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ANALYSIS OF BUILDING MATERIAL PREFERENCES OF CIVIL WORKERS IN ABUJA

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ABSTRACT

Building material, as one of the elements of housing, has received a very little attention of researchers over the years in the context of preferences. Civil workers are the segment of population that have similar experiences, shared housing values and common housing requirements. Most of governments' previous housing projects targeted to workers failed due to the lack of prior study of their housing preferences. It is therefore pertinent to understand the building material preferences of government workers. Therefore, this study seeks to assess the building material preferences of Federal civil service workers in Abuja, Nigeria. Survey method was adopted in this study, and data were collected using structured questionnaire. The population of the study was the Federal civil service workers in all the Federal Ministries in Abuja, and 2,133 sample size was gotten out of 40,884 sample frame, using Slovin formula. The respondents were sampled using simple random sampling technique, and the data collected were analysed using percentage and frequency distribution. The findings of the study shows that majority of the respondents which represents 76.4%, 65.1%, 83.2%, 82.2%, 75.3%, 50.4% and 27.4% have preference for sand-cement block, long span aluminium roofing sheet, ceramic tiles, plaster of paris (POP), paint, sliding window, and imported metal door respectively. By incorporating the findings of this study into housing policy, an affordable worker-preferred-housing can be created by government. The study recommends that further research should be conducted on the correlation between building material preferences and demographic characteristics of Federal civil service workers in Abuja.

Keywords: Building materials, Housing, Housing policy, Housing preferences, Workers' housing

INTRODUCTION

Housing is one of the most essential components of life which provides shelter, safety, warmth, and a rest place (Henilane, 2016). Housing preference and choice are becoming increasingly popular, both as a means of projecting future trends in preference and choice as well as evaluating historical preferences and choices (Jansen *et al.*, 2011). According to Rahadi *et al*. (2015), housing preference and choice continue to be heavily researched as an area of interest to scholars in various and numerous disciplines.

Preference is the response to decision making on several alternatives or varieties (Triyuly, 2010). In housing literature, preference and choice are used as a synonym or as a close relative (Zinas & Jusan, 2012) and appropriate combination of preferences creates a quality living environment (Jansen, 2011). According to Jansen *et al.* (2011), housing preference refers to the relative attractiveness of an object, whereas home choice refers to the actual behaviour of the property buyer. According to Kim (2020), preference and choice have been mostly used as if they are identical, yet they are not although, they are "somewhat" related.

Thus, housing preference generally reveals how consumers prioritise the aspect of housing based on taste. Hence, various factors that play a crucial role in influencing people's preferences and housing decisions have been extensively discussed. These factors are both intrinsic (cost and size) and extrinsic (for example, exterior design and space), neighborhood, and other locational factors (Opoku and Muhmin, 2010). One of the reasons for the diversity in preferences is that housing attributes vary across locations and social contexts (Opoku and Muhmin, 2010), and, it is difficult to generalise results of research, and study of preferences in specific locations is necessary (Jansen *et al.*, 2011).

Housing, as an amalgamation of different elements such as tenure, size, style, quality, materials, and (relative) location, forms a complex entity (Ibrahim, 2024). Given that dwellings are composed of multiple characteristics, households have to make trade-offs and compromises when deciding on housing options. The choice of a particular housing and its associated characteristics is dependent on the specific needs and preferences of households, as well as the limitations imposed by available resources, and the conditions within the housing market (Ekta & Vardhan, 2024). Olanrewaju and Woon, (2019) state that income among other factors were important, while non-financial determinants including location, security and building is important. Also, one of the vital elements of housing preferences is housing location (Kam, Lim, Al-Obaidi & Lim, 2018). According to Kam *et al*., (2018), neighbourhood is a significant factor that influences housing and its associated characteristics preference. Also, one of the important determinants of housing preferences is housing size (Al-Nahdi, Ghazzawi, & Bakar, 2015). When the family is getting bigger, they need more space and rooms in the house. Economic factors such as employment, housing prices, income, and expenditure play a crucial role in determining rental affordability (Ekta & Vardhan, 2024). Amenities such as day-care, malls, and security are also important factors of affordable housing choices (Singla & Bendigiri, 2019). Additionally, environmental factors such as waste management, energy efficiency, materials used in construction, and noise pollution contribute to sustainable housing choices for affordable rentals (Ekta & Vardhan, 2024). Waddell (2018) highlights the importance of understanding socioeconomic factors to inform urban policies that reduce segregation and enhance access to amenities.

