Prefiguring Housing Quality in Urban Communities in Ibadan Nigeria

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Abstract
This study focuses on explaining and understanding the physical factors which reinforced housing quality in urban communities in Ibadan Nigeria. It explained the different physical variables which prefigure housing quality. The study used a conceptual model which recognised nineteen building components consisting of special design features, safety features, building types, buildings orientation, buildings ages, wastes disposal methods and building forms among others. For the questionnaire survey, 985 (20%) respondents out of a total of 4,922 respondents in five randomly selected urban communities in Ibadan were systematically sampled. The information obtained from the survey revealed residents levels of perception of housing quality with their urban communities, which were analysed using Correlation and Relative Important Index. The significant levels of association were determined at either 0.05 or 0.01 probability levels. The results showed significant pearson’s correlation (r) among pairs of the twenty (20) identified relevant housing variables. The results suggested that these factors are stronger determinant of residents’ perception of housing quality. Consequently, closer consideration should be paid to this factor in the design and development of not only existing urban communities but also in the conceptualisation of new ones.

Keywords
prefiguring; housing quality; urban communities; Nigeria

I. Introduction

This study centres on explaining the elements which reinforce the perception of housing quality in an urban community in the urban area of Ibadan in Nigeria. The reason is that housing quality determinants are very relevant features of the resident’s wellbeing in any neighbourhood. If these elements which influence housing quality are well and clearly understood, it will assist in contributing to the understanding of these factors by both the housing estate designers and policymakers in the development of future urban communities as well as in aiding and sustaining people’s wellbeing. Additionally, the physical factors which explained the housing quality had been studied in Western countries; this paper offers the opportunity to study it in a different cultural background.

Studies in the past had concentrated more on general housing quality attributes and did not consider the physical characteristics, which comprised: buildings ages, building types, buildings orientation, building forms, window protection, wall colour, foundation materials, wall materials, flooring materials, roofing materials, ceiling materials, entrance door materials, safety features, window materials, special design features and many others in relation to housing quality in urban communities. The physical characteristics and quality in those neighbourhoods are critical to housing quality study.

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Other studies have explored the area of environmental design in relation to housing quality. For example, Prompayuk and Sahachaisaeree (2012) looked at unity in environmental design and housing quality. This study critically examined the view of residents on their opinions over physical factors by using a set of questionnaire to elicit information from respondents on their perception of design and physical quality in the neighbourhood. Ewing and Handy (2009) measured the immeasurable, by looking at the urban design qualities related to the quality of life. The study attempts to comprehensively and objectively measure the subjective qualities of the urban street environment using ratings from the residents. Black and Street (2014) explored the role of urban design qualities and built environment features that affect cycling. The study examined urban physical features that comprised: special design features, safety features, waste storage, wastes disposal methods, method of evacuating waste among others. These physical qualities are related to the individual's perceptions. Most studies were done in developed countries and did not consider physical and design characteristics of neighbourhood holistically in a developing country such as Nigeria.

Knowledge regarding the relationship between the built environment, physical characteristics and housing quality is limited in Nigeria, especially with regard to urban communities in relation to physical and design characteristics. In view of the limited study on housing quality in residential urban communities, and little attention paid to the residents’ perception of housing quality and physical characteristics. This study considered the physical characteristics of the neighbourhood in the context of urban communities holistically in a developing country like Nigeria. Since housing is culture-specific, there is a need to explore and look at these issues in Ibadan. This research attempts to fill the existing gap using qualitative methods to investigate the concept of residential housing Quality in urban communities. This is relevant and important in housing. Finally, understanding housing quality in urban communities in Ibadan is necessary to inform relevant housing development policies aimed at improving the quality of life, hence this study.

