The Influence of Package Graphics and Colour Attributes On Consumers’ Buying Behaviour In Kenya

Betty Jepchirchir Kosgei, Dr. Jane Wanjira
Department of Business Administration, School of Business, Kenyatta University, Kenya.

ABSTRACT
Understanding consumer buying behaviour and their preference to product attributes has become a key success factor in contemporary competitive and rapid changing business environment. Consumer are now more discerning and individualistic requiring marketers to gain insights into their buying behaviour especially the attitude they have towards product innovation especially packaging. The general objective of the study was to determine the effect of packaging attributes on consumer’s buying behaviour of packaged foods in Kenya. This paper discusses the research findings on the influence of packaged food graphics and colour attributes on consumers’ buying behaviour in Kenya. The study was supported by the Theory of Reasoned Action, the Howard-Sheth Model and Kano’s Theory of Attractive Quality. Descriptive and explanatory research designs were used and a sample of 385 shoppers from three supermarkets in Nairobi was selected randomly while data was collected using structured questionnaires. The selection of supermarkets was based on judgmental sampling in which location and foot traffic was considered. Data was analysed using descriptive statistics in the form of mean, percentages and standard deviations, and inferential statistics in the form of correlation tests and regression analysis. The study found a statistically significant relationship between the attributes of graphics and colour and consumer’s buying behaviour. The study recommends that food manufacturers understand consumer response to their packages, and integrate the inputs into designing the best packaging styles. This can be achieved by involving consumers in the process of packaging so that the right decisions are made without making any assumption regarding the final packaging of food products. This study is beneficial to new and existing food product manufacturers in coming up with strategies and in development of product packaging. Keywords: Package Graphics, Colour Attributes, Consumers’ Buying Behaviour

INTRODUCTION

Stiff competition exists in contemporary environment of business requiring marketers to focus more on understanding consumer behaviour. As explained by Wambugu, Musyoka and Kaluyu (2014) studying buying behaviours of consumers is paramount since; this knowledge helps the manufacturers in planning and implementation of marketing strategies. This knowledge further allows them to select and segment target markets leading to development of appropriate marketing strategies. Further, it allows enterprises to come up with appropriate marketing mix targeting on marketing operations. In addition, when marketers understand the factors affecting the buyers’ behaviour, they can predict their response to different marketing strategies.

Several studies have been carried out by Mwongera (2012), Wambugu, Musyoka and Kaluyu (2014), Wambugu (2014) and Karimi, Papanichail and Holland (2010) on factors that affect consumer behaviour. However, their studies did not focus on the packaging attributes. Many of the studies conducted have focused on Kenyan milk consumption and yet other products exist in the Kenyan market that are packaged and consumed by customers. There are many factors that make a quality product and packaging is one such factor that can transform a good product to a bad one (Africa.com, n.d., para. 2). African manufacturers underestimate the importance of proper packaging and it is often relegated to functional purpose of transport (Africa.com, n.d., para. 2). The African consumer is diverse and has different expectations in regard to ease of use, labelling and size of packaging for the product. From the available literature, there is no study that has looked at the effect of packaging on buying patterns and behaviours of consumers in Kenya. Kenyan consumers just like others in the developing and emerging markets expect more as they increase their buying power and future prospects become brighter. If marketers can research on the buying behaviour and patterns of the Kenyan consumer and how packaging changes the perception to the brand, they will be able to secure lifelong customers.
Literature Review

Product Package Graphics and Consumer Buying Behaviour

Wells, Farley and Armstrong (2007), in their study on Packaging Design for Own-Label Food Brands, have explored the relationship between packaging and quality perception. Their results showed that more than 43% of consumers use packet photography as proof of product quality. Therefore, graphics that attract consumers at the point of sale help the consumers make the purchase decision quickly. Karimi (2010) explored the relationship between the purchase behaviour and packaging elements of health products, cosmetics and food products in India. The findings showed that there is a significant relationship between the purchase behaviour of the consumers and the product image. However, Karimi (2010) failed to investigate the nexus between the specific package graphics like colour of the product and how they influence consumer behaviour.

Another study by Mizutani, Okamoto, Yamaguchi, Kusakabe, Dand and Yamanaka (2010) has shown that juice packages that had images on them had the power to influence the purchased decision. Pleasant images were a source of positivity in regard to taste and juice freshness even if some of the images had no relation to the presented juice. The study also concluded that juices that had congruent images were rated to having a better aroma compared to juices with non-congruent images. The findings were an experimental confirmation that attractive images are efficient in portraying a congruent and pleasant image of the product, the customer will perceive the product in a positive light (Mizutaniet al., 2010). Although the findings of the study contribute significantly to the gist of this paper, they fail to capture the specific attractive features of the presented images on the product that influence consumer buying behaviour.

