

Resident's Satisfaction and Preferences in Housing Provision by Government and Private Partnership in Abuja

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Abstract. This study came when the need for shelter by man has always been an issue for both the person in need of a house and the people in charge of supplying or designing the house. It is widely known the demand for housing came in second in the hierarchical system of man's needs after meals. This study examined residents' satisfaction and preferences in Abuja's housing provision by the government and public-private partnerships. Participants were given questionnaires at the Public Estate, of which 36 were recovered; 300 questionnaires were served at the Public Estate, with 227 recovered. Participants in this study are tenants in both the Public Partnership Estate and the Private Partnership Estate. According to the findings, 30 housing estates in the Ministerial Housing Estate (Public) in Abuja (PPP). Residents' preferences in the study areas are preferred, according to the respondents. The difference between residents' satisfaction and preferences in the houses provided by the government and PPP in the study area was also ascertained using a T-test analysis. The ANOVA results also revealed a significant difference in residence satisfaction between public housing estates and PPP at 0.06 and 0.011, less than the 0.05 significance level. Developers in the public and private housing sectors should work to bridge the gap between residents' preferences and their own. They should improve the drainage systems, waste management, and sewage disposal to increase resident satisfaction. According to the survey results, respondents' satisfaction and preference for residents are very high, high, and moderate, respectively.

Keywords: resident's satisfaction; resident's preferences; housing provision; government; Abuja; Nigeria.

INTRODUCTION

Housing was believed essential to someone's health and wellbeing and a reference for individual fulfilment [11]. Housing is one of humanity's three basic needs. Its efficiency should be commensurate with both technical and general user expectations. Because it significantly influences people and the country's lives, the home's function in providing human comfort through humans and nature is critical [18]. Housing is an intricate good with various aspects, including constructions that include all of the physical characteristics of the dwelling, accessibility and facilities that comprise a bundle of housing-related services, and nearby qualities that have

the environment in which the home exists [25]. Affordability in housing refers to ensuring that specific housing or other needs are met at a cost or rent that does not place people in undue financial hardship [25]. In most instances, the rental values of housing in one residential neighbourhood differ substantially from those of similar properties in another residential area within the same city [24]. Residents' perceptions of their neighbourhood and living environment influence their satisfaction with their housing. This demonstrates a low level of dissatisfaction and a high level of agreement between planned and actual conditions, as well as the satisfaction of tenants' basic housing demands [2].

Public housing is a type of housing delivery that emphasizes the role of the state (the government and its agencies) in assisting in the delivery of housing, especially for the have-not, low-income, and more vulnerable groups in society [20]. One of the primary goals of both public and private real estate developers is to provide habitable and satisfactory residential housing in terms of standard, quality, user needs, and preconceptions and desires [17]. Despite efforts from corporate and public housing developers, resident satisfaction remains a significant challenge in developing countries, including Nigeria [17]. Residents' satisfaction is a broad concept affiliated with various factors such as physical, social, and neighbourhood factors, as well as psychological and social-economic attributes of the residents [5].

Controlling spatial development related to housing requires public participation, particularly in developing countries such as Nigeria [3]. The study looked at the housing quality in five public housing estates in Lagos State's Amuwo-odofin local government area. A total of 77 dwellings were sampled. The quality of housing units was assessed using building elements. A five-point Likert scale was used for the analysis. The overall condition of building components in the sampled estates was described as fair. In contrast, the overall condition of the infrastructure was described as harmful [14]. The self-administration of 640 structured questionnaires was administered to the occupants of five housing estates in Minna, and FCT Abuja was used to assess Public-Private Partnership (PPP) in housing provision in Minna and FCT Abuja. Authors [24] studied Housing provision and Soldiers' housing preferences at Shadawanka Barrack Bauchi to meet military personnel's housing demands in the study region. The study used a quantitative technique, a survey strategy, a descriptive and exploratory research design, and a questionnaire instrument to collect data. The population of the study was military personnel, with a sample frame of 248 dwellings, assuming one personnel per house. According to the findings, the barracks' general or average housing conditions were rated fair. The variables with the highest adequacy levels are water supply and security, while drainage and road networks have the lowest levels of adequacy and reaction. However, none of those other studies focused on resident satisfaction and preferences in housing provided

by the government and private-public partnerships, a gap that this study seeks to fill. This research aims to compare residential properties offered by the government and public-private associations in FCT Abuja to propose ways to improve residents' satisfaction and preferences in FCT Abuja. The research objectives are as follows:

1. To evaluate residents' satisfaction with housing provision by the government and Private Partnership in FCT Abuja.
2. To investigate the significant areas of residents' preferences in housing provided by the government and Public-Private Partnership in FCT Abuja.
3. To assess the differences in residents' satisfaction and preferences in the study area's houses provided by the government and public-private partnerships.

