

Private housing estate expansion based on residential satisfaction to develop future smart city

Atora Opuiyo, Ibrina Browndi, Ladson Newiduum, Keypi Jackson

Department of Urban and Regional Planning, Rivers State University, Port Harcourt, Nigeria

ABSTRACT

Residential Housing satisfaction educations have complicated the responsiveness of scholars completely over the world. This paper awards the result of housing satisfaction secures with private residential estate development in Nigeria. Four main Housing satisfaction components identified and measured. Consequence of the analysis reveals that residents have generally express low satisfaction with their residence unit features. They are however, neither satisfied nor dissatisfied with the whole housing. The consequence of this explore can be used as yard stick for development control monitoring parameters as well as policy guide in the developing countries in general, and Abuja in particular. It additional compliments existing body of knowledge on housing satisfaction.

KEYWORDS: Residential Satisfaction, Social Factors, Housing Price, Architecture, Urbanism

1.0 INTRODUCTION

Measuring Housing satisfaction has gone beyond the boundaries of general assumptions which are limited to physical and structural adequacy. Housing for people of whatever socioeconomic class is more than mere shelter. It encompasses all the infrastructures, utilities and services necessary to complement human survival including access to employment and security. It is an important economic sector given its large positive externalities in terms of economic growth, public health, and societal stability [1-13]. And are a product of human enterprise and a key sector of the economy that is a pre-requisite to national socioeconomic prosperity. Housing has been shown to be one of the best indicators of person's standard of living and place in the society. Household's satisfaction with the overall residential environment indicates quality of life as it conforms to their needs and aspirations. This is determined by periodic assessment of the influencing variables of housing satisfaction or dissatisfaction which varies from one place to another [14-25]. Nigeria has been making concerted efforts towards attaining her housing needs through various housing policies and programmed, using various delivery approaches ranging from direct construction to the provision of the enabling environment. This is particularly true in the federal capital territory Abuja, which for the last decade being experiencing series of private sector driven mass housing estate development especially within the phase 2,3 and 4 development plan of the capital city. Private sector housing consists of private developers, co-operative societies, and individual or a group of individuals [26-34]. Abuja has been on developmental stage for the last thirty-six years (1976-2012) on a land of about 250 square kilometers involving four phases of development with each divided into districts and neighborhood's. The need for private sector involvement in housing provision in Abuja was inevitable as the government alone can no longer carter for housing needs of the fast growing city. Cities all over the world developed through the efforts of the state as well as the private sector. In view of this, 184 private real estate developers were given land allocation in six districts to develop housing estate commencing from the year 2000 with a combine area of 2610 hectares [35-47]. For a successful housing programmed, the suitability of residential environment, facilities and services to the intended user is paramount opined that assessing occupants' satisfaction would demand an evaluation of particular housing unit, located within a particular environment that is managed under certain type of institutional management. Private housing development need to be appraised regularly to ascertain the level of satisfaction or dissatisfaction by the occupants for effective monitoring of development control guide lines and the extent of compliance including adjustment where necessary [48-56]. This will keep the private developers on track, as one of their primary targets is profit maximization which might compromise standard and equally serves as a measure of private sector development successes. Researchers observed that, studies on residential satisfaction have been conducted in western countries which examine satisfaction level of users with their environment, the factors which account for satisfaction or dissatisfaction and the models which may explain satisfaction [57-65]. There is however, little research

to confirm whether or not the results of the studies are generalizable to other less developed countries. Most of these studies are related to developed western countries, and were carried out using either national size samples or city size samples. There are few studies concerning the housing environments in developing countries. Hence, more research is needed to test the generalizability of the results and the models developed by western context. More so, studies on housing satisfaction places more emphasis on public housing. For example, some projects assess the consumer's satisfaction of public housing projects in Canada; on neighborhood satisfaction, sense of community and attachment; studies on the residential satisfaction in housing estate in many areas on the housing and neighborhood satisfaction in post-world war II in large housing estate within European cities; others includes [66-78]. In Malaysia, however, the research of recorded a milestone of having considered residential satisfaction of private low-cost housing. Recent studies on residential satisfaction in Malaysia also focus on public housing which includes. It has been observed that, in developing countries most of the public and private housing project failed largely due to the non- consideration of the occupants' requirement or what satisfies their residential requirements [79-86]. None of the housing satisfaction studies in Nigeria has attempted to investigate the level of household satisfaction with private housing estate even with the increasing attention on the sector particularly in the federal capital territory Abuja. In fact, housing or residential satisfaction research is generally low in the Nigerian context, the few available studies include. This research aims to determine the level of residential satisfaction with private housing estate in Abuja, Nigeria. The findings can be used as basis for policy improvement within the development control parameters [81-90].

