

Effect of Product Packaging on Consumer Buying Decision of Cosmetics Brands in Asaba, Delta State Supermarkets

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Abstract

The study examined the effect of product packaging on consumer buying decision of cosmetics brands in Asaba, Delta State Supermarkets. Stratified random sampling method and a cross-sectional survey research design technique was used in the study. In Asaba, Delta State, 214 female supermarkets customers were chosen as the sample size. The sample size was determined by using Krejcie and Morgan sample size determination formula. The study's research instrument was a structured questionnaire with response graded on a five-point Likert scale. Content validity and test-retest reliability approach was used to evaluate the instrument's reliability. Descriptive statistics and multinomial logistic regression was used as statistical technique. Findings showed that the dimensions of product packaging such as product information, packaging materials and package graphical design has positive effect on consumer buying decision. This implies that the dimensions of product packaging explained the variability of consumer buying decision of cosmetic brands in supermarkets. The study concluded that product packaging has positive effect on consumer buying decision of cosmetic brands in Asaba, Delta State Supermarkets. Excellent materials, safety measures, and special abilities are required for packaging, such as eye-catching graphics, photos, and colors, to raise the product's quality. The study recommended that packaging material draws the attention of female customers, cosmetic manufacturers should devote greater attention to the packaging of their products in order to expand their market share. The package should have a proper and appealing graphic design so that customers can quickly recognize and distinguish a company's goods from others.

Keywords: Product Packaging, Cosmetics Brands, Consumer Buying Decision

JEL Classification Codes: M31, L66, D21

1. Introduction

Every year, the customer base grows quickly, and the variety of cosmetic product rivals also gradually rises. Every enterprise seeks to create new brands in order to stand out from rivals and obtain a competitive edge when supplying the product to the final customer. Product packaging is one of the marketing strategies that has become popular and essential, allowing businesses to stand out from one another and gain an advantage over rivals. This has evolved into the rationale for the wide variety of product packages that can be found in supermarkets. Packaging is considered a component of the product and the brand in marketing concept. Most pleasant people are those catered buyers who are more aware of their self in society and, for that purpose, desire to be more vigilant on a routine basis when picking any sign or product (Lavuri & Ramlal, 2020). The packaging of a product reveals the product's details and displays the company's distinctiveness. When shoppers see a product at a store, they consider both the product and the package to be one. The product package serves the buyer during the decision-making process by providing a holistic impression of the product that aids in evaluating and selecting the best option. Till the product is consumed and the package is reused, the product is also the package. The product's value is increased by the brand image. Colors, fonts, text, and illustrations used in package design play a big part in how the package looks. The product package's main function at the point of sales is to draw people in and make the brand distinguish out from others in the store (Kwaku, & Fan, 2020).

Consumers frequently form an emotional attachment with the packaging, making it effective as a silent salesman. Buyers that are concerned about the environment could choose a product that is packaged using recycled materials. Advertising is being put to a remarkable test by sustained packaging innovation due to consistently increasing consumer awareness and fierce competition. Buyers are putting more emphasis on how willing they are to pay for the goods. Packaging is one of the most effective ways to convey the appealing images, symbols, colors, items, and emblems that have, by far, been the most demanding and important shipping connecting buyers and the business (Lavuri & Ramlal, 2020).

Buyers' perceptions of cosmetics items are influenced by their packaging. Cosmetics are a subcategory of health and beauty goods that can be used to enhance a person's look or to care for their face and body. The functions of skin care cosmetics include preserving skin homeostasis and reestablishing it if it has been lost, treating skin issues, and delaying skin aging. They must also be secure when used continuously for extended periods of time. Cosmetics, which comprise skin care and makeup items, are needs for women. Some women just use skin care

products, while others use both skin care and makeup. There are numerous cosmetics brands and product categories available, giving female consumers a wide range of choices. Others female clients buy cosmetics based on brand, some buy based on price, some upon recommendations from friends, and others based on the aesthetics of the packaging. In today's cutthroat industry, a strong packaging design is the key to a profitable business. The goal of cosmetics packaging design is to stimulate customers to purchase the products. Even if shoppers are not interested in buying a certain cosmetics brand, an outstanding container design may nevertheless leave a lasting impression. The image of a brand is included in packaging design, and certain eye-catching packaging ideas can help consumers remember their brands and their products.

