

# Environment & Brand Choice of GSM Handsets: An Assessment of the Purchase Behaviour of University Students in the Niger Delta

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### **ABSTRACT**

The study focused to determine the nature of the relationship between endogenous and exogenous environmental variables and brand choice as it pertains to the purchase behaviour of GSM phones by University students in the Niger Delta region of Nigeria. It also set to find out whether factors of personality, attitude, perception, learning, motivation, family, peer group, technology, competition, economic and socio-culture can predict brand choice. The survey method was deployed through the use of questionnaire forms – these were targeted at 6 Universities in the region using stratified

sampling. Each University was limited to 100 forms; of 600 forms administered, 566 were successfully retrieved giving a response rate of 94%. Regression statistics was used to test the significance of the 11 predictor variables under enquiry at 0.05%. The outcome revealed the factor of 'competition' to be significant in predicting brand choice-making among student. ten (10) other factors were not, this is despite their positive correlation coefficients with brand choice. This led to the rejection of the null hypothesis in hypotheses 1 and 2 and acceptance of its alternate hypothesis which purports the presence of a positive relationship. The null hypothesis in hypothesis 3 was accepted given the significance of only one factor. The study recommends that brand managers of handsets should pay attention to other factors not just environmental such as customer psychographic variables and nature of products, etc., in addition to the factor of competition to enhance purchase. Also, CEOs of GSM Handset merchandizing enterprises should evolve better attention-getting strategies such as brand repositioning and rejuvenation techniques. Lastly, a model modification is necessary to add better value to the Environment-Brand-Choice Model used in this study.

**Keywords:** Endogenous and Exogenous factors, Brand choice, Brand preference, Purchase behaviour, GSM Handsets

## 1.0 INTRODUCTION

All through documented stages of social- intuitions, emotions and social behaviours at the economic development and indeed corporate and point of purchase is influenced by environmental entrepreneurial evolutions, research studies conditions (Kotler and Keller, 2008; Jobber, indicate that environment is a key influencer of 2014). In this regard, Iyayi (2005) inciting

business decisions (Ogbor, 2019; Ekakitie 2018; Oghojafor, 2000). Indeed and in the true environment and the challenges, it possesses account for why business executives are often on their toes crafting policies and strategies that can impact the business success (Thomas and Strickland, 2015; Agbonifoh 2008). Studies point to the fact that the global marketplace is in a state of flux and there is a need for strategic and policy initiatives to guide business operations to attain corporate goals. (Pereault and McCarthy, 2002).

No one is immune to the environment in which he/she operates. Not even the Papacy or other ancient Institutions of note. Thus for entrepreneurs and industry captains, the dictates of the environment impact the type and nature of products/services produced for a specific market and also, it drives the competitive pattern adopted on the way to realizing the organisation mission (Ekakitie, 2019; Thompson and Strickland 2015).

On the side of the consumer and his purchase decisions, the environment is touted to play key roles. In the annals of marketing, many studies abound that indicate that customer

Zaltman (2003), and Cooper and Sawaf (2004) business executives that promotional efforts and adduced that people have capacities to manifest how well customary beliefs are infused into them self-management, social awareness about are the needful equations that need balancing themselves and their environment; and also can before the right level and several customers can demonstrate competence in decision making. show up to make purchases (Kotler and Keller, This has implications for buying decision and 2012; American Marketing Association, AMA brand choice making. Many theories of (2016). All of these are mere assumptions not behaviour such as the theory of reasoned actions backed by empirical studies in Nigeria.

(TRA), (Fishbein and Ury 1975) the theory of

planned behaviour (TPB) Harrison et al. (1997)

Within the context of this study, factors suggest that human beings do evaluate options which are environmental (internal and external) and consequences of their actions before they to the buyer such as personality, attitude, engage in it. It is also a truism that for a customer perception, motivation and learning (endogenous to make a purchase choice, he/she takes into variables) and such factors as family, peer group, consideration the various influencing competitiveness, technology, economic, environmental factors surrounding the purchase legal/political, and culture etc. (exogenous situation and eventual choice. He no doubt variables), are being hypothesized to influence rationalises them, most times, within a short brand choice. Many scholars have investigated period, and makes the particular choice of the impact of environment on brand preference product/service which he expects will discharge (Kendampuly and Susharton 2000, Kapferer his want or need state. 2005), others have explored how factors within

the customer drive him/her to make certain

In most purchase situations, what purchase choices based on certain preferences, influences specific product choice can vary with interesting outcomes (Stephen, Maznah, widely. Many executives think providing Nabsiah, Ishak and Aman, 2017; Nissim, 2012;). conducive environment immune from traffic and However, this study's intendment is focused on rush will do the magic. Others think economic revealing how much internal and external factors conditions of price, and affordability are key (as enunciated above) can influence the specific indicators of purchase choices and purchase brand choices students as customers make in the actions. There is also the contention among brand of Mobile Handset in Nigeria. It will be

interesting to see which factors would be significant influencers and which would not.

