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**PRODUCT PACKAGING AS A PREDICTIVE FACTOR OF CONSUMER PATRONAGE OF TOOTHPASTE IN ADO-EKITI, NIGERIA**

**Patrick O. Oladele**

*Department of Business Administration, Ekiti State University, Ado-Ekiti, Nigeria*

**Bisi Olowookere**

*Department of Management and Accounting, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria*

**Chibogu N. Okolugbo**

*Department of Business Administration, Ekiti State University, Ado-Ekiti, Nigeria*

Corresponding e-mail & phone number:

**Ebenezer A. Adegbola**

*Department of Business Administration, Ekiti State University, Ado-Ekiti, Nigeria*

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**ABSTRACT:** *The study examined the effect of packaging on the patronage of toothpaste among consumers in Ado-Ekiti metropolis, Nigeria. A total of 320 questionnaires were administered to respondents who were customers to eight most popular supermarkets through purposive sampling technique. Pearson-moment correlation analysis was used to determine the relationship between packaging information and patronage of toothpaste. Multiple regression was used to determine the influence of packaging attributes on patronage of toothpaste. The result revealed that among packaging information available on toothpaste products, expiry date, NAFDAC number and nutritional composition had the strongest relationship with patronage. The packaging attributes with highest influence were quantity, quality, and colour. The study recommended that manufacturers should place on their products only relevant information that will influence purchase decision. Furthermore, as families are growing, companies should be innovative to produce family size toothpaste tubes that will be cost saving for the consumers.*

**KEYWORDS:** *Packaging, Patronage, Packaging attributes, Packaging information*

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## **INTRODUCTION**

There are a few necessities or consumables that consumers of all ages, sex or status cannot do without – such as toothpaste. Consumers are bombarded with too many choices of product brands to use, one of which is toothpaste. In the Nigeria oral care market, such brands as colgate, closeup, darbur, pepsodent, macleans, sensodyne, anchors, mymy, and meswak, exist; these all come in different variants, sizes, colours, flavours, and tube shapes. According to Nayyar (2012) in this modern era, packaging has developed into one of the most sophisticated, holistic and influential examples for those who design it and for those people who are considered intermediates for selling products from manufacturers to the end consumers. Arens (1996) defined packaging as the container for a product encompassing the physical appearance of the container and including the design, colour, shape, labelling and materials used. Packaging today has grown in importance in the face of stiff competition

clamouring for the consumer's attention. This is buttressed by Underwood, Klein and Burke (2001) who said packaging is also utilized as a marketing tool to get the consumer's attention, to promote and convey messages about the products attributes to consumers whilst still on the shelf or at the point of sale.

Packaging is considered as the fifth 'p' of marketing after product, price, promotion and place (Schrawet and Kundu, 2007 in Nayyar, 2012; Ladipo and Rahim, 2013); and as the fifth 'p' of marketing, Kotler (2000) cited in Nayyar (2012) defined packaging as the activities of designing and producing the container or wrapper for a product. This means that companies must monitor and change product packaging on a regular basis to ensure its continuous and increasing appeal to target audiences (Ladipo and Rahim, 2013; Oladele, 2012). Packaging design is therefore, an important issue in the growing use of packaging as a marketing tool for self-service, since 73% of products are sold on a self-service bases at the point of sale (Silayoi and Speece, 2004). Packaging plays a major role when products are purchased; after all, it is the first thing seen before making purchase choices (Kamaladevi, 2010).

Williams (1982) identified pertinent questions to qualify good packaging – (i) does the packaging hold enough quantity of the product to satisfy the needs of the consumers? (ii) does the packaging communicate quality? (iii) does the packaging design, colour, size and shape appeal to the eye? Koirala (2005) cited in Kamaladevi (2010) asserted that good packaging also provide information based on truth, it must be economical, attractive, convenient, protective and transparent. Jugger (1999) submitted that the right packaging solution is different for each brand; what is important is that it works when placed next to the competing brand on the shelf.

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ll, most buying decisions are based in information sought by consumers either actively or passively which includes product's name, brand name, manufacturers name, country of origin, graphics and nutritional information (Peters-TeXera and Badric, 2007, Lifu, 2012; Nayyar, 2012; Oladele, 2011). Demographic factors such as such as age, sex, marital status, family size, occupation, in come level, educational background, religion and tribe can also influence consumer decisions as they reflect their predisposition and impact on the prospects of the marketer in the fast moving consumer goods market (FMCG) where toothpaste and other oral care products fall into.

While a number of studies have been conducted on the impact of general product packaging (Lifu, 2012; Ladipo and Rahim, 2013; Nayyar, 2012; Kumar and Bishnoi, 2011; Underwood *et al*, 2001; Oladele and Akeke, 2012) very few have been product specific – on toothpaste consumption in Ado-Ekiti metropolis as an emerging and fast growing town in south western Nigeria. Specifically, this study attempts to answer the following research questions: what packaging information has significant relationship with consumer patronage of tooth paste in Ado-Ekiti, metropolis?; and what packaging factor has significant influence on consumer patronage of toothpaste in Ado-Ekiti metropolis?

