“The influence of green marketing on consumer purchase behavior”

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The influence of green marketing on consumer purchase behavior

Abstract

Global warming, pollution and climate change are some of the problems that have become an increasingly concerning issue internationally. Environmental deterioration has led to businesses changing the way in which they conduct themselves, leading to the emergence of green marketing. A considerable amount of research has been conducted on green marketing and consumer behavior, mainly, in developed countries. There is, however, a noticeable dearth of knowledge pertaining to consumers in South Africa. Thus, the aim of this paper is to examine, at an exploratory level, the influence of green marketing on the purchasing behavior of South African consumers. A survey was conducted on a sample of 100 consumers using a quantitative, exploratory and descriptive design. The results indicate that South African citizens have high knowledge levels on the issues facing the environment. Elements of the green marketing mix, specifically, green promotion, were found to raise awareness and encourage positive change in consumption behavior. A large proportion of respondents preferred to patronize socially responsible retailers. Furthermore, respondents preferred green products over standard alternatives. However, they were price sensitive which affected their purchasing decisions. It emerged that there was no significant difference between low and high income earners in terms of price sensitivity, and no significant difference between lower and higher qualified respondents in terms of knowledge and awareness of environmental degradation and green marketing.

Keywords: green marketing, green marketing mix, consumer purchase decisions.

JEL Classification: M31.

Introduction

One of the main goals of marketing is to reach the consumer at the moment that most influences their purchase decision. Marketing involves more than just promoting and selling a good or service, it aims to educate, communicate and influence society. In recent years, global warming, climate change and pollution are some of the concerns that have been raised internationally and have resulted in more consumers becoming aware of environmental challenges confronting them. These environmental challenges have gained prominence in the business environment, as well as in the public domain. Thus, these critical environmental issues combined with the demand by consumer groups for green products have led to the emergence of green marketing. Green marketing relates to business practice which advocates sustainable development. It comprises the marketing of goods and services that are considered to be eco-friendly and promoting the preservation of the environment in a sustainable way. Green marketing, more especially, in recent years, has begun to influence consumer and business activity.

The idea of green marketing came into existence during the 1980’s as a result of environmental degradation (Yazdanifard and Mercy, 2011). Today, the need for green marketing has heightened, as environmental issues facing the world have become more pronounced. Past research on green marketing and consumer purchase behavior has been conducted mainly in developed countries. There is a noticeable absence of research in this area in South Africa. The aim of the study, therefore, is to examine, at an exploratory level, the influence of green marketing on the purchasing behavior of South African consumers.

Green marketing has developed into an area of interest for marketers, as it provides opportunities for competitive advantage. This study is important because it is an attempt to address the dearth of research on the attitudes, perceptions and behavior of South African consumers on green marketing. The study will be beneficial to marketers, as it will ascertain the factors that influence consumer purchase decisions for green products, thus, helping organizations to design an appropriate green marketing mix.

Literature review

Green marketing

Green marketing has become an important area of focus for both companies and society in general. It is similar to traditional marketing, the only difference is that it incorporates marketing activities that entail manufacturing, differentiating, pricing and promoting goods or services which are environmentally safe and are able to satisfy consumers’ environmental needs (Ansar, 2013). Green marketing is defined by Digel and Yazdanifard (2014) as a range of activities, which include alteration of the production process, adjustment of product lines and progression in packaging, as well as transforming advertising.

The term “green marketing” is used interchangeably with “sustainable marketing”, “ecological marketing”
or “environmental marketing”. The objective is, ultimately, to sell products that are harmless to the environment, whilst simultaneously actively encouraging consumers to support and protect the environment (Stern and Ander, 2008). This implies that businesses need to change the way in which they operate and to provide products that are beneficial to both consumers and the environment.

**Green business**

The Department of Environmental Affairs and Tourism (2005) believes that globalization has resulted in a shift in the way business is conducted. This, along with the growing pressure on the environment as well as the usage and exploitation of natural resources, has meant that trade and the environment have become inextricably linked. There are various reasons, besides environmental degradation, for companies adopting green marketing. Singh (2012) identifies government pressure, corporate social responsibility, opportunity, and stakeholder and competitive pressure as key motives to embracing green marketing within firms.