Finding work and becoming an employee is part of the life-course career. This particular career may interact with other

careers since, during working age, some people may also start to find a partner and start their family career and housing career. During this stage, some factors affecting choices such as resources, restrictions, opportunities, and constraints may interact with the economic, institutional, social, and demographic conditions and influence housing preference and choice of workers.

Building materials preference is an aspect of housing preference that has received a very little attention of researchers over the years. The materials used in buildings are a function of the availability and suitability of materials, as well as different socioeconomics and cultural characteristics, and different part of the country. Among some tribes such as Yoruba, or region of the country, wood-based housing is seen as inferior (Hoibo *et al.*, 2018) and can even be regarded as a material associated with low social status, while in other culture such as Hausa and parts of Igbo, using wood as a building material are strong.

Previous studies have established that there are connections between culture and building material preferences (Craig *et al.*, 2017). In the opinion of Vasanen (2012), building material choices are related to familiarity. Various research has revealed that relationship exists between preferences, social expectations and the belief that the exterior of a house tells much about the owner of the house (Hoibo *et al.,* 2018). Hauge and Kolstad (2015) suggest that building materials used in a house may have different meaning to people from different cultural background. Generally, people of different regions with different material customs may have different material preferences. However, the rapid urbanization and globalization has greatly transformed both physical and cultural aspects of traditional settlements as well as building materials, especially in rapidly growing cities such as Abuja, Nigeria's capital (Qurix *et al.,* 2023).

According to Rahadi *et al*. (2015), housing preference and choice continue to be heavily researched as an area of interest to scholars in various and numerous disciplines, however, little research has been done on building material preferences of workers.

Psychologists view individual wants and needs unique because of varying experiences, perceptions, beliefs and purposes. This also holds for housing preferences which are goal- and value-oriented in nature (Strzalka, 2019). But there is yet commonality in the preferences and needs of certain groups who may have similar experiences, beliefs and perceptions (Strzalka, 2019). The validity of housing preference study is contingent on population specific. However, the housing preference of government workers has not been researched much in Nigeria. This is a segment of population that has similar experiences, shared housing values and common housing requirements, based on their job demands and unique employers. Majority of governments' previous housing projects that were targeted at this population, which constitutes a substantial part of workforce, failed due to the lack of prior study of their housing preference. Therefore, a preference study of this category of citizens would go a long way in helping governments at all levels and housing experts in formulating policies that will engender a robust housing market in the country. The Master Plan of Abuja was prepared such that land use, infrastructure, housing, transportation, recreation, and other services were to be coordinated and inter-related (Obiadi *et al.,* 2021). However, successive governments neglected these principles. As a result of this, the Abuja Master Plan was not adequately implemented (Obiadi *et al.,* 2021). The housing provided by the government for the public servants failed because of inadequacy of housing. The provided Federal Housing units were developed without adequate economic and municipal service facilities as well as lack of research about the preferences of the targeted population (Obiadi *et al.,* 2021). As a result, the housing units are not sustainable and also, inadequate for the Abuja civil workers. It is on this basis that the present study seeks to assess the building material preferences of Federal civil service workers in Abuja, Nigeria. To this end, building material preferences in this study is based on seven (7) variables, and they are floor material, wall material, roof material, ceiling material, window material, door material, and wall finishes.

MATERIALS AND METHODS

Survey method was adopted in this study, and data were collected using structured questionnaire. The questionnaire consists of two sections; section A dealt with demographic information of the respondents, while section B asked questions about the building materials preferences of the respondents. The questionnaire was pilot tested by 7 participants and revised multiple times according to the feedback. This process validated the research instrument, and checked its reliability.

The population of the study was the Federal civil service workers in all the Federal Ministries, excluding their parastatals, due to time and financial constraints (see Table 1) in Abuja. This category of workers is at the end of the continuum in the hierarchy of Federal government workers and suffer problem of housing more than any other workers in Abuja. The sample frame is the total workers in all the Federal Ministries in Abuja, which is 40,884, and the sample size is gotten to be 2,133 at margin error (e) of 0.05 (see Table 1), using Slovin formular ($n = N/1 + N (e)^2$). All the Federal Ministries in Abuja were surveyed, and copies of questionnaire was administered to workers in each of the Federal Ministries using simple random sampling technique. The data collected was analysed using percentages and frequency distribution. This study used the same research approach as Suhana *et. al*. (2021) which analyse housing preference of Malaysian youth using structured questionnaire, simple random sampling techniques, descriptive statistics analysis.