There are two categories of cosmetics: mass and prestige. Local supermarkets carry mass-produced goods that are readily available and inexpensive, but prestige goods are more expensive, have limited availability, and are intended for a more specialized clientele (Euromonitor, 2013). Lopaciuk and Loboda (2013) opined premium cosmetics accounted for 28% of cosmetic sales, while mass-market items accounted for 72% of cosmetic sales. The regions with the highest cosmetic industry revenue were noted as being North America, Asia Pacific, Latin America, and Western Europe (Euromonitor, 2013).

The BRIC nations—Brazil, Russia, India, and China—have, nonetheless, demonstrated hints of explosive increase since 2000. These four nations made up 21% of the global beauty business, and the rise of the beauty market had a substantial impact on the worldwide market (Leonard, 2011). Therefore, there is a rising desire for foreign cosmetic makers to enter new regions. These firms should know the demand there, but their struggle is making their brands attractive to the local consumer domestically (Lopaciuk & Loboda, 2013).

Anti-aging products in Africa, particularly Nigeria, target on even skin tone and hone in on dark spots, whereas in Western countries, the emphasis is on anti-wrinkle creams and moisturisers (Klynveld Peat Marwick Goerdeler [KPMG], 2012). Women are important in the production of items that are tailored for regional markets and detail-oriented. Cosmetics packaging is an effective form of advertisement. When shoppers are browsing through a vast selection of cosmetics in the supermarket, they frequently give each item a quick glance. As a result, packaging designs must catch the attention of consumers, makers must know how to use pattern and color, and consumers must be aware of manufacturers' preferences. Knowing how important cosmetics are to female consumers, packaging designs are also incredibly important for cosmetics. If cosmetics could enhance women's physical beauty, then attractive cosmetic packaging could win over women's hearts.

Packaging plays a crucial role in marketing communications, especially at the point of sale, and is one of the most important variables influencing customer purchasing decisions (Chukwu & Enudu, 2018). Packaging serves as the ultimate selling point for a product, encouraging impulsive purchasing, cutting down on advertising expenses, and expanding market share. Packaging includes more than just the wrapping of a product that contains information about the product and the manufacturer (Abdullah, Kalam & Akterujjaman, 2013). Product packaging is a critical requirement for manufacturers of consumer goods, such as cosmetics and beauty care items, to have a competitive edge.

This is because they consider desirable packaging components, such as color and material (Okeke & Amobi, 2020). In the fiercely competitive business world of today, marketers must place a greater emphasis on comprehending consumer behavior. According to Wambugu, Musyoka, and Kaluyu (2014), understanding consumer purchasing patterns is important since it aids manufacturers in developing and implementing marketing strategies. This knowledge also supports them to select and segment target markets, which results in the development of appropriate marketing strategies. Additionally, it helps business to construct an appropriate marketing mix focusing on marketing operations (Kosgei & Wanjira, 2018).

Some research looked at how packaging design, appealing packaging, packaging value and quality, and impulsive buying affected customer purchase behavior (Chukwu & Enudu, 2018). It is progressively coming to light that, in the majority of supermarkets, female customers often make a lot more weekly decisions about cosmetic products than male customers. Researchers have not yet conducted extensive studies to determine why more women are buying cosmetics brands on a daily basis. Few research have been done to determine why the majority of female customers of cosmetic products are drawn to particular packaging elements, such as product information, packaging material, and packaging graphics design. A few packaging elements for cosmetic products were used in this study to evaluate the impact of product packaging based on customer purchase intention.

