PACKAGING ATTRIBUTES AND CONSUMERS' PATRONAGE OF MILK PRODUCTS

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ABSTRACT: This study was on packaging attributes and consumers’ patronage of milk products. It was conducted specifically to determine the effects of packaging colour, design of wrapper, quality of packaging material, and packaging information on consumers’ patronage of evaporated milk brands. It was a cross-sectional study that obtained primary data from 168 consumers of evaporated milk brands using a structured questionnaire. Data analysis was done using descriptive statistics, and the hypotheses developed for the study were tested using multiple linear regression. Consequently, the study revealed that design of wrapper, quality of packaging material and packaging information had significant positive effects on consumers’ patronage of evaporated milk brands, while packaging colour had no significant effect in this regard. Therefore, the study recommended that manufacturers of evaporated milk brands should pay little attention to packaging colour in their packaging design process because consumers’ patronage of evaporated milk brands is influenced by more important factors than packaging colour, such as design of wrapper, quality of packaging material and packaging information. As such, we recommended, among others, that it is imperative for manufacturers of evaporated milk brands to use quality materials such as water-proof, air-tight and healthy materials to package their products to prevent damage to the product and consumers’ health.

KEYWORDS: Product Packaging, Packaging Colour, Design of Wrapper, Quality of Material, Packaging Information
INTRODUCTION

Product packaging is the science, art and technology of enclosing or protecting products for distribution, storage, sale, and consumption (Soroka, 2002). It is the coordinated system of preparing goods for transportation, warehousing, logistics, sale, and consumption by the end-user. It comprises several attributes; but our focus was on packaging color, design of wrapper, quality of packaging material, and packaging information. According to Heide and Olsen (2017), packaging color is the combination of various colors (such as red, orange, yellow, green, blue, or purple) displayed on a product’s package to attract customers’ attention and stimulate patronage. Design of wrapper comprises the artistic, graphical and aesthetic designs displayed on a product’s package for the purpose of attraction customers’ attention to the product (Wikström et al., 2014; Anyadighibe et al., 2023). In the view of Imiru (2017), the quality of packaging material entails the degree of durability, hygiene, safety, environmental friendliness, and re-usability of a product’s package. Whereas, packaging information is any information displayed on or in a product’s package to guide consumers in buying and using the product (Schuch et al., 2018; Anyadighibe et al., 2022). Using these and many other packaging dimensions, manufacturers of FMCGs such as evaporated milk brands are streamlining the size of their products to make them lighter, more portable and attractive to consumers in order to entice customer patronage. Attractive colors with positive perceptive implications such as blue, white and green are displayed on the packaging of FMCGs to enhance their attractability of their products to consumers. Also, innovative packaging designs as well as safe, durable, environment-friendly and re-usable packaging materials are increasingly in use by manufacturers of FMCGs in an attempt to improve consumers’ patronage (Anyadighibe et al., 2021; Adebisi & Akinruwa, 2019; Awara et al., 2021; Etim et al., 2023).

Similarly, Benjamin et al. (2019) observed that manufacturers are displaying useful product information on or in the package of products with the intention to rationalize and encourage the patronage of their products. However, due to increasing health concerns, consumers of fast-moving consumer goods (FMCGs), such as evaporated milk brands are becoming increasingly cautious of the milk products they consume so as to safeguard their health (Benjamin et al., 2019; Etim et al., 2020; Etim et al., 2023). Most times, consumers rely on packaging to obtain adequate information about the contents, ingredients and potential nutritional benefits embedded in certain milk products before purchase and consumption (Adebisi & Akinruwa, 2019; Etim et al., 2021; Etim et al., 2021; Etim et al., 2023). Consequently, researchers have conducted a series of studies to empirically demonstrate the causality between packaging attributes and consumer patronage of various FMCGs including milk products (Ezekiel et al., 2014; Olawepo & Ibojo, 2015; Hammed & Abdulaziz, 2017; Adebisi & Akinruwa, 2019; Ebitu et al., 2021). An in-depth content review of these existing studies has revealed that although many studies have been conducted on packaging and consumers’ patronage in Nigeria (Orji, 2014; Oladele et al., 2015; Olawepo & Ibojo, 2015; Hammed & Abdulaziz, 2017; Osisanwo, 2017; Adebisi & Akinruwa, 2019; Luke, 2019), an overwhelming majority of the studies broadly centered on mobile phones and FMCGs such as toothpaste, cosmetics, soft drinks, food/beverage products (Ezekiel et al., 2014; Orji, 2014; Hammed & Abdulaziz, 2017; Osisanwo, 2017; Luke, 2019; Ebitu et al., 2021).

This entails that only a few studies in Nigeria were tailored towards evaporated milk brands (such as Cadbury and Nestle Nigeria’s products) in Ondo, Ekiti and Oyo States (Olawepo & Ibojo, 2015; Adebisi & Akinruwa, 2019; Benjamin et al., 2019). As such, there is a need for more studies to fill the existing study gaps and contribute new insights to existing literature.
Besides that, milk producers in Nigeria have used various packaging attributes such as colors, labels and packaging materials in an attempt to promote their products to customers. This study was therefore carried out to examine whether the use of packaging attributes (packaging color, design of wrapper, quality of packaging material, and packaging information) by milk companies actually significantly influenced consumers' patronage of evaporated milk brands in Nigeria.

