An Assessment of Users' Preferences for Floor Finishes in Residential Buildings in Osogbo, Nigeria

OLUWOLE OLUWASEUN AJAYI[1], ABDULKABIR OLATUNJI YESUFU[2]
[1, 2]*Department of Architecture, Ladoke Akintola University of Technology, Ogbomoso, Nigeria.*

Abstract- ***This study explores user preferences for floor finishes in residential buildings in Osogbo, Osun State, Nigeria. It aims to identify commonly used types of floor finishes, evaluate the key factors influencing users' choices, examine demographic patterns of preference, and assess the relationship between floor finish selection and functional requirements such as durability, aesthetics, and maintenance. A total of 315 respondents were sampled using a stratified random sampling method across three government residential schemes—Oroki Estate, Oroki Extension, and Osogbo Local Government Scheme. Data were collected through structured questionnaires and was analyzed using descriptive statistics and chi-square tests. The most commonly used floor finishes identified were ceramic tiles (53.3%), wooden flooring (18.1%), and concrete (8.6%). Ceramic tiles were dominant in living areas and bedrooms, while concrete and vinyl were more prevalent in utility spaces like kitchens and bathrooms. Factors such as comfort underfoot (mean = 4.14), resistance to wear (mean = 3.93), and aesthetic appeal (mean = 3.88) were rated highest in influencing user preferences. Cost (mean = 3.23) and cultural/traditional values (mean = 2.89) were found to be less influential. Chi-square results showed significant relationships between floor finish preference and several socio-economic variables: monthly income ($\chi^2 = 49.76$***), type of residence ($\chi^2 = 59.09$***), residential status ($\chi^2 = 112.66$***), and duration of stay in Osogbo ($\chi^2 = 84.92$***). In addition, finish type was significantly associated with functional attributes including durability ($\chi^2 = 66.20$***), ease of maintenance ($\chi^2 = 76.52$***), and aesthetic appeal ($\chi^2 = 55.73$***). Correlation analysis further confirmed that residential status ($r = 0.346$***) and type of residence ($r = 0.290$***) moderately influenced culturally driven preferences. The results indicate that Osogbo residents prioritize functionality and comfort over cost or cultural tradition in selecting floor finishes. Income level and residential type significantly influence these preferences, with high-income earners tending to prioritize aesthetics and long-term durability. Respondents also demonstrated a rational match between room use and finish type, suggesting increasing awareness of material performance and suitability. While traditional preferences still exist among older and longer-term residents, they are less influential than practical concerns. The study concludes that preferences for floor finishes in Osogbo are strongly guided by comfort, durability, and visual appeal, with socio-economic status and housing context shaping user choices. It recommends that architects and construction professionals provide user-driven solutions that balance function, safety, and aesthetics.***

I. INTRODUCTION

Floor finishes are essential components of residential buildings, serving both functional and aesthetic purposes. They contribute to the visual identity of interior spaces while also influencing comfort, safety, durability, and maintenance requirements (Ojo, 2019). In urban centers like Osogbo, the capital of Osun State in Nigeria, choices in floor finishes reflect a complex interplay of individual preferences and contextual factors such as climate, cultural practices, economic status, and personal lifestyle. As architecture continues to evolve to meet user needs, understanding how people select flooring materials provides critical insights for designers, builders, and policy makers aiming to improve living environments (Ige, 2021).

Osogbo presents a unique context where traditional influences coexist with modern trends in architectural design. Materials such as ceramic tiles, concrete,

vinyl, and wood are used to varying degrees depending on individual priorities and environmental suitability. For instance, tiles are commonly selected for their durability and ease of maintenance, whereas wood and other finishes may be chosen for their warmth and cultural appeal despite their higher maintenance needs (Ogunleye, 2020). These decisions are shaped not only by functional expectations but also by cultural values and aesthetic ideals prevalent in the community. As the demand for more personalized and context-appropriate building solutions grows, it becomes necessary to assess how different user groups in Osogbo approach flooring choices in their homes.

