

Factors Influencing Residential Neighbourhood Vibrancy in Ibadan Municipality, Nigeria

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Abstract - Neighbourhood vibrancy is increasingly recognised as a key indicator of urban liveability and functional performance, yet its drivers remain context-specific and under-theorised in rapidly urbanising African cities. This study investigates factors shaping residential neighbourhood vibrancy in Ibadan, Nigeria, with attention to spatial variation across core, transition, and suburban zones. A cross-sectional survey of residents was conducted using a structured questionnaire measuring perceived influence of twenty socio-economic, physical, institutional, and activity-based variables. Mean Item Scores (MIS) were used to rank influence levels, while Pearson Product-Moment Correlation analysis examined associations between explanatory variables and a composite vibrancy index. Results indicate that neighbourhood vibrancy in Ibadan is primarily structured by development intensity, with the number of buildings showing an exceptionally strong association with vibrancy. Economic variables—including job opportunities and economic events—also exhibit strong relationships, suggesting that vibrancy is closely tied to livelihood-driven activity systems. Socio-institutional variables such as safety and community initiatives demonstrate moderate influence, while amenity-based variables (green spaces, street art, and recreational points) show weak associations. Spatial analysis reveals a gradient in which core areas are driven by density and employment concentration, transition areas reflect governance-mediated influences, and suburban zones exhibit growing importance of economic events and nightlife. The findings challenge amenity-centric models of urban vibrancy derived from post-industrial contexts and instead support a density-livelihood framework more applicable to Global South urban systems. The study contributes empirical evidence to urban vitality theory and provides policy-relevant insight for planning interventions aimed at enhancing functional urban life in rapidly expanding African cities.

Keywords: Neighbourhood vibrancy, Ibadan Municipality, Urbanisation, Land use, GIS-based sampling.

I. INTRODUCTION

Urbanisation remains one of the most significant demographic and spatial processes shaping cities in developing countries. While urban growth has contributed to economic development, innovation, and improved access to services, it has also generated complex challenges related to housing quality, infrastructure provision, environmental degradation, and neighbourhood liveability (United Nations, 2022; United Nations Department of Economic and Social Affairs, 2019). In Nigeria, rapid urbanisation has often occurred in an uncoordinated manner (Adedeji, 2023; Ojo & Ojewale, 2019), resulting in heterogeneous urban environments characterised by varying levels of functionality, social interaction, and vibrancy (Aliyu & Amadi, 2017; Oni-Jimoh & Liyanage, 2018; Oladunjoye, 2005; Onibokun, 1999).

Neighbourhood vibrancy—also referred to as urban vitality or liveliness—describes the intensity and diversity of activities, interactions, and functions within an urban area (Barreca, Curto & Rolando, 2020; Glaeser & Sacerdote, 2000), over a period of time (Jacobs, 1961). The concept gained prominence through the work of Jane Jacobs, who emphasised the role of mixed land use, dense development, and continuous human presence in sustaining vibrant urban life. Contemporary scholarship conceptualises neighbourhood vibrancy as the outcome of interactions among socio-economic, cultural, physical, and institutional factors that collectively shape the use and experience of urban spaces (Lai *et al.*, 2022; Wu *et al.*, 2018).

In Nigerian cities, urban vibrancy manifests unevenly across neighbourhoods due to differences in land-use patterns, economic opportunities, infrastructure provision, and

governance. Ibadan, one of the largest and fastest-growing cities in Nigeria, exemplifies these contrasts. While some neighbourhoods exhibit high levels of social and economic activity, others are characterised by declining infrastructure and reduced liveability. Understanding the factors that influence neighbourhood vibrancy within this context is essential for informed urban planning and sustainable development (UN-Habitat, 2016).

Previous studies on urban vibrancy have largely focused on cities in developed countries, employing advanced spatial and big-data techniques (Kang, 2020; Mouratidis and Poortinga, 2020; Wang, Zhang, Yu, Qi, and Li, 2022). However, there remains a relative paucity of empirical studies examining neighbourhood vibrancy in developing-country contexts using locally grounded data. This study addresses this gap by analysing the factors influencing residential neighbourhood vibrancy in Ibadan Municipality. Specifically, it seeks to identify key drivers of vibrancy across different residential zones and assess the strength of their relationships with neighbourhood vibrancy.