LITERATURE REVIEW

Product Packaging

Packaging includes all the activities of designing and producing the container for a product (Kotler, 2003). Olawepo and Ibojo (2015) also defined packaging as the wrapping material around a consumer item that serves to contain, identify, describe, protect, display, promote and otherwise make the product marketable. Jahre and Hatteland (2004) asserted that packaging is the technology and art of preparing a commodity for convenient transport, storage and sale. According to Nilson and Ostrom (2005), the product packaging design includes the brand name, color, typography and images, all of which influence how quickly and easily a product catches the eye. In the view of Kamiah (2017), packaging is the activity of designing and producing the container or wrapper for the product. It is an important and effective sales tool for encouraging consumers to buy a firm's products. In the author's view, it is a powerful medium for sales promotion and it must perform the following basic functions: protection, ease of handling and storage, convenience in usage etc. and should not be deceptive and convey any deceptive message. The author asserts that it is the best method for attracting consumers to buy products. Garrison (2019) observes that packaging refers to all those activities related to designing, evaluating and producing the container for a product. Simply, the box-like container, wherein the product is stored to protect it from any physical damage and at the same time attracting the customer through its appeal is called packaging. The author explains that a product might have three layers of packaging, such as, a toothpaste which comes in the plastic tube (primary package), then it is packed in a cardboard box (secondary package) and finally, it is packed in a corrugated box (shipping or third package). Packaging is not useless; consumers sometimes think that packaging is an incidental part of the product. In reality, packaging fulfills essential functions as to conserve, protect, transport products, provide information and facilitate handling until the products reaches its final consumer (Heide & Olsen, 2017; Etuk et al., 2022; Inyang et al., 2022; James & Inyang, 2022).

Packaging Color and Customer Patronage

Packaging color is the combination of various colors (such as red, orange, yellow, green, blue, or purple) displayed on a product’s package to attract customers’ attention and stimulate patronage (Heide & Olsen, 2017; Etuk et al., 2022; Inyang & James, 2022). The color of a package plays a significant role because it relays more than just a message about the product (Benjamin et al., 2019). Color is suggestive and it is important to use colors which suggest a positive character of the product. It is deemed to be a more effective tool for information transmission than words as the message reaches the consumer instantly on sight at the point of purchase with no need for interpretation (Soroka, 2002; Etuk et al., 2022; Inyang et al., 2022). This entails that the package color symbolizes either positive or negative meaning about the
product. According to Osisanwo (2017), in packaging, packaging can help draw consumer attention. It is used by companies to differentiate their products from other competitors. Color is an essential component of packaging because consumers expect certain type of colors for particular products (Keller, 2009; Etuk et al., 2022; James & Inyang, 2022). According to Nayyar (2012), color perceptions vary across cultures and most of the religions are believed to have their sacred colors (Maende, 2018; Etuk et al., 2022; James & Inyang, 2023). Similarly, consumers have color memory which they relate to certain brands in which when they recall a particular color, they associate it with a certain brand (Ladipo & Rahim, 2013; James et al., 2022; Etuk et al., 2021). In addition, changing demographics and trends change the color preferences of consumers. In support of the above views, Alagala et al. (2018) assert that using positive color associations on a product’s package has the capacity to improve consumers’ patronage of the product. This premise is corroborated by the study of Oladele et al. (2015), which revealed that color had a significant relationship and effect on consumer patronage of toothpaste in Ado-Ekiti. Similarly, the foregoing premise corresponds with the study of Benjamin et al. (2019), which revealed that packaging color had a significant positive effect on consumer patronage of Cadbury Plc, Nigeria. Therefore, we present the following hypothesis to guide the investigation:

\[ H_1: \text{Packaging color has a significant effect on consumers’ patronage of evaporated milk brands} \]

**Design of Wrapper and Customer Patronage**

Graphic design is the combination of brand name, color, typography, image, shape, size, and information about the product whose function is to influence consumers in their purchasing decisions (Chavda, 2020). Graphic design communicates brand personality through many elements, including a combination of brand logo, colors, fonts, pictorials, product descriptions, shapes and other elements that provide rich brand associations (Hamdar et al., 2018; Etuk et al., 2022; Mpuon et al., 2021). Waheed et al. (2018) observed that though products’ graphic design is an integrated element of the promotional mix, it is also an important carrier of brand equity in the store. An important role of package design is that it enables a brand to gain the attention of consumers easily. Furthermore, Deo and Hosee (2017) argued that package design helps consumers find the brand of their choice by enabling them cut through clutters of products at retail stores and if they do not have any strong preference of a brand, then attractive designs, at least, gain their attention to consider a particular product for evaluation. Consumers can also be persuaded to try the actual product through the usage of graphics on packaging when the combinations of different materials used in graphics and holograms such as lamination with aluminum foil or some different kind of printing can inspire a consumer to touch the product packaging and hence make the consumer to try the actual product (Al Saed et al., 2016; Mpuon et al., 2023). Package design could add value in the physical appearance of a brand and increase its aesthetic quality. Moreover, in many situations, package design could create a positive mood and could match with or satisfy the lifetime hidden aspirations of a consumer (Chavda, 2020). Also, a good package design may easily attract customers’ attention to a product on display and influence consumers to patronize products on a trial basis. This premise is backed by the study of Luke (2019), which revealed that design of wrapper had a significant effect on consumers’ buying behavior (consumer attractiveness, preference, patronage and loyalty) towards Tecno phones in Yenagoa Metropolis. The premise is also corroborated by the study of Maende (2018), which revealed that design of packaging wrapper had a significant influence on consumer choices of food and beverage products in Kenya. Therefore, we present the
following hypothesis to guide the investigation:

