

EFFECT OF PACKAGING ON CONSUMER PURCHASE DECISION OF MACLEANS TOOTHPASTE IN NORTH CENTRAL NIGERIA

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Abstract

The aim of this study is to determine the effect of shape, typography and quality of packaging on consumer purchase decision of Macleans toothpaste in North Central Nigeria. The population of the study are users of toothpaste in north central Nigeria. The study adopted survey research design. The population size was arrived at using Cochran formula for unknown population where 423 was used as the sample size for this study. Primary data were collected using structured questionnaire from the respondents. The information gathered was evaluated using statistical package for social sciences (SPSS) software. The study deployed factor analysis using structural equation modelling (SEM) in smart partial lease square (SEM) for data analysis. The study concluded that packaging shape and packaging quality has negative and insignificant influence on consumer purchase decision towards Macleans toothpaste hence, failed to encourage purchase decision in North central Nigeria, while package typography has a positive effect on consumer purchase decision towards Macleans toothpaste in North central Nigeria and contributed significantly to consumers' choice. Thus, Macleans toothpaste should redesign their package shape using unique design features that appeals to culture and ideas of the target market. Macleans toothpaste should deploy the use of superior materials in the design of their products. Lastly, Macleans toothpaste should sustain the typography on their package, however they should consider reviewing it on a regular basis.

Key Words: *Shape, Quality, Packaging, Macleans*

Introduction

A growing body of empirical research suggest that packaging has replaced the role of salesperson in the communication with consumers at the point of purchase (Rundh, 2016; Altmann, 2014; &Benachenhou et al., 2021). This is because the numbers of product that are offered is rapidly increasing and the first impression between the consumer and the packaging of a product has become relevant. This mean that decisions on packaging strategies will continue to be an important issue for academic research and marketing practice (Blazhenkova, et al., 2017). The first impression between the consumer and the packaging of a product has become relevant. These means therefore that, in such an

environment cluttered with products, purchase decisions are often based on systematic and critical evaluation of products features, and on heuristic and fast processing of packaging attributes. Marketers respond to this development by using various visual techniques to increase the consumers' attention (Cakir, et al., 2019).

Understanding consumer view on how packaging attributes play a role in their purchase decision is critical for company's packaging decision globally. Companies are now very much interested in packaging as a tool to increase their sales. This has made packaging design to be a growing phase of importance as a mode of communication. This, combined with the continuous change in consumer life style lend credence to the reliability of packaging as a tool in sales promotion. Most consumers postpone their purchase decisions to the moment when they find themselves in the store, so the first impression between the consumer and the packaging of the product has become relevant. Packaging is no longer considered a container for a product but a sign or billboard (Pandiangan, 2021). It can attract consumers' attention towards the product and it can influence the consumers' perception about the product.

Communication through packaging has become more challenging because the numbers of product that are offered is rapidly increasing. Package shape is the overall form and structure of a product. It helps differentiate product on the shelf and make them more visually appealing to consumers. Package shape is a critical decision variable for packaged-goods manufacturers.

Package typography are the text used on a products packaging such as fonts, layout and overall design of the text. It helps to convey products brand identity and also communicates information about the product. By carefully choosing the right typography, companies can make their products more recognizable to consumers and also grab attention (Nosheba, 2022).

Packaging quality is the functionality of the products packaging which includes factors such as durability, strength and protection from damage (Rasul, et al., 2021). According to Kumar, (2014), customers unconsciously imagine products' quality through appearance, feel and sound when viewing the picture or photos presented on the package (Silayoi et al., 2004; Silayoi et. al., 2007).

The moods associated with these attributes are advantageous if a brand needs a fresh beginning. The factors should harmonize to help communicate how consumers look at package design. Most times consumers are influenced by what the package communicate to them.

Thus, this study intends to carry out an investigation on the effect of packaging shape, packaging typography and packaging quality color on consumer purchase decision of Macleans toothpaste in North central Nigeria. Specifically, the study will address three objectives, which are:

- a. To determine the effect of Packaging shape on consumer purchase decision of Macleans toothpaste in north central Nigeria.
- b. To establish the effect of Packaging typography on consumer purchase decision of Macleans toothpaste in north central Nigeria.

- c. To specify the effect of Packaging quality on consumer purchase decision of Maclean's toothpaste in North central Nigeria

Literature Review

Concept of Packaging

Janki, et al. (2020) defined packaging as an extrinsic element of the product, the container for a product that stimulates impulse buying behavior. It also reduces the marketing and advertisement cost of the product. According to Zhou, et al., (2021) packaging is a competitive tool for differentiated company products. Some companies are very innovative in adding new features to their products. Buyers are usually willing to pay more for better performance as long as the excess price does not exceed perceived value. According to Kalpana, (2019) package is the wrapping material around a product that serves to contain, identify, describe, protect, display, promote and otherwise make the product marketable and keep it clean. Packaging also acts as a promotional tool. Sometimes, consumers assess the quality of the product from its packaging. Packaging has been described as a silent salesman and it has played an important role in the success of many products (Colgate Toothpaste, Taj Mahal Tea, and Lays Wafers).