The positioning of products is significantly impacted by packaging. Currently, packages are made to distinguish between various brands and to cater to a range of events and social groups. Even though packaging plays a vital role in brand communication and could be regarded as one of the most appropriate variables impacting buyers' purchase decisions of cosmetics products, the relevance of its constituents, such as product information, packaging material, and package graphics design, and their influence on shoppers' buying behavior are still important significant concerns for discourse among

scholars. Some buyers only care about getting what they want, not how it is packaged. Although consumers are open to technical and aesthetic improvements in pack design, it is difficult to identify many competing items based on object qualities, and their cases, packaging, and promotion are the only distinctive qualities that determine whether a product will succeed or fail. Numerous goods are not used right away after being bought or after the packaging is opened. They are frequently utilized for various lengths of time. Such products must be packaged in suitable packets in order to prevent spoiling.

Due to the growing level of individualism of making purchases, the large range of cosmetic brand choices available, and the fact that some cosmetic brands are occasionally packaged in similar way. It can be challenging for buyers to even make a distinction between them when faced with conflicting and complex advertising. Therefore, cosmetic customers typically deal with a variety of problems. The bulk of packaged cosmetic brands in Nigeria most times do not fulfill specified standards. The existence of monopolies or near monopolies is a key obstacle for locally produced packaging materials. Packaging material producers are not widespread in the country. Furthermore, the majority of cosmetic buyers are not aware of their basic rights regarding packaging. For example, under the Sale of Goods Act of 1979, the seller implicitly assumes that the products are of satisfactory quality, meaning that they are undamaged and will function as intended. Because buyers are unaware of this, any kind of cosmetic brands may be sold to them without their objection.

The study's main goal is to investigate how consumer purchasing decisions for various cosmetics brands in Asaba, Delta State Supermarkets are impacted by product packaging. The specific objectives are to:

- i. Evaluate the extent to which product information affect consumer buying decision of cosmetics brands in Asaba, Delta State Supermarkets.
- ii. Determine the extent to which cosmetics brand packaging material affects consumer purchase decisions in Asaba, Delta State Supermarkets.
- iii. Determine how much the design of cosmetics packaging affect customer buying decision at Asaba, Delta State supermarkets.

The following hypotheses were tested for the study.

H_{1a}: Product information has a significant positive effect on consumer buying decision of cosmetics brands in Asaba, Delta State Supermarkets.

H_{2a}: Packaging material has a significant positive effect on consumer buying decision of cosmetics brands in Asaba, Delta State Supermarkets.

H_{3a}: Package graphics design has a significant positive effect on consumer buying decision of cosmetics brands in Asaba, Delta State Supermarkets.

2. Review of Related Literature

2.1 Conceptual Review

2.1.1 Concept of Product Packaging

Packaging is the art, science, and technology of securing or confining goods for usage, storage, delivery, and sale. The process of creating, analyzing, and making packages is also included in packaging. The packaging of a product is frequently a customer's first contact with it. As a result, manufacturers never forget about product packaging. There are several ways in which product packaging matters and how it can help to establish a favorable first perception and enduring brand loyalty. Excellent materials, safety measures, and special abilities are required for packaging, such as eye-catching graphics, photos, and colors, to raise the product's quality. Recurring packaging has evolved into a methodical method of product distribution that is free of complexity and issues (Sudha & Neeta, 2014). Packaging is one of the most crucial aspects of price, promotion, and structuring. The discovery of a genuine, ground-breaking package would enhance customer expectations for goods purchases for many organizations. Most supermarkets place a lot of emphasis on providing their customers with high-quality product packaging and an enjoyable shopping experience. Because packaged goods are sold in competitive markets, packaging design is important as a tool for branding and communication (Lavuri & Ramlal, 2020). Visual package components play a significant role in portraying the product to many buyers, especially those who have little connection to and are impatient with it.

According to Behzad (2014), the effectiveness of branding and marketing is influenced by packaging as well as the placement of other intermediary elements including graphics, design, and color. Color is everywhere and serves as a form of mediation. Within 90 seconds of first coming into touch with either a person or a thing, people will be able to make decisions on between 62 and 90 percent of the test based on colors. Color affects consumers' attitudes, actions, and emotions. Advertisers must always specify colors so that consumers may experience their products both physically and psychologically (Labrecque Patrick & Milne, 2013). According to Thomas (2011), the extra section of customers did not purchase the items due to the horrifying wrapping of the cloth. This is because the packaging materials and wrappers on the territory contain enormous features in the packaging of the item. As a result, the materials and wrappers used for packaging are fantastic and

stylish, which influences how well products sell. According to Baik, Suk, Suh, and Kim (2011), a company may strive to achieve the most splendor if it produces an over-the-counter product with superior characteristics and an amazing labeling effect on clients who shop for practice.