In addition to cultural and aesthetic considerations, environmental and economic conditions also play significant roles in shaping user preferences. Osogbo's tropical climate, characterized by high temperatures and humidity, often necessitates materials that remain cool underfoot and resist moisture damage. Economically, affordability is a central factor, as many residents prioritize finishes that offer a balance between cost-effectiveness and long-term usability. This dual concern environmental compatibility and economic viability has fueled interest in materials like vinyl and locally sourced tiles that combine low cost with practical benefits. Moreover, rising awareness of health, safety, and sustainability issues is prompting users to consider materials that are eco-friendly and low in allergens or harmful emissions (Mogaji, 2020).

Given the intersection of climatic, economic, and environmental influences, evaluating user preferences for floor finishes in Osogbo offers a multifaceted opportunity for research. This study seeks to investigate not only what floor finishes are most commonly used, but also why certain choices are preferred over others. By examining demographic trends, functional requirements, and cultural relevance, the study will provide valuable insights for architects, manufacturers, and urban planners working in similar contexts. Ultimately, the findings aim to bridge the gap between user expectations and material selection in residential design, thereby promoting more functional, culturally appropriate, and user-centered housing solutions in Osogbo (Ogunleye, 2018).

II. STUDY AREA

Osogbo is the capital city of Osun State in southwestern Nigeria and serves as the administrative headquarters of both Osogbo and Olorunda Local Government Areas. Geographically, it lies approximately at latitude 7°45′N and longitude 4°33′E, and is bounded by several neighboring LGAs including Ifelodun to the north, Egbedore to the west, Boripe to the east, and Ede North to the south. The city is characterized by a mix of traditional and modern urban forms, with residential developments emerging both in planned estates and informal clusters typical of pre-colonial Yoruba settlements.

According to the 2006 National Population Commission (NPC), Osogbo had a population of approximately 156,694 (NPC, 2006). The city is predominantly inhabited by the Yoruba ethnic group and exhibits a culturally rich environment that influences architectural tastes and material preferences. Economically, residents are engaged in various occupations about 17% in agriculture, 40% in trading, and 47% in clerical and teaching jobs as of 2013. Osogbo's climate is humid and tropical, a factor that significantly affects building design and material choices, particularly with regard to floor finishes.

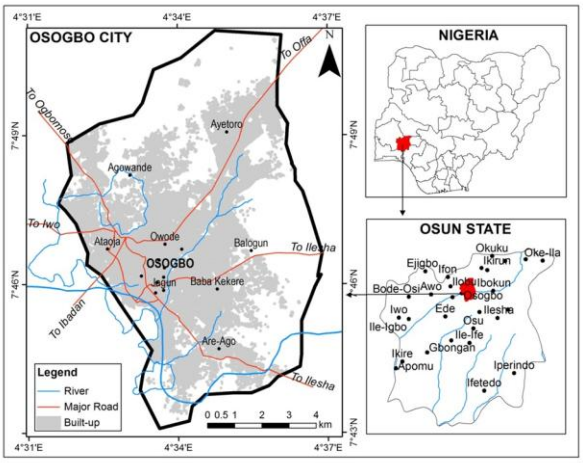

Figure 1: Map of Osun state indicating the Local Government area.
Source: Geospatial Survey Limited 2018

III. LITERATURE REVIEW

The choice of floor finishes plays a critical role in the functionality, aesthetics, and long-term performance of residential buildings. Floor materials influence comfort, indoor air quality, durability, ease of cleaning, and even thermal and acoustic performance factors that are central to occupant satisfaction (Moussatche & Languell, 2001; Lent et al., 2009). In urban centers like Osogbo, where both traditional and contemporary building methods coexist, the selection of flooring materials is often influenced by economic constraints, cultural preferences, and environmental conditions such as humidity. While hard flooring systems like terrazzo, concrete, and ceramic tiles are widely used due to their durability and resistance to heavy foot traffic, resilient flooring systems including vinyl and rubber offer ease of maintenance, water resistance, and improved comfort underfoot (Robinson, 1996; Harris & Fitzgerald, 2015). The long-term cost of a floor finish often exceeds its installation cost, thus emphasizing the importance of life cycle cost analysis when selecting materials (Lozada, 2004). Additionally, studies have noted that residents frequently prioritize low-maintenance and visually appealing finishes, especially in shared spaces such as living rooms and corridors (Sadatsafavi et al., 2015).