**Study Objectives:** In the light of the above, one can surmise the general aim of this study is to determine:

1. The relationship between endogenous variables and purchase choice.
2. The relationship between exogenous variables and purchase choice.
3. If personality, attitude, perception, motivation, learning, family, peer group, competitiveness, technology, economic, and culture impact brand choice.

**Study Questions:** In the light of the above objectives, the following research questions become imperative to drive this study.

1. What is the relationship between endogenous variables and brand choice?
2. What is the relationship between exogenous variables and brand choice?
3. Can personality, attitude, perception, motivation, learning, family, peer group,

competitiveness, technology, economic, and culture impact brand choice.

Consequent to the stated research questions, the following research hypotheses are herewith formulated to test the assertions:

**Hypothesis One:** There is no relationship between endogenous variables and the brand choice customers make

**Hypothesis Two:** There is no relationship between exogenous variables and the brand choice customers make

**Hypothesis Three:** Personality, attitude, perception, motivation and learning, family, peer group, competitiveness, technology, economic, and culture do not impact the brand choice of customers.

## 2.0 LITERATURE & THEORETICAL REVIEW

### 2.1 Conceptual Expositions

The marketing literature is rich with the concept of brand, branding and the choice of consumers. Brands are usually associated with products. Technically speaking, a brand is a name, a term, a

design, a symbol, or any other feature that identifies one seller's goods or service as distinct from those of other sellers. The concept of the brand itself has various dimensions – these include dimensions like the brand name which is that part of a brand that can be spoken of – letters, numbers, or words. The brand mark, or logo, is that part of a brand name that cannot be spoken and is most commonly a symbol, picture, design, distinctive lettering, colour or a combination of these. It is recognizable by sight but is not pronounceable (Kotler, Keller, Agnihotri, and Hague 2013; Nissim, 2012).

Literarily speaking, the concept of choice received much attention from classical economists of the early 19<sup>th</sup> century. It was a concept used to teach the basic principles of economics to underscore how human behaviour is informed by the scarcity of economic resources. Choice connotes the act and or process of selecting an item from an array of items by set criteria of one's preference. The choosing process empowers the decision-maker with the opportunity and power to decide on whatever one wants.

The choice or choosing process can easily be equated to decision making especially in the task of a buyer faced with an array of brands from which he/she must make a selection. Hence scholars like Kotler, (2013) and Agbonifoh (2008) observed that the decision to select from among alternatives can be viewed as strategic choice-making because the decision involves focusing on a few alternatives (products, brands, etc) considering the selection factors, evaluating the alternatives against set criteria and making the actual choice. In the light of the above, Kazmi (2005) identifies procedural steps in making choice: focusing on alternatives, considering the selection factors, evaluating strategic alternatives and making the strategic choice.

However, in the process of choice-making for any brand of GSM Handset, the individual customer is often influenced by factors that singularly or in combination exert influence on him. Some of the factors include familiarity and commitment to the GSM brand, the degree or extent to which he/she feel dependent on it, possible risk associated with selecting the brand, timing in the purchase situation and or process, personal style or

routine in decision making and competitor considerations. Studies tend to indicate that the choice process can be affected by age or the process of ageing. Other studies indicate that choice can also be influenced by time. For instance, studies by Carstensen, et al (2003) suggest that when people are faced with limited time, they tend to prioritize using what would seem emotionally meaningful rather than knowledge-based of the choice of brand. In respect of age, studies indicate that older consumers are more persuaded by the message that helps them realize emotionally meaningful brand choices and also by messages that appeal (promomessages) to their emotional instincts rather than rational appeals (Fung and Carstensen, 2003).

Studies have also indicated that choice can be influenced by the type of communications that contains and convey cherished values of gains and ideals concerning choice brands. Researchers have also demonstrated a wide range of effects of regulatory focus on product preferences (Avnet and Higgins, 2006). Again brand choice can also be a factor of learning, especially learning of continuous functional mappings that relate to stimulus

and response continuum. Learning, therefore, influence cognition and entrenched belief systems that inform the selection of specific brands. According to Cole, et al (2008) through functional learning, an organism can acquire a judgement rule for correctly assigning each stimulus value encountered in a certain domain to one, and only one, response value. In their illustration of the diction of “the better the product, the higher its price” as a programmed rule, they opined that customers are better influenced by factors of awareness through learning and informed judgement than any other factors, - these in combination, according to them, influence specific choice of brand. This is the functional decision rule. Hence, they concluded that the ability to detect and learn such continuous relations (through strong/persuasive communications on brand ideals and gains derivable) often exert strong adaptive value on the customer throughout life. As Cole et al, 2008 emphasized:

*"To make good decisions, decision-makers must have information that is available,*