\[ H_2: \text{ Design of wrapper has a significant effect on consumers’ patronage of evaporated milk brands } \]

**Quality of Packaging Material and Customer Patronage**

The quality of packaging material entails the degree of durability, hygiene, safety, environmental friendliness, and re-usability of a product’s package (Imiru, 2017). Packaging material is any material used to protect something. The material used in packaging is an important element which prevents the product from any damage or loss. Consumers associate the packaging material with certain essential values of the product (Nilsson & Ostrom, 2005). According to Heide and Olsen (2017), consumer perceptions regarding certain packaging materials could change the perceived quality of a product. Hammed and Abdulaziz (2017) view quality packaging material as an important factor that drives the consumer perception towards the product and satisfies their needs and wants. It is more likely that a high-quality material might attract customers more than a low-quality material. In the view of Alagala et al. (2018), the quality of packaging material has a great influence on consumer’s purchasing decision in the sense that high-quality packaging material attracts consumers’ patronage than low-quality packaging materials. As such, Robert and Knepper (2019) maintain that if consumers have any credible reason to believe that the quality of packaging material used is poor and potentially hazardous to their health, they will ultimately withdraw patronage from the product on health grounds. This entails that the quality of packaging material might have an effect on consumer buying behavior. This assumption is in alignment with the study of Hammed and Abdulaziz (2017), which revealed that quality of packaging material had a significant impact on sales turnover of Chi Limited products in Sokoto, Nigeria. The assumption is also supported by the study of Olawepo and Ibojo (2015), which revealed that quality of packaging material had a significant positive relationship with consumers’ purchase intention towards Nestle Nigeria products. Therefore, we present the following hypothesis to guide the investigation:

\[ H_3: \text{ Quality of packaging material has a significant effect on consumers’ patronage of evaporated milk brands } \]

**Packaging Information and Customer Patronage**

Packaging information is any information displayed on or in a product’s package to guide consumers in buying and using the product (Schuch et al., 2018; Anyadighibe et al., 2023). Labeling provides information regarding the product category, products ingredients, and product instructions. When making decisions on whether or not to buy a product, consumers are guided not just by product taste; but also by some other extrinsic factors, such as, brand awareness, labeling, price and origin (Benjamin et al., 2019). According to Han et al. (2018), product labels help consumers to differentiate a product more easily. It helps consumers spend less time while searching for products they have decided to buy. Also, under time pressure, consumers base their purchase decisions on packaging appearance containing simple, accurate and comprehensive product information (Orquin et al., 2020). Consumers with high involvement purchases tend to look at product information and make decisions accordingly. Packaging layout is a very important consideration in providing product information because consumers get confused with information overload and inaccurate information (Rasheed, 2015). For several types of consumer and industrial products, the type and extent of information
that must be communicated by a label is governed by the relevant safety and shipping laws. It is printed information that is bonded to the product for recognition and provides detailed information about the product. Consumers make purchase decisions easily at the point of purchase seeing the labeling of the product (Olawepo & Ibojo, 2015). Like other dimensions of packaging, packaging information has been confirmed in various studies to influence consumers’ patronage and overall consumer buying behavior towards various products. This presumption is backed by the study of Ebitu et al. (2021), which revealed that packaging information had a significant effect on consumer patronage of cosmetics in Calabar Metropolis, Cross River State. The premise is also supported by the study of Ezekiel et al. (2014), which revealed that there is a significant relationship between packaging information (label) and consumer choice of cosmetic products in Nigeria. Therefore, we present the following hypothesis to guide the investigation:

**H4:** Packaging information has a significant effect on consumers’ patronage of evaporated milk brands

### Empirical Review of Extant Studies and Conceptual Model

Over the years, scholars around the world have conducted various studies to determine the correlation and effect of packaging attributes on consumers’ patronage and overall consumer buying behavior. This unit presents an empirical review of some of these scholarly studies so as to determine the scope of coverage on the subject “packaging and consumers’ patronage” in existing literature. Hammed and Abdulaziz (2017) investigated the “Impact of packaging on sales turnover of Chi Limited products”. The aim of the study was to determine the impacts of design of wrapper and quality of packaging material on the sales turnover of Chi Limited products. The researchers obtained primary data from 25 management and sales staff of Chi Limited, Sokoto branch using a structured questionnaire. Data analysis was done using structural equation models with the aid of SmartPLS software. Consequently, the findings revealed that design of wrapper and quality of packaging material had a significant impact on sales turnover of Chi Limited products in Sokoto, Nigeria. Also, Olawepo and Ibojo (2015) examined “the relationship between packaging and consumers purchase intention: A case study of Nestlé Nigeria products”. The purpose of the study was to determine the relationship between packaging (color, design of wrapper, packaging size, quality of packaging material and labeling) and consumers’ purchase intention towards Nestlé Nigeria’s products. The study obtained primary data from 325 consumers of Nestle Nigeria products in Oyo State using a structured questionnaire, while secondary data were collected from journals, periodicals and the internet. Multiple regression analysis and t-test were used to test the study hypotheses. Therefore, the findings of the study revealed that packaging color, design of wrapper, packaging size, quality of packaging material and labeling had significant positive relationships with consumers purchase intention towards Nestle Nigeria products.

