

SECTION: REVIEW IN CONSUMER MODELLING

**CONSUMER BEHAVIOUR MODELLING:
A MYTH OR HEURISTIC DEVICE?**

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ABSTRACT: There is confusion in literature as to whether consumer behavior models are myths or heuristic devices. Myths are symbolic tales (believed as true, usually sacred) of the distant past, connected to belief systems or rituals, and may serve to direct social action and values while heuristic device is a provisional and plausible creation whose purpose is to discover the solution of a particular problem at hand. On the other hand, models are theoretical construction and simplified presentation of phenomenon. Notwithstanding the semantics in the definition and description of CB models in the literature, the crux of the matter presents two strange bed fellows: myth and heuristic device, and a number of conundrums are raised: Is it really possible to model a complex, dynamic and unpredictable entity like the consumer? Or is it just a scholarly exercise? To what extent, if necessary, can it help marketers achieve precision in understanding and predicting the customer or consumer behavior? This matter has polarized the scholarly community of marketers for decades. This conceptual paper, therefore, seeks to contribute to this discourse by undertaking an archival survey of the extant literature to look at the two sides of the coins, that is, whether CB is a myth or heuristic device. The study concludes that CB models provide a frame of reference for solving consumer problems and helping to point the way for hypothesis needed for CB theory development. This makes it a heuristic device. The implication is that consumer is at the center of all marketing programmes, scholars and practitioners should understand this and apply it successfully incorporating the views, preferences, feelings, motives and innuendoes of the consumer.

JEL CLASSIFICATIONS: D19, M31

KEYWORDS: Consumer, behavior, models, myths, heuristic device

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1. Introduction

The main objective of any business is to create value. Consumers are, therefore, the fulcrum in which all business activities revolve. Marketers have over the years sought to understand these consumers so as to find ways of serving them better. Customers today are more informed, more knowledgeable, more demanding, more discerning and so also there is a myriad of goods and services to choose from. Organizations

must earn these consumers or win them over. The success of marketing practice depends greatly on CB (Worlu, 2008). Ironically, the behavior of these consumers is complex, dynamic, rational and multi-faceted (Ateke & Akekue, 2017). Organizations remain in business by attracting and retaining profitable customers. They do this by engaging in exchanges that both businesses and customers perceive to be beneficial. Questions such as, who are our customers?, how do we reach them?, what should we market to them?, what are their key motivations? are asked by companies to have a deeper understanding of the dynamics of consumer choice behavior (Kotler & Armstrong, 2013). The buying behavior framework of the target market is the essential task of marketing management. Thus, understanding the buying dynamics of the buyers is very essential to the changes taking place in the preferences and taste of the consumers in order to adjust the supply to the demand of different goods. When customers buy a given product, they do so as a result of certain motivations (Bhasin, 2006). It is therefore important for the organization to develop skills and assets that will enable them to deliver these key motivations.

A consumer gives much importance to the product offering of the firm. An understanding of the economic, psychological and sociological characteristics of the consumer and their motives, attitudes, cognitions and personalities can help to discover new market opportunities, to provide a sharper segmentation of the market and a meaningful product differentiation and to formulate marketing strategies based on consumer responses as a major variable (David & Nigel, 2006)). An understanding of the CB will help us in understanding different market segments and evolve strategies to effect penetration with these markets. Meanwhile, purchase decisions of consumers are not made in a vacuum. It involves the process of *what* they buy, *why* they buy it, *when* they buy it, *where* they buy it and *how* often they buy it. If we take a product like detergent, one can ask what types of detergent do consumers buy, (small size, medium size. Large size or family pack size), which brand do they buy (Omo, Elephant, Klin, Ariel, Sunshine, Bimbo), why do they buy it (to defend their ego, enhance their ego, or to remove tough stains, clean clothes), where do they buy it (supermarket, drugstore, convenience outlet, Malam shop or the open market) how often do they buy it (daily, weekly, monthly, or anytime it finishes)? An understanding of CB models and analysis of the basic variables influencing their behavior will be much useful to the marketers to framing suitable marketing strategies (Pearce & Robinson, 2013).

Several models have been proposed to explain CB. These consumer models are quantitative, behavioral, analytical, prescriptive, psychological, dynamic and theoretical in nature (Kotler & Keller, 2012; Loudon & Delta, 1993; Solomon, 2011; Nwulu & Ateke, 2014). The models indicate the evolution in thought patterns of different authors on the subject of CB over the past years and show the relevance and importance of models of CB in the study and understanding of consumer. A wide range of variables have been posited across the models and each has evidence to justify its inclusion in an attempt to explain behavior. Despite the diverse nature of CB, models provide valuable input to the study and understanding of consumer, since they attempt to provide insights into why human beings, particularly consumers, rationalize purchase decisions (Malik, Ghafor, Iqbal & Au, 2013). A large proportion of these models suggest methods for solving problems in marketing, for aiding useful research, and providing a heuristic framework for exploring and conceptualizing consumers (Assael, 1995; Ladipo, 2006).

There is confusion in literature as to whether CB models are myths or heuristic devices (Jackson, 2005; Ladipo, 2006; Richarme, 2007; Hamansu, 2008; Beltz & Peattle, 2009; Ateke & Akekue, 2017). According to Schremp & William (2002), myths are symbolic tales (believed as true, usually sacred) of the distant past, connected to belief systems or rituals, and may serve to direct social action and values. Levi-Strauss (1995) on the other hand, posits that heuristic method is a provisional and plausible

procedure whose purpose is to discover the solution of a particular problem at hand. Notwithstanding the semantics in the definition and description of CB models in the literature, the crux of the subject matter remained largely the same and unchanged. The various conceptualizations mainly indicate the extent of attention the discourse has received from scholars. The body of research based on these models is now considerable and the results suggest the models have value for the understanding of a wide range of purchase behavior and behavioral intentions (Kassarjian & Robertson, 1973; Holt, 1995; Achumba, 2006; Hamansu, 2008; Worlu, 2016).