### **Research Hypotheses**

The study hypothesizes that:

- (i) packaging information do not have any significant relationship with patronage of toothpaste in Ado-Ekiti metropolis; and

- (ii) packaging attributes do not significantly influence patronage of toothpaste in Ado-Ekiti metropolis.

## LITERATURE REVIEW AND THEORETICAL FRAMEWORK

### Consumer Buying Process

Decision making is systematic and not automatic (Goodhope, 2013). It is a process which emanates out of conscious effort to arrive at a beneficial outcome. Under normal circumstances decision making requires a thoughtful process to ensure attainment of decision making objectives. Making decision as to which brand of a product to buy can be a tasking one in face of many options to choose from like choosing toothpaste. Lawan and Zanna (2013) admitted that at any one time, we make decisions concerning every aspect of our lives; these decisions are generally made without stopping to think about how we make them and what is involved in the particular decision-making process itself.

Behind the visible act of making a purchase is a decision process divided into three major components: input, process and output (Schiffman & Kanuk, 1997 in Lawan & Zanna, 2013). The input component comprises the external stimuli that serve as sources of information about a particular product and influence a consumer's product-related values, attitudes, and behaviour which include the four Ps of marketing and the socio cultural influences, which when internalized, affect the consumer's purchase decision (Lawan and Zanna, 2013). A key component of product-related value is packaging- information and characteristics, which is the main trust of this study. Kotler (2000) added that the process component, which is concerned with how consumers make decisions considering the psychological field, is subdivided into five stages; need recognition, pre-purchase/information search, evaluation, purchase and post purchase behaviour. Need recognition is likely to occur when a consumer is faced with a problem. The problem/need recognition can be viewed as either simple or complex. Pre-purchase search come to play when a consumer perceive a need that might be satisfied by the purchase and consumption of a product. The consumer's past experience might provide adequate information on which to base the choice. Where the consumer has had no prior experience a more extensive search has to be made, which would extend to the consumers psychological field and external sources where cultural beliefs and values play key role. This is followed by evaluation, purchase, and post purchase activities. The process above is designed to tie together many ideas of consumer buying decision making and consumption behaviour shared by most marketing authors (Lawan & Zanna, 2013).

### Product Packaging

Packaging can be defined as an extrinsic element of the product. It is the container for a product (Wells, Farley and Armstrong, 2007). According to Williams (1982), packaging is part of the product which encloses and protects. It is the final stage of production. Packaging helps consumers to choose from a wide range of similar products; and that it also stimulates customers buying behaviour (Wells *et al*, 2007). Product packaging is an essential aspect of projecting a firm's brand's image, which is sometimes designed to convey images of high quality, while at other times signalling affordable price (Urich, Campana and Malkewitz, 2010). In the self-service world today, packaging has become a major communication medium from manufacturer or retailers to consumers (Williams, 1982). It communicates certain quality image to consumers. Packaging influences consumers' perception for a

particular product brand and consumers most times are attracted at first sight to the packaging style of a product (Lifu, 2012).

Packaging can dissuade customers from buying the product irrespective of its quality (Lifu, 2003 in Lifu, 2012; Oladele, 2006). Good and attractive packaging in the view of Scott (2008) may add value to the product and attract a trial from customers. A package that plays a promotional role needs prominent design features to capture and hold attention, making the product stand out on the shelf (Williams, 1982). A product that is well packaged is self-advertising and serves as a purchase appeal (Lifu, 2012). According to Williams (1982) one early study found that consumers perceived bread of equal freshness to be fresher when wrapped in cellophane as opposed to wax paper. There are six variables that must be taken into consideration by producers and designers when creating efficient package. These are the form, size, colour, graphics, material and flavour (Wells *et al*, 2007). A poorly packaged product poses serious problem to the salesmen, as it will require a lot of explanations to persuade the customers (Lifu, 2012, Oladele and Akeke, 2012). In Nigeria, many products are poorly packaged thus, resulting in low patronage of locally made products compared to foreign and imported products.

Most consumer products use a number of indirect communications to convey packaging attributes, such as combining colours. In packaging, colour is regarded as the major aspect involved in subtle consumer communication. Colour is often the most effective element in creating a strong brand recognition and association. Colours evoke brands; whether it is Heineken's distinct green label, Coca-cola's red, Shell's yellow, or Cadbury's purple, all have different color values to different consumers (Singh, 2006). The high importance placed on color is an acknowledgment of manufacturers' understanding that color has strong emotional loading, and is able to prompt a swifter response to packaging than either the written work or imagery (Tussel, 2000; Singh, 2006). Unilever's attempt to introduce other colours of its toothpaste brands has not been as successful as the red colour *closeup* toothpaste. There are differences in the perception of colours between genders (Singh, 2006).