Table 1: Sample Size

S/N	Federal Ministries in Abuja	Estimated Number of Staff	Sample Size at (95%) Confidence Level using Slovin Formula	25% of the Sample Size (Due to Large Value)
1	Federal Ministry of Agriculture and Rural Development	1756	325	81
2	Federal Ministry of Aviation	1432	312	78
3	Federal Ministry of Commerce and Tourism	1510	316	79
4	Federal Ministry of Communications	1602	320	80
5	Federal Ministry of Defense	1508	316	79
6	Federal Ministry of Education	1708	324	81
7	Federal Ministry of Environment	1398	311	78
8	Federal Ministry of Federal Capital Territory	1221	301	75
9	Federal Ministry of Finance	1572	318	80
10	Federal Ministry of Foreign Affairs	1369	309	77
11	Federal Ministry of Health	1701	323	81
12	Federal Ministry of Industries, Trade and Investment	1565	318	80
13	Federal Ministry of Information and Culture	1498	315	79
14	Federal Ministry of Interior	1467	314	79
15	Federal Ministry of Justice	1385	310	78
16	Federal Ministry of Labour and Employment	1521	316	79
17	Federal Ministry of Petroleum Resources	1682	323	81
18	Federal Ministry of Niger Delta Affairs	1305	306	77
19	Federal Ministry of Science and Technology	1499	315	79
20	Federal Ministry of Solid Minerals	1381	310	78
21	Federal Ministry of Special Duties	1297	305	76
22	Federal Ministry of Transportation	1582	319	80
23	Federal Ministry of Water Resources	1557	318	80
24	Federal Ministry of Women Affairs	1206	300	75
25	Federal Ministry of Power, Works and Housing	1810	327	82
26	Federal Ministry of Youth and Sports	1640	321	80
27	Federal Ministry of Budget and National Planning	1712	324	81
	Total	**40884**	**8516**	**2133**

Source:(i) IPPIS, Abuja (2024)
(ii) Author's Compilation (2024)

RESULTS AND DISCUSSION

out of 2,133 copies of questionnaire administered, 1749 retrieved and valid. This translates to approximately 82% return rate, which is a good representation of the population.

Respondents' Demographic Profile

Gender of the Workers

More than half (61.1%) of the respondents were males, while (38.9%) were females (Figure 1). This implies that male gender dominates the Federal Civil Service in Abuja than their female counterparts. This finding is not enough to conclude that males are more than females in the Nigerian Civil Service Commission. However, the observed variation in the gender distribution of the Federal civil service workers may be a reflection of cultural characteristics of Hausa people, which mostly does not allow women to work; women are busy with domestic works at home, while their male counterparts go out to work to fend for the family. This is in tandem with the reconnaissance survey carried out at Federal Ministry of Employment as well as Federal Ministry of Finance which revealed that Hausa/Fulani tribe is more than other tribes in the Federal civil service work in Abuja, which is usually 3:2:1 in order of Hausa/Fulani:Yoruba:Igbo. Furthermore, the fact that most of the respondents were male supports the submission of Odunjo (2014) that the bulk of a set of respondents in housing studies were male. It can be deduced from the finding that dominance of the male gender as against the female will have certain implication on the choice of housing typology consequent upon the corresponding preference.