Ebitu et al. (2021) conducted a study on “packaging attributes and consumer patronage of cosmetics in Calabar Metropolis, Cross River State”. The aim of the study was to examine the effects of brand name, packaging information, and design of wrapper on consumer patronage of cosmetics in Calabar Metropolis. The researchers used a 5-point Likert Scale structured questionnaire to obtain primary data from 139 cosmetic consumers in Calabar Metropolis. The data obtained were statistically analyzed using multiple linear regression in the Statistical Package for the Social Sciences (SPSS 23). Consequently, the findings of the study revealed that brand name, packaging information and design of packaging wrapper had significant
effects on consumer patronage of cosmetics in Calabar Metropolis, Cross River State. Also, Ezekiel et al. (2014) conducted a study on “the effects of packaging on consumer choice of cosmetic products: A case of University of Calabar community”. The aim of the study was to examine the relationship between packaging (color, label and quality of packaging material) and consumer choice of cosmetic products. The researchers obtained primary data from 33 students of the University of Calabar, Nigeria using a 5-point Likert Scale structured questionnaire. The data obtained were statistically analyzed using the Ordinary Least Square (OLS) method. The findings therefore revealed that there is a significant relationship between packaging (color, label and quality of packaging material) and consumer choice of cosmetic products in Nigeria.

Similarly, Adebisi and Akinruwa (2019) investigated the “effectiveness of product packaging on customer patronage of Bournvita in Ekiti State”. The purpose of the study was to determine the effects of packaging size, quality of package material, packaging color, packaging shape and quality of product content on customer patronage of Bournvita in Ekiti State. The researchers obtained primary data from 322 consumers of Bournvita in Ado-Ekiti using a 7-point Likert Scale structured questionnaire. Data analysis was subsequently conducted using hierarchical multiple regression methods. Consequently, the findings of the study revealed that packaging size, quality of package material, packaging color, packaging shape and quality of product content had significant positive effects on customer patronage of Bournvita. Also, Osisanwo (2017) conducted a study on “effect of product packaging on Nigerian consumers’ behavior”. The purpose of the study was to determine the correlation between product packaging (color, packaging size, packaging shape, labeling and packaging imagery) and consumers’ behavior. Primary data were obtained from 222 residents of Yola, Adamawa State using a structured questionnaire. The data obtained were analyzed using descriptive statistics and Pearson’s Product Moment Correlation. Therefore, the findings revealed that packaging size, packaging shape, labeling, and packaging imagery had significant correlations with Nigerian consumers’ behavior, while packaging color was found to be insignificant.

Luke (2019) also conducted a study on “influence of packaging on consumer buying behavior of Tecno phones in Yenagoa Metropolis”. The purpose of the study was to ascertain the effects of packaging color, labeling, design of wrapper and packaging aesthetics on consumers buying behavior (consumer attractiveness, preference, patronage and loyalty) towards Tecno phones in Yenagoa Metropolis. The researcher obtained primary data from 270 users of Tecno phones in Yenagoa Metropolis using a structured questionnaire. The data obtained were statistically tested using descriptive statistics (percentages, tables, and bar carts) and Chi-square (x2) in the Statistical Package for the Social Sciences (SPSS). The findings of the study revealed that packaging color, labeling, design of wrapper and packaging aesthetics had significant effects on consumers buying behavior (consumer attractiveness, preference, patronage and loyalty) towards Tecno phones in Yenagoa Metropolis. Similarly, Maende (2018) examined the “effect of product packaging on consumer choices of food and beverage products, Nairobi County, Kenya”. The aim of the study was to statistically demonstrate the influences of packaging color, labeling, quality of packaging material, design of packaging wrapper, packaging size, and packaging shape on consumer choices of food and beverage products in Nairobi. The researcher obtained primary data from 145 shoppers in Nairobi County, Kenya using a structured questionnaire. Data analysis was conducted using descriptive statistics (tabulations, bar graphs and pie charts). Consequently, the findings of the study revealed that packaging color, labeling, quality of packaging material, design of packaging wrapper, packaging size, and packaging
shape had significant influences on consumer choices of food and beverage products in Kenya.