Visual appeal of packaging design is vital in influencing customer decision-making at retail level. Packaging design attributes provides visual cues that in turn play an important role in influencing customer purchase behavior (Rundh, 2016). Creative packaging attributes increases arousal among customers, such increased arousal persuades customers to become curious about the creative cue, and they, in turn, are motivated to process the information. It is important to state that product's objectives cues and consumer's perception of product's attributes are anonymous because they differ in their nature. The reason behind this is that individual perceptions may differ in contents and context (Paurav&Weish, 2022).

Packaging Shape

Shape of packaging serves as a symbolic signal that can communicate specific attributes to consumers (Veflen, et al. (2023). The shape of the packaging in which the product is served can impact consumer's responses. Packaging attributes have been found to influence consumers' taste perception (Sousa et al., 2020). Packaging attributes can make consumers susceptible to specific taste expectations and thereby make them more inclined to purchase products that signal their preferred taste. The shape of both product and packaging can affect consumers' associations and sensory expectations towards a product, as well as their expected liking and their willingness to purchase the product (Ares & Deliza, 2010, Velasco et al., 2016). Shapes generate associations with approachability, friendliness and harmony (Wang et. al., 2020). Moreover, Ares and Deliza (2010) revealed that round shapes are more pleasant and have higher utilities in terms of expected liking than angular shapes. Spence et al. (2013), demonstrate that taste is the leading contributor to the systematic associations consumers have between the flavors and certain angular/sharp or organic/round shapes.

According to Poslon et al. (2021) Packaging shape is an essential part of your packaging design. It protects the product and is highly customizable. Packaging appearance is important in evoking consumer impressions. It is the only form of communication between the product and the buyer during the first purchase (Yang &Lee 2016). A well -designed combination of packaging attributes with certain visual elements can evoke emotional reactions from the consumers. The form of packaging shape varies depending on the purpose and type of product. Packaging shape not only makes a product more attractive,

but can also help consumers predict the volume of the product, and it can also influence the perception of the taste of a product, as the sense of taste can be activated even without consuming the product. The importance of packaging shape also makes itself felt in differentiating products from competitors, as it can trigger emotions and purchase behavior. The more complex and atypical the shape is, the more attention it attracts (Clement &Gronhaug, 2013). The shape of packaging varies according to purpose and product type. Sometimes, deviation of packaging form from existing packaging design in a product category may draw more attention from the consumers (Westerman et. al., 2013).

According to Sausa, et al. (2020), Packaging shapes are not just there to make your packaging look good. They have a huge impact on the way you market and promote your product. Packaging shape helps identify and distinguish your product while making it more noticeable. The packaging shape is one of the two attributes that influences a purchase decision the most. The shape of packaging varies according to purpose and product type. Sometimes, deviation of packaging form from existing packaging design in a product category may draw more attention from the consumers (Benachenhou, 2018).Packaging shape has a strong influence on the purchase decision especially when the quality of the product is hard to determine (Silayoi&Speece, 2007). A unique shape can be a very powerful weapon in differentiating a brand and/or conveying fun (Clement &Gronhoug, 2013).

Packaging Typography

Typography is the individual letter or character (Nosheba, 2022). In most cases, this means making text readable and appealing. Magnier, et al., (2016) “Visual elements of typography speaks louder than words”. Nevertheless, you must note the visual language is only significant when “Created by carefully selected typography” (Mohammed, 2016). The appropriate use of typography is to add value on the nature of the product and offer something that is attractive to the users through the forms of packaging design. This can be seen with the use of typeface, font size, font style that is distinct and composed according to the hierarchy. Legibility and readability allows users to receive and appreciate the content of the information. The readability reflects what is seen by the user and process the information. This indirectly demonstrates the effectiveness of the use of typography in packaging design which is appropriate and memorable (Magnier, et al., & 2016). The legibility of type can be affected by its size, typeface, contrast, text block, and spacing.