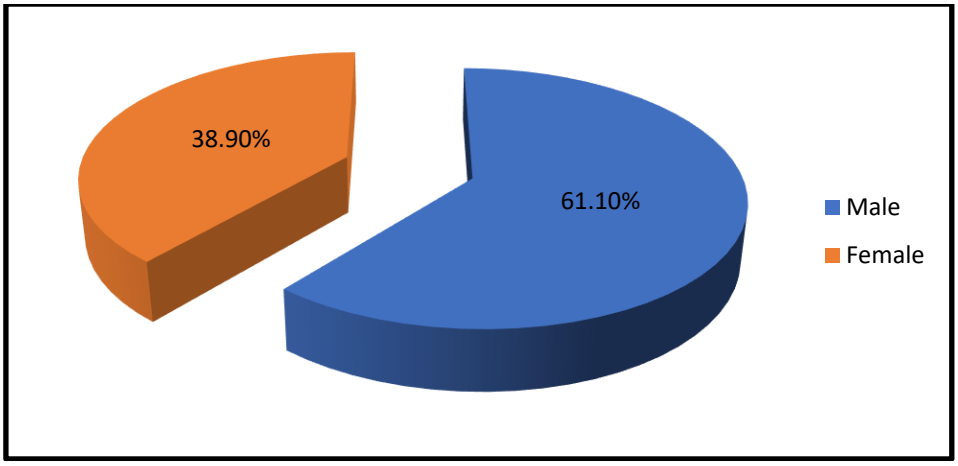

Figure 1: Gender of the Workers
Source: Author's Field Survey, 2024.

Age Distribution of the Workers

The examination of ages of Federal Civil Service workers shows that (40.3%) of them were aged between 36 and 45 years, some (21.7%) were aged 26 to 35 years, 46 to 55 years (18.2%), above 55 years (14.7%) and 18 to 25 years (5.2%) as presented in Table 2. Thus, the fact that most of the workers were between 36 and 45 years reveals the influence of Nigerian Civil Service Commission stipulations on the age requirements for active service of workers, in which Federal Civil Service sector in Abuja is no exception. The implication of this is that majority of the respondents are adults and matured and it is expected that a reliable information will be obtained from them regarding housing preference in the area. It can be inferred that workers within these age groups are of marriageable age with families that needed to be provided with a satisfying accommodation.

Table 2: Age Distribution of the Workers

Age Groups	Frequency (N)	Percentage (%)
Above 55years	257	14.7
46 - 55 years	318	18.2
36 - 45 years	704	40.3
26 - 35 years	379	21.7
16 - 25 years	91	5.2
Total	**1749**	**100.0**

Source: Author's Field Survey, 2024

Educational Level of the Workers

As regards educational level, 82.4% of the respondents in active civil service had tertiary education (Higher National Diploma (HND) or First degree). This was followed by those with Nigerian Certificate in Education (NCE) / Ordinary National Diploma (9.9%), secondary school education (3.9%), primary school education and no formal education with 1.9% respectively. The findings; thus, corroborates the view of Omiunu (2014) that, civil servants with tertiary education were significant workers in the Civil Service of Nigeria. Explicitly, the result also shows variation in the level of educational attainment in relation to stratification, placement and assigned job description among the workers. It is therefore imperative to mention that differences in the educational background of workers will influence housing preferences with the ancillary facilities.

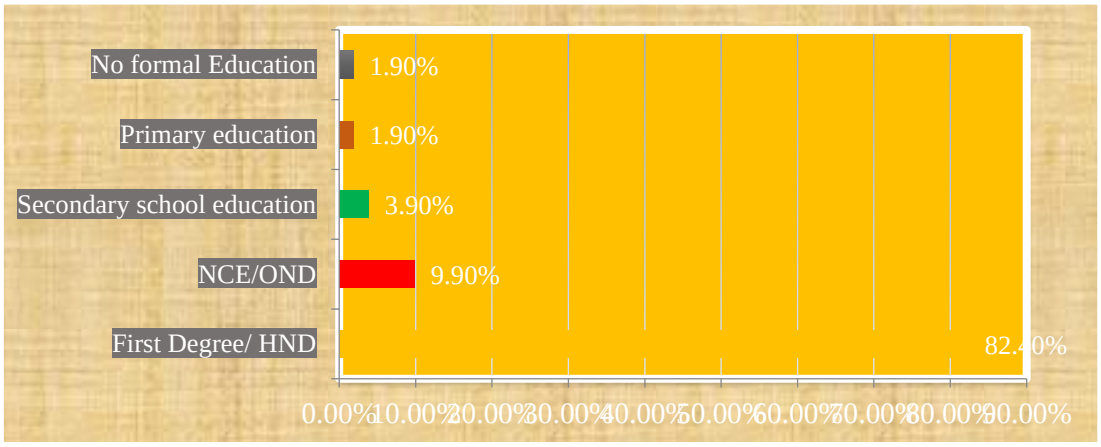

Figure 2: Educational Level of the Workers
Source: Author's Field Survey, 2024.