II. LITERATURE REVIEW

2.1 Theoretical Perspectives on Urban and Neighbourhood Vibrancy

The intellectual standing that neighbourhood vibrancy has is rooted in urban design, given by assessing the conditions for liveable and active cities. Jane Jacobs, who is the proponent of urban vibrancy posited that associations and interactions that exist through intense development, mixed uses of land, short blocks and human presence often lead to vibrant urban neighbourhoods (Jacobs, 1961). Impliedly, urban vibrancy occurs as a result of spatial configurations that support constant flows of people and activities all through the day.

In recent years, scholars have expanded this perspective by considering the socio-economic dimensions of urban vibrancy. Glaeser and Sacerdote (2000) described the role of urban density and agglomeration of economies in the enhancement of interaction, innovation and social relationship within an urban space. Also, Gehl (2011) conceives a vibrant space as places where spatial design influences social interaction, pedestrian movement and prolonged presence of humans.

More recent studies have attempted to operationalise vibrancy using measurable indicators. These indicators often fall into several broad dimensions, such as physical or spatial factors (including development density, street connectivity,

and land-use mix), socio-economic factors (employment opportunities, business diversity, and economic activity), socio-cultural factors (cultural diversity, arts activities, and community engagement), institutional and governance factors (safety, public policies, and community initiatives)

In developed nations of the world, studies have shown that vitality is frequently linked to amenity-rich environments characterized by cultural infrastructure, green spaces, and recreational facilities (Florida, 2002; Mouratidis & Poortinga, 2020). However, in rapidly urbanising cities in the Global South, urban vibrancy may be shaped more strongly by livelihood-oriented activities and informal economic systems.

2.2 Empirical Studies on Neighbourhood Vibrancy

Recent empirical studies have used urban big data, survey-based methods, movement data, and spatial data to investigate the factors influencing urban vitality. Wu *et al.* (2018) used GPS-based activity to show that accessibility, density, and land-use mix have a significant impact on neighborhood vibrancy in Beijing. In a similar vein, Kang *et al.* (2021) emphasized the significance of temporal intensity and activity diversity in determining patterns of urban vitality.

Other studies have explored the relationship between vibrancy and the built environment. Wang *et al.* (2022) found that street network structure, land-use diversity, and public transit accessibility are key determinants of urban vibrancy in Chinese cities. Barreca *et al.* (2020) further demonstrate that vibrant urban areas often correspond with strong real estate market performance due to the economic benefits associated with high levels of human activity.

However, empirical studies focusing on African cities remain limited. Existing research in Nigeria tends to examine related themes such as housing quality, urban infrastructure, and neighbourhood environments rather than vibrancy specifically (Akinbode & Olumuyiwa, n.d.; Oni-Jimoh & Liyanage, 2018). The few available studies only suggest that economic opportunities, population density, and informal commercial activities play a significant role in shaping neighbourhood dynamics in Nigerian cities.

Given these gaps, there is a need for empirical investigations that examine neighbourhood vibrancy within the socio-economic and spatial context of rapidly urbanising African cities. This study contributes to this emerging body of knowledge by examining the factors influencing residential neighbourhood vibrancy in Ibadan Municipality.

III. MATERIALS AND METHODS

3.1 Study Area

Ibadan was founded in 1829 and has evolved from a traditional Yoruba settlement into a major metropolitan centre in southwestern Nigeria. The city is located approximately 128 km inland from Lagos and about 530 km southwest of Abuja, Nigeria's Federal Capital Territory. Administratively, Ibadan comprises eleven local government areas (LGAs), five of which constitute Ibadan Municipality: Ibadan North, Ibadan North-East, Ibadan North-West, Ibadan South-East, and Ibadan South-West (Figure 1).

Ibadan Municipality lies between longitudes $03^{\circ}47'50''$ and $04^{\circ}00'22''$ East of the Greenwich Meridian and latitudes $07^{\circ}19'08''$ and $07^{\circ}29'25''$ North of the Equator. The municipality represents the inner city of Ibadan and is characterised by high population density, mixed land uses, and intense socio-economic activities. Despite ongoing urban renewal efforts, the municipality continues to experience challenges related to congestion, environmental degradation, and uneven neighbourhood development.

