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The Influence of Product Attributes on Consumer Purchase Decision in the Nigerian Food and Beverages Industry: A Study of Lagos Metropolis

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This study investigates the influence of product attributes on consumer purchase decision in Nigerian food and beverages industry: A study of Lagos Metropolis. Descriptive research method was used to survey 400 customers of the selected two companies in food and beverages industry. Data were collected through questionnaire administered. Descriptive statistic and Pearson correlation coefficient was used as a method of data analysis. The result of the analysis reveals a positive correlation between product attribute and consumer purchase decision. Indeed, consumer purchase decision can be viewed as a process in which consumers evaluate alternative products on the strength of various attributes and on the basis of which marketers differentiate and set their brand apart from competition.

Keywords: product, attribute, positioning, perception, decision making process, needs recognition

Introduction

Product attributes play a very important role in marketing from the perspective of the marketer and consumer and it has long been recognized as an opportunity to set the marketer's brand apart from competition. Consumers also value attributes since they are used as the basis for evaluating a product. Attributes also provide the benefits consumers seek for purchasing a product.

A product is anything that is capable of satisfying customer needs. In a general term we often distinguish between products and services, with products being tangible (e.g. a car) and services mainly intangible (e.g. insurance policy). However, when we look at what the customer is buying, it is essentially a service whether the means is tangible or intangible. For example, a car provides the service of transportation; insurance provides the service of risk coverage. Consequently, it makes sense to include services within the definition of the product. A product is anything that can satisfy a need. Suppose one is hungry, this state of felt deprivation can be expressed as a desire for Rice or Yam. Here the Rice or Yam is the want satisfying product. A product therefore, represent a complex of tangible and intangible attributes or features which include packaging, colour, price, functional, social, and psychological benefits. Attributes are the elements or features that an object may or may not posses (Mowen, 1993).

Attributes can be categorized as being concrete or abstract (Peter & Olsen, 1994). Concrete attributes (Aaker et al., 1992, refer to as physical characteristics) "are the most objective, tangible characteristics of a product and can be assessed base on some criteria such as colour, or shape". Abstract attributes (Aaker et al, 1992 refer to as pseudo-physical characteristics), but, on the contrary, "represent intangible and subjective characteristics that are not easily measured", e.g. design, or the operating system of a computer.

Consumer's value attributes because they are used as the basis for evaluating a product in relation to the benefits consumers seek when purchasing such product. Consumers also use attributes to make comparisons between competitive brands. The importance of attributes goes beyond the physical features of a product because, consumers most often link attributes to consequences of purchasing or consuming products. Some consequences often result to certain end states or values that consumers intend to achieve (Belch & Belch, 1995; Mowen, 1993; Kotler, 1996).

Product attributes provide a basis through which marketers differentiate and set its product (brand) apart from that of the competitors based on a specific attributes or often several attributes or product benefits (Belch & Belch, 1995). Attributes are furthermore used by the marketer as the basis for developing new products and for specific positioning strategies. Product attribute performs a major role in determining the brands that consumers will consider

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and give serious attention when making a purchase decision (Kotler, 2000, 2002). Attribute give brand the advantage that the company hopes for, because it will aid consumer awareness and recognition for that particular brand – consider Nokia Phone and its trademark start-up tune.

The attributes of a product therefore, influence consumer product choice and perform the following role to the consumer: aesthetic and symbolic value; communicate functional features; emphasize ease of use, and influence the basis of product categorization. By understanding precisely how consumer make purchase decisions and what they value in products and services, companies can work out optimum level of attributes that balance customer value expectation as a benchmark for resources allocation, costing and pricing decision (Oyatoye, 2011).

Early researchers' views product attributes as the physical properties of a product that were quantitatively and objectively measurable (Wu et al., 1988). However, in more recent years it has expanded to include all evaluative criteria, including objective or physical properties i.e. price, brand name or subjective criteria's such as quality, style, benefit or value (Grapetine, 1995; Jamal & Goode, 2001). Other authors have also looked into the intrinsic and extrinsic cues as evaluative criteria consumers employ when making a purchase decision (Forney et al., 1999; Liefeld et al., 2000). Nevertheless, in spite of the fact that many of these areas of discussions on product attribute and how consumer evaluate benefit/value on the basis of the attributes to make purchase decision have been extensively investigated, these results have not sufficiently established a relationship between product attribute and consumer purchase decision, particularly in Nigeria context. The current study seeks to address some of these gaps and offers further theoretical and empirical insight into how product attribute influence consumer purchase decision.

