RESIDENTS' PERCEPTUAL ANALYSIS ON LIVEABILITY IN THE PLANNED HOUSING ESTATES OF NIGERIA: EMPIRICAL EVIDENCE FROM NIGER STATE

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ABSTRACT

The government of Nigeria and the state government of Niger in particular, are committed to the development of housing, especially for the low-income group in the state. The housing estates as popularly called have housed many families of the low-income group in the state, however, till to date no effort have been made to understand the perception of the beneficiaries about the liveability of their housing estate. This paper intends to focus on the state of liveability of three public low-income housing estates in Minna, Niger State, Nigeria and the investigation used data derived from a pool of household surveys with 366 respondents. This paper used survey research design to unveil the challenges confronting the residents of the selected housing estates. The residents' perception of liveability was assessed through five dimensions - housing unit characteristics, economic vitality, security, neighbourhood facilities and social interaction. Data elicited from the structured questionnaire administered were subjected to descriptive statistics, factor analysis and structural modelling. The results show that the respondents were dissatisfied with most of the neighbourhood facilities in the housing estates. Hence, to improve the liveability of these housing estates, this paper recommends rehabilitation of the neighbourhood facilities in these housing estates. Also, the neighbourhood facilities management strategy should be put in place by the appropriate authority in collaboration with the residents of these housing estates.

Keywords: Neighbourhood environments, Liveability, Planned Housing Estate, Household Survey

INTRODUCTION

The Nigeria population growth rate is one of the highest in the world. Recent available data shows an annual population growth rate of 5.8 percent. By projection, it has been estimated that over 60% of the total population of Nigeria will live in urban areas by the year 2025. Over the years, there has been a continuous increase in the proportion of the Nigerian population living in the cities. This results in Nigerian cities ranking among the fastest growing in the world. However, the population increase has escalated the housing demand while housing supply shortfall of 17 million units (Yari, 2013). Evidently, Nigerians are under housed and the pressure on the available housing has increased

the rate of environmental deterioration and as a result, Nigerian cities were ranked among the lowest liveability index in the world (Mercer Human Resource Consulting, 2011; Economists Liveability Report, 2012). In putting the situation under control, the Nigeria governments at all levels have since acknowledged housing as universal basic needs of man. Housing as defined in the National Housing Policy of Nigeria (2012) is the process of providing safe, comfortable, attractive, functional, affordable, secure and provided with a healthy environment with infrastructure services at affordable cost. This is in tandem with the objectives of the United Nations Habitat Agenda 21 (UN-Habitat, 2006). In other words, housing remains a global affairs and it is seen as a fundamental human right. The implication of this, is that, everyone should have access to housing well develop with the require infrastructure that make it functional and liveable. The non-existence of any of the essential infrastructure will make the so call planned housing estates inhabitable for human life. Public housing projects across the world are developed for the main purpose of improving the living conditions of citizens in the different countries. In Nigeria for instance, the goal of the current housing policy is to ensure that all Nigerians own or have access to decent, safe and sanitary housing in a healthy environment with infrastructural services at affordable cost, and with secure tenure (National Housing Policy, 2012). In pursuance of this goal, governments at the federal and state levels in Nigeria have developed large-scale public housing for the citizens. In view of the fact that public housing schemes in Nigeria and other countries are implemented within the context of the existing housing policies, therefore, there is a need to examine the current situation of housing stock in Nigeria and in particular Niger State and how such housing schemes have achieved the goal of meeting housing needs of the target population. Given the above scenario, this study, therefore, focuses on the state of liveability of the planned housing estates in Minna, Niger State, Nigeria. The study is guided by the following objectives;

1. To examine the state of the living environment of the planned estates
2. To explore the perception of the residents of the planned estates
3. To test and validates the hypothesized model
4. To provide recommendations that will help improve the liveability of the housing estates.

