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Research Paper

Analyzing Residential and Environmental Conditions of Informal Communities in Metropolitan Lagos Using Spatial Autocorrelation Techniques

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ABSTRACT
This study analyzed the residential and environmental conditions of informal communities in metropolitan Lagos, Nigeria using spatial autocorrelation techniques. The research assessed residential quality, evaluated environmental conditions, and applied spatial analysis to examine clustering patterns across 15 informal settlements in 4 local government areas. Data was collected through household surveys and environmental assessments, with 1,600 questionnaires administered. Results revealed significant variations in housing quality, infrastructure access, and environmental challenges across communities. Spatial autocorrelation analysis using Moran's I demonstrated statistically significant positive clustering for residential quality (I = 0.147), neighborhood quality (I = 0.342), and locational quality (I = 0.264) indices. The findings highlight disparities in living conditions and identify areas of similarity, providing insights to inform targeted interventions and policy development for improving informal communities in Lagos.

Keywords: *Informal communities, Residential conditions, Environmental conditions, Metropolitan Lagos, Autocorrelation techniques.*

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I. INTRODUCTION

Informal communities in Lagos State, Nigeria, are known for their uniqueness of rugged street life and bustling atmosphere; characterized by fringe settlements around urban areas, home to millions of urban poor residents living in substandard housing and environmental conditions with various associated issues of health and social economy (Corburn & Sverdlik, 2019; Akinde, *et al*., 2024). There is need for the improving the residential quality of these communities which have been a serious challenge for sustainable urban development in the state known as Centre of excellence, a major African financial Centre and is the economic hub of Lagos State and Nigeria at large (Jiboye, et al., 2020). The city has a significant influence on commerce, entertainment, technology, education, politics, tourism, art, and fashion in Africa with the presence of ports (sea, air land) with negative implications on informal communities and housing and environmental qualities problems (De Ferrari & Ocepek, 2022; Oyalowo, 2022).

Furthermore, Lagos is also among the top ten of the world's fastest-growing cities and urban areas with daily of people to the city for employment and survival; thereby the informal communities attract more people (Enoh *et al*., 2023). Unfortunately, these communities often lack formal infrastructure, quality housing facilities, good road networking, functional sewage and solid waste management; and services like lack of access to portable water, sanitation facilities (Aliu *et al.,* 2021). Some of the communities are located in Ajegunle, Badia, Agege, Ajeromi with a heterogonous population setting facing the challenges of economy, social and environment. Despite the challenges aforementioned viz-a-viz high density of humans (overcrowding), dilapidated houses, housing tenancies issues, high rate of crimes, destitute proliferation, health issues, inadequate water, drainage, and sanitation infrastructure, the communities are still vital and dynamic part of Lagos State as some cases cited in (Das & Kundu, 2023; Afolayan & Ajibowu, 2024; Ali, Singer, & Bulled, 2024).

Though, there are various government interventions in the part to address the informal communities' issues. For instance, Lagos State Urban Renewal Agency (LASURA) is one of the parastatals under the Lagos State Ministry of Physical Planning And Urban Development, saddled with the responsibility of implementing

the state policy on urban Renewal and Upgrading of slums (informal communities) in the State (Adeyemi, *et al*., 2023; LASURA, 2024); to provide decent and inexpensive housing for informal community dwellers.

However, the processes of urban renewal have it challenges; destruction of dwellers sources of income, increase in economic inequality, uneven expansion and displacement of dwellers and these shortcomings can be addressed through spatial autocorrelation techniques since the informal communities might have some dissimilarities (Mohd Sairi, 2023). By employing spatial autocorrelation techniques, the study can identify clusters or patterns of similar conditions within these informal communities, which can provide valuable insights into how housing and environmental factors are distributed across the Lagos as noted in the study of (Kolowa *et al*, 2024).

Therefore, the study can help to better understand the challenges and opportunities present in these communities, and inform policy-making decisions aimed at improving living conditions and sustainability of the state.

II. AIM AND OBJECTIVES OF THE STUDY

The aim of the study is to analyze residential and environmental conditions of informal communities in metropolitan Lagos using Spatial Autocorrelation Techniques. The following objectives were addressed:

(1) To assess the residential quality of informal communities in metropolitan Lagos.
(2) To evaluate the environmental conditions of informal communities in metropolitan Lagos.
(3) To apply spatial autocorrelation techniques to analyze the spatial clustering of residential and environmental conditions in metropolitan Lagos informal communities.