In another study on the pictorial and textual packaging elements, Tobias Otterbing (2013) has established that if the textual images are placed on the left-hand side they are more likely to be noticed and pictorial images if placed on the right side are more likely to be noticed. This indicates that not only is attractiveness of graphics important but the placement of textual and pictorial element is also important so that consumers can notice them. This study however fails to unearth the specific attractiveness of the graphics that influence consumer buying behaviour.

By using graphics manufacturers help consumers to find their choice products quickly by eliminating clutters and if they are not loyal to one brand the graphics attract the consumers and give them the opportunity to consider purchasing a given product (Silayoi& Speece, 2004). However, Lee (2010) has found that graphics on the packaging for convenience goods has no significant relationship with buying decision. Johan and Tobias (2008), in their study, find that all attributes and not just one attribute must be combined to affect purchase behaviour (as cited in Sioutis, 2011). Sioutis (2011) suggests that graphical information is usually misleading hence consumers do not consider pictures on a package when buying.

Product Package Colour and Consumer Behaviour

Ares and Deliza (2010) have carried out a research on the influence of various attributes of packaging on the willingness of the consumer to buy chocolate milk desserts. They evaluated if the characteristics influence was affected by the level of involvement the consumer had with the product. Their research findings disclosed that the level of involvement consumers had with the product had an effect on the interest and reaction of the buyer towards the product (Ares & Deliza, 2010). Package colour and image that were found on the product were the attributes with the highest significance regardless of the consumer involvement with the product. Chocolates that were coloured brown rather than black and those had pictures of milk desserts were associated with positive values meaning that they were more likely to be bought by the consumers. Additionally, the shape of the package whether round or square did not have a significant effect on the consumer purchasing behaviour in the different segments (Ares & Deliza, 2010). The importance of colour and image was far much higher compared to the indicated dessert which showed that the packaging played an important role in influencing the perception and purchasing decision of the consumer.

Marshall, Stuart and Bell (2006) have investigated the role packaging colour on the selection of the products among kindergarten students considering age and gender across three different categories of products including cereals, drinks and biscuits. The logo and brand information for the three product categories was hidden and were presented with an assortment of nine colours. The children were requested to select a package from each of the group of categories for themselves, another item from each of the categories for a girl and another item from each of the categories for a boy. According to the findings there was a high correlation between the choice of the product and favourite colour across the sampled children but the correlations for individuals was much lower. The study showed that the younger children were likely to choose the colours in line with their preferences (Marshall et al., 2006).
Mutti, Hammond, Borland, Cummings and Fong (2011) have surveyed the buying behaviour of current and former smokers in four countries in relation to colour. They found that a fifth of smokers thought that some cigarette brands were less harmful compared to other brands because of colour attributes. The colour on the label was behind this conclusion. Colours such as blue, purple and silver were seen as less harmful compared to black and red colours. Madden et al. (2000) explain that cultures associate different colours with different things and thus their preferences will be biased in line with their culture colour associations. Conversely, Deliya and Parmar (2012) point out that the different colours on the product packaging set off differing moods among the consumers.

From the findings of a research done by Lynsey Hollywood (2013), skimmed, whole and semi-skimmed milk are differentiated by consumers on the bases of the packet colours. However, the use of standardized colours did not affect the buying behaviour of the consumer as there was nothing new on the packaging. Products are accepted by buyers if the colours on their packaging are common with other packaged products in a given product class (Hannele & Harri, 2010). Radical colour changes can result in confusion for consumers as they look for a particular brand (Hannele & Harri, 2010). However, the findings do not present any specific correlational significance between product colour and consumer buying behaviour.

In a study by Alervall and Saied (2013), a total of seventy-five percent of respondents confessed that the major visual factor that affected their purchase behaviour was colour. According to the results, colour had an influence on human psychology and instincts. Ares and Deliza (2010) and Nawaz and Asad (2012) support the importance of colour from their studies that found that irrespective of consumers’ involvement with the product package, colour is the most important variable. However, Sioutis (2011) differs on the influence of colour to consumer buying behaviour.

The findings of his study indicate that colour appears to be of low significance. In fact, it is the least significant attribute for all convenience goods. The preferences for the colour appeared to be slightly product oriented. However, participants still stated that calmative colours such as green tend to be healthiness indicators.