Objectives of the Study

The primary objective of this study is to determine how product attributes influence consumer purchase decision in Nigerian food and beverages industry. The following are the secondary objectives that will contribute towards achieving the primary objective, namely to determine: i)To determine the importance of product attribute to consumer need recognition and purchase decision. ii) To determine the nature of relationship between product attribute and consumer purchase decision.

Conceptual Framework and Literature Review

What is a product?

Kotler and Armstrong (2005) defined a product as anything that can be use to attracts attention, acquisition, use or consumption to satisfy a want or a need. Product is an important element of the marketing mix and must be properly conceived and managed to meet the needs of the consumers and achieve organizational goals. Organizations product policy is therefore fundamental to the organization's ultimate success. Whether measured by total profits, return on investment, market share or any other criterion, is largely dependent upon its product policy. It is therefore imperative for product planners to see products beyond their physical attributes or characteristics. This is because, the tasks involve in developing and marketing a successful product cannot be accidental, but well thought-out.

Kotler and Armstrong (2006) suggested that product planners should think about their product on three levels. According to them, the most basic or elementary level is the core product which addresses the question: what is the buyer really buying? A man buying Range Rover buys more than desire to move from one point to the other. The man is buying class, prestige, confidence and value. The second level is the actual product level which is built around the core product. Prominent issues at this level include quality level, features, design, brand name etc which enhance the core benefits expected by the consumers. The third level is the augmented product which complements the core and actual product. It offers additional services and benefits to the consumers.

Product attributes

Product attributes evaluated by consumer has been found to be affected by a number of factors such as: situation, knowledge, motivation and involvement (Engel et al., 1993). The amount of cognitive and behavioural effort consumers put into their problem solving/decision making processes is highly dynamic and complex and for this reasons, consumers needs a great deal of information to form opinion and establish a set of criteria on which to judge specific brands.

According to Aaker et al (1992) an important attribute is one that offers an important benefit towards the satisfaction of consumer needs. Aaker (1991) adds that because most product attributes provide consumer benefits, there is usually a one-to-one comparative between brands. Kotler (2002) explains that the most salient attributes or features of a product to the consumer do not necessarily always imply that they are the most important ones. Because of the aggressive tendency of advertising campaigns (with high repetitiveness) other attributes may be more salient simply because the consumer is more familiar or can easily remember or recognize the attributes mentioned in the advertisement, hence making these attributes "easily noticed and top of the mind". Consumers, therefore, focus their energy and attention on product attributes that are most important and relevant when deciding which brand to purchase. This is referred to as determinant attributes.

The consumer buying process

There are many theories about the process a consumer goes through to buy any given product and the debate still continues about their respective strengths and weaknesses. For example, some theories argues that product choice can be explained by what is known as 'the expectancy-value model.' in this model, it is argued that consumers intuitively assign scores to two variables, one being the degree of expected pleasurable outcome, the other being the value they attach to a favourable outcome (Nowlis, 1995). When faced with competing products, this model postulates that consumers assign scores to these expectancy-value parameters and, following an informal mental computation, make a selection on the basis of highest overall score (Hawkins and Coney, 1992; McCarthy, 1996).

However, in reality, consumers face a more complex situation when making a choice. They have limited economic resources and ability to seek, store and process information. For this reason, there is a skeptism regarding the economist's view of consumer behaviour which hypothesize that consumers seek information until the marginal value gained is equal to, or less than, the cost of securing the information to make a choice (Engel et al., 1995; Blackwell, 2001, 2007). Literatures have shown that consumers do not acquire perfect information - in fact even when presented with the economist's view of 'perfect' information; they are unable to comprehend and assimilate some technical aspect of the information.

A more accepted model of consumer behavior shows that consumer decision process occurs as a result of consumers seeking and evaluating available information to make a purchase decision (Nowlis, 1995). Consumers rely upon a few pieces of selective information with which they feel can guide and help them to decide how the product might perform relative to competing brands. For example, why does someone flying from Nigeria to London choose British Airline rather than Air France? Both airlines offer good services, a high degree of reliability and convenient departure slots. They may choose British Airline, when there is so little difference, only because the name is more familiar, it reflects their status, or they belong to a loyalty scheme.

Selecting a decision rule

Attributes play a vital role when consumer engage in a decision rule since the outcome of a purchase decision is determined by its attributes. Consumers, furthermore evaluate products on the basis of attributes they perceived to be important to them. Blackwell et al., (2006) explain that decision rule are strategies adopted by consumers to make selection from consideration set or choice alternatives and it range from very simply procedures to very complex ones that involve more effort and time. The purpose of decision rules (also referred to as heuristics) is to reduce the risk and burden in making complex decision.

