

AN EXPLORATORY STUDY OF THE RELATIONSHIP BETWEEN PACKAGING ATTRIBUTES AND CONSUMERS' PERCEPTION OF A PRODUCT/SERVICE

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ABSTRACT

This study investigates the relationship between packaging attributes and consumers' perception in six selected fast food service industry in Lagos state. In today's competitive marketing environment, consumers' behaviour differs in many ways, consumers have varying ways of making decision because of differences in perception, and how one gathers and interprets information determines how the individual acts or reacts to product/service. Therefore consumer perception of packaging attribute has a strong relation with consumer judgment of whether the product/service will satisfy the need. A survey design was used for the study; data were collected through questionnaire method using 5-point likert scale statement from 300 subjects of 20 Local Government Areas of Lagos State. An exploratory factor analysis was conducted to find out the latent constructs of fast food packaging attributes which reflect consumers' common idea of attribute category, seven factors, accounting for 65.88% of the total variation were identified. The attribute factors can be used as a basis for understanding of product packaging attributes and its influencing factors. Results provide information about what consumers are concerned about when they evaluate products and when making purchase decision.

Keywords: Consumer, Consumer Satisfaction, Consumer Perception, Packaging Attributes, Product Attributes.

1. Introduction

In consumer behaviour, perception refers to much more than the biological uses of sensory organs. It includes the way stimuli are coordinated through interaction and integrations by the consumer (Ikotun, Kabuah and Ogbunnu, 2015).

Perception is the process by which an individual selects, organizes and interprets information inputs to create a meaningful picture of the world (Zikmund and D'Amico 2007). Perception is viewed as how individuals see things, often arising from the differences

between the cost inputted into some product/service and the benefits obtained from them (Hun and Yazdanifard, 2014; Kurtulus and Okumus, 2010; Wang, Yang, Song and Sia, 2014; Olotu and Ogidi, 2014).

Consumers select varying ways to meet their needs, sometimes because of differences in perception, thus, how we gather and interpret information from the world around us means a lot (Koranteng, Ntiamouh Owusu and Owusu; 2016). Individual perception largely determines how an individual acts towards some products/service or even to an organization and could change a consumers' behaviour towards other brands and which may also changed that of the people close to them (Olotu and Ogidi, 2014; Hun & Yazdanifard, 2014). Perception quality depends on the level of expectation and satisfaction (Rajasenan, Manaloor and Abraham, 2012).

Customer perception pertains to how individual form opinions about companies and merchandise offered through the purchases they make. Companies would have to apply customer perception theory to determine how their customer's perceive them and to develop marketing and promotional strategies intended to retain current customer's while attracting new ones. The perception of an organization that is reflected in the association held in consumer memory is known as corporate image (Keller, 2003). Images and perception are created through all the senses and feelings experienced through product usage, customer service, the commercial environment and corporate communications (Smith & Taylor, 2004).

Corporate image is external perception of all human and physical resources of an organization, especially characteristics, such as employees' behaviour and attitudes, and communication level (Pampalovi, 2006). While Keller (2013) sees it as the sum of how people perceive the organization generally. Customer

perception of and preference for a product is measured by the various types of brand association held in memory through brand image (Keller, 2013). Corporate image no doubt is concerned with the imprint an organization forms in consumers' minds and how the consumers hold the perception arising from this imprint. An organization's positive corporate image is accomplished through the generation of customer satisfaction and loyalty (Kabuoh, 2017). Gioia, Chuth and Corley (2000) noted that in today's business environment, the role of corporate images is fundamental for businesses to strive. The perception of various products attributes gives the first impression to consumers, particularly, when they have limited time and are bound to do a thorough research on a new product. This perception of attributes also has a strong relation with consumer judgment of whether the product will satisfy their needs (Zhang, Rau and Zhou (nd). Various factors have contributed to packaging growing use as a marketing tool (Kotler, 2001). According to Wansink (1996) package must perform some sales tasks activities such as attract attention, describe the product's features, create consumer confidence, and make a favourable overall impression, rising consumer affluence which means that the consumers are willing to pay a little more for the convenience, appearance, dependability, durability and prestige of being a better package. It is therefore, imperative that firms show concern about the consumers' perception. Consumers' oriented program can increase customers' positive feeling toward a product/service (Bhadauria, Bhatnagar & Ghose, 2014; Ateboh – Briggs, 2014) Customer perception of any organization largely lies on the corporate image, how it presents itself and perceived by the stakeholder (consumers) through packaging. Kupiec & Revell (2001) examined and found positive influence of packaging on a purchase decision for packaged food product.