Literature review

Satisfaction is a feeling that results from fulfilling one's needs and desires. According to [23] satisfaction can be defined as either emotional or cognitive. The experience and its evaluation are based on what is received compared to what was expected [23]. Customer gratification is frequently associated with customer satisfaction. Products or services that are a source of satisfaction provide their customers with desirable value, at least to a certain extent. According to ISO 10004, satisfaction is a judgment, an opinion expressed by the customer. The level of satisfaction refers to the difference between the customer's perception of the expected product and the customer's perception of the delivered product Standard.

Residential satisfaction is defined as the sense of wellbeing that one feels when one's needs or desires in one's home are met. Various researchers have studied it, and the results are regarded as a critical determinant of an individual's perception of the quality of a house, as well as an evaluative way of measuring the success of government and non-governmental housing [16]. As a result, the concept of residential satisfaction has evolved. In recent years, the idea of residential satisfaction has expanded to include the total actualization of residents' basic housing needs, including structural and physical deficiencies, as well as the provision of necessary amenities, equipment, and

installations, as well as access to livelihood, to make the neighbourhood a safe and comfortable place for human habitation [17].

Authors [10] recommended that one potential option for meeting residents' facility needs is to investigate factors that account for residents' satisfaction or dissatisfaction with their housing situation. Similarly, authors [8] opined that for the housing sector to improve the quality of its products, it must investigate and comprehend users' needs and expectations. The author [6] defines residential Satisfaction (RS) as the extent to which residents believe their housing is assisting them in achieving their goals. According to most theories, RS measures the difference between an occupant's actual and desired housing and their neighbourhood. Housing satisfaction refers to how a consumer of a housing product reacts to the overall components of such a product as determined by their taste his expectations. The extent to which (the residents) believe their housing is assisting them in reaching their goals [12]. It also refers to an individual's assessment of their living environment in light of their requirement, preconceptions, and accomplishments.

Public-Private Partnership (PPP) is a concept for public projects and services in collaboration with the private sector [21]. The idea of PPP originated in the United Kingdom in the 1960 as PFI (Private Finance Initiative). It can be summarized as the overall concept and understanding of responsibility, sharing parameters between the public and private sectors [15]. Public-Private Partnership was further defined as a relatively new concept of executing public projects and services through "partnership arrangements with the private sector, particularly in the areas of infrastructure," which originated in the United Kingdom in the 1960 as PFI (Private Finance Initiative). They define PPP as a spectrum of different contributions from public and private arrangements. This spectrum of possible PPPs ranges from businesses controlled by the private sector at one end to those held by the public sector at the other.

Nigeria has adopted PPPs to increase urban housing stock while addressing housing affordability and accessibility issues [9]. The author [13] defines PPP as cooperation between the public and private sectors. A public-private partnership (PPP) is an agreement in which private parties

collaborate to provide infrastructure support. It refers to a government service or private business venture founded and operated due to collaboration between the government and one or more private sector companies [4]. Partnerships between the public and private sectors are a critical means of encouraging the private sector to participate actively in addressing Nigeria's growing urban housing crisis. PPP is not the acquisition of an asset but the payment of a stream of services under specified terms and conditions. Partnerships, collectively known as Public-Private Partnerships (PPPs), represent a wide range of institutional arrangements between the public and private sectors in sharing responsibilities, perks, and threats in housing, infrastructural facilities, and service delivery [9]. The involvement of the private sector in urban infrastructure provision is expected to reduce the burden of public sector financing while also ensuring accountability, monitoring, and management in infrastructure provision [19].

In Nigeria, implementing Public-Private Partnership in housing provision was intended to increase urban housing provision while addressing housing affordability and accessibility issues [9]. Authors [1] investigated the beneficiaries of housing units' perceptions of the nature of the loan and the Public-Private Partnership's housing provision drive in Cross River State, Nigeria. The snowball sampling technique was used to sample 90 people. All respondents were pleased and satisfied with the role of public-private partnerships in housing provision. However, a small percentage of respondents perceived the process to be riddled with anomalies such as cronyism.

