบสอบถาม พบว่าเกษตรกรมีความพึงพอใจด้านการบริการที่มีต่อการจัดกิจกรรมของสภาเกษตรกรจังหวัดปราจีนบุรี อยู่ในระดับความพึงพอใจมากถึงมากที่สุด และเกษตรกรมีความพึงพอใจด้านการมีส่วนร่วมของเกษตรกร ที่มีต่อการจัดกิจกรรมของสภาเกษตรกรจังหวัดปราจีนบุรีอยู่ในระดับความพึงพอใจมากถึงมากที่สุด จึงสามารถสรุปได้ว่าปัจจัยที่มีผลต่อการตัดสินใจไม่เข้าร่วมกิจกรรมของเกษตรกรไม่ได้เกิดจากสาเหตุที่เกษตรกรไม่พึงพอใจในคุณภาพการให้บริการหรือการเน้นการมีส่วนร่วมของเกษตรกรในการจัดกิจกรรมของสภาเกษตรกรจังหวัดปราจีนบุรี แต่สาเหตุส่วนใหญ่เกิดจากปัจจัยส่วนบุคคลที่ส่งผลกระทบต่อเกษตรกร ทำให้เมื่อถึงวันจัดกิจกรรมอบรมสัมมนา เกษตรกรจึงไม่สามารถมาเข้าร่วมกิจกรรมได้ โดยผลสรุปจากแบบสอบถามสาเหตุส่วนใหญ่ที่เกษตรกรไม่สามารถมาร่วมกิจกรรมได้เกิดจากการที่เกษตรกรต้องทำการเกษตรในแปลงของตนเอง (ร้อยละ 54) ดังนั้นในการวิเคราะห์หาสาเหตุของปัญหา เพื่อใช้เป็นแนวทางในการลดค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนาของสภาเกษตรกรจังหวัดปราจีนบุรี โดยใช้เครื่องมือแผนผังก้างปลา ประชาสรรณ์ แสนภักดี (2547) ในการวิเคราะห์สาเหตุของปัญหาทำให้สูญเสียค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนาของสภาเกษตรกรจังหวัดปราจีนบุรี จาก 4 ปัจจัยหลัก ได้แก่ ปัจจัยด้านการวางแผนและการปฏิบัติงาน ปัจจัยด้านซัพพลายเออร์ ปัจจัยด้านบุคลากร และปัจจัยด้านข้อมูล มีสาเหตุรองทั้งสิ้น 10 สาเหตุรอง



ภาพที่ 2 แผนผังก้างปลาแสดงถึงปัจจัยหลักและสาเหตุย่อยที่ทำให้สูญเสียค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนาของสภาเกษตรกรจังหวัดปราจีนบุรี

สรุปและอภิปรายผลการวิจัย

จากผลการศึกษาแนวทางการลดค่าใช้จ่ายในการจัดกิจกรรมอบรมสัมมนาของสภาเกษตรกรจังหวัดปราจีนบุรี ผู้วิจัยนำผลการศึกษามาอภิปรายผลของการศึกษาที่เกี่ยวกับแนวคิดและทฤษฎีได้ดังต่อไปนี้

1) แนวคิดปัจจัยในด้านความพึงพอใจในการบริการ โดยภาพรวมอยู่ในระดับความพึงพอใจมากที่สุด สอดคล้องกับแนวคิดปัจจัยที่มีผลต่อความพึงพอใจของผู้รับบริการของ ศิริพร ตันติพลูวินัย (2538) ที่บอกว่าปัจจัยที่มีผลต่อความพึงพอใจของผู้รับบริการ เป็นการแสดงถึงความรู้สึกในทางบวกของผู้รับบริการ โดยมีปัจจัยที่สำคัญคือ สถานที่บริการที่อำนวยความสะดวกให้แก่ผู้เข้ารับการบริการ ผู้ให้บริการที่บริการด้วยความเต็มใจและมีความเอาใจใส่ สภาพแวดล้อม การตกแต่งสถานที่ ความพร้อมของอุปกรณ์ที่ทางผู้ให้บริการจัดเตรียมไว้สำหรับผู้เข้ารับการบริการ และประสิทธิภาพของการจัดการระบบมีผลต่อการให้บริการ

2) แนวคิดปัจจัยที่มีผลต่อความพึงพอใจของประชาชนที่มีต่อการบริการ โดยภาพรวมอยู่ในระดับความพึงพอใจมากที่สุด สอดคล้องกับแนวคิดปัจจัยที่มีผลต่อความพึงพอใจของประชาชนที่มีต่อการบริการของ มณีวรรณ ตั้นไทย (2533) ได้ให้ความหมายไว้ว่าเป็นการที่ประชาชนมีความรู้สึกยินดีที่ได้รับบริการในด้านต่างๆ โดยมีปัจจัยดังนี้ 1) ด้านความสะดวกสบายที่ได้รับ 2) ด้านเจ้าหน้าที่ผู้ให้บริการ ที่มีลักษณะบุคลิกภาพที่เหมาะสมการใช้คำพูดหรือวาจาในการให้บริการ 3) ด้านคุณภาพบริการที่ได้รับ 4) ด้านระยะเวลาในการดำเนินการ 5)ด้านข้อมูลทั่วไป

การศึกษาในครั้งนี้มีปัญหามาจากการที่เครือข่ายเกษตรกรของสภาเกษตรกรจังหวัดปราจีนบุรีไม่มาเข้าร่วมกิจกรรมที่จัดขึ้น ทำให้หน่วยงานมีค่าใช้จ่ายที่สูญเสียไปจากการที่เกษตรกรไม่เข้าร่วม และสาเหตุของการไม่เข้าร่วมกิจกกรมหรือโครงการของเกษตรกรส่วนใหญ่ จากผลของการศึกษาพบว่าเกษตรกรส่วนใหญ่มีสาเหตุของการไม่มาเข้าร่วมกิจกรรมที่จัดขึ้นโดยสภาเกษตรกรจังหวัดปราจีนบุรี มาจากการที่ต้องทำการเกษตรในแปลงของตน เนื่องจากเป็นช่วงเวลาที่สำคัญ จำนวนทั้งสิ้น 163 คน จาก 300 คนที่ได้ทำแบบสอบถามนี้ คิดเป็นร้อยละ 54.33 ซึ่งสอดคล้องกับงานวิจัยของ รังสรรค์ เครือคำ (2554) ศึกษาการมีส่วนร่วมของเกษตรกรในการพัฒนาการเกษตรยั่งยืนบนพื้นที่สูงในโครงการหลวง จังหวัดเชียงใหม่ พบว่า ปัญหาของเกษตรกรเกี่ยวกับการมีส่วนร่วมของโครงการ เกษตรกรมีข้อจำกัดในเรื่องของเวลาที่ต้องดูใช้เวลาในการดูแลฟาร์มค่อนข้างมาก และผลจากการศึกษาเกี่ยวกับปัจจัยที่มีผลต่อความพึงพอใจ คือ การบริการ สถานที่ในการจัดกิจกรรม กระบวนการและขั้นตอนการให้บริการ สอดคล้องกับงานวิจัยของ ภานุเดช เพียรความสุข (2558) ที่ได้ศึกษาเรื่องความพึงพอใจของนักศึกษาที่มีต่อการให้บริการของสำนักส่งเสริมวิชาการและงานทะเบียน มหาวิทยาลัยราชภัฏอุบลราชธานี ซึ่งปัจจัยที่มีผลกระทบ ได้แก่ 1) บุคลิกภาพของ

เจ้าหน้าที่ 2) ระบบการให้บริการ 3) สภาพแวดล้อม 4) คุณภาพการให้บริการ 5) ระยะเวลาบริการ 6) ความสะดวกในการบริการ

เอกสารอ้างอิง

เกื้อจิตร ชีระกาญจน์. (2560). *ปัญหาในการฝึกอบรมและพัฒนา*. สืบค้นจาก www.siamhrm.com/?name=chapter&file=read&max=297.

เชาวนี โคมแก้ว. (2555). *ความพึงพอใจของเกษตรกรต่อการเข้าร่วมโครงการประกันรายได้เกษตรกรผู้ปลูกข้าวปี2553/2554 รอบที่ 2 ในเขตอำเภอพุทธมณฑล จังหวัดนครปฐม*. การค้นคว้าอิสระ บัณฑิตวิทยาลัย, มหาวิทยาลัยเกษตรศาสตร์.

ธรรมศักดิ์ รัตนธัญญา. (2560). *แนวทางการใช้งบประมาณให้คุ้มค่าสำหรับการฝึกอบรมประชาชนเพื่อสนับสนุนงานของหน่วยงานภาครัฐ*. การค้นคว้าอิสระ, วิทยาลัยป้องกันราชอาณาจักร.

ประชาสรรณ์ แสนภักดี. (2547). *ผังก้างปลากับแผนภูมิความคิด*. สืบค้นจาก www.prachasan.com/mindmapknowledge/fishbonemm.htm.

พิชิต ฤทธิ์จรูญ. (2549). *ระเบียบวิธีการวิจัยทางสังคมศาสตร์*. พิมพ์ครั้งที่ 3. กรุงเทพฯ: เฮ้าส์ ออฟ เคอร์มีสท์

ภาณุเดช เพียรความสุข. (2558). *ความพึงพอใจของนักศึกษาที่มีต่อการให้บริการของสำนักส่งเสริมวิชาการและงานทะเบียนมหาวิทยาลัยราชภัฏอุบลราชธานี*. งานวิจัยสำนักส่งเสริมวิชาการและงานทะเบียน, มหาวิทยาลัยราชภัฏอุบลราชธานี.

มณีวรรณ ตั้นไทย. (2533) *พฤติกรรมการให้บริการของเจ้าหน้าที่กองควบคุมยา สำนักงานคณะกรรมการอาหารและยาที่มีต่อประชาชนที่มาติดต่อ*. กรุงเทพฯ: คณะรัฐศาสตร์ มหาวิทยาลัยธรรมศาสตร์

รังสรรค์ เครือคำ. (2554). *การมีส่วนร่วมของเกษตรกรในการพัฒนาการเกษตรยั่งยืนบนพื้นที่สูงในโครงการหลวงจังหวัดเชียงใหม่*. วิทยานิพนธ์ปริญญาวิทยาศาสตรดุษฎีบัณฑิต, มหาวิทยาลัยเชียงใหม่.

วรรณพร ศิริวัฒน์. (2561). *การลดความสูญเสียจากการจ่ายค่าตอบแทนทันตแพทย์รายชั่วโมง โดยที่ผู้ป่วยไม่มารับการรักษาตามจำนวนที่นัดหมาย ที่สถานพยาบาลธนาคารออมสิน*. การค้นคว้าอิสระ คณะบริหารธุรกิจ, มหาวิทยาลัยหอการค้าไทย

วาม คำภา. (2546). *การปรับปรุงการทำงานโดยเพิ่มประสิทธิภาพการรับส่งข้อมูลโดยใช้ WAP*. กรุงเทพฯ: มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าพระนครเหนือ

วิษณุ หยกจินดา. (2557). *การมีส่วนร่วมของประชาชนในการพัฒนาชุมชน หมู่บ้านทุ่งกร่าง ตำบลทับไทร อำเภอโป่งน้ำร้อน จังหวัดจันทบุรี*. การค้นคว้าอิสระ วิทยาลัยการบริหารรัฐกิจ, มหาวิทยาลัยบูรพา.

ศิริพร ตันติพูลวินัย. (2538). *การพยาบาลยุคโลกาภิวัตน์*. กรุงเทพฯ: กองพยาบาล กระทรวงสาธารณสุข

อาทิตย์ ทองพิมพ์. (2556). *ปัจจัยที่เกี่ยวข้องกับความพึงพอใจของเกษตรกรต่อการดำเนินงานโครงการขึ้นทะเบียนพืชเศรษฐกิจ ในอำเภอบางละมุง จังหวัดชลบุรี*. การค้นคว้าอิสระ คณะเกษตรศาสตร์, มหาวิทยาลัยสุโขทัยธรรมาธิราช.

รูปแบบตัวอักษรในการออกแบบสื่อประสานกับผู้ใช้บนอุปกรณ์พกพาสำหรับผู้ใช้งานที่มีอายุตั้งแต่ 50 ปีขึ้นไป

Font Styles in The Design in Mobile User Interfaces for Users Aged 50 and Over

กมลทิพย์ ต่อทรัพย์สินชัย / Kamonthip Torsabsinchai
คณะเทคโนโลยีสื่อสารมวลชน มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี / Faculty of Mass Communication Technology, Rajamangala University of Technology
Corresponding author: E-mail: kamonthip_t@rmutt.ac.th

บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์ในการวิจัยดังนี้ 1) เพื่อสำรวจความต้องการและประสบการณ์ผู้ใช้งานที่มีตั้งแต่อายุ 50 ปีขึ้นไปที่มีต่อสื่อประสานกับผู้ใช้บนอุปกรณ์พกพา 2) เพื่อศึกษารูปแบบตัวอักษรในการออกแบบสื่อประสานกับผู้ใช้กับความสามารถในการใช้งานและความพึงพอใจของกลุ่มตัวอย่าง กลุ่มตัวอย่างที่ใช้การวิจัยได้มาจากการสุ่มแบบเจาะจง แบ่งออกเป็น 3 กลุ่ม ได้แก่ 1) กลุ่มตัวอย่างใช้ในการเก็บข้อมูลสอบถามความต้องการและประสบการณ์ผู้ใช้ จำนวน 30 คน 2) ตัวแทนกลุ่มตัวอย่างใช้ในการสัมภาษณ์เก็บข้อมูล จำนวน 3 คน 3) กลุ่มตัวอย่างใช้ในการประเมินความสามารถและสอบถามความพึงพอใจ จำนวน 30 คน ผลการวิจัย พบว่า รูปแบบตัวอักษรทั้งมีเชิง และไม่มีเชิง ในการใช้งานภาษาไทยสามารถใช้งานได้เท่ากัน ไม่มีความแตกต่างกันในความสามารถของการอ่านของผู้ใช้ ผู้ใช้ที่มีอายุมากกว่า 50 ปีขึ้นไปมีความสามารถในการอ่านรูปแบบตัวอักษรที่มีลักษณะตัวอักษรส่วนหัวตัวอักษรที่ชัดเจน เส้นการอ่านชัดเจน ไม่ซับซ้อนหรือแปลกตา รวมทั้งสามารถอ่านได้ถูกต้องมากขึ้นเมื่อเป็นรูปแบบตัวอักษรที่มีความหนาของเส้นมากขึ้น โดยรูปแบบตัวอักษรที่สามารถอ่านได้มากที่สุด คือรูปแบบอักษร TAVIRAJ คิดเป็นร้อยละ 90.0 รองลงมากคือ CS CHATTHAI คิดเป็นร้อยละ 80.83 เมื่ออายุมากขึ้นจำนวนร้อยละของกลุ่มตัวอย่างที่อ่านได้จะลดน้อยลง รูปแบบตัวอักษรที่กลุ่มผู้ใช้ที่มีอายุมากกว่า 70 ปีสามารถอ่านได้จะเหลือเพียงแค่ 2 ใน 8 รูปแบบตัวอักษรเท่านั้น รูปแบบตัวอักษรที่ทุกช่วงวัยมีผลการอ่านได้มากกว่าร้อยละ 50 ของกลุ่มตัวอย่างคือรูปแบบอักษร CS CHATTHAI และ TAVIRAJ กลุ่มตัวอย่างให้คะแนนความพึงพอใจในรูปแบบตัวอักษรสอดคล้องกับความสามารถในการอ่าน ยกเว้นรูปแบบอักษร TH Sarabun PSK ที่กลุ่มตัวอย่างให้คะแนนความพึงพอใจเฉลี่ยอยู่ในระดับมากโดยคะแนนอยู่ที่ 7.20 คะแนน แต่กลุ่มตัวอย่างที่อ่านข้อความที่ใช้รูปแบบตัวอักษร TH Sarabun PSK ถูกต้องมี

เพียงร้อยละ 55.48 ของกลุ่มตัวอย่าง ซึ่งเป็นอันดับ 6 จาก 8 รูปแบบตัวอักษร ปัจจัยที่สำคัญที่กลุ่มตัวอย่างให้คะแนนความพึงพอใจมาจากประสบการณ์และความคุ้นเคยในการใช้รูปแบบตัวอักษร

คำสำคัญ: สื่อประสานกับผู้ใช้, รูปแบบตัวอักษร, อุปกรณ์พกพา

Abstract

The study's objectives were as follows: 1) to analyze the needs and experiences of users aged 50 and over with mobile user interfaces. 2) To study the font styles used in user interfaces that are compatible with the sample group's usability and satisfaction. Purposive Sampling was used to obtain the samples for this study. The samples were divided into 3 groups: 1) A sample group of 30 people was used to collect a questionnaire on their needs and user experience. 2) In the interview, a representative sample of three people was used to collect data. 3) A sample group of 30 people was used to assess their ability and obtain their satisfaction. The study's findings revealed that in Thai language usage, both serif and san-serif font styles can be used equally. In terms of user readability, there is no difference. Users over the age of 50 can read fonts with distinct header font styles. Lines that are easy to read and are not complicated or unusual. Furthermore, it is more readable when using fonts with a thicker line. TAVIRAJ font was the most readable font style, accounting for 90.0 percent of the total, followed by CS CHATTHAI font, accounting for 80.83 percent. The percentage of the sample that reads decreases as they age. There are only two remaining font styles that can be read by people over the age of 70. The font styles that were readable by more than 50% of the sample in all ages were CS CHATTHAI and TAVIRAJ font. The sample expressed satisfaction with the font style that linked to their readability. With the exception of the TH Sarabun PSK font, the sample group averaged a 7.20 satisfaction rating. Only 55.48 percent of the sample correctly read texts in the TH Sarabun PSK font, placing it sixth out of eight font styles. The primary factor that contributed to the subjects' satisfaction with the typeface was their experience and familiarity with it.

