The Influence of Packaging Attributes on Consumer Buying Behaviour: A Case Study of Milk Packages

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ABSTRACT
This study focused on the influence of packaging attributes on consumer buying behaviour, a case study of milk packages. The study was conducted in Lusaka, Zambia and was guided by the following objectives; to establish the existing packaging attributes of milk products on the market, to examine the effect of each packaging attribute of milk on consumer buying behaviour and to identify which packaging attributes of milk packages are more influential on consumer buying behaviour. The study revealed that packaging attributes; packaging colour, background image, packaging material, font style, design wrapper and printed information positively influence consumer buying decision. The study recommends that packaging companies use three-layer film composite for packaging and should also ensure that packaging attributes are taken into consideration during product development phrases since they influence customers buying behaviour.

Keywords: packaging, attributes, consumer buying behaviour, product development, decision-making

I. INTRODUCTION

The increase in a variety of products on the market and the stiff competition that exists in the business environment today require business developers and marketers to have a good understanding of consumer behaviour. Manufacturers comprehending how consumers choose services and products can facilitate gaining a competitive edge in an industry. This information is for strategically to provide the needed products and services at the right time to the right consumers (Kotler and Keller, 2011). Traditionally, product packaging served as a protection measure for products during the distribution process (Berk, 2009). It is defined as "the wrapping material around a consumer item that serves to contain, identify, describe, protect, display, promote, and otherwise make the product marketable and keep it clean" (Agariya, et al, 2012). Nowadays, product packaging fulfils three functions - the logistic function, the commercial function and the environmental function (Jonson, 2000).

According to Rezaei (2014), packaging has become an integral part of modern life nowadays in such a way that the more modernised a country or industry is, the higher the importance and extent of packaging goods is. Zadeh (2014) highlights that packaging is an important tool for marketing. Packaging is therefore sensitive and a very important aspect that has significant influence on the consumer choice and plays a vital role in notifying and encouraging consumers to purchase a product. Packaging plays a crucial role in marketing communications, particularly at the point of sale, due to increased competition, market saturation, and changing consumer preferences. Daily Association of Zambia (2022) notes that formal milk marketing is practices by commercial farmers, state dairies and partially the emergent farmers. There is no formal milk marketing practised by the traditional farmers in general due to lack of packaging skills. However, of late there is an increasing volume of milk being formally marketed by emergent farmers, particularly in the last three years, presumably due to the increasing number of new entrants into the dairy farming world and due to the economic pressure, forcing the people to look for new areas of income generation activities. Packing plays an important role in influencing decision making by consumers. Therefore, understanding packaging is cardinal for the success of daily business such as milk (DAZ, 2022).

II. LITERATURE REVIEW

2.1 Packaging

In business literature, packaging is a part of the product and the brand. A product's package reflects its characteristics and communicates the product's information. For consumers, the product and the package are one and the same when they see

them on the supermarket shelves. During the process of making a buying decision, the package assists the consumer in creating an overall product perception, which helps in the evaluation and making of the right choice. Furthermore, the package is the product until the actual product is consumed and the package is recycled (Polyakova, 2013). Jones (2019) states that packaging is a structure designed to contain a commercial food product, i.e. to make it easier and safer to transport, to protect the product against contamination or loss, degradation or damage and to produce a convenient way to dispense the product. On the other hand, Merran (2020) defines packaging as a Container or Wrapper for a consumer product that serves a number of purposes including protection and description of the contents, theft deterrence, and product promotion. Innovative and attractive packaging may actually add value to the product if it meets a consumer need such as portion control, recyclability, tamper-proofing, child-proofing, easy-open, easy-store, easy-carry, and non-breakability.

2.2 Milk Packages

Jones (2019) is of the view that there are many types of milk packaging. These range from those which are used from old days like glass bottle, plastics bottles, tetra pack all have their own importance but these have some disadvantages too, so now todays plastic pouches packaging is most suitable for milk packaging due to its advantages over other packaging medium. It is easy to handle, low in cost, light in weight, etc. Approximately 30–35% of milk is used in direct form; the rest is packaged in various packaging forms, like glass bottles, plastic bottles, tetra packs, plastic, and pouches. As per data from total milk production of 146.3 million metric tonnes, approximately 40 million metric tonnes of milk are packaged. This milk is packaged in half-litre and one-litre pouches, which are made of conventional plastics (low-density polyethylene and linear low-density polyethylene). For packaging a huge quantity of milk (40 million metric tonnes of milk), it needs a large quantity of plastic. As can be seen, a huge quantity of carbon is also produced, which is very dangerous for the environment. But it can be reduced by replacing conventional plastic with biodegradable material.