2.0 LITERATURE REVIEW

Residential satisfaction is a concept that can be influenced by both objective and subjective measures of housing attributes which includes physical, social/psychological and management attributes and the demographic characteristics of the residents. Studies assert that, social, cultural and behavioral elements within the entire societal environment influenced the habitability of a house [1-11]. Other factors include age, marital status as cited, number of children and family size, income, education, employment, and welfare, social participation and interaction past living condition as well as residential mobility and future intention to move. The level of income earning of the housing consumer is strongly related to the satisfaction of the housing environment. The study signifies that higher income households are generally satisfied with their housing [12-28]. It enables household to move to a better location or neighborhood of their choice that could give higher level of satisfaction advanced that previous research findings on residential satisfaction has provided a basis for measuring housing satisfaction which includes; Dwelling units satisfaction, Neighborhood quality satisfaction, Management services satisfaction as provided by the developers or land owner, satisfaction with the facilities and amenities within the building structure and its surroundings [14-23]. Researcher as cited in explored measures of psycho-social characteristics of residents and compared the contributions of the measures to predict housing and neighborhood satisfaction. The research is to better understand the factors that contribute to housing and neighborhood satisfaction among low-come single-parent women [19-31]. The results suggested that personality characteristics are powerful predictors of housing satisfaction. Research findings indicates occupant satisfaction with their residential environment have shown complex patterns of relationship. That is the relationship between rated satisfaction and individual, physical and social characteristics. Socioeconomic backgrounds have different level of aspiration, tolerance and psychology on satisfaction towards housing and personality traits are good precursors to housing satisfaction [32-48]. Projects have also considered socioeconomic profile of the housing occupants in their assessment of residential satisfaction. An empirical study indicates that, demographic determinants of residential satisfaction to include age, education, family composition and life circle changes. Age is an influencing variable in the study of residential satisfaction as people of different age expresses different satisfaction level, other found that older resident has a lower level of aspirations but higher level of tolerance towards any short comings regarding the residence. Researchers, however discover negative influence of age over satisfaction. The number of residents in a given unit can be an influencing factor of residential satisfaction [49-61]. Single and two person's household might be expected to be more positive with their dwelling and the estate than the house holds with children (Dekker, et al., 2007). Ethnic affiliation is equally a factor in shaping individual satisfaction level, as each tribe has their own genetically inclined housing norms which could influence their attitude over their residential settings [37-54]. This is attested by the study of many researchers on residents' satisfaction of low income public housing and discovers differences in satisfaction level between Malays, Chinese and Indians. This is the same with the studies of projects in their comparison of perceived concept of home aspired between the Malays and Chinese and housing satisfaction in low