According to Khan, et al. (2021) Typography is the process of designing text. It is “the art or skill of creating meaningful communication by printed word”. Typography is applying type in an expressive way to reveal the content clearly and memorably with the least resistance from the reader (Imiru, 2017). It is very important to communicate information to an audience especially for food packaging design, since typography often conveys vital information. Typographic decisions must be legible, otherwise the reader will not be able to understand the message. Legibility does help the user in the process of distinguishing and recognizing something products prior to the decision to purchase is made. Readability and legibility are typographic terms that often incorrectly used. While legibility is the aptitude for distinguishing different letter forms, readability is the ease with which text can be read and comprehended. Readability is determined through background and text contrast, spacing, typeface, and line length, among other factors. Good readability will hold the reader’s interest longer (Imiru, 2017).

According to Dubbert, (2021) Typography is divided into two major categories: text type and display type. While for packaging, the brand name and product name are usually set in display type. The product name is the general or common name of the product that is required by law to be on the front panel of the package (Nilforunshan, 2015) Other product descriptors that specify information about the contents of the package can also be written in display type. This can include (but not limited to) the flavor, variety, special benefits, or features of the product. The descriptor information is used to market the product to consumers by pointing out how the product is special and more superior to other competing products (Nilforunshan, 2015). Text type is used for the longer portions of text on the package. Packaging often includes what is called romance copy, or copy that describes the product or brand in greater detail in order to persuade the consumer. This is set as text type on the back of the package. Recipes and product directions are other forms of text type also located on the back of the package. There is also a lot of mandatory information placed on the package that is required by the government, such as nutrition facts, ingredients, warnings, net weight, and manufacturer information. This information is required to be highly legible and is therefore always set as text type (Klimchuck&Krasovec, 2006).

Packaging Quality

According to Rasul, et al., (2021), packaging is an indicator of product quality. Quality of the package, as well as the price of the commodity, are the key factors in purchase decisions (Mohanty & Swain, 2017). Packaging materials is one of the main factors that quality and safety depends on. It is used for protection against microbiological, chemical and physical contamination especially in the food industry (Mohanty & Swain, 2017). Packaging is not merely an element that contains and protects products; rather, it also defines product quality (Venter et al., 2011). According to Vieira (2015), the customers are generally forced to evaluate the product quality by their experience with the package when they see the new package in the store (Holmes et al. 2012). The product design variables are highly important for the moment when a consumer expresses their opinion on a new package.

According to Alam et al., (2021), Conventional packaging aims to limit the harmful environmental exposure of products which include part of quality. When consumers view new package on the shelf, they are usually forced to make a quality evaluation of the product through experience with the package (Holmes et al. 2012). Based on product features and the whole package, the consumer performs a quality evaluation. In this situation, the user should look at the package's effectiveness and determine the new product's favorable existence. Product and package feature influence quality evaluations. The customer also assumes the product itself is of high quality as the box shows high quality. In the event where the packaging looks bad, the consumer sees the product as bad. Kumar (2014) suggest that customers are able to unconsciously imagine a product's appearance, taste, feel, and sound when viewing the pictures and photos presented on a package (Silayoi et al. 2004; Silayoi et al. 2007).

Consumer Purchase Decision

The role that consumers play in these days is very crucial to businesses' survival. It is the driving force behind the success of many businesses, because most of the contemporary consumers spend major time on buying decisions. Research on consumer behavior has become essential in recent years as it plays an important role in business marketing and growth. Consumer behavior is changing as factors such as trends, technology, fashion, and lifestyle evolve (Yarimoglu & Binboga, 2019). Marketers need to understand what is

changing so that they can adjust their marketing activities accordingly (Dailey & Ülkü, 2018; Fu et al., 2020; Ruan et al., 2019).

According to Francis and Sarangi, (2022) consumer behavior is referred to as the physical activity and decision engaged in obtaining, evaluating, disposing or using of services and goods. Consumer behavior is often goal oriented and purposeful. Each consumer is free to make an option with regard to the buying he or she is going to make. Consumer behavior is the method, which starts with the stimuli a consumer gains from his surroundings and ends with buying transaction. The quality and quantitative observation of customer behavior analysis demonstrate how customers communicate with the company.

