

CONSUMER DECISION MAKING PROCESS MODEL FOR HOUSING DEMAND

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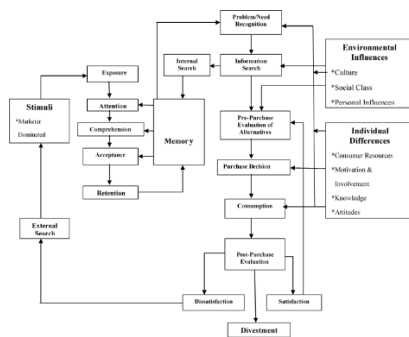
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Graphical abstract



Abstract

Every part of man's life today involves in the consumption of goods and services. Housing as a product is part of goods that is consumed by man. Studies on housing demand as related to all categories of housing consumer, how and why consumers make specific decisions on housing demand, are not common. This study aimed at examining the Consumer Decision Making Process Model (CDMPM), and applying it in the field of housing through which sustainable housing delivery can be expected to be achieved in Nigerian urban centres. This paper essentially employed fifty literature reviews after winnowing through relevant published articles, books, conference proceedings, unpublished thesis, government reports and monographs, in order to identify all issues that relate to the application of the Model in Housing demand. The understanding of this model is expected to help to look at the process of the decision making of different consumers with different status or background by examining the factors being considered in housing demand among various alternatives, the evaluation of the chosen alternative and its effects on their social, and psychological wellbeing for the purpose of achieving the safety, comfort and conveniences of housing consumers. This could serve as a road guide for private and public housing sectors as well as housing policy makers towards sustainable housing delivery.

Keywords: Consumer, consumer-decision, consumer behaviour, housing, housing demand

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1.0 INTRODUCTION

Every part of man's life today involves in the consumption of goods and services. Housing as a product is part of goods that is consumed by man. Consumer behaviour focuses on why and how consumers make specific decisions as well as how they behave in certain manners [1]. Man's consumption of a particular type of housing unit in a particular location deals with why and how housing consumers make a specific decision on the type of housing choice and its location as well as the factors that influence the decision making. Getting answers to these questions in

housing research requires an examination of many different aspects of housing consumers and their behaviours. This begins from their motivations, personalities, knowledge and their attitudes to the process by which they make their consumption and occupational decisions. This examination would therefore include understanding of the consumer's socio-economics status, housing characteristics and consumers' evaluation on the housing.

Consumer behaviour is an applied discipline that is borrowed from some disciplines such as psychology, economics, sociology, anthropology and marketing, to understand the consumers' motivations, personalities, knowledge and their attitudes towards

commodity consumption [2]. The importance of studying consumer behaviour in housing demand is to be able to understand the process of developing the strategies and programs for the purpose of providing the type and quality of housing unit that different housing consumers want that would be acceptable and affordable to them, and adapt such strategies and programs accordingly.

Consumer decision making process model (CDMPM) is the road guide that represents the mind and thought of the consumers [1, 3]. The private or public housing sectors can follow this model in guiding their housing production for the purpose of meeting housing need of consumers of different socio-economic status in Nigeria. Different people constitute a society, and each person within the society has several roles to perform. The stability, continuity and development of a nation depend on the role each person performs in the society [4]. The role of individual and family in decision-making on the housing demand cannot be over-emphasized. This forms the component of everyday life of every household. The choice of the housing demand and the type of houses to be accommodated has been determined by the socio-economic status of individual and household [5].

Housing research cut across many professions with different views, ideas and concepts [6]. The importance of housing to a nation and its people cannot be over-emphasized. It is an important component of human settlement that provides great and various services [7-11]. It's concept has been viewed more than four walls with a roof structure but also meant to protect man from external aggression, influence his economic, health and social well-being as well as determining the welfare and productivity of individual within the society [12]. This may be the reason why accessibility to housing should be seen as a fundamental human right and no individual should be deprived of its benefits regardless of the ethnicity, belief, age, sex, social and economic condition [13].

Housing demand is the willingness and ability of housing consumer to pay for a particular house depending upon his income, house type and preferred location at a given price at a particular given time period [14]. Demand for housing at certain price refers to the value that is placed on a house linked with the satisfaction derived in such house. In economics, this is termed as utility. The main determinant of the housing demand is the price of housing while other factors such as income, credit facilities, household composition, and consumer preferences also play a role [15].