Many studies have shown that consumers prefer eco-friendly products and have a favorable attitude towards companies that follow green practices (Bhatia and Jain, 2013). Rayapura (2014), in support, cites a Nielsen global study which showed that 55% of global online consumers across sixty countries surveyed expressed willingness to pay more for products and services from companies that are dedicated to positive social and environmental impact. Marcacci (2013) observes that there has been a significant increase in the demand for green products and services, as well as for green enterprises. Therefore, consumer demand for environmentally safe products is considered to be the primary motivation behind green marketing practices. Furthermore, the aim is to attain a balance between the company objectives, as well as society and environmental concern (Samarasinghe, 2012).

Besides satisfying society’s needs and wants, and helping to sustain the environment, there are several benefits associated with green marketing for businesses. Ashe-Edmunds (2015) is of the opinion that green marketing helps businesses to create goodwill and loyalty amongst consumers and also aids in boosting sales and profits. In addition to this, green marketing also helps to improve the overall status of a company which increases the firm’s chances of becoming prospective candidate for government contracts, as well as attracting new customers. Furthermore, Bukhari (2011) proposes that this type of marketing allows companies to access new markets as well as giving businesses a competitive edge.

**The green consumer**

A green consumer is someone who is concerned about the welfare of the environment and, thus, displays environmentally-friendly behavior, as well as embraces and purchases eco-friendly products (Boztepe, 2012). According to Sawant (2015), consumers are increasingly becoming mindful about the environment, as well as socially responsible. Dagher & Itani (2014) support this by stating that consumers are conscious of the fact that their individual consumption behavior impacts on the environment. Thus, consumers are increasingly engaging in environmentally-friendly behavior and are supporting businesses that implement green strategies. Furthermore, Ansar (2013) indicates that the positive attitude of consumers towards the environment is evident in their shopping habits, such as their concern regarding CFC-free products and product-recycling.

**Socio-demographic variables and green marketing**

Socio-demographic variables are widely used by researchers to profile green consumers (Park, Choi and Kim, 2012). Ferrell & Hartline (2014) believe, based on research, that individuals, particularly young adults in the 18 to 25 year age group, are highly influenced by their natural and social surroundings which impact on their marketplace knowledge and purchase decisions. According to Sharma (2015), socio-demographic characteristics such as age and education level play an important role in influencing the consumer’s intention to go green. Wang (2014) cites previous research studies that have identified women, young adults and individuals with relatively high education and income levels as the most likely to engage in green consumption behavior.

**The green marketing mix**

The green marketing mix encompasses product development and the implementation of pricing, promotional, and distribution strategies specifically designed to promote and preserve environmental welfare. Companies are usually forced to implement green polices when it comes to producing a product, setting a price, displaying an advertisement and placing a product in the market (Davari & Strutton, 2014). These are briefly explained in the following section:

**Green product**

Diglel and Yazdanifard (2014) identify a green product as an item that is produced in a manner that is environmentally conscious, has minimum negative effects on the environment, product or product packaging made from recycled materials, preserves
natural resources and is manufactured locally. Campher (2013) indicates that market research illustrates that consumers want greener products. Ottoman & Mallen (2014, p. 1) believe that individuals are seeking out green products, because they perceive them to be healthy and organic, of higher quality, and help preserve the environment. Manget, Roche and Münnich (2009), in support, found that consumers greatly value the benefits of green products such as superior freshness and taste, the promise of safety and health and savings on energy costs.

Green price

Price refers to the amount an individual must pay in order to obtain an item (Burrow, 2008). It is considered to be a crucial element of the green marketing mix. Bukhari (2011) presumes price to be the main reason consumers choose not to buy green products as they regard them to be expensive. However, Anvar & Venter (2014) contend that consumers, particularly the younger generation, are demanding green products, have greater spending power and are willing to pay the price. Boztepe (2012), in his study, found a noticeable shift in the relationship between price and consumer purchasing behavior, as young consumers showed willingness to pay the price for eco-friendly products, in comparison to previous studies. Abzari, Faranak, Sharbiyani & Morad (2013) add that consumers will pay a higher price, on the condition that the benefits of consuming the green product outweigh the price.

Green promotion

Visual aesthetics surrounding the product’s packaging can be used as an effective marketing tool when consumers do not have prior knowledge about the product. Packaging serves to contain, identify, describe, protect, display, promote and make the product marketable. Agyeman (2014) believes that a consumer’s choice of a green product is heavily influenced by the packaging. Laroche, Begeron & Barbaro-Forleo (2001) assert that green consumers, mostly women, examine the labelling of green products to see if it was manufactured with recycled materials. Furthermore, they tend to purchase ecologically compatible products, e.g., products that are CFC-free, biodegradable or unbleached. Davis (2014) points to research that has proven that packaging is more likely to influence the buying behavior of women consumers than male consumers. In addition, Ahern (2013) suggests that emotional advertising is a powerful tool used by modern marketers to influence consumer preference and decision making. Ansar (2013) believes that advertisements are very effective in enhancing consumers’ knowledge about the environment and green products, thus, helping them to make informed decisions about the products they consume and their impact on the environment. Therefore, environmental advertisements can help to enhance motivation towards buying green products. These promotional tactics, if implemented, will attract consumers and will, most likely, influence green purchase decisions by consumers.

