



***RESIDENTIAL LIVABILITY, PRIVACY AND LIFE SATISFACTION
AMONG RESIDENTS OF LOW- COST HOUSING IN JIGAWA STATE,
NIGERIA***

SUNUSI BASHARI

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AMONG RESIDENTS OF LOW- COST HOUSING IN JIGAWA STATE,
NIGERIA**

By

SUNUSI BASHARI

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

June 2020

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DEDICATION

This thesis is dedicated to my mother Hajiya Habiba Muhammad, my wife Nafisa Nura, my children; Fatima, Abdullahi, Zainab, Ruqayya, Ummu-Khulsum, Khadijah, and to the memories of my father late Mal. Bashari Isyaku, my grandmother Habiba Isyaku and my sister Jamila Bashari. May their souls rest in perfect peace. AMEEN.



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of the requirement for the degree of Doctor of Philosophy

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June 2020

Chairman : Professor Ahmad Hariza Hashim, PhD
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Residential livability is the ability for a residential area to provide basic facilities and amenities to support residents' life satisfaction. The characteristics that are normally associated with low-cost housing in Nigeria are poor architectural standard, poor and structurally unsound construction with absent or inadequate services such as infrastructural and social amenities. Livability concept is normally based on culture, however, less attention was given to this aspect in house building especially low-cost housing. This study focused on the influence of residential livability dimensions on life satisfaction among the residents of low-cost housing in Jigawa state, Nigeria. This study also examined the moderating effect of privacy as one of the important cultural elements in housing design on the relationship between residential livability dimensions and life satisfaction of the residents. The researcher used a mixed-methods approach guided by QUAL-Quan Model developed by Creswell (2015).

For the qualitative study, the researcher used phenomenology design, using Focus Group Discussions (FGD) and in-depth interview with residents. A total of 19 residents involves as participants in this part of the study where 8 residents for FGD and 7 residents together with 4 housing officials who were responsible for all housing issues in Jigawa State for an in-depth interview. Meanwhile, a quantitative study was based on survey design whereby the questionnaire was administered to 375 respondents. The retrieved 372 questionnaires from residents were subjected to SPSS and AMOS software for analysis. Through FGD, five dimensions of residential livability were identified which are; dwelling unit features, social environment factors, physical environment factors, safety and crime indicators and functional environment factors. The findings revealed, that the design of public low-cost housing does not reflect the culture of the state, because the design of these housing estates was imported from foreign countries. As such privacy of the residents were not properly

taken care due to the limited number of bedrooms, toilets, bathroom and lack of fencing. Furthermore, the results from the survey indicated a low level of life satisfaction among residents of low-cost housing in Jigawa State, Nigeria.

The result also revealed that, there exists a strong positive relationship between the four residential livability dimensions with life satisfaction among the residents of public low-cost housing in Jigawa State. The four dimensions are dwelling unit feature, social environment, the physical environment and functional environment. Structural Equation Modelling (SEM) output revealed that all the four dimensions of residential livability (considered in this study) were found to be significant with life satisfaction and also predicts life satisfaction among the residents of low-cost housing in Jigawa State. In addition, the finding revealed that, there were moderating effects of privacy in the relationship between the dwelling unit and life satisfaction. The study concludes that life satisfaction of the residents of low-cost housing in Jigawa State will be improved if the low-cost housing provided is highly livable and privacy is taken care of in the design of the housing.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KEBOLEHUNIAN KEDIAMAN, PRIVASI DAN KEPUASAN HIDUP
DALAM KALANGAN PENDUDUK PERUMAHAN KOS RENDAH DI
NEGERI JIGAWA, NIGERIA**