2.1.2 Concept of Product Information

Comparing the quality and price of one product to those of comparable goods is made more straightforward because of product information displayed on the package (Deliya & Parmar, 2012). They often cover topics like quantity, usage instructions, ingredients, names of producers and retailers, target markets, etc. In addition, whereas product information can lessen ambiguity and increase product credibility, it can also distract buyers if there is an abundance of or erroneous and confusing information (Ranjbarian, Mahmoodi & Shahin, 2010). The written information on cosmetic product packaging is typically taken from a product information file. One of the most important legal criteria for releasing a product onto the market is a product information file.

The product information file is a cosmetic product dossier that includes all the most important details about the completed product, its components, the packaging in which it is marketed, the production process, and the product labeling, which details its characteristics, safety, and efficacy. Every cosmetic item must have its own PIF that is available for examination by the regulatory body and contains details about the item, such as the CPSR (Cosmetic Product Safety Report), a description of the product manufacturing processes, etc. Market differentiation and the urge to stand out from the competition are ultimately driven by competition. Visual contrasts between products are communicated through packaging design. Without distinct packaging designs for each brand of goods, notably for bread, milk, and vegetables as opposed to perfume, lipstick, and drinks, each item will look the same from an aesthetic perspective (Ajeng, 2019).

2.1.3 Concept of Packaging Materials

Different materials have been employed over time to package goods in a variety of ways. In the past, some of those obtained from natural sources were either essentially ready-made or needed only simple fabrication techniques. These include things like animal skins, leaves, and coconut shells, as well as gourds, shells, hollowed-out wood, bamboo, and anything else that can fulfill similar functions that nature has provided without the need for technological conversion (Kwaku & Fan, 2020). Nowadays, paper, wood, cellophane, paperboard, plastics, glass, steel, aluminum, and textiles are the primary materials used in packaging. Today's packaging comes in a variety of shapes and sizes

thanks to the fabrication or processing of these materials. Deufol (2012) distinguished between primary, secondary, and tertiary forms of packaging materials. An important factor in protecting the product from loss or damage is the packaging material. According to Kwaku and Fan (2020), there is a good chance that high-quality packaging will draw customers more than low-quality packaging. Therefore, the type of packaging used has a significant impact on consumer purchasing behavior.

The packaging material is an important element that guards against product loss or damage (Benjamin, Ajisafe, Adare & Ayodele, 2019). It is more likely that high-quality materials will draw customers than inferior ones. The material used for packaging is important in preventing product losses (Farooq, Habib & Aslam, 2015). Additionally, it aids in shielding the product from elements like heat, moisture, and dust (Singh, 2016). Additionally, products wrapped in glass, which is seen as an environmentally beneficial material, appear to be of high quality, whereas those packaged in folding boxed boxes appear to be of inferior quality (Lal, Yambrach, & McProud, 2015; Venter, Merwe, Beer, Kempen & Bosman, 2011). The design theme and the needs of the consumer will determine the packing material that is chosen. Buyers' reactions to the texture of a given material will be similar to how they react to colors, thus the material must match the design concept. Shoppers are acutely aware of the social and environmental obligations of businesses. This implies that customers may anticipate packaging to be recyclable or reusable and to be created sustainably, based on the nature and the company's reputation (Rishi, 2018).

Buyers can utilize the product specifically without the requirement for a user manual. The extent to which buyers can touch or store things without breaking them is referred to as the package-ease of handling. According to Holmes & Paswan (2012), this component does not significantly correlate with purchase intention across all categories of customer experience. Therefore, it is more crucial when customers can touch or utilize the goods (Holmes & Paswan, 2012).