II. Review of Literatures

Quality in general means standard and level of acceptability of an area. Housing quality is strictly correlated to housing standards, worth and the quality feature of a residential area, which reflects and shows urban growth, design and spatial planning and circulation instruments between socio-economic and socio-cultural groups and the quality of life of the inhabitants (Coker et al 2008; Izharsyah and Lubis, 2020). This suggests that housing quality have a design, physical, economic, social, cultural and environmental dimensions. Formoso and Jobim (2006) observed that perceived quality denotes concepts to users, which can be associated with the experience. This is a sign that housing quality is a perception that relates to individual attributes and attitude. Housing quality comprises the building design and structure, arrangement and internal adequacy and acceptability of dwelling units (Suprayitno et al, 2020). Others included: occupancy rate, accessibility of facilities, housing characteristics and conditions, and the affordability and habitability of neighbourhood (Skifter, 2004). This indicates that housing quality can be measure as a greatly valued characteristic which housing has that allows it to meet users' requirements. Characteristics such as structural soundness, spatial adequacy, the durability of construction materials, and accessibility of basic amenities and services such as electricity, water, and sewerage, location with upright networks with other areas of the city; where
secured tenure and availability of infrastructure are considered to be factors of upright housing quality (Rapoport 1983).

Therefore, housing quality can be said to include elements of housing that enabled it to accomplish the important functions of upholding healthy neighbourhood, enhanced living environments, and contributing to social, physical and mental welfare and supporting the improvement and social connection of people and the community. The assessment of housing quality is centred on thinking and conceptions. According to Rapoport (1977), individuals assessed their environment alongside an image of what they would prefer it to be. Such assessment method was inclined and influenced by peoples’ earlier experiences, cultural values, adaptation level, religion, gender, age, social role, and ethnicity (Filfil, 1999). An individual’s assessment of housing is a multifaceted, multidimensional, worldwide evaluation arrangement that combines perceptive, emotional, and interactive facets, along with a collection of both objective and subjective variables (Amerigo and Aragones 1990). In other words, publics’ subjective perceptions of reality influence their opinion of a specific household and its environs (Domanski, Ostrowska, Przybysz, Romanluk and Krieger, 2006).

Housing has to be quantitatively and qualitatively acceptable so as to achieve this significant purpose. The quality of a dwelling and its surroundings is obvious in the friendliness and landscaping of neighbours, physical condition, available facilities, symbolic characteristics and racial or economic composition (Aderamo and Ayobolu, 2010). According to Jiboye (2011) and Coker et al. (2008), the quality of housing being basically an essential element of quality of life, that influences the productivity, manner of living, the well-being of the occupants, and the decencies of residents’ lives. In essence, acceptable housing quality offers the basis for social inclusion and steady communities. Amo (2012) and Neilson, (2004) specified five rudimentary principles that would ensure housing quality, these are, that the houses in the housing essentially should be free from severe bad condition and compliance with tolerable standard and that it must be healthy. It should be provided with modern facilities and services, energy efficiency must be secured and safe. These factors consist of indicators for instance; the quality of infrastructural amenities, access to community facilities and basic housing and spatial adequacy, fixtures and fittings, quality of design, building design, landscaping and layout, pollution and noise control in addition to privacy and safety (Muhammed, et al 2015).

The study of Aderamo and Ayobolu (2010), evaluated the spatial structure of housing quality in Ilorin. It recognized quality of energy and ownership, basic facilities, material quality, utility and water quality as a determining factor influencing the physical structural pattern of acceptable housing quality in the city. Onibokun and Faniran (1995) and Awotona (1987) studied identified absence of access to basic facilities (social services, electricity, sanitation and clean water), unhygienic housing environment, high occupancy rate and structural inadequacy of housing units as the important factors militating and affecting the quality of housing in Nigeria (Ilesanmi, 2012; Jiboye, 2004; Coker et al. 2008; Mallo and Anigbogu, 2009).

III. Research Methods

Data for this study was obtained from both primary and secondary sources. Questionnaire survey and direct observations were used to acquire the primary data. Such data provided information and explanation on variables of perception of housing quality and physical characteristics in the study area. The preliminary survey revealed that there are 30 residential housing estates in urban areas in Ibadan. Five (5) of these residential
areas that comprise: Old Bodija Scheme, Agodi GRA, New Bodija Scheme, Kolapo Ishola Scheme and Alalubosa GRA consisting of forty-two (42) neighbourhoods were randomly selected. Twenty-one neighbourhoods representing 50% of the forty-two (42) neighbourhoods was sampled. From the preliminary survey, there are a total of four thousand, nine hundred and twenty-two (4,922) residential buildings in the selected areas. Nine hundred and eighty-five (985) representing 20% of the residential buildings were sampled. Systematic sampling technique was used to select one of every 5th buildings after the first house had been selected randomly. Data collected were analysed using percentages, Relative Importance Indices and Multiple Regression.