Oleh

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Jun 2020

Pengerusi : Profesor Ahmad Hariza Hashim, PhD
Fakulti : Ekologi Manusia

Kebolehunian kediaman adalah keupayaan sesuatu kawasan kediaman menyediakan kemudahan asas untuk menyokong kepuasan kehidupan penduduk. Ciri-ciri yang sering dikaitkan dengan perumahan kos rendah di Nigeria ialah piawai rekabentuk seni bina yang buruk, dan pembinaan serta struktur yang lemah dan tidak sesuai dengan ketiadaan perkhidmatan atau perkhidmatan yang tidak memadai seperti ketiadaan kemudahan infrastruktur dan sosial. Konsep kebolehunian selalunya berdasarkan budaya, walaubagaimanapun kurang perhatian diberikan kepada aspek budaya dalam pembinaan rumah terutamanya perumahan kos rendah. Kajian ini memberikan tumpuan kepada pengaruh dimensi kebolehunian kediaman terhadap kepuasan hidup dalam kalangan penduduk perumahan kos rendah di negeri Jigawa, Nigeria. Kajian ini juga meneliti kesan moderator privasi sebagai satu elemen budaya yang penting dalam rekabentuk perumahan terhadap hubungan antara dimensi kebolehunian dengan kepuasan hidup penduduk. Penyelidik menggunakan pendekatan kaedah campuran yang berpandukan Model QUAL-Quan yang dibangunkan oleh Creswell (2015).

Untuk kajian kualitatif, reka bentuk fenomenologi dengan menggunakan perbincangan kumpulan terfokus (FGD) dan temu bual mendalam dengan penduduk. Seramai 19 orang penduduk terlibat dalam kajian ini di mana lapan orang penduduk dalam FGD, tujuh orang penduduk bersama dengan empat orang pegawai perumahan yang bertanggungjawab dalam semua isu perumahan di negeri Jigawa terlibat dengan temu bual mendalam. Manakala, untuk kajian kuantitatif rekabentuk survei di terima pakai di mana borang soal selidik di edarkan kepada 375 responden. Maklumat daripada 372 borang soal selidik yang di terima semula di analisis menggunakan SPSS dan AMOS. Melalui FGD, lima dimensi kebolehunian kediaman telah di kenalpasti iaitu ciri-ciri unit tempat tinggal, faktor persekitaran sosial, faktor persekitaran fizikal,

petunjuk keselamatan dan jenayah, dan faktor persekitaran kefungsiannya. Dapatan kajian mendedahkan bahawa reka bentuk estet perumahan kos rendah awam tidak mencerminkan budaya negara kerana reka bentuk tersebut diimport dari negara asing. Oleh itu, privasi penduduk tidak dipertimbangkan dengan sewajarnya kerana jumlah bilik tidur, tandas dan bilik mandi yang terhad serta ketiadaan pagar. Hasil kajian dari kaji selidik dan FGD menunjukkan tahap kepuasan hidup yang rendah dalam kalangan penduduk perumahan kos rendah di negeri Jigawa.

Kajian ini seterusnya mendapati bahawa terdapat hubungan positif yang kuat antara empat dimensi kebolehan iaitu dimensi ciri-ciri unit tempat tinggal, persekitaran sosial, persekitaran fizikal, dan persekitaran kefungsiannya dengan kepuasan hidup dalam kalangan penduduk perumahan awam kos rendah di negeri Jigawa. Pemodelan persamaan struktur (SEM) mendedahkan bahawa kesemua empat dimensi kebolehan kediaman (dipertimbangkan dalam kajian ini) mempunyai perkaitan yang signifikan dengan kepuasan hidup penduduk perumahan kos rendah di negeri Jigawa. Kajian ini juga menunjukkan terdapat kesan moderasi oleh privasi terhadap hubungan antara unit kediaman dan kepuasan hidup. Kesimpulan dari kajian ini ialah kepuasan hidup penghuni perumahan kos rendah di negeri Jigawa boleh dipertingkatkan sekiranya rumah kos rendah yang disediakan mempunyai kebolehan yang tinggi dan privasi diambil kira dalam reka bentuk perumahannya.