2.1.4 Concept of Package Graphical Design

Image composition, color scheme, typography, and product photography are all examples of graphics. All of these elements work together to convey an image. The package's graphics provide detailed information about the product. The information is then preceded by a brand or image for the product. Although the packaging must now comply with standards for product protection and informational purposes, it also plays a significant role in modern society as a marketing

tool and as an essential component of a trademark identity (brand) (Petra & Varvara, 2011).

In particular, when up against severe competition from a variety of products, it must market the goods independently. The appealing packaging and overall visual and graphic display of a product serve to market it. The package virtually touches the recipient personally and has a particular psychological impact on them (Petra & Varvara, 2011). When customers are handling a product, analyzing and evaluating it, the package is what evokes feelings and encourages them to make a purchase. A wish and a choice are formed in such circumstances. The basic goal of graphic design is to bring these two elements together and into harmony. Every package designer actively creates direct connection between a product and customer in addition to indirect communication between a manufacturer and a customer. Making a message as appealing as possible is the job of a graphic designer in order to get the attention of the audience. The message must be understandable, visible, differentiated, and easy to spot in order to be understandable. It must also be created in a way that would appeal to clients. A wonderful strategy for brands to engage with customers and build trust is to cater the packaging design to their needs by offering a solution (Rishi, 2018). The main argument for buying the product is highlighted in the package graphics.

2.1.5 Concept of Consumer Buying Decision

Customer buying decisions refer to the steps taken by buyers to become aware of and understand their needs, gain knowledge about the best ways to address those needs, assess the possible alternatives, make a purchasing decision, and review their purchase. Consumer behavior is the study of the actions people or groups take when they choose, purchase, use, or dispose of goods or experiences in order to fulfill their needs and desires. People are exposed to a wide range of information and items; the abundance of options and alternatives in the market influences their choice of product (Ndulue, 2020). However, comprehension and decision-making differ between individuals and are also impacted by both internal (habit, judgment, and drive) and external consumer behavior (Group influence, familial responsibilities, and peer influence) (Seyed & Mohammad, 2014). Customer buying behavior is the study of the steps people or groups take while making decisions about what to buy in order to meet their requirements (Sharma & Sonwalker, 2013). Customer buying behavior can be viewed broadly as a subset of human behavior, and the many elements influencing people's everyday lives also have an impact on their purchase behaviors and decisions (Ndulue, 2020). Consumer behavior is influenced and determined by a variety of internal and external circumstances. It is a psychological and social

process that involves both both mental and physical activity (Modi & Jhulka, 2012).

2.2 Empirical Review

Packaging strategies: knowledge perspectives on consumer purchasing behavior were explored by Lavuri and Ramlal (2020). Through a structured questionnaire, information was gathered from 836 respondents in the four largest cities of two Indian states. Regression and correlation analysis were used to analyze the data. The findings indicated that the acquiring mode of consumers is influenced by media levels of exposure, packaging tactics, and package components. The research suggests that businesses create creative packaging designs before putting their products on the market. Because packaging has an impact and aids in obtaining and retaining new buyers for their new items, this will aid in the retention and luring both existing and potential customers.

In Anambra State, Ndulue (2020) studied beverage product packaging and consumer purchasing patterns. An online survey research design was used. All of the customers of Bourvita, Cowbell, Milo, Ovaltine, and Peak Milk in the state of Anambra made up the study's population. The sample size of 384 was determined using Cochran's formula. The tool used to collect data was a structured questionnaire. The reliability of the instrument was assessed using Cronbach's Alpha, and it was vetted using face and content validity. Multiple regression analysis and descriptive statistics were used to analyze the data. In the state of Anambra, consumers' purchasing decisions regarding beverage items were found to be significantly influenced by the packaging's color, material, shape, and size as well as any printed content. The study came to the conclusion that product packaging significantly affected consumer purchasing decisions. The study suggested that producers should focus more on and improve the packaging component because it was discovered to have a substantial impact on customer purchasing behavior.