LITERATURE REVIEW

Government Mass Housing Intervention in Nigeria

Government housing intervention in Nigeria predates independence, although the provision was limited to the staff quarters and staff housing loans to government workers. In the late 60s, the government housing interventions were extended to the direct housing construction for the public and provision of site and services. Thus, between 1972 and 1973 the federal government planned to construct 54,000 housing units at different locations in Nigeria under the supervision of the Federal Housing Authority (FHA). The numbers of housing unit were shared as 60 percent for the low-income groups, 25 percent for the middle-income and 15 percent for the high-income group (Olayiwola *et al*., 2005). It can be inferred in the plan that the low-income group was given top priority in the housing scheme. This recognition continues in the government successive housing program in the country till now as Nse (2012) observed that low and middle income groups represent 65% of Nigeria's population. In the Third National Development Plan (1975-1980) the government pledge to provide housing for "all income groups" although the number of housing units targeted was not achieved still a mass unit of 28,280 was constructed. However, the Fourth National Development Plan (1981-1985) was a giant stride under the second democratic government of Nigeria, which constructed 64,000 housing units across the 19 states and Abuja before the government was toppled in 1985 by the military (Olotuah and

Bobadoye, 2009). Housing provision for the public was neglected for the period of 1985-1991 (Olayiwola *et al*, 2005; Ifesanya, 2012). The ultimate goal of the National Housing Policy of 1991 was to guarantee that all Nigerians would own or have access to decent housing accommodation at affordable cost by the year 2000. Unfortunately the same year marked the technical end date for the policy (Ndubueze, 2009). Following the 1994 Federal government new housing scheme (National Housing Fund) to build housing units in the state capitals, evidence shows that 1,114 housing units were completed (Olotuah and Bobadoye, 2009). However, the return of democratic government in 1999 ushered in the 2002 National Housing Policy for the country which was private driven for the provision of housing units resulted in high cost of houses and far beyond the reach of the low-income of the society. Consequently, new synergy between the government and the private sector brought about the 2012 National Housing Policy which is public-private partnership targeted to cater for the low-income housing provision as well as other income groups. Both the federal and state governments are collaborating in the provision of housing for the citizens. Niger state has benefited from a federal government housing scheme about 660 housing units constructed in the state since its creation in 1976, a total of 1,381 housing units have been constructed before the year 2007. Moreover, the public housing profile in the state capital, Minna continues to increase for instance, the 500 housing units of M.I. Wushishi housing estate in eastern bye-pass Minna was completed and occupied in 2010. Another 500 unit's housing estate in Minna (Talba Housing Estate) was initiated in 2010 and currently beneficiaries are receiving their allocation. In addition, close to 4000 housing units are under construction presently at various cities of the state including the state capital Minna.

Liveability Concept

Liveability is a relative term, of which the actual meaning depends on the place, time and purpose of the assessment, and on the value system of the assessor (Pacione, 2003). Pacione statement reflects liveability as a nebulous term in which almost everything fits such as quality of life/well-being, sustainability and residential satisfaction. Thus, various definitions, dimensions and indicators of liveability exist and similar to other concepts as its boundary is determined by the researcher's focus. Today, on a global level, the economic intelligent unit (EIU) and Mercer remained the internationally recognized bodies that conducted the liveability study of cities. For the EIU (2012), liveability assessed the living condition of locations around the world, and the living cost in the cities (Mercer quality of living survey, 2011). Partners for Liveable Communities (2002) defined Liveability as the totality of factors that combine to a community's quality of life as well as the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment and recreation possibilities. Similarly, Balsas (2004) described Liveability as a series of elements that make a city liveable and is generally understood to encompass those elements of home, neighbourhood, and metropolitan area that contribute to safety, economic opportunities and welfare, health, convenience, mobility and recreation. Further, Heylen (2006) sees liveability as the perception of the environment from the subjective evaluation of the quality of the housing conditions. Kennedy and Buys (2010) sum up that liveability has been broadly defined as "the well-being of a community and represents the characteristics that make a place where people want to live now and in the future". Evidence from the extant literature shows there are different views about the dimensions that should be included to capture the concept. To a large extent, these different views stem from a different background discipline. However, on the empirical study, Heylen (2006) affirmed that liveability studies in Flanders and the Netherlands have been made operational through perception of four dimensions to include; Housing/dwelling quality, Physical environment quality, Quality of the social environment, Safety of the neighbourhood. Similarly, Omuta (1988) investigated the liveability of Benin City, Nigeria through six conceptual standards such as employment, housing, amenity, education, nuisance and