*accurate, and timely, but they also have to be able to comprehend that information*

*and its meaning. They need to be able to determine meaningful differences between*

*options and weigh factors to match their needs and values. Finally, they must be*

*able to make trade-offs and ultimately to choose.”*

In marketing research studies, attempts have been made to ascertain why customers react differently to a reduction in price and an increase in deal discount, especially when purchasing brands in the given product category. In this vein, researchers such as Briesch, Chintagunta and Matzkin (2001) investigated how customer brand choice may change given changes in prices and discounts for household products. Using parametric methods, they attempted to measure consumer response relating to brand choices. Outcomes indicate that while price effects on brand utility are approximately linear, discounts on deals are concave for most data set. This concave shape outcome on deals discount explains the conflicting findings in the existing marketing literature on the effect of discount.

Before now, studies tended to suggest that customers are sensitive to promo price variations and net purchase price (Blattberg and Nelson, 1990; Chintagunta, Jain and Vilcassim, 1991). From these studies, it was revealed that consumers react differently to both price and deal variations. The study of Briesch et al (2001) thus corroborates this generalization.

Behaviourally in marketing literature, the brand choice can be a function of motives on the part of the consumer. Thus motive act as a springboard that propels the customer in the desired direction so long as the customer perceives that it will lead to his acquisition of the right level of satisfaction. Often, a complex reasoning process is involved and the intention of customers can be predicted if such motives are clearly understood. One of the very key attributes used in gauging buyer intention in consumer behaviour literature is the Fishbein Behavioural Intention Model. It has the propelling component of furnishing certain psychological variables that drive customers in their purchase decision. A decision to buy or not to buy entails some degree of active reasoning.



Conceptually therefore the theory of reasoned action, initially posited by Ajzen and Fishbein (1975), in a generalized approach holds that:

*“...human beings are usually quite rational and make systematic use of the information available to them... we do not subscribe to the view that human social behaviour is controlled by unconscious motives or overpowering desires, nor do we believe that it can be characterized as capricious or thoughtless. Rather...people consider the implications of their actions before they decide to engage or not to engage in a given behaviour”*

No doubt the theory of reasoned action spotlights information availability as crucial to the reasoning action of the customer as a driver of his/her evaluation processes – thus the theory underscores the presence of a stimulus, which provides the drive to reasoning, evaluation, selection and eventual purchase the customer hopes will yield a desired level of satisfaction.

Because every customer seeks satisfaction, several individuals take physical steps to intentionally acquire specific choices in products/services that can yield desired satisfaction level.

Motives drive intentions and intentions are a complex of mental abstraction. In this regard, Kotler's (2013) conceptualization of the human mind as a “black box” still holds relevance. Intentions to buy or not to buy choice GSM brands are not only attitudinal but can also translate into behaviour in terms of purchase action for chosen brands.

### **3.0 CONCEPTUAL FRAMEWORK**

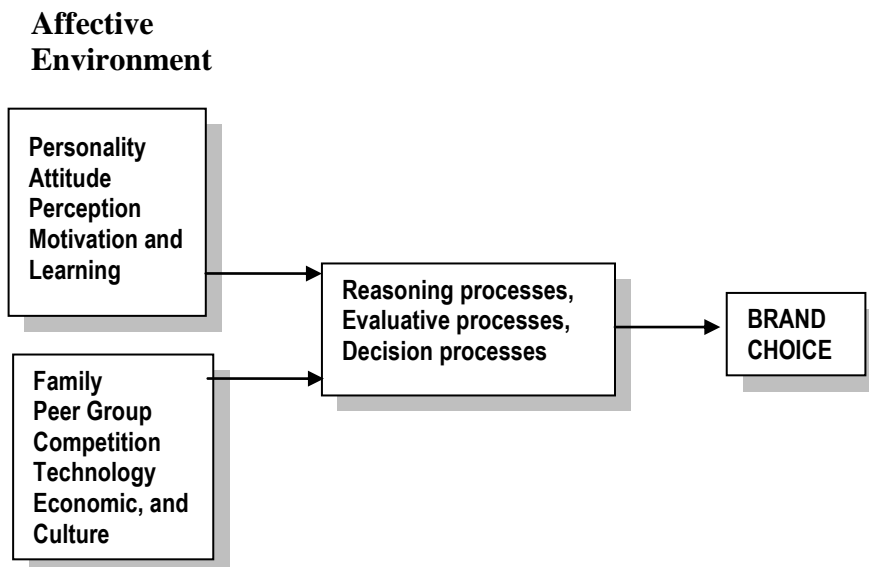
The predictive factors in this study are conceptualized in the framework below. The environment-brand-choice framework is conceived as a model to give expression to the reasoning that the environment can both shape and predict brand choice making. The model expresses the environment in two broad dimensions, viz: the 'affective environment' (endogenous) and the 'inert environment' (exogenous). In the thinking of the researchers, the affective environmental factors have a strong effect on a customer's affect and emotional inclination in the sense that factors contained therein have cognitive embellishments that can propel and motivate specific choice making of brands at the point of purchases (POPs) (Robbins, 2015; Nissim, 2012). The inert



environmental factors have more physical and externally induced factors motivating the buyer in his/her quest to rationalize a brand choice of GSM handset on (given

the purchase conditions in the physical buying environment) which specific choice will discharge identified need states at POPs.