**Statement of the Problem**

The increased competition in the global market has led retailers and manufacturers to focus on innovation of products so as to gain and maintain a competitive advantage in order to survive. According to different studies, product innovation is a good method to improve product packaging, quality among other product characteristics (Kumar & Steenkamp, 2007). Thus, product innovation is important in ensuring retailers and manufacturers survive in a competitive market (Im, Montoya & Workman, 2003). Those who present innovative products in the market have a competitive advantage compared to the others.

As Kandampully (2002) explains, when it comes to purchase decision, consumers are now more discerning and individualistic engendering interest from many retailers and manufacturers. There are many innovative products in the market which has led to differing purchasing behaviour. Consequently, insights in the buying behaviour of consumers can help retailers and manufacturers understand consumer feelings and thoughts on different products and the attitude they have on product innovation before they make the purchasing decision including the innovation used in elements such as packaging, product features and quality among other elements.

According to Kotler and Armstrong (2001), different factors affect the buying behaviour including; psychological, cultural, personal and social. How culture influences consumer behaviour is different in various countries thus marketers need to be careful in their analysis of different groups, regions and countries culture (Chirst, 2009). Locally, Wambugu (2014) focused on the attitude towards milk packaging designs in Kenya. However according to marketing theory, preference and attitude towards a product does not indicate the actual outcome of consumer behaviour. Critics argue that consumers may indicate preference for a commodity or a favourable attitude towards a product, but this may not actually translate to purchase (Blackwell et al., 2009). Mwongera (2012) investigated factors influencing milk consumption in Kenya. However, the study was not carried out at the point of sale. These studies focused on the general influence of packaging and the attitude towards packaging of milk products only. Although the surveys conducted have attempted to examine the link between packaging attributes and consumer behaviour, few of the studies have focused on the African consumer, specifically Kenyans.

The findings from the researches cannot be used in Kenya since consumers around the world are different and their behaviour is not static; it is influenced by various factors which affects their preference of goods and services. The study, therefore, sought to fill this research gap by examining the effect of packaging attributes on consumer buying behaviour of packaged foods.
MATERIALS AND METHODS
This study adopted descriptive and explanatory research techniques. The target population comprised shoppers at Tumaini (Embakasi), Uchumi (Aga Khan Walk) and Tuskys (T-Mall) supermarkets in Nairobi, Kenya. At each supermarket, a third of the sample size was issued with questionnaires ensuring that equal opportunity to participate was given to participants at each supermarket. The target population was diverse in terms of gender, social status, cultural backgrounds, age, income levels, marital status and religion among other socio-economic factors so as to provide a representative population of Kenyans. The three supermarkets were purposefully selected while simple random sampling technique was used to choose the required sample size from each supermarket to ensure representativeness. The sample for the study was computed using the formula by Cochran (1963), which yielded 385 Shoppers.

Structured questionnaires were used to collect the primary data. The study employed descriptive statistics, inferential statistics, correlation and multiple regression analysis as methods of data analysis. Multiple regressions were used to make suitable conclusions on the data collected. The multiple regression models were computed on SPSS. The study measured correlation using Pearson’s correlation to find a correlation between the variables. Pearson's correlation aided in predicting and finding a linear relationship between each of the packaging attributes to consumer behaviour. The results of the data analysed were presented in the form of tables, charts and graphs.

RESULTS AND DISCUSSION

Reliability Analysis
Analysis was done to determine the reliability of the questionnaire. The study used Cronbach’s Alpha to measure reliability of the questionnaire. The results were as shown in Table 1 below.

Table 1: Reliability Analysis

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach's Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package Graphics</td>
<td>0.833</td>
<td>4</td>
</tr>
<tr>
<td>Package Colour</td>
<td>0.820</td>
<td>4</td>
</tr>
</tbody>
</table>

Gliem and Gliem (2013) put the ideal alpha value threshold at 0.7, which formed the benchmark for the study. The findings indicated that package graphics was most reliable as shown by an alpha of 0.833, followed by package colour by an alpha of 0.820.

Influence of Packaging on Consumer Purchase Decision despite Initial Preference
The respondents were asked to indicate whether or not the packaging of food products displayed influenced their decisions to purchase the product despite their initial purchase preferences. The results were as shown in Table 2 below.