Companies also use packaging attributes such as graphics that include layout and the use of powerful photography, to create an image to help attract and sustain consumer attention. The package design, that is, size and shape, involves more than the surface look or aesthetics aspect of the packaging. It is influenced by the entire marketing programme, which includes the package-product combination, the corporate logo or symbol, the distribution and pricing policy, and the promotional effort (Ladipo and Rahim, 2013). Robert *et al's* (2001) in Nayyar (2012) findings on packaging imagery indicated that the effects of pictures on packaging are contingent on the product category, and may be specifically beneficial to those with high levels of experience because it was not possible to manipulate the level of experiential benefits (Underwood *et al*, 2001). This is because consumers most times are attracted at first sight to the packaging style of a product (Terblanche, 2006) and according to Best (2002), it creates value by helping customers decision making process. If a firm's product packaging does not influence consumer buying decision, then such a firm is wasting a lot of money. Product packaging is therefore an essential aspect of projecting a firm's brand's image, which is sometimes designed to convey images of high quality, while at other times signaling affordable price (Ulrich *et al*, 2010).

This study considers the functional essence of packaging in terms of packaging information conveyed to the consumer which seeks to assist the consumers in arriving at informed decision. According to Ladipo and Rahim (2013), product information commonly found on packaging in low-risk market include: price, product weight, manufacturing/expiring date, side effects, dosage and administration, nutritional information, brand-name, copy-claims, place of manufacturer/country of origin, National Food and Drug Administration Agency (NAFDAC) number, *etc.* Some product information are obvious and observable for the consumer; but latent information and its influence stay hidden during the decision-making process. Information like country-of-origin, variety, brand name or vintage is regarded as evident information, whereas product design belongs to the latent factors. All necessary items of information that the packaging carries must be clearly visible or implied through the product design. This communication may either be direct or subtle. Direct communication describes the product, its benefits and how to use it (Butkeviciene *et al*, 2008).

## THEORETICAL FRAMEWORK

This study was based on three models of consumer behaviour; namely (i) Nicosia model; (ii) Howard-Sheth model of consumer behaviour; and (iii) Kotler behaviour choice model.