Decision rules can be base on compensatory decision rule, where consumers evaluate brands on the basis of relevant attributes and a score is computed for each brand. The estimated score for each brand reflects its merit and benefits as a potential choice (Hawkins et al., 1992; Schiffman & Kanuk, 2007). On the other hand, in selecting a non-compensatory decision rule, a minimum threshold or acceptable performance level is either selected for each attribute (conjunctive rule), or for any attribute that fall within the consideration sets (disjunctive rule), or by ranking attributes in terms of what consumers consider to be important (lexicographic rule) or through elimination method (Engel et al., 1995).

Methodology

The research design utilized for the purpose of this study is descriptive research design. This is because the variables of interest for the measurement are purely qualitative which lend themselves to description.

Population and sample size

The population of this study is made up of all the companies in the Nigerian food and beverages industry operating in Lagos Metropolis and the consumers that purchase their products. Two companies in food and beverages industry (Cadbury Nigeria Plc and Nestle Nigeria Plc) operating in Lagos State was selected, using simple random sampling technique, while convenience sampling technique was used to select the individual customers of the selected companies. The study was carried out between February to March, 2012 at Idumota Market, Lagos Island, Nigeria.The study focused on two major products of the selected companies i.e. Bournvita produce by Cadbury and Milo produce by Nestle. Four hundred consumers of the selected companies participated in the survey (i.e. two hundred respondents from each company). These subjects were simply chosen because they were the easiest to obtain for the study.

Questionnaire design and administration

In this study, a self-completion questionnaire with closed ended questions was developed. The questionnaire consists of three parts. The first part of the questionnaire covers consumers' evaluation of beverages attributes, the second focuses on demographics characteristics of the respondents i.e. gender, age, marital status, income level etc, while the last part consists of screening questions that focuses on frequency of purchase, timing of consumption, as well as the choice of beverages.

Questions for this study were generated by the researchers to suit the purpose of the study. Respondents were asked to indicate their responses on five-point Likert scales, ranging from extremely important to totally unimportant for the first construct (attribute), while the Likert scale for the second construct (consumer purchase decision), ranges from Strongly agree to strongly disagree. Four research assistants were employed to administer the instrument. These research assistants were trained for one week by the researchers and the instrument were administered over a period of two months.

Procedure for data analysis

The collected data were analyzed using statistical packages for social sciences (SPSS-Version 17). Two major approaches of data analyses were descriptive statistic (mean and standard deviation) and inferential statistic (Pearson correlation analysis). Statistical analysis was conducted on the 400 questionnaires.

Validity and reliability

To verify the content validity of the questionnaire, i.e. to ascertain if the questionnaires reflect the concept that are intended to measure, the questionnaire were presented to three academic professionals, in which their observations were taken into considerations, and all of them approved the research tool after making the necessary amendment suggested by them. Reliability reflects the consistency of participants' responses to the statements of a questionnaire based on the average correlation among those statements. In order to do this, Cronbach Alpha was calculated using SPSS-Version 17. The reliability statistics for the measurement sets are presented in Table 1. It is evident from Table 1 that Cronbach Alpha recorded for the two constructs were under acceptable range $\alpha = 0.7$ (Girden, 2001).

Results

A total of 400 questionnaires were distributed, retrieved and used for data analysis, giving response rate of 100%. Table 1 presents the number of items for the each constructs, the mean, the standard deviation, and the number of cases. From the table the overall mean scores and the standard deviation is considered satisfactory, which indicates high relationship between product attributes and consumer purchase decision.

Again, further analysis in Table 2 (using Pearson Product-moment correlation coefficient) revealed a satisfactory significant relationship between product attributes and consumer purchase decision. Before performing a correlation analysis, a scatter plot was generated to ensure that the assumptions of normality, linearity and homoscedasticity were not violated. This also gives a better idea of the nature of relationship between the two variables.

The result of the analysis revealed a positive correlation between the two variables, $r = .639$, $n = 400$ and $p < 0.0005$, with high levels of coefficient of determination between the two variables (40.83%). This also reflect that the two variables vary together approximately 41% of the time and they appear to be independent of each other by 59% of the time, and evidently other variables are included in these case (e.g. individual psychological and sociological characteristics and organizational factors).

Table 1. Descriptive statistics and reliability test.

S/No		No. of items	Mean	Std Deviation	N
1	Product attributes	11	4.73	.239	400
2	Consumer purchase decision	8	4.67	.292	400

Table 2. Correlations test.