In the Nigerian populance especially in cities like Osogbo, there is limited empirical data guiding the selection of floor finishes in residential buildings. While healthcare and institutional studies emphasize hygiene, resistance to microbial growth, and slip resistance (Abreu & Potter, 2001; Noskin & Peterson, 2001), many of these concerns overlap with those in residential settings, particularly in kitchens, bathrooms, and high-use areas. Moreover, sustainability considerations such as the use of locally available materials, reduction of VOC emissions, and recyclability are gaining attention among environmentally conscious homeowners (Lent et al., 2010; Denly et al., 2008). Cultural tastes, availability of skilled labor, and affordability also shape flooring decisions in Osogbo, making it important to understand user preferences and material performance across different housing types. A study by Lavy and Dixit (2012) noted that user input and context-specific analysis are vital to material selection, particularly in environments where economic limitations narrow the spectrum of choices. Thus, there is a need for localized assessments of floor finish practices to inform better decision-making in residential construction across Osun State.

IV. RESEARCH METHODOLOGY

This study employs a descriptive survey design to assess user preferences for floor finishes in residential buildings within Osogbo, Osun State. The approach is suitable for understanding existing conditions, patterns, and influences behind material choices such as durability, cost, aesthetics, and ease of maintenance. A mixed-method strategy was used, combining quantitative data from structured questionnaires with qualitative insights from built environment professionals. This design allows for a broad understanding of trends while also capturing expert perspectives on factors affecting floor finish selection in the local context (Creswell & Creswell, 2017).

A stratified random sampling technique was adopted to ensure fair representation from three government-planned residential estates: Oroki Estate, Oroki Extension, and Osogbo Local Government Scheme, totaling 1,493 plots. Based on Yamane's formula and a 5% margin of error, a realistic sample size of 315 respondents was selected. Structured questionnaires were administered directly to residents, while purposive sampling guided the selection of architects, contractors, and interior designers for interviews. Data were analyzed using descriptive statistics (frequencies, percentages, and Likert scale ratings). Instrument validity was confirmed through expert review and pilot testing, with reliability measured using Cronbach's alpha, which achieved a value of 0.75, indicating acceptable internal consistency.

V. DATA ANALYSIS AND DISCUSSION OF RESULTS

This chapter presents the findings from the data collected through structured questionnaires and physical observation, analyzing user preferences for floor finishes in residential buildings in Osogbo.

5.1 Socio-Economic Characteristics of Respondents

The socio-economic profile of the respondents is presented in Table 1. The sample consisted mainly of adults aged between 31–50 years, with a balanced gender distribution, though slightly more males participated. A significant number of respondents were educated, with tertiary qualifications, and were employed in either formal or informal sectors. Most were owner-occupiers, residing in permanent residential buildings, which provided meaningful insights into long-term preferences and usage patterns. The varied demographic and socioeconomic background of respondents ensured a diverse set of responses, which helps reflect broader trends within Osogbo's urban residential population.