2.0 METHODOLOGY

In order to apply the Consumer Decision Making Process (CDMP) Model in housing demand, relevant literature reviews were conducted through published researched journal articles, books, conference proceedings, unpublished thesis, government reports

and monographs. This is to identify all issues that relate to the application of the Model. This paper essentially employed an extensive relevant literature reviews that centred on four different key areas through Search Engines such as Google scholar, Library of congress, LISTA (EBSCO) and Web of Science core collection (Thompson Reuters). The areas included housing demand, consumers' decision, consumers' behaviour and housing. Many articles were consulted in each of these search engines but after winnowing, only fifty-one articles were used and quoted in this paper. The selected fifty-one articles were based on their contents' relevancy to the subject of discussion in this paper. Those that did not investigate deeply into these keywords, or that we could not get useful information for the paper were discarded. Among the reviewed literatures, twelve were reviewed under housing demand, five in consumer decision, twenty-four were related to consumer behaviour while the remaining ten literatures were under housing. The application of content analysis techniques were employed for the analysis and explanation. This involved reading, skimming and interpreting the documents that were necessary in the materials to be analysed. The literature review aimed at examining and synthesizing issues on the model.

The significant issues as contained in the model were viewed as the process of determining and identifying through which individual household make their various choices in housing demand. The examination of the model with its significant issues was the focus of this paper. The understanding of this model as it relates to housing demand led the authors to develop a model that can serve as road guide for private and public housing sectors as well as housing policy maker in sustainable housing delivery. This aimed at providing the type and quality of housing unit that different housing consumers want that would be acceptable and affordable to them.

3.0 UNDERSTANDING OF CONSUMER BEHAVIOUR

Consumer behaviour is a field of study and focuses on consumer activities. Consumer behaviour can be defined as the activities people undertake when obtaining, consuming and disposing products and service [1]. Obtaining, consuming, and disposing are three activities that could be derived from the definition. Obtaining is the activity that leads to purchase or receipt of a product; consuming deals with how, where, when, and under what circumstances consumers use the products; while disposing entails how consumers get rid of the products and packaging.

In housing, consumer behaviour should be the primary focus of every aspect of the private and public housing sectors program. This is the centre of marketing concept [2], which is the process of planning, designing, executing, advertising, rents, and

giving out of housing unit in exchange of consumers' housing need and satisfaction. The understanding of what housing consumers want, would help the private and public sectors in housing to discover what influences different housing consumers in accepting and affording a particular type of housing unit. It would also help in understanding how to improve in planning, strategies and implementation of housing policy in meeting the housing need of different consumers.

It is assumed that consumers are rational when making decision and has the capability and potential to undergo decision making process to reach an optimal choice among various available alternatives. Consumers' decision making process involves seven stages [1].

4.0 EXPLANATION OF CONSUMER DECISION MAKING PROCESS MODEL

Consumer Decision Making Process (CDMP) Model can be termed as a road map of how consumers make decisions [1]. This represents consumers' minds and thought, which private and public housing sectors can use as a guide in housing development strategies [3]. It was originally developed by Engel, Kollat and Blackwell in 1968, and referred to as the Engel-Blackwell-Miniard Model, and thereafter underwent various revisions [16]. Consumer decision making can be seen from two different ways. These include the logic of the decision making which describes the people's belief and secondly, the nature of consumer rationality which is the preferences of the consumer. The descriptive analysis of the consumer's belief and preferences explain the concept of consumer decision making process. The model relates to the variables that influence the consumers' decision making in a unique manner. Housing needs precede any decision to be made on housing demand which can be termed as a problem. The CDMP model shows how people solve the housing problems of their choice. This model was developed by Blackwell [1], and this researcher attempted to adopt it in housing demand. The main aim of adopting this model in housing demand was to reveal housing consumers' minds and to serve as a guide for private and public housing sectors in developing housing delivery strategies. This is to meet different housing consumers of different socio-economics status of their housing choice.

The model structure has moved from its initial five decision stages to seven decision stages as shown in the Figure 1 being studied by various researchers [16-20]. Although these researchers gave series explanations on the model but had the same opinion in their description about model decision stages. The seven decision stages include Problem/Need Recognition and Information Search which included internal and external search. Others were Evaluation of Alternatives, Purchase Decision made, Consumption, Post-Purchase Evaluation and Divestment. The seven

stages of the model also explain the stages the housing consumers go through in making decision on housing demand. According to the model, the consumer decisions are influenced by Stimuli received and processed by the consumer's memories of previous experiences and influenced by either environmental or individual differences of External variables [1]. The culture, social class, personal influence, family and situation are identified within environmental influences while consumer resource, motivation and involvement, knowledge, attitudes, personality, values and lifestyle are identified within individual influences. In the following sub-sections, the stages were explained in the context of housing demand.

