The effectiveness of green product positioning and marketing strategies towards purchase intention in Malaysia

Muslim Amin*
Management Department,
College of Business Administration,
King Saud University,
P.O. Box. 7115,
Riyadh 11587, Kingdom of Saudi Arabia
Email: tengkumuslim@yahoo.com
*Corresponding author

Sathiswaran Uthamaputhran
Faculty of Entrepreneurship and Business,
Universiti Malaysia Kelantan,
Kota Bharu, Kelantan Darul Naim, Malaysia
Email: sathiswaranw@gmail.com

Faizan Ali
International Business School,
Universiti Teknologi Malaysia,
International Campus,
Jalan Semarak, Kuala Lumpur, Malaysia
Email: faizanali7@hotmail.co.uk

Abstract: This study aims to investigate the effect of green positioning strategies towards product attitudes and customer’s intentions to purchase. Data was collected from 500 customers of Giant and Econ save supermarket by distributing the questionnaires. Results of this study show that emotional benefits and functional attributes have significant relationship with product attributes and product attributes has significant relationship with purchase intentions. Findings from this study suggested that functional attributes and emotional benefits have become an important aspect in green product positioning to convince the customers to buy the green products.

Keywords: green products; emotional attributes; functional attributes; product attributes; purchase intention; innovation; learning; Malaysia.


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Biographical notes: Muslim Amin is an Assistant Professor at College of Business Administration, King Saud University (KSU), Kingdom of Saudi Arabia. Prior joining KSU, he served as a Senior Lecturer at International Business School, Universiti Teknologi Malaysia (UTM-IBS). His current research interests include service quality, customer satisfaction, customer loyalty, electronic commerce and interactive marketing and entrepreneurship marketing. He has published his research papers in The Service Industries Journal, International Journal of Bank Marketing, Services Marketing Quarterly, Clinical Governance: An International Journal, Journal for Global Business Advancement, The TQM Journal and International Journal of Islamic Middle Eastern Finance and Management.

Sathiswaran Uthamaputhran is a Lecturer in Faculty of Business and Entrepreneurship at Universiti Malaysia Kelantan. He holds MBA (Technology Entrepreneurship) from International Business School, Universiti Teknologi Malaysia (UTM-IBS). His current research interests include electronic marketing, neural marketing, green marketing and technology entrepreneurship.

Faizan Ali is a PhD candidate in Marketing at International Business School, Universiti Teknologi Malaysia (UTM-IBS). His first degree is from Institute of Management Sciences, Peshawar, Pakistan and he holds MS in Management from Glyndwr University, UK. His research interests are customer experience, service performance and quality, customer satisfaction and behaviour.

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1 Introduction

During the last decade environmental issues have been given an increased attention globally. Many researchers, academicians and practitioner have continued working to solve and improve the environmental issues of the world that has increased the awareness of environmentalism resulting innovativeness in green product decision making. People from around the world including France, China, Greece and USA has continuously supported the green products and are investing in innovating this idea (Azizan and Suki, 2013; Sirgy et al., 1991). In Malaysian context, hypermarkets and supermarkets such as Tesco and Carrefour also have learned from it and turned their business strategies by supporting environmental preserving activities. Among the commonly practiced innovative activities in these stores are ‘No Plastic Day’ on every Saturday and providing collection bins for recycling items which provides customers an opportunity to learn and to participate in the global interest of preserving the environment (Rahim et al., 2012). In this context, green positioning can be considered as a subset of attribute, benefits and environmental values that convince green customers to be loyal over green products (Hartmann et al., 2005). Green customers refer to individuals that buy products with high environmental conscious and knowledge (Chan and Lau, 2000). With an increasing number of customers switching on to green products, an argument related to types of positioning of these green products is also developing. It is to be understood if it is the functional attributes or the emotional benefits, or both of these that have become obsolete.
(Shrum et al., 1995). Even though there is a negative rumour about traditional types of product positioning, these still has to be taken into consideration as a basic foundation to identify customer attitudes and behaviours.

