



# International Journal of Sciences: Basic and Applied Research (IJSBAR)

ISSN 2307-4531  
(Print & Online)

<http://gssrr.org/index.php?journal=JournalOfBasicAndApplied>




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## Impact of Packaging on Consumer Buying Behavior in Nasarawa State

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### Abstract

A lot of firms in the industry have embarked on one strategy or the other in order to gain more market share for their products. In an attempt to get more customers to purchase their products, companies have engaged in different innovations so as to make their product compete with that of competitors, the packaging form is one way to gain consumer notice. In spite of the fact that packaging and how consumer evaluate benefit/value on the basis of the packaging to make buying decisions have been extensively investigated, the results have not sufficiently established a relationship between packaging and consumer buying decision, particularly in Nigeria. The study thus investigates the effect of packaging on consumer buying behavior in Nasarawa state using ordinary least square (OLS) regression method. Findings from the study showed that there is a direct significant relationship between product differentiation and consumer evaluation. It thus holds that product differentiation has significant effects on consumer evaluation of the product. It was revealed also that there is a direct significant relationship between labeling and consumer awareness. It therefore holds that labeling has significant effects on consumer awareness of the product; while, labeling was also discovered to have significant effect at creating consumer awareness of the product. Based on the foregoing, the study thus recommends that there is the need for organization to concentrate their efforts on making the package of products very attractive in order to attract and retain the interest of their customers.

**Keywords:** Packaging; Labeling; product differentiation and consumer buying behavior.

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## **1. Introduction**

For decades in a challenging location, the role of packaging has changed due to increasing self-service and changing consumer's lifestyle. Firm's interest in the package as a total of sales promotion is growing increasingly. The package becomes an ultimate selling proposition stimulating impulsive buying behavior, increasing market share and reducing promotional costs. Packaging can be defined as the container which is necessary to convey a product to the ultimate consumer, as contrasted with packing (cartons, crates, etc.) that is required for bulk shipment. Also, packaging is the art of enclosing or protecting products for distribution, storage, sale which is bought by the consumer. The author in [1] has defined packaging as the silent salesman in the store and it was the only communication between a product and the final consumer at the point of sales, most consumers are moved by the products package, that is by the color of the design used, barrier protection, the image used, information transmission that is how to use the product and mostly containing the expiry date for the product. Now for a product to travel safely through the channel of distribution it must have at least the minimum protection offered by the company through the use of containers, this is called packaging. Packaging actually plays a critical role in protecting fresh produce and processed food in transit, in storage, at point of sale, and prior to consumption. In doing so, it helps deliver a wide range of functions while reducing food waste. Packaging as a silent salesman is directed toward influencing the point of purchase buying decision through the package design, color, etc. Most companies are involved in packaging primarily to gain a non-price competitive advantage by utilizing the package to present a favorable image of the product which it contains. Packaging is a critical strategic element for brand differentiation and identity, because this helps the producer to differentiate its product and identity from its competitors. Authors in [2 & 3:403-422] found that designing packages with product images gain attention for brands, especially brands that are less familiar and that provide experiential benefits.

Packaging really affects the buying behavior of some individuals looking at the young people. Packaging provides the manufacturer with the final opportunity to persuade prospective buyers prior to brand selection, because shoppers are exposed to packages just as they are in other forms of promotion. Also, consumers can easily overcome the challenge of visually assessing volumes contained within a variety of shapes because most product labels provide the information via packaging [4:100-112].

The purchase decision is a series of choices or judgment made by a consumer prior to making a purchase that begins once the consumer has established a willingness to buy. The consumer must then decide where making the purchase, what brand, model, or size to purchase, when to make the purchase, how much to spend, and what method of payment will be used., but this decision can only be influenced by the product package, how different is the product from other brands, thus packaging affects consumer purchase decision.

According to author in [5:670-684] package attracts consumer's attention to particular brands, enhances its image, and influences consumer's perceptions about products, thus packaging a certain product based on your consumer needs, the producer can use labeling or image description to arouse the interest of the consumer to purchase that product, when the consumer is moved by the image or label used to package the product he or she desires or makes a purchase for that product that is needed.