socio-economic dimensions. Chaudhury (2005) examined the liveability of Dhaka and Khulna, Bangladesh. The evaluation focused on consumer goods, utility services, housing affordability (rent), social security and environmental conditions. In his liveability study of Fairfield, Newtown in New Zealand and Churton Park in Canada, the measurement variables include; connectivity, accessibility, mixed use and density (Betanzo, 2009). Vuchic (1999) cited by Woolcook (2009) view urban liveability as "generally understood to encompass those elements of home, neighbourhood, and metropolitan area that contributes to safety, economic opportunities and welfare, health, convenience, mobility, and recreation". From the above review, liveability is broadening in scope which depends both on the objects of measurement and the perspective of those making the measurement. For instance, the Mercer quality of living survey (2011) shows only three African cities, namely; Port Louis in Mauritius, Cape Town and Johannesburg in South Africa made it to the top 100 liveable cities out of 220 cities evaluated while others were found in the bottom 25. The cities were evaluated based on the following dimensions; Political and social environment, Economic environment, Socio-cultural environment, Health, Education (standard to include availability of international schools), Public services and Recreation, Consumer, Housing and Natural environment. Similarly, Economists Intelligent Unit (2012) liveability Report ranks Lagos, Nigeria 138th out of 140 cities surveyed. Following this backdrop, various liveability dimensions and indicators as found in the extant literature serve as a gateway to this study from which ideas are used to construct the study framework which stems from Heylen's (2006) Model of the perception of the residential environment.

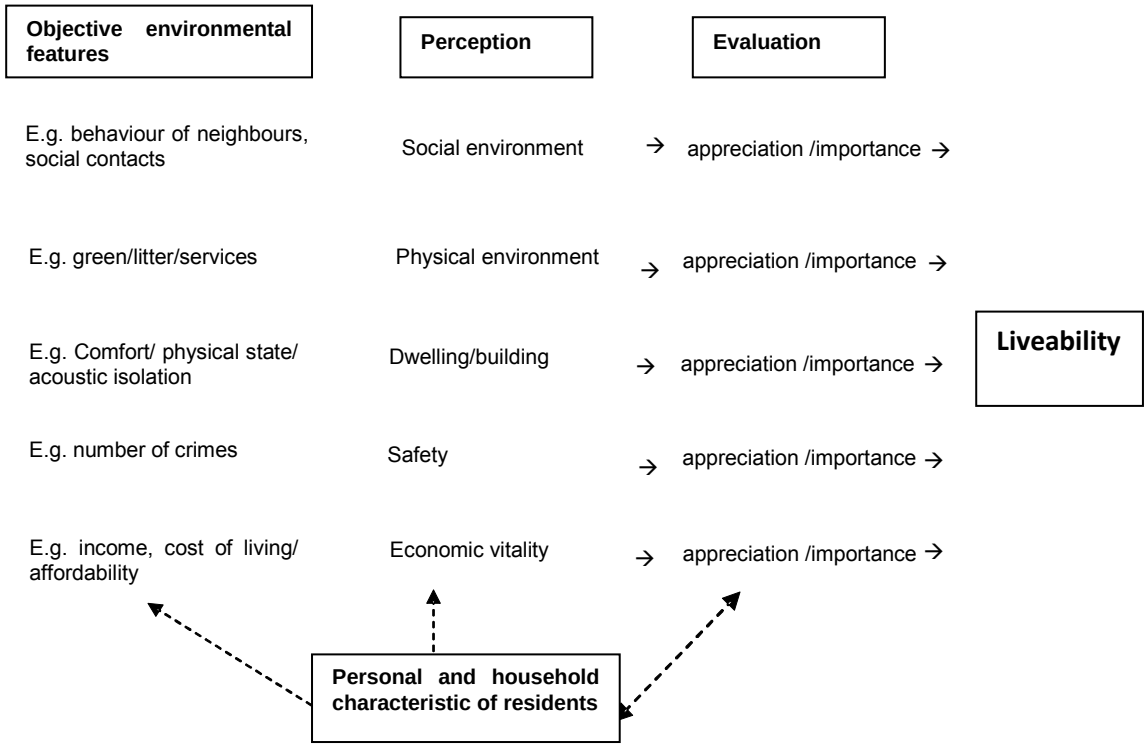

Figure 1: Model of the perception of residential environment
Source: Modified after Heylen, 2006