2.3 Milk Distributors in Lusaka

Milk distribution refers to the process of transporting milk from dairy farms to various distribution points such as grocery stores, supermarkets, and other retailers. This involves logistics, storage, and transportation to ensure that milk reaches consumers in a timely and efficient manner. Therefore, in light with the above, there are many milk distributors in Lusaka. These include Zambeef, parmalat, Zambia daily gold, farm feed, Zambian Dairy Milk Products Suppliers and Manufacturers and Oakland daily Zambia limited among others.

2.4 Packaging Attributes

A well-designed package is a strong weapon to attracting customer attention. It is for this reason that the packaging design must have some features and characteristics to show the uniqueness and originality of the product. According to Rundh (2005), changes of consumption patterns and habits have resulted in higher demand for innovative packaging solutions in retail outlets. In addition of logistic function, the packaging is now performed an important role in marketing and could be treated as one of the most important factors influencing consumer's purchase decision at the point of sale (Kuvykaite et al., 2009). Analysis of findings from Wells, Farley and Armstrong (2007) clearly indicated that there is a strong association regarding the influence of packaging on purchase decision, with over 73 percent of consumers interviewed stating that they rely on packaging to aid their decision-making process at the point of purchase.

Butkeviciene et al. (2008) classified packaging attributes into verbal (brand, product's name, producer or country of origin, information, instruction of usage and special offers) and non-verbal attributes (imagery, graphics, colour, form, size, materials and smell) that may influence the consumer's decision-making process. Vila and Ampuero (2006) and Underwood (2003), in their research have examined two groups of packaging attributes, there are graphic attributes (colour of the packaging, typography, the graphical shapes and images used) and structural attributes (shape, size of the containers, and the materials used) on consumer attention, categorization and evaluation.

Therefore, two main blocks of packaging attributes could be identified; visual and verbal attributes. Relying on packaging literatures analysed, visual attributes are those creations that we can see including graphics, colour, shape, size and packaging material; whereas, verbal attributes relate to, or are associated with words including the information on the package. Each of these attributes will be elucidated further in the following section.

2.5 Consumer Buying Behaviour

Consumer buying behaviour forms one of important parts of human behaviour (Kita & Kluwer, 2002). Every single living individual plays a role of a consumer who has to purchase various goods and services, on a daily basis, for the purpose of satisfying existing and emerging needs. Certainly, reaching satisfaction through the consumption of purchased products is the main driving motive why consumers go to the marketplace. However, it is important to note here, that consumer behaviour does not only relate to the very act of purchasing product. According to the definition of Hoyer et al. (2013), "consumer behaviour reflects the totality of consumer's decisions with respects to the acquisition, consumption, and disposition of goods,

services, activities, experiences, people and ideas by human decision-making units". From this definition, it is therefore obvious that consumer behaviour relates to three key processes or acts, i.e., an acquisition (the process of obtaining products), consumption (the process of using products) and disposition (the process of discharging products).

When a consumer considers and decides about what he is going to acquire in order to satisfy incurred need, his purchase considerations and subsequent consumer behaviour and actions applied in purchasing process are influenced and affected by a great variety of factors. In marketing, there are many different ways how to categorize individual factors having some impact on consumer behaviour. Sandhusen (2008) classified factors or stimuli that influence consumer behaviour into interpersonal, i.e., those operating between consumers, such as cultural and social groups; and intrapersonal, i.e., those operating within consumers, such as drives, perceptions and attitudes. Kotler and Armstrong (2004) specified classification consisted of four factors influencing consumer behaviour, namely cultural factors (i.e., culture, sub-culture and social class), social factors (i.e., member groups, reference groups, family, role and status), personal factors. According to Kumar and Babu (2014) consumer buying behaviour of milk product is influence largely by the Product Quality, Packaging Attributes, Availability and Pricing. Based on the literature above, the conceptual framework below was developed.
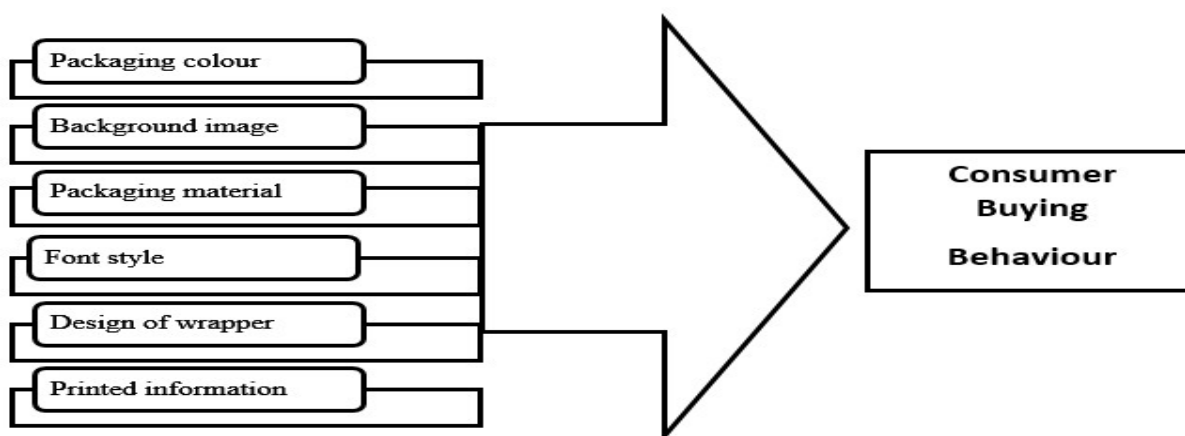
III. RESEARCH METHODOLOGY