Table 1: Descriptive Statistics of the six stages of respondents' responses

DEMOGRAPHICS AND GENERAL INFORMATION OF THE RESPONDENTS					
Variables	No of Obs	Min	Max	Mean	Std Deviation
Age	308	1	5	2.78	1.204
Gender	306	1	7	1.63	0.754
Occupation	308	1	4	1.88	0.815
Educational Qualification	303	1	4	3.08	1.002
Residential Status	308	1	5	2.03	0.968
How long have you lived in Osogbo	308	1	5	2.54	1.295
Type of Residence	307	1	5	2.75	0.995
Income Level monthly	308	1	5	2.17	1.058
TYPES AND USAGE OF FLOOR FINISHES					
Variables	No of Obs	Min	Max	Mean	Std Deviation
What type of floor finishes are currently used in your home	304	1	7	2.99	2.474
Which area in your home use specific floor finishes?	307	1	5	2.04	0.961
Are there floor finishes you prefer for specific rooms	307	1	5	1.79	0.841
	302				
FACTOR INFLUENCING CHOICE OF FLOOR FINISHES					
Variables	No of Obs	Min	Max	Mean	Std Deviation
Aesthetic Appeal (deisgn, colour,style)	306	1	5	3.81	1.314
Durability	302	1	5	3.68	1.129
Cost	308	1	5	3.23	1.196
Ease of Maintenance	308	1	5	3.74	1.283
Comfort	308	1	5	4.14	1.139
Availability in the market	307	1	5	3.30	1.2
Cultural/Traditional Preference	308	1	5	2.89	1.359
Resistance in wear and tear	308	1	5	3.93	1.095
Environmental Sustainability	308	1	5	3.42	1.196
What is your most preferred floor finish type	308	1	7	2.03	1.185

Do cultural or traditional preference influence your choice of floor finishes	308	1	2	1.66	0.474
USER PRIORITIES AND EXPECTATIONS					
Variables	No of Obs	Min	Max	Mean	Std Deviation
What attributes do you prioritize when selecting floor finishes: Comfort Underfoot	308	1	5	3.76	1.336
Slip resistance	308	1	5	3.76	1.24
Aesthetic appearance	308	1	5	3.88	1.139
Compatibility with interior design	308	1	5	3.69	1.089
Sustainability environmental friendliness	308	1	5	3.22	1.363
Ease of cleaning/maintenance	308	1	5	1.70	1.566
Are there any specific features or characteristics of floor finishes you avoid	308	1	5	1.56	0.499
Do you use rugs or carpets over floor finishes at your home	308	1	5	1.56	0.534
HEALTH AND SAFETY CONCERNS					
Variables	No of Obs	Min	Max	Mean	Std Deviation
Do you consider health and safety concerns when selecting floor finishes	308	1	2	2.05	1.439
What is the health and safety consideration when floor finishes:					
Slip resistance to prevent falls	308	1	5	3.52	1.558
Allergen-free (e.g. dust, chemicals)	308	1	5	3.58	1.443
Fire resistance	308	1	5	3.54	1.356
Temperature regulation (e.g. cool during heat, warm in cold weather)	308	1	5	3.68	1.544
Have you experienced any health or safety issues related to floor finishes	308	1	5	1.72	0.837
CHALLENGES AND DESIGN RECOMMENDATIONS					
Variables	No of Obs	Min	Max	Mean	Std Deviation
What challenges do you face with the current floor finishes in your home	308	1	8	2.40	1.612
What do you recommend for different floor finishes for a country home					
Living Room	308	1	8	3.18	2.448
Bedroom	308	1	8	2.58	2.157
Kitchen	308	1	6	2.60	1.535
Bathroom	308	1	6	2.87	1.745
Outdoor Area	308	1	8	5.22	2.005

Source: Author's Field Survey, 2024

5.2 Common Types and Uses of Floor Finishes

As shown in Table 4.2a, ceramic tiles emerged as the most commonly used floor finish (53.3%), followed by wooden flooring (18.1%) and concrete (14.3%). Finishes like vinyl, marble, and terrazzo were less popular, possibly due to cost or availability.

Table 2: Respondents' responses on the types of floor finishes used in Residential buildings in Osogbo

Types of Floor Finishes used in residential buildings	Frequency	Percent
Ceramic Tiles	162	53.3
Porcelain Tiles	20	6.6
Marble	13	4.3
Vinyl	13	4.4
Terrazo	15	4.9
Concrete	25	8.6
Wooden Flooring	55	18.1

When analyzed by specific spaces within homes (Table 3) ceramic tiles dominated in living rooms, bedrooms, and kitchens, while concrete was mostly used in utility areas and outdoors. This suggests that users prioritize aesthetic appeal and ease of maintenance in frequently used indoor spaces while opting for more durable, low-cost materials in exterior areas.