Packaging Shape and Consumer Purchase Decision

Ikkyung (2021) conducted a study on Interdisciplinary Literature Analysis between Cosmetic Container Design and Customer Purchasing Intention. The purpose of this research is to identify the effect of container design in influencing consumer purchase intention. The researcher used qualitative coding implements to analyze and interpret the data obtained with a PRISMA declaration for analytical purposes. Qualitative coding is essential in studying since information value includes comprehensive integrity, transferability, reliability, and conformity. The analysis deals with a broad knowledge of a topic, which helps broaden an understanding of a problem, as noted in the previous report. The present author has attracted the study of (Han, & Kang, 2020) which was well written to provide theoretical solutions from the prior literature and indicated that qualitative study using numerous prior literature review is enough to give thoughtful implication and discussion to other researchers. The researcher, therefore, identified different groups and then identified emerging topics from the textural data. Qualitative research is inductive, so the primary purpose of the study of content analysis was to determine the things and current issues that would help provide answers for the present research. The results which obtained from theoretical approach are analyzed with an organized review approach. To collect the suitable data, the author tried to obtain the extant literature regarding the marketing plan for cosmetic container. The author also obtained textural data which associates with the possible solution through the Web datasets (mostly peer-reviewed work). From the studies explored. It is evident that container design is a crucial feature in influencing the consumer's purchase intention. The impact of the design components on consumer purchase behavior can be attributed to the fact that visual elements play a crucial role in developing the consumers' perception of the product (Nguyen, et al, 2019). A container's shape is another significant feature that most consumers are likely to consider when purchasing different products.

Abbas (2019) conducted a study on impact of shapes in packaging design on consumer Behaviour in the lens of Kano's attractive Quality theory. The aim of the study is to answer these questions that "What correlation is there between demographic factors and shapes of packaging design elements? And "What is the most preferred shapes of the rice package for consumers?" and "how it affect consumer purchasing decision and satisfaction?" The study was conducted in three shopping centers in Tehran. (Shahrvand Shopping Centers, Refah Shopping Centers and Hyper Star Markets). The population of study are the rice buyers who were asked about their experiences of packaging in everyday purchases. Data were collected through a questionnaire that was implemented in person through interviews with 600 consumers randomly chosen from ages 20 to 65. The questionnaire was divided into two parts: background questions (gender, age, education, and so on). Kano pair

questions which contained pairs of customer requirement questions (Berger et al. 1993; Kano et al. 1984). The classification of attributes described previously is made based on the pair questions. The result shows that customer satisfaction can be increased by meeting a certain quality attribute and customer satisfaction will decrease by not providing a quality attribute.

Packaging Typography and Consumer Purchase Decision

Noshaba (2022) conducted an investigation on aesthetics of packaging design and consumers purchase intention of ready-to-eat food products at the point of sale. The objective of the study is to measure the effect of the product's packaging (i.e., packaging materials, packaging graphics, typographic impression, and printed information) on purchase intention. The researchers used a descriptive research design using quantitative data collected from a field investigation. The research deployed random sampling at three levels: 140 respondents were intercepted at a few retail outlets while shopping and were provided with the printed barcode of an online questionnaire. Moreover, 120 questionnaires were distributed in the colleges of Muscat through the circle of friends and 200 questionnaires were sent to friends via social media. Therefore, a total of 460 surveys were distributed and only 209 with a response rate of about 45% were received. The sample comprised of 119 male and 90 female participants. Preliminary statistical tests of reliability, normality and validity were conducted to ensure the prior conditions of the data before applying multiple regression. Multiple regression analysis was executed to measure the effect of the relationship of aesthetic features of product packaging (i.e., packaging material, typography impression, packaging graphics, printed information, purchase intention) on the dependent variable consumer purchase intention. The result indicates that product packaging, packaging graphics, and printed information have significant effect on consumer purchase intentions. Typographical Printing was found to have an insignificant effect on consumer buying intentions. Printed information was also found to have the strongest influence on consumer purchasing intentions, followed by packaging graphics and packaging material. However, it is important to critically consider some conditions within the study that can be capable of producing a not to reliable result. The composition of the respondents are mostly student from the university and social media users which has created a sampling deficiency. Secondly, the sampling size and location is not enough to generalize the outcome of the investigation.

Wendy et al. (2020) carried out a research on typography styles based on the categorization of lip cosmetics packaging design. The research investigated the influences of typographical elements and its application on lip cosmetic packaging; specifically, it studied how the visual characteristics of different typography classifications affect the categorization of a collection of selected lip cosmetics packaging design. The population of study are generally those that use lip cosmetics. Data were collected from 60 respondents who are fully representative of the general lip cosmetic population investigated. Content analysis was used to conduct this research. The findings of the research showed that each of the typography classifications determined were able to identify specific typographic visual qualities and respective cognitive associations based on the visual implications and typographic connotations deemed appropriate and applicable from relevant past researches. The study established that the functional elements of product packaging holds influence in attracting consumers, as a strategic tool to present and communicate good and effective first impressions of the product. Similarly, with the findings of this research study, Serif typefaces were identified to be more likely used for the packaging visuals of lip cosmetic

products positioned at a higher price range with the reason that Serif typefaces illustrate more classic and sophisticated visual designs.