A lot of firms in the industry have embarked on one strategy or the other in order to gain more market share for their products. In an attempt to get more customers to purchase their products, companies have engaged in different innovations so as to make their product compete with that of competitors, the packaging form is one way to gain consumer notice [6:274-283]. Organizations now engage in good packaging and repackaging of their product making it difficult for consumers to make choices among different competing product. Also a lot of money has been incurred by organizations because of packaging, mostly when trying to differentiate their products from competitors. Also, the problem of the issue of product differentiation in enhancing consumer evaluation of the product has not been ascertained or considered important to increase the purchase of a product. If the information supply of the label does not agree with the knowledge and expectation of the consumer, it may serve as a disincentive for the product purchase. It is against this background that this study seeks to examine the impact of packaging on consumer buying behavior, using Nasarawa state as a study.

### ***1.1 Research Questions***

- i. What impact does product attractiveness have at stimulating consumer interest in a product?
- ii. What influence does product differentiation have on consumer evaluation of the product?
- iii. What effect does labeling has at creating consumer awareness of the product?

### ***1.2 Statement of Hypotheses***

Hypotheses for this research are stated in a null form as shown below:

#### **Hypothesis one:**

**H<sub>01</sub>:** Product attractiveness has no significant impact at stimulating consumer interest in a product.

#### **Hypothesis Two:**

**H<sub>02</sub>:** Product differentiation has no significant influence on consumer evaluation of the product.

#### **Hypothesis Three:**

**H<sub>03</sub>:** Labeling has no significant effect at creating consumer awareness of the product.

## **II. Literature Review**

### ***2.1 Concepts of Consumer Behavior***

Consumer behavior has to deal with the ability of consumer to meet their needs and demands. Behavior has been identified as a tool to achieve objectives and target consumer derives from his needs and desires [7:14]. The key concepts of consumer behaviour as captured by other scholars are discussed under the following sub-sections:

**Consumer behavior include many activities:** All consumers have differences in terms of thoughts, feelings,

and decisions and ... With each other. Marketers must pay attention to the activities of consumers, some consumers activities are: See this advertisement, purchase decision, the decision about how to pay (cash, credit)

**Consumer behavior is a process:** Consumer behavior, including the selection, purchase and consumption of goods and services that include elimination of three steps before buying activities, purchasing activities, and activities after purchase [8:374-394]

**Consumer behavior at different times has different complexity:** Buy different product by different people has different implications. Buy some goods, involves all three- process step of the consumer Behavior, While buying some goods (goods that are consumed regularly) is very simple and does not require multiple steps. Customers try to make buying process simple through trusting others, loyalty to the brand and...

**Consumer behavior includes different roles:** Consumers in different time can play each of the three roles affective, buyers and consumer. When we buy something for our self we can play that role [9]. Sometimes by using others opinion buy something for some one that in this case we can play an individual role.

**Consumer behavior is influenced by external factors:** Consumer behavior is influenced by many external factors such as culture, subculture, and social classes located. These effects can be short, medium or long term.

**Consumer behavior is different in different people:** Because people have different desires and needs, so their behavior is different And the difference consumer behavior make predict consumer behavior more difficult, to resolve this problem can categories the market [10:19].

## ***2.2 Empirical Review***

A unique packaging approach can be a powerful advantage in drawing consumer's attention and drive impulse purchases, especially with the move to self-service retail format; packaging enhances its primary characteristic as "salesman on the shelf" at the point of sale [11; 12:607-628]. A product's package also has a visual appeal that can be attractive or unattractive to customers. This concept has been thoroughly investigated and researched. A study by the author in [13] shows that the visual attributes of a product that are attractive to a consumer are the distinct shape, color, orientation, and contrast or size of the package. Another way companies try to influence consumer purchasing decisions is through the product packaging design. A product's package can become yet another "salesperson" for the product once it is in stores. As a result, companies are trying to determine how to best use a product's package to communicate with their customers in hopes that it will play a significant role in a consumer's decision to buy their product.