Okeke and Amobi (2020) examined how packaging affected buyers' decisions to purchase cosmetics (A study of Consumers of Beauty Care Cosmetics in Awka). For this study, a survey research design was used. The study's participants were people who bought cosmetics for beauty maintenance in the city of Awka. 323 customers made up the sample, which was determined using the Topman formula. To test the hypotheses, Pearson Product Moment Correlation was used. The results showed a substantial positive association between package color and material and consumer purchase decisions. The study

suggested that cosmetic product manufacturers pay attention to the color and kind of packaging material used. Nevertheless, based on the findings of this study, manufacturers of cosmetics for beauty care are urged to pay more attention to graphics and to select appropriate graphical designs for packaging cosmetic items via market research. The report also suggested that managers watch out for misleading information on their product packaging.

2.3 Theoretical Review

2.3.1 Theory of Reason Action (TRA)

A model called the Theory of Reasoned Action has its roots in the study of social psychology. The relationships between a person's beliefs, attitudes, intentions, norms, and behaviors are described by the Fishbein and Ajzen (1975) model. This paradigm states that a person's behavior is influenced by their behavioral intention to carry it out. The individual's views and subjective norms regarding the behavior shape this intention in and of themselves. According to the theory, subjective norms are a person's perception of what the majority of people in his life who are important to him believe he should or should not do. The equation shown below can be used to describe this theory: Attitude plus subjective norms equals behavioral intention. As per TRA, a person's attitude toward a behavior is steadfast based on his expectations for its results, amplified by his assessment of those results. The subjective likelihood that a particular behavior would result in a given outcome is what defines a person's beliefs. Consequently, according to this paradigm, environmental factors can affect a person's attitudes through altering the way they believe. Additionally, the subjective norms—which are in turn defined by a person's normative ideas and by his drive to adhere to the norms—ascertain behavioral intention. The theory is crucial to the study because it explains why certain background conditions are connected to certain behaviors—or not. According to the reasoned action theory, people's intentions influence their actions, while their behaviors foretell their intentions. Intentions are determined by attitudes toward the conduct, perceived norms, and perceived behavioral control.

3. Methodology

The cross sectional survey research approach was used in this study to collect data for empirical analytical purposes linked to the respondents' personal views on product packaging and its influence on consumer purchasing decisions. This approach usually centered on gathering data from respondents at a particular time. The population for this study is made up of a total of 485 frequent female buyers of

cosmetics brands that often visit the supermarkets in Asaba, Delta State, on Fridays and Saturdays. The study's target demographic was women because they represent the majority of customers on Fridays and Saturdays at this supermarket and frequently purchase high-volume cosmetic goods. Due to the fact that female consumers strongly favor cosmetics brands on weekends, the study concentrated on them.

The sample size calculation formula developed by Krejcie and Morgan (1970) was used to determine the sample size of 214. Because any sample chosen at random is impartial in the sense that no member of the population has a higher chance of being chosen than any other member, stratified random sampling was used. In addition to the general population, important subsets of the population, particularly small minority groups, were better represented thanks to stratified random selection.

The study's research instrument was a structured questionnaire with replies graded on a five-point Likert scale. The survey was divided into two sections. Information about the respondents' age, marital status and education, are required in the first section. The inquiry's subject was covered by 16 item questions in the second section. In this study, the content validity was used. Therefore, the accuracy with which the researcher develops items that span the content domain of the dimensions being measured determines the content validity. Marketing specialists were given the questionnaire to fill up. This made it easier to prove that the instrument's content was accurate. As a result, modifications and modifications were made to make sure it elicits the needed data. The instrument's reliability was assessed using a test-retest approach. As a result, the questionnaire for this study underwent a pre-test. The researcher was able to identify any abnormalities that would have compromised the consistency of this study thanks to the pre-test. Using cronbach's alpha (CA) based tests, the reliability model's measurement was evaluated. Malhotra and Mukherjee (2004) recommends a cronbach alpha value of 0.6 as the standard.