Keywords: User Interface, Font style, Mobile Devices

บทนำ

การออกแบบสื่อประสานกับผู้ใช้มีส่วนสำคัญต่อการใช้งานหน้าจออุปกรณ์หรือระบบของผู้ใช้ในปัจจุบัน โดยสื่อประสานกับผู้ใช้มีความเกี่ยวข้องกับการออกแบบหน้าตาของสิ่งที่ผู้ใช้งานมองเห็นผ่านอุปกรณ์ทำงานให้มีความสวยงามและให้ผู้ใช้มีความต้องการที่จะใช้งานหน้าจออุปกรณ์หรือระบบจากการมองเห็น การออกแบบสื่อประสานกับผู้ใช้ที่ดีจะทำให้ผู้ใช้สามารถใช้งานอุปกรณ์ต่างๆ ได้ง่าย เรียนรู้ได้ง่าย ตอบสนองการใช้งานของผู้ใช้ โดยนักออกแบบต้องคำนึงถึงความต้องการ ประสบการณ์ และ ความสามารถของผู้ใช้งาน ประสบการณ์ผู้ใช้เป็นการศึกษาถึงเรื่องความพึงพอใจของผู้ใช้ในการใช้งานระบบเนื่องจากผู้ใช้งานมีความหลากหลายของผู้ใช้ทั้งทางกายภาพและสภาพแวดล้อม บุคลิกภาพ ความแตกต่างของสติปัญญา ความแตกต่างของเพศและอายุที่แตกต่างมีผลต่างความสามารถในการใช้งานที่แตกต่าง องค์ประกอบต่างๆ สื่อประสานกับผู้ใช้ไม่ว่าจะเป็นการออกแบบการใช้รูปแบบตัวอักษรมีผลต่อการรับรู้ในการใช้งานของผู้ใช้ รูปแบบตัวอักษรเป็นองค์ประกอบสำคัญในการออกแบบสื่อประสานกับผู้ใช้ เนื่องจากมีผลโดยตรงต่อการมองเห็นและการรับรู้เข้าใจเนื้อหาและข้อมูล การใช้รูปแบบตัวอักษรที่เหมาะสมช่วยในการหลีกเลี่ยงความสับสนในการใช้งานและนำไปสู่การใช้งานที่ตรงความต้องการของผู้ใช้ (Alsswey & Abuhmaidan, 2020)

ผู้สูงอายุมีการเสื่อมถอยของร่างกายตามอายุที่มากขึ้น ทำให้ผลต่อการทำให้เกิดปัญหาสุขภาพและการใช้ชีวิต ระบบประสาทสัมผัสด้านการมองเห็น เป็นระบบที่มีการเปลี่ยนแปลง เช่น เลนส์ขุ่นมัว รูม่านตาหดตัวมีขนาดเล็กลง ทำให้แสงสู่จอรับภาพลดลง ส่งผลต่อความสามารถในการมองเห็นพบได้ในคนที่มีอายุ 50 ปีขึ้นไป ช่วงวัยอายุ 50 ปีขึ้นไปนั้นเป็นช่วงวัยของบุคคลก่อนที่จะเข้าสู่วัยผู้สูงอายุไปจนถึงวัยผู้สูงอายุ องค์การสหประชาชาติได้ระบุว่าผู้มีอายุตั้งแต่ 60 ปีขึ้นไปเป็นผู้สูงอายุ (United Nations Population Fund, website, 2012) แต่ก็ไม่ได้กำหนดให้เป็นเกณฑ์มาตรฐาน เพราะบางประเทศก็ใช้เกณฑ์ที่อายุ 50 หรือ 55 ปี ประเทศไทยมีแนวโน้มผู้สูงอายุเพิ่มขึ้นอย่างต่อเนื่องและในอีก 10 ปีข้างหน้าคาดว่าจะมีผู้สูงอายุสูงถึงร้อยละ 22.8 ซึ่งองค์การสหประชาชาติ (UN) ถือว่าประเทศไทยเป็นสังคมผู้สูงอายุโดยสมบูรณ์คือ มีสัดส่วนร้อยละ 20 ของประชากรทั้งประเทศ ดังนั้นการเตรียมรับมือกับสังคมผู้สูงอายุจึงเป็นสิ่งที่สำคัญและจำเป็นอย่างยิ่งแต่สำหรับการศึกษาด้านสื่อกับผู้สูงอายุในภาพรวมนั้นพบว่ายังมีน้อยมากเมื่อเทียบกับสัดส่วนจำนวนประชากรของผู้สูงอายุ หรือหากเทียบกับงานวิจัยด้านเด็กและเยาวชน (ระวีวรรณ ทรัพย์อินทร์ และ ญาศิณี เคารพธรรม, 2560) จากสถิติการมีการใช้งานเทคโนโลยีสารสนเทศและการสื่อสารในครัวเรือนของประเทศไทย พ.ศ.2563 พบว่าผู้บริโภคในวัยอายุมากกว่า 50 ปี มีสถิติการใช้งานอินเทอร์เน็ตเพิ่มขึ้นทุกปี โดยปี พ.ศ.2561, 2562 และ 2564 มีการใช้งานร้อยละ 24.3, 33.2 และ 49.7 ของผู้ใช้ต่อ

ประชากรอายุ ตามลำดับ โดยในปี พ.ศ.2563 ผู้อายุ 50 ปีขึ้นไป ใช้งานอุปกรณ์พกพา อาทิเช่น โทรศัพท์มือถือถึงร้อยละ 89.9 ของประชากร(สำนักงานสถิติแห่งชาติ กระทรวงดิจิทัลเพื่อเศรษฐกิจและสังคม, 2564)

ในการใช้งานผ่านอุปกรณ์พกพา ผู้สูงอายุต้องการสื่อประสานกับผู้ใช้ (User Interface) โดยการออกแบบจากประสบการณ์ของผู้สูงอายุเอง จะช่วยเพิ่มความมั่นใจในการใช้งานแก่ผู้สูงอายุด้วย โดยมีผู้สูงอายุเป็นศูนย์กลางในการออกแบบ หลักในการออกแบบสื่อประสานกับผู้ใช้ที่เป็นมิตรกับผู้สูงอายุนั้น จะเน้นในส่วนของความพึงพอใจของผู้สูงอายุเป็นหลัก ใช้งาน ง่าย ไม่ซับซ้อน เพื่อป้องกันความผิดพลาดและลดเวลาในการเข้าถึง (นรรชนภ ทาสุวรรณ, 2561)

จากเหตุผลดังกล่าวทำให้ผู้วิจัยมีความสนใจที่จะการศึกษารูปแบบตัวอักษรในการออกแบบสื่อประสานกับผู้ใช้บนอุปกรณ์พกพาสำหรับผู้ใช้งานที่มีอายุตั้งแต่ 50 ปีขึ้นไป เพื่อช่วยเป็นประโยชน์กับผู้ที่สนใจพัฒนาสื่อประสานกับผู้ใช้บนอุปกรณ์พกพาสามารถนำผลการวิจัยดังกล่าวไปเป็นพื้นฐานในการพัฒนาสื่อประสานกับผู้ใช้ของแอพลิเคชันบนอุปกรณ์พกพาที่มีประสิทธิภาพรองรับการทำงานของผู้สูงอายุหรือผู้ใช้งานที่มีอายุตั้งแต่ 50 ปีขึ้นไปต่อไป

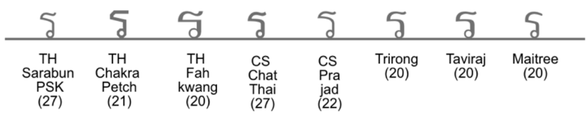
วิธีการวิจัย

การเก็บรวบรวมและการวิเคราะห์ข้อมูล

ในการศึกษารูปแบบตัวอักษรในการออกแบบยูสเซอร์อินเทอร์เฟสบนอุปกรณ์พกพาสำหรับผู้ใช้งานที่มีอายุตั้งแต่ 50 ปีขึ้นไป มีวิธีการวิจัยดังนี้ 1) การศึกษารวบรวมข้อมูลและวิเคราะห์ข้อมูลจากแหล่งข้อมูล 2) จัดทำและเก็บข้อมูลโดยใช้แบบสอบถามความต้องการและประสบการณ์ผู้ใช้ที่มีต่อการใช้งานสื่อประสานกับผู้ใช้บนอุปกรณ์พกพา ซึ่งเป็นกลุ่มผู้ที่ใช้งานอุปกรณ์พกพาที่มีอายุ 50 ปีขึ้นไป จำนวน 30 คน 3) การเก็บข้อมูลสัมภาษณ์ตัวแทนกลุ่มตัวอย่างเกี่ยวกับการใช้งานและประสบการณ์การใช้งานแอพลิเคชันมือถือและเว็บไซต์ผู้ที่ใช้งานอุปกรณ์พกพาที่มีอายุ 50 ปีขึ้นไป จำนวน 3 คน 4) วิเคราะห์ข้อมูลและออกแบบรูปแบบตัวอักษร ที่จะใช้ในการศึกษา โดยในการวิจัยรูปแบบตัวอักษรได้ใช้ 13 รูปแบบมาตรฐานจากสำนักงานส่งเสริมอุตสาหกรรมซอฟท์แวร์แห่งชาติ (SIPA) โดยตัดรูปแบบตัวอักษรแบบปลายหวัด (Script font) และ รูปแบบตัวอักษรแบบประดิษฐ์ (Display Font) ออก โดยนำมาใช้แค่รูปแบบตัวอักษรแบบมีเชิง (Serif Fonts) และไม่มีเชิง (San-Serif Fonts) ไ ด้ แ ก่ TH Sarabun PSK , TH Chakra Petch, TH Fah Kwang, TH Niramit AS, TH Charm of AU, TH Kodchasan, TH K2D July8 และ TH Bai Jamjuree CP แต่เมื่อหลังทำการสัมภาษณ์ตัวแทนกลุ่มตัวอย่างพบว่า มีรูปแบบตัวอักษร 3 รูปแบบเท่านั้น ที่กลุ่มตัวอย่างสามารถอ่านได้ง่าย ได้แก่ TH Sarabun PSK, TH Chakra Petch และ TH Fah Kwang ผู้วิจัย

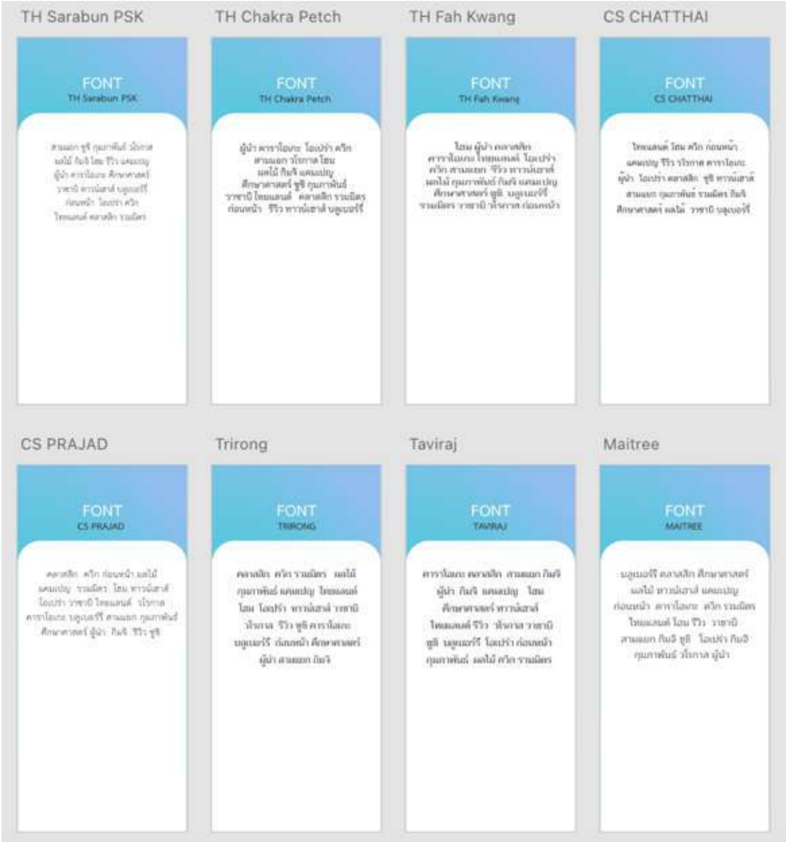
จึงเลือกจาก 3 รูปแบบตัวอักษรนี้และเลือกนำเอารูปแบบตัวอักษรภาษาไทยฟรีที่นิยมสำหรับใช้ในเว็บไซต์จากการรวบรวมข้อมูลของเว็บไซต์ Designil โดยเลือกรูปแบบตัวอักษรโดยใช้เกณฑ์คือตัวอักษรต้องมีหัวเพื่อสะดวกในการอ่านโดยได้เลือกออกมาดังนี้อีก 4 รูปแบบตัวอักษรโดยผ่านการสอบถามจากตัวแทนกลุ่มตัวอย่าง ได้แก่ CS Chatchai, CS Prajad, Trirong, Taviraj และ Maitree รวมทั้งสิ้น 8 รูปแบบตัวอักษร โดยใช้ขนาดตัวอักษรที่มีความสูง 36 พิกเซลเท่ากันโดยมีขนาดของแต่ละรูปแบบตัวอักษรในหน่วยพอยต์ (pt) ดังนี้ TH Sarabun PSK ขนาด 27 พอยต์ (pt) TH Chakra Petch ขนาด 27 พอยต์ (pt) TH Fah Kwang ขนาด 21 พอยต์ (pt) CS Chatchai ขนาด 27 พอยต์ (pt) Trirong ขนาด 20 พอยต์ (pt) Taviraj ขนาด 20 พอยต์ (pt) และ Maitree ขนาด 20 พอยต์ (pt) โดยแสดงในภาพดังนี้

ภาพที่ 1 แสดงรูปแบบตัวอักษรและขนาด เมื่อเปรียบเทียบในแต่ละตัวอักษร



และมีการออกแบบชุดข้อความ 8 ชุดที่มีระดับความยากเท่ากัน คือใช้คำเดียวกัน แต่มีการสลับคละการจัดวาง ในการทดสอบมีการสลับรูปแบบตัวอักษรเพื่อทำการทดสอบความสามารถในการอ่านของกลุ่มตัวอย่าง 5 สร้างชุดออกแบบสื่อประสานกับผู้ใช้ (User Interface) ใช้โปรแกรมฟิกมา (Figma) สร้างขนาดหน้าจอของไอโฟน 11 (iphone 11) ขนาด 1X เท่ากั้บ 375 x 812 พิกเซล โดยนำองค์ประกอบที่ได้ออกแบบนำมาใส่ในตัวต้นแบบ จากนั้นทำการเชื่อมหน้าของตัวต้นแบบเพื่อใช้ในการประเมินในการวิจัย

ภาพที่ 2 แสดงตัวอย่างของชุดออกแบบสื่อประสานกับผู้ใช้สื่อประสานกับผู้ใช้ (User Interface)



6) นำชุดออกแบบสื่อประสานกับผู้ใช้ (User Interface) และเครื่องมือที่ใช้ในการวิจัย ไปปรึกษากับผู้เชี่ยวชาญทางด้านการวิจัยและทางด้านการออกแบบเพื่อใช้ในการปรับปรุงแก้ไข 7) เก็บข้อมูลโดยใช้แบบประเมินความสามารถในการใช้งานและความพึงพอใจที่มีต่อรูปแบบตัวอักษรในการออกแบบสื่อประสานกับผู้ใช้ (User Interface) บนอุปกรณ์พกพาจากผู้ที่ใช้งานอุปกรณ์พกพาที่มีอายุ 50 ปีขึ้นไปจำนวน 30 คน 8) หลังจากทำการเก็บข้อมูลเรียบร้อยแล้ว ได้มีการดำเนินการในการวิเคราะห์ข้อมูลโดยใช้การประเมินผลในเชิงสถิติโดยใช้โปรแกรมสำเร็จรูปทางคอมพิวเตอร์ โดยใช้สถิติค่าเฉลี่ย และร้อยละ