4.1 Problem/Need Recognition

Recognition of consumer's need or problem is the first stage in housing demand. Housing consumers need to recognise their housing need or problem. Need recognition is the realisation of sufficient difference between the desired state and the actual situation to trigger and activate the decision process [1]. The individual consumers identify and acknowledges the differences between what they assume to be their ideal status and the actual present status, the differences between the current state of affairs and the desirable alternative, the difference between the actual state and a desired state [16]. Need recognition is realised as a result of personal, professional and lifestyle circumstances. Housing consumers identify their housing needs when they realise the difference between what they perceive to be the desired state and present state of their housing situation. They decide to solve the problem on housing demand when they have purchasing power to get the house. Housing need may arise as a result of various factors. These include changes in household's job in terms of better job, job location, better or increase in income, taste, education, employment status, increase in family size and improvement in social status. In view of this, the private and public sector must be able to examine and identify the consumers' housing desires and the purchasing power to obtain the house. In the course of fulfilling the consumers' desires, the housing sectors must take into consideration the acceptability and affordability of different housing consumers as it relates to their socio-economics status.

Many housing strategies and programs in solving Nigerian housing problems so far have not yielded much result. This is because the strategies and programs have not focussed on what different housing consumers need. Housing policy makers need to monitor housing consumers' trend of behaviour in housing demand. This is because, housing consumers are influenced through the influence of individual and environmental influences. One important benefit of understanding need recognition of housing consumers is that it reveals a housing market with unsatisfied desires thereby providing housing sector with new

ideals of how to meet the housing need of different consumers.

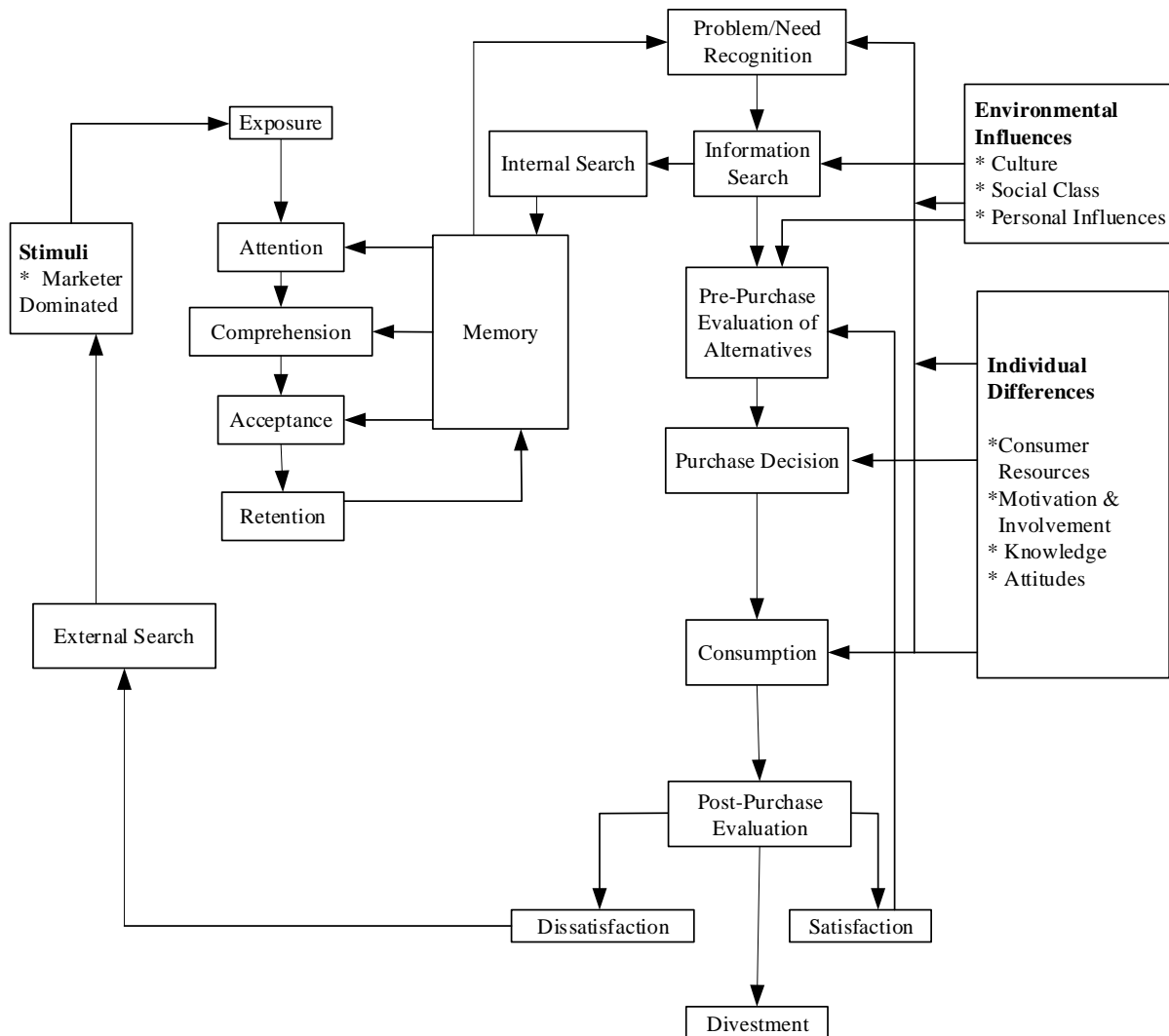


Figure 1 Consumer decision making process model [1]