CB models have received scholarly attention and some degree of conceptual developments in the literature (Galalae & Voicu, 2013; Ateke & Akekue, 2017); But seeing it from another perspective as a myth or heuristic device has not received sustained consideration and there have been few empirical and conceptual studies. It is said that if a purpose is not known, abuse is definitely inevitable. So we need to clarify the purpose of modelling in CB for the scholars and marketing practitioners. It is possible if this distinction is not made known, it may be a point of discouragement. The marketing practitioners may not know how to formulate policies and strategies that will compel consumers to take action which will in turn favour the marketers. The scholars alike may not know how to come out with a research result that is pragmatic enough to address societal problem in the understanding of consumers. The description of CB models in the literature present two strange bed fellows: myth and heuristic device, and a number of conundrums are raised: Is it really possible to model a complex, dynamic and unpredictable entity like the consumer? Or is it just a scholarly exercise? To what extent, if necessary, can it help marketers achieve precision in understanding and predicting the customer or consumer behavior? This paper, therefore, seeks to contribute to this discourse by undertaking an archival survey of the extant literature on consumer behavior models to confirm or debunk the notion of CB as a myth or heuristic device. The objective of this study is basically to do a review and analyze the models of CB in literature with a view to establishing a stance for further intellectual work. The question then is: Is consumer behavior model a myth or a heuristic device? This leads to two key propositions:

- Consumer Behavior model is a Myth.
- Consumer Behavior model is a Heuristic Device.

To this end, settling for one requires a critical review of the literature with an outcome of great scholarly and managerial consequence.

2. Literature review

2.1. Overview of consumer behaviour

A consumer is an individual who purchases or has the capacity to purchase goods and services offered for sale by marketing institutions in order to satisfy personal or household needs and wants or desire (Nicosia, 1966; Leon & Leslie, 2007). A consumer may or may not be a current purchaser of products. Every consumer is a customer because he either has used or might use the product or services. Therefore everyone who buys and uses a product or service be it an industry or person is a consumer. It is known that people enter into activities for many purposes other than consumption, but when involved in a purchase decision or acting as a buyer, the individuals have just one goal in mind Such goal is the satisfaction of their desires by obtaining goods and services (Peter & Olson, 2008; Ibukun, Oni & Worlu, 2014). The ultimate consumer buys for personal or family satisfaction while the industrial consumers purchase for sales.

CB is regarded as a relatively new field of study with no historical body of research of its own (Engel, Blackwell & Miniard, 2001; Schiffman & Kanuk, 2010). The concept, therefore, was heavily derived and sometimes indiscriminately borrowed from other disciplines, such as psychology (the study of individual), sociology (the study of groups), social psychology (the study of how individuals operate in groups), anthropology (the influence of society and culture on the individual), and economics (the study of mankind in the ordinary business of life). Kotler & Keller (2012) identified that Howard and Sheth were the first to develop the theory of CB. The study of CB emanates naturally from the theory of marketing concepts, which described the effort of organizations to achieve target markets desired outcome. The major goal of the study of CB is to acquaint and provide marketers with the knowledge and skills that are necessary for understanding and analyzing CB which could be used for understanding markets and developing marketing strategies (Hamansu, 2008). From the marketing point of view, understanding CB is very crucial to successfully delivering firm's offerings in the market place.

A consumer is a human. Therefore, we talk of human behavior. Human behavior refers to the total process whereby the individual interacts with the environment. Behaviour is the totality of thought, feeling or action individuals have. Schiffman & Kanuk (2010) define CB as the totality of behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs. Worlu, Adegbuyi, & Kehinde (2007) take a similar approach in explaining CB as that part of human behavior which concerns specific types of human actions that have direct bearing on the purchase of goods and services from marketing organizations. The emphasis in this definition is that CB is a subset of human behavior. Engel, Blackwell, & Miniard (2001) view CB as acts of individuals directly involved in obtaining and using economic goods and services, including the decision processes that precede and determine these acts. CB from their point of view would include the less discernible, but nonetheless important processes that underlie and accompany consumption and any person engaged in the consumption process is a consumer. Ibidunni (2012) sees CB as the decision process and physical activity that individuals engage in, when evaluating, acquiring and using economic goods and services. Solomom (2011) posits that it is the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires. Nwulu and Ateke (2014) submit that CB is the activities that individuals engage in when searching for, evaluating, selecting, buying, consuming, and disposing products to satisfy their need and desires, including the decision processes that precede and determine them. Ateke & Akekue (2017) add that CB potentially touches on the disposition of people in their role as consumers and extends to behaviors relating to the search, purchase, use and disposal of products and services. Bhasin (2006) caps it up by adding that these purchases are greatly influenced by social, cultural, psychological and personal factors which involve mental and physical activity necessary for making decisions in the market place. To this end, Worlu (2011) advances a lot of reasons why we need to study the consumer. Amongst others, to obtain greater appreciation of the complexity of decision facing consumers and better understanding of their own motive and decision process; to assist consumers make sounder choices of products and stores; and moreover, to develop marketing strategies which need to be targeted at the right motive and also help in selecting the right appeal, meeting the right target and stimulating action.

2.2. Approaches to the study of consumer behaviour

The consumer dissatisfaction and frustration to a large extent stem from lack of or ignorance of who the consumer is, the environment in which he operates, and what

motivates his behavior and his expectations.(Achumba, 2006; Worlu, 2011). The analysis of CB draws its findings from a variety of disciplines: Anthropology, Sociology, Psychology, Social Psychology, and Economics. The scholars (Kopetz, Kruglanski, Arens, Etkin, & Johnson; 2012) of CB have identified the various approaches (adaptation of theories and concepts, consumer research approach, and consumer behaviour modelling) that will help us understand the study of CB. From these approaches, our interest in this study is on Consumer Behaviour Modelling.