Packaging characteristics is substantively important for sustainability, especially in an intense competitive environment couple with the effect of recession in the nation. Consumers generally perceive product attribute in a conceptual way. The notions of products' attributes are formed and should exist during the perception process. Packaging is crucial from consumers' perspective because it is the first attraction the consumer comes in contact with in the environment. Beneke (2010) puts it as the "salient salesman", as it informs consumers of the qualities and benefits of the product. Customers are valuable assets and the ultimate end users of any product. Consumer perception of product attribute can influence the formation and changes of attitude thereby impose its influence on buying behaviour (Zhang et al, nd).

Packaging plays a leading role in building a private label brand and has a long-lasting impact on the minds of consumers (Fielding, 2006). Properly delivered information on packaging generates strong impact on the consumers purchase decision. The behaviour of consumer toward packaged product characterized by different stages of decision making process influence by image or perception plays a greater role in decision makings.

2. Literature Review

2.1 Consumer

Consumers are valuable assets for any organization as they are the ultimate destination of any product or service, thus success of any organization depends on the satisfaction the consumer received (Anju, JRF). In consumer behaviour, perception refers to the way stimuli are coordinated through interactions and integrations by the consumer (Ikotun, Kabuah and Ogbuanu, 2015). Consumer's orientation program can increase consumers' positive feeling towards a

product/service (Ateboh-Briggs, 2014; Bhadaurig, Bhatnagar & Ghose, 2014). Consumers' choice behaviour is a mental process that transforms perceptions of several optional causes of action into a choice. It is considered to include any form of intuitive, automatic and impulsive choice behaviour as well as conscious deliberate decision making, also includes a large, heterogeneous range of process (Vandekaa, 2010). Perception is simply viewed as how individual sees and evaluates things, often arising from differences between cost imputed into a product/service and the other benefits derived (Hun and Yazdaniford, 2014; Olotu and Ogidi, 2014; Wang, Yang, Sang and Sia, 2014). It is important that firms show concern about the consumer's perception, as this may create and form a critical impression of the product/service or the organization at large which might affects repeat purchase. Keller (2013) noted that consumers form expectation based on the product/service performance over time. According to Karim and Chowdhury (2014) research has established that customer perception of service quality depends on customer's pre-service expectations. However, Douglas and Connor (2003) noted that service quality is not only assessed by the end results, but also on how it is delivered during the service process and its ultimate effect on consumer's perception.

2.2 Consumers' Perception

Schiffman and Kanuk (2007) see perception as the process by which an individual selects, organizes and interprets stimuli into a meaningful and coherent picture of the world. It means that perception can be described as how we see things and the world around us. The perception of various product/service attributes gives the first impression to consumers, particularly, when they have limited time to do a thorough research on a new product, and also perception of attributes

has a strong relation with consumer judgment of whether the product will satisfy their needs (Zang, Rau and Zhou, nd). Also Zang et al noted that consumer perception of product attributes can influence the formation and change of attitude, thereby impose its influence on buying behaviour.

2.3 Product Attribute

Lancaster (1966) noted also that people do not acquire products for the sake of the products themselves, but for the utility that is produced by characteristics of the product attributes. According to Grunet (1989), product attribute is any aspect of the product itself that can be used to compare product alternatives. Product attributes are requirement factors placed on a product from a consumer (Zhang et al). Attribute is said to be important if a change in the individual's perception of that product attribute leads to a change in the attitude towards the product (Jaccard, Brinberg & Ackerman, 1986). Attributes importance is characterized by the salience and determinacy of an attribute. Salience refers to the accessibility of the attribute, and determinacy to the correlation between an attribute and overall preference. Zhang et al, Fishbein and Ajzen (1975) proposed multi-attribute attitude model, in which he stated that the attitude towards certain products will be reflected by the evaluation of important attributes, then attitude can be assessed by measuring the evaluation of these attributes.

$$A_o = \sum_{j=1}^n b_{ij} e_{ij}, \text{ where,}$$

A_o = Attitude towards the product.

b_i = The strength of belief on product attribute i ,

e_i = The performance rating of product attribute i .

n = Number of important product attributes.