Furthermore, Karedza and Sikwila (2017) conducted a study on “the impact of packaging designs on consumer buying behavior of FMCG during the hyperinflationary and after the Dollarisation era in Zimbabwe”. The purpose of the study was to examine the effects of packaging graphics, shape, size, packaging information and packaging innovation on consumer buying behavior. The researchers obtained primary data from 47 consumers of FMCG in Zimbabwe using a semi-structured questionnaire and interviews. Data analysis was done using multiple linear regression. Consequently, the findings revealed that packaging graphics, shape, size, packaging information and packaging innovation had significant effects on consumer buying behavior towards FMCGs. Similarly, Orji (2014) investigated “packaging attributes and consumer purchase behavior of FMCG during the hyperinflationary and after the Dollarisation era in Zimbabwe”. The purpose of the study was to examine the effects of packaging color, labeling, quality of packaging, design of wrapper, printed information, language, brand image, innovation/practicality, and quality of packaging material on consumer purchase behavior towards bread products in Abia State. The study obtained primary data from 395 respondents in Umuahia, Abia State using a structured questionnaire. The data obtained were statistically tested using descriptive statistics and one sample t-test. The findings of the study revealed that packaging color, labeling, quality of packaging material, design of wrapper, printed information, language, brand image, innovation/practicality, and quality of packaging material had significant positive effects on consumer purchase behavior towards bread products in Umuahia, Abia State.

Also, Oladele et al. (2015) examined “Product packaging as a predictive factor of consumer patronage of toothpaste in Ado-Ekiti, Nigeria”. The purpose of the study was to determine the relationship and effects of packaging information, size, color, quality, graphics, ease of use, and portability on consumer patronage of toothpaste in Ado-Ekiti. The researchers obtained primary data from 320 shoppers at 8 most popular supermarkets in Ado-Ekiti Metropolis using a structured questionnaire. The data obtained were subjected to statistical testing using Pearson’s Product Moment correlation analysis and multiple linear regression. The findings of the study, therefore, revealed that packaging information, size, color, quality, graphics, ease of use, and portability had significant relationships and effects on consumer patronage of toothpaste in Ado-Ekiti. Finally, Benjamin et al. (2019) conducted a study on “Products packaging and its effects on consumer patronage of Cadbury Plc Nigeria”. The aim of the study was to determine the effects of packaging color and label on consumer patronage (market share) of Cadbury in Nigeria. The study collected primary data from 154 consumers of Cadbury products in Ondo State, Nigeria with the aid of a structured questionnaire. The data obtained were analyzed using descriptive statistics (simple percentages, frequencies distribution, mean, standard deviation and median) and regression analysis. Therefore, the findings of the study revealed that packaging color and label had significant positive effects on consumer patronage of Cadbury Plc, Nigeria.

Informed by a review of existing literature, this study adopted color, design of wrapper, quality of packaging material and packaging information as proxies of product packaging in the context of milk products. On the other hand, the dependent variable (consumers’ patronage) was measured through proxies such as purchase and consumption. In the context of this study, packaging color is operationalized as the combination of various colors (such as red, orange, yellow, green, blue, or purple) displayed on the package of evaporated milk brands. Design of wrapper operationalized as the artistic, graphical and aesthetic designs displayed on the package of milk product brands. The study also conceived the quality of packaging material as
the degree of durability, hygiene, safety, environmental friendliness, and re-usability of the package of evaporated milk brands. Whereas, packaging information was viewed as any information displayed on or in the package of milk product brands. In light of existing empirical evidence by previous researchers, this study hypothesized that product packaging is related with consumers’ patronage of milk products in a direct way. To demonstrate the hypothesized relationship between the study variables, a conceptual model in Fig. 1 was adapted from existing studies to suit the context of the present study.

![Conceptual model of the study](image)

**FIG 1:** Conceptual model of the study

*Source: Independent variables adapted from Olawepo and Ibojo (2015); Ebitu et al. (2021).*

**Theoretical Framework**

The underpinning theory for this study is the classical theory of packaging developed by Carter (1991). The classical theory of packaging is a social behavior theory developed originally from Ivan Pavlov’s classical conditioning theory of 1899. Carter (1991) carefully observed the classical conditioning theory of Ivan Pavlov and modified the theory for application in the field of marketing in 1991 thereby leading to the development of the classical theory of packaging. The basic assumption of this theory is that product packaging is the most important stimulus of consumer buying behavior that stimulates them to notice, evaluate, select and ultimately purchase a consumer good (Carter, 1991). According to the theory, there are three (3) elements in the relationship between consumer behavior and packaging, these are: The actor, stimulus and subject (Carter, 1991). The actor is the consumer himself going through the various stages of consumer decision-making. The actor (consumer) is considered rational in his decisions and will select the product option that best appeals to his preferences. The stimulus is product packaging, which includes elements like color, design of wrapper, quality of packaging material, brand name and packaging information. Packaging color entails the color combinations used to design the packaging of consumer products. Design of wrapper entails the graphic and visual designs that appear on the packaging of consumer products. Quality of
packaging material entails the texture or nature of the material used to design the packaging of consumer products. Brand name is the formal identity of a brand by which consumers can recognize it, while packaging information entails the amount of product-related and other essential information displayed on the packaging of consumer products. Finally, the subject, as the name implies, is the consumer product itself which the consumer is being exposed to (Carter, 1991).