Packaging Quality and Consumer Purchase Decision

Yulianingsih, et al. (2019) conducted a study on “how packaging, product quality and promotion affect the purchase intention”. The aim of the study was to measure the moderation between the effect of packaging design and product quality of hand body lotion, a brand of body care products, toward purchase intentions moderated by promotional variable. Data collection method used in this study is a quantitative method in the form of a questionnaire, using a moderation research method with a comparative approach of two groups of data samples to see the relationships between variables. A total of 18 questions are used which are divided into four variables and tested using moderation method with a comparative approach of two groups of data samples to see the relationship between them. The first part is designed to measure the level of customer perception about the packaging design of hand body lotion products. The second part is designed to measure the level of consumer perceptions about the product quality of hand body lotion. Data were gotten from 120 female respondents in various regions in Indonesia, ranging in age from 18 to 29, who were users of hand body lotion. The univariate Analysis of Variance was adopted for the analysis. The result of the study showed that product packaging variables did not increase purchase intention, while product quality variables affected consumers purchase intention for hand body lotion products.

Sebastian et al, (2017) conducted a research on “the influence of packaging on consumers’ quality perception of carrots”. The aim of the research was to investigate the influence of packaging design on consumers’ perception of quality of fresh carrots. Data was collected from 251 Danish consumers who rated the perceived quality and value of nine packaging images obtained by systematically varying packaging type (plastic bag, plastic box, cardboard paper) and label color (blue, brown, grey). To determine the effect of the experimental design factors on consumers’ evaluation of PQ and value, a two-way Analysis of Variance (ANOVA) was conducted using Packaging Type, Label color, and their interactions, as fixed effects. An additional one-way ANOVA was conducted with image as fixed effect. The result shows that the three fixed factors (image, packaging type, and color) With respect to PQ, has significant effect for both image and packaging type, but not for color. Packaging type therefore seemed to be the main driver of difference in PQ between the nine images. The two box packages (either cardboard or plastic) were perceived as being of higher quality compared to the plastic bag package.

Ooijen et al. (2017) carried out a survey on “Packaging design as an implicit communicator: Effects on product quality inferences in the presence of explicit quality cue.” The aim of the study is to examine the interactive effect of packaging design and explicit packaging cues on quality inferences. It investigate how value – a dimension of color that is related to “darker” versus “lighter” colors affects product inferences. It investigate whether design cues and explicit cues interact with each other in eliciting product inferences. Furthermore, it examine how consumers make product quality inferences when packaging design cues are congruent and in-congruent with explicit quality cues. The study based itself on Cue Consistency theory which holds that when all cues give consistency quality information, these cues can play large roles in the product quality evaluation (Miyazaki, Grewal, & Goodstein, 2005). Thus, an increase in quality perception as a result of low colour value will occur when the explicit cue also communicates high quality (i.e., high-end brand or

high price). Therefore, one would expect an interaction effect between explicit quality cues and packaging design cues on product quality inferences. The SPSS software was used to examine the effects of value on quality perception by means of a one-way ANOVA with value (low vs. high) as a between subjects factor. Brand perception was marginally affected by the value manipulation. Participants in the low value (darker) condition perceived the product as being of higher quality compared to participants in high value (lighter) condition. Results of this between subjects experiment indicated that subtle variations in packaging value affect consumers' quality related inferences. We found that lower color value increases quality perceptions and brand perception.

Theoretical Framework

The cue consistency theory was proposed by psychologist Shelly et al, (1999) in their paper "cue consistency and attitude change: the moderating effect of perceived importance of the Attitude objects". They explore how consistency between product claim and prior beliefs can affect consumer attitudes, and is used to underpin this study.

Cue consistency theory suggest that consumer will be more likely to believe a product claim if it is consistent with the consumer's existing beliefs about the product category. If a products claim is consistent with what the consumer already knows about the product, the claim will be more credible and persuasive. This is important for understanding how people process information and make decisions. Although the process of inference is acknowledged to be among the most important of cognitive activities. Individuals can combine information from multiple cues, each with a probabilistic relationship to a criterion, into a unitary judgment about that criterion.

In markets where product quality is not easily observable, consumers generally make their purchase decisions while experiencing feelings of uncertainty (Edward, 2013; Jacoby, Olson, & Haddock, 1971).To cope with such uncertainty and make inferences about product quality, consumers search for and process available product-related cues, which can be marketing controlled (price, advertising, branding) or non-marketing controlled (third-party information, culture, beliefs). Product is made of a series of cues which can be used to evaluate quality and can affect consumer purchase decisions, that is, the cue is a function of product attributes.

According to Sullivan & Burger (1987) consumers want to choose the suitable one from a great number of products, but it is difficult to measure the product function "directly and objectively". In order to overcome this barrier, consumers may indirectly evaluate quality with available information. For this reason, they infer quality with certain information which are the cues (Maheswaran & Chaiken, 1991). Miyazaki et al. (2005) states that cue consistency theory occurs when all cues give consistency quality information, this cues can play large role in quality evaluation.