RESEARCH QUESTIONS FOR THE STUDY

(1) How do the residential conditions vary across different informal communities in metropolitan Lagos?
(2) What are the prevalent environmental challenges faced by informal communities in metropolitan Lagos?
(3) Is there evidence of spatial clustering of environmental conditions within metropolitan Lagos informal communities?

Research Hypotheses for the study

(1) Residential conditions will differ significantly between different informal communities in metropolitan Lagos based on factors such as proximity to urban centers and access to resources.
(2) The environmental conditions will vary significantly among different informal communities in metropolitan Lagos influenced by factors such as proximity to industrial areas and waste disposal sites.
(3) Environmental conditions will also demonstrate spatial clustering, with certain areas showing similarities in environmental challenges.

III. RESEARCH METHODOLOGY

The study combined both quantitative and qualitative research methodologies- household survey and environmental condition assessment. Conduction of a visual survey and mapping of housing conditions, including infrastructure and amenities available in the informal settlements in four(4) Local Government Area of Lagos (LGA) namely: Agege, Apapa, Ajeromi and Somolu to perform environmental quality assessments, including air and water quality measurements, and waste management analysis within the informal settlements.

Then, spatial statistical tools such as Moran's I and Getis-Ord Gi* to examine the spatial patterns and identify significant clusters of housing and environmental characteristics within the informal settlements.

A survey through administration of questionnaires was carried out to determine and understand how spatial clustering of residential and environmental conditions affects the dwellers quality of life and well-being.

Table 1: Showing the sampling locations and sample size for the selected location

S/N	LGA	Informal communities per LGA	Questionnaire administered in the sampled informal communities per LGA
1	Agege	Orile Agege, Iju (2)	400
2	Apapa	Badia, Ijora (2)	400
3	Ajeromi	Ajegunle, Ago-Hausa, Olodan, Amukoko, Mosafejo (5)	400
4	Somolu	Somolu, Oworonshoki, Bariga, Abule Ijesha, Community Town Ilaje, Ayetoro Village (6)	400
Total	4		1600

Table 1 provides information on the administration of questionnaires across 15 informal communities in Lagos, Nigeria. The study was conducted in four local government areas (LGAs): Agege, Apapa, Ajeromi, and Somolu. The table lists the names of the informal communities that were selected for the study in each LGA. A total of 15 informal communities were sampled, with two to six informal communities selected per LGA. The study administered 1,600 questionnaires, with 400 questionnaires distributed in each LGA. All 1,600 questionnaires were retrieved, indicating a high response rate.

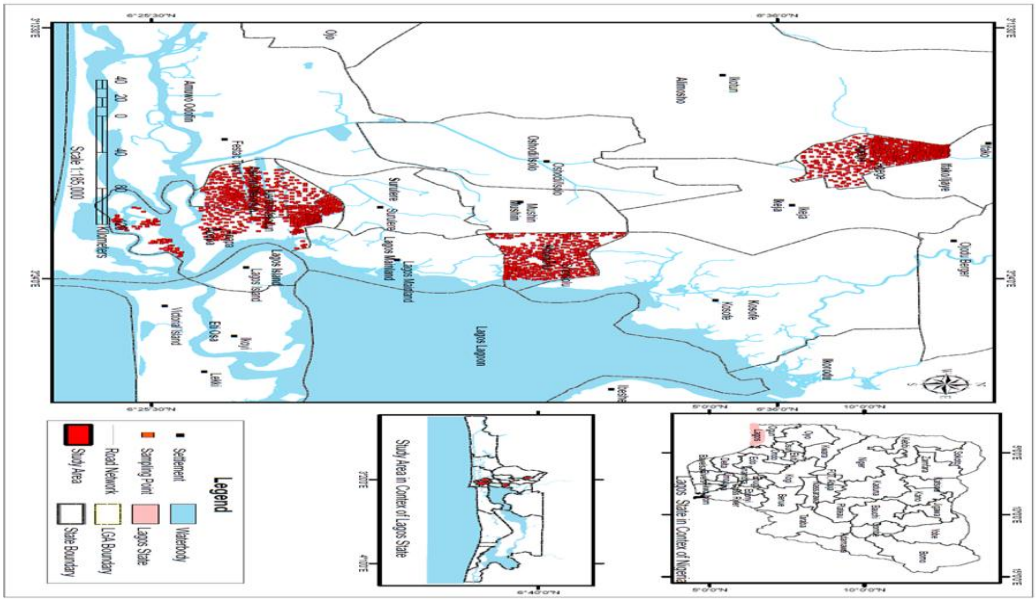

Figure 1: Lagos Metropolitan Area showing the selected informal communities and the sampling units for the study