Furthermore, the classical theory of packaging holds that the actor (consumer) is influenced to purchase and use the subject (product) by the stimulus (product packaging). The effect of the stimulus (packaging) on the player (consumer) is amplified when the stimulus (packaging) has the right color combination, recognizable brand name, attractive graphic and visual designs, high quality packaging material and adequate and accurate product-related information (Carter, 1991). The relevance of the classical theory of packaging to this study is that it assumes that the packaging of evaporated milk brands is the most important stimulus of consumers’ patronage of the products. The theory asserts that milk product packaging attracts consumers to notice, evaluate, select and ultimately purchase various kinds of milk brands. More comprehensively, the theory postulates that the relationship between consumers’ patronage and milk product packaging is characterized by three (3) factors, namely: The actor, stimulus and subject. According to the theory, the actor is the consumer himself going through the various stages of consumer decision-making with the aim of deciding which milk product brand to purchase. In this sense, the theory considers consumers of evaporated milk brands as rational in their decisions, given that they will only select milk product brands that best appeal to their preferences. The stimulus, as conceived by the theory, is milk product packaging, which includes elements such as size, color, design of wrapper, quality of material, and packaging information. On the other hand, the subject, as the name implies, is the milk product brands to which consumers are exposed. Therefore, the classical theory of packaging supports the premise that the actor (consumer) is influenced to purchase and use the subject (evaporated milk brands) by the stimulus (milk product packaging). This study was hence conducted to verify the veracity of this theoretical claim by testing a set of research hypotheses built on the packaging elements conceptualized in the classical theory of packaging.

METHODOLOGY

This study adopted cross-sectional survey research design, which enabled the collection of data from consumers of evaporated milk brands in Calabar on a one-time basis over a short period of time. The population of the study therefore included all consumers of evaporated milk brands in Calabar, Nigeria. The exact population figure was unknown because of the absence of valid records of milk consumers in the town. Consequently, a sample size of 185 consumers was determined statistically using the Topman sample size determination procedure facilitated by a pilot survey. To locate and select sample respondents to participate in the survey, the researcher applied the cluster random sampling technique whereby the study area was split into two (2) distinct cluster groups, namely: Calabar South and Calabar Municipality. These two cluster groups were further split into residential neighborhoods where milk consumers could be found. The cluster random sampling technique was appropriate for the study because it enabled us to more effectively cover the study area by drawing out representative samples from cluster groups (Calabar South and Calabar Municipality). To obtain data from respondents, we adopted a 5-point Likert Scale questionnaire. The data obtained were analyzed statistically.
using descriptive statistical methods (frequency tables and simple percentages), while the hypotheses developed for the study were tested using multiple linear regression using the model thus:

\[ \text{CONSPAT} = a + \beta_1 \text{COL} + \beta_2 \text{DOW} + \beta_3 \text{QUALMAT} + \beta_4 \text{PACKINFO} + e \]

Where:

\( \text{CONSPAT} = \) Consumers’ patronage
\( a = \) The intercept (or constant)
\( \beta_1 \text{COL} = \) Coefficient of color
\( \beta_2 \text{DOW} = \) Coefficient of design of wrapper
\( \beta_3 \text{QUALMAT} = \) Coefficient of quality of packaging material
\( \beta_4 \text{PACKINFO} = \) Coefficient of packaging information
\( e = \) Error margin (5 percent)

**ANALYSIS AND DISCUSSION**

*Data Analysis and Interpretation*

With the aid of a 2-member data collection team, a total of 185 copies of the questionnaire were administered to consumers of evaporated milk brands. However, out of the total number of questionnaire copies administered, 168 copies (representing 90.8 percent) were correctly completed and returned, while 17 copies (representing 9.2 percent) were not retrieved, therefore resulting in a total response rate of 90.8 percent.

**Table 1: Summary of Respondents’ Demographic Profile**

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td>18 – 24 years</td>
<td>27</td>
<td>16.1</td>
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<tr>
<td>25 – 31 years</td>
<td>52</td>
<td>31.0</td>
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<tr>
<td>32 – 38 years</td>
<td>50</td>
<td>29.8</td>
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<tr>
<td>39 – 45 years</td>
<td>24</td>
<td>14.3</td>
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<tr>
<td>46 years or above</td>
<td>15</td>
<td>8.9</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
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</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
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<tr>
<td>Male</td>
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<td>51.8</td>
</tr>
<tr>
<td>Female</td>
<td>81</td>
<td>48.2</td>
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<tr>
<td>Total</td>
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<td>100.0</td>
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<table>
<thead>
<tr>
<th>Marital status</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Single</td>
<td>102</td>
<td>60.7</td>
</tr>
<tr>
<td>Married</td>
<td>66</td>
<td>39.3</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
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</tbody>
</table>
Table 1 above presents data on respondents’ demographic characteristics such as age, gender, marital status, educational qualifications and occupation. Out of the 168 respondents surveyed, 27 respondents representing 16.1 percent were between the ages of 18 – 24 years, 52 respondents representing 31.0 percent were between the ages of 25 – 31 years, 50 respondents representing 29.8 percent were between the ages of 32 – 38 years, 24 respondents representing 14.3 percent were between 39 – 45 years, while 15 respondents representing 8.9 percent were 46 years or above. With respect to gender, out of the 168 respondents surveyed, 87 respondents representing 51.8 percent were male, while 81 respondents representing 48.2 percent were female. On marital status, the data shows that 102 respondents representing 60.7 percent were single while 66 respondents representing 39.3 percent were married. On educational qualifications attained, out of the 168 respondents surveyed, 48 respondents representing 28.6 percent had FSLC, 56 respondents representing 33.3 percent had SSCE, 33 respondents representing 19.6 percent had NCE/ND/HND/B.Sc. degrees, while 31 respondents representing 18.5 percent were post-graduate degree holders. Finally, with respect to occupation, the data revealed that 56 respondents representing 33.3 percent were students, 49 respondents representing 29.2 percent were businessmen/women, while 63 respondents representing 37.5 percent were civil servants.