Green place

Product placing is an important element of the green marketing mix. Effective product positioning ensures that the marketing messages resonate with target consumers and compel them to take action. Kontic (2010) believes that the location of, and accessibility to goods or services have an impact on customers, as most customers are not willing to travel far to purchase a green product, but will rather choose closer alternatives. Therefore, marketers aiming to promote their products successfully should position them broadly in the marketplace. Gittell, Magnusson & Mirenda (2015) believe that supermarkets make it convenient for consumers to obtain green products. When green products are easily accessible, green purchasing is encouraged.

For the purpose of this study, the following hypotheses were formulated:

H1: There is a significant relationship between the gender of respondents and awareness of green products.

H2: There is a significant correlation between the age of respondents and motivation to change their consumption behavior.

H3: There is a significant correlation between the age of respondents and the price of green products affecting their purchasing decision.

Research methodology

Owing to the nature of the topic being in its infancy in South Africa, the research constituted an exploratory study. A quantitative approach was adopted through the use of questionnaires. The study is cross-sectional in nature. The sample comprised 100 respondents and it was decided that respondents chosen were over 18 years of age. Convenience sampling was adopted, whereby respondents who were easily accessible were chosen. This was done with a view to cost and time savings. The questionnaire was based on the literature review. The questionnaire was divided into two sections. The first section consisted of environmental dimensions using a five-point Likert scale: 1 = strongly disagree and 5 = strongly agree. The second section comprised demographic questions pertaining to age, gender, education level, occupation and income level. Demographic questions were asked in the latter half of
the questionnaire, as some pertained to sensitive issues (e.g., age and income level) and, in doing so, will not discourage individuals from participating in the survey. The questionnaire was first pilot tested among a group of 10 respondents. A few minor changes were effected to the questionnaire before final administration. The data were analyzed using SPSS.

**Results**

**Demographic characteristics of respondents**

Table 1 reflects the demographic characteristics of respondents. From the selected sample of 100, the percentage of male and female respondents was 50% for each gender category. This indicates a 1:1 ratio of male to female respondents. The dominant age category was 25-34 years. A comparison of the education levels shows that the majority of respondents have a high education level as 71% indicated that they hold a tertiary qualification. The occupation status of respondents indicates that the vast majority (97%) were employed. The majority of respondents (37%) earned an after tax income of between R10 001 and R20 000. 4% of respondents did not indicate their after tax income, presumably due to the sensitive nature of the question.

Table 1. Demographic characteristics of respondents

<table>
<thead>
<tr>
<th>Demographic factors</th>
<th>Categories</th>
<th>Male</th>
<th>Female</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>50</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Age</td>
<td>18-24</td>
<td>11</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>25-34</td>
<td>18</td>
<td>22</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>35-44</td>
<td>8</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>45-54</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Over 55</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Educational level</td>
<td>Tertiary</td>
<td>37</td>
<td>34</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Matriculation</td>
<td>12</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Below matric</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Occupation</td>
<td>Employed</td>
<td>49</td>
<td>48</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Retired</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Monthly income (ZAR)</td>
<td>0 – 5000</td>
<td>1</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>5001 – 10 000</td>
<td>9</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>10 001 – 20 000</td>
<td>20</td>
<td>17</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>20 001 – 30 000</td>
<td>10</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Over 30 001</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Unspecified</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

**Respondents’ awareness of green products**

Table 2 presents an analysis with regard to the awareness of male and female respondents of green products. The vast majority (93.9% of males and 98% females) indicated that they were aware of green products while 4% of the participants did not have knowledge of green products. There were two non-responses.

Table 2. Gender and awareness of green products

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Male</th>
<th>Female</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>46</td>
<td>3</td>
<td>49</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within gender</td>
<td>93.9%</td>
<td>6.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

A Chi-Square test was conducted to test the relationship between the gender of respondents and awareness of green products. It was found that there is no significant relationship between these two variables ($p > 0.05$), as reflected in Table 3. The null hypothesis is accepted. It can, therefore, be concluded that there is no significant relationship between the gender of respondents and awareness of green products.