Source; Author. 2023

IV. RESULTS AND DISCUSSION

Objective 1: The residential quality of selected informal communities in metropolitan Lagos

These communities often lack basic services and infrastructure, including reliable access to clean water, sanitation facilities, and electricity. One of the significant challenges faced by these communities is the quality of their residential structures. Many of these structures are made of low-quality materials and lack proper foundations, making them vulnerable to collapse, fire, and other hazards. This section, examines the residential structural quality of informal communities in Lagos. Table 4.13 presents the data on seven items related to the housing conditions of respondents. The first row includes the description of each item, including good ventilation, burglary installation, number of rooms more than one, aluminum windows, tiled bathroom/toilet, tiled kitchen, and electricity.

Residential Structural Quality of Informal Settlements

Table 2: Showing the Residential Structural Qualities of the study areas

Community	Good ventilation	Burglary Installation	Number of Rooms More Than One	Aluminium Windows	Tiled Bathroom/ Toilet	Tiled Kitchen	Electricity
Orile-Agege	156 (12.53%)	134 (11.39%)	193 (12.35%)	95 (12.92%)	98 (19.11%)	75 (17.10%)	102 (8.47%)
Iju	137 (11.00%)	137 (11.65%)	182 (11.65%)	50 (6.80%)	87 (16.97%)	32 (7.30%)	129 (10.71%)
Badia	165 (13.25%)	67 (5.70%)	199 (12.74%)	168 (22.85%)	50 (9.75%)	47 (10.72%)	106 (8.80%)
Ijora	179 (14.37%)	95 (8.08%)	200 (12.80%)	194 (26.38%)	74 (14.43%)	73 (16.64%)	165(13.70%)
Ajegunle	65 (5.21%)	78 (6.63%)	80 (5.12%)	3(0.41%)	7 (1.37%)	9 (2.05%)	80(6.64%
Ago-Hausa	69(5.54%)	78 (6.63%)	80 (5.12%)	13(1.77%)	10 (1.95%)	15(3.42%)	80 (6.64%
Olodan	80 (6.42%)	69 (5.87%)	78 (4.99%)	60 (8.16%)	52 (10.14%)	52 (11.86%)	80 (6.64%
Amukoko	80 (6.42%)	63 (5.36%)	80 (5.12%)	53 (7.21%)	40 (7.80%)	43 (9.80%)	80 (6.64%
Mosafejo	65 (5.22%)	78 (6.63%)	80 (5.12%)	0	1 (0.20%)	1(0.23%)	79 (6.56%)
Somolu	36 (3.0%)	63 (5.36%)	63 (4.03%)	3 (0.41%)	2 (0.39%)	2 (0.46%)	66 (5.48%)
Oworonshoki	56 (4.50%	66 (5.61%)	63(4.03%)	8 (1.09%)	21(4.10%)	21 (4.79%)	61 (5.06%)
Bariga	47 (3.77%)	70 (5.95%)	70 (4.48%)	15 (2.04%)	15 (2.93%)	15 (3.42%)	67 (5.56%)
Abule-Ijesha	35 (2.81%)	64 (5.44%)	66 (4.22%)	11(1.50%)	7 (1.37%)	7 (1.60%)	34 (2.82%)
Ilaje Town	56 (4.50%)	52 (4.42%)	66 (4.22%)	46 (6.26%)	36(7.02%)	33 (7.52%)	28 (2.32%)
Ayetoro Village	18 (1.45%)	66 (5.61%)	66 (4.22%)	14 (1.90%)	14 (2.73%)	14 (3.19%)	49 (4.07%)
TOTAL	1244 (75.4%)	1180 (73.8%)	1566 (97.9)	733 (45.8%)	514 (32%)	439 (27.4%)	1206 (75.4%)

