

Full Length Research Paper

Residential satisfaction and the organized private sector housing in Nigeria

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Level of residential satisfaction has become one major user-end means of evaluating the success or failure of any housing project, program or policy. The increasing shift towards expanding the role of the market in the social and public policy delivery system of nations call for such evaluation in the housing delivered by profit-driven organized private sector in Nigeria. The objective of this study is to evaluate the level of satisfaction accorded by the residents of organized private sector housing in Nigeria. The study, which was based on a structured questionnaire administered on 1,950 beneficiaries of organized private sector housing estates, covered two states with the prevalence of organized private sector housing developers (OPSHD) in each of the six geo-political zones of Nigeria. The data collected from the residents' rating of their level of satisfaction were analyzed using the Residents' Satisfaction Index (RSI) technique. The overall level of residents' satisfaction expressed as RSI was 2.31 while 11 of 13 attributes of the housing rated have RSI of greater than 2, with only two of the attributes having RSI of less than 2. This study revealed that residents of organized private sector housing estates in Nigeria have a high level of satisfaction with most of their building components, in-house-services and neighborhood infrastructure/facilities as reflected in the overall residents' satisfaction index of 2.31. However, developers of these estates should improve electricity supply and fire service to enhance the level of satisfaction of residents of estates of organized private sector housing delivery in Nigeria.

Keywords: Residents satisfaction index, organized private sector; housing estate, residential satisfaction, private housing developer, neighbourhood infrastructure; housing policy, Nigeria.

INTRODUCTION

The housing problem is a global challenge confronting both developed and developing nations. In Nigeria today, growing housing deficit, particularly in the urban areas, is aggravating housing affordability problem with great consequences on resident's satisfaction with their housing. The government has made several efforts aimed at provision of housing that meet minimum government prescribed standards in terms of quality, user's needs, expectations, and aspirations. According to Iben and Aduwo (2013), the provision of satisfactory housing that meets government prescribed standards of quality and users needs, expectations and aspiration has

always been the goal of every public housing program in Nigeria.

However, despite the plethora of housing policies and programs, desired goals have not been achieved, hence, the adoption of organized private sector intervention in housing delivery in Nigeria in 2002. This policy saw the emergent of two major private sector bodies as active players in the sector. These are the Real Estate Developers Association of Nigeria (REDAN) and the Building Materials Producers Association of Nigeria (BUMPA). Members of these two associations are aided by the government, through concessionary interest loans to provide 1 (one), 2 (two), and 3 (three) bedroom flats and bungalows. Today, the organized private sector estate developers are the fulcrum of housing delivery in Nigeria. Since 2002, they have been developing housing estates across the six geo-political zones of the country.

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However, since they are private sector investors which are primarily motivated by profit and being suppliers market, this study, however, set to evaluate the level of satisfaction of residents of these various estates. Globally, residents' satisfaction has become a major tool to feel the pulse of residents and to assist developers to have feedback for better housing delivery. Thus according to Fatoye and Odesanmi (2009), for the housing sector to improve the quality of its products, it must explore and understand the ultimate user's needs and expectations as well as the extent to which such needs and expectations are met through regular evaluation. Similarly, Nathan (1995) opined that one way of determining the degree to which residents housing needs are fulfilled is through a periodic comprehensive evaluation.

According to Salleh & Yusuf (2006), residential satisfaction has been a popular research topic, firstly because residential satisfaction is recognized as an important component of individual's quality of life and secondly, individual's evaluations of housing and neighborhood determine the way they respond to residential environment which in turn form the basis for public policy feedback. Hence, Lu (1999) concluded that the knowledge about factors that shape residential satisfaction is critical for a better understanding of household mobility decision process. Also, one possible way to meet household's housing needs is to examine factors which account for resident's satisfaction or dissatisfaction with their housing condition (Tech-Hang, 2011). Residents' satisfaction study, therefore, is becoming a reliable user-end evaluation of housing in the broad sense (house, services, and neighborhood environment) which has proved very useful for monitoring and refinement of housing projects, programs and policies.