2.2.1 Adaptation of theories and concepts

Over the last two decades, several theories of CB have been formulated, rejected or substantiated (Brosekhan & Velayutham; 2008). Ateke & Akekue (2017), drawing inferences on differing traditions and literature, have identified and summarized the theories to the study of CB to include: Economic theory; Behaviourist theory; Cognitive theory; Psychodynamic theory; Motivational theory; Attitudinal theory; Humanist theory; Goal system theory; Value theory; Situational theory; Personality theory; Sociological theory; and Multi-Theoretical. Kopetz, Kruglanski, Arens, Etkin & Johnson (2012) classified these theories into three categories: a priori, empirical and eclectic. According to Ekereke (2000), researchers adopting 'a priori approach' have introduced concepts and theories adapted from other disciplines in social sciences, behavioral sciences in particular to explain CB. The attempt of the priori approach is to fit CB to already existing theoretical framework. The approach, however, suffers in the sense that many of its adopted concepts are somewhat speculative and are developed in contexts far removed from CB. Secondly, researchers in the empirical category according to Ladipo (2006) attempt to make generalizations based on empirical studies with limited scope, particularly based on observations from market research studies involving consumer panels. Furthermore, and perhaps the major weakness of this approach is its virtual disregard for potentially illuminating theories from the behavioral sciences, and consequently the relative lack of explanatory power regarding the resulting model. Thirdly, in the mid-sixties the eclectic approach becomes increasingly popular. Richarme (2007) add that the attempt is to incorporate the strengths of the priori and empirical approaches and to avoid their weaknesses. This new research tradition attempts to synthesize the basic theories adopted from behavioral sciences with the findings of market research studies. The merit of this approach is the comprehensiveness of its perspective. The major problem is, however, the undue complexity of dealing with too many variables and interrelationships. All these gave birth to what is today known as models of CB in literature (Hoyer & Macinnis, 2008).

2.2.2. Consumer research

Consumer identity; market-place structure; socio-historical patterns of consumption; mass-mediated transactional philosophies, and consumers' interpretive strategies are the domains in which scholars on consumer research have made hypothesis and procedural input in CB (Arnould & Thompson, 2005). Knowing customers are never simple. Most times they state their needs and act otherwise. Organizations are intent on developing stronger bonds and loyalty with their ultimate customers. In the past they took their customers for granted. Clearly things have changed. Today's companies pay closer attention to their customers by studying their target customer's wants, preferences, perception and buying behavior (Kotler, 2000). Through CR contributions, we were able to know who makes the buying decision, the types of buying decision and, the steps involved in the buying decision. We are able to determine the degree of the buyers' level of involvement as complex-buying

behavior, dissonance-reducing behavior, habitual buying behavior or variety-seeking buying behavior. According to Ibdunni (2010), information relating to CR approach include the knowledge of the categories of consumers, demographic factors, their needs, wants, desires and preferences, pattern of patronage and times of shopping. The CR processes involve depth and focus group interview, observations, projective technique method, personal interview, telephone interview, use of questionnaire, and experimentation. Consumer research approach as stated by Galalae & Voicu (2013) has been so useful in consumer behavior in diverse ways. First, meaningful responses are obtained and hidden issues about consumers uncovered. Second, consumers indirectly project their own motivations, beliefs, attitudes or feelings about situations and events. Third, free exchange of information between consumers and organizations has made them both ideally suited to sensitive issues. Moreover, marketers have gained knowledge on how to translate consumers product attributes through personal meanings associated with them. Furthermore, since consumption acts produce consequence for the consumers, CR has enabled firms and scholars alike to associate those consequences to specific product attributes. Finally, CR draws out the consumer's perspectives of the important features that encapsulate a particular focus of CB.

2.2.3. Consumer behaviour modelling

Consumer behavior is extremely complex and is a function of both personal and situational variables. Given this complexity, it has been found out that it is possible to simplify consumer behaviour into its principal components. This has become known as the modelling approach and it has been used with some degree of success as a method of explaining and predicting CB. A consumer model is anything used to represent all or a part of the variables of consumer behaviour. According to Afolabi, Olufunke, Worlu, & Akinyemi (2016), consumer model exists for two main purposes. First, to identify hypothesis and develop new consumer behaviour theory and second, to explain the present status of consumer behaviour theory. Generally, the authors state that consumer model has comprehensive and partial purposes. To start with, these purposes include identifying all or a part of consumer variables. Second, it explains fundamental relationships between the variables identified. Third, it demonstrates steps or flows in the decision or operational relationships among variables. Moreover, it specifies exact cause and effect between variables and relationship. We model consumer behaviour because it helps firms and organizations improve their marketing strategies by understanding issues such as: First, the psychology of how consumers think, feel, reason, and select between different alternatives (e.g., brands, products); Second, the psychology of how the consumer is influenced by his or her environment (e.g., culture, family, signs, media); Third, the behavior of consumers while shopping or making other marketing decisions; Fourth, limitations in consumer knowledge or information processing abilities influence decisions and marketing outcome; Fifth, how consumers' motivation and decision strategies differ between products, that differ in their level of importance or interest that they entail for the consumer; and finally, how marketers can adapt and improve their marketing campaigns and marketing strategies to more effectively reach the consumer (Achumba, 2006; Ladipo; 2006; Worlu et al., 2007; Afolabi, et al., 2016).