IV. Results and Discussion

4.1 Residents’ Perception of the Physical Characteristics in Old Bodija Scheme

The results from the study show that 19 variables out of 31 identified had the PCI above the average of 4.12, which were considered as major physical characteristics prefiguring housing quality in positive ways as contained in Table 1. These include quality of buildings setback with 4.93 PCI, how well defined individual compound/house / flat with 4.81 PCI, quality of natural surveillance and overall housing environment with 4.77 PCI. Also, included are pollution level (noise and air) with 4.63 PCI, the layout of the neighbourhood (the design in relation to daily life) with 4.56 PCI, safety measures in the neighbourhood with 4.55 PCI, parking space/parking lots with 4.51 PCI. In addition, others are impressions of the overall design of neighbourhood with 4.47 PCI, access control in the neighbourhood with 4.46 PCI, building ratio to green areas with 4.43 PCI and quality of streets design with 4.40 PCI. Also, ventilation in building or apartment with 4.39 PCI, size of spaces in building with 4.36 PCI, safety features in building with 4.30 PCI, quality of materials used for wall, ceilings and roof with 4.22 PCI. Furthermore, the study shows that the functionality of spaces in building with 4.16 PCI, the aesthetic appearance of the neighbourhood with 4.30 PCI and colour quality of paint in the neighbourhood with 4.13 PCI.

Table 1. Residents’ Perception of the Physical Characteristics in Old Bodija Scheme

| S/N | Some Identified Variables on residents perception of physical characteristics | Level of Residents Perception | N   | TWV<sub>(b)</sub> | TWV/n=PCI<sub>(Y)</sub> |
|-----|--------------------------------------------------------------------------------|------------------------------|-----|-------------------|---------------------|
| 1   | Quality of buildings setback                                                   | 390 5 5 2 2 2 2 404         | 1991| 4.93             |
| 2   | How well defined individual compound/house / flat.                             | 381 05 09 02 07 404         | 1963| 4.86             |
| 3   | Natural surveillance                                                          | 371 10 11 02 10 404         | 1942| 4.81             |
| 4   | Overall housing environment                                                    | 361 15 16 02 10 404         | 1927| 4.77             |
| 5   | Pollution level (noise and air)                                                | 320 40 31 05 08 404         | 1871| 4.63             |
| 6   | The layout of the neighbourhood (the design in relation to daily life)         | 320 31 21 22 10 404         | 1841| 4.56             |
| 7   | Safety measures in neighbourhood                                               | 300 60 21 12 11 404         | 1838| 4.55             |
| 8   | Parking space/parking lots                                                     | 314 31 20 30 09 404         | 1823| 4.51             |
| 9   | impressions of the overall design of the neighbourhood                         | 290 60 23 14 17 404         | 1804| 4.47             |
| 10  | Access control in the neighbourhood                                            | 283 67 26 12 16 404         | 1801| 4.46             |
| 11  | building ratio to green areas                                                  | 300 41 21 22 20 404         | 1791| 4.43             |
| 12  | Quality of streets design                                                      | 284 45 33 37 05 404         | 1778| 4.40             |
| 13  | Ventilation in your building or apartment                                       | 300 26 29 35 14 404         | 1775| 4.39             |
| 14  | Size of spaces in your building                                                | 294 30 23 47 10 404         | 1763| 4.36             |
| 15  | Safety features in your building                                               | 284 30 33 37 20 404         | 1733| 4.30             |
| 16  | quality of materials used for wall, ceilings                                   | 283 21 35 35 30 404         | 1704| 4.22             |
4.2 Residents’ Perception of the Neighbourhood Physical Characteristics in Agodi GRA