Therefore, the purpose of this study is to investigate the effect of green positioning strategies (functional attributes and emotional benefits) towards product attitudes and customer’s intention to purchase. The recent study contributes to the literature by learning about the effectiveness of basic green product positioning and its relationship with product attitudes and purchase decisions of customers. In the next section, the related studies on functional attributes, emotional benefits, product attitudes and intention are clearly conversed followed by the research methodology which emphasises on research methods, sample selection and data collection techniques. The next section will then present the structural model analysis and finally discussion, conclusion, limitation and future direction.

2 Literature review

2.1 Functional attributes

Functional attributes is defined as a device that provides information about the products and intangible tools to promote the green products for customers (Hartmann et al., 2005). The definition of functional attributes is consistent with the prominent theory and justification of personal satisfaction; perceived value to the products, physical justification, usage effectiveness and reliability which leads to build brand names for organisations in the society (Massis et al., 2012). Researchers in the green marketing literature examined the role of functional attributes or in other words ‘utilitarian value’ that serves the customers with an effective informational marketing which indirectly creates the beliefs toward the product or brands (Sirgy et al., 1991). Moving up to the scale, these attributes also depend on the customer desire and necessity because green claim and characteristic of the products are strong motivators toward the purchase intention (Roozen and Pelsmacker, 1998).

2.2 Emotional benefits

Symbolic benefits or value-expressions are defined as transformational advertising segments highlighted on developing and highlighting ‘characteristics’ for the brands with a specific objective (Sirgy et al., 1991). Such conceptualisation of emotions encompasses tendency of green product benefits through its image and basically reacts as a mediator over customer’s cognitive process and the likelihood of using and recommending green products (Keller, 1993; Na et al., 1999). In recent times however there is a strong argument negating the importance of emotional benefits based on the statement by Wood (2007) that the role of emotional benefits is a bit ambiguous as it contributes in building a brand image and reputation and not really focusing on the quality provided.
2.3 Product attitudes

In the context of this study, product attitude is referred to as a subset of correlation between beliefs and values of customer’s behaviour towards different types of green products in the business market. Product attitude has been classified into different dimensions considering the objective of increasing customer’s attention towards green products (Shah et al., 2012). Product attitudes towards green products are usually effect the environmental as well as the individuals as main parameters, indirect effecting the purchase intentions of customers. This means that the brand positioning develops product attitudes that are likely to foster future customers purchasing intentions (Ramayah et al., 2010). In several big companies, product attitudes are developed by employing innovative marketing strategies such as ‘story telling’ in order to develop customers’ understanding of the product and services offered by the companies. Chiu et al. (2012) states that product attitude has the capability to change customer’s memory and create the desire to purchase. However, in this study, product attitude is considered as a mediation between independent variables (functional attributes and emotional benefits) and dependent variables (intention to purchase) as suggested by various authors (MacKenzie et al., 1986; Mitchell and Olson, 1981; Qader and Zainuddin, 2010).

3 Relationship between variables

3.1 Functional attributes – product attitudes

The impact of functional attributes as a factor for product positioning influencing customers’ purchase intention on green products has gained some agreement (Sirgy et al., 1991). Some studies have stated that some of the product offerings such as value and quality, price, features of product are the main indicators to determine the customers understanding of green product concepts (Lee et al., 2010). In this context, it is very important to consider that price also has been one of the barriers in purchasing the green products because the certified organic products are more expensive compared to inorganic products due to the high production cost required in the setup of greenhouse farming equipment and technology (Napolitano, 2010). A lack on functional attributes of a product can influence the numbers of loyal customers due to its failure in developing customers’ trust towards that product. Meanwhile, Han et al. (2011) stated that another main barrier for using functional attributes to position products is imitation. Therefore, now companies are investing in technology as a factor to contribute in functional attributes to attract the customers (Figueiredo and Birto, 2012; Fjelstad, 2011). Traditionally, customer’s belief performance of the products is the key factors to evaluate the overall products credibility (Kressmann, 2006). The credibility of the green products is one of the elements that boost the purchasing powers of the customers because the performance and quality must reach their expectation (Ng et al, 2013; Washburn et al., 2000). Thus, hypothesis is:

H1 Functional attributes have positive effects on product attitudes.
3.2 Emotional benefits – product attitudes

Emotional benefits are related with the self-image that is created by the customers. Their preferences in identifying the products are closely related to the emotional linkages with personality and traits (Barrena and Sánchez, 2009). For example, in certain products, packaging is one of the essential emotional benefits to attract the new customers for the business. Usually first impression of the products developed perceptions of the customers (Larsen, 1996; Laresen and Grunert, 2003). On other hand, ‘cultures’ and ‘perceived benefits’ are subjective values that are highly recommended by the previous researchers in their studies on emotional relationships. Thus, hypothesis is:

H2 Emotional benefits have positive effects effect on product attitudes.

3.3 Product attitudes – intention

Although there is a common confirmation between product attitudes and intention to purchase, but the key area that significantly influences the product attitudes is customers’ brand attachment. The review of literature points out that product attachment behaviour such as feeling and positive imagery is the key implication that develops customers’ attitude towards green products and influences their intention to purchase (Bui, 2005). Additionally, numerous researchers and practitioners also have emphasised the influence of demographic profile such as age and education towards purchase intention (Dwivedi et al., 2012; Han et al., 2011; Zakersalehi and Zakersalehi, 2012). For instances, customers who have knowledge about the importance of environmental issues, are likely to easily engage with the green products. Recent research have started to focus on the degree of involvement likelihood in green products and paying more attention to customers’ product attachment. It means that, the higher the involvement of customers in the green products, the higher the involvement likelihood will be (Suh and Yi, 2006).

Interestingly, some researchers have argued that price is an important determinant of the purchase intentions. This is due to the perceptions of the customers that high price always produce a good quality of the products (Grewal et al., 1998). Therefore researchers suggested that advertisement and perception of the products is a good means of communication to engage with customers about the information, knowledge and awareness of green products (Smith and Swinyard, 1983; Fazio et al., 1989). Recently, customers’ purchase intentions are strongly linked with the self-concept philosophy. Mostly the judgement and evaluation of the products is based on the customers interest and benefit gain from usage of the products (Grubb and Grathwohl, 1967; Tory et al., 1985). The following hypothesis is:

H3 Product attitudes have positive effects on purchasing intention.

4 Methodology

4.1 Research instrument

A self-administered questionnaire survey was conducted to collect the data for this study at two stores, i.e., Giant and Econ Save. These stores are selected due to the high density
of customers’ frequencies in visiting these stores. All the items used in the questionnaire are taken from previous studies and are measuring customers’ perspectives and their response towards green products. The questionnaire consists of ten items on customers’ product positioning (functional attributes, emotional benefits and product attitudes) and four items on purchase intention of customers towards green products in supermarkets using a five-point Likert scale ranging from 1–5 denoting strongly agree to strongly disagree.

4.2 Sample and data collection

The population for this study are the customers of Giant and Econ save supermarket, which considered as among the top visiting supermarket by Malaysian people. Questionnaires were distributed to 500 respondents. After excluding all the unusable responses, a total of 200 questionnaires was deemed fit for further analysis showing an effective response rate of 40%. The respondents were picked up randomly to collect the data.

5 Results

The collected data were analysed using SPSS for Windows 21.0 and AMOS 20. In line with the two-step approach proposed by Anderson and Gerbing (1988), a measurement model was tested before testing the structural model. A confirmatory factor analysis (CFA) with a maximum likelihood was first performed to estimate the measurement model, which determines if the respective items reflect the hypothesised latent variables. Then, a structural equation modelling (SEM) analysis was applied to check construct validity, discriminant validity and the goodness-of-fit indices for the measurement model and structural model and examine further the relationships among the constructs under investigation.