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LIST OF ABBREVIATIONS

AMOS	Analysis of Moment Structure
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Construct Reliability
EDA	Exploratory Data Analysis
FGD	Focus Group Discussions
FGN	Federal Government of Nigeria
GCF	Gross Capital Formation
GDP	Gross Domestic Product
GFI	Goodness of Fit Index
IFI	Incremental Fit Indices
JSG	Jigawa State Government
JSHA	Jigawa State Housing Authority
JSMLHUDRP	Jigawa State Ministry of Land, Housing, Urban Development and Regional Planning
LDC	Less Development Countries
MDT	Multiple Discrepancies Theory
MI	Modification Index
NBS	National Bureau of Statistics
NFI	Normed Fit Index
NHP	National Housing Policy
NPC	National Population Commission
PPP	Purchasing Power Parity
PPP	Public-Private Partnership

RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Science
SWLS	Satisfaction With Life Scale
TLI	Tucker Lewis Index



CHAPTER 1

INTRODUCTION

1.1 Background of the study

In 2013, International Monetary Fund World Outlook Database, using Gross Domestic Product (GDP) based on Purchasing Power Parity (PPP) per capita, indicated that Nigeria was 44th of the poorest listed countries with less than US\$ 3000 (Ajayi, 2015). Life satisfaction is important because it concern about an evaluation on the overall quality of life. It is also important as it gives judgement whether lives go well by standards, and what better measure of this judgements (Haybron, 2007). It was confirmed that, the overall life satisfaction level of the people in Nigeria is mean 5.07 this figure is quite low compared to overall life satisfaction score in Algeria with mean 6.36, South Africa with mean above 5.43 or Norway with mean 7.53 (Botha, 2013; Helliwell, Layard, & Sachs, 2017). Among the factors that affect the overall life satisfaction of the people are health conditions, housing conditions, educational level, household size, government services, income and unemployment (Mafini, 2017; Meyer & Dunga, 2014). Previous literature confirmed that, quality housing environment has significant impact on life satisfaction of the residents, their productivity and standard of living (Lynch & Kull, 2013). Similarly, Gou, Xie, Lu, and Khoshtakht (2018) believed that, socially, most of important factor for overall life satisfaction are constituted in housing. However, low level of life satisfaction could lead to ignorance, diseases, protests and premature death (Farha, 2019; Mafini, 2017). In addition, the overall assessment on housing conditions conducted by Farha (2019) in Nigeria, indicated that, people are suffering, their quality of life was seriously affected as such urgent attention need to be focused towards improving their life satisfaction situation.

There are numerous meanings attached to housing. Housing is literally seen as buildings, shelters, homes, a dwelling place where people live (Kalu, Agbarakwe, & Anowor, 2014). The importance of housing to mankind has become an everyday discussions not only to housing researchers but also to every individual in all sectors in developing countries including Nigeria. Nicholas and Patrick (2015) defined housing as one of the most important factors used to measure country's development. Alaghbari, Salim, Dola, and Abdullah Abang Ali (2011) observed housing as a factor which is well recognized to be very important in human life and serves an important role in both social and economic aspects on the total living environment of the world. Housing is viewed as one of the basic needs of mankind providing not only shelter but also private and dynamic setting for social activities and interactions (Dankani, 2013). Housing is also a basic necessity of life just like food and clothing where every human being must be provided with it (Festus & Amos, 2015). In addition, it is a productive property with useful macro-economic linkages and a stake in the urban system. (Ayedun & Oluwatobi, 2011; Tiwary & Nuhu, 2014; Ugonabo & Emoh, 2013).

Most of low-income people in Nigeria live in substandard and poor quality housing, because access to quality housing is far beyond the economic reach of the majority of the citizen (Makinde, 2014a). The situation led to high rate of housing shortage in terms of quality and quantity both in rural and urban centers. The problems attached to rural areas is basically related to poor quality housing environment while in urban centers they faced with deficiency in terms of the quality available dwelling and quantity of housing stock needed (Makinde, 2014a; Olotuah, 2016). Recently, United Nations report revealed that, Nigeria has deficit of 22 million housing units and the situation is more severe in urban area, for example, in Lagos the largest urban area, has about 70% of the population lives in informal housing and experiencing the housing deficit of about 2.5 million unit in the state (Farha, 2019).