There is need for an analysis of the manner in which patterns or configurations of cues are utilized. Cue-consistency theory suggests that multiple sources of information are more useful when they provide corroborating information than when they offer disparate information (Chaiken, 1991). Information integration, is a generally accepted trait on how consumers arrive at judgments. It proposes that evaluations are based on combining intrinsic product features and extrinsic cues (Alba et al. 1999). What we infer about others is based upon a set of expectations about the nature of persons, derived in part from

experience with behavior. Indeed, support for such expectations about others resides in the very consistency of behavior.

METHODOLOGY

The study took the form of a descriptive survey design. The population of the study comprises of users of toothpaste of any brand in North Central Nigeria. A sample size of 423 was arrived at from an unknown population using the Cochran formula. The study adopted the purposive sampling to select consumers in the North Central region of Nigeria, while convenience sampling technique was adopted to select users of toothpaste including Macleans toothpaste in the study area. Primary data was collected using structured questionnaire and analyzed using ordinary least square regression analysis technique. The hypothesized model for the study is specified thus:

$$CPD = \beta_0 + \beta_1 PSH + \beta_2 PKT + \beta_3 PKQ + \varepsilon$$

Where; CPD = Consumer Purchase Decision, β_0 = Intercept, PSH = Packaging Shape, PKT = Packaging Typography, PKQ = Packaging Quality and ε = error term.

RESULTS AND DISCUSSIONS

The study distributed 423 copies of questionnaire out of which 373 were properly filled and returned. Subsequently, all analyses were conducted using the 373 valid responses.

Table 1: Correlations

		PSH	PKT	PKQ	CPD
P	Pearson Correlation	1	.230*	.521**	.522**
S			.025	.000	.000
H	Sig. (2-tailed)				
N		373	373	373	373
P	Pearson Correlation	.230*	1	.279**	.386**
K		.025		.006	.000
T	Sig. (2-tailed)				
N		373	373	373	373
P	Pearson Correlation	.521**	.279**	1	.677**
K		.000	.006		.000
Q	Sig. (2-tailed)				
N		373	373	373	373
C	Pearson Correlation	.522**	.386**	.677**	1
P		.000	.000	.000	
D	Sig. (2-tailed)				
N		373	373	373	373

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output 2024

Packaging shape (PSH), packaging typography (PKT), and packaging quality (PKQ) showed a moderate and positive relationship with consumer purchase decision (CPD) which stood at 0.522, 0.386 and 0.677 respectively which is significant at 5% level of significance. Also, PSH has a weak relationship with PKT which stood at 0.230; moderate positive relationship with PKQ which stood at 0.521 both of which are statistically significant at 5%. Similarly, PKT and PKQ had a weak and significant relationship which stood at 0.279. All the variables under study satisfy the assumption of multicollinearity as though none of the independent variable is strongly related to another going by the 0.80 threshold (Berry & Feldman, 1985).

Model Summary^b

M od el	R	R Squar e	Adjusted Square	R	Std. Error of the Estimate	Dur bin- Wat son
1	.7 9 2 ^a	.628	.621		.637	1.7 07

a. Predictors: (Constant), PSH, PKT, PKQ

b. Dependent Variable: CPD

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	199.624	3	39.925	98.4 95	.000 ^b
Residual	118.362	369	.405		
Total	317.987	372			

a. Dependent Variable: CPD

b. Predictors: (Constant), PSH, PKT, PKQ

Coefficients^a

Model	Unstandardized Coefficients		Standardiz ed Coefficient s	T	Sig.	Collinearity Statistics	
	B	Std. Error				Toleranc e	VIF
(Co nsta nt)	.6 92	.192		3. 59	.000		
PSH	-.2 18	-.038	.468	-.4 36	.000	.633	1.579
PKT	.3 88	.058	.345	6. 67	.000	.376	2.661
PR Q	-.0 92	-.062	.099	1. 47	.014	.284	3.525

a. Dependent Variable: CPD

Source: SPSS Output 2024

The regression result revealed an r-square value of 0.628 signifying that 63% of the variation in consumer purchase decision is explained by the combination of the three independent variables. The remaining 37% is explained by other variables not included in the study. The f-statistics stood at 98.495 with a significant value of 0.000 implying that the model is fit to measure the association between the variables under study.