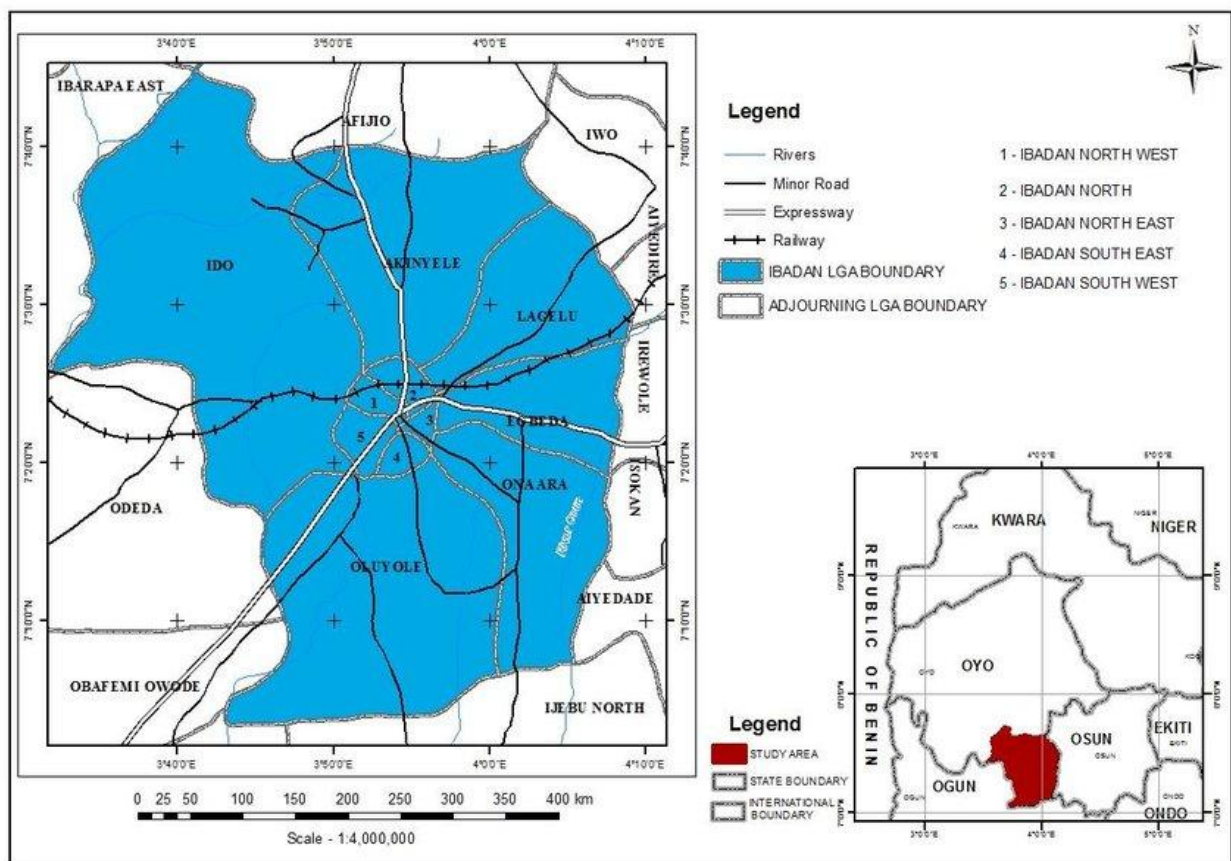


Figure 1: Ibadan Municipality showing Local Government Areas

Source: Cooperative Information Network (COPINE), 2023

3.2 Data Acquisition

A GIS-assisted multi-stage sampling approach was adopted to ensure spatial representation across the Municipality. In the first stage, residential neighbourhoods within the five municipal local government areas were identified using existing administrative and spatial datasets. This process resulted in the identification of 187 residential neighbourhood units.

In the second stage, spatial stratification was applied by grouping neighbourhoods into core, transition, and suburban residential zones based on their morphological characteristics, development intensity, and distance from the traditional city centre.

Using the Sampling Design Tool in ArcGIS, random sampling points were then generated within residential areas. Two spatial constraints were applied to minimise clustering and ensure spatial coverage; a minimum separation distance of 500 metres between sampling points, and a maximum sampling radius of 1 km² within neighbourhood boundaries.

Applying these constraints produced 157 valid sampling points corresponding to residential buildings. Each point represented a residential structure selected for questionnaire administration. The spatial constraints ensured that sampling points were distributed across the municipality and reduced the risk of spatial bias or excessive concentration in highly dense neighbourhoods.

In the third stage, one household head was selected from each sampled building. Out of the 157 questionnaires administered, 155 valid responses were obtained and used for analysis.