ผลการวิจัย

จากการสอบถามเก็บข้อมูลแบบสอบถามความต้องการและประสบการณ์ผู้ใช้ที่มีต่อการใช้งานสื่อประสานกับผู้ใช้บนอุปกรณ์พกพา และการสัมภาษณ์ตัวแทนกลุ่มตัวอย่าง พบว่ากลุ่มตัวอย่างทุกคนมีใช้อุปกรณ์พกพา ซึ่งโดยร้อยละ 80 ของกลุ่มตัวอย่างมีโทรศัพท์มือถือที่ใช้มีขนาดหน้าจออย่างต่ำคือ 5 นิ้ว ทุกคนมีปัญหาด้านสายตา แต่ไม่สามารถบอกระดับความผิดปกติของสายตาได้ กลุ่ม

ตัวอย่างมีปัญหาด้านการอ่านข้อความบนอุปกรณ์ ซึ่งรูปแบบตัวอักษรมีผลต่อการอ่าน ในการเก็บข้อมูลเพื่อประเมินความสามารถและความพึงพอใจที่มีต่อตัวต้นแบบของกลุ่มตัวอย่าง จำนวน 30 คน โดยประกอบไปด้วย อายุ 50-54 ปี จำนวน 7 คน 55-59 ปี จำนวน 8 คน 60-64 ปี จำนวน 6 คน 65-69 ปีจำนวน 6 คน และอายุมากกว่า 70 ปี จำนวน 3 คน โดยมีผลดังนี้

1) การวิเคราะห์ข้อมูลรูปแบบตัวอักษร

1.1) การวิเคราะห์รูปแบบตัวอักษรที่กลุ่มตัวอย่างสามารถอ่านได้ถูกต้อง โดยวิเคราะห์และแสดงออกมาเป็นภาพแผนภูมิเส้น เป็น 2 ส่วน ดังนี้

1.1.1) รูปแบบตัวอักษรกับการเปรียบเทียบความสามารถในการอ่านภาษาไทยของกลุ่มตัวอย่างในแต่ละช่วงอายุ โดยแสดงผลในตารางดังนี้

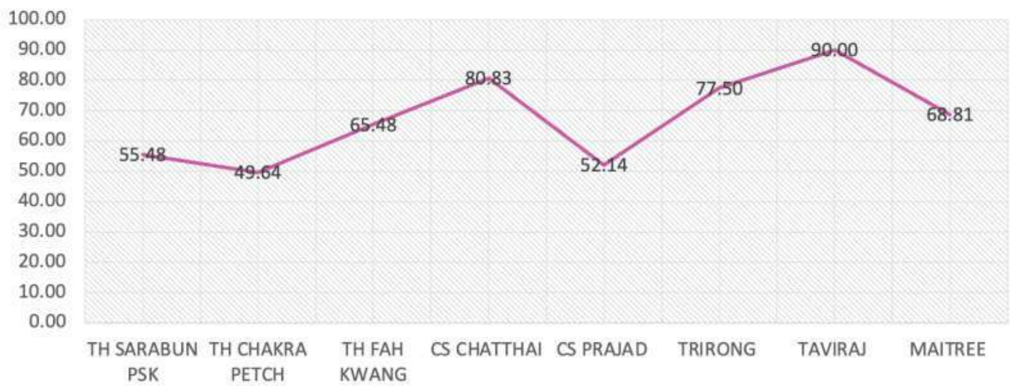
ตารางที่ 1 แสดงผลร้อยละของกลุ่มตัวอย่างในช่วงอายุต่างๆที่สามารถอ่านข้อความในแต่ละรูปแบบตัวอักษรได้ถูกต้อง

รูปแบบตัวอักษร	**50- 54 ปี**	**55- 59 ปี**	**60- 64 ปี**	**65-69 ปี**	**มากกว่า 70 ปี**
TH Sarabun PSK	85.71	75.00	66.67	50.00	0.00
TH Chakra Petch	85.71	62.50	50.00	50.00	0.00
TH Fah Kwang	85.71	75.00	50.00	83.33	33.33
CS CHATTHAI	100.00	87.50	83.33	66.67	66.67
CS PRAJAD	85.71	75.00	50.00	50.00	0.00
TRIRONG	100.00	87.50	83.33	83.33	33.33
TAVIRAJ	100.00	100.00	100.00	83.33	66.67
MAITREE	85.71	75.00	83.33	66.67	33.33

กลุ่มตัวอย่างที่มีช่วงอายุ 50-54 ปีทุกคนสามารถอ่านข้อความที่ใช้รูปแบบตัวอักษร CS Chatchai, Trirong และ Taviraj ได้อย่างถูกต้อง กลุ่มตัวอย่างที่มีช่วงอายุ 55-59 และ 60-64 ปี ทุกคนสามารถอ่านข้อความที่ใช้รูปแบบตัวอักษร Taviraj ได้อย่างถูกต้อง กลุ่มตัวอย่างที่มีช่วงอายุ 65-69 ปี มีความสามารถในการอ่านข้อความของรูปแบบตัวอักษร Th Fah Kwang, Trirong และ Taviraj คิดเป็นร้อยละ 83.33 ของกลุ่มตัวอย่างนั้นหมด โดยที่กลุ่มตัวอย่างที่มีอายุมากกว่า 70 ปี สามารถอ่านข้อความได้ถูกต้องน้อยลง โดยรูปแบบตัวอักษรที่อ่านได้ถูกต้องมากที่สุดคือ รูปแบบตัวอักษร CS Chatchai และ Taviraj คิดเป็นร้อยละ 66.67 ของกลุ่มตัวอย่าง

1.1.2) ค่าเฉลี่ยร้อยละของกลุ่มตัวอย่างที่มีความสามารถในการอ่านข้อมูลโดยใช้รูปแบบตัวอักษรแต่ละรูปแบบได้ถูกต้อง (แกน Y ค่าร้อยละของกลุ่มตัวอย่าง แกน X รูปแบบตัวอักษร)

ภาพที่ 3 แสดงแผนภูมิกราฟสรุปค่าเฉลี่ยร้อยละของกลุ่มตัวอย่างที่มีความสามารถในการอ่านข้อความถูกต้องในแต่ละรูปแบบตัวอักษร



ความสามารถในการอ่านของผู้ใช้สามารถอ่านรูปแบบตัวอักษร Taviraj ได้มากที่สุด คิดเป็นร้อยละ 90.00 ของกลุ่มตัวอย่างทั้งหมด อันดับที่ 2 คือรูปแบบตัวอักษร CS ChatThai คิดเป็นร้อยละ 80.83 ของกลุ่มตัวอย่าง อันดับที่ 3 คือรูปแบบตัวอักษร Trirong คิดเป็นร้อยละ 77.50 ของกลุ่มตัวอย่าง รูปแบบตัวอักษรที่กลุ่มตัวอย่างอ่านได้ถูกต้องน้อยที่สุด คือรูปแบบตัวอักษร TH Chakra Petch คิดเป็นร้อยละ 49.64 ของกลุ่มตัวอย่าง

2) การวิเคราะห์รูปแบบตัวอักษรที่กลุ่มตัวอย่างมีความพึงพอใจในการใช้งาน โดยให้กลุ่มตัวอย่างให้คะแนนในทุกรูปแบบตัวอักษร จากคะแนนเต็ม 10 คะแนน มีผลการศึกษาดังนี้

ตารางที่ 2 แสดงรูปแบบตัวอักษรที่กลุ่มตัวอย่างกับคะแนนเฉลี่ยความพึงพอใจในการใช้งาน

รูปแบบตัวอักษร	**คะแนนเฉลี่ยความพึงพอใจ (10)**
TH Sarabun PSK	7.20
TH Chakra Petch	5.93
TH Fah Kwang	7.13
CS CHATTHAI	7.60
CS PRAJAD	6.34
TRIRONG	7.93
TAVIRAJ	8.23
MAITREE	7.00

รูปแบบตัวอักษรที่กลุ่มตัวอย่างพึงพอใจมากที่สุด ได้แก่ TAVIRAJ คะแนนเฉลี่ยความพึงพอใจอยู่ในระดับมากที่สุดคือคะแนนอยู่ที่ 8.23 เต็ม 10 รองลงมาคือ TRIRONG คะแนนเฉลี่ยความพึงพอใจอยู่ในระดับมากอยู่ที่ 7.93 คะแนน กลุ่มตัวอย่างพึงพอใจในรูปตัวอักษร TH Chakra Petch น้อยที่สุด คะแนนเฉลี่ยความพึงพอใจอยู่ในระดับปานกลาง คือคะแนนเฉลี่ยอยู่ที่ 5.93 กลุ่มตัวอย่างมีให้คะแนนความพึงพอใจในรูปแบบตัวอักษรสอดคล้องกับความสามารถในการอ่าน ยกเว้นรูปแบบอักษร TH Sarabun PSK ที่กลุ่มตัวอย่างให้คะแนนความพึงพอใจเฉลี่ยอยู่ในระดับมากคือคะแนนอยู่ที่ 7.20 คะแนน แต่พบว่ากลุ่มตัวอย่างที่อ่านข้อความที่ใช้รูปแบบตัวอักษร TH Sarabun PSK ถูกต้องมีเพียงร้อยละ 55.48 ซึ่งเป็นอันดับ 6 จาก 8 รูปแบบตัวอักษร

สรุปและอภิปรายผลการวิจัย

จากการวิจัย พบว่ารูปแบบตัวอักษรทั้งมีเชิง (รูปแบบอักษร TAVIRAJ, TRIRONG และ MAITREE) และไม่มีเชิง (รูปแบบอักษรอื่นๆที่ใช้ในการวิจัย) ในการใช้งานภาษาไทยสามารถใช้งานได้เท่ากัน ไม่มีความแตกต่างกันในความสามารถของการอ่านของผู้ใช้ ซึ่งอาจไม่สอดคล้องกับงานวิจัยของต่างประเทศ เรื่อง The Effects of Font Type and Size on the Legibility and Reading Time of Online Text by Older Adults (Michael L. Bernard, 2001) ที่มีผลว่า รูปแบบตัวอักษรแบบไม่มีมีเชิง (San Serif Font) ช่วยให้กลุ่มตัวอย่างสามารถอ่านได้ง่ายขึ้นมากกว่ารูปแบบตัวอักษรแบบมีเชิง (Serif Font) จากการวิจัยครั้งนี้ผู้วิจัยพบว่า ผู้ใช้งานที่มีอายุมากกว่า 50 ปีขึ้นไป มีความสามารถในการอ่านรูปแบบตัวอักษรที่มีลักษณะตัวอักษรส่วนหัวตัวอักษรที่ชัดเจน เส้นการอ่านชัดเจน มีการออกแบบที่ไม่ซับซ้อนหรือแปลกตา รวมทั้งสามารถอ่านง่ายมากขึ้นเมื่อเป็นรูปแบบตัวอักษรที่มีความหนาของเส้นมากขึ้น รูปแบบตัวอักษรที่มีความบางกว่าจึงมีผลทำให้ผู้ใช้อ่านข้อความได้ถูกต้องน้อยลง (Tidwell et al., 2020) เมื่อนำผลความสามารถในการอ่านมาเปรียบเทียบกับผลการประเมินความพึงพอใจพบว่า ความสามารถในการอ่านสอดคล้องกับความพึงพอใจในรูปแบบตัวอักษร กลุ่มตัวอย่างพึงพอใจในตัวอักษรที่สามารถอ่านได้ง่าย แต่มีผลการวิจัยในบางรูปแบบตัวอักษรที่กลุ่มตัวอย่างพึงพอใจในรูปแบบตัวอักษร แต่พบว่ากลุ่มตัวอย่างมีความผิดพลาดในการอ่านอยู่มาก ได้แก่ TH Sarabun PSK จึงได้ทำการสอบถามกลุ่มตัวอย่างและทำการวิเคราะห์ พบว่า TH Sarabun PSK เป็นรูปแบบตัวอักษรที่กลุ่มตัวอย่างรู้สึกคุ้นเคยและพบเจอบ่อยครั้งในชีวิตประจำวันซึ่งเป็นปัจจัยหลักที่มีผลต่อความพึงพอใจในการใช้งาน แต่เมื่อทำการอ่านข้อความจากการใช้รูปแบบตัวอักษรดังกล่าว พบว่าตัวอักษรรูปแบบ TH Sarabun PSK มีความบางของตัวอักษรมากเมื่อเทียบกับรูปแบบตัวอักษรหลายรูปแบบในตัวเลือก จึงทำให้บางคำเห็นไม่เด่นชัดในการอ่าน จึงมีความผิดพลาดในการอ่านค่อนข้างมากช่วงอายุกับความสามารถในการอ่าน

จากผลการวิจัยสามารถสรุปผลได้ว่า ช่วงอายุที่มากขึ้นมีผลทำให้ความสามารถในการอ่านของกลุ่มตัวอย่างลดน้อยลง รูปแบบตัวอักษรทุกรูปแบบกลุ่มตัวอย่างช่วง 50-54 ปี มากกว่าร้อยละ 80 สามารถอ่านได้ แต่เมื่ออายุมากขึ้นจำนวนร้อยละของกลุ่มตัวอย่างที่อ่านได้จะลดน้อยลง โดยรูปแบบตัวอักษรที่กลุ่มตัวอย่างทุกช่วงอายุสามารถอ่านได้ โดยมีผลการอ่านได้มากกว่าร้อยละ 50 ของกลุ่มตัวอย่างคือรูปแบบอักษร CS CHATTHAI และ TAVIRAJ

เอกสารอ้างอิง

ทิพยา จินตโกวิท และ ศจีมาจ ณ วิเชียร. (2562). แนวทางการออกแบบเว็บไซต์ด้านสุขภาพสำหรับผู้สูงอายุ.*วารสารวิชาการครุศาสตร์อุตสาหกรรม พระจอมเกล้าพระนครเหนือ, 10*(1), 217-226.

นรรชนภ ทาสุวรรณ. (2561). ส่วนต่อประสานกับผู้ใช้ที่เป็นมิตรกับผู้สูงอายุในสวีเดน (Elderly Friendly User Interfaces in Sweden). *Veridian E-Journal,Silpakorn University, 11*(3), 2256-2273.

ระวีวรรณ ทรัพย์อินทร์ และ ญาศิณี เคารพธรรม. (2560). สื่อกับผู้สูงอายุในประเทศไทย. *วารสารนิเทศศาสตร์ธุรกิจบัณฑิตย์, 1*(2), 367-287.

วิชญ์พล เกตุชัยโกศล. (2559). *การศึกษาขนาดของปุ่มที่เหมาะสมในโมบายแอพพลิเคชั่นสำหรับผู้สูงอายุ*.http://dspace.bu.ac.th/handle/123456789/2322.

สำนักงานสถิติแห่งชาติ กระทรวงดิจิทัลเพื่อเศรษฐกิจและสังคม. (2564). *สถิติการมีการใช้งานเทคโนโลยีสารสนเทศและการสื่อสารในครัวเรือนของประเทศไทย พ.ศ.2563*. สืบค้นจาก https://bit.ly/31JRKhw.

Alsswey, A., & Abuhmaidan, K. (2020). Working Towards a Universal User Interface Design of Mobile Applications for Elderly Users: An Ara-bic Case Study. 2020.

BEAR The School. (n.d.). *Typography คืออะไร ทำไมต้องรู้?*. BEAR The School of Visual Specialists. Retrieved from www.beartheschool.com/share-1/2018/10/10/typography.

Michael L. Bernard. (2001). *The Effects of Font Type and Size on the Legibility and Reading Time of Online Text by Older Adults*. https://bit.ly/35WhvwF.

Office of Disease Prevention and Heath Promotion. (2016). *Use a readable font that's at least 16 pixels. Health Literacy Online | health.gov*. https://health.gov/healthliteracyonline/display/

Tidwell, J., Brewer, C., & Valencia, A. (2020). *Designing Interfaces: Patterns for Effective Interaction Design*. 3rd ed. O'Reilly Media.

กลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณา: กรณีศึกษา ศูนย์การค้า ก. ในจังหวัดขอนแก่น

The Pricing Strategics Affecting the Decision Making in Purchasing Digital Advertising Media: Case study of Shopping Center KOR in Khon Kaen Province

รุ่งนภา ทิพย์รัตนมงคล / Rungnapa Thiprattanamongkol
คณะบริหารธุรกิจ มหาวิทยาลัยหอการค้าไทย / School of Business, University of the Thai Chamber of Commerce
Corresponding author: E-mail: nok-kkn@hotmail.com

ปราณี เอี่ยมลออภักดี / Pranee Eamlaorpakdee
คณะบริหารธุรกิจ มหาวิทยาลัยหอการค้าไทย / School of Business, University of the Thai Chamber of Commerce
E-mail: pranee_eam@utcc.ac.th

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์ดังนี้ (1) เพื่อศึกษาพฤติกรรมการเลือกซื้อป้ายโฆษณาดิจิทัลของผู้ซื้อสื่อในศูนย์การค้า ก. ในจังหวัดขอนแก่น และ (2) เพื่อศึกษากลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่น การศึกษานี้เป็นการวิจัยเชิงผสม ดำเนินการวิจัยโดยเก็บข้อมูลจากกลุ่มลูกค้าที่เคยซื้อสื่อโฆษณากับศูนย์การค้า ก. ในจังหวัดขอนแก่น จำนวน 200 ตัวอย่าง และ บริษัทที่ซื้อสื่อโฆษณากับ ศูนย์การค้า ก. ในจังหวัดขอนแก่น จำนวน 5 ตัวอย่าง โดยวิธีการใช้แบบสอบถามและแบบสัมภาษณ์เป็นเครื่องมือในการวิจัย วิเคราะห์ข้อมูลด้วยค่าร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน t-test Independent, One-Way ANOVA, Multiple Regression Analysis และการวิเคราะห์เชิงเนื้อหา ผลการวิจัยประกอบด้วยผลการวิจัยเชิงคุณภาพ พบว่า พฤติกรรมการเลือกซื้อสื่อของบริษัทมีการซื้อสื่อโฆษณาป้ายดิจิทัลหลายประเภท เช่น สื่อสังคมออนไลน์ ป้ายโฆษณา ป้ายกล่องไฟ และออกบูท โดยทำการโฆษณาเพื่อเพิ่มยอดขายให้กับธุรกิจ และเข้าถึงกลุ่มลูกค้าเป้าหมาย โดยปัจจัยที่คำนึงถึงเมื่อต้องตัดสินใจซื้อสื่อประเภทนี้คือ จุดติดตั้ง คุณภาพของสื่อ และปัจจัยด้านราคา และผลการวิจัยเชิงปริมาณ พบว่า กลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ใน

จังหวัดขอนแก่น มี 2 กลยุทธ์ ได้แก่ กลยุทธ์การตั้งราคาล่อใจ และ กลยุทธ์การตั้งราคาโดยให้ส่วนลด โดยมีค่าสัมประสิทธิ์เท่ากับ 0.255 และ 0.218 ตามลำดับ

คำสำคัญ: กลยุทธ์ด้านราคา, สื่อโฆษณาดิจิทัล, พฤติกรรมในการซื้อสื่อโฆษณาดิจิทัล

Abstract

The purpose of this research were (1) to study the behavior of selective of digital signage/billboards by buyers at shopping center KOR in Khonkaen province and (2) to study pricing strategy that most influenced buyers' decision making for selective of digital signage/billboards at shopping center KOR in Khonkaen province. This study is mixed method research by collecting the data from customer groups and companies who used to purchase the media from shopping center KOR in Khonkaen province total 200 samples and 5 sample respectively by using questionnaire form and interview form as the research methodology. data analysis from percentages value, average, standard deviation t-test independent, one-way ANOVA, Multiple Regression Analysis and in-depth content analysis. The finding of this research found that behavior of media selective on digital signage/billboards has many varieties in such of social media, billboards, LED and booth shop. In order to increase the sell volume, many factors impacting to buyers are considered from locations, quality of using media, and price. The result of quantitative research found that pricing strategy is impacted to buyers at shopping center KOR In Khonkaen province by having 2 prices strategies; attractive pricing and discounts pricing with coefficient is 0.255 and 0.218 respectively.

Keywords: Pricing Strategy, Digital Media, Behavior of Buying Digital Media

บทนำ

ธุรกิจการให้บริการสื่อโฆษณาเป็นส่วนหนึ่งที่สำคัญต่อธุรกิจ โดยการโฆษณาเป็นเครื่องมือในการสื่อสารให้กับผู้บริโภคในตลาดให้รู้จักสินค้าหรือผลิตภัณฑ์ ซึ่งรูปแบบในการสื่อสารผ่านสื่อโฆษณามีรูปแบบที่หลากหลายที่จะช่วยกระตุ้นให้เกิดการตัดสินใจซื้อสินค้า สอดคล้องกับผลการสำรวจจาก นีลเส็น (2564) ที่พบว่า สื่อโฆษณาดิจิทัล เป็นสื่อโฆษณาที่มีการเติบโตรวดเร็วเป็นอันดับสองในอุตสาหกรรม ส่งผลให้สื่อที่ใช้ในการโฆษณามีการพัฒนาอยู่ตลอดเวลา เพื่อ

ตอบสนองการตลาดของธุรกิจมากขึ้น สำหรับศูนย์การค้า ก มีการให้บริการป้ายสื่อโฆษณาเพื่อทำให้บริษัทเจ้าของผลิตภัณฑ์สามารถเข้าถึงกลุ่มเป้าหมายและสามารถสร้างการรับรู้ตราสินค้า ได้อย่างมีประสิทธิภาพ

ขณะเดียวกันในปี พ.ศ.2562 เกิดสถานการณ์การแพร่ระบาดโคโรนาไวรัส หรือ โควิด-19 ไปทั่วโลกรวมถึงประเทศไทยด้วยที่ส่งผลให้ภาพรวมของธุรกิจการให้บริการสื่อโฆษณาหดตัวลง จากปี พ.ศ.2562 ที่อยู่ราว 1.23 แสนล้านบาท ปี พ.ศ.2563 ปรับตัวลดลงเหลือ 1.07 แสนล้านบาท และนับถึงเดือน พ.ย.2564 ตัวเลขใกล้เคียงปี พ.ศ.2563 โดยมีสาเหตุสำคัญมาจากการบังคับใช้มาตรการต่างๆ ของภาครัฐที่ส่งผลกระทบเชิงลบอย่างมากต่อเศรษฐกิจ ภาคธุรกิจจำเป็นต้องลดค่าใช้จ่ายไม่จำเป็น รวมถึงการควบคุมต้นทุนด้านการตลาด ประกอบกับคำสั่งปิดศูนย์การค้าส่งผลให้สื่อโฆษณาภายในศูนย์การค้ากลายเป็นสื่อประเภทแรกที่บริษัทเลือกตัดงบออกไป ซึ่งทำให้กระทบต่อผลการดำเนินงานและยอดขายที่ไม่เป็นไปตามเป้าหมายของศูนย์การค้า ทั้งนี้ จากข้อมูลเกี่ยวกับรายได้ขายสื่อโฆษณาในศูนย์การค้า ก พบว่า ในปี พ.ศ.2562 มีรายได้อยู่ที่ 17,070,994 บาท ในขณะที่ ปี พ.ศ.2563 รายได้อยู่ที่ 13,797,073 บาท ซึ่งแสดงให้เห็นว่ารายได้ลดลง -3,273,921 บาท จากปีก่อน คิดเป็นลดลง ร้อยละ 19 (รายงานการขายประจำปี แผนกบริหารสื่อโฆษณา ศูนย์การค้า ก. จังหวัดขอนแก่น, 2563)

ทั้งนี้ กลยุทธ์ด้านราคาเป็นส่วนสำคัญต่อการตัดสินใจซื้อของผู้บริโภค ดังนั้น ทางผู้วิจัยจึงเห็นว่าการศึกษาการกำหนดกลยุทธ์ราคาที่ส่งผลให้ลูกค้าตัดสินใจซื้อสื่อโฆษณาดิจิทัล ในศูนย์การค้า ก จังหวัดขอนแก่น เพื่อให้สามารถทราบถึงเหตุจูงใจด้านราคาที่ให้ผู้ประกอบการตัดสินใจซื้อสื่อเพิ่มขึ้น นำไปสู่การเพิ่มรายได้ให้กับองค์กร และสามารถนำผลที่ได้จากการศึกษาไปใช้ในการกำหนดกลยุทธ์ราคาที่เหมาะสมกับความต้องการของลูกค้าที่สนใจซื้อสื่อโฆษณาดิจิทัลเพื่อลงโฆษณาในศูนย์การค้าต่อไป

การทบทวนวรรณกรรม

แนวคิดเกี่ยวกับกลยุทธ์ราคา (Pricing Strategy)

กลยุทธ์ราคา หมายถึง การวางแผนใช้ราคาเป็นส่วนหนึ่งของกิจกรรมทางการตลาดเพื่อสร้างการรับรู้ในจิตใจของผู้บริโภค ซึ่งหลักของการตั้งราคา (ปรีดี นุกุลสมปรารถนา, 2563) สามารถแบ่งได้ดังนี้ 1) การตั้งราคาจากต้นทุน เป็นการหาต้นทุนที่ใช้ในการผลิตสินค้าที่ไม่ใช่แค่ต้นทุนวัตถุดิบ แต่รวมถึงค่าใช้จ่ายอื่นๆและบวกกำไรที่ต้องการเข้าไปด้วย เช่น ค่าวัตถุดิบ ค่าแรง ค่าบรรจุภัณฑ์ เป็นต้น โดยจุดต่าง ก็คือ ตัวกำไรซึ่งหากต้องการกำไรมากก็จะทำให้ราคาสินค้าสูงขึ้น 2) การตั้งราคาจากตลาด เป็นการสำรวจคู่แข่งในตลาดที่เป็นธุรกิจหรือสินค้าเดียวกัน และตั้งราคาขายที่เท่ากัน

หรือใกล้เคียงกัน อาจจะมากกว่าหรือน้อยกว่าได้ซึ่งขึ้นอยู่กับต้นทุนและคุณภาพวัตถุดิบ ซึ่งแม้ว่าจะเป็นวิธีที่ง่ายแต่ก็จำเป็นต้องดูที่ต้นทุนวัตถุดิบที่อาจทำให้ราคาขายแตกต่างกัน 3) การตั้งราคาจากลูกค้า เป็นวิธีที่ตอบโจทย์การตั้งราคาสินค้ามากที่สุดเมื่อเทียบกับสภาพตลาดในปัจจุบัน โดยมีการทำสำรวจจากกลุ่มลูกค้าถึงราคาขายสินค้าที่กลุ่มลูกค้ารู้สึกว่าเหมาะสมในการซื้อ ทั้งนี้ การตั้งราคาข้างต้น เป็นวิธีการตั้งราคาขายสินค้าโดยพื้นฐานทั่วไปที่ใช้กัน โดยสามารถเลือกใช้วิธีใดวิธีหนึ่ง แต่ก็จำเป็นต้องนำทั้ง 3 วิธีมาผสมผสานใช้ร่วมกัน ที่จำเป็นต้องยึดตัวลูกค้าเป็นสำคัญ

แนวคิดของกลยุทธ์การกำหนดราคาที่มีความสัมพันธ์กับการตัดสินใจซื้อ

กลยุทธ์การกำหนดราคาที่มีความสัมพันธ์กับการตัดสินใจเลือกซื้อเพื่อผลักดันยอดขาย โดยสร้างให้เกิดกำไรนั้น ซึ่งการกำหนดราคามีวัตถุประสงค์เพื่อทำให้อนาคตมีผลลัพธ์ที่ดีที่สุด โดยกลยุทธ์ราคาเป็นเครื่องมือในการเรียกร้องความสนใจของผู้ซื้อให้เกิดการยอมรับในราคาที่กำหนด (วิทยา จารุพงศ์โสภณ, 2556) โดยในงานวิจัยนี้ผู้วิจัยได้ทำการศึกษากลยุทธ์การกำหนดราคา ประกอบด้วย

การตั้งราคาล่อใจ (Loss Leader Pricing) เป็นการตั้งราคาสินค้าที่ราคาเท่าทุนหรือต่ำกว่าทุนเพื่อดึงดูดและจูงใจลูกค้า โดยหวังให้ลูกค้าซื้อสินค้าตัวอื่นๆ ที่ไม่ได้ลดราคาไปด้วย กลยุทธ์นี้นิยมใช้กันมากกับธุรกิจซุปเปอร์มาร์เก็ต และร้านค้าปลีกสมัยใหม่อื่นๆ หรือรวมถึงผลิตภัณฑ์ที่ผู้บริโภคทั่วไปซื้อเป็นประจำ

การตั้งราคาแบบรวมกัน (Bundle Pricing) เป็นการนำสินค้าหลายชิ้นมารวมกันแล้วตั้งราคาสินค้าใหม่ที่ราคาต่ำกว่าเมื่อต้องขายสินค้าเป็นรายชิ้น เหมาะกับสินค้าที่ต้องใช้ประจำ ซึ่งเป็นกลยุทธ์การตั้งราคาที่กระตุ้นให้ลูกค้ารู้สึกว่าตั้งซื้อครั้งละมากๆ จะคุ้มค่ากว่า

กลยุทธ์ราคาตามการแข่งขัน (Competition-Based Pricing) เป็นกลยุทธ์การตั้งราคาโดยสำรวจไปที่ราคาตลาดของสินค้าชนิดเดียวกันหรือสินค้าทดแทน ว่าในตลาดหรือคู่แข่งขายสินค้าราคาประมาณเท่าไหร่ และตั้งราคาให้มีความใกล้เคียงกัน มักใช้กลยุทธ์นี้กับสินค้าที่มีความคล้ายคลึงกัน

กลยุทธ์การตั้งราคาโดยให้ส่วนลด เป็นการปรับราคาเพื่อจูงใจให้ลูกค้าเกิดการตัดสินใจซื้อที่ง่ายขึ้น เพื่อให้ซื้อในปริมาณที่มากขึ้น การให้ส่วนลดนี้ถือเป็นการลดราคาลงมาจากราคามาตรฐานที่ได้จัดทำไว้ในบัญชีราคา (List Price) และเป็นการให้ส่วนลดตลอดไปตามเงื่อนไขที่กำหนดไม่มีกำหนดระยะเวลาหมดเขต

แนวคิดทฤษฎีเกี่ยวกับการตัดสินใจซื้อ

การตัดสินใจซื้อของผู้บริโภค คือ กระบวนการเลือกผลิตภัณฑ์หรือการบริการ โดยมีรูปแบบกระบวนการตัดสินใจซื้อของผู้บริโภค มักจะผ่าน 5 ขั้นตอน ได้แก่ การตระหนักถึงปัญหา การค้นหาข้อมูล การประเมินทางเลือก การตัดสินใจซื้อ และพฤติกรรมภายหลังการซื้อ ทั้งนี้ ผู้บริโภคอาจไม่ได้ผ่านทั้ง 5 ขั้นตอนตามลำดับก็ได้ (Philip Kotler and Keller Kevin Lane, 2016)

กรอบแนวคิดการวิจัย

ผลที่ได้จากการศึกษาตามแนวคิดและทฤษฎี ผู้วิจัยได้กำหนดกรอบแนวคิดในการศึกษาในปัจจัยที่เกี่ยวกับกลยุทธ์ด้านราคาโดยเลือกกลยุทธ์ที่เหมาะสมกับสื่อโฆษณาดิจิทัล ประกอบด้วย 1) กลยุทธ์การตั้งราคาแบบรวมกัน 2) กลยุทธ์การตั้งราคาโดยให้ส่วนลด 3) กลยุทธ์การตั้งราคาล่อใจ และ 4) กลยุทธ์การตั้งราคาตามการแข่งขัน มาประยุกต์กำหนดเป็นตัวแปรอิสระ และตัวแปรตาม คือ การตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณา ดังนี้

ตัวแปรต้น		ตัวแปรตาม
กลยุทธ์ด้านราคา 1) กลยุทธ์การตั้งราคาแบบรวมกัน 2) กลยุทธ์การตั้งราคาโดยให้ส่วนลด 3) กลยุทธ์การตั้งราคาล่อใจ 4) กลยุทธ์การตั้งราคาตามการแข่งขัน	→	การตัดสินใจซื้อสื่อโฆษณาดิจิทัล ของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก ในจังหวัดขอนแก่น

ภาพที่ 1 กรอบแนวคิดการวิจัย

วิธีการวิจัย

การศึกษานี้เป็นการวิจัยแบบผสมผสาน (Mixed Methods Research) คือ การวิจัยเชิงปริมาณ (Quantitative Research) โดยใช้แบบสอบถามเป็นเครื่องมือในการเก็บข้อมูล และการวิจัยเชิงคุณภาพ (Qualitative Research) เก็บข้อมูลด้วยแบบสัมภาษณ์ ซึ่งมีรายละเอียดวิธีการศึกษาดังนี้

ประชากรและตัวอย่าง

ประชากรที่ใช้ในการวิจัยครั้งนี้ คือ ผู้ประกอบการในจังหวัดขอนแก่นและเป็นลูกค้าที่เคยซื้อสื่อโฆษณาหรือผู้ที่เป็นลูกค้าปัจจุบันที่ยังคงซื้อสื่อโฆษณากับ ศูนย์การค้า ก. ในจังหวัดขอนแก่น กลุ่มตัวอย่างที่ใช้ในการศึกษา คือ ลูกค้าที่เคยซื้อสื่อโฆษณาหรือผู้ที่เป็นลูกค้าปัจจุบันที่ยังคงซื้อสื่อโฆษณากับ ศูนย์การค้า ก. ในจังหวัดขอนแก่น รวมไปถึงลูกค้าที่คาดว่ามีแนวโน้มที่สนใจที่จะซื้อสื่อโฆษณาภายในศูนย์การค้า ก. ในจังหวัดขอนแก่น กำหนดขนาดตัวอย่างในการวิจัยครั้งนี้ ใช้วิธีการเลือกตัวอย่างแบบเจาะจง (Purposive sampling) โดยการสัมภาษณ์เชิงลึก (In-Depth Interview) จำนวน 5 ตัวอย่าง และเชิงปริมาณ จำนวน 200 ตัวอย่าง