In order to meet the demand for the houses for the low-income earners in Nigeria, various government strategies such as the design and construction of low-cost houses for low-income earners began in 1979 (Olotuah, 2015). The program consisted of 1-bedroom core houses for low-income earners, with provision to be extended by the owner if need arose and 3-bedroom flats for other income groups. These have been introduced by the government in their attempt towards solving serious shortage of houses through different housing reform programs. Currently, there are several housing delivery programs like the affordable housing scheme targeting low-income people, private partnership effort and many private finance initiative models designed to provide for about 3% of the required stock (Makinde, 2014a). Makinde (2014a) observed that these programs were not sustainable over time due to the deficiency of a post-implementation strategy, as an essential part of the management system. This situation eventually affect the life satisfaction level of the residents.

The concept of livability encompasses broader aspects of life satisfaction, neighborhood design, accessibility to facilities, safety and security, and quality of life (Baig, Rana, & Talpur, 2019). Livability is an important and key aspect of city set-up which portrays life satisfaction. Most of the towns and cities have several challenges such as poor life satisfaction, this situation drawn the attention of housing managers and planners towards livability measures (Baig et al., 2019). There are many criteria that define livability of a city and the criteria are different for different persons according to their personality, cultural and national background, traditions and expectations (Sofeska, 2017). Thus, livable housing concept can be obtained from the definition of livable city the reason is that housing and settlements usually occupy maximum area in a city. This makes housing and settlements as a major aspects in managing the city (Amir, Puspitaningtyas, & Santosa, 2015).

According to Amir et al. (2015) to reduce the social problems in a city, there is a need to support existence of the community and help them meet their needs which can be achieved through making a city more convenient or livable. Therefore, “a livable neighborhood or city should be peaceful, safe, harmonious, attractive, affordable, high in amenity, environmentally sustainable, and easily accessible” (Lowe et al., 2015). Leby and Hashim (2010) observed that, for decades housing researchers have agreed

that it is very important for a neighborhood to be provided with a quality and good environment so as to ensure inhabitants are free to live their lives in a satisfying way.

1.2 Problem Statement of the Research

The low level of life satisfaction could lead to premature death (Farha, 2019). Housing conditions is among the cause of low level of life satisfaction (Mafini, 2017). Fakunle et al. (2018) revealed that, most of residents of public low-cost housing live in an unsatisfactory and very poor housing environment in Nigeria. The public low-cost housing conditions of the low-income people in Nigeria is characterized by structurally unsound, substandard and located in a bad sanitary environment, poor architectural standard and poor construction (Makinde, 2014a). Furthermore, majority of public low-cost housing units are associated with absent, little or inadequate services such as infrastructural and social amenities, such as water, electricity and indecent residential environment (Olotuah, 2015; Ugonabo & Emoh, 2013). Recently, in her research, Farha (2019) compared housing conditions of low-income people in Nigeria and international human rights law and standards, where she found out that, the government have not meet their obligations in that regard especially on issues related to housing conditions of low-income people which she referred as clearly inadequate. This poor quality of housing occupied mainly by the low-income people as a result of shortages in quantity of good housing to accommodate them and their inability to pay for quality housing available resulted in their low level of life satisfaction (Olotuah, 2016). Anofojie, Adeleye, and Kadidri (2014) emphasized that, for government to improve residents' well-being, life satisfaction, productivity and health, there is need to do more in the provision of quality housing and services for occupants of public low-cost housing in Nigeria.

The low-income people were not just required more construction of public low-cost houses, but also the houses need to be of great beneficial to all residents, in terms of adequate and ideal provision of utilities, infrastructure, public facilities, recreational spaces, commercial centers and ensure security, and safety of all residents. Provisions of these amenities and facilities are in line with Nigeria National Housing Policy (2012) where by the whole chapter is devoted to low-income people aimed at provision of affordable housing to accommodate Nigerian households in livable environment that can improve the life satisfaction of residents. As mentioned in Festus and Amos (2015) the basic goal of the National Housing Policy in Nigeria is to provide decent, affordable housing to accommodate Nigerian households in a livable environment.