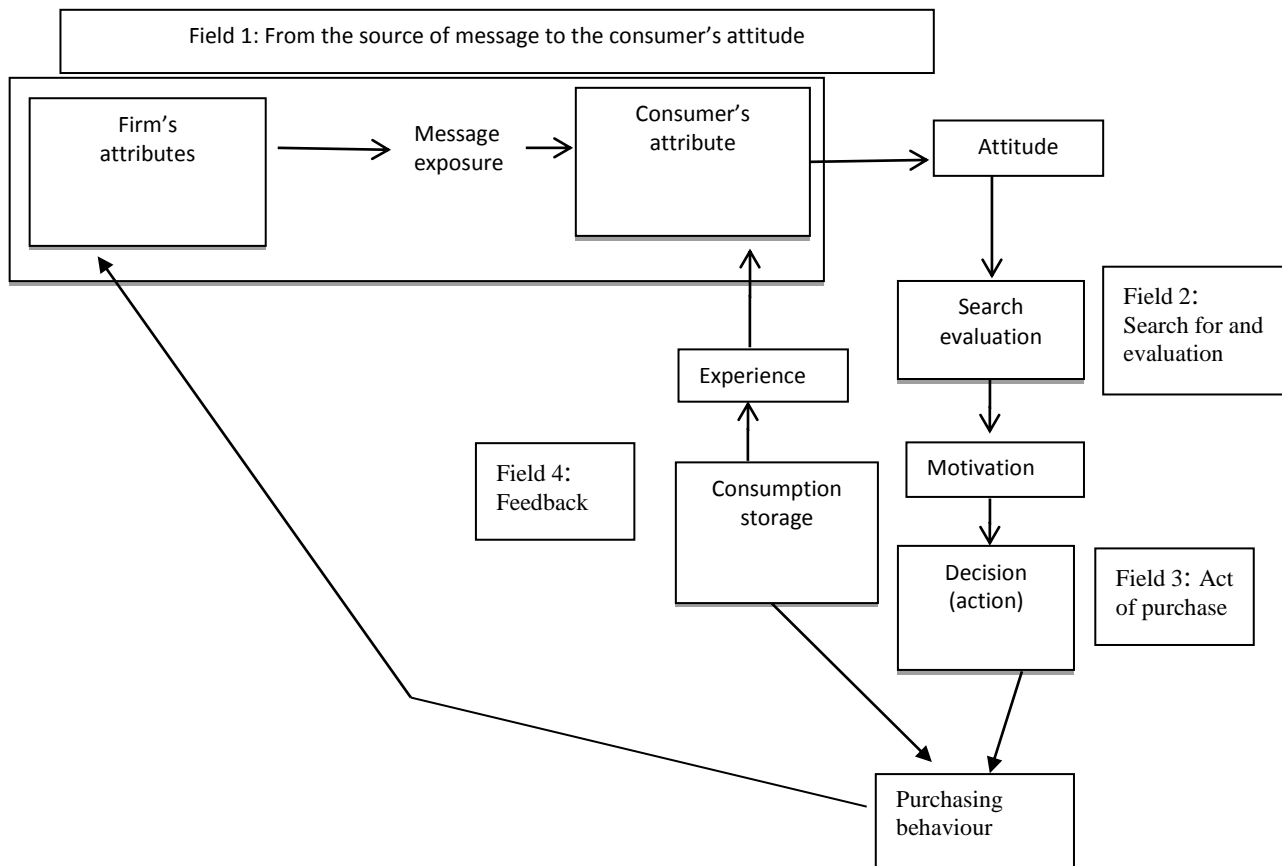
### The Nicosia Model

In Nicosia (1969) view as cited in Goodhope (2013) a consumer is an individual who purchases, or has the capacity to purchase goods and services offered for sale by marketing institutions in order to satisfy personal or household needs, wants or desires. According to Schiffman and Kanuk (1987), the Nicosia focuses on the relationship between the firm and its potential consumers. The firm communicates with the consumers through its marketing messages (advertising) or inscriptions on the packaging and consumers also communicate with the firm been their purchase responses. The Nicosia model is interactive in design. Nicosia model is divided into four major fields (Schiffman and Kanuk, 1987; Goodhope, 2013) namely, (i) the consumer's attitude based on the firm's message; (ii) search and evaluation; (iii) the act of purchase; and (iv) feedback. These fields are illustrated in a diagram as shown in figure 1.

The first field as depicted in figure 1 involves the marketing environment, the marketing strategies like the communication efforts that affect consumer attitudes and consumer characteristics that mediate reception of the firm's promotional messages. The output of this field is an attitude towards the product based on the consumer's behaviour interpretation of the message. The second field which is the search and evaluation deals with the search for relevant information and evaluation of the firms brand in comparison with alternative brands. The output at this stage is motivation to purchase the firm's brand. Even though the model only illustrates a positive response of consumers, evaluation of a product could also lead to rejection of the firm's brand. The third field, which is the Act of purchase, deals with the actual purchase of the brand from a specific retailer based on the motivation gotten from the evaluation in field two. The fourth field which is the feedback stage contains two important types of feedback from the purchase experience. The first feedback is to the firm in form of sales data to indicate either good or bad signals. The second feedback is to the consumer in the form of experience gotten from the use of the product to signal satisfaction or dissatisfaction.

This study draws its assumptions from this model in that, packaging information and attributes are part of communication to consumers which the firms hope could influence consumers to patronize their product. Consumers in turn, are becoming sophisticated in their search for correct information that can aid their buying decisions.

**Figure 1: Flow chart of Nicosia model of consumer decision processes**



Source: Nicosia, F.M, (1966) Consumer Decision Processes, Prentice Hall.

### The Howard-Sheth Model

Through the model, John Howard and Jagdish Sheth attempted to explain buyer rationality while making purchase decisions even in conditions of incomplete information (Howard and Sheth, 1969). The model focuses on repeat buying. According to Oladele (2006), the Howard and Sheth model was based on two assumptions; namely (i) buying behavior based on rational exercise; and (ii) buying behavior that is systematic and propelled by stimuli. The model according to Howard and Sheth (1969), has four major components, which are stimulus input, (input variable), hypothetical constructs, response outputs (output variables) and the exogenous variables

#### a. The stimulus input (input variables)

This refers to the environmental stimuli or the marketing programmers' in the social environment of the consumer. The input variables consist of information cues about the attributes of a product or brand (that is, quality, price, distinctiveness, service, availability). These informational cues may be significant, in that, they may emanate from the product

itself or they may be symbolic, in that, they come from impersonal sources like advertising or promotional activities by the firm. The 3<sup>rd</sup> informational cues may come from the buyer's social environment, comprising of the family reference groups, social, class, culture etc. this source is not only non-commercial and non-controllable by the firm. It is also a personal course of information output.

b. The Hypothetical Constructs

These constitute the central part of the model and deal with the psychological variables which operate when the consumer is undergoing the decision making process. Howard and Sheth (1969) classified hypothetical constructs into perceptual and learning constructs. The perceptual constructs deal with how a consumer obtains and process information received from the input variables. The moment the buyer is exposed to any information, attention is created. This attention towards the stimuli depends on the buyer's sensitivity to information that will convey a message. The understanding of the message may trigger a need and a search for the product. The learning constructs relates to buyer's learning information of attitudes and opinions, and the final decision. The learning constructs ranges from a buyer's motive for a purchase to the final satisfaction from a purchase. The interplay of the constructs will lead to a response output or a purchase (Howard and Sheth, 1969).