METHODOLOGY

In this study, quantitative research methods were used. At the Public Estate, 40 respondents were given questionnaires, of which 36 were returned. At the Public Estate, 300 questionnaires were served, of which 227 were returned. Participants in this study are tenants in both the Public Partnership Estate and the Private Partnership Estate. As a result, the survey's population includes all occupants of the two Estates. Following thorough data collection, descriptive, mean ranking, and multiple linear regression were used to evaluate the field data using SPSS Version 22.

RESULTS AND DISCUSSION

Respondents filled out background information such as gender, age, household size, monthly income, and educational qualification in the Ministerial housing estate. Table 1 contains information on these.

Table 1 – Demographic information of respondents (Ministerial Housing Estate, Public)

Variables	Options	Frequency	%
Gender	Male	16	44.4
	Female	20	55.6
Age	Under 30 years	20	55.6
	31 to 60 years	16	44.4
Household size	Below 4 people	16	44.4
	5 to 8 people	11	30.6
	9 to 12 people	9	25.0
Monthly income, N	Less than 50,000	6	16.7
	50,001–100,000	14	38.9
	101,000–150,000	4	11.1
	151,000–200,000	9	25.0
	Above 200,000	3	8.3
Education qualification	Primary / secondary	10	27.8
	Diploma / NCE	10	27.8
	Degree / HND	10	27.8
	Master Degree and above	6	16.7

According to the Table 2, the age distribution of respondents is as follows: less than 30 years has 10.6 %, 31-60 years has 78.8 %, and over 60 years has 10.6 %. This indicates that most respondents in the study area are between the ages of 31 and 60.

It was discovered that males made up 58.1 % of the respondents, while females made up 41.9 %. This demonstrates that male respondents make up the vast majority of those polled in the study area.

Table 2 – Demographic information of respondents (Abuja @ 30 housing estate, PPP)

Variables	Options	Frequency	%
Gender	Male	132	58.1
	Female	95	41.9
Age	Under 30 years	24	10.6
	31 to 60 years	179	78.8
	Above 60 years	24	10.6
Household size	Below 4 people	101	44.5
	5 to 8 people	123	54.2

Variables	Options	Frequency	%
	9 to 12 people	2	0.9
	Above 13 people	1	0.4
Monthly income, N	Less than 50,000	23	10.1
	51,000–100,000	23	10.1
	101,000–150,000	69	30.5
	151,000–200,000	55	24.2
	Above 200,000	57	25.1
Education qualification	Informal education	6	2.6
	Primary / secondary	16	7.0
	Diploma / NCE	18	8.0
	Degree / HND	113	49.8
	Master Degree and above	74	32.6

Table 2 also revealed that households with fewer than four people account for 44.5 %. In comparison, those with five to eight people account for 54.2 %, those with nine to twelve people account for 0.9 %, and households with more than thirteen people account for 0.4 %. This indicates that most homes in the study area have 5 to 8 people. Regarding educational qualifications, informal education accounts for 2.6 % of respondents. In comparison, 7 % have a first leaving/secondary certificate, 8 % have a Diploma/NCE certificate, 49.8 % have a first degree/HND certificate, and 32.6 % have a Master's degree or higher. This indicates that degree/HND holders outnumber non-degree holders in the study area.

Table 3 revealed that privacy, floor quality, window conditions, and toilet facilities ranked first, second, third, and fourth with mean scores of 4.52, 4.19, 4.17, 4.16 and standard deviations of .796, .781, .569, and .576, respectively.

In contrast, sewage disposal, drainage system, ventilation, and waste management ranked 11–14 with mean scores of 3.55, 3.31, 3.29, 3.19 and standard deviations of 1.0. The results of the rank ordering of the ten type constructs on residents' Satisfaction in PPP revealed that privacy, floor quality, window and toilet facility conditions, and waste management were the highest-ranked, while sewage disposal, drainage system, ventilation, and waste management were the lowest-ranked. The findings are consistent with [8] findings, who discovered that occupants are satisfied with the quality of the floors, toilets, and ceiling but are dissatisfied with the location and access to local facilities.