The study showed that 16 variables out of 31 identified had PCI above the average of 3.42 in this area. These were considered as major neighbourhood physical characteristics influencing housing quality in positive ways. These included: Safety features in the building with 4.10 PCI, Ventilation in the building or apartment with 4.03 PCI, Quality of buildings setback with 4.01 PCI. Also, included were: building ratio to green areas with 4.00 PCI, Size of spaces in your building with 4.00 PCI, Functionality of spaces in your building with 4.00 PCI, General cleanliness of the environment with 3.97 PCI. How well defined individual compound/house / flat with 3.95 PCI; Layout of the neighbourhood (the design in relation to daily life) with 3.95 PCI, quality of dwellings in the neighbourhood with 3.89 PCI and Colour quality of paint in the neighbourhood with 3.85 PCI among others. The inference of the finding is that the study area required social services basic amenities and infrastructure essential for a decent living. Therefore, policymakers and housing developers obligatorily must take cognisance of the significance and vital role of neighbourhood services and social infrastructure in the provision of adequate and conducive housing development in the study area.

4.3 Residents’ Perception of the Neighbourhood Physical Characteristics in New Bodija Scheme

The study revealed the level of acceptability and adequacy of physical characteristics in the New Bodija Scheme, 18 variables out of 31 identified had PCI above the average of 3.64. These variables were considered as acceptable and adequate by the residents as the major neighbourhood physical characteristics prefiguring housing quality in a positive way. These include Overall housing environment with PCI 4.48, Natural surveillance with PCI 4.48, access control in the neighbourhood with PCI 4.39, quality of materials used for wall, ceilings and roof with PCI 4.39. The study revealed that among all the factors, water system, the general state of secondary schools, the general state of primary schools, the general state of recreational facilities, and these facilities had PCI value that was far below
the average PCI of 3.64. These were considered as one of the major factors that may have far-reaching effects on the housing quality in the study area and require considerable improvement for housing quality development. Urgent attention is required on the policy framework that encourages the provision of social infrastructure and basic amenities in future gated communities programme.

4.4 Residents’ Perception of the Neighbourhood Physical Characteristics in Kolapo Ishola Scheme

The average mean on the perceived level of adequacy of the physical characteristics in this area was 4.21 PCI. This implied that the physical characteristics in the study area were in good situation and qualities of available conveniences and expediencies are upright as the index of 4.21 PCI was close to very good. It can be observed that 20 variables out of 31 identified had PCI above 4.21. These were measured as acceptable and adequate by the residents as the major neighbourhood physical characteristics prefiguring housing quality in positive ways. These comprised: how well defined individual compound/house and flat with PCI 4.83, the layout of the neighbourhood (the design in relation to daily life) with PCI 4.83, parking space/parking lots with PCI 4.79 and quality of materials used for wall, ceilings and roof with PCI 4.79.

In contrast, elements with PCI below the average of 4.21 PCI included: safety measures in the neighbourhood with PCI 4.04, quality of buildings setback with PCI 4.04, impressions of the overall design of neighbourhoods with PCI 4.04 and functionality of spaces in your building with PCI 4.00 among others. These were among the physical characteristics with a negative deviation that suggested that the level of adequacy these neighbourhood physical characteristics are low.

The study further revealed that quality of drainage system, the general state of primary, secondary schools and recreational facilities, had PCI value that was far below the average PCI of 4.21 which were considered as major factors that affect the housing quality and require considerable improvement for housing quality development. Nevertheless, it may also be that some of these neighbourhood physical characteristics were provided, but due to the rising change of status of residents and family need, the amenities are not adequate. This might have negative and far-reaching implications on housing quality in the study area.