### ***2.2.1 Product attractiveness stimulate consumer interest in a product***

The author in [14] deems that the package can attract the customers' attention, communicate the company's name and image, differentiate the brand from competitors, and enhance the product's functionality [15]. Therefore, the package itself acts as a decisive communication tool and provides consumers with product-related information during the buying decision process. Since the major task of packaging is to sell the product by

attracting attention and to allow the product to be contained, utilized, and protected [12:607-628] it will have a lot of effect on consumer buying decision. The following hypothesis is therefore proposed.

### ***2.2.2 Product differentiation influences consumer evaluation of the product***

The label serves as a first line of consumer awareness and is vital to maximize the efficacy of the product. Labels keep consumers informed; the description of the product help customers makes an informed decision. It is found in researches that the consumer purchase behavior is affected by the labeling. A printed label not only carries a brand name but also a source of important information [16:460-468]. The presence of nutritional information may influence the consumers to switch from unhealthy food products towards healthy food products [17:1202-1207]. As the consumers, due to globalization have become more demanding, therefore, the producers have understood the psychology of consumers and guide them with practical knowledge to cater for the market and serve the people. So, consumers can end up making better food choices if they value and make use of the labeling. (Consumer awareness). The consumers with the help of labeling gets to know and understand the product characteristics, nutritional properties, preservation and instructions to facilitate the consumers to make a sound decision at the time of purchase, hence it carries a great significance [18:48-68]. (Nutritional labeling)

### ***2.2.3 Labeling creates consumer awareness of a product***

Packaging and packaging design has become significant factors in the marketing of diverse “consumer goods” and has a main role in communicating product benefits to the customer. Consumers are the key actors in planning and implementing packages. Hereby, the key issue for packaging design is to understand and satisfy the consumer [18:48-68]. An innovative packaging design can change product perception and create a new market position (5:670-684). Consumer trial, satisfaction and repeat purchase, may be a direct function of packaging for many consumer non-durables, and perhaps some durables as well.

Obviously, attracting the consumer to a trial purchase is insufficient for true product growth and eventual maturity. Consumers who are frustrated by packages that cannot be easily opened, or labels, that cannot be read without magnification may opt for brands that have considered the human condition in their package design.

## ***2.3 Theoretical Frameworks***

### ***2.3.1 Theory of Consumer Buying Behavior***

Consumer behavior is the study of purchasing units and exchange processes included in the purchase, use, and disposal of goods, services and ideas. The authors in [19] understand consumer behavior as activities in which people engage in actual or potential use of the various products of market including goods, services, ideas, and the environment of stores. The author in [20] consider consumer behavior as “physical, emotional and mental activities which people are engaged with when choosing, purchasing, using and disposing goods and services to satisfy their needs and desires” author in [21] defines consumer as a decision unit who attempts to collect and process information consciously or unconsciously at present situation and who works for his satisfaction and improvement of his lifestyle.

Consumer behavior are involves activities in which people are engage in actual or potential uses of market different items including products, services, ideas and stores environments [21].

The authors in [20] define consumer behavior as ' Physical, emotional and mental activities that people are involved with it when choosing, purchase, using and disposing of products and services in the order to satisfy of their needs and desires [20].

The decision making steps in consumer buying behaviour shows that packaging should not only gain consumer attention or persuade a consumer to buy a product, rather it should get some positive evaluations after purchase and should function well in terms of its convenience and carrying so that consumers would be willing to make repeated purchases. It was also suggested in the studies by authors in [22:268-289] that packaging should be designed for consumer convenience, ease-of-use and ease of carrying the product.

### **2.3.2 Theory of Packaging**

The theoretical analysis of package elements and their impact on consumers' purchase decisions empirically reveal the elements having the ultimate effect on consumer choice. The author in [23:441-447] offers six variables that must be taken into consideration by producers and designers when creating efficient packages: form, size, colour, graphics, material and flavour. The research result of the author in [23:441-447] shows the impact of package elements on consumer purchase decisions can be stronger.

Packaging includes design and production of container or wrapper for a product [24:199-200]. In view of Ampuero and Vila, packages are in direct contact with product, maintain and protect the product and prevent it from being spoiled, cause it to be identified, and facilitate its transport in addition to granting commercial aspects to the product [4:100-112]. The authors in [25:163-189] have defined packaging as the science, art and technology of protecting products to control, transport, and store them and to display information.