### The Environment-Brand-Choice Model



### Inert Environment

total of ways in which an individual reacts to and interact with others (Robbins, 2015). Personality has also been seen as the total of characteristics that differentiate people or the stability in a person's behaviour across different situations; it is a dynamic organization within the individual of those psychological systems that determine his behaviour and thoughts (Ekakitie, 2015). Studies have shown that buyer behaviour and such matters as product choice-making and preferences are

*Source: Researcher's conceptualization, 2020*

### 3.1 The Endogenous/Affective Environment

**3.1.1 Personality:** Personality studies have received a lot of attention from scholars over the years, especially researchers in the domain of psychology. Personality underscores the reason why people as individuals behave the way they do as a result of trait composition. It is the

influenced by personality. Robbins (2015) has shown that personality types across types A and B continuum influence competitiveness, achievement and entrepreneurial drives of individuals and organizational leaders.

**3.1.2 Attitude:** Conceptually, attitudes are behavioural tendencies that tend to favour or disfavour particular phenomena. Robbins (2015) avers that attitude is simply evaluative statements or judgements concerning objects or in the words of Feldman (1996), it is a learned predisposition to respond favourably or unfavourably to a particular person, behaviour or belief or objects. Writers such as Armitage, and Atkinson, (2015)) aver that attitudes are object-directed, are learnable, have a valence, can be consistent and occur in circumstances and situations. The researcher's reasons that buyer attitude is the key factor in operation when consumers develop at POP a consistent rejection of certain products that have low or negative valence. In the researchers' reasoning, the choice to avoid a product or category of products is inherent in a programmed cognitive belief system of rejection – termed 'cognitive

avoidance'. The power that drives this tendency to accept or reject any brand is internal and is behaviourally expressed in attitudes and has implications for customer choice making.

**3.1.3 Perception:** This concept is regarded simply as 'the way we see things' or 'the way we think it is. It is inert and internal and helps to organize thoughts and impression to give meaning, understanding and interpretation. Robbins (2015) defined perception as the process through which people receive, organize and interpret information from the environment. Long before now, writers in psychology like Engels, et al (1986) think perception is the point where meaning is attached to stimulus. The perception was touted to pass through a process: a) exposure to a stimulus (e.g. encounter with a new product brand) which provokes attention, b) the perceiver tries to categorize the product via engaging in basic feature analysis to see what value it could hold, c) customer uses his knowledge and experience to organize his basic sensory impression via information processing to confirm or disconfirm the integrity of the brand category, d) customer calls on the

appropriate schemata and subjects it through *cue checks*. If the schemata are confirmed through 'reasoning and analytical processes' the decision can be reached, f) confirmation completion is next, - it is the stage of confirmation and decision – a stage of choice making – the customer decides on the brand choice, g) the process of storage and retrieval – the customer had decided and known the brand to meet expectation or otherwise, develops a programmed behaviour to avoid or adopt the brand. Perception has a strong influence on buyer behaviour and brand choice.

**3.1.4 Motivation:** The study of wants and needs as it relates to giving direction to them and even energizing them are the fundamental underpinnings of motivation. For instance, a hungry person will direct his behaviour towards food and the thirsty customer will direct his buying behaviour towards a drink brand. In both cases, each person will engage in a more vigorous physical activity than an unmotivated person to fulfil the needs. Thus as Robbins (2015) opined motivation is occasioned by deprivation which creates tension, the tension leads to a series of activities

directed towards closing the gap between the state of deprivation and expectation. Hence, (Devi, 2017; Anshika, and Nisha, 2016) affirms that motivation involves forces within an individual that account for the level, direction and persistence of effort expended. In the conception of Ekakitie and Oladipo (2010) motivation stems from unsatisfied needs which creates and leads to tension, tension provokes a drive, this leads a customer to engage in search behaviour to find choice brands to discharge need states. A conditioning process leads to wanting satisfaction and an eventual reduction in tension. Scholars like Anshika and Nisha, (2016) also hold similar views.