However, most of housing programs in Nigeria failed, because the number of houses built is low and the built houses did not considered the needs and aspirations of the targeted people on housing and usually neglected (Makinde, 2014a). It is necessary to refer to end users in all housing construction because the beneficiaries, low-income people in particular are in the best position to identify their needs, what they should have and order of their priorities (Ayoola & Amole, 2014). This because, most of housing design in Nigeria were adopted from developed nations (Bello & Egresi,

2017). The adopted design from the west is contrary to the culture and traditions of Nigerians, Rapoport (2014) reported that there was a strong relationship between environmental design and culture as such cultural differences must be reflected in design procedure.

The previous literature confirmed that, life satisfaction is very important factor in residential livability (Kennedy, Buys, & Miller, 2015). Hämäläinen (2013) revealed that, if the life satisfaction of a particular resident is poorly addressed the result will be too much request (dependent on others for survival), uneducated (poor accessibility to schools), squalor (living in slums), diseases (lack of health facilities) and idleness (worthless). Residents' life satisfaction also depend on adequate supply and proper location of facilities such as schools, clinics, kindergartens, shopping centers and other services (Leby & Hashim, 2010).

The concept of livability is based on culture, but less is known about the influence of culture as moderating effect between residential livability and life satisfaction of the residents (Maina, Abba, Abba, & Haruna, 2016). Culture has relevance in the determination of the housing design and form which its importance cannot be over emphasized (Olayiwola, Adeleye, & Jiboye, 2006). However, culture has many aspects including values, norms, social interaction and privacy. According to Lee and Kim (2018) residents' perceptions of livability is influenced by privacy and building quality of residential environment. In this regard, privacy is often measured by degree to which residents can control the intensity of interaction with neighbors through visual and audial means. Public low-cost housing estates in Jigawa State have been characterized by local modification simply to improve the privacy of the housing unit (Umar, 2018). A typical example can be seen in a picture of a housing unit at Olayinka housing estate whereby a resident modified his housing unit with iron sheet so as to maximize the privacy (see appendix H). This showed how residents are concern about privacy and they have not achieved the privacy yet. Majority of Jigawa State people are Muslims, as such traditionally, Muslim values family privacy in the house as requested by Islam (Razali & Talib, 2013). Therefore, the design for Muslims houses should reflect the Islam. Jigawa State people prefer a housing design that will ensure a provision of private space for women, separate space for public especially when it comes for ceremonies or other activities. Yet, no empirical studies has been conducted on issues related to housing privacy. This made the researcher to select privacy as an aspects of culture and used as a variable (moderator) in the relationship between residential livability and life satisfaction among the residents.

In addition, Iyanda, Ismail, Fabunmi, Adeogun, and Mohit (2018) reviewed some problems associated with low-cost housing in Nigeria, which are largely characterized by the following:

- ❖ Absence of basic housing services and facilities to the satisfaction of the beneficiaries
- ❖ Poor housing quality in terms of interior and exterior features of the units

- ❖ Lack of safety and security of the neighborhood as required by the low-income people
- ❖ Poor housing environment in terms of location, pollution and sanitary aspects
- ❖ Lack of maintenance of housing stock regularly by the government in the public housing estates.
- ❖ Lack of privacy in most of the housing units constructed by the government
- ❖ Absence of residents' participation or views in the whole processes of public low-cost housing constructions especially in the housing design (Ayoola & Amole, 2014; Iyanda et al., 2018; Lukuman, Sipan, Raji, & Aderemi, 2017). All these problems are generally associated with residential livability which are influenced by culture and affect the residents' life satisfaction (Sofeska, 2017).