Packaging is the art, science, and industry of preparing goods for transport and sale [26:49-62]. A package like of brand is effect on attitude of customer in relation to product [27]. Packaging elements includes visual elements and information elements. Visual elements include graphic, form, color, size and also information elements including making Information, production, country [28:364-375].

According to the authors in [29], product packaging includes all design and manufacturing activities of a container or wrapper for a product, which have three major duties: protecting the contents of package, providing information and differentiating the product from other brands via attracting consumer attention. Packaging as art, science and industry of preparing goods for transport and sales, and as a tool for product development is a vital component of product which causes its more flexibility and ease of use. Just as branding, packaging could affect customers' attitudes regarding the product.

The author in [30] distinguishes six elements that must be theoretically evaluated when employing packaging decisions: size, form, material, colour, graphics and brand.

**i. Size**

Consumption or frequency of use of a product increases when packages are redesigned or available in larger sizes [30]. Packaging size depends on products features and the target market [31:543-574]. Larger pack sizes convey better quality [31:543-574] and increases impulse consumption [32:187-196].

According to the author in [33:1547-1563] on customer requirement of packaging shows that change in the size of household in effect changes the product size. An investigation done on the size attribute of packaging by author in [34:1-13] shows that different packaging size is way to extend a product into new markets. Another study on packaging size shows that smaller packaging size are considered by consumer of smaller family and that the large size of packaging communicated the waste of product for them [35:1495-1517]. This was also found true in another study that consumer's willingness to buy a product increases if products are presented in smaller packages and if products have shorter expiry date then consumers do not prefer large package sizes [36:1-11]. Market demand also suggests that due to smaller households products are to be bought in smaller packages [5:670-684].

**ii. Graphics**

Graphics on packaging make a brand unique, preserve its individuality, helps in emphasizing brand name and stands out on the shelf (Smith, 2004). Graphics could add value in the physical appearance of a brand and increases its aesthetics quality. Moreover, in many situations graphics could create a positive mood and could match with or satisfy the lifetime hidden aspirations of a consumer [31:543-574]. An important role of packaging graphics is that they gain attention of consumer [37:607-628].

A qualitative study done by [38:1211-1225] on textual and pictorial elements of packaging shows that textual elements of packaging are noticed if they are placed on left side and pictorial elements of the packaging are noticed if they are placed on the right side. This in effect indicates that not only attractiveness of graphics, but the proper placement of pictorial and textual element of packaging is also necessary in order to be noticed by consumers. Graphics help consumers find the brand of their choice by cutting through clutters at retail stores and if they do not have any strong preference of a brand then graphics at least gain their attention to consider a particular product for evaluation [37:607-628].

A study done on the relationship of packaging elements with purchasing behaviour of consumers proves that there is a significant relationship between the image of a product and the purchase behaviour of consumers [39:281-295]. Visual elements influence the consumers in making their choice to buy a particular product and graphics were found to be a major influencer in this regard [37:607-628]. Graphics are important both for high and low involvement products and when consumer do not go for much consideration and decision making process for a product then graphics pushes their choice [37:607-628]. Images on the packaging of a milk product can increase curiosity as well as interest in a consumer for a particular product [40:899-912].

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 making the consumer to try the actual product [41:670-684].

### **iii. Color**

According to the author in [32:187-196] color is an essential component of visual elements of packaging to the extent that some designers are of the view that consumers possess color vocabulary due to which they expect certain type of colors for particular products. Colors could bring a point of difference to a brand and the brand can have some color ownership which other brands cannot copy or it becomes difficult for them to have the same look [32:187-196]. According to the author in [32:187-196] color is an important element of visual design of packaging and the information and meaning it conveys should be consistent with what other marketing programs are conveying.

Color perceptions vary across cultures and most of the religions are believed to have their sacred colors [42:783-789]. 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. In addition, changing demographics and trends change the color preferences of consumers [42:783-789].