2.4 Packaging Attribute

Stanton (1985) sees package as an integral part of effective product planning. When packaging is primarily a protective motive, the design decision are technical and involve comparative strengths costs of materials and shape but when it is primarily for promotion device, its elements must attract consumer's attention, hold their interest and build their desire to buy. Package design is a convenience utility of want-satisfaction to consumers in term of convenience in product handling, easy display in retail stores and stimulating consumption by increasing the unit of purchase (Arthur, 2004).

Arthur (2004) noted that package size may affect the total consumption of a product. So it dictates the rate of consumption due to the fact that it may be individual or group. Shanahan (2015) viewed packaging not only from professional look but also to ensure security and protective in nature. According to Moss (2013) for most, brands recognition is everything but also quick to posit that brand recognition is not about making a good first impression, it is about up-selling, creating a new way, trust and pleasure established by initial sales for the consumer to make a repeat purchase. Moss (2013) emphasized that brand recognition is even more important to most companies than rely on impulse purchase, when it comes to branding and packaging, color is crucial attribute because its often used to trigger sensory reactions and emotions, and to prompt consumers to make assessments about the brands.

In an article entitled "impact of color on marketing" researchers found 60 – 90% of people make snap judgment about products within 90 seconds based on color alone (Warlop, Ratneshvar and Stijn, 2015). Prudent use of colors can contribute not only to differentiate products from competitors, but also to influence moods, feelings and attitude of consumers towards certain product. In

essence here is a strong correlation between the use of colors and consumers' perceptions of a brand's personality (Jahre and Hatteland, 2014). Bahn, Lee, Lee and Yun (2007) studied how feel of material, elasticity tactile oneness, shape and color of the passenger car crash pad influences satisfaction. The results indicated that softness of material was the key affective response factor of satisfaction. Packaging attributes also have influencing effect on the consumption of most fast food product in a social gathering. Seva, Duh and Helander (2007) found strong relationship between attributes of mobile phone and purchases effect. Attributes can increase feelings of contentment, encouragement, and feelings of amazement (Zhang et al, nd).

3. Methodology

From the literature discussion, it is clear that the relationship between packaging attribute and consumer perception do exist. However, there is a lack of studies regarding the fast food industry in relation to consumer most preferred and their performance. To address this paucity of attention, a survey was conducted with the primary aim of investigating the relationship between packaging attribute and consumers' perception in determining customers' satisfaction and preferred fast food outlet. Items were developed by the researcher to cover all the important aspects of packaging attributes. All items were measured with 5-point likert scale anchored at "strongly disagree" and "strongly agree". Two criteria were used to determine which packaging

attribute information will be presented in the structured questionnaire, the respondent should understand what the specified attribute is, and the attribute should be relatively important to consumers during their assessment of perceived usability. Initial items of attributes were firstly examined by the researcher according to the correlation between items and then critiques of items were sought from a focus group discussion. The aim of focus group discussion was to check if there were ambiguities in the wording of items, if there were important missing item regarding packaging attributes, and if there were any inconsistencies in the arrangement of items and overall questionnaire design, several items were adjusted and wording modifications were made from the critiques. The feedback were incorporated in the final instrument (questionnaire) arising to 26 items. These were categorized into physical, functional and beneficial attributes which is inconsonance with the study of Lefkoff-Hagins and Mason (1990). All the items indicated acceptable construct reliability as the Cronbach Alpha recorded are under acceptable range $\alpha \geq 0.67$ (Girden, 2001).

3.1 Data Collection

The questionnaire was administrated at the point of purchase personally to a broad sample in the 20 total local government areas of Lagos State, Nigeria including customers and employees working in the six selected fast food industry. A total of 300 questionnaires were administered but 215 responses were collected given 72% of response rate.

4. RESULTS

4.1 BIO-DATA ANALYSIS

Table 1: Characteristics of Respondents

Variable	Category	No. of Responses	Percentage (%)
Age	Less 20yrs	37	17.21
	21yrs – 25yrs	98	45.58
	26yrs – 30yrs	60	27.91
	31yrs and above	20	9.30
Gender	Male	98	45.58
	Female	117	54.42
Educational Level	Below SSCE	40	18.60
	Undergraduate	80	37.21
	Graduate	66	30.70
	Post-graduate	29	13.49
Occupation	Students	95	44.186
	Employee	50	23.256
	Other specify	70	32.558
Monthly income	Less than 40,000	120	55.81
	40,000 – 109,000	67	31.16
	110,000 – 150,000	21	9.77
	160,000 and above	7	3.26

Source: Survey Result, 2017.