		Product attributes	Consumer choice decision
Product attributes	Pearson Correlation	1	.639**
	Sig. (2-tailed)		.000
	N	400	400
Consumer choice decision	Pearson Correlation	.639**	1
	Sig. (2-tailed)	.000	
	N	400	400

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

The coefficient of determination of 40.83% is quite a significant variance explained between the two variables of the study compared to previous empirical research. The level of statistical significance also indicates high level of confidence in the results obtained. On the basis of the findings of this study it can be deduce that product attribute will significantly influence consumer purchase decision, and that, there is a positive relationship between product attributes and consumer purchase decision. The finding also corroborates (Pilditch, 1976; Berkowitz, 1987; Bloch, 1995) that product attributes generate consumer inferences.

Summary and Conclusion

Attributes play a vital role in the consumer decision-making process since consumers evaluate and compare competitive products based on attributes. The marketer uses product attributes to differentiate between his product and that of the competitors and also develop a positioning strategy based on unique and relevant attributes.

An advertising strategy can also be drafted based on attributes where the marketer can either promote one attribute two or even three attributes to further distinguish his product from competitors. A product can have one, two or more attributes (Segupta, 2011), and supported by Kotler (1991, 1996). Kotler (2002) however, caution that too many attributes can result into a possible loss of clear position.

The most important attributes (value) to consumers in purchasing a specific kind of product should be the starting point in the design of any product; this will generate consumers' inferences regarding several product attributes (Pilditch, 1976; Berkowitz, 1987; Belch & Belch, 1995). Whether product shape, colours, materials, and configuration that are proffered-or that engender positive product perceptions- depend on the product attributes that are important to the consumer. For example, a large size television may connote old-fashioned and crude, more solid and stable, heavier in weight. Whether a large Television size is preferable therefore will depend on the attributes that are more important to consumers.

The number of attributes evaluated by a consumer is affected by situation, knowledge, motivation and involvement (Engel et al., 1993). And because of these key factors consumer use heuristics informational cues to infer the values of other attributes and reduce inherent risk when making a purchase decision. Price is particularly used to infer attributes when quality is difficult to judged or when it vary greatly among brand (Pinson & Jolibert, 1998).

Product attributes, and their ratings, are of significant interest to marketing researchers and practitioners, as these are the very criteria by which consumers evaluate products prior to making purchase decisions and it is on the basis of attributes important to consumers that marketers design their products and set it apart from competition. Indeed, the purchase decision is often viewed as a process in which consumers evaluate alternative products on the strength of various attributes (Mowen, 1993). These evaluative criteria come in many dimensions; for instance, (Engel et al., 1993; Blackwell et al., 2001) noted that attributes such as reliability, safety, and price, as well as associated hedonic feelings, may be evaluated by consumer when purchasing a tangible product e.g. a car. Other authors have also argued that intrinsic attributes are more important than extrinsic cues as evaluative criteria to consumers (Forney et al., 1999; Liefeld et al., 2000). In a nutshell, the importance of intrinsic or extrinsic attributes depend upon the product and the situation, because, intrinsic attributes will be a relevant and important quality indicators if they are accessible and can be evaluated at the time of purchase, but in many cases this will not obvious until consumption and therefore extrinsic attributes will be evaluated instead. This is likely to be true for a product such as beverages, where intrinsic attributes such as taste and aroma are not available to be evaluated by consumers during the purchase decision process. This is in line with several previous studies which reported that extrinsic attributes such as price (Batt & Dean 2000; Halstead, 2002, Hoffman, 2004) and country of origin (Keown & Casey 1995) are the most frequently used or most important attributes when making purchasing decision.

References

Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York: The Free Press.

Aaker, D.A, Batra, R. & Myers, J.G. (1992). *Advertising management*. Fourth Edition. Prentice Hall, London.

Batt, P. J., & Dean, A. (2000). Factors influencing the consumer's decision. *The Australian and New Zealand Wine Industry Journal, 15*(4), 34-41.

Belch, G.E & Belch M.A. (1995). *Introduction to advertising and promotion. An integrated marketing communication perspective.* Third Edition. Boston: Irwin.

Berkowitz, M. (1987). Product shape as a design innovation strategy. *Journal of Product Innovation Management* 4(4), 274-283. http://dx.doi.org/10.1016/0737-6782(87) 90031-2.

Blackwell, R.D., Miniard P.W., & Engel, J.F. (2001). *Consumer behavior*, Ohio: South-Western. The Dryden Press.

Blackwell, R.D., Miniard P.W., & Engel, J.F. (2006). *Consumer behavior* (10^{th} ed.) Thomson Learning.