Marital Status of the Workers

Given the marital status of the workers, majority (81.4%) of them were married, followed by widowed (9.8%), divorced (5.4%) while single accounted for 3.4% (Table 3). The fact that most of the respondents were married confirms the submission of Odunjo (2014) that the bulk of a set of population is married. It also corroborates the assertion of Smith and Mulder (2008), that decision to become a first-time homeowner, is influenced by a household event such as cohabitation and marriage. Thus, it is expected that housing need and requirements of married workers with more than one person living together under the same roof as a family must be taken into consideration during architectural design of their house.

Table 3: Marital Status of the Workers

Marital Status	Frequency (N)	Percentage (%)
Married	1424	81.4
Widow/Widower	171	9.8
Divorced	94	5.4
Single	60	3.4
Total	**1749**	**100.0**

Source: Author's Field Survey, 2024

Employment Status and the Grade levels of the Workers

Employment statuses of workers were classified into three: full time, part time and contract workers. Most (81.8%) of the workers were on full time appointment, some (18.0%) were on part time appointment while contract staff members account for 0.2%. It is important to state that larger proportions of the sampled workers were full staff members which are reliable representation for an assessment of housing preference among Federal civil service workers in the study area.

As regard grade levels of the workers however, about 49.6% of them were between grade levels 01 and 09, followed by those with grade levels 10 and 14 (36.5%) and grade level 15 and above (14.0%). The variation in the employment status and the grade levels was significant given (X^2= 26.426 and p = 0.000). A cursory look at the employment types reveals that considerable number of workers with full time appointment is legally recognized workers which are enough percentages for a study of this nature while workers on part time and contract appointments in the federal government establishments were not gazetted workers in the Nigerian Civil Service.

Table 4: Employment Status and the Grade levels of the Workers

	Frequency (N)	Percentage (%)
Employment Status		
Full time	1430	81.8
Part time	315	18.0
Contract	04	.2
Total	**1749**	**100.0**
Grade Levels		
01-09	867	49.6
10-14	638	36.5
15 and above	244	14.0
Total	**1749**	**100.0**

Source: Author's Field Survey, 2024

Monthly Income of the Workers

With respect to the monthly income of workers, 30.3% earned ₦ 91, 000 - ₦ 160,000 per month. 27.2% earned ₦ 161,000 - ₦ 230,000, 21.4% earned above ₦ 231,000 while ₦ 30,000 - ₦ 90,000 constitute 21.0% (Figure 3). The result attested to the general belief of the public that workers in the Federal civil service are expected to earn tangible amount monthly because their employer set the benchmark for the minimum wage payable to workers across the states of the federation. It is also imperative to emphasize that, as at the time of the field survey the National minimum wage in Nigeria was still ₦ 30,000. By implication, monthly income of the workers will greatly influence the choice of a house form to either rent, buy or build because investment into housing is capital intensive.

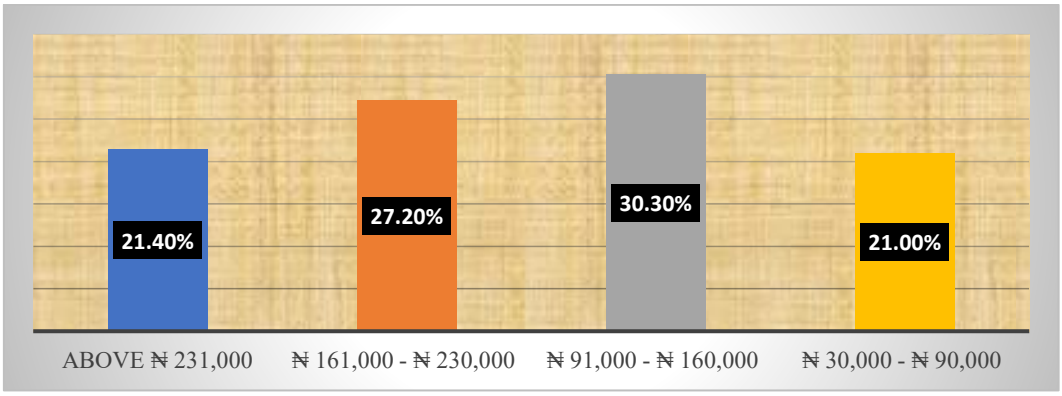

Figure 3: Monthly Income of the Workers
Source: Author's Field Survey, 2024

Household Size of the Workers

Analysis shows that most (43.2%) household had membership size of 3 to 4 persons, followed by those with 5 to 6 persons (28.2%) and 1 to 2 persons (20.0%), 7 to 8 persons constitute 3.7% while household above 8 persons account 1.6% (Table 5). Tendency towards large family size in Nigeria is gradually declining due to a number of factors such as unemployment, high cost of living, and economic recession among others. Thus, there is the possible influence of family size on the need for housing and its associated preferences.