4.5 Residents’ Perception of the Neighbourhood Physical Characteristics in Alalubosa GRA

The average PCI on the perceived level of adequacy of the physical characteristics in this area was 4.23. This implied that the physical characteristics in the study area were in good situation and qualities of available conveniences and expediencies are upright as the index of 4.23 was close to very good. From Table 2, it can be observed that 17 variables out of 31 identified had PCI above the average which was measured as acceptable and adequate by the residents as the major neighbourhood physical characteristics prefiguring housing quality in positive ways. These comprised: quality of dwellings in the neighbourhood with PCI 4.95, overall housing environment with PCI 4.95, safety measures in the neighbourhood with PCI 4.94 and safety features in your building with PCI 4.88. The implication of this is that the perception of physical characteristics by the residents is very good. In contrast, however, elements with PCI below the average include the size of spaces in your building with PCI 4.16, colour quality of paint in the neighbourhood with PCI 4.13, emergency/escape route with PCI 4.12 and quality of streets design with PCI 4.02 among others. The above result shows that many of the respondents want improvements in these areas some of which were not originally provided.
Table 2. Residents’ Perception of the Neighbourhood Physical Characteristics in Alalubosa GRA

| S/N | Some Identified Variables on residents perception of neighbourhood physical characteristics | Level of Residents Perception | N | TWV<sub>b</sub> | TWV/n=PCI<sub>Y</sub> |
|-----|------------------------------------------|-------------------------------|---|----------------|---------------------|
| 1   | Quality of dwellings in the neighbourhood | 5 4 3 2 1                     | 134 | 664          | 4.95                |
| 2   | Overall housing environment              | 126 8 - - -                   | 134 | 664          | 4.95                |
| 3   | Safety measures in neighbourhood         | 110 20 - - 4                  | 134 | 662          | 4.94                |
| 4   | Safety features in your building         | 112 22 2 - -                 | 134 | 654          | 4.88                |
| 5   | Quality of buildings setback             | 124 8 2 - -                  | 134 | 650          | 4.85                |
| 6   | The functionality of spaces in your building | 113 20 1 - -           | 134 | 648          | 4.84                |
| 7   | Ventilation in your building or apartment | 110 24 - -                 | 134 | 646          | 4.82                |
| 8   | Impressions of the overall design of the neighbourhood | 110 22 2 - - | 134 | 644          | 4.81                |
| 9   | Natural surveillance                     | 110 20 4 - -                 | 134 | 642          | 4.79                |
| 10  | The aesthetic appearance of the neighbourhood | 110 20 - 4 -             | 134 | 638          | 4.76                |
| 11  | Design of building                       | 100 34 - - -                 | 134 | 636          | 4.75                |
| 12  | General cleanliness of the environment   | 122 12 - - -                 | 134 | 630          | 4.70                |
| 13  | Access control in the neighbourhood      | 62 66 6 - -                 | 134 | 592          | 4.42                |
| 14  | The layout of the neighbourhood (the design in relation to daily life) | 48 80 6 - - | 134 | 578          | 4.31                |
| 15  | Quality of materials used for wall, ceilings and roof | 60 62 6 6 - | 134 | 578          | 4.31                |
| 16  | How well defined individual compound/house/flat. | 40 88 6 - - | 134 | 570          | 4.25                |
| 17  | Parking space/parking lots               | 42 84 8 - -                  | 134 | 570          | 4.25                |
| 18  | Size of spaces in your building          | 40 86 12 - -                 | 134 | 558          | 4.16                |
| 19  | Colour quality of paint in the neighbourhood | 34 88 08 4 - | 134 | 554          | 4.13                |
| 20  | Emergency/escape route                   | 24 102 8 - -                | 134 | 552          | 4.12                |
| 21  | Quality of streets design                | 34 88 6 6 -                  | 134 | 538          | 4.02                |
| 22  | Water system                             | 70 24 20 10 10               | 134 | 530          | 3.96                |
| 23  | Pollution level (noise and air)          | 54 34 26 12 8               | 134 | 516          | 3.85                |
| 24  | The general state of secondary schools   | 42 46 30 14 2               | 134 | 514          | 3.84                |
| 25  | The general state of health facilities   | 40 86 30 14 2               | 34 500 | 3.73          |
| 26  | Building ratio to green areas            | 50 28 22 20 14              | 134 | 482          | 3.60                |
| 27  | The general state of recreational facilities | 54 24 20 18 18            | 134 | 480          | 3.58                |
| 28  | The level of lighting on the streets     | 44 20 50 10 10               | 134 | 480          | 3.58                |
| 29  | The general state of primary schools     | 50 30 16 22 16              | 134 | 478          | 3.57                |
| 30  | Quality of drainage system               | 30 20 28 26 30             | 134 | 396          | 2.95                |
| 31  | Waste disposal                           | 124 8 02 - -                | 134 | 329          | 2.46                |