In the developed world, there have been a lot of studies on residents' satisfaction but such studies are few in the developing countries. In Nigeria, there are a number of residents satisfaction studies but their scope and coverage are very narrow with most of the few available studies focusing on a particular type of projects, covering a section of a state or at best, a whole state. For instance, Waziri, Yusuf, and Salleh (2013) focused on private housing estates in Abuja; Ibem & Aduwo (2013) studied public housing estates in Ogun State, Abdul-et al. (2014) focused on Kano city while Akindele et al. (2014) studied public estates in Osogbo, Osun State. Other residents' satisfaction studies in Nigeria include Ebiaride and Umeh (2015) which was on public and private estates in Lagos, Nigeria. Ibem and Awale (2012) studied public core housing project in Abeokuta, Ogun State; Adewale et al. (2015) looked at residents' satisfaction in the core Area of Ibadan while the focus of Jiboye (2009) was the Tenants satisfaction with public housing in Lagos, Nigeria. Although there is an increased interest in

residents' satisfaction study in Nigeria, none of these studies covered the entire country.

This study, therefore, provides a national view of residents' satisfaction with the housing delivered by the organized private sector estate developers across the entire nation. It provides a general residents' satisfaction index which is very vital for both government and organized real estate developers for policy refinement and indeed a tool for shaping the future of organized private sector housing in Nigeria.

CONCEPTUAL ISSUES

Residential satisfaction, as a concept, is very broad and varieties of factors are being used to measure it. The factors varied widely with the field of study of the researcher. Thus, the factors considered in the measurement are a reflection of the bias or emphasis of the researcher. Viewed broadly, it is a measure of residents' satisfaction or dissatisfaction with their housing conditions. According to Galster (1987), Hashim (2003); Kaita (1993) and Ogu (2002), residents' satisfaction is a measure of residents' satisfaction with both their housing units and the neighborhood environment. It is an assessment of the extent to which the current housing environment of residents is meeting their needs, expectations and aspirations (Mohit et al., 2010; Salleh & Yusuf, (2008) According to Schoor (1970); Canter and Ree (1982), residential satisfaction is a reflection of the degree to which inhabitants feel their housing is helping them reach their goals while Morris et al. (1990) opined that satisfaction measures a household's effective state with respect to the extent to which current housing meets the norms. Therefore, there could be different perspectives in the study of residents' satisfaction. This is why the studies by Ibem and Amole (2012); Mohit et al. (2010) and Salleh (2008) were devoted to the assessment of the extent to which people are satisfied or dissatisfied with their housing condition, while the factors that influence residential satisfaction were the focus of studies by Galster (1987); Jaafar et al. (2006); Tech – Itong (2011) and Ukoha and Beamish (1996) from the literature, quite a number of theoretical and conceptual approaches have been put forward by different authors and researchers in an attempt to understand and explain residents' satisfaction. Galster (1987), however, noted that most studies on residents' satisfaction are based on either of two contrasting empirical approaches. These are purpose approach and actual – aspiration gap approach.

i. **Purposive Approach:** In the purposive approach, Canter (1983) and Galster (1987) argued that people are seen to have goals and specific objectives directed toward achieving such goals. The extent to which one's residential environments are perceived to be facilitating the achievement of his/her goal is seen as an indication of residential satisfaction. They perceive their housing is

performing the “facilitate role” is seen as a measure of residential satisfaction.

ii. Actual–Aspiration Gap Approach: Galster (1987) noted that in this approach, people consciously construct a reference quantity or quality that is “an ideal standard” of the different aspects of their residential situation based on their needs, experience, and aspirations. As a result, they tend to evaluate their housing conditions based on the “ideal standard” which they have already created a mental picture of what they aspire to have. If their current housing situation is perceived to be in close congruence with or superior to the reference condition, they tend to express satisfaction and vice versa. This means that in this approach, a gap between what people want and aspire to have and what they currently have in terms of their housing conditions is seen as a measure of residential satisfaction. This essentially means that residents’ evaluation of their housing conditions depends largely on the meaning they attach to their housing standard or reference condition to which they compare it with and their housing needs, preferences, expectations, and aspirations.

Typically, therefore, residents’ satisfaction assessment is conducted on the basis of a number of factors and such evaluations represent rating of an array of housing and environment attributes. These attributes include but not limited to the specific physical, social, cultural and other features of the environment at both the micro and macro levels. Thus, according to Nathan (1995), the case study approach is fairly typical in housing evaluation and generally, methodological considerations have prevailed over theoretical issues and the substantive impetus for most housing evaluation has been through conceptual models rather than theory.