c. Exogenous variables

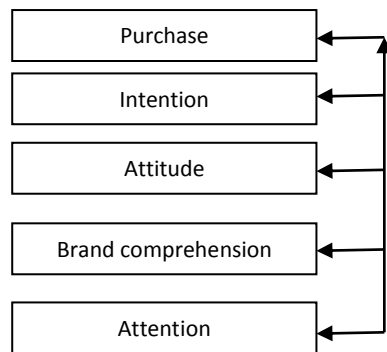
These are external variables. The Howard and Sheth model (1969) comprises certain constant external variables that influence some or all of the constructs explained above and thereby impact the final output variables. They are explained as inhibitors or environmental forces that restrain the purchase of a favored brand. Examples of such exogenous variables are importance of the purchase, price, financial status of the buyer, time at the disposal of the buyer, personality traits and social pressures.

d. The Response outputs (output variables)

The output variables refer to the buyer's action or response to the stimulus inputs. According to Howard and Sheth (1969), the response outputs comprise five constituents which are attention, comprehension, attitude, intention and purchase. These could be arranged in hierarchy, starting from attention and ending up with purchase.

- Attention refers to the degree of information that a buyer accepts when exposed to a stimulus
- Comprehension refers to the brand knowledge and understanding of information about the product/service
- The attitude is the composite of cognition affect and behavior towards the offering. Evaluation of product is done and expressed in like/dislike based on the brand potential
- Intention refers to the buyer's intention to buy or not to buy a particular offering.
- Purchase behavior refers to the actual act of buying.

Figure 2: Constituents of response outputs

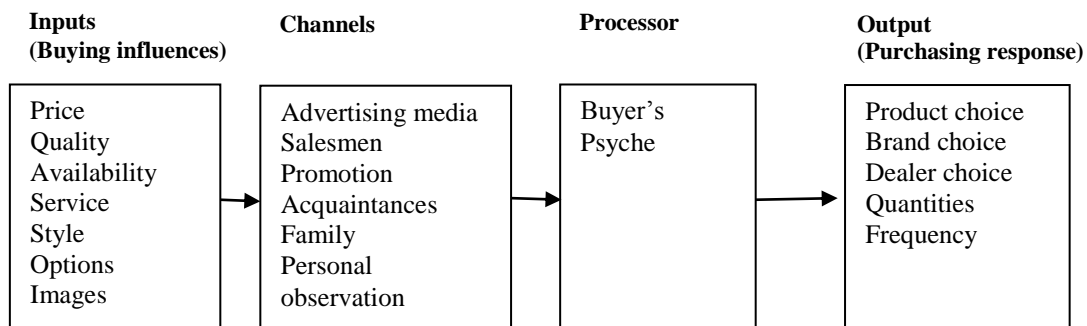


Source: Howard, J. and Sheth, J. (1969) Theory of Buyers Behaviour

**Kotler’s Behaviour Choice Model**

The Kotler’s Behaviour choice model illustrates consumer decision making process in four process paths; namely (i) inputs, (ii) channels, (iii) processor, and (iv) output. The inputs or buying influence in this model include communication from the firm or marketer about available brands, their prices, qualities, availability, service, styles, options and images. The channels or media through which the information reaches the buyer; this could be impersonal communication such as advertising media, salesmen or promotion; or interpersonal communication (word of mouth) such as acquaintances, the buyer’s family and his person observations. The consumer processes all information he has received before taking rational decision. After processing the inputs in the model, the buyer’s responses are manifested in the form of decisions regarding product choice, dealer choice, quantities to buy and frequency of purchase. These are illustrated in figure 3.

Figure 3: Kotler’s Behaviour Choice Model



**Source:** Kotler, P. (1965). Behavioural model for analyzing buyers. *Journal of Marketing*, 20, October, 35-45. In Goodhope, O.O. (2013). Major Classic Consumer Buying Behaviour Models: Implications for Marketing Decision-Making. *Journal of Economics and Sustainable Development*, 4 (4), 164-172.



## METHODOLOGY

The study adopted a survey research design which involved the use of questionnaires to investigate the influence of packaging on customer patronage of toothpaste brands in Ado-Ekiti metropolis. Ado-Ekiti, the capital of Ekiti State, Nigeria, according to the National Population Commission (2006) census has a population of 308,621. As at 2013, the population cannot be estimated as there are no existing data. A purposive sampling technique was used to sample 320 customers who visited eight major supermarkets in the metropolis to purchase toothpaste. An assessment of the supermarkets' sales records revealed that an average of 10 consumers patronized these supermarkets on weekly basis. The researchers therefore took this as a representation of the number of customers to which the questionnaire should be administered weekly. Questionnaires were administered within 4 weeks with the help of eight field assistants; which brought the total respondents of each supermarket to 40; as such, the total sample size was 320 respondents. As soon as consent was got from the respondents, the questionnaires were administered immediately, filled and collected.