In Nigeria, researchers on housing focused on housing delivery related to low-income housing such as Ayoola and Amole (2014), Ebiaride and Umeh (2015) and Fadairo and Olotuah (2013). Others emphasized on public-private partnership in housing development (Ibem, Aduwo, & Uwakonye, 2012) and a number conducted researches on housing delivery strategies (Makinde, 2014b). There are some who conducted research on livability in Nigeria (Iyanda et al., 2018; Lukuman et al., 2017; Mohit & Iyanda, 2015; Mohit & Iyanda, 2017), however, none of them have focus on the investigating the effects of residential livability dimensions on residents' life satisfaction specifically among the residents of public low-cost housing in Nigeria. In fact, no research is conducted on the effects of dimensions of residential livability on the life satisfaction of low-income earners particularly those living in public low-cost housing in Jigawa State, Nigeria. Therefore, this study intend to focus on the effects of residential livability dimensions on the life satisfaction and the role of privacy in the relationship between residential livability dimensions (dwelling unit features & social environment) and life satisfaction among the residents of public low-cost housing in Jigawa State, Nigeria.

This study is important because, most of design of low-cost houses constructed in Jigawa State for low-income people were adopted from developed countries and South African housing design, for instance, Red-bricks low-cost and Fatara housing estates their typology lack social and cultural considerations. In addition, previous studies on housing livability concentrated mainly on either quantitative approach or qualitative approach, few employed mixed method. This study apart from using mixed method, also used privacy variable an aspect of culture to be a moderator in order to have clear perception toward privacy. Focus Group Discussions (FGD), qualitative interview and quantitative survey analyses were used to address these gaps in literature by exploring residential livability dimensions and life satisfaction among the inhabitants of public low-cost housing estates in Jigawa State, Nigeria.

Babalola et al. (2019) have the opinion that, residential livability in relation to low-cost housing can only be improved when government, policy makers, housing developers give maximum consideration to the design and construction of housing units features, security issues, usage of available local building materials and mix of

housing types in the development of housing schemes. Similarly, Salama and Alshuwaikhat (2006) revealed that for housing providers to provide acceptable housing to the people, there are need to consider a lot of issues such as engineering issues, human issues, cultural and behavioral issues, and urban and landscape issues.

Therefore, this study focused on residential livability dimensions and their influences on residents' life satisfaction. Also this research examined the influence of privacy as a moderating effect between residential livability dimensions and life satisfaction among residents of low-cost housing in Jigawa State, Nigeria.

Aim: The aim of this research is to examine the residential livability dimensions and life satisfaction among the residents of Low- cost housing Jigawa State, Nigeria.

1.3 Research Questions

1. What are the dimensions of residential livability of low-cost housing in Jigawa State, Nigeria?
2. What are the influence of privacy considered by residents of low-cost housing in Jigawa State, Nigeria?
3. What is the level of life satisfaction among the residents of low-cost housing in Jigawa State, Nigeria?
4. Are there any relationship between the residential livability dimensions and life satisfaction among the residents of low-cost housing in Jigawa state?
5. To what extent does residential livability dimensions predicts life satisfaction among the residents of low-cost housing in Jigawa State, Nigeria?
6. What is the role of privacy as moderator in the relationship between the residential livability and life satisfaction?

1.4 Research objectives

1. To identify the dimensions of residential livability of low-cost housing in Jigawa State, Nigeria.
2. To identify the influence of privacy among residents of public low-cost housing in Jigawa state, Nigeria.
3. To measure the level of life satisfaction among the residents of low-cost housing in Jigawa State, Nigeria.
4. To examine the relationship between residential livability dimensions and life satisfaction among residents of low-cost housing in Jigawa State.
5. To determine the extent to which residential livability dimensions predicts life satisfaction among the residents of low-cost housing in Jigawa state, Nigeria.
6. To examine the moderating effect of privacy on the relationship between the residential livability and life satisfaction.