The regression line $CPD = .692 - 0.218PSH$ indicates a negative effect of packaging shape on consumer purchase decision implying that shape of Macleans packaging has failed to encourage purchase behavior in the customers. The probability of t-statistics stood at 0.000

which is less than 0.05 level of significance thereby indicating that the effect is significant and as such the study lacks sufficient ground to accept the null hypothesis leading to the acceptance of the alternative hypothesis which states that packaging shape has significant effect on consumer purchase decision of Macleans in North Central Nigeria. This finding agrees with that of Ikkyung (2021) whose study was to identify the effect of container design and purchase intention. The result was evident that container design is a crucial feature in influencing the consumer purchase intention.

The regression line $CPD = .692 + 0.388PKT$ indicates a positive effect of packaging typography on consumer purchase decision implying that typography on the package of Macleans has aided purchase behavior in the customers as they find it easy and attractive to read and understand. The probability of t-statistics stood at 0.000 which is less than 0.05 level of significance thereby indicating that the effect is significant and as such the study lacks sufficient ground to accept the null hypothesis leading to the acceptance of the alternative hypothesis which states that packaging typography has significant effect on consumer purchase decision of Macleans in North Central Nigeria. This finding agrees with the findings of Wendy et al., (2020) who investigated the influence of typographical elements on its application of lip cosmetic packaging; specifically, how visual characteristics of different typography classifications affects the categorization of a collection of selected lip cosmetic packaging design. The study established that the functional elements of product packaging (typography) holds influence in attracting consumers.

The regression line $CPD = .692 - 0.092PRQ$ indicates a negative effect of packaging quality on consumer purchase decision implying that quality of Macleans packaging is below the standard of the customers and has therefore led to their negative purchase decision towards Macleans toothpaste. The probability of t-statistics stood at 0.014 which is less than 0.05 level of significance thereby indicating that the effect is significant and as such the study lacks sufficient ground to accept the null hypothesis leading to the acceptance of the alternative hypothesis which states that packaging quality has significant effect on consumer purchase decision of Macleans in North Central Nigeria. This finding agrees with that of Sebastian O. &Giacalone (2017) on the influence of packaging on consumers' quality perception of carrots. The aim was to investigate the influence of packaging design on consumers' perception of quality of fresh carrots. The result shows that packaging quality has significant effect for both image and packaging type.

Conclusion and Recommendations

Based on the findings from the previous sections, this study concludes that packaging attributes of Macleans contribute significantly to consumer purchase decision and also, it was concluded that shapes and quality of packaging has contributed significantly to the negative purchase decision of consumers which has resulted in the low patronage of the product. Although typography on the package has contributed positively to consumer purchase behavior, the effect is overshadowed by the negative effect of packaging shapes and quality. Therefore, the following recommendations were drawn:

1. Macleans toothpaste should redesign their package shapes using unique design features that appeals to the culture and ideas of their target market. This will ignite their interest in the product and enhance purchase decision.
2. Macleans toothpaste should sustain the typography on their packages however, they should consider reviewing it on a regular basis. This will ignite their interest in the product and enhance purchase decision.

3. Lastly, Macleans toothpaste should employ the use of superior materials in the design of their products. In addition, the package should be such that it could be recycled and has no negative effect on the environment.

Reference

Ares, G. & Deliza, R. (2010), study the influence of package shape and colour on consumer expectations of milk desserts using word association and conjoint analysis. *Food Quality and Preference*. 21 (8), 930–937. Available from: doi: 10.1016/j.foodqual.2010.03.006

Altmann, C. (2014). The whole package: Packaging and product aesthetics. *Global Cosmetics Industry Magazine*, 182(5), 50 - 52.

Benachenhou, S., Guerrich, B., & Moussaoui, Z. (2018). The effect of packaging elements on purchase intention: *case study of Algerian customers*. *Management Science Letters*, 8(4), 217-224

Blazhenkova, O., & Kumar, M. M. (2017). Angular versus curved shapes: *Correspondences and emotional processing*. *Perception*, 47(1), 67–89.

C,akır, M., and J.V. Balagtas. 2019. Consumer Response to Package Downsizing: Evidence from the Chicago Bulk Ice Cream Market. *Journal of Retailing* 90 (1): 1–12.

Clement, J., Kristensen, T., & Grønhaug, K. (2013). Understanding consumers' in-store visual perception: The influence of package design features on visual attention. *Journal of Retailing and Consumer Services*, 20, 234–239.

Edward, S. T. W. (2013). The influence of visual packaging design on perceived food product quality, value, and brand preference. *International Journal of Retail & Distribution Management*, 41(10), 805-816. <https://doi.org/10.1108/IJRD-12-20120113>

Imiru G. A., (2017). The Effect of Packaging Attributes on Consumer Buying Decision Behavior in Major Commercial Cities in Ethiopia. *International Journal of Marketing Studies*; Vol. 9, No. 6;

Janki. C., & Prinsa, P. (2020). A study on product packaging impact on Consumer buying behaviour: *International Journal of Novel Research in Marketing Management and Economics* Vol. 7, Issue 1, pp: (74-82), Month: January - April 2020, Available at: www.noveltyjournals.com

Klimchuk, M. R., & Krasovec, S. A. (2006). Packaging design: Successful product branding from concept to shelf (2nd ed). New Jersey, NJ: John Wiley & Sons s.