The instrument (sets of questionnaire) used in collecting data from the respondents was divided into three sections. Section A contained respondents' demographic and psychographic characteristics; section B contained questions designed to measure the influence of packaging information; section C contained questions designed to measure influence of packaging attributes; All sections used a 4-point Likert scale ranging from strongly agree = SA(4), agree = A(3), disagree = D(2), and strongly disagree = SD(1). The reason for the use of a 4-point scale instrument is because it was to be administered on respondents who were users of the products in question, and who should know why they purchased a given product; 'undecided' was therefore removed from the research instrument as it did not add value to the responses obtained. Data obtained from the administered questionnaires were analyzed using frequency tables, logit regression, Pearson-moment product correlation and multiple regression analyses. Analyses were carried out using SPSS 17 software for windows.

## RESULTS/ DISCUSSION

### Results

#### Demographic characteristics of consumers

Table 1 gives a summary of demographic characteristics of respondents. It shows that the majority of respondents were females (53.1%) while males were 46.9%. The table also shows that 77.8% of the respondents being the majority were mature adults within 26-60 years age group; 16.9% of the respondents were within 16-25 years age bracket; 2.8% were above 60 years; while interestingly 2.5% of the respondents were under 16 years of age. The table reveals that 78.1% of the respondents had university education, 13.4% had other forms of education (technical), 7.2% had secondary education, and 1.2% had primary education. The monthly income of respondents indicates that the majority of the respondents (32.2%) earned between ₦50,000 and N100,000; the least category of earners were those who earned above N100,000 monthly (17.8%). From the table, the family size of 5 got the highest representation (25%), followed by 6 (20.6%), 4 (19.4%); only 6 respondents (1.9%) were unmarried, and 16 respondents (5%) were just couples without children. Majority of respondents (66.9%) purchased toothpaste every month; 26.2% purchased the item every two weeks, while 6.9% purchased the product weekly.

Variable	Option	Frequency	Percentage (%)
<b>Sex</b>	Male	150	46.9
	Female	170	53.1
<b>Age Group</b>	5-15	8	2.5
	16-25	54	16.9
	26-60	249	77.8
	61 and above	9	2.8
<b>Educational Level</b>	No Schooling	-	-
	Elementary School	4	1.2
	Secondary School	23	7.2
	University	250	78.1
	Any Others	43	13.4
<b>Monthly Income Level</b>	Below N30,000	74	23.1
	Below N50,000	88	26.9
	Below N100,000	108	32.2
	Above N100,000	57	17.8
<b>Family Size</b>	1	6	1.9
	2	16	5.0
	3	33	10.3
	4	62	19.4
	5	80	25.0
	6	66	20.6
	7	37	11.6
	8	20	6.2
<b>Buying Frequency</b>	Every Week	22	6.9
	Every Two Weeks	84	26.2
	Every month	214	66.9

**Table 1: Demographic characteristics of consumers****Relationship between packaging information and consumer patronage of toothpaste**

Table 2 gives a descriptive summary of the means and standard deviations of packaging information influence on rate of toothpaste patronage. From the table, items like ingredients, expiry date, brand name, NAFDAC number, and nutritional composition all have very highly significant mean and standard deviation. The item with the highest mean is expiry date with 4.98, followed by nutritional composition (4.95) and NAFDAC number (4.94). This means that they are considered very important by consumers in their decision to buy toothpaste. The other items namely, country of manufacture (3.72), warranty (2.90), customer care line (1.78), net weight (1.67), and storage instruction (1.64) all have low or weak mean and standard deviation meaning that their level of influence on consumers' toothpaste purchase decision were significantly but low..

Table 3 shows the summary correlation analysis results (using Pearson-moment correlation analysis) which revealed a satisfactory relationship between packaging information and consumer patronage of toothpaste in Ado-Ekiti Metropolis. The results as presented in Table 3 showed that there is significant positive relationship between the variables ( $t[320]=0.768, p < 0.05$ ). Obtaining a probability of 0.001 which is less than 0.05 significance level for a two-tailed test, the relationship between packaging information and consumer patronage of toothpaste is significant. Therefore, the null hypothesis is rejected.

PACKAGING INFORMATION	N	Mean	Std Deviation
Warranty	320	2.90	.829
Net weight	320	1.67	.549
Ingredients	320	4.95	.960
Expiry date	320	4.98	.974
Brand name	320	4.83	.892
NAFDAC NO.	320	4.94	.674
Nutritional composition	320	4.89	.897
Country of origin	320	3.72	.660
Customer care line	320	1.78	.872
Storage instruction	320	1.64	.720
Valid N (listwise)	320		

**Table 2: Descriptive summary of packaging information influence on patronage of toothpaste**

#### Correlations

Variable		Consumer patronage	Packaging information
Consumer patronage	Pearson Correlation (r)	1	.768*
	Sig. (2-tailed)		.001
	N	320	320
Packaging information	Pearson Correlation (r)	.768*	1
	Sig. (2-tailed)	.001	
	N	320	320

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

**Table 3: Correlation co-efficient between packaging information and consumer patronage of toothpaste in Ado-Ekiti Metropolis**  
Source: Authors' Field Survey, 2013

#### **Influence of packaging attributes on consumer patronage of toothpaste in Ado-Ekiti Metropolis**

Multiple regression analysis was used to test the hypothesis that packaging attributes do not significantly influence consumer patronage of toothpaste in Ado-Ekiti Metropolis. The summary of the multiple regression shown in Table 4 revealed that packaging attributes namely, size, colour, quality, quantity, graphics, ease of use and portability all had a strong positive influence (0.92) on patronage of toothpaste. The co-efficient of determination ( $R^2$ ) indicates that 85% of patronage of toothpaste was accounted for by the combination of packaging attributes.