Table 5: Household Size of the Workers

Household sizes	Frequency (N)	Percentage (%)
1 – 2 persons	349	20.0
3 – 4 persons	813	46.5
5 – 6 persons	494	28.2
7 – 8 persons	65	3.7
Above 8 persons	28	1.6
Total	**1749**	**100.0**

Source: Author's Field Survey, 2024

Tribe of the Workers

About 43.2% of the workers were of Hausa/Fulani tribe, Yoruba (29.8%), Ibo (21.6%) while 5.4% accounted for other tribes different from the three broad classifications of tribes in Nigeria (Figure 4). This is in accordance with the reconnaissance survey conducted at Federal Ministry of Employment as well as Federal Ministry of Finance which revealed that Hausa/Fulani tribe is more than other tribes in the Federal civil service work in Abuja. The inference drawn is that workers of Yoruba and Ibo tribes in active civil service migrated from their origin of descent to Abuja in search for a greener pasture for their family. It is therefore important, to assess housing preferences of workers with diverse ethnic groups because Nigeria is often described as multi-ethnic country. This finding corroborates (Jansen *et. al.*, 2011) which states that shifts in demographic, socio-economic, and socio-cultural conditions in certain locations influence housing preferences and behaviour. It also complies with the submission of (Muhammad, 2021) that states that it is pertinent to evaluate housing preference of people based on their cultural characteristics.

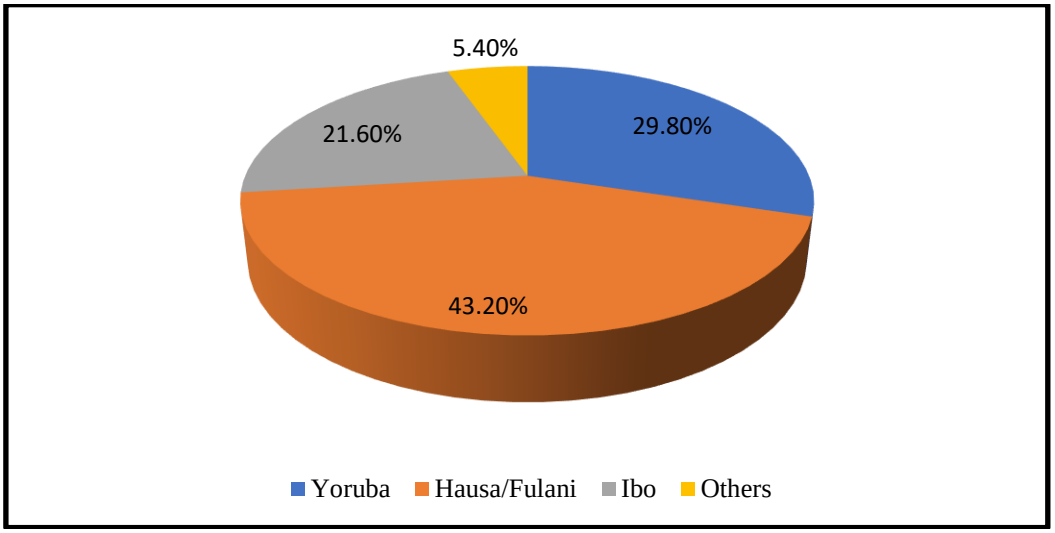

Figure 4: Tribe of the Workers
Source: Author's Field Survey, 2024

Analysis of Building Material Preferences of the Respondents

Understanding building material preferences of the workers in Abuja is very crucial to the general study of their housing preferences. This section thus discusses the building material preferences of the government workers in Abuja.

Wall Materials

The study revealed that preference for building wall materials varied among the workers. Thus, 76.4%, 19.0%, 2.9%, 1.3% and 0.3% preferred the use of sand cement block, brick, timber, mud and other wall materials respectively as wall materials (see Table 6) for their buildings owing to the exposure and knowledge of construction materials in the building industry.