From the existing studies, it is also clear that researchers have developed residential satisfaction models based on factors that are relevant to the context and purpose of their research (Tech – Hong, 2011). To this end, this paper adopted a model that operationalized residents’ satisfaction as a composite of residents’ dwelling satisfaction with available services and neighborhood satisfaction (Adriaanse, 2007; Galster, 1987). Thus, residents’ satisfaction will be measured by measuring the level of satisfaction of residents’ with the various dwelling components, available services within dwelling units and infrastructure / facilities within the neighborhood. Therefore, the residents’ satisfaction model for this paper is as presented in Figure 1.

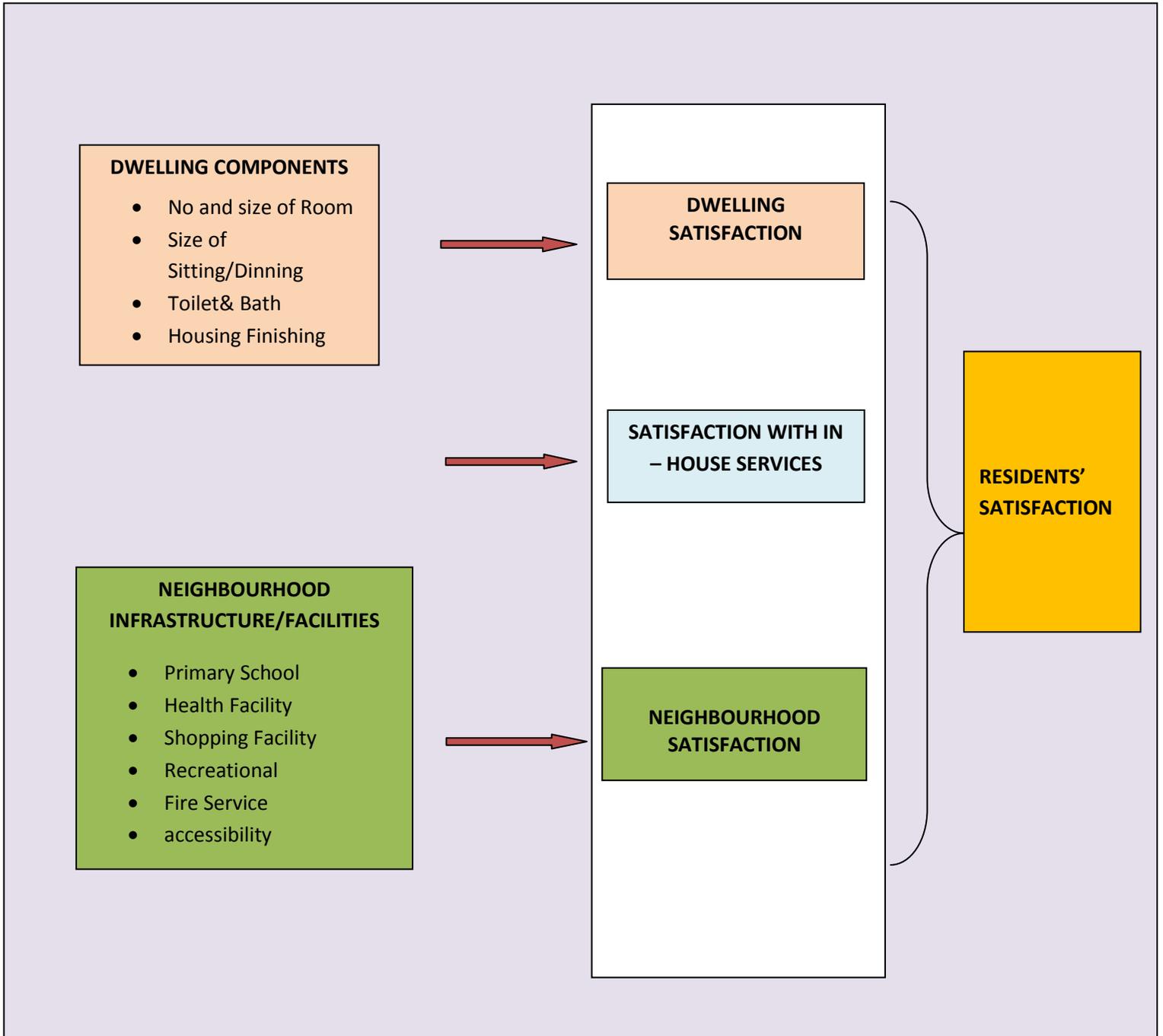
LITERATURE REVIEW

Residents’ satisfaction studies are becoming increasingly popular as a means of evaluating the acceptability of housing projects, strategies, programs and even policies. Originally popular in evaluating how the planned environment influenced behavior, it has become a useful