Table 2: Influence of the Packaging on Decision to Purchase despite Initial Preference

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>96</td>
<td>26</td>
</tr>
<tr>
<td>Sometimes</td>
<td>121</td>
<td>33</td>
</tr>
<tr>
<td>Rarely</td>
<td>115</td>
<td>31</td>
</tr>
<tr>
<td>Never</td>
<td>38</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>370</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field data (2018)
According to the findings, 33% of the respondents indicated that the packaging of food products displayed sometimes influenced their decision to purchase the product despite their initial purchase preference, 31% indicated that the packaging of food products displayed rarely influenced their decision to purchase the product despite their initial purchase preference, 26% indicated that the packaging of food products displayed always influenced their decision to purchase the product despite their initial purchase preference, and 10% indicated that the packaging of food products displayed never influenced their decision to purchase the product despite their initial purchase preference. This shows that the packaging of food products displayed sometimes influences consumers decision to purchase the product despite their initial purchase preference. The findings also suggest that, for low involvement goods such as packaged foods, brand loyalty does not come from strong conviction that the brand is the best. Instead, it emanates from habit or routinized behaviour; hence it does not represent deep-rooted loyalty (McWilliam, 1997). Therefore, a product must meet consumers’ standards if they are to buy it. If it does, then it enters their acceptable set, and they will buy it sometimes or even buy other acceptable brands sometimes. This shows that through management of the package design of packaged foods, manufacturers can influence purchase decisions of consumers.

Descriptive Statistics for the Research Variables

The study used descriptive statistics in the analysis and discussion of findings. The results were as shown in Table 3 below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influence of Graphics on Purchase Behaviour</td>
<td>3.565</td>
<td>0.617</td>
</tr>
<tr>
<td>Influence of Colour on Purchase Behaviour</td>
<td>3.554</td>
<td>0.610</td>
</tr>
</tbody>
</table>

Source: Field data (2018)

As shown in the table above, graphics influenced purchase behaviour (mean of 3.565 and standard deviation of 0.617) and package colour also influenced purchase behaviour (mean of 3.583 and standard deviation of 0.680). The notion of Ares and Deliza (2010) that package colour and graphics are variables with the highest relative importance, regardless of consumers’ involvement with the product was not supported by respondents in the study. Nevertheless, the findings were consistent with the views of Sevilla (2012), that consumers prefer food products with transparent or colours packaging with minimal graphics to multi coloured packaging. This implies that consumers prefer less coloured products as it is a sign of trustworthiness from the manufacturer.

Inferential Statistics

The study used the Pearson Moment Correlation analysis to determine the association between graphics and colour, on the one hand, and consumer’s buying behaviour of packaged foods in Kenya, on the other hand. The results revealed a strong positive correlation between graphics and consumers’ buying behaviour as shown by r = 0.732, statistically significant p = 0.005 < 0.05. There was also a strong positive correlation between colour and consumer behaviour as shown by r = 0.740, statistically significant P = 0.002 < 0.05. These findings imply that graphics and colour and consumers’ buying behaviour are related. The Pearson correlation for graphics and colour were above 0.5. This implies that there is a strong positive relationship between these packaging attributes and consumer’s buying behaviour. This implies that packaging attributes of graphics and colour influence consumer behaviour of packaged foods. This suggests that consumers consider these factors prior to making food purchase decisions.

Diagnostic Test for Regression Analysis

Multi Collinearity Test

The study also carried out a multi collinearity test, the results of which were as shown in Table 5 below.
Table 5: Summary of Collinearity Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package graphics</td>
<td>0.924</td>
<td>2.728</td>
</tr>
<tr>
<td>Package colour</td>
<td>0.754</td>
<td>1.326</td>
</tr>
</tbody>
</table>

Source: Field data (2018)

According to Sekaran and Bougie (2009), a VIF greater than 10 is a cause of concern as that would mean presence of multicollinearity among independent variables. From the test, all Variance inflation factor (VIF) values ranged from 1 to 4; hence the data collected did not indicate any extreme correlations between the independent variables, that is, the assumption of multicollinearity among the independent variables in the study was satisfied. This indicates that the data, results and conclusions reported in the study were not biased by the influence of multicollinearity.

Normality Test

Normality of the variables was examined using the skewness and kurtosis. The findings were as reported in Table 6 below.

Table 6: Tests of Normality

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic df Sig.</td>
<td>Statistic df Sig.</td>
</tr>
<tr>
<td>Package graphics</td>
<td>0.127 224 0.239</td>
<td>0.887 224 0.212</td>
</tr>
<tr>
<td>Package Colour</td>
<td>0.123 224 0.134</td>
<td>0.853 224 0.364</td>
</tr>
</tbody>
</table>

<sup>a</sup> Lilliefors Significance Correction

Source: Field data (2018)

According to Sekaran and Bougie (2009), if the significance value of the Shapiro-Wilk Test is greater than 0.05 then the data generated is from a normally distributed population, if it is below 0.05 then the data is not normally distributed. From Table 6, results show the Shapiro-Wilk test of package graphic is 0.212, package colour is 0.364.