In Table 5, the unstandardized beta coefficients of the independent variables show that they all have strong influence on consumer purchase decision and patronage. Both standardized and unstandardized coefficients of all independent variables are positive, all at  $p < 0.05$ . Therefore, there exists a significant positive influence of the independent variables size, colour, quality, quantity, graphics, ease of use, portability on consumer patronage of toothpaste in Ado-Ekiti metropolis. Obtaining a probability of less than 0.05 significance level for the independent variables, the level of influence of packaging attributes on patronage of toothpaste is significant. Therefore, we reject the null hypothesis and accept the alternate hypothesis.

Among the independent variables, quantity has the strongest influence (with an unstandardized beta coefficient of 0.890 and  $T = 7.337$ ) with  $p < 0.05$ ; the variable with the least influence is size (with unstandardized beta coefficient of 0.455 and  $T = 4.867$ ) with  $p < 0.05$ .

The multiple regression equation for the model is as follows:

$$C_p = 0.155 + 0.455S + 0.875C + 0.887QY + 0.890QT + 0.743G + 0.775EoU + 0.553P$$

(Where  $C_p$  = consumer patronage,  $S$  = Size,  $C$  = Colour,  $QY$  = Quality,  $QT$  = Quantity,  $G$  = Graphics,  $EoU$  = Ease of Use,  $P$  = Portability)

#### Model Summary

Model				
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924 <sup>a</sup>	.853	.835	4.673

a. Predictors: (Constant), size, colour, quality, quantity, graphics, ease of use, portability

b. Dependent variable: consumer patronage

**Table 4: Regression analysis for size, colour, quality, quantity, graphics, ease of use and portability influence on consumer patronage of toothpaste in Ado-Ekiti Metropolis**

Regression Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
.1	(Constant)	.155	.154		.781	.040
	Size	.455	.023	.571	4.867	.014
	Colour	.875	.023	.685	6.875	.001
	Quality	.887	.021	.792	6.921	.000
	Quantity	.890	.051	.837	7.337	.000
	Graphics	.743	.036	.780	5.836	.002
	Ease of use	.775	.023	.725	6.328	.004
	Portability	.553	.025	.596	5.729	.025

Regression Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
.1	(Constant)	.155	.154		.781	.040
	Size	.455	.023	.571	4.867	.014
	Colour	.875	.023	.685	6.875	.001
	Quality	.887	.021	.792	6.921	.000
	Quantity	.890	.051	.837	7.337	.000
	Graphics	.743	.036	.780	5.836	.002
	Ease of use	.775	.023	.725	6.328	.004
	Portability	.553	.025	.596	5.729	.025

a. Dependent Variable: Consumer patronage

**Table 5: Regression analysis (beta coefficient) for size, colour, quality, quantity, graphics, ease of use and portability influence on consumer patronage of toothpaste in Ado-Ekiti Metropolis**

## DISCUSSION

This study examined the predictive factors that influenced the rate of patronage of toothpaste in Ado-Ekiti metropolis. The predictive factors included demographics, packaging information and packaging attributes. Data obtained suggested that there were more females than males who visit supermarket to buy toothpastes. This finding is similar to those of Ekeng, Lifu and Asinya (2012) who asserted that it is not surprising as expected, females are more predisposed to shopping for domestic and family needs than men. Gham *et al* (2011) in Ekeng *et al* (2012) in their study reported that female shoppers in Pakistan are more involved in impulse buying than the male shoppers. The majority of customers were adults between 16 and 60 years of age; although there were a few minors who participated in the survey; these may represent those who probably were sent to purchase toothpaste by their parents within the neighbourhood of the supermarkets. The fact that majority of the respondents were literate implies that they were likely to be inclined to more modern oral care products like toothpastes other than the traditional means. Their level of literacy will also influences their ability to read packaging information so as to make informed decisions. The distribution of monthly income of respondents showed that respondents' average incomes were not so dispersed. Being a civil service working population with pockets of small and medium scale enterprises employers, income is likely to affect the brand and size of toothpaste to purchase. This implies that the respondents' choice of toothpaste to purchase will be influenced by price. The family size setting of respondents show a very wide distribution of number of respondents' children in this survey. The family size characteristics also influence the frequency of purchase.