evaluation tool for a better understanding’ of the desirable and undesirable attributes of transit – based high-density housing and aid planners in developing the specification and modifying housing around transit station to support attractive and discourage unattractive attributes (Shaw, 1994). Residents’ satisfaction study was made popular by the housing associations in developed countries that relied on it to measure their operational performance and to benchmark themselves against others (competitors). Thus according to Family Mosaic (2014), over the last 15 years, residents’ satisfaction has been one of the ways for housing associations to measure their operational performance and to benchmark themselves against others; Today, residents satisfaction study is an evaluation tool that is non – economic in focus, but which has proved invaluable not only to housing associations but also to developers, Designers, Architects, planners, policymakers, mortgage bankers among others. However, to the various users of the valuable output of residents’ satisfaction studies, the areas of interest may also vary widely and the way the study is conducted too may equally lead to the varying output. This is probably why Family Mosaic (2014) asserted that “yet there have always been questions about the veracity of the measure, as an answer to a question often depends on how, where and when you ask it”. Interestingly, an array of literature on the subject alluded to and exposed the reason for the doubt on the veracity of residents’ satisfaction measure: thus there exists wide latitude of variation in purpose, conceptualization, operationalization and methodological approaches to the study of residents’ satisfaction. Also, because there are arrays of variables—from objective to the subjective; socio-economic to physical, in the house to the neighborhood environment, infrastructure and facilities; each researcher has always focused on some aspects of residents’ satisfaction factors. Therefore this aspect of the paper will attempt to review relevant literature to give further exposition on the above.

The literature established various purposes for which residents, satisfaction studies can be carried out. Prominent among the purposes of residents’ satisfaction study is to assess residents’ present housing conditions, needs and preferences (Kaitilla, 1993; Salleh, 2008); and quality of life (Caldieron, 2011; Galster and Hasser, 1981; Lee and Park, 2010). Residents’ satisfaction study can also be carried out to assess the level of success or failure of a housing project, program, strategy and or policy (Liu 2003; Mohit and Nazyddah, 2011); and project quality (Lara, and Bekker, 2012). Residents’ satisfaction study can also be undertaken in order to understand housing adjustment and mobility behavior of residents (Fang, 2006; Lu, 1998). In summar, therefore, residents’ satisfaction studies can provide a better understanding of the key sources of satisfaction or dissatisfaction among residents, factors that influence their satisfaction levels and how they are most likely to react in the event that they felt dissatisfied with their housing conditions. This

Figure 1. Residents' satisfaction model.



Source: Adapted from Tech – Hong, (2011).

information is critical in informing housing policy and planning intervention.

Conceptual and theoretical variations were also discovered in the literature According to Galster (1987) quite a number of theoretical and conceptual approaches have been put forward by different authors and researchers in an attempt to understand and explain residents' satisfaction. He, however, noted that most

studies on residents' satisfaction are based on two contrasting empirical approaches - purposive and actual – aspiration gap approaches. Canter (1983) and Galster (1985) argued that in a purposive approach, people are seen to have goals and specific objectives directed towards achieving such goals; and that the extent to which the residential environment is perceived to be facilitating the achievement of his/her goal is seen as an

indication of residents' satisfaction. Therefore, the extent to which they perceive their housing performing the "facilitator role" is seen as a measure of residents' satisfaction. On the actual aspiration gap approach, Galster (1987) noted that people consciously construct a reference quantity or quality that is "an ideal standard" of the different aspects of their residential situation based on their needs, experience and to evaluate their housing conditions based on the "ideal standard" which they have already created a mental picture of and aspire to have. Thus their current housing situation is perceived to be in close congruence with or superior to the reference conclusion, they tend to express satisfaction and vice versa. This means that in this approach, a gap between what people want and aspire to have and what they currently have in terms of their housing conditions is seen as a measure of residential satisfaction.