Average: 4.23

4.6 Summary of the Perception of the Neighbourhood Physical Characteristics in Indices in the Study Area

To summarize the residents' perception of the neighbourhood physical quality in all the study areas as shown in Table 3, and Figure 1 shows the comparative means of the Physical qualityIndices in the five study areas. It revealed that Alalubosa GRA had the highest value of perception of the physical characteristics index at 4.23 PCI closely followed by Kolapo Ishola Scheme having 4.21, while old Bodija Scheme and New Bodija Scheme were having 4.12 and 3.64 respectively. Agodi GRA had the least value at 3.42. This shows that based on residents perception on quality of physical characteristics, Alalubosa GRA scheme had better organised and quality neighbourhoods, which were reflected with the strong neighbourhoods profile exhibited. Based on the aggregate average of 3.92 PCI, the study area exhibited a good level of perception of physical characteristics.
Table 3. Summary of the Perception of the Neighbourhood Physical Quality in the study area

| Indicator                          | Physical Characteristics Indices (GCs) | Average |
|------------------------------------|---------------------------------------|---------|
|                                    | Old Bodija Scheme                      |         |
|                                    | Agodi GRA                              |         |
|                                    | New Bodija Scheme                      |         |
|                                    | Kolapo Ishola Scheme                   |         |
|                                    | Alalubosa GRA                          |         |
| Perception of Physical Characteristics | 4.12                                  | 3.92    |
|                                    | 3.42                                  |         |
|                                    | 3.64                                  |         |
|                                    | 4.21                                  |         |
|                                    | 4.23                                  |         |

Figure 1. The comparative means of the Physical Quality Indices in the five study areas.

4.7 Relationship between Physical Characteristics and Housing Quality Using Pearson’s Correlation Co-efficient (r) in all the Study Area

Table 4 shows that the computed Pearson’s correlation (r) among pairs of the twenty (20) identified relevant housing variables in the study area. The result of finding in column (A) reveals that variable housing quality with correlation coefficient of 0.809 has a positive and significant correlations with variables that comprised: buildings ages (PCC = 0.744), building forms (PCC = 0.684), foundation materials (PCC = 0.808), wall materials (PCC = 0.931), roofing materials (PCC = 0.423) and ceiling materials (PCC = 0.446). Others include: special design features (PCC = 0.999), safety features (PCC = 0.419), waste storage (PCC = 0.656), wastes disposal methods (PCC = 0.470), method of evacuating waste (PCC = 0.632) and time interval in disposing waste (PCC = 0.747) that are significant at either 0.05 and 0.01 levels.

Column (B) shows that housing quality with correlation coefficient of 0.871 which has positive and significant correlations with variables that comprised: buildings orientation (PCC = 0.641), building form (PCC = 0.566), window protection (PCC = 0.612) foundation materials (PCC = 0.586), wall materials (PCC = 0.799) and roofing materials (PCC = 0.618). Others included: flooring materials (PCC = 0.375), special design features (PCC = 0.741), waste storage (PCC = 0.587), wastes disposal methods (PCC = 0.592), method of evacuating waste (PCC = 0.681) and time interval in disposing waste (PCC = 0.744) that are significant at both 0.05 and 0.01 levels. Column (E) shows that housing quality with correlation coefficient of -0.134 that is negative and is not significant, but has significant correlations with variables that comprised: roofing materials (PCC = -0.480), ceiling materials (PCC = 0.537), window materials (PCC = -0.425), safety features
(PCC = 0.363), waste storage (PCC = 0.538) that are significant at either 0.05 or 0.01 levels. Column (F) shows that housing quality with correlation coefficient of 0.681 that has positive and significant correlations with variables that included: wall materials (PCC = 0.448), roofing materials (PCC = 0.809) and flooring materials 0.708. Others included: window materials (PCC = 0.725), entrance door materials (PCC = 0.696), wastes disposal methods (PCC = 0.708), method of evacuating waste (PCC = 0.814), time interval in disposing waste (PCC = 0.418) that are significant at either 0.05 or 0.01 levels. The study revealed a strong and significant correlation between housing quality and physical characteristics that comprised: building types, buildings ages, buildings orientation, building forms, wall colour, window protection, foundation materials, and wall materials among others features.