**3.1.5 Learning:** Learning is the continuous improvement in skills and knowledge stock of people and organizations often accompanied by behavioural change as a consequence (Nadeem, and Hafeez, 2016). Thus individual persons (customers) and organizations engage in learning not just for knowledge sake but to deploy the knowledge to guide reasoning, evaluation and choice-making in the buying process. Achumba (2000) opines that the essence of

learning could be distinguished through the organized and purposeful behaviour of an adult and the disorganized and random behaviour of a child. Learning results from a combination of motivation, strongly perceived experience and repetition upon behavioural tendencies in response to particular stimuli or situation. Thus individuals and organizations learn to identify products, recognize them and form a cognitive belief system that enables them to choose from specific brands. Without learning of products, customers leave their fate to chance and may engage in the trial purchase and small quantities to reduce risk and have knowledge of the brand. Learning brings a relative permanence of change in behaviour consequent upon experience (Kreitner, 2014; Robbins, 2015).

Various approaches to learning have been identified – these have implications for marketing and brand choice making (Anshika, and Nisha, 2016). They include cognitive learning which is the study of the thought processes that underlie learning; thus through cognitive learning, individuals learn to drive cars by driving, learn a new language by speaking it, etc. Cognitive learning is further broken down

into latent and observational learning (Ekakitie, 2009, Umukoro, 2005) – *latent learning* consists of the acquisition of knowledge but not displaying what was learnt behaviourally until stimuli or situation provokes it. *Observational learning* is learning by observing. Thus a girl-child learns to bargain in the African market by watching her mother bargain, make product choices and payments. Thus learning is fundamental to buyer behaviour and choice making.

#### **4.0 THE EXOGENOUS/INERT ENVIRONMENT**

The Inert or exogenous environment consists of factors of family, peer group, technology, competitiveness, economic, socio-cultural and legal-political factors.

**4.1 Family:** The family is regarded by sociologists as the smallest unit of society. Several definitions have been proffered over the years to teach the concept. Literarily speaking, a family consisting of a household (i.e. a socio-economic unit) that live together having a father, mother and children. Several variants of the family have also been exhaustively taught in books of sociology and socio-psychology. In the African context, the

concept of family may have a looser underpinning (Umukoro,2005). Thus cousins, nephews and even good friends and neighbours that have lived together for ages can be family. Every family has a specific pattern of doing things and most times a behaviour exhibited by a person can be attributed to the family he came from. Behaviourally, specific family members have defined roles and responsibilities – the father, in an African context, is the 'economic man'; the mother acts like the 'prime minister' who ensures smooth administration of the home and takes lesser decisions of instrumental import (Achumba, 2000; Umukoro, 2005). Children and other relatives in the household constitute workers that help the mother to discharge household chores. Within the context of the family, purchase duties and choices of brands to procure for consumption fall largely on the mother i.e. for consumable goods. For goods of instrumental and capital nature, the father is the decision-maker on what brands to buy. Purchase behaviour and brand choice are also influenced by the stages in the family life cycle. The family life cycle imposes constraints on product choice and brand selection. It creates an opportunity

to buy products that have long been left out of consideration (Achumba, 2000; Agbonifoh,2008). As the family evolves, purchase pattern changes, children begin to move to live and form their family units. As they evolve, core family values, especially those of purchase and consumption nature remain sacrosanct as part of the strength and core consumption culture which are transmitted.

**4.1.1 Peer Group:** A foremost influencer of individual and group behaviour is the peer group. A peer group consist of individuals, and even organized units that share a common experience through close knitting. Individuals and persons may have passed through some form of social institutions like educational institutions, religious institutions etc., and have acquired training in defined areas for knowledge or skill acquisition. The peer groups thus in the course of their training are infused with or develop a certain style, ways and manner of thinking and acting which provokes the evolution of a shared belief system (Robbins, 2015). These in combination lead to the formation of strong attitudes towards defined purchase phenomena. Peer group members tend to

influence one another and in extreme cases, there is a manifestation of bandwagon behaviour. Certain norms are held strongly – in some cases, the norms assume the dimension of rules (Stoner, et al 2014). If such rules are violated by group members consequences in the negative direction are inevitable. This tendency among peer group members implies marketing especially in choice making for a GSM brand category. The choice for a brand in this wise may not be informed by logic and brand performance, but by subjective issues informed by bandwagon. In behavioural theory, peer group members manifest **herd behaviour**. Here the group leaders set the rules and dictate the direction and all other members follow. This implies that such issues of marketing import as individual freedom to exercise discretion on specific brands that will discharge needs and wants states are lost and the evaluative and reasoning process including privacy needs of the customer are wished away as the group ideology prevail.