Blackwell, R. D., D'Souza, C., Taghian, M., Miniard, P. W & Engel, J. F. (2007). *Consumer behaviour: An Asia Pacific approach.* Melbourne: Thomson.

Bloch, P.H. (1995). Seeking the ideal forms: Product design and consumer response. *Journal of Marketing,* 59(3), 16-29. http://dx.doi.org/10.2307/1252116

Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1993). *Consumer behavior* (Seventh ed.). Orlando, Florida: The Dryden Press.

Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1995). *Consumer behavior* (Int. ed.). Florida: The Dryden Press.

Forney, J. C., Pelton, W., Caton, S. T., & Rabolt, N. J. (1999). Country of origin and evaluative criteria: Influences on women's apparel purchase decisions. *Journal of Family and Consumer Sciences, 91*(4), 57-62.

Girden, E.R. (2001). *Evaluating research articles*, (2nd ed.) London: Sage.

Grapentine, T. (1995). Dimensions of an attribute. *Marketing Research, 7*(3), 18-27.

Halstead, L. (2002). *How do consumers select wine? Factors that affect the purchase decision making process in the wine category*. Paper presented at the Annual Academy of Marketing, Nottingham. PMCid:2738509

Hawkins, B., & Coney, K. A. (1992). *Consumer behaviour. implications for marketing strategy*. Fifth Edition. Boston: Irwin.

Hoffman, C. A. (2004). When consumers buy wine, what factors decide the final purchase? *Wine Industry Journal*, 19(2), 82-91.

Jamal, A., & Goode, M. (2001). Consumers' product evaluation: A study of the primary evaluative criteria in the precious jewellery market in the UK. *Journal of Consumer Behaviors, 1*(2), 140-155. http://dx.doi.org/10.1002/cb.61

Keown, C., & Casey, M. (1995). Purchasing behaviour in the Northern Ireland wine market. *British Food Journal, 97*(1), 17-23. http://dx.doi.org/10.1108/00070709510077935

Kotler, P. (1991). *Marketing decision making*. Harper and Row Publishers

Kotler P.(1996). *Principles of marketing*. International Edition. Prentice Hall International Inc. PMCid:190778

Kotler, P (2000). *Marketing management*, New Delhi: Pearson Prentice Hall. PMCid:101036

Kotler, P (2002). *Marketing management*, 21C Upper Saddle River, USA: Pearson Education, Incorporation, Pearson Prentice Hall. PMCid:378567

Kotler, P., & Armstrong, G. (2005). *Marketing: An introduction*, New Jersey: Pearson Education Incorporation.

Kotler, P., and Armstrong, G. (2006). *Principles of marketing* (11^{th} ed.), USA: Prentice –Hall.

Liefeld, J. P., Wall, M. & Heslop, L. A. (2000). Cross cultural comparison of consumer information processing styles. In L. R. Kahle (Ed.), *Cross-national consumer psychographics* (pp. 29-43). New York: International Business Press.

McCarthy, E. J. (1996). *Basic marketing: A management approach*, Illinois: Irwin.

Mowen J.C. (1993). *Consumer behavior*. Third Edition. New York: Macmillan Publishing Company. PMid:10127062

Nowlis, S.M. (1995). The effect of time pressure on the choice between brands that differ in qulaity, price, and product features, *Marketing Letters*, 6 (October), 287-296.

Oyatoye, E.O. (2011). Advanced quantitative research methods, Ph.D. Lecture Notes on Conjoint Analysis, Department of Business Administration, University of Lagos, Lagos.

Peter, J.P & Olsen, J.C. (1994). *Understanding consumer Behavior*. Third Edition. Boston: Irwin.

Pilditch, J. (1976). *Talk about design*. London: Barric and Jenkins.

Pinson, C., & Jolibert, A. J. P. (1998). Consumer behavior: An overview of current approaches and issues. In M. F. Lambkin, Gordon, F. van Raaij and B. Helibrunn (Eds.), *European perspectives on consumer behavior* (pp. 5-59). Hertfordshire: Prentice Hall Europe.

Sengupta, J.Y. (2011). Effects of construal level on the price-quality relationship, *Journal of Consumer Research*, 38, (August).

Schiffman, L.G. & Knauk, L.L. (2007). *Consumer behavior.* (9th Ed.). New Jersey: Prentice Hall.

Wu, T. W., Day, R. L., & MacKay, D. B. (1988). Consumer benefits versus product attributes: An experimental test. *Quarterly Journal of Business and Economics, 27*(3), 88-113.