**Table 4. Aggregate of Pearson’s Correlation Co-efficient (r) for Physical characteristics and Housing Quality Variables**

| S/N | Variables                        | A (i) | B (ii) | C (iii) | D (iv) | E (v) | F (vi) | G (vii) | H (viii) | I (ix) | J (x) | K (xi) | L (xii) | M (xiii) | N (xiv) | O (xv) | P (xvi) | Q (xvii) | R (xviii) | S (xix) | T (xx) |
|-----|---------------------------------|-------|--------|---------|--------|-------|--------|---------|----------|--------|-------|--------|---------|----------|---------|--------|--------|----------|----------|--------|-------|
| i   | Building Types (A)              | 1.00  |        |         |        |       |        |         |          |        |       |        |         |          |         |        |        |          |          |        |       |
| ii  | Buildings Ages (B)              | .74** | 1.00   |        |        |       |        |         |          |        |       |        |         |          |         |        |        |          |          |        |       |
| iii | Buildings Orientation (C)       | .24** | .64**  | 1.00   |        |       |        |         |          |        |       |        |         |          |         |        |        |          |          |        |       |
| iv  | Building Forms (D)              | .68** | .56**  | .25**  | 1.00   |       |        |         |          |        |       |        |         |          |         |        |        |          |          |        |       |
| v   | Wall Colour (E)                 | .06   | .10    | .27    | .01   | 1.00  |        |         |          |        |       |        |         |          |         |        |        |          |          |        |       |
| vi  | Window Protection (F)           | .31  | .62**  | .75**  | .85**  | .17** | 1.00   |        |          |        |       |        |         |          |         |        |        |          |          |        |       |
| vii | Foundation Materials (G)       | .80** | .58**  | .28**  | .25**  | .32** | .00**  | 1.00    |          |        |       |        |         |          |         |        |        |          |          |        |       |
| viii| Wall materials (H)             | .93** | .42**  | .72**  | .01**  | .18** | .44**  | .71**   | 1.00     |        |       |        |         |          |         |        |        |          |          |        |       |
| ix  | Roofing Materials (I)           | .42** | .68**  | .39**  | .85**  | .48** | .08**  | .02**   | .59**   | 1.00   |       |        |         |          |         |        |        |          |          |        |       |
| x   | Flooring Materials (J)          | -.05  | .37**  | .64**  | .44**  | .13** | .70**  | -.25**  | .20**   | .65**  | 1.00   |        |         |          |         |        |        |          |          |        |       |
| xi  | Ceiling Materials (K)           | .44** | .30**  | .14**  | .12**  | .53** | -.05** | .67**   | .35**   | -.11** | -.33** | 1.00   |        |          |         |        |        |          |          |        |       |
| xii | Window Materials (L)            | .31** | .19**  | .24**  | .53**  | -.42** | .72**  | -.46**  | .19**   | .78**  | .73**  | .49**  | 1.00   |        |         |        |        |          |          |        |       |
| xiii| Entrance Door Materials (M)     | -.20**| .02**  | .29**  | .38**  | -.35**| .69**  | -.65**  | -.06**  | .60**  | .72**  | .56**  | .55**  | .90**   | 1.00   |        |        |          |          |        |       |
| xiv | Special Design Features (N)     | .99** | .74**  | .24**  | .68**  | .07** | .32**  | .80**   | .93**   | .42**  | .04**  | .43**  | .01**  | .23**   | 1.00   |        |        |          |          |        |       |
| xv  | Safety Features (O)             | .41** | .64**  | .74**  | .18**  | .36** | .31**  | .53**   | .15**   | .43**  | .06**  | .02**  | .16**  | .43**   | 1.00   |        |        |          |          |        |       |
| xvi | Waste Storage (P)               | .65** | .58**  | .48**  | .13**  | .53** | .15**  | .86**   | .52**   | -.08** | -.25** | .72**  | .47**  | .54**   | .64**  | 1.00   |        |          |          |        |       |
| xvii| Waste Disposal Methods (Q)      | .47** | .59**  | .36**  | .84**  | .34** | .70**  | .103    | .56**   | .81**  | .62**  | .01**  | .63**  | .45**   | .46**  | .15**  | 1.00   |          |          |        |       |
| xvi | Method of Evacuating Waste (R)  | .63** | .68**  | .63**  | .66**  | .01** | .81**  | .31**   | .65**   | .63**  | .37**  | .13**  | .46**  | .41**   | .63**  | .35**  | .43**  | .53**   | 1.00     |        |       |
| xix | Time Interval in Disposing Waste (S) | .74** | .74**  | .48**  | .53**  | .097  | .41**  | .52**   | .75**   | .57**  | .06**  | .33**  | .19**  | .05**   | .73**  | .26**  | .46**  | .48**   | .65**   | 1.00   |       |
| xx  | Housing Quality (T)             | .80** | .87**  | .54**  | .79**  | .134  | .68**  | .54**   | .90**   | .79**  | .49**  | .24**  | .39**  | .16**   | .80**  | .52**  | .41**  | .80**   | .70**   | .71**  | 1.00   |