Table 3. Chi-Square Test – gender and awareness of green marketing

<table>
<thead>
<tr>
<th>Pearson's Chi-Square</th>
<th>Value</th>
<th>df</th>
<th>Asymptotic significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.043</td>
<td>1</td>
<td>.307</td>
</tr>
</tbody>
</table>

**Respondents’ awareness of environmental degradation**

As illustrated in Figure 1, all respondents have high levels of awareness pertaining to environmental deterioration by being in agreement that environmental deterioration has increased in recent years. It emerged that a total of 93% of respondents are in agreement that the environment will further deteriorate in 5 years’ time, while 7% were neutral in this regard. The results are presented in Figure 2.

Fig. 1. Environmental deterioration has increased in recent years

Fig. 2. The environment will deteriorate further in the next 5 years
Knowledge and attitude of respondents with regard to green marketing

The results, as reflected in Figure 3, indicate that all of the respondents (54% strongly agreeing and 46% agreeing) have knowledge that green marketing involves the manufacture and promotion of products that are Earth-friendly. 47% of respondents strongly agree and 53% agree that green marketing creates awareness of the environmental issues facing the planet. 97% of the respondents (50% female and 47% male) agree that green marketing motivates them to change their consumption behavior, while 3% (being male) disagreeing in this regard. Although by a relatively small margin of 3%, the results concur with the findings of Wang (2014) that green marketing is likely to motivate females, more than males, in changing their consumption behavior.

![Fig. 3. Knowledge and attitude of respondents towards green marketing](image)

As indicated in Table 4, there is a very weak, negative correlation between age of respondents and motivation to change consumption behavior. This correlation is not significant ($p > 0.05$). The null hypothesis is accepted, leading to the conclusion that there is no significant correlation between the age of respondents and green marketing motivating them to change their consumption behavior.

<table>
<thead>
<tr>
<th>Age</th>
<th>Pearson’s correlation</th>
<th>Sig. (2-tailed)</th>
<th>n</th>
<th>Pearson’s correlation</th>
<th>Sig. (2-tailed)</th>
<th>n</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.109</td>
<td>0.282</td>
<td>100</td>
<td>-0.109</td>
<td>0.282</td>
<td>100</td>
</tr>
</tbody>
</table>

Respondent perceptions of green products

Table 5 depicts aspects of respondents’ perceptions of green products. It emerged that 92% of respondents perceived green products as being healthy. The mean value of 4.41 suggests that there was fairly strong agreement that green products are healthy, whilst 8% of respondents were neutral in this regard. 98% of respondents are in agreement that green products are good for the environment. The mean value of 4.59 implies that respondents concur to a large degree with this. These results are consistent with the view of Ottoman & Mallen (2014) as well as the findings of Manget, Roche & Münnich (2009) which show that consumers perceive green products to be healthy and organic, as well as greatly value these products because of the promise of health and safety.

<table>
<thead>
<tr>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.59</td>
</tr>
</tbody>
</table>
78% of respondents perceive green products to be of good quality. The mean value of 4.12 confirms that respondents, to a large extent, believe that green products are of good quality. 67% of respondents consider green products to be better than standard products, with 23% being neutral in this regard. The mean value of 3.85 suggests that overall respondents are in fair agreement that green products are better than standard products. As far as pricing was concerned, 74% of the respondents were in disagreement that green products are reasonably priced. This is affirmed by a relatively low mean value of 2.24, indicating the extent of disagreement in this regard. This result concurs with the research findings of Bukhari (2011) that consumers find green products to be expensive. As far as green products being easily found in stores, the mean score (3.04) suggests that respondents showed a tendency towards being neutral in this regard. The same can be said for respondents’ opinions on green products being well promoted, as evident from a mean score of 3.00. Finally, 75% of respondents were in agreement (45% agreeing and 30% strongly agreeing) that the price of green products affected their purchase decision. This needs to be examined in the context of a prior finding that the vast majority of respondents felt that green products were not reasonably priced.

Correlation between the age of respondents and the price of green products affecting their purchasing decision

Contrary to the findings of Anvar & Venter (2014), the results of this study indicate a very weak positive correlation between the age of respondents and the price of green products affecting their purchasing decision, as reflected in Table 6. Furthermore, this correlation was found to be not significant ($p > 0.05$). It can, therefore, be concluded that there is no significant correlation between the age of respondents and the price of green products affecting their purchase decision.