2.3. Meaning and taxonomy of models

Models are devices designed by man to stand for the things brought to the attention of his senses. A model is simply a representation of some or all of the properties of a large system (Worlu et al., 2007). A model is an abstract of reality. According to

Oxford Dictionary, a model is defined as the theoretical construction and simplified presentation of phenomenon. Schiffman & Kanuk (2010) define a model as a representation of reality designed to show the relationships between the various elements of a system or process under investigation. In literature, according to Adedayo, Ojo, & Obamiro (2010), models are categorized into three distinct parts: abstract or mental models; symbolic models; and physical or exact models. Abstract or mental models (High abstraction) are unclear, ill-structured representation of reality that does not have physical or symbolic configurations. Symbolic models (Moderate abstraction) are situations that present ideas by means of numbers, words, musical connotations and mathematical formulas. They are useful at analyzing performance and production of events. Symbolic models are divided into two namely verbal and mathematical models. Verbal models express the resulting features or reality using verbal expression and can be regarded as the written version of mental models. They promote the classification of the mentally idealized representations. Examples include: television adverts, poems, plays, stories, theories, or a journalist report of a mishap. Mathematical models, on the other hand, are mathematical symbols, formula, equations, to express a simplified version of a complex problem. In this model, data can be manipulated by a person in such a way that if another person were to manipulate it, the same unique result would be obtained. Finally, physical or exact models (low abstraction) are models that have physical properties that bear similar similarity with the real objects. They are also of two types namely iconic and analogue models (Ateke & Akekue, 2017; Galalae & Voicu, 2013; Brosekhan & Velayutham, 2008; Adedayo, Ojo, & Obamiro, 2010; Davies, 2005).

There are five basic types of consumer model (Udo-Imeh, Awara, & Essien, 2015; Worlu et al., 2007) and they are: Physical and behavioural models, Quantitative and verbal models, Descriptive and analytical models, Static and dynamic models and, Partial and holistic models. This will be further demonstrated in this study in subsequent sections.

2.4 . Purpose and advantages of models in consumer behaviour

CB models vary widely according to their purpose and function and we cannot be dogmatic about the qualities of a good model. Nevertheless, a good CB model should point towards the direction of the following criteria as listed by McLeod (2014): First, it should seek to break down complex patterns of behavior into simple and easily understandable elements. Second, it should be consistent with facts. Third, it must make sense and be logical. Fourth, a good model must be original in its construction. Moreover, it should seek to explain how and why certain behavior occurs. In addition, a good model should aid consumer's reaction to a given stimulus. Furthermore, if it is to have validity, it must be verifiable with the ability to test relationships between identified variables. Finally, a good model must have a heuristic power with the capacity to suggest new areas of research (McLeod, 2014; Davies, 2005).

CB model can, therefore, be viewed as a description of reality and its value lies in the extent to which successful predictions and descriptions of behavior, together with underlying influences are made possible. Engel et al. (2001) add by explaining that a model is a replica of the phenomena it's intended to designate, meaning that it describes the elements portrayed within the model and represents the nature of relationships among these elements. Engel et al. (2001) state further that CB model provides the marketers and scholars with a range of appropriate variables, thereby preventing a problem often experienced, namely a narrow perspective when looking at a problems.

The purpose and advantage of models of CB are identified as follows. It provides explanations for behavior of consumers; explanatory variables are specified;

systematic thinking is encouraged; fundamental relationships between variables and the exact sequence of cause and effect of variables are specified; research findings on consumers are integrated into a meaningful whole; evaluations are provided for performance of the market system; avenues for fruitful research about consumers are revealed; a foundation is provided for management information systems; and finally models sometimes permit sensitivity analyses and simulations of behavior (Engel et al., 2001; Lillien & Kotler, 1983; Runyon & Stewart, 1987). Worlu (2011) highlighted the following advantages that consumer models serve to include incorporating a measure of logic to consumer investigations, identifying major consumer variable, providing a frame of reference for solving consumer problems and helping to point the way for hypothesis needed for theory development. Be that as it may, CB models are disadvantageous in some other ways in the sense that they tend to oversimplify complex situations, they are sometimes substituted for reality in people's mind, they tend to reduce discussion and more often than not models lack flexibility (Worlu, 2011). According to Runyon & Stewart (1987), it is important to note that the models proposed are viewed as being incomplete description of human beings, because different models may be appropriate for different marketing situations.

2.5. Theoretical developments of CB models

Scholars in literature (Jackson, 2005; Ladipo, 2006; Richarme, 2007; Hamansu, 2008; Beltz & Peattle, 2009; Worlu, 2011; Ateke & Akekue, 2017) have classified the theoretical developments of CB models as two-dimensional: generic and market-specific models. The generic models are those developed without the consciousness of marketing practice, and adopted and adapted by marketing scholars. The market-specific models, on the other hand, are those developed with the intent of enriching the knowledge-base of marketing. For the purpose of this study, according to Ladipo (2006) and Worlu (2011), the generic models include: Marshallian Economic Model, Pavlovian Learning Model, Allport socio-analytical model and Lewin Topological model while on the other hand, the market-specific models include The Nicosia Model, The Engel, Kollat & Blackwell Model and The Howard-Sheth Model.