Based on the two approaches, several researchers have investigated the extent to which residents are satisfied with their housing units, neighborhood (social, economic and physical) environment and management aspects of public housing in different countries. Lu (1999) investigated residents' satisfaction among residents of public housing in Hong Kong and found high level of satisfaction, especially with maintenance and cleanliness of the estates, integrity of the building envelopes and access to public transportation from their residences. Ha (2008) observed that about 51% of the residents' of social housing in South Korea were generally satisfied with their housing conditions. The residents were also satisfied with the availability of some neighborhood facilities. In a study by Mohit et al. (2010), it was discovered that residents in the newly constructed public low-cost housing in Kuala Lumpur were moderately satisfied with their housing conditions but most and least satisfied with housing unit support services and social environment of the estates respectively. In Nigeria, Ukoha and Beamish (1997) in their study of housing satisfaction among the residents of public housing. In a study of public housing Federal Capital Territory Abuja, found out that they were satisfied with their neighborhood facilities but dissatisfied with the physical and spatial characteristics of housing as well as the general management of the housing estates.

Ilesanmi (2010); Olatubara and Fatoye (2007) showed that the residents in public housing in Lagos were most satisfied with their housing units characteristics and least satisfied with the layout of the estates and access to public facilities and services. Jiboye (2009) corroborated the findings by Ukoha and Beamish (1997) when he noted that residents of public housing in Lagos were also dissatisfied with the management of their housing. In a study of public housing in Akure, Ondo State, Clement, and Kayode (2012) discovered that there was a higher level of satisfaction with the proximity of workshop center and adequacy of the size of a living room than with proximity to recreation centers and health care facilities.

Ibem and Amole (2012) in their study of public housing estates in Abeokuta, the capital of Ogun State, revealed that 59% of the residents of public core housing conditions and that satisfaction levels were higher for housing units characteristics and management of the estates compared to access to neighborhood facilities and services.

Other researchers focused on the factors that influence residents' satisfaction as contrary to all the above that focused on the level of satisfaction of residents with their housing. Among these, we have Ibem and Amole (2012) and Lu (2002) that identified age as one of the most significant predictors of residential satisfaction. Lu (2002) asserted that the younger people are likely to be less satisfied with their housing conditions than older people. In their separate studies, Lu (1999) and Verra – Tesoano and Accta – Amestay (2008), they identified income status as having a positive effect on residents' satisfaction. They showed that people of high-income group are more (likely) to be satisfied with their housing situation than those of lower income group because the former has the financial muscle to acquire better houses and housing environment. However, on gender and residential satisfaction, there are conflicting findings. Thus while Jaafar et al. (2006) and Varady and Canrozza (2000) found no significant effect of gender on residential satisfaction, Iben and Amole (2012) and Lu (1999) confirmed gender as a significant predictor of residential satisfaction. In their separate studies, they both specifically noted that males are less (likely) to be satisfied with their housing than females. The investigation of the length of stay and household size on residential satisfaction revealed positive and negative impact respectively. Thus while Mohit (2010) found that length of stay had a positive impact on residents' satisfaction, there was a negative correlation between household size and residential satisfaction in newly constructed public housing in Malaysia. Studies of tenure status and residents' satisfaction revealed that in many European countries, housing satisfaction levels were higher among owner-occupiers compared to renters, (Elsinga and Noekstra, 2005). Salleh et al. (2012) identified ability to pay rents regularly as one of the factors with positive influence on the levels of satisfaction in public housing in Malaysia. Hashimi (2003) confirmed the positive influence of social factors such as the level of social integration on residents' satisfaction.

From the various literature reviewed, it is clear that varying factors, both within and outside the housing unit, as well as personal attributes of residents, influenced residents' satisfaction across the globe. Also, the literature review exposed different theoretical and conceptual approaches to the study of residents' satisfaction, varying with authors and researchers depending on their focus and purpose of the study. More importantly, it was evident that there were more studies in the developed world than in the developing countries.

The recency of residents' satisfaction studies in developing countries generally and Nigeria, in particular, is also very glaring. The paucity and limited scope (particularly spatial coverage) in Nigeria of residents' satisfaction studies are more obvious from the literature. The limited spatial coverage of few studies in Nigeria is a great limitation to their value for national policy formulation, monitoring, review, and refinement. This is the gap that this study will fill as it covers the entire country, taken particular cognizance of the prevalence of organized private sector housing developers (OPSHD) in each of the six geopolitical zones.