Khan, H., Lee, R., & Lockshin, L. (2021). Localizing the packaging of foreign food brands: A case of Muslim consumers in Pakistan. *Journal of Product and brand Management*, 24(4), 386–398.

Zhou, S., Li, S., & Zeng, Y. (2021). The Congruency effect of food shape and name typeface on consumers' food preferences. *Food Quality and Preference*, 86, 104017. <https://doi.org/10.1016/j.foodqual.2020.104017>

Miyazaki, A. D., Grewal, D., & Goodstein, R. C. (2005). The effect of multiple extrinsic cues on quality perceptions: A matter of consistency. *Journal of consumer research*, 32(1), 146-153.

Magnier, L., Schoormans, J., & Mugge, R. (2016). Judging a product by its cover: Packaging sustainability and perceptions of quality in food products. *Food Quality and Preference*, 53 (1), 132 - 142.

Nilforushan, S., & Haeri, F.A. (2015). The effect of packaging design customers' perception of food products' quality, value, and brand preference. (Case study: Pegahpasteurized cheese, in Isfahan city). *WALIA journal* 31(S3), 127-132.

Noshaba M. (2022) Aesthetics of packaging design and consumer purchase intention of ready to eat food products at the point of sale. *Asian journal of multidisciplinary research review, Vol. 3, pp. 153 -166*

Ooijen I., Fransen M., Verlegh P., & Smit E. (2017) Signaling product healthiness throughsymbolic packaging cues: Effect of package shapeand goal convenience on consumer behaviour. *Doi: 10.1016/appet.2016.11.021*

Pandiangan, iSautiMaruliiTua, iRujiman, iRahmanta, iTanjung, iIndraiI., iDarus, Muhammad iDhio, i&iIsmawan, iAgus. i(2021). iAniAnalysision ithe Factors which Influence iOfferingitheiElderlyiasiWorkersiin iMedan. *Journal ofHumanities iandiSocialiScience(iOSR-JHSS), 23(10), 76-79. DOI: 10.9790/0837- 2310087679.*

Pandigan T. M. S. (2022) effect of package design on purchase intention using e-commerce application. *Journal of production, operations management and economics Vol 2 pp15 -21*

Pourav S., Jaywant S., & Weishe W. (2022), influence of creative packaging design on consumer motivation to process purchase design. *Journal of business design vol.147 pp338- 347*

Poslon S., Kovacevic D., & Brozovic M. (2021) impact of packaging shape and materials on consumer expectations. *Journal of graphic engineering and design Vol 12 (2).*

Rundh, B. (2016). The role of packaging within marketing and value creation. *British Food Journal, 118 (10), 2491 - 2511.*

Silayoi, P., & Speece, M. (2007). The importance of packaging attributes: A conjoint analysis approach. *European Journal of Marketing, 41(11/12), 1495–1517.*

Silayoi, P., & Speece, M. (2004). Packaging and purchase decisions: An exploratory study on the impact of involvement level and time pressure. *British Food Journal, 106 (8), 607-628.*

Spence, C., & Deroy, O. (2013). Tasting shapes: A review of four hypotheses. *Theoriaet HistoriaScientiarum, 10, 207–238.*

Sebastian N.S & Giacalone D. (2017) the influence of packaging on consumer qualityperception of carrots. *DOI: 10.1111/joss.12310*

Veflen N., Velesco C., Kragerud H. (2023) signaling taste through packaging: the effect of shape and color on consumer perception of cheese. *Journal of food quality and preference. DOI. Org/10.1016/j.foodqual.2022.10742*

Wang, L., Yu, Y., & Li, O. (2020) . The typeface curvature effect: The role of typeface curvature in increasing preference toward hedonic products. *Psychology and Marketing, 37(8), 1118–1137.*

Yang, D., & Lee, C. (2016). In-store promotional mix and the effects on female consumer buying decisions in relation to cosmetics products. *International Journal of Management, Economics and Social Sciences, 5 (2), 35 - 56.*

Zhu, R., & Argo, J. J. (2021). Exploring the impact of various shaped seating arrangements on persuasion. *Journal of Consumer Research, 40(2), 336–349.*

Zhou S., ChenS.& Li S. (2021) the shape effect: Round shape increases consumers' preference for hedonic food.