Table 1: Reliability Coefficients of Study Constructs

S/N	Dimension of PP	Number of items	Cronbach's Alpha coefficient
1	Product information	4	0.711
2	Packaging materials	4	0.719
3	Package graphical design	4	0.710
4	Consumer buying decision	4	0.712

Source: Researchers computation, SPSS 2022

It was noted from table 1 that the reliability coefficients are higher than the benchmark of 0.6. Overall, all of the items yielded favorable, reliable results. The estimation's internal consistency was found to be acceptable. Using descriptive and inferential statistical techniques, data from the field survey of respondents from the supermarkets whose female customers were sampled were examined. Simple percentages were used in the descriptive statistics to assess the background profile of questionnaire responses. The study's hypotheses were put to the test using multinomial logistic regression. Multinomial logistic regression, often known as "multinomial regression," predicts a nominal response variable from one or more independent variables. It is often thought of as an extension of binomial logistic regression to be capable of accommodating a dependent variable with more than two primary categories. Similar to other methods of regression, multinomial logistic regression also takes into account correlations between the predictor elements and can anticipate the dependant variable using control variables that are either continuous or nominal. The SPSS version 23 for Windows package was used for this.

Model Specification

$$CBD = F(PI, PM, PGD) \dots \dots \dots (1)$$

$$CBD = \beta_0 + \beta_1PI + \beta_2PM + \beta_3PGD + \epsilon \dots \dots \dots (2)$$

Where;

CBD=Consumer buying decision

PI=Product information

PM=Packaging materials

PGD= Package graphical design

4. Results of Data Analysis

Table 2: Response Rate and Respondents Profile

S/N	Response Rate	Frequency
1	Response	
	Copies of questionnaire administered	211(100%)
	Questionnaire returned	210(99.5%)
	Questionnaire not properly filled	4(1.9%)
	Questionnaire useable	206(97.6%)
	Response rate	98%
	Respondents Profile	Frequency
2	Age Range:	
	Below 30 years	93(45%)
	31-40 years	74(36%)
3	41 years and above	39(19%)
	Marital Status	
	Single	93(45%)

4	Married	113(55%)
	Educational Qualification:	
	OND/ NCE	41(20%)
	HND/B.SC	113(55%)
	MBA/M.Sc	52(25%)

Source: Researchers computation, SPSS 2022

In table 2 it was indicated that out of the 214 copies of questionnaire that were distributed, 210 were returned, 4 were incomplete, and 206 was put to good use. The analysis performed in this study was thus based on the 96% number of respondents. The background characteristics of the female respondents revealed that 45% of the respondents were below 30 years of age; 36% of the respondents' falls within the age bracket of 31-40 years of age, while 19% of the respondents were 41 years and above. The marital composition of the respondents indicated that; 45% of the sample respondents were single, while 55% other respondents were married. On the educational background of the sample, it was revealed that 20% of the respondents were OND/NCE holders, results shows that 55% of the respondents were HND/B.Sc holders, while 25% of the other respondents were postgraduate degree holders.

Table 3: Model Fitting Information

Model Fitting Information

Model	Model Fitting Criteria	Likelihood Ratio Tests		
		-2 Log Likelihood	Chi-Square	df
Intercept Only	518.713			
Final	116.883	401.830	48	.000

Source: Researchers computation, SPSS 2022

The model fit in Table 3 is significant (48 = 401.83, p .000), indicating that the whole model makes much better or more accurate predictions.

Table 4: Goodness-of-Fit

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	114.753	168	.999
Deviance	80.314	168	1.000

Source: Researchers computation, SPSS 2022

Additional proof of the model's strong fit is provided by the Goodness-of-Fit in table 4. Once more, the chi-square base of both the Pearson and Deviance statistics makes them vulnerable to inflation with high sample sizes. Here, a lack of significance is seen as an indication of a good fit. A good fit is shown when the p-value is higher than the predetermined cutoff (i.e. 0.05).