4.2 Search for Information

Once housing consumers recognize their housing need, they begin to search for information and solutions that are related to their desired housing unit to satisfy their needs [19]. Search may either be internal or external [20]. Internal search entails retrieving knowledge from memory or perhaps genetic tendencies while external search deals with collecting information from colleagues, family, friends, or estate agents [20]. The internal search involves the consumers' memory bank of previous experiences through scanning and retrieving decision knowledge, which is relevant from the memory. Searching for information may be passive or active. When housing consumer is becoming more receptive to information around them, it can be said to be passive; but when the housing consumers engage themselves to searching through seeking estate agent assistance, looking for advertisement of vacant house or actively

informing friends and colleagues on the need for house, such can be termed as active search.

Housing consumers may at times find themselves unexpectedly into search process and prompt to act due to a situation that may be beyond their control. For example, an international student coming for study in a foreign University, must search for information on how to get house to stay immediately. However, the urgency of the situation which beyond their control might restrain the amount of time available to search compared with local student who does not have urgency in getting house. The international student would rather go for any available house either on campus or off campus. Another example is when comparing erecting a new house with renting a house to meet immediate housing needs depends on the urgency of the needs. The nature of the problem to be solved would determine the depth of information needed to be searched. A Simple internal search of previous behaviour would solve simple problems

whereas new or complex consumption problems may be subjected to extensive external information search.

External information search is an act of collecting information from consumers' environment. In accordance to the model, as consumers are exposed to information resulting from external search, they begin to process the stimuli as shown in the Figure 1 [1]. The information search undergoes the stages of processing before such information can be stored and used. These stages include the Exposure through which the information and persuasive communication reach the housing consumer. The moment exposure occurs, one or more of the senses is activated and preliminary processing begins.

The second step is Attention which is to allocate or not to allocate information processing capacity to the incoming information. The more relevant the message and its content, the more likely the consumer pay attention. The next step is Comprehension. In this step, if the attention is attracted, the message is further analyzed against categories of meaning stored in memory. The message can therefore be either dismissed as unacceptable, which is a common outcome, or can be accepted. This step is called Acceptance step. The final step, which is the fifth step, is called Retention. The goal of any persuader is for this new information to be accepted and stored in memory in such a way that is accessible for future use. Beliefs, attitudes, intentions, and behaviour are concepts to evaluate environmentally responsible behavior, while knowledge and attitudes influence actual behaviour through behavioural intention [21]. Environmental attitudes and beliefs, and demographic variables such as income, age, level of education and household size can be used to measure behaviour determinants [22-25]. Housing consumers might be paying more attention to different kind of design that may be suitable for their status. In view of this, the households becomes more attentive to the kind of housing unit being occupied by their socio-economic class, and their acquaintances' conversations about housing unit.

On the other hand, the households might be more active in seeking for information by consulting estate agents, talking to friends, co-workers and families. Through information collected from different sources, the households learn more about different kinds of available housing units in the housing markets, their design and facilities being provided within the housing unit. Theoretically, there would be a lot of different kinds of housing units in the housing market, but the households would only be aware of a subset of the housing types within the market. Some of the available housing units might satisfy their initial status needs. Moreover, as the household proceed to more information search, there would be few remaining strong choice set which may be in terms of price and location of the housing unit.

The extent of searching for housing to be consumed depends on some factors such as housing consumer's personality, social class, income, preference of housing type, choice of housing environment and

housing consumer's satisfaction. When prospective housing consumers (tenant or buyer) and supplier (house owner) or their representatives such as estate agents meet, there must be cost transaction. Consumers need to find appropriate type of house that merges their status. Search is necessary because there may be imperfect information from any advertisement, possibly about which units and units' type are available either for rent or sale [1]. Search identifies opportunities through which the searcher (household) knows only the distribution of opportunities but not which of the available houses are worth occupying before inspection [26]. Information acquired during the search can be used to revise their decision on housing demand. Households, who are less familiar with an area, needs to obtain more information on the housing units because of their limited knowledge of the housing opportunities distribution which may lead to longer time and more efforts in searching [27].