cost housing in Selangor. Educational status also contributes towards satisfaction with housing as better educated household tends to express low level of satisfaction compared to less educate. In their studies of satisfaction with public core housing in Abeokuta, Nigeria, researcher found that educational background, employment sector, age and sex have significant contribution towards residential satisfaction [55-63]. The model developed by some projects linked satisfaction with other life domains, such as social life, family life, work life, and financial life to satisfaction with community services and the results showed that social life, as the most proximate antecedent to community satisfaction, is most directly affected by satisfaction with community services and other areas of residential well-being. Tenure is a type of housing right possession which is of two categories; ownership or rental [64-73]. The level of private housing satisfaction is generally low especially rental where majority of the population lives. Home ownership is a major contributor to housing satisfaction. It gives home owners greater sense of control over their housing units. Household are found to be generally satisfied if given the opportunity to buy their houses using build then sell arrangement. However, studies do not seem to have found any differences between owner occupation and rentals in public low cost housing in Kuala Lumpur. This nonetheless, is not consistent with many studies of residential satisfaction. In Nigeria, the structure types and facilities have direct relationship with the occupant's socioeconomic status, this may be connected with the long period of British occupation in the country which characterizes their system and style of living based on social class [74-86]. The inherited differences in spatial planning of neighborhood division into low, medium and high income group is associated with differences in facilities, hence affect the satisfaction level. Single family housing residents in Nigeria has expressed more satisfaction than those in apartments. Structural attributes is a considered factor in the studies of residential satisfaction, which includes objective physical of housing such as kitchen space, laundry and washing areas, size of living area and dining area, morphological configuration of residence hall, number and level of sockets, number of bed rooms and bath rooms, and other aspect of housing. Building features such as number of bed rooms, size and location of kitchen are strongly related to residential satisfaction [81-90]. Residents of public housing in Abuja as reported by researchers were dissatisfied with the building and structural features. Studies which observe thus, size of dwellings and the number of its rooms,; the efficiency of the dwelling usable spaces and their usefulness (plan); the physical condition of the house and the building; the building being new, durable and well-kept; the efficiency of sub- structure (electricity, water, gas, canalization, cable TV, telephone etc); the condition of light and airlines; the condition of insulation and heating; the system of central heating and central hot water; the availability of doorman/ warden; the availability of elevator in the multi story buildings; environmental arrangements; accessibility; sufficient security; the comfort of house and buildings; its having environmental quality factors affect the satisfaction in a positive way [1-16]. Residents of the public housing in Maiduguri, Nigeria had housing with too few bed rooms which contributed to their housing dissatisfaction. In his studies in Benin City, Nigeria, project reveals that, most housing components generally indicates positive to residential satisfaction, while environmental variable received negative feedback. The United Nations had reiterated that housing conditions are combinations of several variables, including standard based on people's culture and norms [17-24]. It includes space standard and regulation of construction materials, neighborhood and environmental condition. Housing conditions involves the nature of standards, bylaws, codes and regulations in existence at local level, and also express the prevailing socioeconomic circumstances of the society and its ability to utilize available resources to meet the housing needs of its people. Research conducted on public housing in Enugu and Owerri, south east Nigeria reveals poor construction and does not meet the minimum neighborhood and environmental facility guide lines. Public housing in Benin however, are found to have leaking roofs and cracks walls, demonstrating poor material quality and poor construction services provided by contractors as well as non calling attitude by government representatives [25-38]. Neighborhood facilities and attributes can be a great source of satisfaction or dissatisfaction to the overall housing environment. Neighborhoods are a determinant factor of residential satisfaction with its associated physical and social characteristics. For instance, resident in public housing estate in Nigeria have expressed dissatisfaction with their housing because it lacks basic features such as roads, schools, refuse disposal system, safety, management and shopping centers in the neighborhood. Research conducted on public housing in Enugu and Owerri, south east Nigeria reveals poor construction and does not meet the minimum neighborhood and environmental facility guide lines [31-47]. Public housing in Benin however, are found to have leaking roofs and cracks walls, demonstrating poor material quality and poor construction services provided by contractors as well as non calling attitude by government representatives. Neighborhood facilities and attributes can be a great source of satisfaction or dissatisfaction to the overall housing environment [43-52]. Neighborhoods are a determinant factor of residential satisfaction with its associated physical and