1.5 Research Hypotheses

Objective 1, 2 & 3: These were Descriptive analysis no need for Hypotheses

Objective 4

H₁: There is significant relationship between dwelling units and life satisfaction

H₂: There is significant relationship between social environment and life satisfaction

H₃: There is significant relationship between physical environment and life satisfaction

H₄: There is significant relationship between safety and crime, and life satisfaction

H₅: There is significant relationship between functional environment and life satisfaction

Objective 5:

H₆: Significant Residential livability dimensions predicts the life satisfaction of the residents of low-cost housing in Jigawa State.

Objective 6:

H₇: Housing privacy moderates the relationship between dwelling units and life satisfaction of the respondents.

H₈: Housing privacy moderates the relationship between social environment and life satisfaction of the respondents.

1.6 Significance of the study

The research findings provided a data on how culture influences the residential livability attributes in relation to residents' life satisfaction. The study revealed that culture has many aspects and one of the cultural aspect is privacy which residents perceived in the housing context as very important in ensuring life satisfaction to the residents living in public low-cost houses in Jigawa State. This will help as a guide and blueprint to the policy producers in designing and formulating appropriate public low-cost housing, housing policies and programs for the residents of public low-cost housing. Therefore, understanding of how low-income earner react to the residential livability to determine his/her life satisfaction, will lead to provisions of what targeted group desired and eventually their life satisfaction will be improved.

This research will assist in solving a lot of problems identified in the study area, such as living in overcrowded and congested residential area. The findings of this research will explore the main issues of residential livability through identifying the key attributes considered to be important, not only to the residents but also in creating a comfortable and healthy public low-cost housing living environment. Thus, better understanding of these issues of livability key attributes will enable Jigawa state government to construct public low-cost housing at appropriate location and ensure livable residential environments' principles are incorporated into their planning and development strategies. By improving the public low-cost housing estates that will address the needs, aspirations and preferences of residents, this situation will improve neighborhood and make it to be livable, attractive to live and work, which guarantees improvement in the life satisfaction of the people.

Housing stakeholders such as urban planners will also find this research useful particularly in their main role in physical planning activities and strategies for improving life satisfaction of residents of public low-cost housing through incorporation of the households perceived views about their needs, aspirations, and preferences in the future planning activities. Therefore, understanding of the terms such as needs, aspirations and preferences of the residents from the perspective of the low-income people that live within public low-cost housing will give an insight on the true conditions of the residential environment beyond quantitative data revealed by other researchers, of which if attended will improve the life satisfaction of the low-income people.

Furthermore, findings of this research will also guide the policy makers on what residents believed they should have in their residential area and their housing units in particular, in terms of social amenities and facilities with view of improving life satisfaction of the low-income people by making their residential environment livable. Thus, creating livable public low-cost housing is not only by developing physical aspects of the environment, but also promoting social interaction, ensure community bonding and creating place identity. This research will assist in the formulation of acceptable design guidelines and review processes which both improves an ideal characteristics of every living environment. Incorporation of livability principles in neighborhood design is found to be necessary, because most of housing problems identified, were as a result of poor planning at the micro-neighborhood level. As such this study will provide all necessary basic information needed for proper planning of public low-cost housing to enhance life satisfaction of the occupants.

The findings will fill the gaps in previous literature specifically on what residents should have and considered as the important attributes for their houses and residential environment should have so as to improve their life satisfaction. However, the research findings will be of great relevant to the current efforts of Jigawa State Government towards providing livable residential environment, through increasing the understanding of the opinions/views of low-income people about their residential environmental conditions with view of improving their life satisfaction. Generally, insights from the analysis will assist housing stakeholders that are involved in delivery

of public low-cost housing, developing urban, and renewal policy of neighborhood, as the right policy mix to improve the life satisfaction of low-income people.

The Federal and State ministries of housing development will benefit from the outcome of this study to help formulate realistic future housing policies that will provide for the basic need of the low-income people in Nigeria. This is because, the result of this research will identify residents' perception on certain attributes that are mostly satisfied within their neighborhood or dissatisfied with them. The findings will serve as additional information to policy-makers to identify areas that need their attentions for urgent improvement. In addition, the result of this research will reveals the views of residents which could be compare with the ways in which housing stakeholders (urban and regional planning board, policymakers and private developers) define and interpret a neighborhood problems and solutions to the problems. This comparisons will bring an explanations to any difference of opinion between stakeholders which eventually will lead to more precise and possibly relevant interventions in the neighborhoods.