Packaging color of a product has a high intensity to elicit purchase behaviour in consumer [43:64-71]. Nevertheless, it should be noted that each product has a distinct packaging color and it should be matched with the product category of the product in order to create an impact of packaging color on consumers and to trigger purchase behaviour [43:64-71].

Findings of the research done by the author in [40:899-912] reveals that consumers differentiated the milk as whole, skimmed or semi-skimmed if generic colors such as green or blue have been used in the milk packaging. Nonetheless, using standardized colors didn't influence purchase behaviour of consumers because there was nothing new. Products are generally accepted if they have similar colors that are common in particular product class [44:287-308]. Radical changes in colors could lead to consumer confusion in search for a brand [44:287-308].

A study on the associative learning form of color by author in [45:78-88] reveals that consumers prefer certain colors in particular product category based on the association they have formed in past through experience. The study also suggests that marketers should use color associations while designing packaging for products rather than using general preferences of consumers regarding colors [45:78-88].

### **iv. Design**

An investigation done on the packaging shape by [34:1-13] shows that consumers feeling about the packaging is actually transferred into how consumers feel about the product and innovative packaging shapes cut through the clutter in retail stores and this kind of packaging could create an iconic brand image through its different shapes. An investigation done by the author in [36:1-11] on the design aspects of packaging shows the beautiful packaging designs increases the appetite of consumers and persuades consumers to eat the food and buy the



product. In a qualitative study done by the author in [35:1495-1517] on packaging, illustrates that most of the consumers believe that shape of the packaging relates to ease-of-use and carrying of a product. A study done by the author in [22:268-289] on the packaging design explains that at first moment of truth aesthetic aspects of packaging maybe liked by a consumer and he may think of packaging as attractive and nice, but at the second moment of truth or after purchase packaging could either satisfy or dissatisfy a consumer.

An investigation done by the author in [40:899-912] on milk packaging suggests that investment in packaging design is a way for long-term survival in this sector. A study done on the visual packaging by the author in [46:805-816] reveals that consumer perception of food quality and their brand preference was directly affected by their attitude toward visual packaging.

#### **v. Material**

Like other visual elements of packaging materials also communicate and consumers associate certain intrinsic values with the material of a product [31:543-574]. In addition materials also affect the perceived quality of a product, which means consumer perceptions regarding certain materials could change the perceived quality of a product. Some packaging materials are to be made in a way, so that it could bear the temperature below zero or high temperatures in microwave depending on the product functionalities and the needs of a consumer [31:543-574]. In one study on milk packaging by the author in [40:899-912] three packaging materials were discussed which includes glass, plastic, and cardboard. Findings of the research revealed different perceptions of packaging about different packaging materials. Many advocated the use of glass packaging material in milk packaging, but then said that it was heavy and it used to be washed after it is used. Secondly, with regard to cardboard packaging consumers had negative views about it and they said that this type of packaging do not keep a product fresh and one also cannot see the product and they referred this kind of packaging to UHT treated milks [40:899-912]. Participants in that study advocated the use of plastic containers and agreed that such containers were better than cardboard and glass packaging because their screw top cap prevented the product and were less likely to leak [40:899-912].

#### **2.3.3 Theory of Trying**

The Theory of Trying advocated by authors in [47:127-140] focuses on the assessment of trying to act. In other words, in theory, of trying “an attitude toward a reasoned action is replaced by an attitude toward trying and an intention is restricted to an intention to try” [48:56-70]. In theory of trying, authors in [47:127-140] divided goals into two categories: intermediate and end-state goals. In relation to this theory, the author in [49:211-216] has identified two main reasons of why consumers may fail to try to consume. Firstly, consumers may fail to consider the options available to them. Secondly, consumers may consciously refrain from buying for various reasons. The Theory of Trying [47:127-140] provides an interesting alternate approach to the models previously considered. Rather than examining explicit behavior, the model assesses trying to act. Subjective norms, attitude toward the process or means of trying, attitudes and expectations of success and attitudes and expectations of failure are posed as the key antecedent variables to intention to try; itself the key precursor to trying. Past behavior has been found to influence consumer choice in a number studies [50:437-461; 51:161-189], and is

thus integrated as a key influence within the theory. The author in [52] suggested in discussion of this theory that rather than consumers having behavioral intentions, they rather have behavioral goals in many situations, and they must expend effort and make the purposive endeavor to fulfill these goals. To date the theory of trying has mostly been applied to health related decisions, and only a few studies have applied it to retail consumption decisions. Some parts of the theory have been supported empirically, but not all of the variables have been found to be significant in every test [53:669-684]. In a fillip to the theory, the author in [49:211-216] published research into the reasons for consumers ‘failing to try to consume’. In this case, consumers are said to either fail to see or be ignorant of their options, or make a conscious effort not to consume.