RESEARCH APPROACH

This research employs a questionnaire survey distributed in the three selected planned housing estates namely; M.I. Wushishi Estate, Bosso Estate and Tunga Low-Cost. The distribution was based on stratified random sampling in order to cover the types of housing units. A total of 400 questionnaires was administered, however, 366 valid questionnaires representing about 91.5% of the administered questionnaires were retrieved. The questionnaire instrument used was designed based on the findings from the review of literature. Based on the model (Fig. 1), a total of 40 objective liveability indicators comprising housing units' characteristics (sizes; house, living room, dinning, bedroom, kitchen, and numbers of bathroom, toilets, garage, affordability, road network, estate cleanliness, housing condition and ventilation), neighbourhood facilities (children education, healthcare, shopping centers, garbage collection, portable water, open/green space, electricity supply, nature of roads, public transport, drainage system and community hall), safety environment (crimes, accidents, property theft, policing, fire-fighter service, vigilante and street lighting), economic vitality (income, transportation cost, loan effect on income, public transport accessibility, living standard) and social interaction (neighbours communication, pressure group and community activity) were used. The respondents were asked to rate the level of their satisfaction using a five-point Likert scale where 1 represent the least and 5 is the highest level of satisfaction. Data on the demographic profiles of those the survey questionnaires were administered to was also collected through the questionnaire.

Subsequently, data collected were analyzed using SPSS with AMOS version 22. The analysis includes; descriptive statistics on the percentages of the socioeconomic characteristics of the respondents and mean values of each of liveability indicators as assessed by the 366 respondents. For interpretation, values between 1.0 and 2.9 were considered to be within the region of dissatisfaction, while values between 3.01 and 5.0 were in the region of adequacy and satisfaction. The value point 3.0 is the neutral point describing uncertainty. A similar interpretation was adopted in previous studies (Salleh, 2008; Ibem and Aduwo, 2013). The second type of analysis conducted was an exploratory factor analysis based on the principal component method with varimax rotation. This was conducted to explore the uni-dimensionality of the hypothesized model (see Fig.1).

The last analysis conducted was confirmatory factor analysis (CFA) to observe how well the measurement items reflect their respective latent variable in the hypothesized model (Zhu *et al.*, 2008). The criterion as found in the literature shows RMSEA value > 0.05 indicates a good fit (Marques *et al,* 2015), the CFI cut off should be > 0.9 (Navabakhsh and Motlaq, 2009). However, the statistical assumptions required for conducting CFA were carried out. These include; checking for outliers, assess normality distribution – Skewness and Kurtosis, and Multivariate normality (Adul Malek *et al*., 2012; Marques *et al.,* 2015).

RESULT OF ANALYSIS

Socio-Economic Profile

The respondents in the survey include males (79%) and females (21%). The result shows 94% attended a tertiary institution and about 83% are in the age of 31-60years. Further, average age stood at 43years, 85% are married, and the average household size is seven. Over two-third were gainfully employed and the majority 63% monthly income shows N100, 000.00 (US500). Besides, 76% represents owners' occupied, and 24% are renters, and 73% have stayed in the areas less than ten years. The above profile has shown the participants in the survey could be said to have enough

knowledge of their neighbourhood environment, and therefore, the data emanated from them could be regarded as reliable.

Evaluation of Housing Estates Liveability

The analysis of the respondents' perception of their housing unit characteristics and economic vitality showed overall mean values of 3.40 and 3.41 respectively; suggesting that the respondents felt that this characteristic in all the three housing estates met their needs, expectations and aspirations. However, the respondents' perception of the other dimensions which include; neighbourhood facilities, safety environment and social interaction with the overall mean values of 2.71, 2.97 and 2.64 respectively shows that their needs, expectations and aspirations regarding these were not met (see Table 1).

Table 1: Mean satisfaction for the liveability dimensions

Liveability dimensions	M.I. Wushishi	Bosso Estate	Tunga Low-Cost	Overall Mean
Housing unit characteristics	3.10	3.54	3.58	3.40
Neighbourhood facilities	2.62	2.60	2.91	2.71
Safety environment	2.82	2.93	3.16	2.97
Economic vitality	3.18	3.37	3.71	3.41
Social interaction	2.65	2.70	2.57	2.64

The result of exploratory factor analysis of the data in this study shows absence of singularity of item(s), the data was free of multi-collinearity problem such that all correlations were < 0.9 (Eugienie *et al*., 2014). The Kaiser-Meyer-Okin (KMO) and Bartlett's Test for adequacy of sample size for factor analysis was achieved as the value of 0.917 was obtained for KMO as against 0.05 minimum criteria. Also, a Bartlett's significant value of 0.000 was obtained which satisfied the criteria of value < 0.05. Thus, four-factor were extracted, and the result indicates based on eigenvalues of 1, the total cumulative variance explained about 66.868%.