Roof Materials

Result of analysis on the preferred roof materials among the workers as presented in Table 6 revealed that majority (65.1%) of the respondents prefer long span aluminium roofing sheet, other respondents (22.1%) prefer steeped tiles, 8.9 % (corrugated iron/zinc) while 3.3% prefer thatched roof. Few of the respondents (0.7%) prefer some other types of roof materials which differs from the aforementioned. The findings suggest that high preference for long span aluminium sheet was borne out of its distinctive qualities of light weight, weather resistant and energy efficient. This therefore, makes it a popular choice among developers in Nigerian cities coupled with its durability attributes.

Floor Finishes

The type of floor finishes preferred is summarised in Table 6 As shown in the Table, considerable proportions (83.2%) of the respondents prefer ceramic tiles. This is next to 13.4% for thermoplastic tile, rug/carpet (2.2%), cements screeding (1.0%) and 0.1% for other floor finishes obtainable in the building industry. It can therefore be inferred from the findings that ceramic tiles were chosen by the workers as their preferred floor finishes because of its aesthetic appeal, durability and easy care.

Ceiling Materials

From Table 6, it was observed that the percentage of the most preferred ceiling material (82.2%) was Plaster of Paris (POP), followed by asbestos cement product (13.1%), wood veneer (4.3%), mat (0.2%), while some (0.1%) dislike the use of ceiling in the house, 0.1% also prefer some other types of ceiling materials.

Wall Finishes

Table 6 summarises the preference of the respondents for different wall finishes in the study area. It was inferred that majority (75.3%) of the respondents preferred paint. Other preferred wall finishes include: tile (15.6%), plastered (6.8%) and unplastered (2.3%) wall surfaces. This implies that higher proportion of the workers had high preference for a painted wall surfaces which will aid aesthetic value of their place of abode, at low cost compared to tile.

Window Materials

The result of the analysis as contained in Table 6 reveals that half (50.4%) of the respondents preferred the use of aluminium sliding window in their houses. Next to this are preference for casement (29.7%) window and louvers blade window (15.0%). However, few of the respondents prefer the use of timber panels (4.7%) and others (0.1%). It can be deduced from the analysis that there is disparity in the preference for window materials among the Federal civil service workers in the study area. This implies that the majority of Federal civil service workers preferred modern window type that is cheaper compared to casement window.

Door Types

The preference of the respondents for door is summarised in Table 6. As shown in the Table, most (24.4%) of the workers preferred imported metal door and local metal door (24.8%), while some (20.6%) chose imported wooden door. Although, 15.1% and 12.0% of the respondents had preference for other door types and local wooden door respectively. It could be inferred that variation in the preference for door materials can be linked to the financial strength of the workers coupled with the need to safeguard entrance of house against burglar.

In summary, the result of the analysis of preferred building materials of the Federal civil service workers indicates a strong preference for modern, durable, and aesthetically pleasing building materials. Cement-based materials, aluminum roofing, ceramic flooring, and POP ceilings dominate the choices, while traditional materials like mud, timber, and thatch are rarely used. This may be as a result of the influence of globalization and modernization. These preferences can inform government housing policies, procurement strategies, and urban planning to align with worker expectations in Abuja.

Table 6: Preferred Building Materials of the Respondents

	Frequency (N)	**Percentage (%)**	**Ranking**
Sand cement block	1337	76.4	1st
Brick	333	19.0	2nd
Mud	23	1.3	3rd
Timber	50	2.9	4th
Others	6	0.3	5th
Total	**1749**	**100.0**	
Roof Types			
Long span aluminium roofing sheet	1138	65.1	1st
steeped tiles	386	22.1	2nd
Corrugated iron / Zinc sheet	155	8.9	3rd
Thatched roof	58	3.3	4th
Others	12	0.7	5th
Total	**1749**	**100.0**	
Floor Finishes			
Ceramic tiles	1456	83.2	1st
Thermoplastic tile	235	13.4	2nd
Rug/ Carpet	39	2.2	3rd
Cement screeding	18	1.0	4th
Others	1	0.1	5th
Total	**1749**	**100.0**	
Ceiling Materials			
Plaster of Paris (POP)	1437	82.2	1st
Asbestos cement product	229	13.1	2nd
Wood veneer	76	4.3	3rd
Mat	3	0.2	4th
No ceiling	2	0.1	5th
Others	2	0.1	6th
Total	**1749**	**100.0**	