The quantitative research approach was used to carry out the study. A survey of customers in selected supermarkets in Lusaka was conducted. A total of 400 participated in the study and a response rate of 97.4 was obtained. To collect data from the customers, a structured questionnaire was distributed randomly at the selected supermarkets. The data collection was carried out from August 2023 to October 2023. To ensure reliability of the structured questionnaire a pilot test was conducted in the month of July 2023 and all the identified mismatches were corrected before the actual data collection commenced in August 2023. Further, the cronbach alpha was determined to ensure the reliability of the variables in the questionnaire.

The collected data was analysed using the Software Package for Social Sciences (SPSS) version 24 and focus of the analysis was to ensure that all the research questions are achieved. Descriptive statistics such as the mean and standard deviation were analysed while inferential statistics such as analysis of variance (ANOVA) and Pearson Correlation Coefficient were analysed. A normality test was performed to determine whether sample data was drawn from normally distributed population.

IV. RELIABILITY AND VALIDITY

The researcher conducted a pilot study to test the reliability of the instruments and member checking was also used to unsure the trustworthiness of the responses. Reliability was done using the test-retest method using the measure on a group of people at one time, using it again on the same group of people at a later time, and then looking at test-retest correlation between the two sets of scores. In order to determine whether the responses are reliable, member verification was also employed.

V. ETHICAL CONSIDERATIONS

All ethical considerations were put into account to effectively conduct the study. The researcher firstly prepared an introductory letter and informed consent form detailing about the purpose of study along with the questionnaire. The researcher

explained the aim of the study to the participants, as well as assured them that their responses and identities would be kept completely confidential at all times. The researcher also ensured that ethical clearance from the University was obtained ahead of the data collection process through (DRGS) Directorate of Research and Graduate Studies.

VI.   ANALYSIS OF THE RESULTS

6.1 Response Rate
The researcher used online platforms such as Google and WhatsApp to self-administer questionnaires during data collection. The questionnaire was made available to consumers, retailers, wholesalers as well as supermarkets in Lusaka Province of Zambia. A total of 400 questionnaires were sent out to individuals and all were answered and responses were collected back giving us a response rate of 97.38% although only 400 forms were used for analysis in order to be consistent with the predetermined sample size.

6.2 Consumers Buying Behaviour of Packaged Milk
The study revealed that majority of the respondents (238) indicated that they frequently bought packaged milk this accounted for 59.50% of the total population. It followed that 69 respondents representing 17.3% claimed that they bought packaged milk very frequently. On the other hand 89 respondents indicated that they rarely bought packaged milk while only 4 never bought. This represented 22.3% and 1% of the total population respectively. Figure 1 below shows consumers' buying behaviour of packaged milk.

6.3 Influence of Packaging Attributes on Consumer Buying Behaviour
Table 1 below shows that colour, material of packaging, wrapper design, printed information, font style and background image are significant because the p-values =0.000 < 0.005.

Table 1: Pearson Correlation Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.012	.000		.000	1.000
	Packaging Colour	.143	.000	.182	.151	.000
	Packaging material	.143	.000	.159	.841	.000
	Design of wrapper	.286	.000	.350	.833	.000
	Background Image	.143	.000	.150	.470	.000
	Printed information	.143	.000	.172	.436	.000
	Font style	.143	.000	.204	.918	.000
a. Dependent Variable: Consumer buying Behaviour						

6.4 Hypothesis Testing
Table 2 shows the hypothesis testing results. All the independent variables in the study have a positive correlation with the dependent variable consumer buying behaviour indicating that H1 which stated that   Packaging colour has a positive influence on consumer buying behaviour of packaged Milk Products is supported, H2: Background Image has a positive influence on consumer buying behaviour of packaged Milk Products. H3which states that Font Style has a positive influence on consumer buying behaviour of packaged Milk Products is supported,H4 which states that Packaging Material has a positive influence on consumer buying behaviour of packaged Milk Products is supported ,H5 which states that Design of Wrapper has a positive influence on consumer buying behaviour of packaged Milk Products is supported , H6 which states Printed Information has a positive influence on consumer buying behaviour of packaged Milk Products is supported as shown in Table 6 below.