Experience in house searching plays a major role in searching. More experienced households who have already occupying a house but tend to move to a better house as a result of changes in status have advantage of having gone through a search process at least once. As a result of this and based on the fact that they are not trying to occupy or rent the same type of house as before, they may understand the implications of given set of information better than just newly intended housing consumer. They can therefore be expected to search for less time or more depends on their taste, location and the availability of such type of house in the market within the location of their preference.

4.3 Pre-Purchase Evaluation of Alternatives

Evaluating alternative options of the different commodities or products that were identified during the search process is the third stage in the Model. This represents the decision-making stage before the purchase decision is made by the consumer in which consumers evaluate considered alternatives of the different commodities or a product to make a choice [20]. This stage is important in housing consumption through which consumers consider various alternatives considering factors such as size, quality and house price. Housing consumers are expected to seek answers to some questions that might likely to come to their mind. These questions include: what are the alternative housing units that are available, which out of these alternatives housing units is best to be selected, which can be acceptable in term of housing type preference and choice of environment as it relates to the housing consumer's taste and social class or that are affordable in terms of cost as it relates to the housing consumers financial capability. Comparison among various housing units taking into consideration various factors would finally lead to resolution in selecting among the alternatives. The evaluation of different housing units within the housing market in different locations would be made

by the consumer. Different evaluative criteria are being employed by different consumer before a decision can be taken on a particular commodity or product [1, 28]. In some products, consumers could consider the brand, price, and reliability of the products as well as the particular store of the purchase in making a decision for the purchase [28]. In the case of housing consumption, housing consumer could consider the design, type, house standards, size, quality, price and the location of the environment to decide on a particular housing unit for the purchase. Consumers are satisfied when their expectations are met with the performance of the product or housing unit purchased or rented. On the other hand, the consumers are dissatisfied when the performance or their experiences fall below the expectations. The establishment of consumers' beliefs, consumers' attitudes and the intentions of the purchase by the consumers will aid the evaluation processes which could be influenced by the environmental and individual variables [1].

However, there is no single and simple evaluation process that can be applied by housing consumers through which they can process competitive kinds of housing unit information, and evaluate the value of the different housing units. The evaluation process has to be seen as being rational. Through this view, housing consumers try to solve their problem and satisfy their housing needs. The households look for the housing unit with some benefitting characteristics through which the households can satisfy and solve their housing needs and problems. Benefitting characteristics of a housing unit are important and meaningful provided they can solve the household housing needs and problems. The instrument of solving the housing needs and problems is the housing satisfaction.

Housing consumers use evaluation already stored in memory to select housing unit that would satisfy their housing desired in terms of its acceptability and affordability based on their status. Moreover, it should be noted that different housing consumers evaluate their housing choices through the influence of individual influence and environmental influence. In view of this, evaluative factors reflect individual consumer's need, values, lifestyle, social class, family size and income. At times, pre-existing evaluations are retrieved from memory and acted upon. Housing consumers could as well construct new evaluations to make a choice based on their affordability and acceptability. Understanding how these evaluations are made would reveal a number of strategies for public and private housing sectors to determine housing consumers' need.

4.4 Purchase Decision Made

The question of whether to buy/rent or not is the question that needs to be answered in this stage of the model. Housing consumers decide whether to buy/rent; when to buy/rent; what to buy/rent (the type and quality of the house); where to get the house (the

location of the house to buy/rent) and decide on how to pay. After housing consumers evaluate their housing choices, they are ready to buy or rent the house. There is tendency for housing consumers to conclude on a particular housing unit which they have planned for, but at times conclude on something different from what they intended or opted not to buy or rent at all. This is resulted from what may likely happen during the purchase or choice stage. At the point of purchase, there are several factors that can influence housing consumers on the final decision they take. The factors may be internal or external factors such as their present budget on housing, the environment, or the influence of estate agent, friends or colleagues [1, 18].

This stage refers to occurrence of transaction [18]. In other words, once the consumers recognized the need, searched for relevant information and considered the alternatives, they make decision whether or not to make the purchase/rent. Once the decision is made for the purchase/rent, there is nothing again to stop the consumer in taking action in purchasing/renting except the environmental and individual influences that comes in later. To actually make a decision, housing consumers need to select housing kinds, the location and the price. In most cases the housing consumers consider the factors together in making housing choice and moves ahead on to the transaction for the housing consumption. Purchasing decision can be divided into planned purchase, partially purchase and impulse purchase [17].

4.5 Consumption

After the purchase decision stage has been passed through and it has been made. The consumer at this time takes the possession of the house, it is then the consumption has taken place, and can be termed occupation stage [17, 29]. This is at the point consumer occupy the housing unit. Housing consumption or occupation can either occur immediately or be delayed depends on the urgency of the need of the house by the housing consumer. For example, if the housing consumers are presently living in their personal houses but intend to move into their better house as a result of changes in their social status or from rented house and there is no problem between them and the landlord, they may not be in haste. Whereas, housing consumers who are having problem in their present house or with their landlord would be in haste in occupying the new house. However, the situation in form of time pressure and financial limitations as listed as one of the environmental factors when not properly defined, could prevent the consumer from achieving the purchase intentions [30].