เครื่องมือที่ใช้ในการศึกษา

การวิจัยเชิงคุณภาพ ทำการศึกษาโดยการสัมภาษณ์เชิงลึกประกอบด้วย 3 ส่วน คือ 1) ข้อมูลข้อมูลทั่วไปของผู้ให้สัมภาษณ์ 2) พฤติกรรมการใช้สื่อโฆษณาของธุรกิจ 3) ข้อมูลเกี่ยวกับกลยุทธ์ด้านราคา เป็นคำถามในลักษณะปลายเปิดเพื่อให้ผู้ให้สัมภาษณ์แสดงความคิดเห็นอย่างอิสระ

การวิจัยเชิงปริมาณ ใช้แบบสอบถามในการเก็บรวบรวมข้อมูลจากกลุ่มตัวอย่าง ประกอบด้วย 4 ส่วน คือ 1) แบบสอบถามข้อมูลทั่วไปของธุรกิจ วัดข้อมูลประเภทนามบัญญัติ (Nominal Scale) และมาตรวัดอันดับ (Ordinal Scale) 2) พฤติกรรมการเลือกสื่อโฆษณา 3) ความคิดเห็นของผู้บริโภคต่อกลยุทธ์ด้านราคาของสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อลงโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่น 4) การตัดสินใจซื้อสื่อโฆษณาดิจิทัล โดยในส่วนที่ 2-4 ใช้แบบมาตรวัดแบบช่วง (Interval Scale)

การเก็บรวบรวมข้อมูล

1) ข้อมูลปฐมภูมิ (Primary Data) เก็บรวบรวมข้อมูลจากลูกค้าที่ปัจจุบันยังคงซื้อสื่อโฆษณากับ ศูนย์การค้า ก. ในจังหวัดขอนแก่น จำนวน 5 ราย และลูกค้าที่เคยซื้อสื่อโฆษณาหรือผู้ที่เป็นลูกค้าปัจจุบันที่ยังคงซื้อสื่อโฆษณากับ ศูนย์การค้า ก. ในจังหวัดขอนแก่น รวมไปถึงลูกค้าที่คาดว่ามีแนวโน้มที่สนใจที่จะซื้อสื่อโฆษณาภายในศูนย์การค้า ก. ในจังหวัดขอนแก่น จำนวน 200 ตัวอย่าง

2) ข้อมูลทุติยภูมิ (Secondary Data) โดยการศึกษาค้นคว้าจากทฤษฎี งานวิจัยที่เกี่ยวข้อง บทความ รายงานวิชาการ หนังสือ สื่อความรู้ออนไลน์ต่างๆ ที่เกี่ยวข้องกับการศึกษานี้

การวิเคราะห์ข้อมูล

การวิจัยเชิงคุณภาพ ผู้วิจัยจะนำข้อมูลที่ได้จากการสัมภาษณ์เชิงลึกจากลูกค้าปัจจุบันที่ซื้อสื่อโฆษณากับ ศูนย์การค้า ก ในจังหวัดขอนแก่น ทำการวิเคราะห์ตามกระบวนการทางการวิจัยเชิงคุณภาพ ด้วยการวิเคราะห์ถึงประเด็นสำคัญที่ได้จากการสัมภาษณ์ จากนั้นนำประเด็นสำคัญมาใช้เป็นกรอบในการตั้งคำถามเชิงปริมาณต่อไป

การวิจัยเชิงปริมาณ ผู้วิจัยใช้วิธีวิเคราะห์ข้อมูลทางสถิติด้วยโปรแกรมสำเร็จรูปทางสถิติ โดยนำข้อมูลจากการเก็บแบบสอบถามที่รวบรวมมาทำการวิเคราะห์ นำมาวิเคราะห์ข้อมูลทั่วไปของธุรกิจวิเคราะห์ด้วยค่าความถี่ (Frequency) และค่าร้อยละ (Percentage) และการทดสอบสมมติฐานด้วยการวิเคราะห์หาความถดถอยเชิงเส้นแบบพหุคูณของกลยุทธ์ด้านราคาที่มีผลต่อการตัดสินใจซื้อโฆษณาป้ายโฆษณาดิจิทัลของศูนย์การค้า ก ในจังหวัดขอนแก่น

ผลการวิจัย

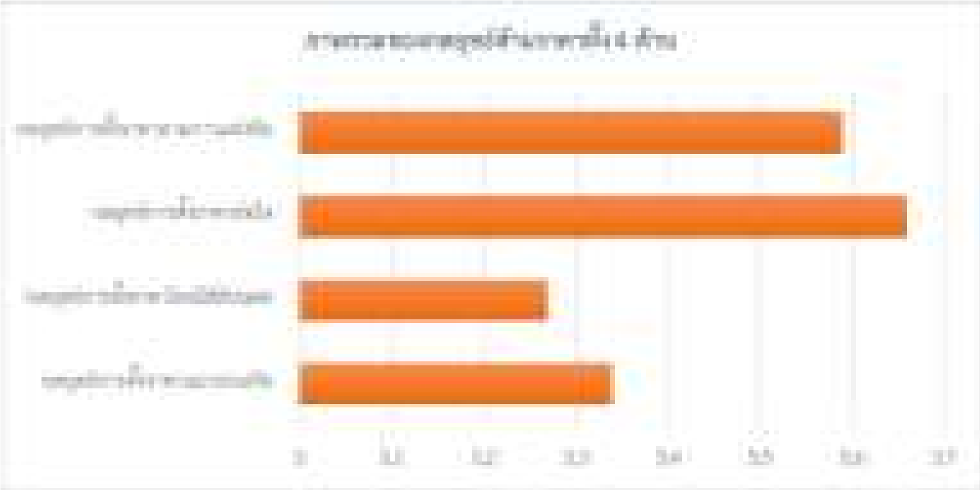
การวิเคราะห์ผลการศึกษาครั้งนี้ มีรายละเอียดดังต่อไปนี้

ข้อมูลทั่วไปของกลุ่มตัวอย่าง พบว่า ส่วนใหญ่เป็นเพศชาย (ร้อยละ 54) มีอายุระหว่าง 41-50 ปี (ร้อยละ 60.5) มีการศึกษาอยู่ในระดับปริญญาตรี (ร้อยละ 49) ประเภทธุรกิจเป็นแบบบริษัทจำกัด (ร้อยละ 39) มีระยะเวลาการดำเนินธุรกิจมากกว่าหรือเท่ากับ 8 ปีขึ้นไป (ร้อยละ 48.5) ประเภทสินค้าหลักของการดำเนินธุรกิจคือประเภทยานยนต์ (ร้อยละ 24.5) และรายได้ของธุรกิจต่อเดือนเฉลี่ยน้อยกว่า 500,000 บาท (ร้อยละ 45.5)

ข้อมูลพฤติกรรมการเลือกซื้อสื่อโฆษณาของผู้ตอบแบบสอบถามส่วนใหญ่มีการวางแผนและตัดสินใจในการเลือกใช้สื่อด้วยตนเอง (ร้อยละ 86.5) โดยการติดต่อโดยตรง (ร้อยละ 92.5) พิจารณาถึงการเลือกใช้สื่อโฆษณาจากค่านิยมในการรับสื่อของลูกค้ากลุ่มเป้าหมาย (ร้อยละ 65) ใช้บริการสื่อโฆษณาประเภทสื่อออนไลน์ทางอินเทอร์เน็ต ได้แก่ สื่อสังคมออนไลน์ เว็บไซต์ เป็นต้น (ร้อยละ 54) มีวัตถุประสงค์ใช้สื่อเพื่อเพิ่มยอดขายให้กับสินค้าและบริการของธุรกิจ (ร้อยละ 73.5) มีงบประมาณต่ำกว่าหรือเท่ากับ 20,000 บาท ต่อเดือน (ร้อยละ 58.5) และความถี่ในการซื้อสื่อโฆษณาป้ายโฆษณาธุรกิจคือ สัญญา 3 เดือน หรือน้อยกว่า (ร้อยละ 55)

ความคิดเห็นของผู้บริโภคต่อกลยุทธ์ด้านราคาของสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อลงโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่นในภาพรวมอยู่ในระดับมาก ($\bar{x}$ = 3.56, S.D. = 0.60) เมื่อพิจารณาเป็นรายด้าน พบว่า ด้านที่มีระดับความสำคัญมากที่สุด ได้แก่ กลยุทธ์การตั้งราคาล่อใจ ($\bar{x}$ = 3.66, S.D. = 0.62) รองลงมากลยุทธ์การตั้งราคาตามการแข่งขัน ($\bar{x}$ = 3.59, S.D. = 0.56) กลยุทธ์การตั้งราคาแบบรวมกัน ($\bar{x}$ = 3.34, S.D. = 0.57) และการตั้งราคาโดยให้ส่วนลด ($\bar{x}$ = 3.27, S.D. = 0.66) ตามลำดับ

พฤติกรรมการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่นของผู้ตอบแบบสอบถามในภาพรวมอยู่ในระดับปานกลาง ($\bar{x}$ = 3.28, S.D. = 0.72) เมื่อพิจารณาเป็นรายด้าน พบว่า ด้านที่มีระดับความสำคัญมากที่สุด ได้แก่ บริษัทจะซื้อสื่อโฆษณาดิจิทัลในศูนย์การค้า ก. ในช่วงเทศกาล ($\bar{x}$ = 3.69, S.D. = 0.87) รองลงมา การซื้อสื่อโฆษณาดิจิทัลในศูนย์การค้า ก. ถ้ามีผลิตภัณฑ์หรือบริการใหม่ ($\bar{x}$ = 3.52,S.D. = 0.74) อันดับที่ 3 คือ สนใจซื้อสื่อโฆษณารูปแบบ LED Gallery Wall ในศูนย์การค้า ก. ($\bar{x}$ = 3.32,S.D. = 0.87) และ อันดับสุดท้าย สนใจซื้อหากสื่อโฆษณา 6 Screen มีราคา 35,000 บาท/เดือน ($\bar{x}$ = 3.24,S.D. = 0.87) ตามลำดับ



ภาพที่ 2 ผลสรุปภาพรวมการวิเคราะห์ข้อมูลของกลยุทธ์ด้านราคาของสื่อโฆษณาดิจิทัลทั้ง 4 ด้าน ที่ส่งผลต่อการการตัดสินใจซื้อสื่อโฆษณาดิจิทัล

การทดสอบสมมติฐานของการวิจัย

ผลการวิเคราะห์ข้อมูลเพื่อทดสอบปัจจัยด้านกลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่น พบว่า กลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่นอย่างมีนัยสำคัญที่ 0.05 ได้แก่ กลยุทธ์การตั้งราคาโดยให้ส่วนลด (Sig. = 0.033) และกลยุทธ์การตั้งราคาล่อใจ (Sig. = 0.008) เมื่อพิจารณาค่าสัมประสิทธิ์ของสมการถดถอย (Beta Coefficient) ที่แสดงถึงความสัมพันธ์ระหว่างตัวแปรอิสระกับตัวแปรตามนั้น จะพบว่า ตัวแปรอิสระด้านกลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่น มากที่สุด ได้แก่ กลยุทธ์การตั้งราคาล่อใจ ($\beta = 0.295$) รองลงมา กลยุทธ์การตั้งราคาโดยให้ส่วนลด ($\beta = 0.237$) ตามลำดับ

ตารางที่ 1 การวิเคราะห์ความถดถอยเชิงพหุคูณของกลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่น

ตัวแปรพยากรณ์	**B**	**Std. Error**	**Beta**	**t**	**Sig**
(ค่าคงที่)	0.724	0.305		2.369	0.019
กลยุทธ์การตั้งราคาแบบรวมกัน	0.126	0.132	0.100	0.955	0.341
กลยุทธ์การตั้งราคาโดยให้ส่วนลด	0.237	0.110	0.218	2.143	0.033*
กลยุทธ์การตั้งราคาล่อใจ	0.295	0.111	0.255	2.667	0.008*
กลยุทธ์การตั้งราคาตามการแข่งขัน	0.077	0.123	0.061	0.630	0.529

หมายเหตุ: * หมายถึง นัยสำคัญทางสถิติที่ระดับ 0.05

สรุปและอภิปรายผลการวิจัย

ปัจจุบันสื่อดิจิตอลถูกพัฒนาเพื่อนำมาใช้เป็นเครื่องมือในการดึงดูดลูกค้าและสร้างรายได้รวมถึงผลกำไรให้กับธุรกิจมากขึ้น กลยุทธ์ใหม่ด้านการตลาดในปัจจุบันอย่าง Metavers ได้เข้ามามีบทบาทมากขึ้นในการสร้างสภาพ แวดล้อมของโลกแห่งความจริงและเทคโนโลยีเข้าด้วยกันจนกลายเป็นชุมชนโลกเสมือนจริงที่สามารถผสานวัตถุรอบตัวและสภาพแวดล้อมให้เชื่อมต่อกันเป็นหนึ่งเดียว ซึ่งในด้านศูนย์การค้า ก. สามารถนำเทคโนโลยีดังกล่าวพัฒนาเป็น Metavers Community เพื่อสามารถทำการซื้อขายได้บนโลกเสมือนจริง ทั้งนี้ สำหรับการศึกษาแนวทางในการกำหนดกลยุทธ์ด้านราคาในครั้งนี้ ผู้ศึกษาได้ผลสรุปว่า กลยุทธ์การตั้งราคาโดยให้ส่วนลด และกลยุทธ์การตั้งราคาล่อใจส่งผลต่อการซื้อสื่อโฆษณาดิจิทัลของผู้ซื้อสื่อโฆษณาในศูนย์การค้า ก. ในจังหวัดขอนแก่นอย่างมีนัยสำคัญทางสถิติ สอดคล้องกับผลการศึกษาของ รัตนาภรณ์ เพชรกุล (2562) ศึกษากลยุทธ์การกำหนดราคาที่ส่งผลต่อกระบวนการตัดสินใจซื้อเสื้อผ้าแฟชั่นในสถานการณ์ covid-19 ของผู้บริโภคเขตอำเภอเมือง จังหวัดภูเก็ต พบว่า ผู้บริโภคให้ความสำคัญกับการให้ส่วนลดหรือสิทธิพิเศษที่จะได้รับมากกว่าประเด็นอื่น และผลการศึกษาของ นัทวัฒน์ นคราวงศ์ (2561) ได้ศึกษาการกระตุ้นความตั้งใจซื้อสินค้าแบรนด์เนมโดยใช้กลยุทธ์การตั้งราคาต่ำกว่าจำนวนเต็ม ซึ่งลักษณะเดียวกับการกลยุทธ์การตั้งราคาล่อใจ โดยกลยุทธ์ดังกล่าวสามารถกระตุ้นยอดขายได้ดีกว่าการใช้ราคาเต็ม

ข้อเสนอแนะ

ข้อเสนอแนะจากผลการศึกษา

ผู้ศึกษาได้พิจารณาผลการศึกษาและวิเคราะห์ข้อมูลแล้ว สำหรับการศึกษาแนวทางในการกำหนดกลยุทธ์ด้านราคาในครั้งนี้ ผู้ศึกษาได้เสนอแนวทางที่สามารถดำเนินการได้ไว้ว่า การพัฒนากลยุทธ์ด้านราคาที่เกี่ยวข้องกับสื่อโฆษณาดิจิทัลในศูนย์การค้า ก. ในจังหวัดขอนแก่น ควรเน้นไปยังกลยุทธ์การตั้งราคาล่อใจ (Loss Leader Pricing) โดยการตั้งราคาเพื่อล่อใจให้ลูกค้าตัดสินใจซื้อควรทำให้ลูกค้ารู้สึกว่าราคาดังกล่าวเป็นราคาที่ต่ำกว่าราคาตลาด ซึ่งจากผลการศึกษาลูกค้ามีความสนใจซื้อเมื่อทำโปรโมชั่นราคา ซื้อ 6 เดือน แถม 6 เดือน และ กลยุทธ์การตั้งราคาโดยให้ส่วนลด (Discount Pricing) หรือกล่าวว่า ลูกค้ามีความสนใจซื้อสื่อในกลยุทธ์การตั้งราคา สื่อโฆษณา A กำหนดราคาอยู่ที่ 17,000 บาทต่อเดือน รวมกับ สื่อโฆษณา B กำหนดราคาอยู่ที่ 27,000 บาทต่อเดือน พร้อมส่วนลด 10% ซึ่งเป็นกลยุทธ์ที่ลูกค้าสนใจเป็นอันดับแรก ขณะเดียวกัน จากการศึกษาพฤติกรรมการเลือกซื้อสื่อโฆษณา ลูกค้าส่วนใหญ่มีการเลือกใช้สื่อโฆษณาจากค่านิยมในการรับสื่อของลูกค้ากลุ่มเป้าหมาย เพื่อเพิ่มยอดขายให้กับธุรกิจและเพื่อเข้าถึงกลุ่มลูกค้าเป้าหมาย รวมถึงส่วนใหญ่นิยมรูปแบบของสัญญารายเดือน สัญญา 3 เดือน หรือน้อยกว่า โดยมีงบประมาณในการซื้อสื่ออยู่ที่ประมาณไม่เกิน 20,000 บาทต่อเดือน ทั้งนี้ เพื่อให้ลูกค้าเป้าหมายตัดสินใจซื้อสื่อโฆษณาดิจิทัล ควรมีการปรับให้เข้ากับความต้องการที่แท้จริงของลูกค้าต่อไป

ข้อเสนอแนะสำหรับการศึกษาครั้งต่อไป

การศึกษาในครั้งนี้ผู้วิจัยมุ่งศึกษาปัจจัยกลยุทธ์ด้านราคาที่ส่งผลต่อการตัดสินใจซื้อสื่อโฆษณาดิจิทัล ควรเพิ่มเติมการศึกษาในปัจจัยอื่นๆ เช่น ปัจจัยส่วนประสมทางการตลาด และความพึงพอใจของลูกค้า เป็นต้น เพื่อนำข้อมูลที่ได้มาศึกษาและวิเคราะห์ ตรงกับความต้องการที่แท้จริงของลูกค้ามากยิ่งขึ้น

เอกสารอ้างอิง

คมชัดลึก. (2559). *คนการเมืองกับฟุตบอลไทย*. สืบค้นจาก www.komchadluek.net/news/scoop/239048#.