Table 2: Hypothesis testing

Hypothesis	Statistic	Comment/Test
H1: Packaging colour has a positive influence on consumer buying behaviour of packaged milk.	.952[**]	Supported/Correlation
H2: Background Image has a positive influence on consumer buying behaviour of packaged milk.	.786[**]	Supported/Correlation
H3: Font Style has a positive influence on consumer buying behaviour of packaged milk.	.687[**]	Supported/Correlation
H4: Packaging Material has a positive influence on consumer buying behaviour of packaged milk.	.808[**]	Supported/Correlation
H5: Design of Wrapper has a positive influence on consumer buying behaviour of packaged milk.	.922[**]	Supported/Correlation
H6: Printed Information has a positive influence on consumer buying behaviour of packaged milk.	.814[**]	Supported/Correlation
**. Correlation is significant at the 0.01 level (2-tailed).		

VII.   DISCUSSION OF RESULTS

7.1 Consumer Buying Behaviour

The findings of the study suggest that packaging colour, background image, font style, packaging material, design of wrapper and printed information each significantly affects the consumer buying behaviour in Lusaka Province. Based on Correlation results   the largest variable with such an effect is the colour of the packaging material followed by the design of the packaging material, the correlation results also indicated intercorrelations among the independent variables ranging between 0.334 and 0.751   representing a large size effect. The implication of this is that the characteristics of the packaging must be managed, developed and implemented as whole and not in isolation from the other.

7.2 The Packaging Attributes of Milk

This research question was presented as an open ended question in the questionnaire and respondents listed various attributes of packaged milk which appealed to them although due to the nature of the opened ended question (not structured and can't be presented quantitatively) the researcher observed that the majority of the respondents indicated that the colour of the packaging material was the most highlighted attribute of packaged milk other attributes which were listed were use of environmentally friendly packaging materials, portability of the package, information displayed on the packaging box such as on manufactured and expiry date, detailed on the ingredients and whether it is full cream. Other attributes which respondents listed where packaging style whether it's bottled in plastic container, glass paper or plastic sachet. The colour of the packaging material which most respondents highlighted was an independent variable in the research and the study revealed that in the quantitative analysis colour of the packaging material influenced consumer buying behaviour proving our results to be consistent. Similar research like that of   Nawaz. A (2012) who researched on Effects of product packaging in consumer buying decision in the United Kingdom discovered that that colour of a product's packaging is the most significant characteristic, followed by the picture or the image on the product packaging.

7.3 The Effect of Each of the Packaging Attributes of Milk on Consumer Buying Behaviour

The impact of package attributes on consumer's purchase decision was revealed by analysing separate elements in using Pearson correlation. In order to determine the proportional contribution of each independent variable; colour, material of packaging, wrapper design, printed information, font style and background image for this purpose regression analysis was used to determine the weights and their significance in predicting the dependent variable. The regression results revealed that all independent variables had a positive relationship with independent variable.

VIII.   CONCLUSION AND RECOMMENDATIONS

The study findings indicate that packaging attributes (packaging colour, background image, packaging material, font style, design wrapper and printed information) positively influence consumer buying decision. The study shows that consumer buying decision is influenced by the attributes of the milk package as indicated in the Pearson correlation results. The results also revealed that the attributes of the milk package are interdependent and hence they must be improved as a whole and not designed in isolation. For example, the study findings revealed that colour can have a significant impact on consumer buying

behaviour. Different colours can evoke different emotions and associations, which can influence a consumer's decision to purchase a product. Furthermore, the results revealed that packaging material can influence consumer decisions when it comes to buying packaged milk in a few different ways. The type of packaging material used can affect the perceived quality and freshness of the milk, as well as its environmental impact. For example, consumers may prefer milk in cartons or bottles that are easy to open and reseal, as this can contribute to a positive user experience. Additionally, sustainable and eco-friendly packaging materials may appeal to environmentally conscious consumers. Notably, information on the package is claimed to be an important legal document as it expresses the reliability of the product. The fact that in marketing, packaging cues affects how a product is perceived since packaging is often perceived to be part of the product. The researcher observed that colour of a product's packaging is the most significant characteristic, followed by the picture or the image on the product packaging. In order to guide the industry practitioners on this subject matter, the following recommendations are suggested;

- There is need for all the marketing units to pay attention to how a product is packaged as poor packaging is one of the causes of product failure on the market thus it is necessary to set packaging standards to create a strong brand and also prolong the product life cycle.
- Due to the fact that packaging material influences consumers buying decisions, there is need for packaging companies to be using a three-layer film composite for packaging.
- Companies packaging milk should ensure that the attributes of packaging are incorporated in the product design phrase in order to influence positive customers buying behaviour.

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