4.6 Post-Consumption/Occupancy Evaluation

This is an important stage because it directly affects the consumers' purchases of the product in the future [16]. It serves as feedback function into the future external search through which consumers experience

either satisfaction or dissatisfaction on the housing unit they occupies. Satisfaction plays an important role in evaluating all types of facilities and housing performance [31-33]. At this stage, the housing consumers express their satisfaction with the house and give an opinion on how much the housing is beneficial, neutral or negatively affects his satisfaction. Housing is where people spend the best part of their lives [34], and has profound influence on their health and productivity [12, 35-40]. Satisfaction on housing occurs when the consumers' desired are matched by the housing standard.

When the housing standard fall short of consumers' expectations, the consumer would be dissatisfied on the housing unit. These outcomes are significant in the sense that housing consumers store their evaluations in memory as it relates to their social class and status. The most important determinant of housing satisfaction is the value that the consumers have attached to the money paid on the housing in relation to the standard of the housing unit. The consumers' dissatisfaction leads to their engagement into another problem solving process. In this second round of process, memory of the previous experience and dissatisfaction would be used as part of information in decision-making for another housing choice. In view of this, the tendency for the housing consumers to be dissatisfied with the re-selected housing unit would be significantly lower than the previous one.

Consumers often have 'second-guess' on their purchase decisions no matter how good the product is. Consumers ask some questions such as: 'Did I consider all the alternatives?', 'Have I made a good decision?', 'Could I have done better?' etc. These types of questions are called post-purchase regret of cognitive dissonance [1]. The higher the price, the higher the level of cognitive dissonance on the purchased product. Emotion is a reaction to a cognitive appraisal of events or thoughts [1] and plays an important role in how housing consumer evaluates a housing unit.

Housing post-occupancy evaluation is a tool to determine satisfaction and comfort level of housing residents for the purpose of identifying likely problems within the housing. Post Occupancy Evaluation helps to see divergence, difficulties and problems in different ways [40]. It also unveil problems in the design process (for the architect and related disciplines), the usage (for the occupant, user and building manager) or in the housing as a system. It gives initiatives to architects who design it and plays an important role in providing feedback. The application of post occupancy evaluation should be seen as strategic implementation and continuous activity in housing sustainability which is in decision making [42]. It is an examination of the effectiveness for consumers designed environment [43]. Information about the housing condition is acquired through the reviewing of the consumers' evaluation to judge whether their housing desired is met.

Various scholars have identified various benefits that can be derived from post occupancy evaluation and

these include: identification of design success to replicate in future [44], loopholes identification to eliminate, reduce or improve the housing performance [45-46]. Post occupancy evaluation through the administration of questionnaires, interviews, site visits and field observation in early '60s and '70s on public and student housing sector in Britain, France, Canada, and United States gave the consumers' evaluation on the housing unit [42, 47-49] and support design criteria and guidelines to identify lessons through the findings. While post occupancy evaluation should be performed within 4 to 24 months following occupancy of a new or renovated housing once for an individual housing unit according to some researchers, post occupancy evaluation could be conducted at any time in the life of a house and not necessary to conduct it between any time frame according to others [42, 44].

Housing policy and programs may be designed with the aim of meeting the housing need of various consumers, but in practice the targeted populace may not be allowed to benefit it to its potential [50]. Post occupancy evaluation is the solution to these problems provided the results are published openly with honesty. Efforts need to be made to obtain feedback from previous housing provision strategies and programs, as well as housing policy making to ascertain whether the housing policy and programs have met the housing needs of the targeted consumers' status. This will serve as a guide in making quality and acceptable housing provision for different consumers' status and improve the subsequent housing policy. It will help to build on the past success, avoid common pitfalls, solve problems and interact more effectively with every consumers. Housing sector, either public or private that is committed to the functionality of housing provision in meeting the housing needs of different consumers' status, should therefore endeavour to evaluate the housing provision implementation to see how well the housing provision performing, and ascertain if the aim is being achieved. Post Occupancy Evaluation ensures the sustainability of housing policy performance in the provision of basic facilities to enhance the acceptability of the housing, and to determine defects in housing design and construction [44-45]. This will also enhance proper understanding of relationship between housing demand and consumers' aspirations with the aim of improving the housing condition and environment to satisfy consumers' aspirations.