Table 5: Pseudo R-Square
Pseudo R-Square

Cox and Snell	.858
Nagelkerke	.909
McFadden	.678

Source: Researchers computation, SPSS 2022

The Pseudo R-Square in Table 5 showed three metrics that were created to give users of traditional, standard multiple regression a number they are familiar with. Similar to how R² is handled in conventional multiple regression, they are viewed as measures of effect size. These metrics, meanwhile, do not reflect the proportion of the outcome variable's variance that is explained by the predictor factors. Better fit is indicated by higher values.

Table 6: Likelihood Ratio Tests
Likelihood Ratio Tests

Effect	Model Fitting	Likelihood Ratio Tests		
	Criteria	-2 Log Likelihood of Reduced Model	Chi-Square	Df
Intercept	116.883 ^a	.000	0	.
Product Information	303.099 ^b	186.216	16	.000
Packaging Materials	271.821	154.938	16	.000
Package Graphical Design	346.600 ^b	229.718	16	.000

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

b. The log-likelihood value cannot be further increased after maximum number of step-halving.

Source: Researchers computation, SPSS 2022

The independent factors are statistically significant, as seen in Table 6. Because $p = 0.000$, it is clear that the statistical significance of the product information was high. Additionally, because $p = 0.000$, the packaging materials variable was statistically significant. Because $p = 0.000$, the package graphic design variable was statistically significant. Because it is the first table that takes into account a nominal variable's overall influence, this table is most helpful for nominal independent variables. Therefore, the researchers designed statistical model explained that:

$$CBD = \beta_0 + \beta_1PI + \beta_2PM + \beta_3PGD + \varepsilon \dots \dots \dots (ii)$$

$$CBD = 0.000 + 186.216PI + 154.938PM + 229.718PGD$$

4.1 Discussion of Results

Table 6 showed the Likelihood Ratio Tests result for the effects of all the dimensions of product packaging on consumer buying decision. Table 6 showed that product information was statistically significant because $p = 0.000$. Test of H1a showed that product information has a significant positive effect on consumer buying decision ($0.000 < 0.05$). This is in agreement with Deliya and Parmar (2012) finding that comparing the quality and worth of one product to those of comparable goods is made easier with the aid of product information displayed on the package. This indicates that the imprinted product information on the box often includes information about the product's quantity, use directions, components, name of producers, and retail locations that affect the target buyer's purchasing choice.

Furthermore, the packaging materials variable was statistically significant because $p = 0.000$. Test of H2a showed that packaging material has a significant positive effect on consumer buying decision ($0.000 < 0.05$). This is in agreement with Kwaku and Fan (2020) finding that high grade packaging materials are likely to draw customers more than bad quality ones. Therefore, the type of packaging used has a significant impact on a customer's purchasing behavior.

Package graphical design variable was statistically significant because $p = 0.000$. Test of H3a showed that package graphics design has a significant positive effect on consumer buying decision ($0.000 < 0.05$). It is in line with Rishi (2018) assertion that a wonderful strategy for brands to engage with customers and build trust is to customize the packaging design to suit their needs by offering a solution. This implies that the key justification a customer should buy the product is highlighted in the packaging graphics. The "Sig." column in table 3 showed that $p = 0.000$, indicating that the entire model statistically

significantly outperforms the intercept-only model in predicting consumer purchase decisions. This implies that the regression model successfully fits the data.

5. Conclusion and Recommendations

The study concluded that product packaging has effect on consumer buying decision of cosmetic brands in supermarkets. Findings showed that the dimensions of product packaging such as product information, packaging materials and package graphical design has positive effect on consumer buying decision. The dimensions of product packaging explained the variability of consumer buying decision of cosmetic brands in supermarkets. Excellent materials, safety measures, and special abilities are required for packaging, such as eye-catching graphics, photos, and colors, to raise the product's quality.

The study recommended that:

- i. Manufacturers should ensure that they use excellent packaging materials and attractive photographs, colours and graphics in packaging to influence consumer buying decision.
- ii. Packaging material draws the attention of female customers, cosmetic manufacturers should devote greater attention to the packaging of their products in order to expand their market share.
- iii. The package should have a proper and appealing graphic design so that customers can quickly recognize and distinguish a company's goods from others.
- iv. The product information that is printed on the package must be displayed and in moderation.

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