5.1 Measurement model

The purpose of a measurement model is to describe how well the observed indicators serve as a measurement instrument for the latent variables. A CFA was employed on 14 items developed to measure four constructs of the model. The results are shown in Table 1. The factor loadings for all item are above the cut off value of 0.6 except two items, PA1 and PA4 having a factor loading of 0.598 and 0.557 respectively. Both of these factors were deleted and not considered for further analysis. The CFA results for the remaining 12 items showed an excellent goodness-of fit. The results show that the chi square is significant ($x^2 = 146.270$, $x^2$/degree of freedom ($x^2$/df) ratio is 2.060, $p = 0.000$). Meanwhile, the RMSEA value is 0.053, GFI value is 0.910 and CFI value is 0.925.
Table 1  Validity and reliability for constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item/actual loading</th>
<th>Loading</th>
<th>Average variance extracted (AVE)</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional attributes</td>
<td>FA1</td>
<td>0.609</td>
<td>0.501</td>
<td>0.748</td>
</tr>
<tr>
<td></td>
<td>FA2</td>
<td>0.669</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FA3</td>
<td>0.828</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional benefit</td>
<td>EB1</td>
<td>0.646</td>
<td>0.539</td>
<td>0.777</td>
</tr>
<tr>
<td></td>
<td>EB2</td>
<td>0.801</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EB3</td>
<td>0.747</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product attitude</td>
<td>PA1</td>
<td>0.598</td>
<td>0.563</td>
<td>0.720</td>
</tr>
<tr>
<td></td>
<td>PA2</td>
<td>0.791</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA3</td>
<td>0.707</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA4</td>
<td>0.557</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention</td>
<td>IN1</td>
<td>0.774</td>
<td>0.509</td>
<td>0.804</td>
</tr>
<tr>
<td></td>
<td>IN2</td>
<td>0.806</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IN3</td>
<td>0.632</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IN4</td>
<td>0.623</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: $x^2 = 146.270$, CMIN/df = 2.060, CFI = 0.925, RMSEA = 0.053, $p = 0.000$.

Table 2  Discriminant validity

<table>
<thead>
<tr>
<th>Functional attributes</th>
<th>Emotional benefit</th>
<th>Product attitude</th>
<th>Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional attributes</td>
<td>0.707</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional benefit</td>
<td>0.347</td>
<td>0.734</td>
<td></td>
</tr>
<tr>
<td>Product attitude</td>
<td>0.375</td>
<td>0.442</td>
<td>0.669</td>
</tr>
<tr>
<td>Intention</td>
<td>0.345</td>
<td>0.408</td>
<td>0.662</td>
</tr>
</tbody>
</table>

Note: Diagonal elements signify AVE and the rest signify the variable – correlation.

In general composite reliability value and the average variance extracted (AVE) is the key assessment to identify the effectiveness of convergent validity. As shown in Table 1, the CR values were well above the cut-off value of 0.70 as suggested by Nunnally (1978). The AVE values for each construct were all above 0.50. Further, as shown in Table 2, none of the squared correlations between pairs of constructs was greater than AVE by each construct (Fornell and Larcker, 1981). Overall, these results showed strong evidence of the uni-dimensionality, reliability and validity of the measures.