4.7 Divestment

The last stage in the model is Divestment. At this stage, the consumer acknowledges the commodity or products purchased. In housing consumption, the housing consumer at this stage acknowledges the chosen housing unit. This may be in terms of house price which meets the household income status. It could also be in terms of house standard which meet the households' social status of household members. Housing consumers have options of leaving the house

when there are changes or improvement in social class by moving to better housing unit thereby leaving the present housing unit for another consumer who has just reached the social class or status that can lead them to move into such housing unit. This process is called filtering in housing [11]. In this situation, choice of housing environment, housing typology and taste play a major role in housing consumer's divestment.

Public and private housing provisions have not met the targeted housing consumers in most developing countries due to non-involvement or lack of consideration of relevant inputs of prospective housing consumers into the housing provision or policy [51]. Comparing the housing provision or housing policy implementation with its goal would provide useful feedbacks to guide future housing provisions and housing policies.

5.0 THE USE OF CDMP MODEL IN SUSTAINABLE HOUSING DELIVERY

The main purpose of adopting the consumer decision making process (CDMP) model in housing demand is to help the private and public housing sectors as well as housing policy makers study housing consumers through examining how consumers proceed in the decision making and ask questions to:

- i. Identify relationship between consumers' decision making variables and
- ii. Develop and implement housing production strategies to meet different socio-economic status households.

In the past, the Nigerian government has demonstrated its concern for housing situation through various strategies and severally involved directly in housing provision without much achievement. This include provision of staff quarters, low-cost housing estates, setting up of mortgage finance organizations, formulation of National Housing Policy and establishment of the National Housing Fund Scheme for workers to contribute savings towards housing development and site and services schemes beginning from pre-independence period till the present time.

However, upon all these government's intervention in housing, all these strategies have not significantly improved the housing situation in Nigerian urban centre because the strategies did not consider the buyer/tenants as consumers, and have not taken into consideration the CDMP. Consideration of CDMP

would give proper identification for the consumers' behaviour in the provision of housing policy.

The importance of consumers' behaviours influence through factors such as culture, social class, taste or preferences, family and household as well as consumer resources, motivation and involvement, knowledge, attitudes and personality, value and lifestyle cannot be over emphasized. Private and public housing sectors as well as housing policy makers should be able to predict consumer decision making patterns through the seven stages of decision making process and know how the consumers' housing needs can be met.

For the purpose of adopting this model in housing provision to meet the housing needs of different socio-economic status of consumers, proper attention on the stages of housing consumer decision making is highly important. In view of this, the authors have made an attempt to propose a model in a simplest form as shown in Figure 2 to serve as a road guide for private and public housing sectors as well as housing policy makers in meeting the housing need of different housing consumers through sustainable housing delivery. Government also need to have a data bank through which housing problem recognition, search and alternative evaluation satisfied housing consumers and the housing production sectors focused on all stages of housing consumer decisions.

6.0 PROPOSED HOUSING POLICY MODEL

Private and public housing sector as well as housing policy makers need to pay more attention to consumers' desired housing demand. Their interventions on housing demand are relevant when it focuses on housing affordability that achieve the safety, comfort and convenience of housing consumers of different status. Involvement in research on consumer decision making by these stakeholders would be an integral part, and facilitate the process of getting knowledge about consumers' desire as well as developing interventions for sustainable housing delivery that is affordable as explained in Figure 2.

Step 1- Identification and Description of housing problems: Description of housing supply strategies and assess the extent these have being able to meet the housing demand of various consumers will unveil housing problem. Step 1 aimed at getting an overview of consumers' housing problems. Data collection through the quantitative and qualitative approaches among prospective housing consumers would be of advantage.