2.5.1. Generic models

The Marshallian economic model

Alfred Marshall, an early twentieth century economist, formulated the first CB theory, based on rational economic choice that describes, explains, and predicts which bundles of goods consumers would buy at various quantities and prices (Hoyer, 2004; Anyanwu, 2010). According to this model, purchase decisions are based on rational, purposeful, thoughtful, conscious, economic calculations, and individual buyers will spend their income on goods that offer the greatest satisfaction, depending on their taste and the relative prices of goods where $C = f(X)$. C here is consumption while X is income. Economists in general prefer to ignore the question of how human needs are formed or changed or how these changes reflect in subsequent behavior. They postulate that the consumer follows the principle of utility maximization in order to maximize his satisfaction. The model conceives the consumer as largely a rational creature who consciously bases his or her buying behavior primarily on economic considerations (Ladipo, 2006). It should be noted that economic factors alone cannot explain all variations in sales and buying process and also that the fundamentals of how brand and product preferences are formed are ignored in this theory, thereby, analyzing only a small aspect of the consumer's psyche. It is a normative rather than a descriptive model of CB, because not all consumers will engage economic analysis for

all purchases. The model however, offers a useful point of reference in the study of CB and at least a rough approximation of some types of marketplace behaviors (Grewal & Levy, 2010).

The Pavlovian learning model

The well-known Pavlovian theory of learning has its origin in the experiments of Russian psychologist, Ivan Pavlov, who conducted his experiments by ringing a bell each time before feeding a dog. Pavlov soon discovered that he could induce the dog to salivate by ringing the bell regardless of whether or not food was offered to the dog. Pavlov generates the hypotheses about human as well as about animal behavior. From this experiment, Pavlov could conclude that learning is an associative process that contains four central concepts: drive, cue, response and reinforcement and that a large component of human behavior was conditioned in this way (Galalae & Voicu, 2013). Drive as a concept is used interchangeably with needs, motives and it refers to the strong stimuli internal to the individual which impels action. According to the psychologists, two separate drives can be identified; the primary physiological drives such as hunger, thirst, cold, pain and learned drives that are derived socially such as cooperation and acquisitiveness.

Cues are stimuli in the environment and/or in the individual, which determine when, where and how the subject responds. Response is the individual reaction to the configuration of cues: That the same configuration of cues will necessarily generate the same response in an individual is however, contingent on the ability of the cues/response to produce a rewarding experience. Reinforcement is said to take place when a response is accompanied by a rewarding experience such that the response becomes strengthened and a tendency is developed for a repeat of the response upon the appearance once again of the same configuration of cues. Positive reinforcement is advanced as the precursor or basis of brand loyalty (Holt, 1995). Ladipo (2006) posited that the model depicts the consumers having his or her behavior triggered upon developing a need for product. That once her need or her drive is triggered, he or she goes on to consider the available alternatives and their cues, and his or her choice of a brand based upon the consideration of these cues. The model further depicts the consumer's decision to repurchase the same brand as dependent upon positive reinforcement of the initial response, and upon the availability of the same configuration of cues once the same need is developed again. The model provides useful insights into the behavior of the consumer by showing that human needs are as a result of the interplay of the central concepts that make up his theory, i.e. drives, the cues, responses and reinforcement (Nwaizugbo & Onyeka, 2013).

Lewin's topological model

Kurt Lewin considered a person as a topological area which is divided into three major region: Inner personal region, Motor-perceptual region, and the Foreign hull of the life space (Hoyer, 2004). The inner-personal region constitutes a person's wants and desires. Each want has a specific place. The motor-perceptual region surrounds the inner personal region. It is internal to the person but at the same time, the mechanism that relates that person to his environment by means of sound, light, taste, movement, speech, etc. He called the person's surrounding environment, the foreign hull of life space. What the person sees in the environment is continually changing and modifying his perceptions. Lewin's model has application to CB in the following senses that by emphasizing the hierarchy of wants, we gain insight into, not only why different consumers behave differently, but also why some products are more important than others to the same consumer. The model emphasizes that the

consumer has more than one route for satisfying a particularly need and highlighted the interaction between the individual and his environment (Kassarjian & Robertson, 1973).

Allport socio-analytical model

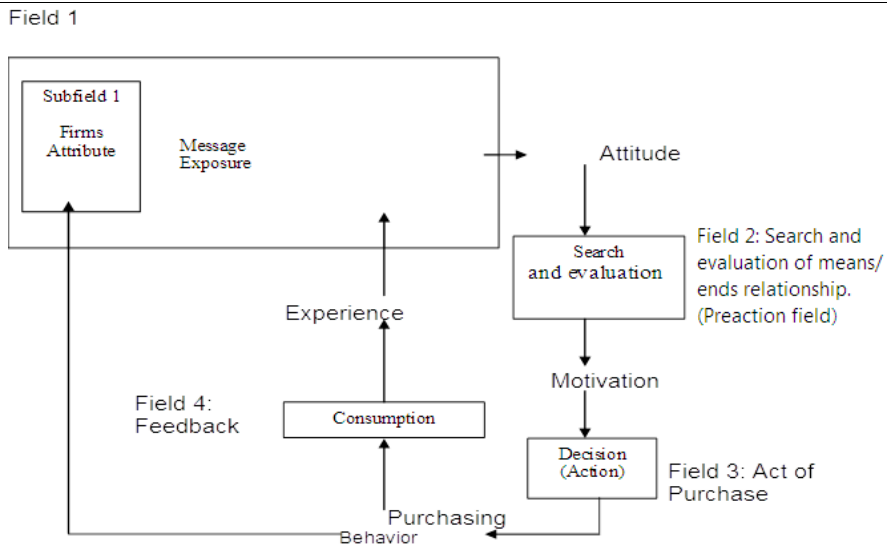
Allport identified most of the major endogenous and exogenous variables that affect human decisions toward an object stimulus such as product. According to Worlu (2008), Allport's principal contribution lies in identifying the major areas of internal and external human influence that can be applied to consumer behavior, even though he did very little to connect these variables directly to consumer processes since his principal interest lies in another direction. The endogenous variables which he refers to as the basic determinants are listed as Needs (food, shelter and clothing), Motive (hunger, tension and warmth), Personality, and Awareness (Learning, Perception and Attitude). The exogenous variables are Income influence, Family influence, Culture influence, Social influence and Business/Organization influence.