From the results the significance level of graphics and colour are above 0.05. This also implies that data tested was from a normally distributed population.

Regression Analysis

The study analysed the variations of consumer’s buying behaviour due to that graphics and colour. To evaluate the effect of each variable on the dependent variable, regression coefficients were generated as indicated in Table 7 below.
Table 7: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.054</td>
<td>0.156</td>
<td>6.756</td>
<td>0.001</td>
</tr>
<tr>
<td>Package graphics</td>
<td>0.466</td>
<td>0.105</td>
<td>0.354</td>
<td>4.438</td>
</tr>
<tr>
<td>Package colour</td>
<td>0.587</td>
<td>0.097</td>
<td>0.456</td>
<td>5.631</td>
</tr>
</tbody>
</table>

Source: Field data (2018)

The results indicated that a unit increase in average graphics of packaged food products increases the average consumer’s buying behaviour by $0.466$ ($\beta=0.446$, $p=0.004$). This implies that package graphics is a significant predictor of consumer’s buying behaviour ($p$-value < 0.05). This further indicates that one unit increase in graphics of packaged food led to a 0.446 change in consumer behaviour. This can be interpreted to mean that as the company enhances package graphics, they are more likely to influence consumer behaviour in terms of their perception and attitude leading to changes in purchasing decisions. This finding is consistent with a research conducted by Clement (2007) who argues that packaging that contains a distinct graphics, orientation and contrast will attract consumers’ visual attention and influence peoples’ reaction and buying behaviour regardless of their specific brand preferences. This is supported by the study of Deliya and Parmar (2012) that concluded that a change in graphics can achieve better effect to consumers and hence using attractive graphics for package positively influences the consumers’ buying behaviour.

The results showed that a unit increase in average colour of packaged food products increases the average consumer’s buying behaviour by $0.587$ ($\beta=0.587$, $p=0.004$). This shows that package colour influence consumer’s buying behaviour ($p$-value < 0.05). This further indicates that one unit increase in average colour of packaged food led to a 0.587 change in consumer behaviour. This can be interpreted to mean that as the company enhances colour of packaged products, they are more likely to influence consumer behaviour in terms of their perception and attitude leading to changes in purchasing decisions.

Keillor (2007) confirms this by saying that marketers should strive to ensure the product package colour stands out when a product is on a shelf among many competing products. This also resonated with the study by Gofman, Moskowitz and Mets (2010) that concluded that the right choice of colour is an important factor in creating the impression needed to influence brand and product selection. This shows that there is a significant relationship between colour and consumer buying behaviour.

CONCLUSION

From the findings and discussion presented, it is evident that packaging attributes, namely graphics and colour do influence consumer behaviour in the selection and purchase of packaged foods in Kenya. Therefore, food manufacturers can influence their consumers’ buying intentions by developing strategies that consider packaging attributes of food products in their marketing plan. Secondly, package colour has a positive influence on consumer behaviour of packaged foods. The colour of the package positively correlates with consumers’ purchase decision. Use of colours on the packaging can grasp the consumers’ attention influencing their choice of product and initiate intent to purchase.

RECOMMENDATIONS

In line with the findings and conclusions, the study recommends that food manufacturers strive to understand the demographic of consumers who participate in the purchase of food product. This will aid in the development of packaging that appeals to the right target customers. The study also suggests that food manufacturers should endeavour to understand consumer response to their packages, and integrate the inputs into designing the best packaging style. The findings of the study show that managers have to focus on both the interior elements of the products and the exterior features of the products.

On their part, marketers should consider packaging as a vital instrument in modern marketing activities, especially in the competitive food industry. Packaging should be related to the strategic decisions of the marketing mix and in the positioning and differentiation decisions of packaged food. For packaging to suitably
develop its functions, factors such as packaging attributes need to be emphasized. Lastly, since Kenyan consumers make purchase decisions on packaged foods in-store, the study recommends retailers to shelf food products with unique and attractive food products to attract the attention of customers and provoke interest to purchase the products. This will result to increase in sales and hence increase in revenue.

REFERENCES


Christ, P. (2009). Marketing Basics (2nd ed.). BlueBell, PA: KnowThis Media