This study also revealed that some packaging information are more relevant or significant than others. In the last one and the half decades in Nigeria, the campaigns against fake, adulterated and substandard products by NAFDAC, Standards Organization of Nigeria (SON) and the Consumer Protection Council (CPC) have increased the level of consumer

awareness of packaging information consumers should look out for in products, especially consumables such as toothpaste. Consumers want to be sure that they are not buying expired toothpaste; that the toothpaste has the right chemical composition or other ingredient campaigned against that can cause cancer is absent; or that the toothpaste is endorsed by NAFDAC, and so on. The findings of this study can be said to be consistent with the study of Ladipo and Rahim (2013), Bone and Corey (2000), Silayoi and Speece (2004). These studies asserted that the number of information that consumers are exposed to about a given product will significantly influence his product choice amidst competing ones. This means that consumers make informed decisions based on the available information they have. The level of education of consumers will influence their appreciation of packaging information as they will be able to comprehend the figures, codes, and graphic representations on the product package.

The finding on the test of hypothesis on whether packaging attributes have any significant influence on rate of patronage, revealed that consumers were mostly interested in the quantity of the content of the toothpaste not also minding the size. With the current rate of inflation, dwindling income and yet increasing family size, consumers want more of the products purchased to meet the increasing family demands. This finding is in contrast with that reported by Ladipo and Rahim (2013) in which it was observed that product quantity had a low insignificant mean and standard deviation to influence consumer choice. It will be observed also from the findings that size and portability had the least significant influence at  $p = 0.014$  and  $0.025$  respectively. This means that even though consumers want more quantity, the size or portability of the product does not really matter to them.

From the findings, colour has a beta coefficient of  $0.875$  at  $p < 0.05$ ; thus suggesting means that the colour of the toothpaste determines the consumer purchase decision and patronage. The consumer is not likely to purchase toothpaste that has a different colour other than what he or she is used to. If the consumer buys a toothpaste brand that he or she is not used to buying because of the attempt to try out a new type, she may decide to go back to her original colour of paste if she is not fascinated or impressed with a new colour. This finding is similar to Tussel (2000) and Singh (2006). This result also confirms the view of Williams (1982) that the colour used in a product package conveys definite meaning about a product and that in China and Taiwan; bright colours like red, yellow and gold would do well when used as packaging. Also, white, red, and yellow in packaging is suggestive of 'hot' new product, and would command shoppers' attention. Lifu, (2012) reported that consumers most times are attracted at first sight to the packaging style of a product. Nayyar (2012) carried out a study to investigate the responses of consumers (in terms of ranking), on what packaging attributes will influence abrupt buying action and established that consumers ranked protective packaging, eco-friendly, convenience packaging, reusable packaging, and portability in that order.

## **IMPLICATION TO RESEARCH AND PRACTICE**

Based on this study the implications and recommendations are enunciated for necessary actions:

- (i) For the purpose of effective packaging and marketing of toothpaste and other oral care products, proper market segmentation should be determined and manufacturers should

- can create distinctive products that can suit different types and classes of existing and prospective customers
- (ii) Manufacturers should place emphasis on both quantity and quality of their products as consumers want value for money spent on products purchased.
  - (iii) Bigger family size toothpaste tubes can be manufactured for growing families that will emphasize cost-saving for consumers
  - (iv) Information on products should only be the relevant ones that can help the consumer in making her purchase decision.
  - (v) Government agencies established for the protection of consumers such as NAFDAC, SON and CPC should intensify and sustain their campaigns and education of consumer awareness against fake and adulterated products as well as ensuring that all key information consumers should look out for in products are provided by manufacturers.
  - (vi) These agencies should also monitor these manufacturers to ensure that these information are correct and current without the intent to deceive unsuspecting consumers.

## CONCLUSION

From the foregoing, the need for effective packaging that can sustain a product in the already overcrowded market space is clearly established. The combination of consumer demographics, packaging information and packaging attributes are responsible for influencing the rate of patronage of toothpaste in Ado-Ekiti metropolis. Consumers are increasingly sophisticated in their choices and preferences; and sometimes what they value most out of a product may be revealing as this study showed that consumers value quantity slightly higher than quality as well as than the aesthetic of colour or graphics. In some other product categories the fast moving consumer goods market (FMCG), manufacturers are beginning to appreciate family size and family values resulting in making family size (jumbo size) of products; which invariably will increase the quantity of the product. Examples of such products are bathing soap, detergent, milk, cereals, to mention a few. As most of the consumers in this study belong to growing families and they would want value for their money; manufacturers of toothpaste could be innovative to produce family size toothpaste that will be cost saving. From this study also, the packaging information that mostly influence purchase decisions are expiry date, ingredients or chemical composition, and NAFDAC number in that order. Some other factors such as net weight, warranty, country of origin, or customer care line had low or insignificant mean and standard deviation. There is also the need to identify unique characteristics and demographics of target consumers, so that the desired objectives of satisfying the market and maximizing profit are achieved.

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