**III. Research Methodology**

A research design provides the framework to be used as a guide in collecting and analyzing data [54]. The study assumed a descriptive research design that was triangulated with both qualitative and quantitative tools of analysis. A descriptive design was used because it helps describe characteristics associated with the subject population and explain the variables that exist between these variables in order to provide a picture of a particular phenomenon [54]. According to the author in [55], descriptive surveys are concerned primarily with addressing the particular characteristics of a specific population of subjects, either at a fixed point in time or at varying times for comparative purposes. The population of the study covered staff of So-Klin detergent limited in selected locations of Nasarawa state. This research utilized the content analysis technique which is a research method for making replicable and valid inferences from data, to operationalize the packaging variables. The study made use of primary sources of data in eliciting the required information needed for this research. A self-administered questionnaire was used in gathering the data. This is a useful method for collection of primary data and has the advantage of being a low cost option and allows respondents to think about questions [56]. A five point Likert scale of agree to disagree (that is, agreed, Disagree, undecided, strongly agreed and Strongly Disagreed) was used to measure the extent to which the various respondents agreed or disagreed with the issues raised. A Likert scale is a psychometric response scale primarily used in questionnaires to obtain participant’s preferences or degree of agreement with a statement or set of statements or factors [56].

The model specifications here are formulated to tests the three hypotheses and they are as follows:

$$CI = \beta_0 + \beta_1PA + \mu_t \text{ -----}1$$

$$CE = \beta_0 + \beta_2PD + \mu_t \text{ -----}2$$

$$CA = \beta_0 + \beta_3LA + \mu_t \text{ -----}3$$

Where;

CI = consumer interest

PA = product attractiveness

- CE = consumer evaluation
- PD = product differentiation
- CA = consumer awareness
- LA = Labeling

**IV. Model Evaluation and Test of Hypothesis**

The three hypotheses formulated in this study were tested using student t-statistics. The level of significance for the study is 5%, for a two tailed test. The decision rule is that we shall accept the null hypothesis if the critical/t-value ( $\pm 1.96$ ) is greater than the calculated value, otherwise reject the null hypothesis. That is, using the student t-test (t-statistic), we say that a variable is statistically significant if  $t^*$  (t-calculated) is greater than the tabulated value of  $\pm 1.96$  under 95% (or 5%) confidence levels and it is statistically insignificant if the  $t^*$  is less than the tabulated value of  $\pm 1.96$  under 95 % ( or 5%) confidence levels. Thus;

$H_0: \beta_0 = 0$  (Null hypothesis)

$H_1: \beta_1 \neq 0$  (Alternative hypothesis)

**4.1 Hypotheses One:  $H_{01}$ : Product attractiveness has no significant impact at stimulating consumer interest in a product**

**Model one:  $CI = \beta_0 + \beta_1 PA + \mu_t$  -----4**

**Table 4.4.1: Regression Result on PA and CI**

Stepwise Regression Analyses of <i>Product attractiveness</i> on Outcome Variables				
Dependent Variable: <i>consumer interest</i>				
$R^2 = 0.55; F = 12.50; Sig = 0.0066$				
Independent Variable	Beta	t-value	Pearson Correlation(r)	Probability value
<i>Product attractiveness</i>	2.12	1.98	0.75189	0.0021

Source: Authors Computation, 2017 (Eview-7.0)

$CI = 2.12 + 2.14PA$  -----5

$$SEE = 0.56 \quad 0.21$$

$$t^* = 7.83 \quad 1.98$$

$$F^* = 12.50; \text{ Prob (F-statistic)}=0.0066$$

$$R^2 = 0.55; \text{ Adj.}R^2 = 0.46$$

$$DW = 2.01$$

**Test of Hypotheses One:  $H_{01}$**

From the regression result in table 4.4.1, the calculated t-value for **Product attractiveness** is 1.98 is greater than the critical value of 1.96.