จันทร์ทิพย์ ทุมวงศ์. (2556). อิทธิพลของราคาต่อพฤติกรรมการยอมรับคุณภาพกาแฟผงสำเร็จรูปของผู้บริโภค. วารสารสมาคมส่งเสริมการวิจัย, 6(3), 1-8.

นัทวัฒน์ นคราวงศ์. (2561). *การกระตุ้นความตั้งใจซื้อสินค้าแบรนด์เนมโดยใช้กลยุทธ์การตั้งราคาต่ำกว่าจำนวนเต็ม*วิทยานิพนธ์ปริญญา บริหารธุรกิจมหาบัณฑิต, มหาวิทยาลัยสงขลานครินทร์.

ปรีดี นุกุลสมปรารถนา. (2563). *กลยุทธ์การตั้งราคาสินค้า (Strategy of Pricing).* สืบค้นจาก www.popticles.com/marketing/strategy-of-pricing/.

รัตนาภรณ์ เพชรกุล. (2562). กลยุทธ์การกำหนดราคาที่ส่งผลต่อกระบวนการตัดสินใจซื้อเสื้อผ้าแฟชั่นในสถานการณ์ covid-19 ของผู้บริโภคเขตอำเภอเมือง จังหวัดภูเก็ต. *วารสารวิชาการสังคมมนุษย์ มหาวิทยาลัยราชภัฏนครศรีธรรมราช, 11*(1), 26-44.

วิทยา จารุพงศ์โสภณ. (2556). *กลยุทธ์ราคา*. กรุงเทพฯ: แปลน สารา.

ศรัญญา รักสงฆ์ และเยาวนุช รักสงฆ์. (2561). *พฤติกรรมและกลไกการตั้งราคาขายปลีกเครื่องดื่มแอลกอฮอล์ในจังหวัดมหาสารคามและขอนแก่น*. ทุนวิจัยสนับสนุนจากศูนย์วิจัยปัญหาสุราและสำนักงานกองทุนสนับสนุนการสร้างเสริมสุขภาพ.

ศูนย์การค้า ก. (2564). *รายงานการขายประจำปี แผนกบริหารสื่อโฆษณา*. ศูนย์การค้า ก. จังหวัดขอนแก่น.

อมรา มาทอง. (2563). *การตัดสินใจซื้อสื่อโฆษณาโซเชียลแฟนเพจของฝ่ายซื้อสื่อโฆษณาโซเชียลให้กับลูกค้าของบริษัทตัวแทนโฆษณา*. การค้นคว้าอิสระ ปริญญานิเทศศาสตรมหาบัณฑิต, มหาวิทยาลัยกรุงเทพ.

Gabriel R. D. Levrini and Mirela Jeffman dos Santos. (2021). The Influence of Price on Purchase Intentions: Comparative Study between Cognitive, Sensory, and Neurophysiological Experiments. *Behav Sci (Basel), 11*(2), 16.

Media Intelligence. (2562). *Out of Home Advertising*. Retrieved from www.thumbsup.in.th/price-of-out-of-home-ads.

ปัจจัยที่มีผลต่อความสำเร็จและสมรรถนะของนักดนตรีมืออาชีพ

Factors Affecting the Success and Competencies of Professional Musicians

ธงชัย เหลืองทอง / Tongchai Luangtong
คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏจันทรเกษม / Faculty of Humanities and Social Sciences, Chandrakasem Rajabhat University
E-mail: tongchai.l@chandra.ac.th

ปณิชา พรประสิทธิ์ / Panicha Ponprasit
คณะจิตวิทยา จุฬาลงกรณ์มหาวิทยาลัย / Applied Psychology, Chulalongkorn University

วิเชียร อ่อนละมูล / Vichian Onlamoon
คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏจันทรเกษม / Faculty of Humanities and Social Sciences, Chandrakasem Rajabhat University

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์ คือ 1) ศึกษาปัจจัยที่มีผลต่อความสำเร็จในอาชีพของนักดนตรีมืออาชีพ และ 2) ศึกษาสมรรถนะของนักดนตรีมืออาชีพ ใช้วิธีการวิจัยเชิงคุณภาพ เก็บข้อมูลด้วยการสัมภาษณ์เชิงลึกจากผู้ให้ข้อมูลหลัก 9 คน ซึ่งคัดเลือกมาโดยการเจาะจง พิจารณาจากนักดนตรีอาชีพที่ประสบความสำเร็จอย่างสูงถึงสูงสุด การวิเคราะห์ข้อมูลใช้การวิเคราะห์เนื้อหา ผลการวิจัยพบว่า ปัจจัยที่มีผลต่อความสำเร็จของนักดนตรีมืออาชีพมี 3 ประการคือ (1) เส้นทางการเข้าสู่อาชีพมาจากพบว่าตนเองมีความสามารถทางดนตรี จนเกิดความรักอย่างดื่มด่ำ (passion) ประสบการณ์จากการแสดงจริง ครอบครัวสนับสนุน และได้เรียนรู้จากครูดนตรีเก่ง (2) การดำรงตนอยู่ในอาชีพมาจากรู้สึกว่าดนตรีคือชีวิต มีอุตสาหะ ฝึกฝนจริงจังสม่ำเสมอ มีจินตนาการ ใฝ่เรียนรู้ตลอดชีวิต ทั้งเรียนรู้ด้วยตนเอง และจากผู้อื่น ยึดมั่นในจรรยาบรรณวิชาชีพ และสร้างเอกลักษณ์ของตนเอง และ (3) การปรับตัวกับการเปลี่ยนแปลงด้านเทคโนโลยีดนตรีและชีวิตวิถีใหม่ (new normal) ส่วนสมรรถนะที่สำคัญของนักดนตรีมืออาชีพ ประกอบด้วย ด้านความรู้คือทฤษฎีดนตรี ด้านทักษะคือการฟัง การสื่อสาร การทำงานกับผู้อื่น และด้านทัศนคติคือมุ่งมั่นรับผิดชอบงาน และเป็นผู้เรียนรู้ตลอดชีวิต ไม่ยึดแนวดนตรีเดียว งานวิจัยเสนอแนะว่า สถาบันการศึกษาควรพิจารณานำข้อค้นพบ

ไปพัฒนาหลักสูตรเพื่อให้ผู้เรียนสามารถทำงานในวิชาชีพดนตรีได้อย่างมืออาชีพ มีประสิทธิภาพ และประสบความสำเร็จ

คำสำคัญ: นักดนตรีมืออาชีพ, สมรรถนะ, ความสำเร็จ

Abstract

The purposes of this research were as follows 1) to study the factors affecting the success of professional musicians, and 2) to study the competencies of professional musicians. Qualitative research was conducted and data were collected through in-depth interviews with 9 key informants selected using a purposive method based on the highly successful and the most successful professional musicians. The analysis of the data was based on a content analysis method. The results showed that there are three factors affecting the success of professional musicians as follows: (1) career paths come from self discovery of musical talent to passion, experience, family support as well as learning from great music teachers, (2) the ability to sustain one's career comes from a willingness to practice consistently, earnestly, and be a lifelong learner by adhering to professional ethics, discovering and building one's identity, and (3) adapting to changes in music technology and new normal ways of life. The key competencies of musicians Include knowledge of music theory, skills of listening, communication, collaboration and attitudes of determination, responsibility and life-long learning. Research suggests that educational institutions should take these findings into account in order to develop a curriculum that enables students to effectively and successfully work in the music profession.

Keywords: Professional Musician, Competencies, Success

บทนำ

“ชนใดไม่มีดนตรีกาล ในสันดานเป็นคนชอบกลนัก
อีกใครฟังดนตรีไม่เห็นเพราะ เขานั้นเหมาะคิดขบถอัปลักษณ์”

ข้อความจากพระราชนิพนธ์ในพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว ที่ทรงแปลมาจากบทละครของเช็คสเปียร์ เรื่อง เวนิสวานิส นอกจากจะแสดงพระอัจฉริยภาพด้านการประพันธ์ของพระองค์แล้ว ยังแสดงให้เห็นถึงคุณค่าด้านสุนทรียศาสตร์ของดนตรี ดนตรีเป็นทั้งโสตศิลป์ (aural art) และ

ศิลปะการแสดง (performing art) (อาทิตย์ โพธิ์ศรีทอง, 2561: 204) มีการนำดนตรีไปใช้ในกิจกรรมต่างๆ ทั้งด้านศิลปะ ศาสนา การแพทย์ จิตวิทยา การศึกษา การค้า การประชาสัมพันธ์ การสื่อสารและอื่นๆ อาจกล่าวได้ว่า ดนตรีและเสียงเพลงแทรกอยู่ในชีวิตประจำวันของเราในทุกสถานที่ ทุกเวลา ไม่ว่าจะเป็นในสถานศึกษา ร้านอาหาร โรงพยาบาล รถโดยสารสาธารณะ ธนาคาร ระบบการสื่อสารต่างๆ โดยเฉพาะการขยายตัวของอุตสาหกรรมดนตรี ทำให้มีผู้สนใจเข้าสู่อาชีพดนตรีมากขึ้น ข้อมูลจากการรับสมัครนักศึกษาใหม่เข้าเรียนในมหาวิทยาลัย พบว่า มีสถาบันการศึกษาถึง 51 แห่งผลิตบัณฑิตระดับปริญญาตรีด้านดนตรี (PANOT, 2020) และการสำรวจข้อมูลผู้สำเร็จการศึกษาและผู้เข้าสู่ตลาดแรงงานด้านดนตรี มีถึง 805 คน จาก 898 คน คิดเป็นร้อยละ 90 (ไพบูลย์ บุณยเกียรติ, 2564: 321) แต่ López-Íñiguez and Bennett (2020: 1) เห็นว่า แม้ในแต่ละปี จะมีจำนวนนักศึกษาที่สำเร็จการศึกษาด้านดนตรีหลายพันคน แต่ผู้ที่จะได้ทำงานเต็มเวลาในอาชีพดนตรีมีน้อยมาก มีบัณฑิตด้านดนตรีจำนวนมากที่เลิกกลางคันแล้วหันไปประกอบอาชีพอื่นแทนซึ่งอาจนับว่าเป็นการลงทุนทางการศึกษาที่ไม่คุ้มค่า นักศึกษาเหล่านี้ควรจะได้เข้าใจว่า อะไรคือปัจจัยที่มีผลต่อความสำเร็จในอาชีพนักดนตรี พรสวรรค์มีส่วนกำหนดหรือไม่ สมรรถนะมีส่วนกำหนดหรือไม่ เพื่อที่พวกเขาจะได้มีข้อมูลในการประเมินตนเองให้ชัดเจนว่าเหมาะสมกับอาชีพนี้หรือไม่

สมรรถนะทางดนตรีเป็นพรสวรรค์หรือพรแสวง คนทั่วไปเชื่อว่า นักดนตรีและศิลปินประเภทอื่นๆ มีพรสวรรค์พิเศษ เช่น มีหน้าตาสวยงาม มีแก้วเสียงที่ดี มีทักษะการฟังที่ดี Dalladay (2012: 9) ไม่เห็นด้วยกับแนวคิดพรสวรรค์ เขาเห็นว่ามนุษย์ทุกคนมีลักษณะทางดนตรี (musical) ในตัวเองแม้จะไม่เท่ากันแต่จะสามารถพัฒนาเป็นนักดนตรีได้หรือไม่ขึ้นกับการมีโอกาสได้เล่นดนตรี และได้มีการฝึกฝน จนมีความก้าวหน้า ซึ่งสอดคล้องกับความเห็นของ Ericsson (2009: 407) ว่า ความสามารถทางดนตรีไม่ได้เป็นมาตั้งแต่กำเนิด แต่เกิดจากการฝึกฝนอย่างเอาจริงเอาจัง

สมรรถนะ (competency) หมายถึง ความสามารถที่จะแก้ปัญหาในสถานการณ์ต่างๆ ได้อย่างมีประสิทธิภาพ สมรรถนะ ประกอบด้วยองค์ประกอบ 3 ส่วน ซึ่งเรียกย่อๆ ว่า KSA ได้แก่ ความรู้ (K: knowledge) ทักษะ (S: skill) และทัศนคติ (A: attitudes) (Perrenoud and Thurler, 2002 cited in Rosas et al, 2016: 77) สมาคมโรงเรียนดนตรีแห่งชาติ (The National Association of School of Music: NASM) ของสหรัฐอเมริกา กำหนดสมรรถนะของผู้สำเร็จการศึกษาระดับปริญญาตรีทางดนตรีศึกษาไว้ 7 ด้าน คือ (1) ด้านการปฏิบัติ (performance) (2) ด้านทักษะการฟังและการวิเคราะห์ (aural skills and analysis) (3) ด้านการประพันธ์และการด้นสด (composition and improvisation) (4) ด้านประวัติและเพลงที่พร้อมออกแสดง (history and repertory) (5) ด้านเทคโนโลยี (technology) (6) ด้านการสังเคราะห์ (synthesis) และ (7) ด้านสมรรถนะการสอน (teaching competencies) (ศิลปชัย กงตาล, ม.ป.ป: 5-6) อย่างไรก็ตาม ยังมีความเข้าใจที่แตกต่างกันว่า

สมรรถนะใดสำคัญที่สุด การวิจัยของมหาวิทยาลัยเทคโนโลยีไทนานในไต้หวัน (Tainan University of Technology: TUT) เสนอว่า สมรรถนะด้านทฤษฎีดนตรี (music theory) สำคัญที่สุด (Tseng, 2021: 16) ในขณะที่ Dalladay (2021: 15) มีความเห็นว่า การสอนดนตรีไม่ควรเน้นการสอนสมรรถนะทางเทคนิคดนตรีมากกว่าการสอนให้ผู้เรียนมีความเข้าใจอย่างลึกซึ้งในเรื่องดนตรี และการศึกษานักดนตรี จำนวน 8 คน ที่ประสบความสำเร็จในระดับนานาชาติ พบว่า สมรรถนะที่สำคัญที่สุดคือ ความกระตือรือร้นที่จะเรียนรู้สิ่งใหม่ๆ ตลอดเวลา และการปรับตัวให้ทำงานได้หลายบทบาท (López-Íñiguez and Bennett, 2020: 8) งานวิจัยนี้ จึงต้องการศึกษาปัจจัยที่มีผลต่อความสำเร็จในอาชีพของนักดนตรีมืออาชีพที่ประสบความสำเร็จอย่างสูงถึงสูงสุดและศึกษาสมรรถนะของนักดนตรีมืออาชีพ เพื่อให้นักดนตรีและผู้ที่สนใจจะเข้าสู่อาชีพนักดนตรี ได้มีความเข้าใจอย่างชัดเจน สามารถประเมินและพัฒนาตนเองให้ประสบความสำเร็จในอาชีพนักดนตรีได้

วิธีดำเนินการวิจัย

การวิจัยนี้ เป็นการวิจัยเชิงคุณภาพ (qualitative research) เก็บข้อมูลด้วยวิธีการสัมภาษณ์เชิงลึก (in-depth interview) กับผู้ให้ข้อมูลหลัก (key informants) จำนวน 9 คน คัดเลือกโดยวิธีการแบบเฉพาะเจาะจง (purposive selection) โดยพิจารณาความสำเร็จอย่างสูงถึงสูงสุดในอาชีพนักดนตรี ในจำนวนนี้ มีผู้ได้รับรางวัลศิลปินแห่งชาติ 2 คน รางวัลศิลปาธร 1 คน ที่เหลือเป็นนักดนตรีที่มีผลงานโดดเด่นเป็นที่ยอมรับในวิชาชีพ การวิเคราะห์ข้อมูลใช้วิธีการวิเคราะห์เนื้อหา (content analysis) รายละเอียดของผู้ให้ข้อมูลหลัก ทั้ง 9 คน แสดงในตารางที่ 1