social characteristics. For instance, resident in public housing estate in Nigeria have expressed dissatisfaction with their housing because it lacks basic features such as roads, schools, refuse disposal system, safety, management and shopping centers in the neighborhoods, but in Abuja residents of public housing were generally satisfied with facilities such as closeness to schools, hospitals/clinics, shops/ market [33-48]. This is also found to be in line with the residents of Ondo State property development Corporation. In his studies of housing satisfaction in private low cost, studies examine two influencing factor of quality of life to includes satisfaction towards housing and the surroundings; and the findings reveals neighborhood factors as the most significant on housing satisfaction. The factors contributing to a low level of satisfaction were related to neighborhood facilities and surrounding areas; which are poor public transportation, lack of children's playground, multi-purpose hall, parking areas, safety and facilities for the disabled. Researcher discovers three factors affecting satisfaction towards housing; dwelling units, neighborhood and community services factors. Neighborhood factors recorded high significance regarding housing satisfaction variables [49-56]. Project has observed that location characteristics are important considerations for understanding the formation of residential satisfaction among public housing tenants. In Nigeria, locations of some public housing have been a great barrier to the realization of the set goals for such a housing programmed or satisfaction thereof. Researcher observes that, public housing units in areas were not occupied for some years after the completion of the project. This is the same with the core housing project in Maiduguri which lacks access as a result of poor location; remain vacant until they were converted into military barracks [54-63]. Also residents of festival town in Lagos were found to be dissatisfied with the geographical location of the housing estate in relation to medical facilities, recreational centers, urban services and employment. In their studies on public housing provision and user satisfaction in three selected housing estate developed by researcher discover that there was high rate of satisfaction with factors such as proximity to religious center and adequate size of the living room. Location attributes can be a source of satisfaction or dissatisfaction particularly in relation to specific activity of the residents [64-77]. Favorable location attributes generally refer to accessibility in relation to central business district, local amenities such as shopping centers, schools and transportation centers. Housing development within a functional neighborhood location reasonably enough to provide the occupants with access to their requirements is indeed satisfactory [74-81]. Study discovers a high level of dissatisfaction with the public housing occupants lie in the areas of maintenance and cleanliness of the building estate, integrity of the building fabric and ease of access by public transport while the major concerns of the private housing occupants lie in the lack of facilities for the disabled as well as for recreational, elderly and childcare facilities. The estate management services attributes usually being examined are rules and regulations, maintenance, management staff and policies, participations and rents [82-90]. Previous studies suggest that, good housing management could increase the relative satisfaction of tenants in public housing. The overall satisfaction towards management activities depends largely on the comprehensive planning and coordination of activities within the residential estate, and the managerial skills, experiences and the extent of policy compliance as set in the overall interest of the residents and the comfort, habitability of the residential environment. In public housing, there is the general dissatisfaction of the managerial activities [1-13]. Also maintaining cordial relationship between the neighborhood residents as well as the relationship with the management team as this would poster a sound residential satisfaction. In private housing estate however, the full repairing and insuring terms lies solely with the housing owners, it is expected that the repairs and maintenance of common facilities which the management seeks to administer will influence level of satisfaction with the overall housing environment [14-28]. The quality of services provided as well as the time taking to responds to occupant's complaints constitutes part of repairs. Furthermore, eighteen (18) management issues were identified to have impact on residents reaction towards housing, time taking to acts on tenants complaints, tolerance in handling issues, team work among staff, quality of repair work upon completion, building quality, hygiene quality in building unit, hygiene quality in overall dwelling, environmental security, unit security, influencing others to stay in the housing area, overall quality of maintenance carried out by the management and overall satisfaction towards the dwelling units [29-36]. These were discovered to have strong relationship with the level of tenants' satisfaction. It was also established that five out of eight facilities maintain by university planning department are of satisfactory level. The concept of housing satisfaction relates to how a consumer of housing product reacts to the overall components of such a product as predicated by their taste as a ratio to his expectations. The degree to which (the inhabitants) feel (that their housing) is helping them to achieve their goals. It also refers to individual's evaluation of their housing environment, subjects to their needs, expectations and achievements [37-46]. The concept of residential satisfaction was developed based on the premise that the gap in between the actual desired housing by occupants and