Table 1: Classification of Study Area

LGA	Localities	Classification
Ibadan North	Beere, Kannike, Oke-Are, Odo-Oye, Isale-Alfa, Inalende, Oniyanrin, Oke-Iloro, Bola, Odoye, Yemetu, Oritamefa, Agbadagbudu, Oje, Agodi, Kube, Oke-Apon, Itubaba-Ita-Akinloye	Core
	GRA Agodi, Bashorun, Ikolaba, Ashi, New Bodija, Inu-Koko Agbowo, Bodija Market, Aponrin, UCH, Ola Bodija, Mokola	Sub-urban
	Sabo, Coca Cola, Oke-Itunu, Sango, Sango, Ijokodo, Oke Itunnu, Alaro, Okoro, Mokola, Poly, Sango, Samonda, UI	Transition
Ibadan North East	Odo Osun, Beyerunka, Oranyan, Labiran,, Oranyan,Ojagbo, Oranyan, Adekile, Gbelekale, Aperin, Ojagbo, Aremo, Koloko, Aderogba, Beyenruka, Labiran, Alafara-Bashorun, Oke-Olofi, Oje Market, Ojagbo, Alafara-Olubadan, Aremo, Atipe, Idi Radio, Ojagbo, Aremo, Alalubosa, Babasale, Ile-Eja, Ode-Aje, Okeofa-Atipe	Core
	Agugu, Agugu-Oremeji, Koloko, Oluyoro-Okeofa, Babasale, Oke Market, Ireferin, Oke, Iwo road, Bashorun	Transition
	Onipasan, Old Ife Road, Oke-Adu, Okeofa, Onipasan	Sub-urban
Ibadan North West	Ayeye, Idi Omo, Oritamerin, Ayeye, Agbeni. Agbeni, Amunigun, Idikan, Ogunpa, Ayeye, Lanigun, Oke Padre, Okeseni, Idi-kan, OopoYeosa, Oke-Padre, Abebi, Inalende	Core
	Oke tedo, Oke-tedo, Onireke, Eleyele	Sub-urban
Ibadan South East	Oranya, Oja-Oba, Bere, Mapo, Oja Oba, IsaleIjebu, Kobomoje, Kobiowu, Oranyan, Kobomoje, Agbongbo, ItaEge, Lanioka, Ariori, Elekuro, Idi aro, Oyapidan, Olomi, Eleta, Odinjo, Ile tuntun, Kudeti, Eleta, OlunloyoAgbongbon, Ilupeju, Ilupeju, Eleta, Odo Oba, Iletuntun, Owode	Core
	Oniyere, Adesola, Molete, Kudeti, Odo Oba, Idi arere, Adeyemo Layout	Transition
	Ibuko, Adelabu, Felele layout, Onibonje, Olorunsogo	Sub-urban

Ibadan Oja'ba, Mapo, Fijabi Market, Alekuso, Aladorin, IsaleOsi, Apanpa, Iyalode Market, Born Core
South West Photo, IsaleIjebu, Oke Ado, Agbeni, Foko, Oke Foko, Agbokojo, Amunigun, Labaowo

Iyaganku, Dugbe, Cocoa House, Oke-Bola, Ring Road, Anfani, Challenge, Molete, Oke- Transition
Ado, Cuso, Adeoyo Hospital, OdoNigi, Popoyemija, Isale Bode, Igbona, Molete, Onigba

Challenge, Passport Office, Oluyole Estate, Ring road, Ring Road, Abeokuta road, Oke Sub-urban
Ayo, Odoona

Source: Author's Construct (2025)