5.2 SEM model

A structural model of purchase intentions in hypermarkets and supermarkets was conducted to estimate the parameters. The objective of conducting the structure model was designed to test the effect of emotional benefit and functional attributes on product attitude and its influence on purchase intentions of customers. Emotional benefit and functional attributes were both measured using three items; product attitude was measured using four items whereas purchase intention was also measured using four items. The results show that chi square is significant ($x^2 = 146.270$, $x^2$/degree of freedom ($x^2$/df) ratio is 2.13, $p = 0.000$). Meanwhile, the GFI value is 0.897, RMSEA value is
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0.075 and CFI value 0.918. Although, the GFI value of 0.85 did not meet the threshold of 0.90, the value was in the range of the recommended level. All the other indices were within the recommended levels which indicated that the model is satisfactory. Table 3 shows the results, which indicate the acceptable goodness-of-fit model.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Un-standardised beta</th>
<th>Standardised beta</th>
<th>Standard estimate</th>
<th>C.R.</th>
<th>P value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 – FA → PA</td>
<td>0.304</td>
<td>0.396</td>
<td>0.070</td>
<td>4.367</td>
<td>0.001</td>
<td>Support</td>
</tr>
<tr>
<td>H2 – EB → PA</td>
<td>0.308</td>
<td>0.461</td>
<td>0.065</td>
<td>4.762</td>
<td>0.001</td>
<td>Support</td>
</tr>
<tr>
<td>H3 – FA → IN</td>
<td>1.075</td>
<td>0.922</td>
<td>0.139</td>
<td>7.710</td>
<td>0.001</td>
<td>Support</td>
</tr>
</tbody>
</table>

Note: ***p > 0.001

Following the measurement model and validity in this study, the structural model is assessed the relationship between the independent variables and dependent variables. The relationship between functional attributes and product attitudes was supported to have a positive affect with an estimate value of 0.07 and p > 0.001. Hence, H1 is supported. This result is similar to the previous studies which emphasise on the relationship between functional attributes and product attitudes (Mairesse et al., 2012). Emotional benefits also showed a positive effect on product attitudes having an estimate value of 0.06 at significant level p > 0.001 and hence, H2 was supported. This means that once a customer enters a supermarket, his purchase intentions are influenced by his reactions over emotional benefits he is getting. These finding are also consistent with previous studies (Hartmann et al., 2005). The final hypothesis was related to the relationship between product attitudes and intention. The results indicates that there is a positive influence of product attitudes over intentions with an estimate value of 0.13 at a significant level of p > >0.001. This finding is also in line with the study done by Hartmann and Ibanez (2008) stating that product attitude has a significant relationship with customer’s intention to purchase. Hence, H3 is also supported.

Figure 1 SEM analysis of research model (see online version for colours)

6 Discussion and managerial implication

This study has created a platform to determine the effectiveness of green product positioning towards customer’s purchase intention in supermarkets of Malaysia. Some of
the previous studies have argued that using one type of product positioning is enough to convince customers however, this study has empirically confirmed that both types of product positioning including functional attributes and emotional benefits have positive effects on customers’ intention to purchase. From the result, it is proved that functional attributes has a stronger effect on customers’ intention to purchase over emotional benefits. For instances, a higher knowledge of environmental issues makes green customer better aware of the green product qualities. Thus, they can afford to pay more for the green products for the quality of the products and their immediate benefits. This statement has been supported by (Hartmann and Ibanez, 2008) that functional attributes is one of the major considerations that lead to purchase intentions. Mediators such as credibility of the products really help in purchasing once customers are satisfied with the functional attributes (Ng et al., 2013). Some researchers also investigated the impacts of the product performances as a functional attributes towards customer attitudes and behaviours (Park et al., 2010). In addition, demographic factors of customers also play an important role in increasing the role of functional attributes. Basically education and gender are the most significant factors that indirectly position the green products (Brown et al., 2003). Likewise emotional benefits also are significantly influences by the customers’ attitudes leading to purchase intentions. Feeling and love towards green products is highly correlated with the intention to purchase. For instance, the ‘story telling’ about the green products can simply convince the green customers to be loyal with the products. This situation actually creates good attitudes towards the products. However, it is difficult to summarise that the effectiveness of both types of product positioning play an equal and important role to determine the customers’ intention to purchase.

Evidence for the impact of emotional benefits in customers purchase decision has been complex so far and this study’s outcomes provide support to an important role of emotional benefits in green products purchasing. The emotional benefits also have been widely discussed in many studies as one of the important factors in determining the level of emotional attachment of customers and products (Johar and Sirgy, 1991; Wood, 2007). Therefore, combining both functional attributes and emotional benefits produces more concrete strategy in determining customer’s intention to purchase. Consequently, this study also increase the understanding of the marketers and producers of green products that are already in the market to specify green product positioning that can motivate customers to purchase.