the exact neighborhoods conditions is determined. Residential decisions by the house hold are being made based on their needs and aspirations. Absence of complains suggest residential satisfaction at equilibrium point of needs and aspirations, and would likely feel dissatisfied if their housing and neighborhood do not meet their needs and aspiration [47-58]. Researchers in their theory of housing adjustment as cited in project offers predictors of housing satisfaction. It occurs when the housing situation is in alliance with the cultural, family and community housing norms. Any short fall upon the housing situation, the house hold tends to make some adjustment or adaptations to make the housing consistent with their norms. An incongruity between the actual housing situation and housing norms results in housing deficits which give rise to residential dissatisfaction [59-64]. Once their dissatisfaction with the current housing surpasses a certain level, they are likely to consider some form of satisfaction towards management staff, satisfaction towards tenants selection and procedures, implementation of the law, friendliness of the management, time taking to acts on tenants complaints, tolerance in handling issues, team work among staff, quality of repair work upon completion, building quality, hygiene quality in building unit, hygiene quality in overall dwelling, environmental security, unit security, influencing others to stay in the housing area, overall quality of maintenance carried out by the management and overall satisfaction towards the dwelling units [65-78]. These were discovered to have strong relationship with the level of tenants' satisfaction. It was also established that five out of eight facilities maintain by university planning department are of satisfactory level. The concept of housing satisfaction relates to how a consumer of housing product reacts to the overall components of such a product as predicated by their taste as a ratio to his expectations. The degree to which (the inhabitants) feel (that their housing) is helping them to achieve their goals. It also refers to individual's evaluation of their housing environment, subjects to their needs, expectations and achievements [79-86]. The concept of residential satisfaction was developed based on the premise that the gap in between the actual desired housing by occupants and the exact neighborhoods conditions is determined. Residential decisions by the house hold are being made based on their needs and aspirations. Absence of complains suggest residential satisfaction at equilibrium point of needs and aspirations, and would likely feel dissatisfied if their housing and neighborhood do not meet their needs and aspiration. Researchers in their theory of housing adjustment as cited in project offers predictors of housing satisfaction. It occurs when the housing situation is in alliance with the cultural, family and community housing norms. Any short fall upon the housing situation, the house hold tends to make some adjustment or adaptations to make the housing consistent with their norms. An incongruity between the actual housing situation and housing norms results in housing deficits which give rise to residential dissatisfaction. Once their dissatisfaction with the current housing surpasses a certain level, they are likely to consider some form of housing adjustment [81-90]. This is particularly true when housing is acquired with the expectations that it meets the household specific and diverse needs. However, the concept of residential satisfaction is generally linked with the quality of life as indicated in various satisfaction researches In view of the foregoing two aspect of residential satisfaction should be considered for a meaningful research outcome, and these are subjective analysis based on certain bench mark as influenced by the house hold characteristics; and objective as determine by the overall housing components. researchers contend that, the subjective measure of is associated with the psychological aspects of human beings and measures perception, emotions, attitude and aspirations. The objective measurement of residential satisfaction deals with the physical characteristics, facilities, services and environment.

3.0 METHODOLOGY

The method employed for data collection involves both primary and secondary sources. As a survey research, questionnaires were drafted and administered to the residents of Prince and Princes Housing Estate. However, the instruments were prepared based on the previous residential satisfaction studies with little adjustment to suit the purpose of the research. A 5point Likert scale was used to measure level of the various components of residential satisfaction. This ranges from 1) very satisfied 2) satisfied 3) neutral 4) dissatisfied and 5) very dissatisfied. As cited in projects, Likert scale offers a reasonable degree of reliability compared to other open ended questions. The questionnaire was divided into 3 parts comprising of household demography, socioeconomic status of the residents and the housing satisfaction scale A, B and C respectively. Part C which is the main measure of housing satisfaction is made up of four components of satisfaction which includes; i) Structural components satisfaction ii) Dwelling unit features satisfaction iii) Neighborhood facilities and environment satisfaction and iv) Management services satisfaction. Samples of 112 questionnaires were administered. This is based on the sampling frame of 1,120 housing units representing 10% of the household resident in Prince and Princes Housing Estate, Abuja, Nigeria. This is distributed through a

systematic random sampling were every unit of the population sample has equal opportunity of being selected. More so, 66 of the questionnaires were retrieved for analysis, yielding 74% response rate.