2.5.2. Market-specific models

Nicosia's model

Nicosia's account of CB (Hoyer, 2004) (Figure 1) is based upon a flowchart composed of four distinct fields. The output from each field becomes the input for the succeeding field. The model depicts product's message flowing from its source, (that is, the marketer or the firm) in the direction of an eventual decision outcome by the consumer.

FIGURE 1.



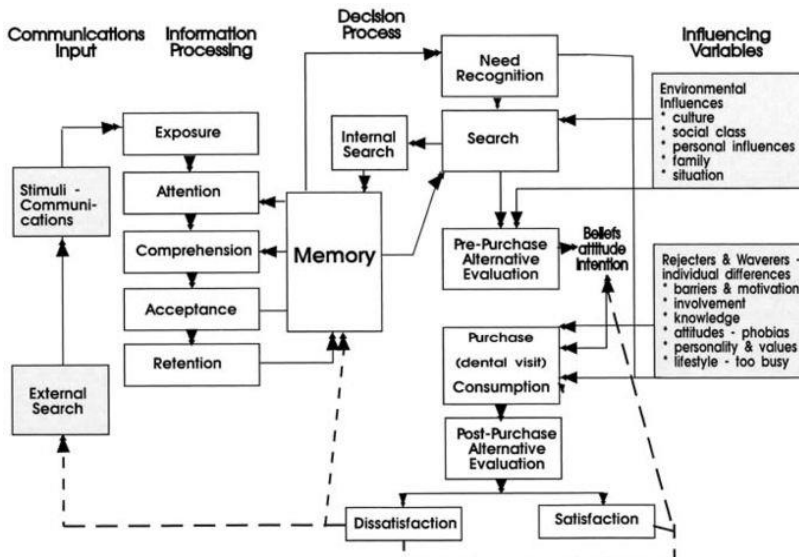
Source: Nicosia (1966).

In Field 1, the consumer's exposure to and the receipt of the message is portrayed together with the resultant development of some predisposition or attitude towards the product. Field 2 shows the consumer is undergoing a search and evaluation process which has as its output the arousal of the individual's motivation. Field 3 is defined as possible transformation of motivation into an act of purchase. Where purchase occurs, Field 4 becomes the area of storage and use of the product with a related output experience. In each field, the relevant influences upon the eventual outcome are sketched out. As the message flows from the marketer to the formation of consumer attitude, it is seen as being modified or distorted by internal subjective perceptual elements. During this period of "search and evaluation" (field 2), the internal and external forces are differentiated in terms of additional information input. Internally initiated data are linked with the brand of the product (that is, learning) whilst the external data are culled from the environment in terms of word-of-mouth communication or an increased receptivity to advertising in the product area (Ladipo, 2006). Whilst Nicosia's model provides a useful basis for understanding consumer behavior, it has not however escaped criticism. His assumptions of linearity regarding his equations are criticized widely. Furthermore, the search and evaluation process is criticized as having applicability to only high-priced industrial goods and not to fast moving packaged convenience goods (Achumba, 2006).

Engel, Blackwell & Miniard model

It is widely known as the Consumer Decision Model. This model provides a framework for examining the diverse range of influences to which the buyer is subject to as the decision process moves from its initial stage of the beginning of need awareness through its subsequent steps up to the terminal stage of the after-the-event evaluation and rationalization.

FIGURE 2.



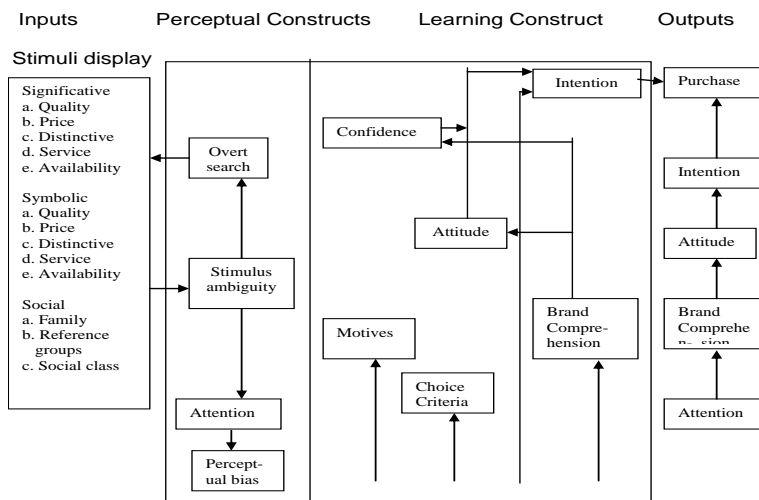
Source: Engel, Blackwell & Miniard (2001).

The contributions of the three basic internal processes of perception, learning and motivation represent major steps in the model, while personality and attitude are seen to exert pressure upon the process. The social and cultural aspects of the possible purchase decisions are also portrayed as influencing the individual's movements through the decision stages. While this model may be acclaimed as a useful contribution to an understanding of consumer decision process, it has been criticized for its undue complexity and its enormous amount of inter-relationships. It is also further criticized on the grounds that some of its valuables are not subject to empirical verification (Engel et al., 2001; Hoyer & Macinnis, 2008).

Howard and Sheth model

According to Galalae & Voicu (2013) this model owes its comprehensiveness to the fact that it represents an amalgamation of a number of well-known theories such as Hull's learning theory, Osgood's cognitive theory, and Berlyme's theory of exploratory behavior. The model portrays the consumer as playing an active role in business transaction. The consumer is further portrayed as an individual who processes information or communication following her exposure to it.

FIGURE 3.



Source: Howard & Sheth (1969).

