Quality Perception towards Purchase Decision of Environment-Friendly Electric Appliance Products in Thailand

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Abstract

The customer perception was a customer's knowledge and understanding of environment-friendly products, environmental problems as well as their subsequent effects. Quality perception is very important factor concerning green marketing management and is viewed to be motivational constructs, influencing subsequent consumer behaviours, as well as extensiveness of the decision-making process. The purpose of this study was to analyze factors determining quality perceptions that affect the purchase decision. This research employs an empirical study by means of the questionnaire survey method. The samples were 384 respondents who bought environment-friendly electric appliance products. In order to examine the effect of quality perceptions on purchase decision, multiple regression analysis was performed. The result indicated that purchase decision was significantly affected by quality perceptions concerning performance, worthiness, reliability and product safety.

Keywords: Quality perception, Purchase decision, Environment-friendly electric appliance products

1. Introduction

Because of the attention of the society, more and more companies are willing to accept the environmental responsibility. With this increasing concern, the companies have been developing green products such as eco-technology and green brand. Thus, green marketing is important because it helps to promote environment friendly products. It also helps to reduce the causes of global warming and other environmental problems or issues. For the above-mentioned reasons, companies have been developing a number of environmentally friendly programs and green products. Before going to green industry, must to study the market or consumer behaviour for these products. It is critically important for organisations to understand consumer behaviour and the processes involved in their decision making to be able to attempt to influence their purchase. A deep understanding of the specific needs that a customer is aiming to meet is key to successful marketing (Belch et al, 2012).

By studying the consumers' behaviors prior to deciding on products, the consumers determined what external and internal factors would influence their own behavior. When environmental factors were taken into account in the system of human thinking, consumers would behave with these factors in mind. Businesses should have an interest in the environmentally friendly market or so-called "green marketing" to add value to products that a customer's perceived value and reduced perceived risk have an influence on a consumer's decision (Greenleaf & Lehmann, 1995; Havlena & DeSarbo, 1991; Jacoby & Kaplan, 1972; Roselius, 1971).

Purchase decision is the fourth stage in consumer buying decision process. According to the Consumer Decision Making Process Model (Blackwell et al., 2006),

As a result, consumer purchase decision can be a major source of sustained growth and profit and a strong asset. In order to obtain competitive advantages, companies should utilize green marketing strategies to enhance consumer quality perception and reduce consumer perceived risk with respect to consumer environmental concern (Chen, 2010).

A review of prior studies indicates that researchers have studied the relationship between quality perception and purchase decision. According to Yee et al. (2011) explored the consumers' perceived quality towards purchase decision on automobile. They need to understand what factors might influence their customers' decision in purchasing an automobile. According to Dae and Joon (2009) and Tsiotsou (2006), which indicate that perceived quality have positive association with purchase decision. Although the literatures about the relationship between quality perception and purchase decision are rich, however no work has been focused on the relationship of mentioned variables on purchase decision of environment-friendly electric appliance products in Thailand.

This study presents a review of the literature and the theoretical framework with an analysis of the empirical literature to support this framework and summarizes the literature on green marketing into a new managerial framework on customer purchase decision. Specifically, quality perception and customer purchase decision have been selected after an extensive marketing review of literature Thus, for the research conducted in this paper, the researcher was interested in studying the influence of the above variables of quality perception and purchase decision on the consumers who bought environmentally friendly electric appliance products. The paper is organized as follows. First, a literature review is presented, followed by the conceptual framework of the study, the research hypotheses, and the methodology and results. Finally, the conclusions of the research are presented.

2. Research Objectives

The objective of this research was to examine the association between quality perception and purchase decision of environment-friendly electric appliance. More specifically, to examine a six-dimensional construct of quality perception using performance, durability, attention, worthiness, reliability and product safety.

3. Literature Review

Quality Perception:

Zeithaml (1988) to define perceived quality as the customer's judgment about a brand's (or a product's) overall environmental excellence or superiority. Chen & Chang (2013) proposed a novel construct, 'green perceived quality' because environmental consciousness is more popular and referred to Zeithaml (1988). Sweeney et al. (1999) to define product quality would be reliable, dependable, durable and the workmanship on this product would be good. Perceived quality is defined as the consumers' judgment about an entity's (services) overall excellence or superiority (Snoj et al., 2004). Perceived quality can deliver value to customers by offering them a purchase reason and by differentiating the product or brand from competitors' (Zeithaml, 1988; Aaker, 1996). This research suggested a six-dimensional construct of perceived quality using performance, durability, attention, worthiness, reliability and product safety.