Good ventilation: Regarding homes and structures with balanced ventilation system, the study revealed that the percentage of respondents in Orile-Agege, Badia, Ijora, and Iju is relatively high indicating the existence of good ventilation in their homes. Ijora has the highest which is put at 179. Burglary installation: Percentage of respondents in Badia is the lowest, indicating existence of burglary installations. It is however revealed that Ijora has the highest at 95. Number of homes with more than a room: Badia and Ijora have the lowest percentage of respondents with more than one room in their homes. Ijora has the highest which is put at 200. Aluminum windows: Badia and Ijora have the highest percentage of respondents with aluminium windows, with Ijora having the highest at 194. Tiled bathroom/toilet: Ijora and Badia have the highest percentage of respondents whose bathrooms/toilets are either completely or partially tiled. Ijora has the highest which is put at 74. Tiled kitchen: The findings also revealed that Ijora and Badia have the highest percentage of respondents with tiled kitchens. While Ijora has the highest at 73. Electricity:

Orile-Agege has the highest percentage of respondents indicating constant access to electricity, with 102. In total, 1244 respondents had good ventilation, 1180 respondents had burglary installation, 1566 respondents had more than one room, 733 respondents had aluminum windows, 514 respondents had tiled bathroom/toilet, 439 respondents had tiled kitchen, and 1206 respondents had electricity.

Neighbourhood Location Quality of Informal Settlements

Table 3: Showing Neighbourhood Location Qualities of the study areas

Community	Noise Pollution	Good Drainage System	Good Waste Disposal	Environmental security	Fire control services	Air pollution	Proximity to children schools	Accessibility to transport	Proximity to security post
Orile-Agege	105 (9.24%)	96 (8.26%)	96 (8.06%)	53 (4.88%)	16 (3.76%)	65 (7.28%)	125 (8.50%)	194 (12.22%)	73 (6.57%)
Iju	163 (14.34%)	127 (10.92%)	66 (5.54%)	42 (3.86%)	143 (33.61%)	120 (13.44%)	150 (10.20%)	199 (12.54%)	51 (4.59%)
Badia	61 (5.37%)	140 (12.04%)	175 (14.70%)	136 (12.51%)	9 (2.12%)	80 (8.96%)	198 (13.46%)	200 (12.60%)	131 (11.79%)
Ijora	34 (2.10%)	131(11.27%)	172 (14.45%)	158 (14.54%)	5 (1.18%)	43 (4.82%)	197 (13.40%)	200 (12.60%)	118 (10.62%)
Ajegunle	78 (6.86%)	68 (5.85%)	70 (5.88%)	60(5.52%)	9 (2.12%)	72 (8.06%)	80 (5.44%)	80 (5.04%)	63(5.67%)
Ago-Hausa	66(5.81%)	76 (6.54%)	75 (6.30%)	77 (7.08%)	59 (13.87%)	74 (8.29%)	80 (5.44%)	80 (5.04%)	80(7.20%)
Olodan	76 (6.69%)	76 (6.54%)	75 (6.30%)	80 (7.36%)	67(15.75%)	80 (8.96%)	80 (5.44%)	72 (4.54%)	72 (6.48%)
Amukoko	80 (7.04%)	73 (6.28%)	72 (6.05%)	77 (7.08%)	63 (14.81%)	79 (8.85%)	80 (5.44%)	77 (4.85%)	77(6.93%)
Mosafejo	80 (7.04%)	28 (2.41%)	29 (2.44%)	68 (6.26%)	7 (1.65%)	73 (8.18%)	80 (5.44%)	80 (5.04%)	76 (6.84%)
Somolu	66 (5.81%)	50 (4.30%)	52 (4.37%)	65 (5.98%)	6 (1.41%)	61(6.83%)	66 (4.49%)	66 (4.16%)	66 (5.94%)
Oworonshoki	66 (5.81%)	50 (4.30%)	60 (5.04%)	55 (5.06%)	10(2.35%)	47 (5.26%)	66 (4.49%)	66 (4.16%)	65(5.85%)
Bariga	70 (6.16%)	45(3.87%)	51 (4.28%)	56 (5.15%)	0	53 (5.94%)	70 (4.76%)	70 (4.41%)	61(5.49%)
Abule-Ijesha	66 (5.81%)	66 (5.68%)	66 (5.54%)	46 (4.23%)	9(2.12%)	11 (1.23%)	66 (4.49%)	66 (4.16%)	62 (5.58%)
Community Town Ilaje	60 (5.28%)	66 (5.68%)	64 (5.38%)	55 (5.06%)	23 (5.41%)	26(2.91%)	66 (4.49%)	66 (4.16%)	61 (5.49%)
Ayetoro Village	66 (5.81%)	66 (5.68%)	66 (5.54%)	54 (4.97%)	0	10 (1.12%)	63 (4.28%)	66 (4.16%)	59 (5.31%)
TOTAL	1137 (75.4%)	1158 (73.8%)	1189 (97.9%)	1082 (67.6%)	426 (26.6%)	894 (55.9%)	1467 (91.7%)	1582 (98.9%)	1115 (69.7%)