Understanding the views of residents on housing basic needs for public low-cost housing in Jigawa State would provide a basis for improvement in life satisfaction of the residents. In terms of academic research, this research will add knowledge to the form of present works on the public low cost housing, perception and needs of the respondents especially in the Nigerian context where there is the need for more research in the area of housing studies.

1.7 Scope of the studies

The scope of this research is restricted to low-income earners eligible for low-cost housing in Jigawa state. This work is mainly concentrated on examining of the dimensions of residential livability on occupants' life satisfaction of low-cost housing in Jigawa state, Nigeria. The perception of residential livability concept could be used to improve the residents' life satisfaction living in low-cost housing in Jigawa State by identifying the relevant dimensions of residential livability in context of low-income earners, level of residents' life satisfaction and the relationship between the dimensions of residential livability and residents' life satisfaction. Also the study examined the moderating role of privacy between residential livability dimensions and residents' life satisfaction.

1.8 Limitation of the study

The study was narrowed to public low-cost housing in Jigawa State. As part of the limitation, the study does not include other middle and higher income earners housing estates in the State. Also, the study is restricted to the Dutse metropolis, excluded other major towns in the state because of absence of public low-cost housing for low-income earner. The instrument used for collecting primary data were focus group discussion, in-depth interview and questionnaire survey which were formulated through focus

group discussion, because of lack of standard and reliable questionnaire which also regarded as constraint of the research. Other drawback was the results of this work can only be used for low-income earners' housing, not applicable to other income groups such as middle and high income earners.

1.9 Conceptual and Operational Definitions of Terms

Low-cost Housing

Conceptual definition

Low-cost housing has been defined as built residential houses financed by the government or in corporation with the government under the public-private partnership (PPP) scheme, to offer cheap housing for low-income earners (Ayoola & Amole, 2014; Makinde, 2014a).

Operational definition

Low-cost housing has been operationalized as public residential housing units, constructed by government and are offered to low-income earners.

Residential Livability

Conceptual definition

Residential livability referred to the living environment in which an individual make subjective assessment of the quality of the housing conditions (Heylen, 2006). It can also be referred to satisfaction with one's living set up available at one's housing unit and the neighborhood to the extent that, this satisfaction contribute to the sense of life satisfaction in seven major life domains, such as social, family, safety/health, personal/education development, culture/leisure/arts, financial and work, which at the end contribute to the overall sense of life satisfaction (Sirgy, 2016).

Operational definition

Residential livability is operationalized as ability for a residential area to provide basic facilities and amenities to support residents' well-being and housing design reflect the culture of the residents.

Culture

Conceptual definition

Linton (1945) defined Culture as a complete way of life of any society. Culture has many aspects including; values, norms, social interaction and privacy.

Operational definition

Culture is operationalized as lifestyle of a given society based on their belief, behavior and attitude.

Privacy

Conceptual definition

Hashim and Abdul Rahim (2010) defined privacy as ability to regulate information in the house about individual, family, property or as situation of being alone.

Operational definition

Privacy is operationalized as a condition whereby an individual or group of people within a housing unit is secured from visual and audial interference by others. This include privacy among males and females, privacy between family's members inside the house and privacy concerning neighbors' dwelling.

Life Satisfaction

Conceptual definition

Dodge, Daly, Huyton, and Sanders (2012) defined life satisfaction as a personal's cognitive evaluations of his or her own life. Diener & Ryan (2015) observed that the term life satisfaction as an umbrella used to clarify the level of wellbeing people perceive based on their subjective evaluations of their lives.

Operational definition

Life satisfaction in this research is considered as a component of subjective well-being, which describes an overall assessment of feelings, attitudes and emotions about one's life at particular time and place ranging from positive affect to negative affect.

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