Table 3 – Level of Residents' Satisfaction in Ministerial Housing Estates (Government)

Variables	Mean	Std. Deviation	Ranking	Remarks
Floor quality	4.00	1.000	1st	Very satisfied
Privacy	4.00	1.291	2nd	Very satisfied
Conditions of windows	3.97	.921	3rd	Very satisfied
Paintings of the walls	3.96	.991	4th	Very satisfied
Parking space	3.91	1.164	5th	Very satisfied
Ceiling	3.78	1.204	6th	Very satisfied
Doors	3.76	.971	7th	Very satisfied
Walls	3.72	1.070	8th	Very satisfied
Roof	3.70	.849	9th	Very satisfied
Toilets facilities	3.69	.925	10th	Very satisfied
Sewage disposal	3.39	.920	11th	Moderate satisfied
Ventilation	3.15	1.091	12th	Moderate satisfied
Waste management	3.03	1.180	13th	Moderate satisfied
Drainage system	3.00	1.073	14th	Moderate satisfied

Table 4 revealed privacy, floor quality, and window and wall conditions with mean scores of 4.08, 4.04, 4.01, 3.92 and standard deviations of 1.139, .859, .806 and .830 ranked first, second,

third, and fourth, respectively, while ventilation, toilets facilities, drainage system, and sewage disposal ranked 11–14, respectively.

Table 4 – Level of Residents' Satisfaction in Abuja @ 30 Housing Estates (PPP)

Variables	Mean	Std. Deviation	Ranking	Remarks
Privacy	4.52	.796	1st	Extremely satisfied
Floor quality	4.19	.781	2nd	Very satisfied
Conditions of windows	4.17	.569	3rd	Very satisfied
Toilets facilities	4.16	.576	4th	Very satisfied
Roof	4.14	.603	5th	Very satisfied
Walls	4.10	.646	6th	Very satisfied
Doors	4.08	.661	7th	Very satisfied
Ceiling	3.87	1.284	8th	Very satisfied
Parking space	3.86	.739	9th	Very satisfied
Paintings of the walls	3.77	.892	10th	Very satisfied
Sewage disposal	3.55	.944	11th	Very satisfied
Drainage system	3.31	1.037	12th	Moderately satisfied
Ventilation	3.29	1.059	13th	Moderately satisfied
Waste management	3.19	.987	14th	Moderately satisfied

The rank ordering of the fourteen type constructs on residents' satisfaction in private housing developers revealed that privacy, floor quality, window and wall conditions ranked highest, while ventilation, toilet facilities, and security ranked lowest. The drainage system and sewage disposal were ranked last. This finding is consistent with [6] research on post-occupancy evaluation of residential Satisfaction in Oniru Estate, Lagos. Road accessibility, functionality, spatial adequacy and efficiency, aesthetics, security, and privacy are all evaluated. In contrast, external visual quality, quality of maintenance, struc-

tural quality, quality of services, quality of estate roads, quality of the landscape and open spaces, environmental layout, and location are also considered.

Table 5 revealed privacy, floor quality, and window and wall conditions with mean scores of 4.4026, 4.2987, 4.1991, 4.1983 and standard deviations of .80097, .45868, .40022, and .40007 ranked first, second, third, and fourth, respectively. In contrast, sewage disposal, ventilation, drainage system, and waste management ranked 11–14.

Table 5 – Major Areas of Residents' Preferences in Ministerial Housing Estates (Government)

Variables	Mean	Std. Deviation	Ranking	Remarks
Privacy	4.4203	.79346	1st	Highly preferred
Floor quality	4.3188	.46944	2nd	Highly preferred
Windows	4.2174	.41549	3rd	Highly preferred
Walls	4.2003	.40449	4th	Highly preferred
Doors	4.1973	.40017	5th	Highly preferred
Roof	4.1304	.53996	6th	Preferred
Parking space	4.1014	.30413	7th	Preferred
Paintings of the walls	3.8406	.71995	8th	Preferred
Ceiling	3.8116	1.08838	9th	Preferred
Toilets facilities	3.7246	1.02733	10th	Preferred
Ventilation	3.3623	.99957	11th	Moderately preferred
Sewage disposal	3.3188	1.00722	12th	Moderately preferred
Drainage system	3.2319	.98735	13th	Moderately preferred
Waste management	3.0319	.97625	14th	Moderately preferred

The rank ordering of the fourteen type constructs on residents' preferences in PPP revealed that privacy; floor quality, window and wall conditions, and waste management were the highest-ranked, while sewage disposal, ventilation, drainage system, and waste management were the lowest-ranked. The findings are consistent with those of [15] as well as [26]. The study found that apartment residents in Tehran prefer houses with a high level of privacy, good doors,

adequate parking space, good toilet facilities, and an adequate waste disposal system.

Table 6 revealed privacy, floor quality, and window and wall conditions with mean scores of 4.3750, 4.3333, 4.2083, 4.2013 and standard deviations of .82423, .48154, .41485 and .41243 ranked first, second, third, and fourth, respectively, while sewage disposal, ventilation, drainage system, and waste management with mean scores of 3.2500, 3.2083, 3.1667, 3.0017 and standard deviations of .98907, 1.02062, .96309.