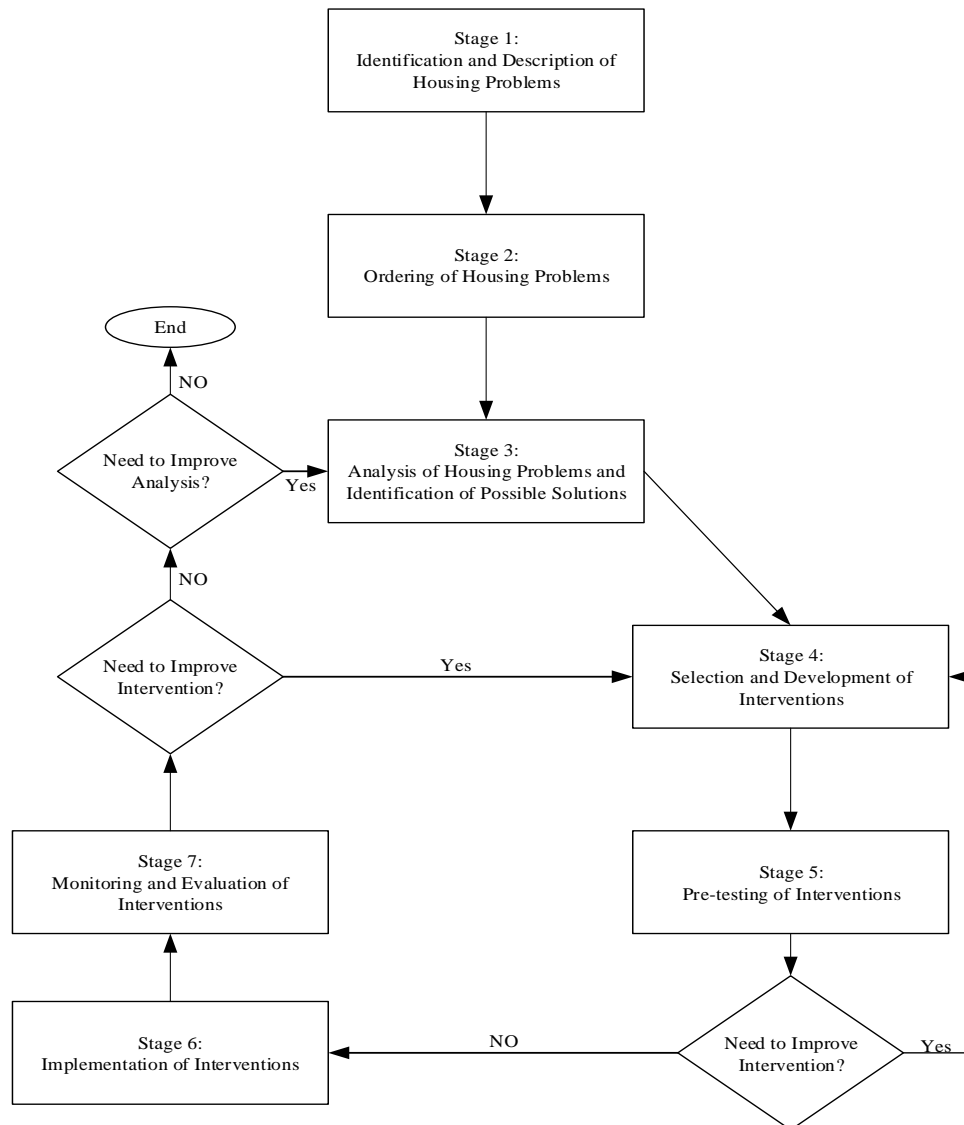


Figure 2 Proposed housing policy model

Step 2- Ordering consumers' housing problems: The problems identified in step 1 leads to step 2, through which problems could be ordered and selected for the intervention.

Step 3- Analyze consumers' housing problems and identification of possible solutions: Factors that contribute to and cause the selected problem have to be analyzed followed by identification of possible solutions. This should aim at describing the main problem(s) and infer the reasons for the problems. In such analysis, consideration has to be given to the various layers of influence, as discussed in consumers' decision making process of this study. These layers include Environmental Influences (culture and social class) and Individual Differences (consumer resources, motivation, involvement and knowledge). Such analysis helps to develop appropriate intervention with the aim of providing affordable housing to consumers of all categories. The implementation should also be done with the involvement of the housing consumers and all other

key stakeholders such as professionals, artisans, landlord, and so on.

Step 4- Select and develop interventions: This provides information on how to develop and use the result in step 3 for better housing policies. This aims at improving housing provision to different socio-economic status through reviewing and re-designing housing policies.

Step 5- Pre-test interventions: It is the next step after intervention has been developed. Pre-testing involves trying out the intervention to be used with a small community to serve as pilot study. The feedback from the consumers and the research results are used to adjust the intervention, evaluation and monitoring activities.

Step 6- Implementation of interventions: Pre-testing can lead to changes in the way the selected intervention is implemented. Once the intervention has been optimized, it can be implemented.

Step 7- Monitor and evaluate interventions: Monitoring and evaluating interventions plays an

important role in order to improve on intervention to determine the success and failures.

7.0 CONCLUSION

Attempt has been made to explain the consumer decision making process model as it relates to housing demand. Each of the stages was defined by series of researchers with little variations but a common view on what each stage involves.

The application of consumer decision making process model in housing research is relatively new especially in the profession of urban and regional planning. The application of this model is borrowed from other disciplines such as economics, management, marketing and psychology. It is found from the studies that the application of the consumer decision making process model in making choice for a product has been very useful determining how consumers are making their choice in product consumption. It gives the detail process of how the decision can be reached by consumers. It is therefore assumed that adoption of consumer decision making process in housing demand would be of great advantage in housing research, and might achieve greater result in meeting the housing demand of various consumers' status.

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