It falls in the rejection region and hence, we may reject the first null hypothesis ( $H_{01}$ ). The conclusion here is that **Product attractiveness has a significant impact at stimulating consumer interest in a product**

**The ANOVA F-statistic**

The F-statistics which is used to examine the overall significance of regression model equally showed that the result is significant, as indicated by a high low value of the F-statistic, 12.50 and it is significant at the 5.0 per cent level. That is, the F-statistic value of 0.0066 is less than 0.05.

**The  $R^2$  (R-square)**

The  $R^2$  (R-square) value of 0.55 shows that the **Product attractiveness** has a good impact **at stimulating consumer interest in a product**. It indicates that about 55 per cent of the variation in **CI** is explained by **PA**, while the remaining 45percent is captured by the error term.

**Serial correlation**

The model also indicates that there is no autocorrelation among the variables as indicated by Durbin Watson (DW) statistic of 2.01.

This shows that the estimates are unbiased and can be relied upon for policy decisions.

**4.2 Hypotheses Two: Product differentiation has no significant influence on consumer evaluation of the product**

**Model two:**  $CE = \beta_0 + \beta_2 PD + \mu_t$  ----- 2

**Table 4.4.2:** Regression result on PD and the CE

Stepwise Regression Analyses of <i>Product differentiation</i> on Outcome Variables				
Dependent Variable: <i>consumer evaluation</i>				
$R^2 = 0.6045; F = 14.05; Sig = 0.001$				
Independent Variable	Beta	t-value	Pearson Correlation(r)	Probability value
<i>Product differentiation</i>	2.97	2.14	0.61892	0.0431

Source: Authors Computation, 2017 (Eview-7.0)

$$CE = 2.97 + 2.01PD \text{-----} 7$$

$$SEE = 1.59 \text{ } 0.35$$

$$t^* = 2.49 \text{ } 2.14$$

$$F^* = 14.05; \text{Prob}(F\text{-statistic})=0.001$$

$$R^2 = 0.6045; \text{Adj.}R^2 = 0.5657$$

$$DW = 2.25$$

**Test of Hypotheses Two:  $H_{02}$**

From table 4.4.2, the calculated t-value for *Product differentiation* is 2.14 and the tabulated value is given as  $\pm 1.96$ , under 95% confidence levels. Since the calculated t-value is greater than the tabulated value ( $2.14 > 1.96$ ), we therefore, reject the null hypothesis ( $H_{02}$ ). *We conclude that Product differentiation has a significant influence on consumer evaluation of the product.*

**The ANOVA F-statistic**

Also, by examining the overall fit and significance of the *Product differentiation* model, it can be observed that the model do really have relevance, as indicated by the relatively high value of the F-statistic, 14.05 and it is significant at the 5.0 per cent level. That is, the F-statistic value of 0.001 is less than 0.05 probability levels.

**The  $R^2$  (R-square)**

More so, the  $R^2$  (R-square) value of 0.6045 shows that the model does have a good fit too. It indicates that

about 60.45 percent of the variation in *consumer evaluation* is explained by *Product differentiation*, while the remaining 49.55percent is captured by the error term.

**Serial correlation**

Durbin Watson (DW) statistics which is also used to test for the presence of autocorrelation indicates that there is no autocorrelation among the variables as captured by (DW) statistic of 2.25. This shows that the estimates are unbiased and can also be relied upon for policy decisions.