** Correlation is significant at the 0.01 level (2-tailed).  
* Correlation is significant at the 0.05 level (2-tailed).  

V. Conclusion

The role of physical characteristics in the development of urban communities in relation to housing quality cannot be overemphasized. The design and development of urban communities need to be based on the standard design principles and physical characteristics with consideration of housings’ location and connectivity, and liveability, safety, privacy and facilities among others. The identified highly important and less important factors prefiguring housing quality in a positive way will provide useful information for various developers and policymakers in their decision making. In general, these factors can be categorised into social interaction, economic, physical facilities, safety, privacy, and design quality. Others were personal, recreational and environmental quality among others. These were the groups of determinants prefiguring housing quality in the study areas as established in this study.

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Policy Recommendations

There is certainly no doubt that the outcomes of this research have enormous practice and policy implications that are important. There is the need to make a number of recommendations that would make the issue of housing quality in urban communities more acceptable to both the government as well as the majority of the residents in the study area. The study recommends that the study areas need to be improved on the concepts of physical characteristics that include: buildings ages, building types, building forms, buildings orientation, wall colour, foundation materials, window protection, wall materials, flooring materials, roofing materials, ceiling materials, entrance door materials, window materials, safety features, special design features and many others within the study areas.

In addition, advancement in the area of physical condition, environmental design and social interaction among neighbours and an improvement in the important elements of physical characteristics will influence the resident’s perception of housing quality.

Housing physical characteristics such as quality of buildings setback, natural surveillance, overall housing environment, pollution level (noise and air), the layout of the housing, the overall design of housing and quality of dwellings among others, in the areas require remodelling. These facilities are no longer adequate in meeting current needs. The housing quality is a reflection of the national condition and comparatively an accumulation of various housings’ quality. Interventions, upgrading need to be planned and designed so that they have a significant and positive influence on residents’ perceptions. The implication of this is that the professionals engaged in the planning, design, operation and implementation of urban communities’ schemes should be engaging and be involve inappropriate design practices, structures and schemes in conceiving housings that satisfy users need for privacy, safety, fire, security, adequate sleeping area and thermal comfort among others.

In addition to the above, other key housing facilities and elements should be upgraded. This will improve the level of quality of housing services, housing facilities and infrastructure. Also, there is a need for proper management and the maintenance of these facilities. The study showed that good management of urban communities contributes to overall housing quality. It is, therefore, recommended that developer of housing estate should develop an effective method for the management and provision of basic services, social infrastructure and amenities in urban communities. Similarly, they should develop bigger housing units that meet the requirement of families with large household size. Another aspect which the study has indicated need attention is locational appropriateness of housing development in relative to proximity to educational, healthcare, shopping facilities and recreational among others.

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