Green promotion

Table 7 reflects respondents attitudes towards the promotion of green products. The majority (78%) of the respondents believe that advertisements for green products are effective in creating awareness of problems facing the environment. 76% are in agreement that advertisements for green products motivate them to support the environment through purchasing green products.
ments enhance consumers’ knowledge and motivation. The mean values suggest fairly strong agreement with regard to the abovementioned factors.

**Green retailing**

As illustrated in Figure 4, 99% of the respondents are in agreement (63% strongly agreeing and 36% agreeing) that retailers should be environmentally responsible. 80% of respondents prefer to purchase from green retailers, and 92% believe that, through supporting green retailers, they can help to preserve the environment. These results are consistent with the view of Marcacci (2013) that consumers demand and prefer green enterprises.

![Fig. 4. Respondent attitude toward green retailing](image-url)

**Implications**

Although the vast majority of respondents were aware of green marketing and the direction in which the environment is heading, it must be borne in mind that that most respondents, in this study, were in possession of a tertiary qualification. This is not consistent with the profile of the general South African population, which is characterized of low education levels, implying that the majority of the South African population may not be aware of green marketing. Marketers, therefore, need to raise awareness levels of green marketing among the wider consumer population. The findings indicate no significant correlation between age and green marketing motivating consumers to change their consumption behavior. This means that marketers have opportunity to change attitudes of consumers towards green marketing across the different age groups. The positive views of respondents regarding the health, environmental and quality benefits of green products suggests that the benefits offered by green marketing are known, and would find favor among the general consumer population.

The majority of respondents perceived green products not to be reasonably priced and displayed price sensitivity with regard to green products. Green products, through low sales volumes, are bound to be more expensive than traditional products. This presents an opportunity for marketers to create a value proposition for green products to consumers, leading to consumers appreciating that a higher price for green products is justified. In the long term, consumer buy-in could lead to higher sales of green products, creating economies of scale, and, consequently, lower prices. The issue of the distribution of green products became evident. Marketers need to ensure that the green products enjoy greater geographic distribution, hence, ease of accessibility by consumers. The same can be said of the promotion of green products. The results suggest that respondents are easily influenced by promotions pertaining to green products, but felt that green products are not sufficiently promoted. This creates an opportunity for marketers to create promotional programmes for green products through, e.g., advertising and sales promotion initiatives. The results also suggest that marketers of green products can find equal appeal across the age groups, as there was no significant correlation between age and the price of green products affecting the purchasing decision of respondents. The importance of product packaging and labelling in influencing purchase behavior also became evident. Marketers need to ensure that product labelling is effectively used in convincing the consumer to make a decision at point of sale. The results indicate support for retailers who are socially responsible. Therefore, if retailers want to attract more customers, they should consider green practicing, because it appeals to a rapidly growing market, would result in the organization being socially credible and responsible in the eyes of con-
consumers, uplift the corporate image of the company and increase the sales and profits of the company.

The study, being exploratory in nature, has implications for future research. This study was limited geographically and, therefore, it is recommended that this study be replicated on a greater scale. A wider geographic area could be considered, including a national study. The issue of price sensitivity for green products became evident. Factors around this phenomenon could be investigated in greater detail. A study into psychographics and green marketing is also suggested, as this could give direction to segmentation and targeting decisions.

**Conclusion**

This exploratory study sought to investigate the influence of green marketing on the purchasing behavior of South African consumers. Respondents displayed high knowledge levels of green marketing and environmental deterioration. It was found that there was no significant relationship between gender and awareness of green products. It emerged that respondents strongly felt that green marketing influenced their purchasing behavior, and that there was no significant correlation between age and green marketing motivating consumers to change their consumption behavior. Most respondents felt that green products were healthy, good for the environment and are superior to traditional products. It emerged that green products were not reasonably priced, were not easily accessible and not adequately promoted. Price sensitivity with regard to green products was a prominent issue. No significant correlation was found to exist between the age of respondents and price sensitivity towards green products. Respondents were influenced by promotion for green products and felt that packaging, labelling and product information strongly influenced their purchase decisions. There was strong support for retailers who were socially responsible. Implications for marketers have been presented, as well as direction for future research. The study is significant in that there has been very limited investigation into green marketing in South Africa, a developing economy. It hopes to serve as a stimulus for further research into green marketing, an area that has been receiving considerable attention, internationally, in recent years.

**References**


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