The assessment of the neighbourhood location quality reveals significant variations across communities. In terms of noise pollution, the levels range from 28 to 163, with the highest recorded in the Iju community with a score of 163 and the lowest in Mosafejo with a score of 28. Regarding the drainage system, Badia and Ijora stand out with high scores of 140 and 131, respectively, indicating efficient water flow management. Conversely, Mosafejo has the lowest score in this category at 28. For good waste disposal, Badia leads with a score of 175, followed closely by Ijora with 172, suggesting effective waste management systems in these communities. On the other hand, Mosafejo has the lowest score at 29. Environmental security is notably

high in Badia (136) and Ijora (158), reflecting safer living conditions, while Orile-Agege records the lowest score in this category at 53.

Fire control services are most robust in Iju (143), whereas Badia scores the lowest at 9, indicating disparities in infrastructure for fire safety. In terms of air pollution, Abule-Ijesha has the lowest score at 11, while Iju has the highest at 120, with lower scores indicating better air quality. Proximity to children's schools is favorable in Badia (198) and Ijora (197), implying better access to educational facilities, whereas Orile-Agege records the lowest score at 125.

Accessibility to transport is highest in Iju (199) and Badia (200), indicating better availability and convenience of transportation options, with other communities also performing well in this category. Most communities show similar scores for proximity to security posts, ranging from 51 to 80, with Orile-Agege having the highest score at 80.

Table ( ) provides the frequency of respondents who reported having the specified item in their neighborhood location. For instance, 1137 respondents reported having low noise pollution, 1158 respondents reported having a good drainage system, 1189 respondents reported having good waste disposal, 1082 respondents reported having environmental security, 426 respondents reported having access to fire control services, 894 respondents reported having low air pollution, 1467 respondents reported being close to children's schools, 1582 respondents reported having easy accessibility to transport, and 1115 respondents reported being close to a security post. Overall, the analysis provides insights into the varying levels of community attributes, such as pollution, infrastructure, and proximity essential services. These factors contribute to the overall livability and quality of life in each community.

Objective 2 Environmental Conditions of Informal Communities in Metropolitan Lagos

Informal settlements in Lagos face numerous challenges related to their neighborhood location quality. Many of these settlements are located in flood-prone areas, which put residents at risk of displacement and loss of property during the rainy season. Additionally, these communities often lack access to basic services such as healthcare, education, and sanitation facilities. The high population density in these settlements also exacerbates issues related to waste management, security, and infrastructure. Table ( ) presents data on the Neighborhood Location Quality of Informal Settlements. It includes ten items related to the quality of the respondents' neighborhood location. The first column describes each item, including noise pollution, good drainage system, good waste disposal, environmental security, fire control services, air pollution, and proximity to children's schools, accessibility to transport, and proximity to security post.

The assessment of the neighbourhood location quality reveals significant variations across communities. In terms of noise pollution, the levels range from 28 to 163, with the highest recorded in the Iju community with a score of 163 and the lowest in Mosafejo with a score of 28. Regarding the drainage system, Badia and Ijora stand out with high scores of 140 and 131, respectively, indicating efficient water flow management. Conversely, Mosafejo has the lowest score in this category at 28. For good waste disposal, Badia leads with a score of 175, followed closely by Ijora with 172, suggesting effective waste management systems in these communities. On the other hand, Mosafejo has the lowest score at 29. Environmental security is notably high in Badia (136) and Ijora (158), reflecting safer living conditions, while Orile-Agege records the lowest score in this category at 53.

Fire control services are most robust in Iju (143), whereas Badia scores the lowest at 9, indicating disparities in infrastructure for fire safety. In terms of air pollution, Abule-Ijesha has the lowest score at 11, while Iju has the highest at 120, with lower scores indicating better air quality. Proximity to children's schools is favorable in Badia (198) and Ijora (197), implying better access to educational facilities, whereas Orile-Agege records the lowest score at 125.