**4.3 Hypothesis Three: Labeling has no significant effect at creating consumer awareness of the product**

**Model three:**  $CA = \beta_0 + \beta_3 LA + \mu_t$  -----3

**Table 4.4.3:** Regression result on LA and CA

Stepwise Regression Analyses of <i>Labeling</i> on Outcome Variable				
Dependent Variable: <i>consumer awareness</i>				
$R^2 = 0.6942$ ; $F = 16.33$ ; $Sig = 0.0001$				
Independent Variable	Beta	t-value	Pearson Correlation(r)	Probability value
<i>Labeling</i>	3.19	2.64	0.62145	0.0023

Source: Authors Computation, 2017 (Eview-7.0)

$CA = 3.19 + 2.73LA$  -----9

$SEE = 0.88 \quad 0.20$

$t^* = 4.10 \quad 2.64$

$F^* = 16.33$ ; Prob(F-statistic)=0.0001

$R^2 = 0.6942$ ;  $Adj.R^2 = 0.6521$

$DW = 2.16$

**Test of Hypotheses Three:  $H_{03}$**

The calculated t-value for **LA** was found to be 2.64 and also by rule of thumb, the tabulated value is -1.96 under

95% confidence interval levels. The calculated value of **LA** is found to be greater than the tabulated value (that is;  $2.64 > 1.96$ ), we thus, reject the third null hypotheses ( $H_{03}$ ). ***In conclusion, Labeling has a significant effect at creating consumer awareness of the product.***

#### **The ANOVA F-statistic**

Also, by examining the overall fit and significance of the **Labeling** model, it was found to have a good fit, as indicated by the high *F*-statistic value of 16.33 and it is significant at the 5.0 per cent level. That is, the *F*-statistic value of 0.0001 is less than 0.05.

#### **The $R^2$ (R-square)**

More so, the  $R^2$  (R-square) value of 0.6942 shows that the model have a very good fit also. It showed that about 69.42 percent of the variation in CA is explained by labeling, while the remaining 30.58 percentage unaccounted variation is captured by the error term.

#### **Serial correlation**

Durbin Watson (DW) statistics which is also used to test for the presence of serial correlation indicates that there is no autocorrelation among the variables as captured by (DW) statistic of 2.16, and as thus the estimates are unbiased and can further be relied upon for sound policy decisions.

#### ***4.4 Discussion of Findings***

Findings from the study showed that there is a direct significant relationship between product differentiation and consumer evaluation. It thus holds that product differentiation has significant effects on consumer evaluation of the product. The study by the author in [19] showed that needs of non - unique consumers with perceived quality is negative and creative selection with emotional value in perceptions of garment brand in U.S.A is positive. The perceived quality reduces the purchase decision, whereas emotional value increased the purchase decision. The results study by the authors in [58:174-181] showed that all elements of packaging are very important for buyers of food products and these elements are effective in the their decision to purchase.

More so, the study shows that there is a direct significant relationship between labeling and consumer awareness. It therefore holds that labeling has significant effects on consumer awareness of the product. According to the author in [5:670-684] package attracts consumers' attention to a particular brand, enhances its image, and influences consumers' perceptions about the product also package imparts unique value to products. The results of study conducted by the authors in [59:1-22] showed aware of the price, has greatest impact on consumer purchasing decisions and perceived risk has significant and negative effects on consumers attitudes.

Lastly, it was discovered that Labeling has a significant effect at creating consumer awareness of the product. Authors in [60:59-74] came to the conclusion that packaging plays an important role in the selling of goods and services in a competitive environment. A packaging can increase product sales, reduce inventory levels and

makes high profits and to increase customer Ensure.

## **V. Conclusion and Recommendations**

Based on the findings of the study, it is established that product attractiveness has significant effects on consumer interest in the product. It was also discovered that product differentiation has significant effects on consumer evaluation of the product. It was ascertained that labeling has significant effects on consumer awareness of the product. Finally, it was observed that product differentiation has significant effects on consumer evaluation of the product.

Based on these findings, it is therefore recommended that:

- i. Organization should concentrate their efforts on making the package of product very attractive in order attract the interest of their customers.
- ii. Organizations should ensure high product distinction between its products and that of competitors' products so as to enhance consumer rating or evaluation of the product.
- iii. Organizations should pay attention to the information used. The information given on the label and its value have to be highlighted while promoting the product in the market and must also be more useful technically.
- iv. It is recommended that the organization should not relent in its packaging design efforts as these have been found to be very useful in attracting customers for purchase trials.

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