Test of Hypotheses

Hypothesis one:

H0: Packaging color has no significant effect on consumers’ patronage of evaporated milk brands.

Hypothesis two:

H0: Design of the wrapper has no significant effect on consumers’ patronage of evaporated milk brands.

Hypothesis three:

H0: Quality of packaging material has no significant effect on consumers’ patronage of evaporated milk brands.
Hypothesis four:

Ho: Packaging information has no significant effect on consumers' patronage of evaporated milk brands.

Independent variables: Packaging color, design of wrapper, quality of packaging material, packaging information

Dependent variable: Consumers' patronage

Test statistic: Multiple linear regression.

Decision criteria: Accept the alternative hypothesis if (P < .05) and reject the null hypothesis, if otherwise.

Table 2: Model summary of the effect of packaging attributes on consumers' patronage of evaporated milk brands

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.788a</td>
<td>.511</td>
<td>.492</td>
<td>.41362</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Packaging color, design of wrapper, quality of packaging material, packaging information

Source: Authors' Analysis Via SPSS, 2023

Table 3: ANOVAa of the effect of packaging attributes on consumers' patronage of evaporated milk brands

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>18.707</td>
<td>4</td>
<td>4.677</td>
<td>42.518</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>17.886</td>
<td>163</td>
<td>.110</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>36.593</td>
<td>167</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Consumers' patronage
b. Predictors: (Constant), Packaging color, design of wrapper, quality of packaging material, packaging information

Source: Author’s Analysis Via SPSS, 2023

Table 4: Coefficientsa of the effect of packaging attributes on consumers' patronage of evaporated milk brands

<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</td>
<td>(Constant)</td>
<td>2.869</td>
<td>.253</td>
<td>-0.00</td>
</tr>
<tr>
<td></td>
<td>Packaging color</td>
<td>.141</td>
<td>.040</td>
<td>-0.044</td>
</tr>
<tr>
<td></td>
<td>Design of wrapper</td>
<td>.098</td>
<td>.041</td>
<td>.569</td>
</tr>
<tr>
<td></td>
<td>Quality of packaging material</td>
<td>.136</td>
<td>.049</td>
<td>.603</td>
</tr>
<tr>
<td></td>
<td>Packaging information</td>
<td>.186</td>
<td>.042</td>
<td>.415</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Consumers’ patronage

Source: Author’s Analysis Via SPSS, 2023
The results of the multiple linear regression analysis of the influence of packaging attributes on consumers' patronage of evaporated milk brands are summarized in Tables 2, 3, and 4. Table 2 provides an overview of the model, indicating a strong correlation (78.8 percent) between the independent variables (packaging attributes) and the dependent variable (consumers' patronage). The coefficient of determination ($R^2$) of 0.511 indicates that approximately 51.1 percent of the variation in consumers' patronage can be explained by the packaging attributes, holding other factors constant. The F-test (42.518, $P < 0.05$) in Table 3 confirms that the overall prediction of consumers' patronage by the packaging attributes is statistically significant. Table 4 presents the coefficients for each packaging attribute and its capability to predict consumers' patronage. Three out of four packaging attributes (design of wrapper, quality of packaging material, and packaging information) were found to be significant predictors of consumers' patronage ($p$-values: design of wrapper = 0.001, quality of packaging material = 0.006, packaging information = 0.000), with positive t-test values, indicating a direct and positive relationship.

On the other hand, packaging color did not significantly predict consumers' patronage ($p$-value = 0.501). The standardized beta coefficients in Table 4 demonstrate the individual contributions of each packaging attribute to the model. The packaging attribute with the highest contribution is the quality of packaging material, with a beta coefficient of 0.603 (60.3 percent). The design of the wrapper is the second highest contributing attribute, with a beta coefficient of 0.569 (56.9 percent). The packaging information attribute ranks third with a beta coefficient of 0.415 (41.5 percent). In contrast, packaging color had a negative and insignificant contribution to the model, with a beta coefficient of -0.044 (-4.4 percent). To summarize, the results suggest that design of wrapper, quality of packaging material, and packaging information have significant positive effects on consumers' patronage of evaporated milk brands, while packaging color does not significantly influence consumers' patronage. These conclusions are based on the statistical significance of the $p$-values for each packaging attribute.