Accessibility to transport is highest in Iju (199) and Badia (200), indicating better availability and convenience of transportation options, with other communities also performing well in this category. Most communities show similar scores for proximity to security posts, ranging from 51 to 80, with Orile-Agege having the highest score at 80.

Table 3 provides the frequency of respondents who reported having the specified item in their neighborhood location. For instance, 1137 respondents reported having low noise pollution, 1158 respondents reported having a good drainage system, 1189 respondents reported having good waste disposal, 1082 respondents reported having environmental security, 426 respondents reported having access to fire control services, 894 respondents reported having low air pollution, 1467 respondents reported being close to children's schools, 1582 respondents reported having easy accessibility to transport, and 1115 respondents reported being close to a security post. Overall, the analysis provides insights into the varying levels of community attributes, such as pollution, infrastructure, and proximity essential services. These factors contribute to the overall livability and quality of life in each community.

Analysis of spatial autocorrelation techniques to analyze the spatial clustering of residential and environmental conditions in metropolitan Lagos informal communities

As a further enquiry into the nature of the residential quality index data this study also conducted the spatial analysis using SAC. This approach made use of GIS to link the RQI, NQI and LQI values with the spatial data usually the coordinates of the households interviewed. The results of the SAC analyses are as shown in Table 4.21, Table 4.22 and Table 4.23. As indicated in Table 4.21, the Moran's Index value for RQI is 0.146979. This indicates a positive spatial autocorrelation, suggesting that similar values tend to cluster together in space for the given dataset. The expected index value is -0.000625. The expected index represents the average value of the Moran's Index under the assumption of spatial randomness. The variance associated with the Moran's Index is 0.000138. It provides a measure of the spread or dispersion of the Moran's Index values around their mean. A smaller variance indicates less variability in the spatial autocorrelation patterns. The z-score for the Moran's Index is 12.577316. A high z-score indicates a strong spatial autocorrelation pattern. The p-value associated with the Moran's Index is p<0.0001, which is extremely low. This suggests that the observed spatial autocorrelation **Moran's I** index is statistically significant, indicating the presence of clustering or dispersion patterns that are unlikely to occur by random chance.

Table 4: Spatial Auto-Correlation Report (Residential Quality Index)

Moran's Index	0.146979
Expected Index	-0.000625
Variance	0.000138
Z-Score	12.577316
P-value	0.0000000

Table 5: Spatial Auto-Correlation Report (Neighbourhood Quality Index)

Moran's Index	0.341757
Expected Index	-0.000625
Variance	0.000138
Z-Score	29.171760
P-value	0.0000000

For the neighbourhood quality index Table 5 shows that the Moran's Index value for NQI is 0.341757. This indicates a positive spatial autocorrelation, suggesting that similar values tend to cluster together in space for the given dataset. The expected index value is -0.000625. The expected index represents the average value of the Moran's Index under the assumption of spatial randomness. The variance associated with the Moran's Index is 0.000138. It provides a measure of the spread or dispersion of the Moran's Index values around their mean. A smaller variance indicates less variability in the spatial autocorrelation patterns. The z-score for the Moran's Index is 29.171760. A high z-score indicates a strong spatial autocorrelation pattern. The p-value associated with the Moran's Index is p<0.0001, which is extremely low. This suggests that the observed spatial autocorrelation **Moran's I** index is statistically significant, indicating the presence of clustering or dispersion patterns that are unlikely to occur by random chance.

Table 6: Spatial Auto-Correlation Report (Locational Quality Index)

Moran's Index	0.264226
Expected Index	-0.000625
Variance	0.000138
Z-Score	22.577934
P-value	0.0000000

According to Table 6, the Moran's Index value for LQI is 0.264226. This indicates a positive spatial autocorrelation, suggesting that similar values tend to cluster together in space. The expected index value is -0.000625. The expected index represents the average value of the Moran's Index under the assumption of spatial randomness. A value close to zero suggests no spatial autocorrelation. The variance associated with the Moran's Index is 0.000138. It provides a measure of the spread or dispersion of the Moran's Index values around their mean. A smaller variance indicates less variability in the spatial autocorrelation patterns. The z-score for the Moran's Index is 22.577934. A high z-score indicates a strong spatial autocorrelation pattern. The p-value associated with the Moran's Index is 0.0001, which is extremely low. This suggests that the observed spatial autocorrelation **Moran's I** index is statistically significant, indicating the presence of clustering or dispersion patterns that are unlikely to occur by random chance.