RESEARCH SETTING AND METHODOLOGY

Research Setting

This study was conducted with the beneficiaries of organized private sector housing estates (OPSHE) developed across the six geo-political zones of Nigeria. As a result of the new impetus given to private sector participation in 2002, organized private sector real estate developers (REDAN) emerged with members developing housing estates for Nigerians in all parts of the country. Two states with the prevalence of organized private sector housing developers in each of the six geo-political zones were selected. These are the southwest, Lagos and Ogun; in South-South, Edo, and Rivers; South-East, Enugu and Abia; North-Central, Federal Capital Territory Abuja and Nassarawa; North – West, Kaduna and Katsina and North-East, Bauchi and Gombe.

Methodology

A cross-sectional survey design was adopted while multi-stage sampling technique was used to choose residents of the sampled estates for an interview (Creswell, 2012; Patton, 2002). Ten percent (1,950) household heads were randomly selected from the occupied houses (19,500) in the estates. Two sets of structured questionnaire were administered; one set on the organized private sector housing developers (OPSHS) and the other set on the residents of the estate's Table 4.1 shows the details of the sample frame and size for the residents of organized private sector housing estates selected for this study. Ten percent (1,950) households were randomly selected from the occupied houses (19,500) in the selected estates. The structured questionnaire asked respondents to rate their level of satisfaction with their housing in three broad areas of dwelling components, in-house services and neighborhood infrastructure/facilities on the Likert Scale of between 1 and 3; where "Very satisfied", "Just satisfied" and "Not satisfied" were given the weight of 3, 2 and 1 respectively. In all, 1,950 residents were surveyed for the study. These residents were asked to rate their level of satisfaction

with the components of their houses; available services in the house and neighborhood infrastructure/ facilities between "very satisfied", "just satisfied" and "not satisfied".

Data Analysis and Results

The data collected from the residents rating of their level of satisfaction with the building components, available services in the house and neighborhood infrastructure/ facilities were analyzed using the residents' satisfaction index (RSI) technique. These techniques involved the determination of satisfaction index (SI) of each of the building components, services and neighbourhood infrastructure facilities rated by each resident on a Likert scale of between 1 and 3. "Very satisfied" given the weight of 3, "just satisfied" is weighted 2, while "not satisfied" is assigned a weight of 1. The nearer to 3 the RSI, the higher the level of satisfaction derived from such a facility. To calculate the residents' satisfaction index (RSI), the total weighted value (TWV) for each attribute rated is obtained through the summation of the product of the number responses for each rating to an attribute and the respective weighted value. This is expressed mathematically as:

$$TWV = \sum_{i=1}^3 P_i v_i,$$

.....eqn. 1

Where, TWV= the total weighted value

P_i – The number of respondents rating attribute i , and

V_i = the weight assigned to attribute i .

The RSI to each attribute is arrived at by dividing the TWV by the summation of the respondents to each of the three ratings of an attribute. This is expressed mathematically as;

$$RSI = \frac{TWV}{\sum_{i=1}^3 P_i}$$

..... eqn. 2

Where RSI is the residents' satisfaction index and P_i is as previously defined.

The closer the RSI of an attribute is to three (3), the higher the residents' satisfaction. The RSI for each of the attributes and the composite residents' satisfaction index, which represents the overall residents' satisfaction index for the estate are presented in Table 4.2

Table 4.1. Sample frame and size for the residents of organized private sector housing estates.

S/N	Geo-Political Zones	Sample Frame	Sample Size
1	South West	5040	504
2	South-south	940	94
3	South east	1400	140
4	North central	7040	704
5	North west	1360	136
6	North east	3720	372
	Total	19,500	1,950

Source: FMBN, 2013.

Table 4.2. Results of the overall residents' satisfaction index for the Estate.