Table 3: Respondents' responses on area in Residential buildings where specific floor finishes are used in Osogbo

Which area in your home use specific Floor Finishes	Frequency	Percentage
Living Room	107	34.9
Bedroom	107	34.9
Kitchen	72	23.5
Bathroom	17	5.5
Other Areas	4	1.3

5.3 Factors Influencing Users' Preferences

A breakdown of factors influencing user preference as show in Table 4. Comfort underfoot ranked as the most influential factor (52.3%), followed by aesthetic appeal (43.8%), resistance to wear and tear (37%), and ease of maintenance (37%). Cultural or traditional influence was among the least important, suggesting a growing trend toward functionality and modern appeal. Interestingly, sustainability and cost had relatively moderate responses, indicating that while users care about environmental impact and affordability, they prioritize immediate comfort and aesthetics. This trend aligns with findings by Sadatsafayi et al. (2015) and Harris (2015), who noted that urban residents in similar contexts prioritize user comfort over tradition.

Table 4: Respondents' response on What factors influence your choice of Floor Finishes

What factors influence your choice Floor Finishes	1	2	3	4	5
Aesthetics Appeal (design, colour, style)	16 (5.2%)	58 (19%)	28 (9.2%)	70 (22.9%)	134 (43.8%)
Durability	12 (4%)	42 (13.9%)	58 (19.2%)	109 (36.1%)	81 (26.8%)
Cost	28 (9.1%)	63 (20.5%)	71 (23.1%)	101 (32.8%)	45 (14.6%)
Ease of Maintenance	13 (4.2%)	70 (22.7%)	16 (5.2%)	95 (30.8%)	114 (37%)
Comfort	7 (2.3%)	41 (13.3%)	16 (5.2%)	83 (26.9%)	161 (52.3%)
Availability in the market	31 (10.1%)	49 (16%)	69 (22.5%)	112 (36.5%)	46 (14.9%)
Cultural/Traditional Preference	72 (23.5%)	49 (16%)	62 (20.2%)	88 (28.7%)	36 (11.7%)
Resistance to Wear and tear	11 (3.6%)	27 (8.8%)	49 (15.9%)	107 (34.7%)	114 (37%)
Environmental Sustainability	15 (4.9%)	64 (20.8%)	77 (25%)	79 (25.6%)	73 (23.7%)

Source: Author Field Survey, 2024. Note: The rank of scale of 1,2,3,4, & 5 denotes not important, slightly important, neutral, important and very important respectively

Respondents also emphasized the importance of safety features in their floor finish preferences, such as slip resistance and thermal comfort. Underfoot comfort and texture were highly rated, while factors like rug compatibility and ease of cleaning received lower attention. These findings reveal that the physical experience of using the floor finish is central to users' decisions, especially in spaces where family interaction and children's safety are involved.

5.4 Demographic Influences on Preference

To explore how socio-demographic factors affect floor finish preferences, chi-square and correlation analyses were conducted (see Table 5). Significant relationships were found between gender, income level, type of residence, and period of occupancy and the respondents' cultural or traditional inclinations toward floor finishes. For instance, older individuals and long-term homeowners were more likely to prefer terrazzo and concrete, while younger, more educated respondents leaned toward ceramic and wood-based finishes. However, the correlation results revealed a weak or negative relationship between some variables (e.g., gender and cultural preference), suggesting that modern material choices may be less influenced by demographics than expected.