Wall Finishes	Frequency (N)	Percentage (%)	Ranking
Paint	1317	75.3	1st
Tile	273	15.6	2nd
Plastered	119	6.8	3rd
Unplastered	40	2.3	4th
Total	**1749**	**100.0**	
Window Materials			
Sliding widow	882	50.4	1st
Casement	520	29.7	2nd
Louvers	263	15.0	3rd
Timber panels	83	4.7	4th
Others	1	0.1	5th
Total	**1749**	**100.0**	
Door Types			
Imported metal door	434	27.4	1st
Local metal door	480	24.8	2nd
Imported wooden door	361	20.6	3rd
Others	264	15.1	4th
Local wooden door	210	12.0	5th
Total	**1749**	**100.0**	

Source: Author's Field Survey, 2024

CONCLUSION

Analysis on the demographic characteristics of workers reveals that a larger proportion of the respondents were male (61.1%) and they fell within the active age (36 and 45 years). This finding was well supported in vast majority of literature that men are dominant in the Federal civil service in the North Central part of Nigeria. The dominance of active age is an indication of maximum service delivery and productivity that characterise Federal civil service in developing countries. The educational background and marital status of the workers reveals that majority (82.4%) of the workers had up to tertiary education. It is interesting to note that some (9.9%) have Nigerian Certificate in Education (NCE) / Ordinary National Diploma. This is an indication that many in this category are junior staff members and consequently contribute their quota within the Federal civil service. This finding complements the general belief that only educated individuals in the society can be employed as worker in the civil service. The findings have also shown that workers have attained level of education that can enable them to reason appropriately and give meaningful insight on the subject of investigation in this study.

Results on marital status of workers attest that a larger proportion of the workers were married (81.4%) compared to a few number 3.4% that were single. This is expected because they are in the category of active age. Thus, need to fulfil family obligation might have necessitated the involvement in the civil service as well as to provide adequate accommodation for the teaming family members. Result further shows that majority (81.8%) of the workers on full time appointment had variation of grade levels such as 01 and 09 (49.6%), 10 and 14 (36.5%) and above 15 (14.0%).

The monthly income earned by most of the workers was between ₦ 91, 000 and ₦ 160,000. This recorded a larger proportion of 30.3% and this was followed by those (27.2%) who earned between ₦ 161,000 and ₦ 230,000. This pattern of income earned by the workers in Abuja is low compared to the cost of living within the Federal Capital Territory (FCT) of Nigeria.

Results of analysis on the household size reveals that a little less than the average proportion (43.2%) of the workers had family size of 3 to 4 persons compared to few number 1.6% that are above 8 persons. This is expected because workers are literate who desire a moderate family size because resources to cater for larger family are out reach. The profile on tribe of workers reveals that large proportions (43.2%) of the workers are Hausa/Fulani compared with fewer that are Yoruba (29.8%).

Results of the analysis of building material preferences of the respondents shows a strong preference for modern, durable, and aesthetically pleasing building materials. Cement-based materials, aluminum roofing, ceramic flooring, and POP ceilings dominate the choices, while traditional materials like mud, timber, and thatch are rarely used. These preferences can inform government housing policies, procurement strategies, and urban planning to align with workers expectations in Abuja.

These findings provide a data-driven approach for government interventions in housing, ensuring that housing projects for civil workers align with the preferences of civil service workers in Abuja. The following and many more could be incorporated into housing policy that concern government workers in Abuja:

Standardisation of worker-preferred building materials in government workers housing in Abuja;

Given the high preference for POP ceilings (82.2%) and painted walls (75.3%), housing policies can encourage durable and visually appealing finishing in future government housing initiatives.

Given the dominance of concrete-based materials (cement blocks, ceramic tiles, and POP) that are generally believe to be costly than traditional building materials, government housing policy should promote affordable and sustainable alternatives that will give appearance of concrete-based materials, and sustainability of traditional materials;

Regulations to ensure minimum building standards based on the preferred building materials of workers, in future government workers housing in Abuja.

Procurement strategies can focus on economies of scale by sourcing preferred building materials like sand cement blocks, ceramic tiles, and aluminum roofing sheets in bulk to reduce costs during the housing project for workers in Abuja. This will make the worker housing to be affordable.

The study suggests that factors such as demographic characteristics may have stronger influences on building material preferences. Thus, the study recommends a further study should be conducted on the correlation between

demographic characteristics and building material preferences of Federal civil service workers in Abuja.

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