**4.1.2 Technology:** Technology is considered one of the world's fastest agents of transformation that is a

consequence of change and innovation (Al-Damen, 2017). Technology is a product of innovation and inventions which prevail at a time and have an impact on the production of goods and services. Science is the bedrock upon which technology rest and it has theories and abstractions as its building blocks. The technology converts theories and abstractions into reality, for instance, tangible GSM brand. that has been well-differentiated in function and manufacturability. Technology both shape competition and exerts a macro effect on individual and corporate buying behaviour. According to Anshika, and Nisha, (2016) technology provides a wide range of challenges and concerns for today's business managers. Without modern technology, enterprises and industries lose their competitive edge (Thompsons and Strikeland, 2015; Kazmi, 2005; Oghojafor 2000). One strong and perhaps powerful impact of technology lies in its capacity to achieve economies of scale through mass production, making machines more efficient to warrant the lower cost and lower price thereby making consumers purchase more. A strong variant of technology of our times is the



information and communication technology ICT. The information age according to Ekakitie and Odanibeh (2016) makes technology an instantaneous culture of change and social marketing.

**4.1.3 Competition:** This connotes rivalry among firms – Thompson and Strikeland (2015) identified these forces to include suppliers (and their bargaining powers), buyers (and their bargaining powers), potential entrants (threat of entrants), and substitute firms (threats of substitutes products and services). Competitiveness according to Ekakiitie (2021) throws up critical issues of economies of scale, product differentiation, capital requirements, and switching costs. Other issues include how to cope with challenges and improvements in channel efficiency and cost disadvantages. In consumer behaviour, competitiveness and rivalry offer the consumer leverage to make product choices through the arrays of brands offerings, packaging and promotional activities geared to stimulate demand (Jobber, 2014). Promotion and marketing communications through media wars help the uninformed

customer make better decisions on brand choices available.

**4.1.4 Economic factors:** The economic environment exerts influence on the individual and household consumption of products and services. Fiscal policies of government point the direction of public spending, it determines sectoral allocation, and such issues as taxation and borrowing. More tax on individual or organizations can reduce disposable income and savings (Ekanem and Iyoha, 2015). This has a linear impact on purchases and frequency of purchases including future investment and thus, can undermine the volume of purchases and frequency (Kotler and Keller, 2008). On a firm level, government economic policy determines which industry booms and which shrinks which has more leverage to borrow and at what interest rate. Ekakitie (2019) opines that the economic environment has a compelling effect on consumer behaviour and brand choice-making within the context of prevailing economic circumstances which affect his spending, including scarcity and choice indices.

**4.1.5 Socio-Cultural factors:** By culture we mean simply the way people and individuals do things, conduct their affairs and generally the pattern of living. For Stoner, et al (2014) culture represent a set of important understanding, such as norms, attitudes, values and beliefs shared by members of a group or society. Kreitner's (2014) conception has a rule orientation. For him, culture is a framework that guides day to day behaviour and decision making which is pervasive, shared and transmitted. Thus according to Robbins (2015) categorization, culture has some variances: cognitive component, material culture, normative component. He also posits that it has some functional responsibilities to society and its people in that it fulfils a socialization function in addition to it being learnable, prescriptive and adaptive. It exerts influence on what people do, what they prefer, how they think and behave and what they buy. Concerning this study, culture has a macro effect on individuals, organization and society. It is at the fundamental of consumption and purchase behaviour. At this juncture let us now attempt to investigate these variables

preparatory to testing them via a viable research method.

## 5.0 METHODOLOGY

The focus of the study is to determine what factors drive the choice making on GSM handsets of the student population in some Nigerian universities. Primary data is therefore a necessity to effectively captured opinion among students – therefore, the scope of the study is the university environment. This environment is chosen because students and young people are known to use various brands of handsets and have cognitive needs and knowledge of brands in the GSM market. This is in addition to knowing their capabilities, functions and salient features inherent in the brands in the market. Survey research methods are therefore of essence in driving this study.

In the light of the above explanations on study scope and sample population, questionnaire forms were carefully constructed and worded to enable the capture of relevant opinion from the students. The sample population are students in six universities in the Niger Delta region of Nigeria. For cost reasons questionnaires given are limited to 100 for

each university. There are six states in the Niger Delta region of Nigeria and each university received a hundred questionnaires. The sampling technique adopted therefore is stratified, with every segment having equal opportunity to be sampled. No university received above 100 questionnaire forms. The method of administering is strictly accidental – thus, no specific departments or faculties were targeted. Any student that came along to public places like libraries and eateries in

the campuses were sampled, thus convenience was deployed to capture data within university strata. This is to eliminate any possibility of bias in the sampling process. The study adopted a 5-point Likert scale for calibration of the instrument. Entering was 5 – 1, giving stronger weight to opinions that positively strongest and lower weight to weaker opinions in descending order. The following are the universities targeted.