ตารางที่ 1 คุณลักษณะของผู้ให้ข้อมูลหลัก

ลำดับที่	ชื่อ (นามสมมุติ)	เพศ	อายุ	ระดับการศึกษาด้านดนตรี	ประเภทเครื่องดนตรี	ความสำเร็จ
1	วุฒิ	ชาย	74	-	กีต้าร์/ขับร้อง	ศิลปินแห่งชาติ
2	นรินทร์	ชาย	71	ปริญญาตรี	แซกโซโฟน/ขลุ่ย	ศิลปินแห่งชาติ
3	ปองพล	ชาย	62	ปริญญาเอก	แซกโซโฟน	รางวัลชนะเลิศเวทีประกวดต่างๆ
4	เกศรา	หญิง	58	-	ขับร้อง	มีผลงานเพลงในระดับชาติ

5	ดนุพล	ชาย	52	ปริญญาเอก (ต่างประเทศ)	เปียโน	รางวัลนานาชาติ
6	สากล	ชาย	51	ปริญญาเอก (ต่างประเทศ)	ทรัมเป็ต วาทยากร	ศิลปาธร
7	ศักดิ์สิทธิ์	ชาย	48	ปริญญาตรี	แซกโซโฟน	มีผลงานเพลงระดับชาติ
8	บิลลี่	ชาย	43	อนุปริญญา	เทคโนโลยีดนตรี	มีผลงานระดับนานาชาติ เป็นเจ้าของธุรกิจด้านเครื่องเสียง
9	พล	ชาย	32	ปริญญาตรี	เทคโนโลยีดนตรี	ดูแลระบบเสียงในเวทีการแสดงระดับนานาชาติ

จากตารางที่ 1 ผู้ให้ข้อมูลหลัก จำนวน 9 คน ประกอบด้วย เพศชาย 8 คน เพศหญิง 1 คน มีอายุระหว่าง 32-74 ปี ในจำนวนนี้ ไม่ได้สำเร็จการศึกษาด้านดนตรี 2 คน มีผู้ได้รับรางวัลศิลปินแห่งชาติ 2 คน รางวัลศิลปาธร 1 คน และเป็นผู้ทำงานด้านเทคโนโลยีดนตรี หรืองานเบื้องหลังเวที 2 คน

กรอบแนวคิดการวิจัย

ความสำเร็จของนักดนตรีมืออาชีพ เกิดจากปัจจัยทางสังคมมากกว่าปัจจัยความพิเศษของบุคคล (หรือที่เข้าใจกันคือ พรสวรรค์) ปัจจัยทางสังคม ได้แก่ ภูมิหลังทางครอบครัว ประสบการณ์และความสามารถทางดนตรี และความมุ่งมั่นที่จะประสบความสำเร็จ ส่วนสมรรถนะของนักดนตรีมืออาชีพคือ สมรรถนะที่เกี่ยวข้องกับความรู้และทักษะทางดนตรี การสื่อสาร การทำงานร่วมกับผู้อื่นและทัศนคติที่รับผิดชอบต่องานและใฝ่เรียนรู้ตลอดชีวิต

ผลการวิจัย

1) ปัจจัยที่มีผลต่อความสำเร็จของนักดนตรีมืออาชีพที่ประสบความสำเร็จ

งานวิจัยพบว่า ปัจจัยที่มีผลต่อความสำเร็จคือ เส้นทางการเข้าสู่อาชีพนักดนตรี การดำรงตนอยู่ในอาชีพและการปรับตัวกับการเปลี่ยนแปลง โดยมีรายละเอียด ดังนี้

1.1) เส้นทางการเข้าสู่อาชีพนักดนตรี มีปัจจัยสนับสนุนคือ

(1) การค้นพบตนเอง ผู้ให้ข้อมูลทั้ง 9 ราย พบว่า ตนเองมีทักษะในด้านดนตรีมาตั้งแต่เด็ก สามารถฟังจังหวะดนตรีได้ จับจังหวะดนตรีได้แม่นยำ และเมื่อมีโอกาสทดลองเล่นเครื่องดนตรีบางชนิด ก็สามารถทำได้ดี จึงพัฒนาไปสู่ความชอบ ความรักและความดื่มด่ำ (passion) ในที่สุด และตัดสินใจ

เข้าสู่อาชีพดนตรี ผู้ให้ข้อมูลคนหนึ่งกล่าวว่า "เรารักดนตรีน่ะ มันทำให้เรามีความสุข ผมไปเกี่ยวข้าว ถ้าทำไม่เสร็จ พ่อแม่ไม่ให้ไปเล่นดนตรี ผมขนข้าวนี่มัดเป็นฟ่อน เอาเข้าไปลานนวดข้าว ผมขนจนบ่าไหม้เลย เสร็จแล้วเราจะไปเล่นดนตรี เรามีความรักรออยู่ เรามีความหวัง มีความรัก ที่จะเล่นดนตรีรออยู่ เราจึงสู้ ไม่ท้อ"

(2) ประสบการณ์และการสนับสนุนของครอบครัว ผู้ให้ข้อมูล จำนวน 7 ราย เติบโตมาในครอบครัวที่รักเสียงดนตรี แม้บิดามารดาจะไม่ได้เป็นนักดนตรีอาชีพ แต่ก็สามารถเล่นเครื่องดนตรีง่ายๆ ได้บางชิ้น เช่น แอคคอร์เดียน หรือสามารถร้องเพลงได้ดี ทำให้ผู้ให้ข้อมูลได้มีประสบการณ์ในการฟังและการเล่นดนตรี อีกทั้งในหมู่พี่น้อง ก็ชอบด้านดนตรีด้วยเช่นกัน จนดูคล้ายกับว่า เป็นครอบครัวที่มี "พรสวรรค์" ด้านดนตรี ส่วนผู้ให้ข้อมูลอีก 2 ราย ไม่มีประสบการณ์ด้านดนตรีในครอบครัว บิดามารดาของทุกรายไม่คัดค้านที่จะศึกษาด้านดนตรีอย่างจริงจัง ผู้ให้ข้อมูลรายหนึ่งเล่าว่า "พรสวรรค์เรามีหรือเปล่าเราไม่รู้ แต่พรแสวงนี่ เราต้องดัดสันดานตัวเราให้ขยันให้ได้ ดนตรีไม่มีทางลัด ยังไงก็ต้องซ้อม ฝึกฝนจนเชี่ยวชาญ"

(3) การได้เรียนรู้กับครูดนตรีเก่งๆ ผู้ให้ข้อมูลทุกรายได้รับการถ่ายทอดวิชาความรู้จากครูดนตรีเก่งๆ บางรายเติบโตจากการอยู่ในวงโยธวาทิต ที่มีชื่อเสียงในโรงเรียนระดับมัธยมศึกษา ผู้ให้ข้อมูลรายหนึ่งเล่าว่า "ครูบางคนจะสอนเทคนิคพิสดาร เรียนแล้วได้เทคนิคเพียบเลย แต่ครูบางคนจะดูว่าเด็กขาดอะไร ก็ใส่อย่างนั้นให้ เหมือนว่าไม่มีคิ้วใส่คิ้วให้ อย่างผมเล่นมาเยอะแล้วครูก็จะสอนเบสิคให้เติมฐานให้แน่น" มีครูที่สอนโน้ตสากลให้ตั้งแต่อยู่ระดับมัธยมศึกษาทำให้สามารถพัฒนาตนเองได้รวดเร็ว ผู้ให้ข้อมูลที่เป็นคนรุ่นหนุ่มสาวและสนใจการทำงานอยู่เบื้องหลัง ได้ตัดสินใจเลือกศึกษาในสถานศึกษาที่มีชื่อเสียงในด้านเทคโนโลยีดนตรี ครูที่เก่งๆ เหล่านี้ยังได้ให้โอกาสด้วยการให้ติดตามไปแสดงตามสถานที่ต่างๆ เพื่อเป็นการฝึกประสบการณ์ให้เก่งยิ่งขึ้น

1.2) การดำรงตนอยู่ในอาชีพ ผู้ให้ข้อมูลทุกรายเริ่มต้นอาชีพแรกด้วยการเป็นนักดนตรี และสามารถดำรงตนอยู่ในอาชีพนี้ได้อย่างยาวนานโดยไม่เปลี่ยนอาชีพเลย มีบางรายเปลี่ยนจากการทำงานเบื้องหน้ามาอยู่เบื้องหลัง และมีบางรายที่เปลี่ยนมายึดอาชีพครูสอนดนตรีเป็นอาชีพหลักแต่ยังคงไม่ละทิ้งการทำงานด้านดนตรี มีเพียงรายเดียวที่ยุติอาชีพด้านดนตรีเนื่องจากสมรส โดยมีปัจจัยสำคัญที่ทำให้รักษาอาชีพนี้ไว้ได้คือ

(1) ความรู้สึกว่า ดนตรีคือชีวิต ผู้ให้ข้อมูลทุกรายได้พัฒนาจากความรัก (love) ความรักอย่างดื่มด่ำ (passion) จนเลือกเส้นทางเป็นนักดนตรีมืออาชีพ และรู้สึกว่าดนตรีคือชีวิต ไม่ได้มีความปรารถนาจะทำงานอื่น นอกจากงานเล่นดนตรี โดยที่ปัจจัยเรื่องรายได้ไม่ใช่เรื่องสำคัญ

(2) การมีจินตนาการ ผู้ให้ข้อมูลทุกรายเห็นว่า นักดนตรีต้องมีจินตนาการ เพราะดนตรีคือความงาม คือสุนทรียภาพ ทำให้การแสดงแต่ละครั้งไม่จำเจ เหมือนเป็นการเข้าไปเรียนรู้โลกใหม่ๆ ตลอดเวลา

(3) ความมีอุตสาหะตั้งใจฝึกฝนด้วยการซ้อมอย่างสม่ำเสมอจริงจัง ผู้ให้ข้อมูลทุกราย เห็นความสำคัญของการฝึกซ้อมอย่างจริงจัง ผู้ให้ข้อมูลรายหนึ่งบอกว่า“ผมฝึกหนักมาก กว่าจะเลิกงานตี 1 ซ้อมเสร็จตี 3 ตี 4 ช่วงนั้นจะมีสมาธิ แล้วก็เงียบด้วย ถึงเวลาก็มาซ้อมกัน เสร็จแล้วก็ซ้อมรวมวง ซ้อมทุกวัน จนทุกวันนี้ ก็ไม่เลิกซ้อม”

(4) การเป็นผู้ใฝ่เรียนรู้ตลอดชีวิต ผู้ให้ข้อมูลทุกรายเห็นว่า วงการนักดนตรีอาชีพมีการเปลี่ยนแปลงอย่างรวดเร็ว มีคลื่นลูกใหม่ที่สดกว่าเข้ามาสู่วงการ มีเทคโนโลยีทางดนตรีใหม่ๆ ที่สามารถมาใช้เพื่อกำกับการซ้อม การเล่น ให้ถูกจังหวะมากขึ้น จึงต้องเรียนรู้อยู่ตลอดเวลา

(5) การยึดมั่นในจรรยาบรรณวิชาชีพคือ ต้องมีความรับผิดชอบในงาน ความตรงต่อเวลา ความสุภาพอ่อนน้อม การให้เกียรติผู้ร่วมงาน และการทำงานเป็นทีม และรับผิดชอบต่อผู้ชม ต้องแสดงให้เต็มความสามารถเพื่อให้ผู้ชมมีความสุขกับผลงานของเรา และปรับปรุงตนเองให้มีการพัฒนายิ่งขึ้น ผู้ให้ข้อมูลรายหนึ่งเล่าว่า “*ความสำเร็จคือ* ความรัก ความอดทน ความรับผิดชอบ มีวินัย ตรงเวลา ไม่ฝึกฝน เมาในเวลาทำงานนี่ไม่ได้แล้ว”

(6) การสร้างเอกลักษณ์ของตนเอง ผู้ให้ข้อมูลเห็นว่าเครื่องดนตรีแต่ละชิ้น หากใช้ผู้เล่นที่ต่างกัน ผู้ฟังจะต้องสามารถแยกแยะได้ว่าเป็นฝีมือการแสดงของใคร นั่นคือ ทุกคนต้องมีศิลปะการแสดงที่แตกต่างจากผู้อื่น ดังที่ผู้ให้ข้อมูลรายหนึ่งกล่าวว่า “เราต้องทิ้งลายเซ็นของเราไว้” ผู้ให้ข้อมูลที่ได้รางวัลสูงสุดระดับชาติทั้ง 3 ราย เห็นว่า เอกลักษณ์ที่โดดเด่นที่สุดคือ การธำรงความเป็นไทยด้วยการแสดงโดยตรง หรือการสอดแทรกศิลปะและวัฒนธรรมของชาติไทยไว้

1.3) การปรับตัวต่อการเปลี่ยนแปลง ผู้ให้ข้อมูลทุกรายเห็นว่าเทคโนโลยีดนตรีและการแพร่ระบาดของเชื้อไวรัส covid19 ทำให้เกิดการเปลี่ยนแปลงที่กระทบต่อการประกอบอาชีพอย่างมาก ดังนี้

(1) การเปลี่ยนแปลงด้านเทคโนโลยีดนตรี ส่งผลต่อการทำงานในฐานะนักดนตรี ทำให้การทำงานสะดวกสบายรวดเร็วขึ้น แต่อาจส่งผลต่อคุณภาพของนักดนตรี ผู้ให้ข้อมูลรายหนึ่งเล่าว่า “การร้องเพลง เมื่อก่อน กว่าจะร้องได้เป็นที่พอใจ ต้องซ้อมแล้วซ้อมอีกเป็นหลายๆ วัน ถ้าร้องท่อนไหนไม่ดีก็ต้องเริ่มร้องใหม่ทั้งหมด แต่เดี๋ยวนี้ใช้การตัดต่อ ใช้การปรับจังหวะ ปรับเสียง นักร้องก็ไม่ต้องใช้แก้วเสียงหรือท่วงทำนองร้องให้เต็มที่แบบเดิม” รวมทั้งส่งผลต่อการแสดงดนตรีด้วย เพราะไม่จำเป็นต้องจัดการแสดงจริงที่ต้องลงทุนมาก สามารถใช้การแสดงผ่านสื่อได้หลายรูปแบบ

(2) การปรับตัวกับชีวิตวิถีใหม่ (new normal) การแพร่ระบาดของโรคไวรัส covid19 ทำให้ต้องจำกัดการรวมกลุ่มคนจำนวนมาก ซึ่งสถานการณ์ยาวนานมาเกือบ 2 ปี นักดนตรีเกือบทั้งหมดไม่มีงานทำ ไม่มีรายได้ บางคนต้องหันไปหารายได้ด้วยการขับรถส่งของ ขายอาหาร ขายเสื้อผ้า นักดนตรีที่ขาดการวางแผนในชีวิต ไม่รู้จักการอดออม ไม่มีความอดทน เป็นกลุ่มที่ถูกกระทบรุนแรงที่สุด

2) สมรรถนะของนักดนตรีมืออาชีพที่ประสบความสำเร็จ

ผู้ให้ข้อมูลเห็นว่า สมรรถนะที่สำคัญคือ

(1) สมรรถนะทั้ง 7 ข้อ ตามนิยามของสมาคมดนตรีแห่งชาติ (NASM) ของสหรัฐอเมริกา ได้แก่ ด้านการปฏิบัติ ด้านทักษะการฟังและการวิเคราะห์ ด้านการประพันธ์และการด้นสด ด้านประวัติและเพลงที่พร้อมออกแสดง ด้านเทคโนโลยี ด้านการสังเคราะห์ และด้านสมรรถนะการสอน ผู้ให้ข้อมูลทั้งหมด เห็นว่าเป็นสมรรถนะที่สำคัญต่อการเป็นนักดนตรีอาชีพและเป็นองค์ประกอบสำคัญของการประกอบอาชีพดนตรี โดยเฉพาะทักษะการฟัง การประพันธ์และการด้นสด จะช่วยให้นักดนตรีสามารถฟังและเล่นดนตรีได้อย่างถูกต้อง