Table 6 – Major Areas of Residents' Preferences in Abuja @ 30 Housing Estates (PPP)

Variables	Mean	Std. Deviation	Ranking	Remarks
Privacy	4.4026	.80097	1st	Highly preferred
Floor quality	4.2987	.45868	2nd	Highly preferred
Windows	4.1991	.40022	3rd	Preferred
Walls	4.1983	.40007	4th	Preferred
Doors	4.0998	.37683	5th	Preferred
Parking space	4.0996	.30007	6th	Preferred
Roof	4.0779	.56182	7th	Preferred
Ceiling	3.7922	1.08352	8th	Preferred
Paintings of the walls	3.7576	.79242	9th	Preferred
Toilets facilities	3.7143	.98498	10th	Preferred
Sewage disposal	3.2944	1.00862	11th	Moderately preferred
Ventilation	3.2597	1.01813	12th	Moderately preferred
Drainage system	3.1948	.98297	13th	Moderately preferred
Waste management	3.0048	.98007	14th	Moderately preferred

The rank-ordering of the ten type constructs on residents' preferences in private housing developers revealed that privacy, floor quality, window and wall conditions, and waste management were the highest-ranked, while sewage disposal, ventilation, and drainage system, and waste management were the lowest-ranked. This find-

ing is consistent with the findings of [7]. Alterations' impacts on the sustainability of low-cost housing schemes in Sri Lanka, which revealed that occupants of low-cost housing schemes prefer houses with good floor qualities, a good drainage system, proper waste management, parking space and privacy.

Table 7 revealed the significance of ANOVA, which shows no significant difference.

Table 7 – Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Residents satisfaction	2.849	2	319	.059
Residents Preferences	.060	2	321	.942

Still, there is a substantial difference between residents' preferences and residents' satisfaction at 0.00, which is less than 0.05.

Table 8 revealed the level of comparison of an individual type, government and PPP. In terms of resident satisfaction, there is a significant difference between public and PPP at 0.011.

Table 8 – ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Residents' satisfaction	Between Groups	4.889	2	2.445	7.797	.000
	Within Groups	100.017	319	.314		
	Total	104.906	321			
Residents Preferences	Between Groups	.061	2	.030	.109	.896
	Within Groups	88.990	321	.277		
	Total	89.051	323			

According to the study findings, respondents in the Ministerial housing estate (public), Abuja @ 30 housing estates (PPP), indicated that their housing satisfaction level in the study areas is delighted. According to the study's findings, respondents in Ministerial housing estate (public), Abuja @ 30 housing estates (PPP), indicated that the level of resident preference in the study areas

is preferred. T-test analysis was also performed to determine the difference between residents' satisfaction and preferences in the study area's houses provided by the government and PPP. ANOVA results also revealed a significant difference in residence satisfaction between public housing estates and PPP at 0.06 and 0.011, which is less than the significance level of 0.05.

Table 9 – Tukey HSD Multiple Comparisons

Dependent Variable	(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
						Lower Bound
Residents' satisfaction	Public	Private	-.14415	.13320	.526	-.4578
		PPP	-.36932*	.12009	.006	-.6521
	Private	Public	.14415	.13320	.526	-.1695
		PPP	-.22517*	.07770	.011	-.4081
	PPP	Public	.36932*	.12009	.006	.0865
		Private	.22517*	.07770	.011	.0422
Residents Preference	Public	Private	-.03714	.12478	.952	-.3309
		PPP	-.00421	.11292	.999	-.2701
	Private	Public	.03714	.12478	.952	-.2567
		PPP	.03292	.07224	.892	-.1372
	PPP	Public	.00421	.11292	.999	-.2617
		Private	-.03292	.07224	.892	-.2030

CONCLUSIONS

The study came when the need for shelter by man has always been an issue for both the person in need of a house and the people in charge of providing or designing the house. It is common

knowledge that the need for shelter ranks second in the hierarchy of man's needs after food. According to the survey results, respondents' satisfaction and preference for residents are very high, high, and moderate, respectively. The study found no significant difference between resi-

dents' satisfaction and preferences in houses provided by the government and PPP in the study area, indicating that the outcome was homogeneous. The ANOVA results also revealed a significant difference.

There is an immediate need to have developers in both the public and private sectors to significantly improve the drainage system and waste

management because it is virtually the least preferred service in the sampled states. Developers in the public and private housing sectors should bridge the gap between residents' preferences. They should also improve the drainage systems, waste management, and sewage disposal to increase resident satisfaction.

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