Fundamentally, according to Richarme (2007), the model is constructed around a series of stimulus variables passing into the individuals processing system and being acted upon by the internal factors of perception and learning identified as the hypothetical constructs. A response variable terminates the process, while the whole being surrounded by the exogenous variables of social class, cultures and personality plus such constraints as time and income availability. The inputs are separated out into three groups, which distinguish source differences. The first group relates to actual product communication of price, quality availability, distinctiveness and service. The second group derives from indirect and impersonal sources, such as the

salesman or mass media. The third group of stimulus variables identifies the activity of the consumer collecting data from his social environment via the personal influence of word-of-mouth communication. Thus, the interaction between the consumer and his or her social environment is distinguished and extended, showing the external forces in the decision process not only as a constraint upon behavior but also as a reference point for the gathering of credible information. The hypothetical constructs of perception and learning detail the manipulation of information gathered from the various sources, affecting the amount and quality of objective information, which reaches the system (Kassarjian & Robertson, 1973; Hoyer & Macinnis, 2008).

Whilst this model is widely acclaimed as the most eclectic and comprehensive, it is criticized for its complexity which is believed to result from the use of a plethora of disparate concepts and variables, leading to a large number of inter-relationships between these variables. The inclusion in the model of the “search and evaluation” is also criticized as having or bearing no relevance to fast-moving packaged convenience goods. Peter & Olson (2008) criticized the model also for including untestable concepts such as perceptual bias in the model. Nevertheless it remains a useful piece for understanding the consumer.

3. Methodology

The study relied on secondary sources of information to describe and provide explanation regarding the interrelationship among the phenomena under investigation. The major benefit of working with secondary information is economy and breadth of data available, which create easier way for providing comparative and contextual information and may result in unforeseen discoveries of particular subject matter under investigation (Sauders, Lewis, & Thornhill, 2009). In line with the topic under review, two propositions are set out. One is to interrogate the mythology of CB, the other is to determine the heuristics of CB.

3.1. Proposition 1

From the Greek *mythos*, myth means story or word. Oxford Dictionary adds that a myth is a legendary or a traditional story from ancient times especially one that was told to explain natural events or to describe the early history of a people. Merriam Webster Dictionary added that a myth is usually a traditional story of ostensibly historical events that serves to unfold part of the world view of a people or explain a practice, belief, or natural phenomenon. As stories, myths articulate how characters undergo or enact an ordered sequence of events. Myths are symbolic tales of the distant past, connected to belief systems or rituals, and may serve to direct social action and values. Shrempff & William (2002) define myth as tales believed as true, usually sacred, set in the distant past or other worlds or parts of the world, and with extra-human, inhuman, or heroic characters. Myths remain value-laden discourses that explain much about human nature. Anthropologist and folklorist Leeming (1990) considers myth as distinctive because of its function and implications as determined by certain individual society members. He adds that a myth is always explanatory and serves as charters for social action. The explanatory theme often is so completely dominant that everything else becomes subordinated to it. Myths serve to explain and encourage worldview and good action within society. McDowell (1998) emphasizes that the “form and content” of myths “is not fixed,” which would be

impossible because of a continuous barrage of new influences and priorities. Claude Lévi-Strauss (1995) expresses similar sentiments about myth's functions when he postulates that myths serve to mediate conflicting or dualistic elements of society and life. He added that folktale, myth and legend flow into each other continually and continuously. Shrempff & William (2002) identified five purposes that a myth serves. First, it explains how things came to be. Second, it teaches lessons or values. Third, it unifies a group or define a group's identity. Moreover, it explains social or religious rituals and finally, myth entertains. McDowell (1998) highlighted few characteristics of a myth. Myths are cosmogonic that is metaphysical explanation of the world. It depicts events that bend or break natural laws. It has plot that involves interplay between worlds. Myths characters are often non-humans. Myths are functional. It evokes the presence of mystery. Myths have common theme all over and finally myths are metaphoric and ontology. Is it then safe to say CB model is a myth with all the above listed characteristics a myth possesses?

3.2. Proposition 2

Heuristics is a word from the Greek, meaning, to discover. Oxford Dictionary states that heuristics is any device, which one is not entirely certain will be useful in providing a practical solution, but which one has reason to believe will be useful, and which is added to a problem-solving system in expectation that on average the performance will improve. Merriam Webster Dictionary similarly sees it as a device involving or serving as an aid to learning, discovery and relating to exploratory problem solving techniques that utilize self-education technique (as the evaluation of feedback) to improve performance. Boundless Psychology (2015) views it as a science of problem-solving behavior that focuses on plausible, provisional, useful, but fallible mental operations for discovering solutions. The definition given to it by Feigenbaum and Feldman (1993) did not differ much from Boundless Psychology's view. They (1993) add that heuristic method is a provisional and plausible procedure whose purpose is to discover the solution of a particular problem at hand. Lenat (1982) submits by stating that heuristic is any approach to problem solving, learning or discovery that employs a practical method not guaranteed to be optimal or perfect but sufficient for the immediate goals. In summary it means a mental shortcut that allows people to solve problem and make judgments quickly and efficiently. Be that as it may, can we at this juncture say it is safer to adjudge CB model as a heuristic device?

4. Discussion of the propositions

Understanding CB is fundamental for analyzing the impact of any given product in specific markets. The study of CB is very important to marketers because it enables them to understand why people buy, so that they can effectively develop strategies that will predict consumer buying behavior in the marketplace (Schiffman & Kanuk, 2010). The knowledge of consumer buying behavior enables marketers to know why consumers buy particular products, when, where, how they buy it, how often they buy it, and also how often they consume it as well as dispose it. According to Hamansu (2008), understanding the behavior of consumer helps to acquaint marketers with the knowledge and skills that are necessary to carrying out detailed consumer analyses which could be used for understanding markets and developing effective marketing strategies. These models of CB, proved a systemic approach that enhanced further study of CB and understanding. According to Assael (1995), models of CB is a sequence of factors that lead to purchase behavior and hypothesizes the relationship of these factors to human behavior. The models indicate the evolution in

thought patterns of different authors on the subject of CB over the past years and show the relevance and importance of models of CB in the study and understanding of consumer (Ateke & Akekue, 2017).