(2) สมรรถนะด้านความรู้ ผู้ให้ข้อมูลทั้งหมดเห็นตรงกันว่า ความรู้ที่สำคัญที่สุดคือ ความรู้ด้านทฤษฎีดนตรี ประวัติดนตรี และประวัติศาสตร์ทั่วไป เพราะความรู้ด้านทฤษฎีดนตรีจะทำให้นักดนตรีมีพื้นฐานที่มั่นคงที่จะพัฒนาต่อยอดได้ แม้บางคนเมื่อเริ่มต้น อาจจะอาศัยเพียงทักษะเฉพาะตัวบุคคลที่สามารถเล่นดนตรีหรือร้องเพลงได้ แต่การพัฒนาต่อจากนั้น ต้องอาศัยพื้นฐานด้านทฤษฎีดนตรีมาก ในขณะที่ผู้ให้ข้อมูลกล่าวว่า เมื่ออายุมากขึ้น กลับสนใจประวัติดนตรีและประวัติศาสตร์ทั่วไปมากขึ้น เพราะสองสิ่งนี้ช่วยให้เข้าใจที่มาและความแตกต่างของบทเพลงทำนองเพลง เมื่อเข้าใจแล้วก็จะเกิดความซาบซึ้งในบทเพลงนั้นมากขึ้น

(3) สมรรถนะด้านทักษะ ผู้ให้ข้อมูลทั้งหมดเห็นพ้องกันว่า นอกจากทักษะด้านการแสดง การประพันธ์และอื่นๆ ที่เป็นทักษะทั่วไปแล้ว ทักษะที่สำคัญที่สุดมี 3 ประการคือ 1) ทักษะการฟัง (ear-training) การฟังเป็นหัวใจสำคัญของการเล่นดนตรี ถ้านักดนตรีมีหูดี จับจังหวะ จับทำนองได้แม่นยำก็จะสามารถเล่นได้ตรง ไม่เพี้ยนไปจากต้นฉบับ ผู้ที่มีทักษะการฟังไม่ดี ฟังเสียงเพี้ยน ก็จะเล่นเพี้ยนด้วย แม้ว่าจะมีความตั้งใจมากก็ตาม การมีหูที่ดีไวและแม่นยำ นอกจากเป็นคุณสมบัติเฉพาะตัวแล้วยังต้องอาศัยการฝึกฝนด้วยการฟังอย่างหนัก ผู้ให้ข้อมูลรายหนึ่งกล่าวว่า ตนเองได้ฝึกการฟังตลอดเวลา ถึงขนาดต่อลำโพงเสียงเข้าไปในห้องน้ำด้วย ผู้ให้ข้อมูลรายหนึ่ง แนะนำว่าครูผู้สอนควรจะประเมินทักษะการฟังของนักเรียนหรือนักศึกษาหากไม่สามารถแยกเสียงได้ถึงระดับมาตรฐาน ควรจะแนะนำให้ผู้เรียนเปลี่ยนไปเรียนสาขาวิชาอื่น ความสำคัญของการฟังดังคำกล่าวของผู้ให้ข้อมูลคนหนึ่งว่า “การฟังสำคัญที่สุด หัวใจเราตื่นเต้นที่ได้ฟังเพลงใหม่ๆ เพลงดีๆ ดนตรีดีๆ มองเห็นลึกลงไป นี่คือวิถีของศิลปิน การฟังดนตรี มันนำทั้งความคิด ทั้งประวัติศาสตร์ ทั้งการก้าวไปข้างหน้า การมองย้อนกลับไปข้างหลัง” 2) ทักษะการทำงานได้หลายบทบาท (multi-task) ผู้ให้ข้อมูลส่วนใหญ่เห็นว่า การทำงานดนตรีต้องการความสามารถที่หลากหลาย ถ้านักดนตรีคนหนึ่งสามารถเล่นดนตรีได้หลายชิ้น ทำได้หลายหน้าที่ ก็จะทำให้การทำงานคล่องตัวขึ้น และเพิ่มสีสันให้กับวงด้วย ในปัจจุบันที่เทคโนโลยีดนตรีเข้ามามีบทบาทมากขึ้น ทำให้ผู้จ้างงานต้องการผู้

รับจ้างที่สามารถทำงานจบได้ ณ จุดเดียว เช่น ทั้งด้านการแสดง และด้านการผลิต นักดนตรีจึงควรเรียนรู้การทำงานหลายบทบาท โดยเฉพาะการเรียนรู้เรื่องเทคโนโลยีดนตรี จะช่วยให้นักดนตรีปรับตัวให้ทำงานกับวิถีชีวิตใหม่ (new normal) ได้ทักษะหนึ่งที่วงดนตรีต้องการมากคือ งานซ่อมเครื่องดนตรี โดยเฉพาะการแก้ปัญหาหน้างาน จึงขอเสนอให้สถาบันการศึกษาพิจารณาเพิ่มรายวิชาด้านการซ่อมเครื่องดนตรี 3) ทักษะการสื่อสารและการทำงานร่วมกับผู้อื่น ผู้ให้ข้อมูลทุกรายเห็นว่าทักษะการสื่อสารและการทำงานร่วมกับผู้อื่น เป็นทักษะที่สำคัญที่สุดในการประสบความสำเร็จและเป็นทักษะที่สำคัญกว่าทักษะด้านดนตรี เพราะทักษะด้านดนตรีเรียนรู้ได้หากขยันฝึกซ้อม แต่ทักษะการสื่อสารและการทำงานร่วมกับผู้อื่น ทำให้การทำงานเป็นไปอย่างราบรื่นเกิดความสามัคคีและทุกคนมีความสุขในการทำงาน ทักษะนี้เกิดขึ้นได้จากความสุภาพอ่อนน้อม ให้เกียรติผู้อื่น และเปิดใจเรียนรู้จากผู้อื่น (4) ทัศนคติ (attitudes) ผู้ให้ข้อมูลทั้งหมด เห็นพ้องกันว่า ทัศนคติเป็นสิ่งสำคัญที่สุดในการทำงาน ดังที่ผู้ให้ข้อมูลรายหนึ่ง กล่าวว่า “ทัศนคติสำคัญที่สุด คนเราจะเจริญไม่เจริญ ทั้งการเรียนรู้ ทั้งการยอมรับ” โดยทัศนคติที่สำคัญคือ

1) ความมุ่งมั่นและความรับผิดชอบในการทำงาน ผู้ให้ข้อมูลทุกรายมีความมุ่งมั่นตั้งใจจะทำงานให้ได้ดีที่สุด ไม่มีความเบื่อหรือท้อถอยในการเรียนรู้ ทั้งหมดไม่ได้ทำเพื่อเงินแต่ทำเพราะใจรักในเสียงดนตรี และยึดมั่นในจรรยาบรรณวิชาชีพคือ ความรับผิดชอบต่อผู้ฟังด้วยการผลิตงานที่ดีที่สุด

2) การเป็นผู้เรียนรู้ตลอดชีวิต โดยไม่ยึดติดกับแนวดนตรีเดียว ผู้ให้ข้อมูลทุกรายเห็นว่าที่ตนเองประสบความสำเร็จได้ เพราะเป็นผู้ใฝ่เรียนรู้ อยากรู้จัก อยากทดลองเล่นเครื่องดนตรีชนิดต่างๆ บางรายฝึกหัดประพันธ์เพลงตั้งแต่เรียนชั้นมัธยมศึกษา บางรายเรียนฝึกการใช้เทคโนโลยีดนตรีเมื่อมีอายุมากแล้ว ทุกรายยังมีความตั้งใจที่จะเรียนรู้ต่อไปให้ได้มากที่สุด

ข้อเสนอในการพัฒนาหลักสูตร

(1) ทักษะการสื่อสารภาษาอังกฤษ เนื่องจากความก้าวหน้าทางการสื่อสาร และคุณภาพของนักดนตรีไทยต่อไปนักดนตรีไทยมีโอกาสจะทำงานร่วมกับบริษัทต่างชาติมากขึ้น แม้แต่ตลาดเพื่อนบ้านในอาเซียนก็น่าจะขยายตัว นักดนตรีจึงควรพัฒนาทักษะภาษาอังกฤษให้สามารถสื่อสารได้ด้วยตนเอง

(2) ทักษะการใช้เทคโนโลยีดนตรีให้สามารถผลิตงานได้ด้วยตนเอง เช่น ผลิตเพลงโฆษณา 1 เพลงทำให้เบ็ดเสร็จด้วยตนเองรวมทั้งควรมีความรู้ด้านแสง (lighting) เพิ่มเติมจากเรื่องเสียง (sound) ปัจจุบันเทคโนโลยีดนตรีมีการพัฒนาเร็วขึ้นทั้งฮาร์ดแวร์และซอฟต์แวร์อีกทั้งราคาก็ต่ำลงทำให้สามารถซื้ออุปกรณ์มาทำงานในระดับ (home studio) ได้ง่าย ดังนั้นความรู้เรื่องระบบไหลเวียนสัญญาณของเสียงจึงควรถูกบรรจุอยู่ในวิชาเรียนของหลักสูตรดนตรีสากล เพราะการทำงานเพลงในปัจจุบันไม่จำเป็นต้องอาศัยคนทำงานมากด้วยเทคโนโลยีที่ทันสมัย นักดนตรีสามารถสร้างงาน

ดนตรีได้ด้วยตนเองเพียงลำพัง ดังนั้นการเข้าใจในเรื่องระบบการเชื่อมต่อของฮาร์ดแวร์กับซอฟต์แวร์ที่เหมาะสมจึงเป็นเรื่องสำคัญมาก

(3) การสร้างความมั่นคงในอาชีพนักดนตรี ข้อเท็จจริงที่ปรากฏคือ การจะยึดอาชีพนักดนตรีไปจนถึงวัยเกษียณอายุการทำงานเป็นไปได้ยาก เพราะการแข่งขันสูง โดยเฉพาะการเรียนรู้เทคโนโลยีใหม่ๆ ที่เปลี่ยนแปลงอย่างรวดเร็วจำเป็นต้องใช้ทุนจำนวนมาก สถาบันการศึกษาอาจต้องพิจารณาว่า จะต้องเพิ่มเติมสมรรถนะอย่างต่อเนื่องให้บัณฑิตที่สำเร็จการศึกษาไปแล้ว ด้วยการ upskill/reskill หรือการสร้างให้เขาสามารถมีงานที่ 2 ที่ 3 รองรับได้ตลอดอายุการทำงาน

อภิปรายผล

ผลการวิจัย มีประเด็นที่น่าสนใจคือเรื่องพรสวรรค์และพรแสวง ที่ผู้ให้ข้อมูลทุกคนกล่าวเป็นเสียงเดียวกันว่าพรแสวงหรือการฝึกฝนเป็นสิ่งสำคัญที่สุด ส่วนพรสวรรค์ของแต่ละคนมีหรือไม่ ไม่มีข้อมูลสนับสนุนที่ชัดเจน ในข้อคำถามที่ว่า การฝึกฝนที่มีประสิทธิภาพ ควรจะฝึกจากใคร ผู้ให้ข้อมูลทุกรายระบุว่า พวกเขาได้รับการฝึกฝนมาจากครูที่เก่งมากๆ ทำให้มีโอกาสพัฒนาตนเองได้เร็วและชัดเจน งานวิจัยไม่พบการฝึกฝนแบบ “ครูพักลักจำ” Ericsson (2009: 426) เห็นว่า การฝึกฝนแบบทำซ้ำๆ บ่อยๆ จะไม่สามารถยกระดับคุณภาพได้ แต่จะต้องฝึกอย่างมีกลยุทธ์ มีเป้าหมายคือ ฝึกแก้ปัญหาสถานการณ์ที่จะเกิดขึ้น หรือฝึกเพื่อพัฒนาทักษะบางชนิดอย่างจริงจัง และ Bransford and Schwartz (2009: 433) เสนอว่า การฝึกที่มีประสิทธิภาพคือ การฝึกจากผู้เชี่ยวชาญเท่านั้น หรือที่เขาเชื่อว่า “It takes expertise to make expertise” สถาบันการศึกษาจึงควรพัฒนาผู้สอนของตนให้มีความเชี่ยวชาญระดับสูง เพื่อให้ครูสามารถฝึกผู้เรียนให้เป็นผู้เชี่ยวชาญได้ จะเห็นได้ว่าการมีทักษะทางสังคมที่ดีนั้น สำคัญกว่าทักษะทางดนตรี ผู้ให้ข้อมูลทั้งหมดเห็นพ้องกันว่า ความสำเร็จในวิชาชีพของตน มาจากทักษะทางสังคมคือ ทักษะการสื่อสารและทักษะการทำงานร่วมกับผู้อื่น (collaboration) ซึ่งสอดคล้องกับงานวิจัยของ López-Íñiguez and Bennett (2020: 8) ที่ศึกษาจากนักดนตรีที่ประสบความสำเร็จระดับนานาชาติ 8 คน ทุกคนเห็นพ้องกันว่า ความกระตือรือร้นใฝ่เรียนรู้ (curiosity) และการเรียนรู้ตลอดชีวิตทำให้พวกเขาประสบความสำเร็จและสามารถรักษางานของตนไว้ได้ในระยะยาว สถาบันการศึกษา จึงควรทบทวนว่าได้ให้ความสำคัญกับการฝึกทักษะทางสังคมเพียงพอหรือไม่ ประกอบกับในสภาพปัจจุบันที่เทคโนโลยีดนตรีทำให้ต้องการนักดนตรีที่ทำงานได้หลายบทบาท (multi-task) ประกอบกับสถานการณ์การแพร่ระบาดของโรคไวรัส covid19 ทำให้การแสดงดนตรีบนเวทีถูกระงับ นักดนตรีต้องเรียนรู้ที่จะปรับตัว ด้วยการเรียนรู้เทคโนโลยีเพิ่มขึ้นและปรับเปลี่ยนการทำงานไปสู่อาชีพที่สอง งานศึกษาของ López-Íñiguez and Bennett (2020) ก็ยืนยันว่า แม้ในกลุ่มนักดนตรีที่ประสบความสำเร็จอย่างสูงก็ยังปรับตัวด้วยการทำงานให้ได้หลาย

บทบาท (multi-professional musicians) โดยสถาบันการศึกษาที่จัดการเรียนการสอนด้านดนตรีและดนตรีศึกษา ควรพิจารณานำผล การวิจัยไปปรับหลักสูตรการเรียนการสอน ให้สอดคล้องกับผลการวิจัยเพื่อผลิตนักดนตรีและนักดนตรีศึกษาที่สามารถทำงานและพัฒนาตนเองไปสู่ความสำเร็จได้อย่างแท้จริง ข้อจำกัดของการวิจัยนี้คือ มีนักดนตรีสตรีเพียง 1 ราย ทำให้งานวิจัยไม่ได้ให้ความสำคัญกับประเด็นเรื่องเพศสภาพ (gender) ในงานวิชาชีพที่คนส่วนใหญ่เป็นเพศชาย จึงควรจะมีการศึกษาประเด็นเพศสภาพในงานวิจัยต่อๆ ไป

เอกสารอ้างอิง

ไพบูลย์ บุณยเกียรติ. (2564). *ทัศนคติการรับรู้และประสบการณ์ดนตรีที่ส่งผลต่อการตัดสินใจเลือกอาชีพของนักศึกษาหลักสูตรดนตรีบัณฑิต*. สืบค้นจาก www.journalgrad.ssru.ac.th.

ศิลปชัย กงตาล. (ม.ป.ป.). *ตอนที่ 2 สมรรถนะครูดนตรีและลักษณะครูวิชาชีพ*. สืบค้นจาก http//pws.npru.ac.th.

อาทิตย์ โพธิ์ศรีทอง. (2561). การพัฒนาสมรรถนะทางด้านดนตรีของนิสิตปริญญาตรี ด้วยชุดกิจกรรมการเรียนรู้ตามแนวคิดของ DALCROZE. *วารสารวิชาการศึกษาศาสตร์, 19*(1), 204-217.

Bransford, John D., Daniel L. Schwartz. It takes Expertise to Make Expertise: Some Thoughts about Why and How and Reflections on the Themes in Chapter 15-18. in Ericsson, K. A. (2009). *Development of Professional Expertise: Toward Measurement of Expert Performance and Design of Optimal Learning Environments*. Cambridge U. K.: Cambridge University Press.

Dalladay, C. (2012). Musicianship in Education: Ideology and Practice. *Research in Teacher Education,2(2*), 9-18.

Ericsson, K. A. (2009). Enhancing the Development of Professional Performance: Implications from the Study of Deliberate Practice. in Ericsson, K. A. (2009). *Development of Professional Expertise: Toward Measurement of Expert Performance and Design of Optimal Learning Environments*. Cambridge U. K.: Cambridge University Press.

López-Íñiguez, G., & Bennett, D. (2020). A Lifespan Perspective on Multi-Professional Musicians: does Music Education Prepare Classical Musicians for their Careers?. *Music Education Research, 22*(1), 1-14.

PANOT. (2020). *อัปเดต 2020 รวมคณะ/สถาบันที่เปิดสอนเกี่ยวกับทักษะดนตรีในประเทศไทย.* สืบค้นจาก www.tcaster.net/.

Rosas, Fatima Weber et al. (2016). *Music Technology Competencies for Education: A Proposal for A Pedagogical Architecture for Distance Learning.* 13th International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2016). p. 77-85.

Tseng, Hua Hui. (2021). *The Relations between Musicianship and Core Competencies in Professional Music Training-The TUT Experience. Education and New Developments.* pp. 13-14. Retrieved on 12 April 2022. from https://doi/org/10.36315/2021 end 003.