There is also a significant relationship between product attitudes and purchase intention in the model. Number of researchers has been studying in this area and most of them suggested that product attitudes are one of the key elements that inspire customers’ purchase intention. The satisfaction and expectation of the customers through green products makes them more engaged with the products emotionally. From that, the loyalty towards the products is also developed as suggested by Zakersalehi and Zakersalehi (2012) that product attitudes change customer behaviour mentally to buy the products.

7 Managerial implication

The findings from this study have great implications for both marketers and customers purchasing green products. Firstly, since the functional attributes have become an important aspect in green product positioning, marketers should focus on this aspect for
all the green products produced. Creating valuable products having a higher level of benefits for the customers will always be an added advantage for the marketers and producers to compete with the similar products or other types of products providing similar functions. Furthermore, emotional benefit is another alternative for alluring the love towards the green products. Combination of both these types of product positioning can be a best way to convince the customers to buy the green products. Secondly the result of this study also indicates that, customer’s beliefs also play a major role in customers purchase intentions towards green products.

Thus, campaigns and educational awareness about the benefits of green product positioning should be undertaken. The main reason behind these steps is to create beliefs and increase knowledge of customers about the green products which can influence customers’ intention to purchase. Regarding the influence of product attitudes towards the purchase intentions of Malaysian customers, the perception and judgment is the key factor that indicates the products’ demand. Lower quality with the higher prices usually negatively effects customers’ satisfaction with the green products. Customers also might feel less confident when purchasing the green products in the future.

The study is focusing on understanding the green positioning strategy in Malaysia and the findings can be significant for other emerging economies of the world as well. Researchers have shown a strong linkage between the urbanisation of people and their positive attitude towards green products (Rahbar and Wahid, 2011). Malaysia, as a country is also showing an increasing urbanisation trend. It increased from 62% in 2003 to 74% in 2011 (www.tradingeconomics.com, 2013). This trend is similar to most of the countries in Asia. An analysis of the data by Asian Development Bank (2012) indicated that by 2025, about 79.7% of the world’s urban population will belong to developing countries. Of these, 53.2% will live in Asia. From these data, the future increase in the urban population is estimated to occur in developing countries which include China, India, Pakistan, Bangladesh, Indonesia and Thailand etc., (Asian Development Bank, 2012). Besides similarity in urbanisation trends, there is also a similarity seen in the perceptions of customers related to green products. Azizan and Suki (2013) state that cities such as Kuala Lumpur, Manila, Bangkok, Beijing, Shanghai, Jakarta, Delhi, Bangalore and Karachi are being identified to have an increasing internal consumption of organic products showing a positive attitude of customers towards green products. Therefore findings from this study in Malaysia can be significant for other emerging economies of the world as well.

8 Limitation and future direction

A major criticism of this study is respondent’s lack of green knowledge and awareness of the green products. Difference of knowledge about the green concepts among the respondents affected their responses in the questionnaire. Most of them actually struggle with the questions in the questionnaire because the concepts were actually new for them. Another limitation of the study is the effectiveness of emotional benefits, which is not completely tested in this research. Malaysia is a multicultural country having vast ethnicity amongst the citizens. This inadequacy is due to different cultural, socio-economic and beliefs that are being practiced in Malaysia. Future research should focus on one specific product category so that the results must be clearer for that specific category of green products. It will also be more appropriate to understand the
effectiveness of product positioning. Nevertheless, future research also can include more sub-variables to functional attributes and emotional benefits such as love, quality and price to get better results and understanding of effects of variables on the dependent variable. Additionally future research can also investigate the difference of consumers’ intentions towards green marketing strategies based on demographic characteristics such as age, family background or if they are from urban or rural areas.

References
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