4.0 RESULT

Analysis of the respondents' characteristics indicates that 40.9% are between the ages of 31-40 while those above 61 years constitute about 6.1% in the housing estate. Male has the highest number from among the respondents with about 83.3% as against their female counter part in the range of 16.7%. About 39% of the respondents are public servant, 28.8% are staff of various organize private sectors, 27% are into different types of business within the informal sector while 4.5% are retired civil servants. The housing estate is made up of between 2bed rooms semi-detached bungalow to 5 bedrooms' duplex. 2bedrooms has the highest occupants based on the response rate with a record of 36.4% occupation and a 12% for the 5bed rooms' house. Housing tenure comprises of owner occupiers and renters with a response level of 39% and 60.6% respectively. About 18 of the respondents have stayed in the estate for about 3 years while only 4 (6.1%) have been in the estate for over 6 years. Hausa's and Igbo's seems to have the highest number of population based on the response rate of 31.8% each, Yoruba's 24% and only 3% of the respondents are foreign nationals. 37% have monthly income of between N101, 000-N200, 000 (USD 631-1250). About 47% of the respondent's residents have education of at least Degree level. Reliability test was conducted and a Cronbach's Alpha value of the total satisfaction level with private housing development of 0.783 was obtained. Signifying the data deemed acceptable and all items were retained for subsequent analysis. Next, descriptive statistics was used to provide frequencies and mean scores of total and overall level of housing satisfaction based on the Likert scale. The mean score satisfaction level for structural components as shown in table 1 above is 3.6667. These are building components which need to be assessed. The result of the analysis indicates that; the residents are neither satisfied nor dissatisfied. The items measured include Floor, Walls, Doors, Windows, and Roof, Ceiling and the general building formation and finishing. However, about 40% of the occupants are generally dissatisfied with their windows and floor. About 33% are dissatisfied with the building form and finishing. Dwelling unit features in this study comprises of eleven (11) items which includes; Living area, Kitchen, dining room area, Bed room area, Washing room area, Natural lightning and ventilation, Number of sockets, Level of socket, Cloth line facilities, Garbage line and Noise. Residents are generally dissatisfied with washing area provided by the developers with a mean score of 4.2727. They however, express low satisfaction with all the variables within this group except for cloth line facilities and garbage line in which they are neither satisfied nor dissatisfied. These generally concur with the findings of researcher where it was discovered that, the residents were particularly dissatisfied with kitchen area, dining room, and cloth line facilities. The main variables included in this category are: Nursery school, Primary school, Secondary school, Health center/Clinic, Market, Gated enclave, Children's playground, Public transport system, Parking, Population density, Place of worship, Community hall, Facilities for handicapped, Police station and Fire service. Residents are generally dissatisfied with the public transportation system as well as the facilities for the handicapped with a mean score of 4.2879 and 4.1970 respectively. The mean score for the children's playground, community hall, market and health center indicates their dissatisfaction with this facility. They express low satisfaction with the schools around the housing estate, worship center and population density with a mean score above 2. They were however, generally neither satisfied nor dissatisfied with the total satisfaction level of neighborhood facilities and environment with a mean score of 3.1838. This however, contradicts the findings of researcher which indicates that, residents in Penang were generally satisfied with their neighborhood facilities and environment. Residents are generally dissatisfied with some of the aspect of management services as provided by the developers. These are sanitation and waste management with a mean score of 4.3636, water supply 4.2273 and pipe repair 3.9394. Mean scores for variables such as electrical wiring, rules and regulations, safety is within the range of 3.5 indicating neither satisfied nor dissatisfied. The main items considered and measured here are; Electrical wiring and installations, Rules and regulations operating in the housing estate were including compliance and response from the facilities managers, Sanitation and waste management services, Pipe repairs, Water supply, Safety and security. Overall housing satisfaction is achieved from the aggregate level as provided by all the four residential satisfaction constructs. The summation of the total mean score of the various components of housing satisfaction within this context provides 3.25. This indicates generally, that, the residents maintain average satisfaction level of (table 3 above). They are neither satisfied nor dissatisfied with their overall housing situations.

Table 1: Summary of the Total Satisfaction Level

S/no.	Description of Satisfaction Construct	No. of items	Mean Scores	Remarks
1.	Total Structural Components	7	3.6667	Neutral
2.	Total Dwelling Features	11	2.8113	Low Satisfaction
3.	Total Neighbourhood Facilities and Environment	15	3.1838	Neutral
4.	Total Management Services	6	3.7601	Neutral
5.	Overall Housing Satisfaction	39	3.2541	Neutral

5.0 CONCLUSIONS

This study is an attempt to investigate the level of housing satisfaction with private housing estate development in Abuja. The major components identified and measured are: Satisfaction with the structural components, satisfaction with dwelling unit features, satisfaction with neighborhood facilities and environment and satisfaction with the management services as provided by the developers. From the studies it can be deduced that aspects of the structural components maintains average satisfaction level. However, about 41% of the residents' express dissatisfaction with their floors and windows. The residents are generally satisfied with their dwelling unit features except for washing room, garbage line and cloth line facilities. Residents are also dissatisfied with public transportation system, children's playground and health facilities but are generally satisfied with the schools provided, parking lots, and population densities among others. More so, for management services as provided by the developers, residents are generally dissatisfied except for safety which indicates average satisfaction level. Sanitation and waste management has the highest dissatisfaction level within the management services with a mean score of 4.36. This is in line with the findings of studies were management services maintain satisfaction score below average, thus maintains that there are variations in the housing satisfaction level of the occupants which depends on a particular item in question. The implication generally is that housing provided by the private developers should be adequately monitored by responsible agencies for the overall improvement of occupants' satisfaction. There is the need for the government to review mass housing development policy through the development control department to ensure satisfactory service delivery.

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