### 5.1 Sample Size Derivation

| <u>Names of Universities in the Niger Delta</u> | <u>Forms distributed</u> | <u>Forms retrieved</u> |
|---|--------------------------|------------------------|
| 1. Delta State University, Abraka               | 100                      | 96                     |
| 2. University of Benin, Benin City              | 100                      | 94                     |
| 3. Niger Delta University, Bayelsa State        | 100                      | 97                     |
| 4. University of Port Harcourt                  | 100                      | 99                     |
| 5. University of Calabar                        | 100                      | 89                     |
| 6. Akwa Ibom State University                   | 100                      | 91                     |
|   | ====                     | ====                   |
| <b>Total</b>                                    | <b>600</b>               | <b>566</b>             |

Validation of the study was through a pilot survey of two universities: the University of Benin and Delta State University. This afforded the avenue to correct and make updates. Again to improve the validity of the study forms, a face-to-face technique was used via

administering forms directly to respondents and collecting them back instantly not giving room for prolonged periods that could pose problems. To make sure the instruments evoked the right meanings, the instrument was screened by two professors of management sciences

and found to adequate in 'talking' to the right population. This took care of the question of the reliability of the measuring forms.

In this vein, of the 600 forms distributed across the six universities, it was possible to collect back 566 forms. This makes a response rate of 94% possible. Whereas Currant and Blackburn (2001) posits that any study with a 60% response rate is considered adequate, this study has achieved a 94% response.

Variables were operationalized as expressed below:

### 5.1.1 Dependent variable

$Bc = f(\text{attr, perf, aft, consist})$ ; where:

Attr = brand attraction, perf = performance, aft = affect and consist = brand consistency

### 5.1.2 Independent variable

Personality, Ps; Attitude, At; Perception, Pc; Motivation, Mt; Learning, Ln; Family, Fa; Technology, Tc; Competition, Cmp; Economic, Ec; Socio-cultural, Clt and  $\epsilon$ , error term.

Brand choice = Bc

The Model:  $Bc = \beta_0 + \beta_1. Ps + \beta_2. At + \beta_3. Pc + \beta_4. Mt + \beta_5. Ln + \beta_6. Fa + \beta_7. Pg + \beta_8. Tc + \beta_9. Cmp + \beta_{10}. Ec + \beta_{11}. Clt + \epsilon_1$

**Table 1**  
SUMMARY OUTPUT

| <i>Regression Statistics</i> |             |
|------------------------------|-------------|
| Multiple R                   | 0.253498209 |
| R Square                     | 0.064261342 |
| Adjusted R Square            | 0.045681694 |
| Standard Error               | 0.750832688 |
| Observations                 | 566         |

The model summary of the regression is depicted in Table 1 above. It can be observed that the 11 variables measured have just 25% in terms of the degree of association. This means that as much as 75% is unaccounted for in the dependent variable, brand choice. This deficiency is observed among the variables hypothesized to predict the brand choice of GSM handsets among the Universities sampled. Again, from the  $R^2$  in the same table of summary, we find a mere 6%. This means that only 6% of the independent variables can be accounted for in the dependent variable – brand choice. This statistically, portrays the inadequacy of the model or specifically, that other variables need to be factored in

before it can sufficiently predict the dependent variable.

**Table 2**

ANOVA

|            | <i>df</i> | <i>SS</i>   | <i>MS</i> | <i>F</i>    | <i>Significance F</i> |
|------------|-----------|-------------|-----------|-------------|-----------------------|
| Regression | 11        | 21.44822356 | 1.949839  | 3.458695262 | 0.000111178           |
| Residual   | 554       | 312.3173482 | 0.56375   |             |                       |
| Total      | 565       | 333.7655717 |           |             |                       |

|           | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i>     |
|-----------|---------------------|-----------------------|---------------|--------------------|
| Intercept | 2.717179745         | 0.266990841           | 10.17705      | 2.03747E-22        |
| PS**      | 0.032383854         | 0.041449197           | 0.78129       | 0.43496554         |
| AT**      | 0.034298704         | 0.042732625           | 0.802635      | 0.422529871        |
| PC**      | 0.033257872         | 0.042598094           | -0.78074      | 0.435291169        |
| MT**      | 0.058351371         | 0.036888639           | 1.581825      | 0.11426023         |
| LN**      | 0.059509535         | 0.036747136           | 1.619433      | 0.105923156        |
| FA**      | 0.001489249         | 0.038379183           | 0.038804      | 0.969060986        |
| PG**      | 0.023148414         | 0.045296846           | 0.511038      | 0.60952798         |
| CMP*      | 0.171105529         | 0.048803711           | 3.505994      | <b>0.000491757</b> |
| ECN**     | 0.078691467         | 0.049320608           | -1.59551      | 0.111168754        |
| TCH**     | 0.031745474         | 0.045242001           | 0.701681      | 0.483172482        |
| CLT**     | 0.055007167         | 0.039990526           | 1.375505      | 0.169530843        |

a. Predictors: (Constant), personality, attitude, perception, motivation, learning, family, peer group, competition, economic, technology and culture context

b. Dependent Variable: Brand choice

\* Variables are significant at the 0.05 level of significance

\*\* Test is not significant at the 0.05 level of significance

### 5.1.2 DISCUSSION OF FINDINGS

The study can draw the following from the table outcomes displayed above. In terms of the three hypotheses conjectured to drive this study, we are guided by the information contained in Table 2. Research question 1 and 2 enquires if there is a relationship between

the endogenous variables and exogenous variables on one hand and the dependent variable of brand choice on the other. From the table outlay, it is clear there is a relationship – for hypothesis one, that relationship is positive, the same goes for hypothesis 2 which pertains to the external environmental factors. We can see that all the eleven (11) predictor variables combined have a positive coefficient with the dependent variable of brand choice.