Table 1, depicts that more than half of the respondents are educated while the sample represents both female and male with a wide range of consumers with different age, level of education and income. The majority of the respondents are young people with high level of education and low income level.

Exploratory factor analysis is a method for reducing the dimensionality of multivariate data and understanding patterns of association among variables, with underlying common factor model. The model assumes that the observed variance in each measure is attributable to a relatively small number of common factors and a single specific factor. The objective of exploratory factor analysis is to identify the common factors and explain their relationship to the observed data, and

the factor solution is derived from the patterns of association in the observations (Lattin, Carroll & Green, 2002; Kothari & Gaurav, 2014).

An exploratory factor analysis was conducted in SAS to determine the “Latent traits” of the items of the attributes. Principal axis factoring approach and the varimax rotation method was used. After deleting one item, causing almost equal loadings on two common factors, account for 62.88% of the total variation of the data. Items were then assigned to the common factors, given the criteria that factor loadings of items should be higher than 0.5. The results of exploratory factor analysis, is shown in table 2 below.

Table 2: Internal consistencies, mean, standard deviations and factor loadings of attribute item

Factors	Items	$\bar{X}$	SD	Factor Loading
Common function ($\alpha=0.89$, variance accounted for = 4.27)	It is a container made from material that can be easily handle	5.87	1.263	0.78
	The function of storage and handling	5.97	1.199	0.82
	Functions as protective because of damage	5.95	1.274	0.85
	Brand for product differentiation (identifying purposes)	6.04	1.087	0.77
Appearance ($\alpha = 0.79$, variance accounted for = 3.46)	Attracted by the appearance to the product	5.01	1.448	0.75
	Appearance can draw my attention and if comfortable I buy	4.92	1.450	0.72
	Body color and shape are important to me	5.04	1.395	0.73
	Size and conveniences are important to me	4.85	1.370	0.65
	Great pleasure to associate with special design material that shows status	4.61	1.549	0.55
Body design ($\alpha = 0.69$, variance accounted for = 2.15)	I think particular body design that shows status is more suitable for me	2.44	1.281	-0.97
	I think that the body design is not important as far as the package	5.56	1.281	0.97
	I think that the body design is not important as far as the package is durable	5.97	1.199	0.82
Promotion information function ($\alpha= 0.67$, variance accounted for 2.11)	Capable of getting information about the product use	5.07	1.600	0.63
	Capable of attracting and retaining	5.26	1.436	0.59
	Consumers being able to operationalised the details as prescribed	4.08	1.488	0.70
	Giving you a class status of usage	4.61	1.549	0.55
Utility function ($\alpha= 0.70$, variance accounted for = 2.44)	It can be used to store other things (other usage purpose)	3.93	1.722	0.55
	Easy to be dispose off after use	4.98	1.607	0.75
	Can make money by selling it	3.93	1.722	0.55
	For convenience purpose	4.08	1.488	0.59
Brand ($\alpha=69$, variance accounted for = 1.92)	Buying a certain well know brand (place)	5.13	1.657	0.65
	I choose brand when eating in a certain areas	3.43	1.625	0.75
	Buy certain fast food from certain brand (place)	4.27	1.939	0.57
	Buy because of brand and logo	4.85	1.370	0.65
Product image ($\alpha = 0.71$, variance accounted for = 1.61)	I believe the packaging design partly represent my life style	4.89	1.457	0.71
	I believe it is fanciful and dignifying	4.92	1.450	0.72

Source: Survey Result, 2017.

5. Conclusion

The study seeks to investigate the relationship between packaging attributes and consumers perception for fast food service industry. It is established in the study, that there is no precise definition of packaging attributes for fast food providers, as consumers generally perceive packaging attribute in a conceptual way. The notion of product attribute and packaging attribute are formed and existing during the perception process. Previous studies mainly considered individual attributes, without a systematic view of how all the attributes influence perception as a whole of which this study fills the gap. The exploratory factor analysis was appropriate and adequate to find out the latent constructs of product packaging attributes, which also reflect consumers' common idea of attribute

categories. The eight factors were identified which are common function, appearance function, utility function, body design function, promotion/information function, brand function and product image function, they accounted for 62.88% of the total variation. Some important factors are identified such as common function and appearance. Since people make use of the fast food service daily to have their meals and derive satisfaction in their life. The ease use of input methods influences their perception of common functions. The quantitative approach used in this study can be beneficial to similar studies of consumer products. Results of this study can be easily and smoothly implemented into design and marketing practice as a perceptive model.

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