The review of CB models highlights the complexity of consumer choices and identifies the key processes that lead to behavior. It is of course difficult for one model to include all the considerations and factors that influence consumer choices or behavior. A wide range of variables have been posited across the models and each has evidence to justify its inclusion in an attempt to explain behavior (Kopetz et al., 2012; Afolabi et al., 2016). Belz & Peattle (2009) add that, the majority of the models provided valuable ideas for creative experts in advertising and packaging design industries. As it has been noted for example, the model provides that the basic objectives of the study of the theory of CB is to provide an exposition to the various efforts that have gone into facilitating our understanding of consumer decision, process or behavior; and also guide/aid our selection of relevant concepts and variables to use (Pearce & Robinson, 2013; Kotler & Armstrong, 2013).

Jackson (2005) posits that CB models are not a myth but heuristic device because it serves as an aid to learning. He (2005) added that conceptual models of CB provide a heuristic framework for exploring and conceptualizing consumers in so many ways. First, these models among others offer conceptual insights into the psychological antecedents of consumer behavior. Second, they highlight the impact of different value orientations on CB and how social norms are contextualized. Third, these models can be used (and have been used) as frameworks to test empirically the strength of different kinds of relationships between values and behaviors in different circumstances, It addition, it enables us to develop an empirical evidence base for particular assertions about consumer behavior and consumer motivations and finally the models allows us to interrogate the strength of these relationships under specific conditions, and to explore the possibilities for behavioral change. Solomon (2011) too submits that the most fundamental and immediate result of this heuristic mechanism is perhaps the message that the behavior of the consumer is complex and subject to economic, social, psychological and anthropological factors and their inter-relationships and added that CB models as a heuristic device further suggest that it is upon a proper understanding of the effect of these factors and their inter-relationship that the marketer may identify why the consumer buys what she buys; identify new market opportunities and in consequence will be able to profitably match productive and distributive resources with the consumer's needs. No single model of consumer behavior is sufficient enough to give an all-round answer and solve all practical problems of marketing. It is also pertinent to know that no model can be imported to consumption phenomenon without modification and evaluation of their specific relevance (Nwulu & Ateke, 2014). To this end, CB model is an aid to learning.

5. Conclusion

The models in CB may have begun as a myth but it has left that realm to that of a heuristic device. The researcher at this juncture hereby rejects the first proposition which says consumer behavior model is a myth because:

- CB models are not cosmogonic (a metaphysical explanation of the world);
- CB models do not depict events that bend or break natural laws;
- CB models do not have plot that involves interplay between worlds;
- CB models do not evoke the presence of mystery;
- CB models are not metaphoric and ontology.
- CB models character are about humans and not non-humans.

I will align my view with the second proposition which says consumer behavior model is a heuristic device because of the following reasons:

- CB models offer conceptual insights into the psychological antecedents of consumer behavior.
- CB models highlight the impact of different value orientations on CB and how social norms are contextualized.
- CB models can be used (and have been used) as frameworks to test empirically the strength of different kinds of relationships between values and behaviors in different circumstances.
- CB models enable us to develop an empirical evidence base for particular assertions about consumer behavior and consumer motivations.
- CB models allow us to interrogate the strength of these relationships under specific conditions, and to explore the possibilities for behavioral change.
- CB models highlight the complexity of consumer choices and identify the key processes that lead to behavior.
- CB models provide valuable input to the study and understanding of consumer, since they attempt to provide insights into why human beings, and therefore consumers, rationalize purchase decisions.

Having taken this intellectual discussion thus far, it is arguably safer to say that modelling in consumer behavior is a heuristic device. It, therefore, holds that principles, assumptions and ideas that are useful in explicating consumer behavior should be utilized when and where necessary and the clarification of the behavior of consumers should not be tied to the limitations of a single model (Kopetz et al., 2012; Worlu, 2008; Ateke & Akekue, 2017). This study concludes that CB models provide a heuristic frame of reference for solving consumer problems and helping to point the way for hypothesis needed for theory development.

6. Research and managerial implications

The body of research on CB models is now considerable and the results suggest these models indeed have value for the understanding of a wide range of purchase behavior and behavioral intentions. However, the validation process has just begun. The importance and application of CB models cannot but be emphasized to scholars and managers in business.

For the scholars

Now that we have looked at the two sides of the coin in consumer behavior modelling, let us close our time with three gaps in literature:

- First: since knowledge brings responsibility, we should put into action what we already know by using it to serve the consumer well and not to exploit him unbearably. But for scholars, this knowledge should propel us to develop hypothesis and theories that will enhance the understanding of the consumer, and ultimately improve the practice of marketing.
- Second: proper CB modelling is intellectually laborious and rigorous, and therefore a clarion call on scholars to be painstaking in the conceptualization and development of CB models.
- Third: the current state of marketing thought has made the practice pervasive. This should not diminish the validity of the modelling approach to consumer behavior.

For the managers

These models are applicable and relevant in so many ways:

- First, these models should serve as basis for marketing planning and setting of goals, and aid managers to enhance the sustenance of company objective and satisfaction of customers.
- Second, it will enable marketers to determine the needs of complex consumers in a dynamic environment and assist them to reasonably evaluate that company product or service offerings are in conformity with set goals of consumers.
- Third, through the knowledge of these models, management will be able to make policy and take decisions based on set objectives, predetermined goals and other internal decisions, and consciously committed to consumers need satisfaction.

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