The study also found that one (1) factor out of eleven (11) predictors posted a significant value to the dependent variable in the purchase of a GSM brand. This is observed to be too little and is inconsequential in predicting on the aggregate students' buying behaviour of choice of brands and thus has little influence. Thus, the purchase behaviour of GSM Handsets of any brand is unaffected by environmental factors. Irrespective of this shortcoming, we can say that should these factors be increased over time they may become significant in influencing brand choice-making among the student population, especially if the factors are well combined or integrated from the outcome of other studies which showed a

positive association, especially from the African business environment.

Furthermore, a look at the model reveals the factor of 'competition' significant at 5%. All other 10 factors are insignificant and therefore cannot predict or influence students' brand choice-making in the GSM purchase and usage. It means that competition and competitiveness through brand positioning and promotion campaigns and the like may help spike up purchase behaviour significantly. Hence the decision that came in handy was that hypothesis 3 and its null hypothesis had to be accepted. The implication is that brand managers need to carry out a well-researched customer survey to know factors that can be removed or added to the model to improve the model's predictive power.

Finally, the  $R^2$  values of 0.6.4% make the predictor variables abysmally poor and hence its goodness of fit is very weak. This is despite the positive association it has with brand choice. It also means that environmental factors alone, whether endogenous or exogenous, cannot comprehensively predict the brand choice of students as they purchase GSM handsets of their choice.



## 6.0 SUMMARY, CONCLUSION & RECOMMENDATION

### 6.1 SUMMARY

This study set out to achieve the objective of ascertaining which factors can predict or influence the brand choice of GSM handsets users in some Nigerian Universities in the Niger Delta region of Nigeria. The scope of the study was limited to Nigerian students in the Universities in the Niger Delta states. Six of such Universities were identified and sampled. The objective was to determine relationship types between the factors hypothesized to influence brand choice. 11 of such factors were aggregated into two broad domains – the endogenous and exogenous factors. Factors of the endogenous variables were deemed internally propelled to the customer – these include personality, attitude, perception, motivation and learning. For the exogenous variables, factors contained therein include family, peer group, economic, technology, competition and culture. The data collected from these universities were subjected to regression analysis and outcomes led to the rejection of hypothesis 1 and 2 as a good and

positive relationship exist between hypothesized predictors. As regards hypothesis 3 an acceptance of the null hypothesis was inevitable as only one factor (competition) proved significant at a 0.05% level of significance.

### 6.1.1 CONCLUSION

The regression outcome of these variables showed that all the factors have positive relations with brand choice. This led to the rejection of hypotheses one and two. The outcome of the regression model suggests that only competition as a factor turned out to be significant. All others are not at a 5% level of significance. Again, it can be concluded that the environment-brand-choice model adopted in driving this study is a weak model judging from its R and R<sup>2</sup> standing. The outcome of the study suggests that other factors are needful of incorporation into the model to enhance its predictive power. Drawing from the above observations, it is clear that competition holds a prime place in the design of marketing programmes geared to capture or serve identified markets. It, therefore, goes without saying that competitive forces are key drivers of brand choice

decisions. Studies by Premkumar and Roberts (2003;) and Ramdani and Kawalek (2008) confirm this factor as one of the influencers of the decision to adopt a product or not. This study confirms their findings and so recommend its strong usage. It can also be concluded that using environmental factors alone as a predictive of brand choice or in assessing possible purchase behaviour of students in the choice of GSM Handsets is narrow as other factors outside of the environment surely exist (from the goodness of fit deficit) that can better predict purchase behaviour of the sample population.

### 6.1.2 RECOMMENDATION

The following recommendations can be made in light of the above-discussed findings and conclusions.

1. Environmental factors alone cannot sufficiently predict the brand choice of products in the very dynamic GSM Handset market in Nigeria. CEOs and their brand managers need urgently to explore other factors such as psychographic factors and brand promotional strategies to properly impact

purchase behaviour in the market segment.

2. It is suggested that brand managers need to engage other brand attention-getting strategies such as brand repositioning, brand extension, brand stretching and brand rejuvenation in line with global best practices and fast-changing tastes and preferences of Millenials in this fast-passed industry.
3. The model adopted in driving the study need to be re-worked to fit the market demands and requirement in an African clime as its performance and predictive power is not helpful to firms in the Nigerian business environment. A modification of the model is a needful exercise judging from statistical outcomes.

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