S/N	Category of Attribute	Satisfaction Attributes	Index Total No of Respondents	Total Weighted Value (TWV)	Residents' Satisfaction Index (RSI)
1.	Building components	No. and size of Bedrooms	1938	4740	2.45
2.		Size of Sitting/Dining			
3.		Toilet/ Bath	1900	4510	2.37
4.		House finishing	1932	4470	2.31
			1948	4604	2.36
5.	In House Services	Water supply	1816	3998	2.20
6.		Electricity	1950	3880	1.84
Neighborhood infrastructural facilities					
7.		Primary school health	1872	4128	2.21
8.		facilities shopping	1946	4572	2.33
9.		facilities	1928	4114	2.13
10.		Recreational facilities	1849	3941	2.13
11.		Waste management	1910	4064	2.13
12.		Police station	1947	4859	2.50
13.		Fire service	1872	2888	1.54
Overall Level of Residents' Satisfaction			1950	4510	2.31

From Table 4.2, it is revealed that residents RSI in eleven of the 13 attributes rated are greater than 2. This means they are tending towards 3, which is very satisfied. It is only in the cases of fire service (1.54) and electricity supply (1.84) that we have RSL that is less than 2. This means that residents of organized private sector housing estates have a high level of satisfaction with most of their building components, neighborhood infrastructure/facilities and in- house services. This is reflected in the overall residents' satisfaction index of 2.31.

Further analysis through the calculation of Average Residents' Satisfaction index \overline{RSL} confirmed that

generally, residents were just satisfied, with \overline{RSL} of 2.19. This average residents' satisfaction index \overline{RSL} is calculated through a mathematical formula

$$\overline{RSL} = \frac{\sum RSL}{n}$$

Where \overline{RSL} = Average residents' satisfaction index
 $\sum RSL$ = summation of RSL for all rated attributes
 N= the total number of attributes rated.

Therefore, the $\overline{RSL} = \frac{28.50}{13} = 2.19$

The more the positive deviation from the mean, the higher the comparative level of satisfaction derived from the particular attribute – building components, in – house services and neighborhood infrastructure/facilities. Thus, police station with a positive deviation of $\overline{RSL}=0.31$ about the mean for all attributes, residents have the highest level of satisfaction, while fire service with $\overline{RSL}(-0.65)$ is the least satisfying to the residents.

FINDINGS, DISCUSSION AND POLICY IMPLICATIONS

Holistically, residential satisfaction forms parts of the criteria for achieving residential quality. It is pertinent to state categorically that neighborhood satisfaction remains an integral component of life satisfaction as supported by Kweon et al. (2010). As achieved in this study, the rating of residents' level of satisfaction by building components (dwelling characteristics) in-house services as well as each of the neighborhood infrastructure/facilities help to disaggregate residents' satisfaction. This is particularly good as it exposed the specific level of satisfaction with each attribute that makes up the overall (composite) level of satisfaction as concurred by the past works of Maria Américo & Aragonés (1990) and Waziri, et al., (2012). This result further reinforces the relevance of the Consumer Satisfaction Index Model, as previously established by David, (2012) which established that the human perceived quality is vested on the extent at which a product or service meets the customer expectation which have the valued impact on customer satisfaction.

Findings of this study remain extremely valuable to estates developers to know areas where improvements are required and where the emphasis must be placed to achieve maximum consumer satisfaction. Furthermore, when this kind of study is disaggregated to the level of individual estate developer, it is useful for monitoring their performance and to know which estate developer government should give priority in National Housing Fund allocation. A major policy implication of this study is the finding that residents' satisfaction is not a function of the dwelling units components and in-house services alone as the neighborhood infrastructure/facilities are equally very important as supported by similar studies of Mohit, et al., (2010) and Ibem & Aduwo (2013). Thus in developing housing that will be satisfactory to the residents, housing and its neighborhood environment infrastructure and facilities are equally important. The findings of this study can be a useful guide to policymakers for monitoring the implementation of the organized private sector housing delivery. Finally, the findings can be used by estate developers to measure their operational performance and benchmark their estates against estates developed by other developers.

CONCLUSION

This study, consistent with earlier studies, has exposed the importance of residents' satisfaction study as a useful evaluation tool for both public and private housing delivery.

Residents' satisfaction Index (RSI) used is particularly useful in that it shows relative importance of individual attributes and the composite index; The disaggregation of residents satisfaction index into the three categories of dwelling attributes (building components), in-house services and neighborhood infrastructure/ facilities has exposed their relative importance in residents evaluation of their satisfaction; this disaggregation will also promote a better understanding of key sources of satisfaction or dissatisfaction among residents as well as factors that influence their level of satisfaction. Finally, the result of this study can be valuable, particularly to know which of the building components, in-house services and neighborhood infrastructure/facilities that must be improved to shore up the individual attributes' as well as overall estates residents' satisfaction index.

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