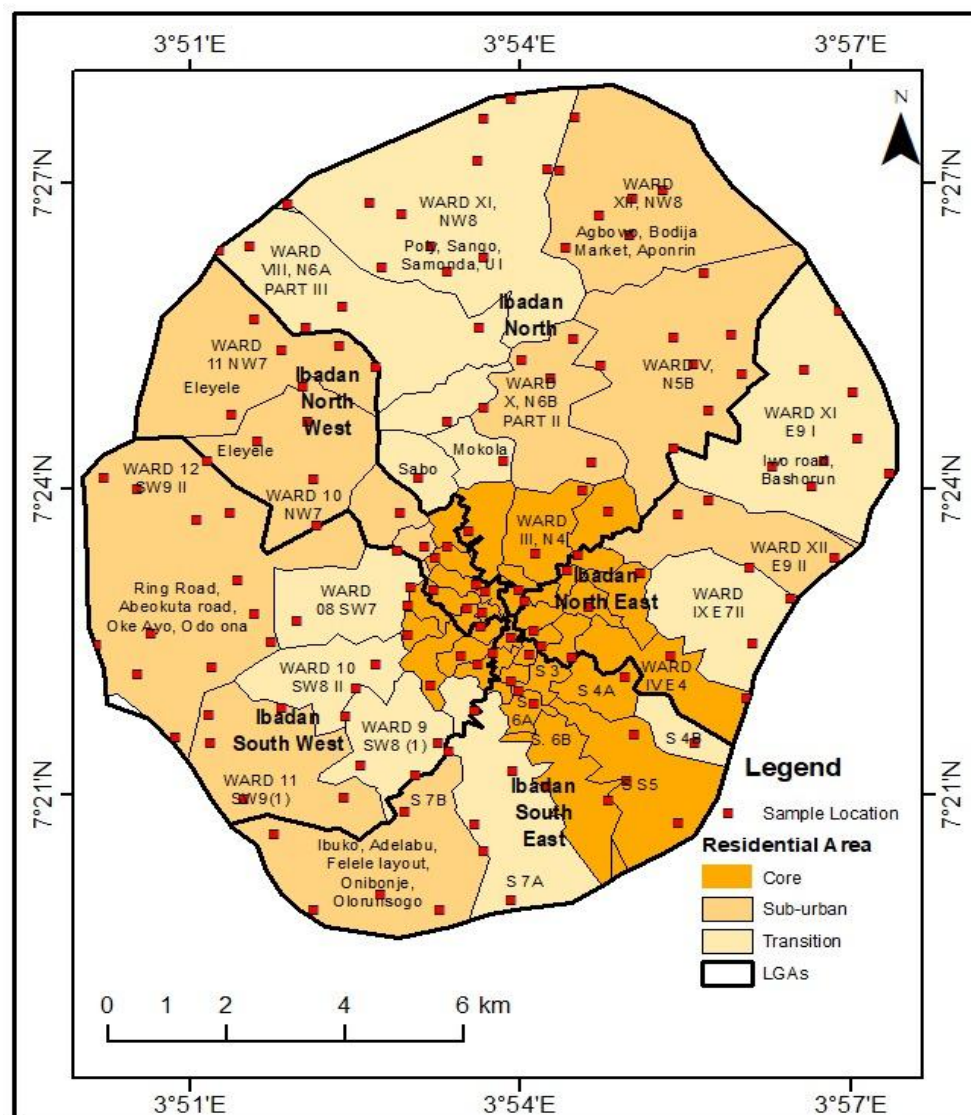


Figure 2: Location of Sample Points within the Residential Areas

Source: Author's Construct (2025)

3.3 Data Analysis

Neighbourhood vibrancy in this study was operationalised using a composite perceptual index derived from residents' responses to the set of twenty indicators identified from the literature. Respondents rated the extent to which each factor

contributes to the liveliness of their neighbourhood using a five-point Likert scale ranging from 1 (not influential) to 5 (extremely influential). The Mean Item Score (MIS) for each factor was calculated using:

$$MIS = \frac{\sum (f \times w)}{N}$$

where:

f = frequency of responses for each rating,
 w = assigned weight of the Likert scale, and
 N = total number of respondents.

The overall neighbourhood vibrancy index was derived by aggregating the weighted responses across the twenty variables and standardising them to produce a relative measure of perceived vibrancy across neighbourhoods.

Although perception-based measures do not capture the full behavioural dynamics of urban activity, they provide valuable insights into residents' experiences of neighbourhood liveliness, particularly in contexts where large-scale behavioural or mobility datasets are unavailable.

IV. RESULTS AND DISCUSSION

The findings disclose that the intensity of developments, particularly the number of buildings, is the most influential factor shaping neighbourhood vibrancy across all residential zones in Ibadan Municipality. This result is consistent with classical urban theory which emphasises the role of density in facilitating social interaction and economic exchange. Jacobs (1961) argues that dense urban environments encourage continuous activity and social surveillance, thereby sustaining vibrant neighbourhood life. Similarly, Glaeser and Sacerdote (2000) highlight that urban density enhances agglomeration economies and increases opportunities for social interaction.