Table 5: Chi-Square and Correlation result of demographics pattern and cultural factors

Patterns of Preferences	Cultural & Traditional Preference as a factor influencing your choice floor Finishes		Do cultural or traditional preferences influence your choice of Floor Finishes	
Demographics Factors	Chi-square	Correlation	Chi-square	Correlation
Age	159.81***	-0.304***	5.49	-0.04
Gender	44.19***	0.184***	17.42***	-0.098*
Occupation	107.41***	0.198***	5.43	0.032
Educational Qualification	42.51***	-0.067	4.89	-0.022
Residential Status	112.66***	0.346***	5.55	0.123**
Period of Stay in Osogbo	84.92***	-0.077	18.05***	0.103*
Type of residence	59.09***	0.290***	36.94***	-0.267***
Monthly Income Level	49.76***	0.104*	11.075**	-0.054

Source: Author Computation, 2024. Note:Correlation is significant at the 0.05 level

5.5 Relationship between floor finishes and functional requirements

Further analysis assessed the connection between chosen floor finishes and their functional performance attributes include durability, aesthetics, and maintenance requirements. The chi-square test (in Table 6) indicated a strong association between the type of floor finish and these functional factors. Users who selected ceramic tiles, for example, did so due to their visual appeal and ease of cleaning. However, correlation tests showed mixed results, implying that while functionality is a key selection criterion, it is not always consistently applied across all demographic groups or building types. This inconsistency may reflect evolving trends, availability, or limited knowledge about material properties.

Table 6: Chi-Square and Correlation result of Floor finishes Types and Functional requirements

Floor Finishes	Types of Floor Finishes used in the homes		Area in your home use specific Floor finishes		Are there Floor finishes you prefer for specific room	
Functional Requirement	Chi-square	Correlation	Chi-Square	Correlation	Chi-Square	Correlation
Aesthetic Appeal	55.73***	-0.019	104.10***	-0.116**	29.07**	0.097*
Durability	66.20***	-0.008	57.93***	0.051	69***	-0.015
Ease of Maintenance	76.52***	0.112*	66.43***	-0.239***	70.172***	0.045

Source: Author's Field Survey, 2024

The findings suggest that users in Osogbo are increasingly driven by practical factors such as comfort, aesthetics, and durability in their choice of floor finishes. Cultural or traditional preferences, once dominant in building material decisions, now play a minor role, particularly among younger or more educated residents. The preference for ceramic tiles and wooden finishes reflects a shift toward materials that blend function and style. Moreover, the link between floor finish type and building function e.g., residential living areas versus exterior compounds shows that users tailor their preferences to specific spatial needs.

Overall, the study confirms that modern floor finish preferences in Osogbo are influenced more by

comfort, design appeal, and performance rather than heritage or custom. These results are consistent with global patterns in urban housing design, where increasing awareness of lifestyle quality and safety are shaping building decisions (Moussatche & Languell, 2001; Shafie & Sherif, 2010). The insights gathered are valuable for architects, builders, and policy planners aiming to develop housing that aligns with user expectations and functional demands.

CONCLUSION AND RECOMMENDATIONS

This study investigated user preferences for floor finishes in Osogbo, focusing on types used, influencing factors, and demographic patterns. Ceramic tiles and wooden flooring were the most preferred due to their comfort, durability, and visual appeal, especially in living rooms and bedrooms. Cultural and traditional influences were less significant, suggesting a shift toward function-driven choices. Socio-economic factors such as income, education, and residential type were found to shape preferences, with higher-income earners prioritizing ease of maintenance and performance. While users acknowledged the importance of health and safety features like slip resistance and thermal comfort, these were secondary to comfort and aesthetics. The study also confirmed that users select finishes based on room function, reinforcing the link between material choice and spatial use.

In light of these findings, designers and housing professionals should prioritize finishes that combine comfort, durability, and design relevance. Public awareness on long-term performance, health, and environmental impact of flooring materials is essential to guide informed decisions. Manufacturers should offer diverse options that meet both functional needs and socio-economic realities. Further research across regions is recommended to capture broader user behavior and support policy development that promotes safe, sustainable, and user-friendly floor finishes in residential design.

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