V. CONCLUSION

This study provides a comprehensive analysis of residential and environmental conditions in Lagos' informal communities using spatial autocorrelation techniques. The research reveals significant disparities in housing quality, access to basic services, and environmental challenges across different settlements. The positive spatial clustering observed for residential, neighborhood, and locational quality indices indicates that similar conditions tend to group together geographically. These findings have important implications for urban planning and policy interventions in Lagos. The identified clusters of poor conditions can help prioritize areas for targeted improvements in housing, infrastructure, and environmental management. Conversely, clusters of better quality can provide insights into successful community-level practices that could potentially be replicated elsewhere. The study also demonstrates the value of spatial analysis techniques in understanding the complex dynamics of informal settlements. By revealing patterns not immediately apparent from descriptive statistics alone, this approach can enhance evidence-based decision-making for urban development. Future research could expand on this work by incorporating longitudinal data to track changes over time, integrating additional socioeconomic variables, and exploring the underlying factors driving the observed spatial patterns. Overall, this study contributes to a more nuanced understanding of informal settlements in Lagos and provides a methodological framework that can be applied to similar urban contexts globally.

REFERENCES

[1]. Adeyemi, S. A., Onifade, V. A., Jimoh, H. O., & Akindeju, F. (2023). Development Control as a Tool for Urban Sustainability in South-Western Nigeria. Urban and Regional Planning Review, 9(1), 10-24.

[2]. Afolayan, A. S., & Ajibowu, A. K. (2024). Gentrification-related buyouts and sustainable public low-income housing delivery in Lagos, Nigeria. Construction Economics and Building, 24(3), 23-39.

[3]. Akinde J O, Adegbite A A & Olasokan O O (2024). Nature and Predictors of Dwelling Quality of Selected Informal Communities in Metropolitan Lagos Nigeria. GSJ, 12(6).

[4]. Ali, I., Singer, M., & Bulled, N. (Eds.). (2024). COVID-19 Syndemics and the Global South: A World Divided. Taylor & Francis.

[5]. Aliu, I. R., Akoteyon, I. S., & Soladoye, O. (2021). Living on the margins: Socio-spatial characterization of residential and water deprivations in Lagos informal settlements, Nigeria. Habitat International, 107, 102293.

[6]. Corburn, J., & Sverdlik, A. (2019). Informal settlements and human health. Integrating human health into urban and transport planning: A framework, 155-171.

[7]. Das, J., & Kundu, K (2023). An Overview of Slums around the World. (UGC - CARE Listed Journal Group I, ISSN 0970-9657) Volume – XLIV, No. 2, July, 2023

[8]. De Ferrari, R. H., & Ocepek, A. (2022). CHAPTER 8 LAGOS Africa's New Dubai?. In Emerging Global Cities: Origin, Structure, and Significance (pp. 187-212). Columbia University Press.

[9]. Enoh, M. A., Njoku, R. E., & Okeke, U. C. (2023). Modeling and mapping the spatial–temporal changes in land use and land cover in Lagos: A dynamics for building a sustainable urban city. Advances in Space Research, 72(3), 694-710.

[10]. Jiboye, A. D., Adebayo, J. A., & Obakin, O. A. (2020). Urban housing in Nigeria for sustainable development: Challenges and prospects. International Journal of Advanced Engineering Research and Science, 7(7), 478-491.

[11]. Kolowa, T. J., Daams, M. N., & Kuffer, M. (2024). Do informal settlements contribute to sprawl in Sub-Saharan African cities?. Sustainable cities and society, 113, 105663.

[12]. Lagos State Urban Renewal Agency (LASURA) (2024) Lagos as a Sustainable Smart City of Choice https://lasura.lagosstate.gov.ng/

[13]. Mohd Sairi, N. A. (2023). Spatial autocorrelation prediction model of housing market in sprawl area (Doctoral dissertation, Universiti Tun Hussein Onn Malaysia).

[14]. Oyalowo, B. (2022). Implications of urban expansion: land, planning and housing in Lagos. Buildings & Cities, 3(1).