The strong relationship observed between job opportunities and neighbourhood vibrancy further underscores the importance of economic activity in shaping urban dynamics. In the context of rapidly urbanising cities in the Global South, neighbourhood vitality is often closely linked to livelihood opportunities and informal economic activities. This finding aligns with empirical studies that identify economic activity and employment concentration as key determinants of urban vitality (Wu *et al.*, 2018; Wang *et al.*, 2022).

The results also show that economic events such as trade fairs and seasonal markets contribute significantly to neighbourhood vibrancy. These events temporarily intensify economic and social interactions within urban spaces, creating activity nodes that attract both residents and visitors. Such patterns reflect the role of periodic commercial activities in sustaining urban life in many African cities.

Night-time activities also emerged as an important contributor to neighbourhood vibrancy, particularly within core and suburban areas. Nightlife activities extend the temporal duration of urban activities beyond daytime hours, thereby sustaining continuous human presence. Similar observations have been made in studies examining temporal dimensions of urban vibrancy, where extended-hour activities contribute to higher levels of perceived liveliness (Kang *et al.*, 2021).

Conversely, factors related to green spaces, street art, and points of interest recorded comparatively weaker influence on neighbourhood vibrancy. This contrasts with findings from studies conducted in many Western cities where amenity-rich environments strongly influence urban vitality (Mouratidis & Poortinga, 2020). The divergence may reflect contextual differences in urban priorities. In cities such as Ibadan, where economic survival and access to livelihoods are dominant concerns, functional and economic attributes of neighbourhoods may be valued more strongly than aesthetic or recreational amenities.

Spatial differences across residential zones further highlight the heterogeneous nature of urban vibrancy. Core areas are characterised by intense development density and concentration of economic activities, while transition areas reflect a

combination of residential and commercial functions influenced by institutional and governance processes. Suburban areas show emerging patterns of economic and nightlife activities, suggesting gradual decentralisation of urban vibrancy.

Overall, the findings suggest that neighbourhood vibrancy in Ibadan follows a density–livelihood interaction model, where physical concentration of development supports economic activity systems that sustain urban life.

Table 2: Factors Influencing Residential Neighbourhood Vibrancy in the Core areas of Ibadan Municipality

S/N	Factors	EI (5)	VI (4)	MI (3)	SI (2)	NI (1)	SWV	MV
1	Number of buildings	45	64	30	10	-	149	3.72
2	Job opportunities	40	56	36	10	1	143	3.57
3	Safety and security	15	68	45	6	2	136	3.40
4	Economic events (e.g. trade fairs, seasonal markets)	15	60	51	10	-	136	3.40
5	Night life	20	64	33	14	2	133	3.32
6	Community development projects	5	60	60	8	-	133	3.32
7	Arts and entertainment scene	15	68	33	14	2	132	3.30
8	Cultural diversity	5	56	57	12	-	130	3.20
9	Elections	5	48	63	12	-	128	3.20
10	Points of interest (restaurants, cafes, parks, gardens)	5	56	48	18	-	127	3.17
11	Population diversity	15	28	72	10	1	126	3.15
12	Street art	10	52	45	16	2	125	3.12
13	Community engagements	5	44	63	12	1	125	3.12
14	Political meetings	5	48	51	18	1	123	3.07
15	Local policies	5	52	45	20	1	123	3.07
16	Public transportation	5	40	51	24		120	3.00
17	Street connectivity	10	44	39	24	2	119	2.97
18	Business diversity	-	64	36	14	5	119	2.97
19	Type of business	5	40	45	26	1	117	2.92
20	Access to green spaces	5	32	39	30	3	109	2.72

Average Mean Value (AMV) =3.18

Note: EI – Extremely Influential, VI – Very Influential, MI – Moderately Influential, SI – Slightly Influential, NI – Not Influential

Source: Field survey, 2025

As shown in Table 2, the number of buildings recorded the highest mean item score (3.72) in core residential areas, indicating that development intensity plays a major role in shaping neighbourhood vibrancy. Job opportunities (3.57) and safety (3.40) also ranked highly, suggesting that economic and social stability contribute significantly to perceived neighbourhood liveliness.