**DISCUSSION OF FINDINGS**

The first finding emerging from testing hypothesis one revealed that packaging color has no significant effect on consumers' patronage of evaporated milk brands. This finding opposes the study of Olawepo and Ibojo (2015), which revealed that packaging color had a significant positive relationship with consumers' purchase intention towards Nestle Nigeria products. This research finding goes contrary to the studies of Ezekiel et al. (2014), and Adebisi and Akinruwa (2019) where in both circumstances, packaging color was found to significantly enhance consumers’ patronage. The implication of this finding is that although packaging color has been found to significantly and positively affect consumers’ patronage of various Fast-moving Consumer Goods around the world, in the context of evaporated milk brands, packaging color does not have the capacity to significantly influence consumers’ patronage. This entails that consumers of evaporated milk brands in Nigeria look beyond packaging color in their assessment of milk product brands to purchase and consume.

The second finding emerging from the test of hypothesis two revealed that design of wrapper has a significant effect on consumers' patronage of evaporated milk brands. This finding is corroborated by the study of Hammed and Abdulaziz (2017), which revealed that design of wrapper had a significant impact on sales turnover of Chi Limited products in Sokoto, Nigeria.
The finding is also in alignment with the study of Ebitu et al. (2021), which revealed that design of packaging wrapper had a significant effect on consumer patronage of cosmetics in Calabar Metropolis, Cross River State. The implication of these findings is that as a dominant packaging dimension, design of wrapper has been confirmed through solid empirical evidence to have the capacity to significantly enhance consumers’ patronage of any Fast-moving Consumer Goods (FMCGs) including evaporated milk brands regardless of the geographical area context. This entails that if applied consistently and effectively, design of wrapper can significantly improve consumers’ patronage of FMCGs.

The third finding emerging from testing hypothesis three revealed that quality of packaging material has a significant effect on consumers’ patronage of evaporated milk brands. This finding is supported by the study of Ezekiel et al. (2014) which revealed that there is a significant relationship between quality of packaging material and consumer choice of cosmetic products in Nigeria. The finding is also strongly backed by the study of Maende (2018), which revealed that quality of packaging material had a significant influence on consumer choices of food and beverage products in Kenya. These findings imply that as a dominant packaging dimension, quality of packaging material has been confirmed through solid empirical evidence to have the capacity to significantly enhance consumers’ patronage of any Fast-moving Consumer Goods (FMCGs) including evaporated milk brands regardless of the geographical area context. This entails that if applied consistently and effectively, quality of packaging material can significantly improve consumers’ patronage of FMCGs.

Finally, the fourth finding emerging from testing hypothesis four revealed that packaging information has a significant effect on consumers’ patronage of evaporated milk brands. This finding is corroborated by the study of Karedza and Sikwila (2017), which revealed that packaging information had a significant effect on consumer buying behavior towards FMCGs. The finding is also in agreement with the study of Oladele et al. (2015), which revealed that packaging information had a significant relationship and effect on consumer patronage of toothpaste in Ado-Ekiti. Similarly, the finding corresponds with the study of Benjamin et al. (2019), which revealed that packaging information (label) had a significant positive effect on consumer patronage of Cadbury Plc, Nigeria. These findings imply that packaging information is an indispensable packaging attribute with a significant capacity to substantially affect consumers’ patronage of FMCGs such as evaporated milk brands.

CONCLUSION AND PRACTICAL IMPLICATIONS

Over the years, there have been various attempts by scholars around the world to empirically establish the cause-and-effect relationship between packaging attributes and consumers’ patronage of various FMCGs, including evaporated milk brands. To that end, various packaging attributes such as color, information, size, design of wrapper, quality of packaging material and shape have been measured statistically against consumers’ patronage of FMCGs by various researchers in order to determine the effect of packaging attributes on consumers’ patronage. This study is one of such empirical investigations; it was geared towards determining the effects of packaging attributes (such as color, design of wrapper, quality of packaging material and information) on consumers’ patronage of evaporated milk brands. Being an empirical study, data were obtained from respondents and statistically analyzed with the aid of the appropriate statistical methods. The analytical procedure revealed that design of
wrapper, quality of packaging material and packaging information had significant positive effects on consumers’ patronage of evaporated milk brands, while packaging color had no significant effect in this regard. Hence, the study reached the conclusion that to a large extent, packaging attributes have a significant effect on consumers’ patronage of FMCGs especially evaporated milk brands in Nigeria.

This implies that manufacturers of FMCGs including evaporated milk brands could substantially improve consumers’ patronage of their products by strategically managing their packaging attributes such as design of wrapper, quality of packaging material and information. To do this, we suggest that manufacturers of evaporated milk brands should pay little attention to packaging color in their packaging design process because consumers’ patronage of evaporated milk brands is influenced by more important factors than packaging color. We also recommend that manufacturers of evaporated milk brands should improve their packaging design by ensuring that products come in various packaging sizes, brand names and attractive graphics are conspicuously displayed to attract consumers. In addition, we recommend that it is imperative for manufacturers of evaporated milk brands to use quality materials such as water-proof, air-tight and healthy materials to package their products to prevent damage to the product and consumers’ health. Finally, we recommend that manufacturers of evaporated milk brands should effectively manage packaging information dimension by ensuring that adequate product information such as ingredients, nutritional and manufacturers’ details are conspicuously contained in product packaging.

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