The confirmatory factor analysis (CFA) conducted confirmed the goodness of fit of four-factor for measuring the liveability of the planned housing estates (see Fig. 2).

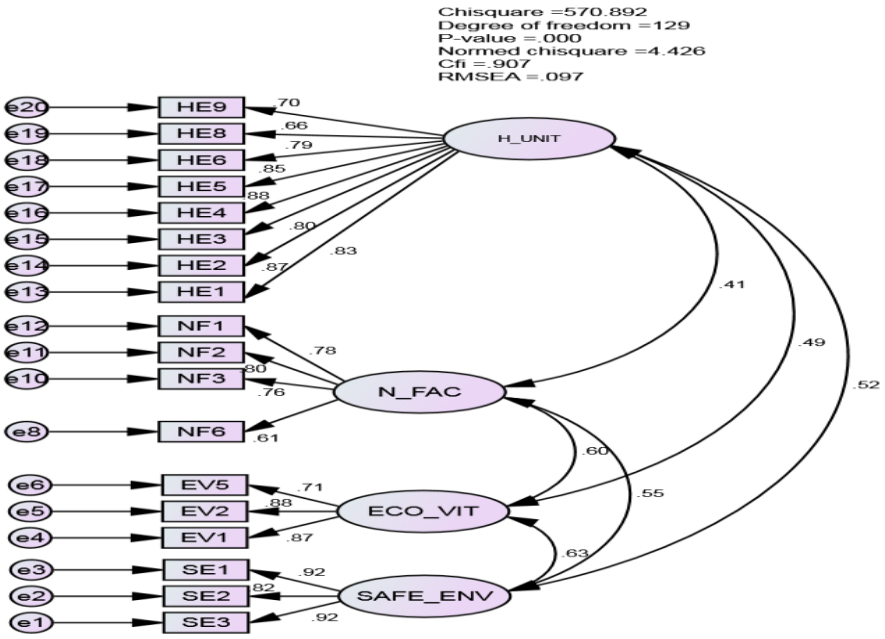

Figure 2.

Table 2: Measurement indicators

Constructs	Factor	Description
Housing characteristics (H_UNIT)	HE1	Housing unit size
	HE2	Living size area
	HE3	Dining area size
	HE4	Bedrooms size
	HE5	Kitchen size
	HE6	Toilet and bath size
	HE8	Housing unit ventilation
	HE9	Affordability
Economic vital (ECO_VIT)	EV1	Total monthly income
	EV2	Public transport accessibility
	EV5	Standard of living
Neighbourhood facilities (N_FAC)	NF1	Children's educational services
	NF2	Health care services
	NF3	Garbage collection
	NF6	Recreational facilities
Safety situation (SAFE_ENV)	SE1	Safety from crime
	SE2	Safety from accident
	SE3	Safety of properties

DISCUSSION AND CONCLUSION

The respondents perceived their housing units' characteristics reasonably adequate and affordable. However, they express low satisfaction in relation to the safety situation; neighbourhood facilities and social interaction (see Table 1). Noticeably, the average household size in the study area stood at seven and average age stood at 43years. The policy implication of this is that, there is a need to provide for more access to housing because the access age of 43years is high compared to what is tenable elsewhere in the world. Also, an average household size of 7 implied that the current housing policy of the state of building more two bedrooms rather than three bedrooms may result to housing inadequacy. Therefore, it is recommended that the government should be pro-active in the provision of more housing in order to give more access as early as one desire. Also, government should consider building more three bedrooms and above given the average household size found in the study areas. Furthermore, adequate neighbourhood facilities and maintenance strategies should be in place. Also, on the safety situation, it is necessary for the inclusion of the security plan at the inception of conceiving such a planned housing estate. Conclusively, the CFA conducted in this study has validated the measurement indicators for the liveability assessment of planned housing estates.

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