Purchase Decision:

According to Peter and Olson (2004), the key process in consumers' decision making is the integration process by which knowledge is combining to evaluate two or more alternative behavior and select one. Most of the large company research consumer buying decision in increasing detail to answer question about what consumer buy, where they buy, how and how much they buy, when they buy and why they buy (Kotler et al., 2005).

Purchase decision is the fourth stage in consumer buying decision process. According to the consumer decision making process model (Blackwell et al., 2006), a purchase or intent to purchase is often influenced by other factors such as risk and involvement.

There was evidence to support a positive relationship between Yee et al. (2011), Dae and Joon (2009); Tsiotsou (2006); Richardson et al. (1996); Hoch and Banerji (1993), this study implies the following hypotheses:

H1 : There is a significant association between performance and purchase decision of consumers.

H2 : There is a significant association between durability and purchase decision of consumers.

H3 : There is a significant association between attention and purchase decision of consumers.

H4 : There is a significant association between worthiness and purchase decision of consumers.

H5 : There is a significant association between reliability and purchase decision of consumers.

H6 : There is a significant association between product safety and purchase decision of consumers.

The purpose of this study is to examine the association between quality perception and purchase decision of environment-friendly electric appliance products in Thailand. Based on the hypothesis, the causal relation between the potential variables is analyzed by using multiple regression analysis. The research framework is as following.
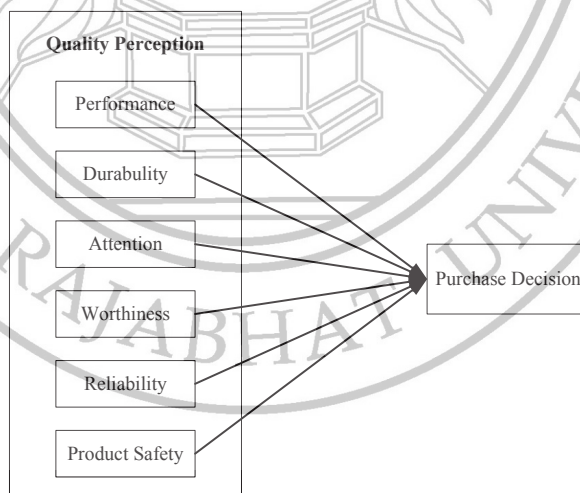

Figure 1. Conceptual framework

4. Research Methodology

4.1 Research Instruments

The questionnaire structure consists of 3 sections

1) Background : the questions cover research variables including gender, age, education, occupation, income, buying experience, type of products, basic knowledge about green product and etc; the purpose is to have further understanding on the investigated subjects.

2) Quality Perception : there was 23 items covering 6 dimensions including performance, durability, attention, worthiness, reliability and product safety; the reference was made on Sweeney et al. (1999), Yoo & Donthu (2001), and Snoj et al. (2004).

3) Purchase Decision: there was 10 items; the reference was made on-Baker & Ozaki (2008), and Yee et al. (2011).

Questionnaires using 7-point Likert scale with anchor of (1) 'strongly disagree' to (7) 'strongly agree' can reduce variability in the results that may be differences and enhances reliability of the responses.

The questionnaire achieved an IOC value of 0.972 and the Cronbach's alpha were calculated, the results of each item is more than 0.8, meaning that the questionnaire has high reliability.

4.2 Data Collection

The research has been studied 384 working aged male and female consumers who used to purchase electric appliances. According to Institute for Population and Social Research (2013), the working age refers to people who aged range from 15-60 years old. The samples were selected by simple random sampling and accidental sampling method. The data were obtained from survey questionnaires

4.3 Data Analysis

The data will be analyzed using descriptive statistical analysis and examined using multiple regression statistical analysis.

5. Results and Discussions

Before analyzing the multiple regression, must employed Pearson's correlation coefficients to measure the relationship between variables. None of the calculations were over 0.80 and this indicated the non-existence of multicollinearity problems. Analysis of variance (ANOVA) of the respondents, it was found that consumer purchase decision based on quality perception was significant ($p<0.01$). Based on Cohen's rules for effects sizes, the coefficient of determination (R^2) was 0.444 for the overall correlation between the purchase decision and the quality perceptions of performance, durability, attention, worthiness, reliability and product safety as shown in Table 1-3.