Table 3: Factors influencing residential neighbourhood vibrancy in the transition residential areas of Ibadan Municipality

S/N	Factors	EI (5)	VI (4)	MI (3)	SI (2)	NI (1)	SWV	MV
1	Number of buildings	90	104	48	12	5	259	3.29
2	Job opportunities	80	88	66	20	1	255	3.15
3	Economic events (e.g. trade fairs, seasonal markets)	65	108	51	24	2	250	3.15
4	Night life	90	64	72	20	3	249	3.11
5	Elections	30	100	96	14	1	241	3.04
6	Community development projects	50	96	60	30	2	238	3.04
7	Cultural diversity	40	88	78	28	1	235	3.04
8	Population diversity	40	80	90	22	2	234	3.02
9	Local policies	-	36	54	58	15	163	3.02
10	Community engagements	45	76	84	28	1	234	3.00
11	Type of business	50	56	108	16	3	233	3.00
12	Public transportation	50	72	90	16	5	233	2.95
13	Political meetings	45	84	69	32	2	232	2.95
14	Safety and security	35	68	99	28		230	2.93
15	Business diversity	40	80	78	26	4	228	2.86
16	Street connectivity	35	72	96	20	4	227	2.81
17	Street art	40	88	54	34	6	222	2.77
18	Arts and entertainment scene	40	84	51	44	3	222	2.75
19	Points of interest (restaurants, cafes, parks, gardens)	30	72	81	24	8	215	2.72
20	Access to green spaces	25	56	57	42	12	192	2.54

Average Mean Value (AMV) = 2.96

Note: EI – Extremely Influential, VI – Very Influential, MI – Moderately Influential, SI – Slightly Influential, NI – Not Influential

Source: Field survey, 2025

As shown in Table 3, the number of buildings recorded the highest mean item score (3.29) in transition residential areas, indicating that development intensity plays a major role in shaping neighbourhood vibrancy. Job opportunities (3.15) and economic events (3.15) also ranked highly, suggesting that economic and temporal events contribute significantly to perceived neighbourhood liveliness.

Table 4: Factors influencing residential neighbourhood vibrancy in the suburban areas of Ibadan Municipality

S/N	Factors	EI (5)	VI (4)	MI (3)	SI (2)	NI (1)	SWV	MV
1	Number of buildings	90	104	48	12	5	259	3.64
2	Economic events (e.g. trade fairs, seasonal markets)	80	88	66	20	1	255	3.59

3	Night life	65	108	51	24	2	250	3.52
4	Job opportunities	90	64	72	20	3	249	3.50
5	Community development projects	30	100	96	14	1	241	3.43
6	Local policies	50	96	60	30	2	238	3.42
7	Type of business	40	88	78	28	1	235	3.39
8	Community engagements	40	80	90	22	2	234	3.37
9	Cultural diversity	-	36	54	58	15	163	3.32
10	Public transportation	45	76	84	28	1	234	3.28
11	Population diversity	50	56	108	16	3	233	3.24
12	Safety and security	50	72	90	16	5	233	3.01
13	Political meetings	45	84	69	32	2	232	2.99
14	Elections	35	68	99	28		230	2.94
15	Street connectivity	40	80	78	26	4	228	2.93
16	Business diversity	35	72	96	20	4	227	2.91
17	Arts and entertainment scene	40	88	54	34	6	222	2.90
18	Points of interest (restaurants, cafes, parks, gardens)	40	84	51	44	3	222	2.90
19	Street art	30	72	81	24	8	215	2.89
20	Access to green spaces	25	56	57	42	12	192	2.70

Average Mean Value (AMV) =3.37

Note: EI – Extremely Influential, VI – Very Influential, MI – Moderately Influential, SI – Slightly Influential, NI – Not Influential

Source: Field survey, 2025

As shown in Table 4, the number of buildings recorded the highest mean item score (3.64) in core residential areas, indicating that development intensity plays a major role in shaping neighbourhood vibrancy. Economic events (3.59) and night life (3.52) also ranked highly, suggesting that economic and social stability contribute significantly to perceived neighbourhood liveliness.

Correlation analysis further revealed strong positive relationships between neighbourhood vibrancy and physical as well as economic variables, particularly building concentration and job availability (Table 5). While these associations highlight important patterns, they should be interpreted cautiously, as correlation does not establish causality. Nonetheless, the results provide useful empirical insight into the dominant drivers of neighbourhood vibrancy within a rapidly urbanising Nigerian city.

Table 5: Pearson correlation coefficients between selected factors and residential neighbourhood vibrancy in Ibadan Municipality

Code No.	Factors Influencing Residential Neighbourhood Vibrancy	r
1	Number of buildings	0.98
2	Job opportunities	0.77
3	Economic events (e.g., trade fairs, seasonal markets)	0.75
4	Nightlife	0.64
5	Community development projects	0.60
6	Cultural diversity	0.60

Code No.	Factors Influencing Residential Neighbourhood Vibrancy	r
7	Safety and security	0.60
8	Local policies	0.60
9	Elections	0.58
10	Population diversity	0.55
11	Community engagements	0.54
12	Type of business	0.50
13	Public transportation	0.50
14	Political meetings	0.45
15	Street connectivity	0.41
16	Business diversity	0.40
17	Arts and entertainment scene	0.37
18	Points of interest (restaurants, cafes, parks, gardens)	0.33
19	Street art	0.30
20	Access to green spaces	0.26

Note: Correlation values indicate the strength and direction of linear relationships.

Source: Author's computation, 2025

Table 5 indicates that residential neighbourhood vibrancy in Ibadan Municipality is most strongly associated with physical developments and economic factors, considering the number of buildings ($r = 0.98$), job opportunities ($r = 0.77$), and economic events ($r = 0.75$), while socio-cultural and environmental variables such as street art ($r = 0.30$) and access to green spaces ($r = 0.26$) exhibit comparatively weaker positive relationships.

V. POLICY AND PLANNING IMPLICATIONS

The study highlights important implications for urban planning, practice, and research. The strong relationship between development density and neighbourhood vibrancy indicates the need for planning policies that promote strategic densification and mixed land-use development. Integrating residential, commercial, and service functions within accessible distances can enhance urban activity and liveliness. Supporting local economic ecosystems is also essential, as small businesses, markets, and informal economic activities significantly contribute to neighbourhood vibrancy and livelihood opportunities. Additionally, safety and community-based governance mechanisms play a complementary role in sustaining active neighbourhood environments.

For urban practitioners and local governments, interventions should prioritise mixed-use development, improved accessibility to employment centres, support for local economic events, and strengthened neighbourhood safety initiatives. These strategies are likely to yield stronger vibrancy outcomes than aesthetic improvements alone. For future research, incorporating behavioural and spatial datasets, such as mobility patterns, land-use diversity measures, and pedestrian activity data, alongside advanced analytical approaches like regression or structural equation modelling would improve understanding of causal relationships influencing neighbourhood vibrancy.

VI. STUDY LIMITATIONS

Although the study offers valuable exploratory insights regarding neighborhood liveliness, it mostly uses correlation analysis and descriptive statistics. More sophisticated modeling methods, like structural equation modeling or multiple regression, may offer more robust causal inference about the relative impact of the variables found.

However, Pearson correlation analysis was thought to be appropriate for determining preliminary connections between neighborhood features and perceived vibrancy given the exploratory nature of the study and the perception-based dataset. Multivariate modeling techniques may be used to expand this analysis in future research employing bigger datasets.

VII. CONCLUSION

Neighbourhood vibrancy in Ibadan is primarily determined by development intensity and economic activity, rather than aesthetic or recreational amenities. The strong association between building concentration and vibrancy shows that spatial density provides the structural basis for social interaction and urban dynamism. Employment opportunities and economic events further reinforce vibrancy, indicating a livelihood-driven urban system typical of rapidly urbanising contexts. Socio-institutional factors, particularly safety and community initiatives, play a supportive role by stabilising and enhancing activity environments, while green spaces and cultural amenities exhibit limited influence when not linked to economic functions.

Spatial differences reveal decentralising activity patterns, with suburban areas showing increasing commercial and night-time vibrancy. These findings suggest that planning strategies should prioritise mixed-use densification, local economic development, and safety governance, while positioning environmental and aesthetic improvements as complementary measures. Although perception-based and cross-sectional, the study provides context-relevant evidence for understanding and managing vibrancy in Global South cities.

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FUNDING DECLARATION

There is no funding for this research.

CONSENT TO PUBLISH

All authors consent to the publication of this article.

ETHICS DECLARATION

Informed consent was obtained from all survey respondents, and participation was voluntary and anonymous.

Citation of this Article:

Faniran, G. B., Idowu, K. A., Ojo, D. B., Olayanju, O. A., Oyeleye, O., & Ajobiewe, T. O.. (2026). Factors Influencing Residential Neighbourhood Vibrancy in Ibadan Municipality, Nigeria. *International Current Journal of Engineering and Science (ICJES)*, 5(8), 32-43. Article DOI: <https://doi.org/10.47001/ICJES/2026.508005>