Table 1
Pearson's correlation coefficients of factors

Quality Perception	Mean	SD	1	2	3	4	5	6
performance	4.56	.927	1.000					
durability	4.67	.985	.698	1.000				
attention	4.86	.917	.608	.682	1.000			
worthiness	4.93	.927	.597	.535	.613	1.000		
reliability	4.97	.937	.557	.579	.646	.690	1.000	
product safety	5.03	.964	.502	.572	.601	.529	.646	1.000

Table 2
Regression Analysis of the quantitative study : model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson statistic
.666	.444	.435	.732	2.093

Table 3
Regression Analysis of the quantitative study : analysis of variance

	Sum of squares	df	Mean square	F	Sig.
Regression	161.009	6	26.835	50.098	.000
Residual	201.940	377	.536		

As shown in Table 4, It is evident from the regression coefficients (B) and p-values that performance, worthiness, reliability and product safety are significantly and positively related to purchase decision, with p-value .000, .011, .001 and .001, respectively while durability and attention are not significantly in the context of customers who buy and use environment-friendly electric appliance products in Thailand sectors.

Table 4
Regression Analysis of the quantitative study : variables in the equation

Variables	B	Std. Error	Beta	t-value	p-value
Constant					
performance	.236	.061	.225	3.857	.000**
durability	.084	.061	.085	1.375	.170
attention	.117	.064	.110	1.817	.070
worthiness	.155	.061	.148	2.555	.011*
reliability	.221	.064	.213	3.431	.001**
product safety	.188	.055	.186	3.442	.001**

Notes: *p-value<0.05, **p-value<0.01 (two-tailed)

H_1 : *There is a significant association between performance and purchase decision of consumers.*

According to Table 4, significant value for performance is 0.000**, which indicates that performance towards purchase decision is more than 99% (p-value<0.01). Therefore, H_1 is supported and this indicates that performance has association with purchase decision. This mean if perceived quality about performance is higher, consumers' purchase decision will be higher.

H_2 : *There is a significant association between durability and purchase decision of consumers.*

According to Table 4, significant value for durability is 0.170, which indicates that durability towards purchase decision is less than 99% (p-value>0.01). Therefore, H_2 is not supported and this indicates that durability has no association with purchase decision.

H_3 : *There is a significant association between attention and purchase decision of consumers.*

According to Table 4, significant value for attention is 0.070, which indicates that attention towards purchase decision is less than 99% (p-value>0.01). Therefore, H_3 is not supported and this indicates that attention has no association with purchase decision.

H_4 : *There is a significant association between worthiness and purchase decision of consumers.*

According to Table 4, significant value for worthiness is 0.011*, which indicates that worthiness towards purchase decision is more than 95% (p-value<0.05). Therefore, H_4 is supported and this indicates that worthiness has association with purchase decision. This mean if quality perception about worthiness is higher, consumers' purchase decision will be higher.

H_5 : *There is a significant association between reliability and purchase decision of consumers.*

According to Table 4, significant value for reliability is 0.001**, which indicates that reliability towards purchase decision is more than 99% (p-value<0.01). Therefore, H_5 is supported and this indicates that reliability has association with purchase decision. This mean if quality perception about reliability is higher, consumers' purchase decision will be higher.

H_6 : *There is a significant association between product safety and purchase decision of consumers.*

According to Table 4, significant value for product safety is 0.001**, which indicates that product safety towards purchase decision is more than 99% (p-value<0.01). Therefore, H_6 is supported and this indicates that product safety has association with purchase decision. This mean if quality perception about product safety is higher, consumers' purchase decision will be higher.

This result is further supported by Yee et al. (2011), Dae and Joon (2009); Tsiotsou (2006); Richardson et al. (1996); Hoch and Banerji (1993), which indicate that quality perception have positive association with purchase decision.

6. Conclusion and Recommendations

This research studied the relation between variables concerning the consumer quality perception, specifically green electric appliance products. The result found that, the influences of performance, worthiness, reliability and product safety on purchase decision (H_1, H_4, H_5 and H_6, respectively) are supported. This means that consumers' believe and require right information to develop purchase decision. But the influences of durability and attention on purchase decision (H_2 and H_3) are not supported.

In general, the discussion about the effects of various variables in developed countries still has little evidence in Thailand. Future research should expand the scope to a more representative sample of population, other products or services, as well as to be tested in other countries or markets and could be compared with this study or should emphasize the profoundness of the consumers' perception, awareness or other factors that affected the purchase decision to realize the different objectives. In terms of managerial implication, the practitioners must create different strategies on how to enhance the quality perception (in term of performance, durability, attention, worthiness, reliability and product safety) for the purpose of increasing the likelihood of consumer purchase decision.

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