International Journal of Civil Engineering, Construction and Estate Management,14(4),53-64,2026
Print ISSN: 2055-6578(Print)
Online ISSN: 2055-6586(online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development -UK

From Conceptual Framework to an Empirical Analysis of the Determinants of Compliance with Physical Planning Regulations in Nigerian Cities

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doi: https://doi.org/10.37745/ijcecem.14/vol14n45364 Published November 15, 2026

Citation: Yakubu U.S., Adetunji A.M., Adamu M. (2026) From Conceptual Framework to an Empirical Analysis of the Determinants of Compliance with Physical Planning Regulations in Nigerian Cities, *International Journal of Civil Engineering, Construction and Estate Management*,14(4),53-64

Abstract: *The lack of compliance of the physical planning regulations in Nigerian cities is a huge challenge to sustainable urban development because of the chaotic spatial structure, environmental degradation and inadequate service delivery. While this phenomenon is well known, there is limited understanding of its multi-dimensional determinants. This paper initially uses the contextual analysis, and international experiences to suggest an integrated conceptual framework to systematically analyse the factors influencing compliance with planning regulations in Nigeria. The framework goes beyond an enforcement-driven approach and acknowledges that compliance is a result of the interactive relationship between regulatory and institutional aspects, socio-economic and cultural influences and the wider political and governance environment. This framework combines the concepts of institutional theory, rational choice theory, and social norm theory into a comprehensive framework to diagnose the underlying causes of noncompliance. The framework is a basic instrument for empirical studies to further validate results for policy making and the design of more context-specific planning interventions to support systematic urban development in Nigeria and other contexts. The respondents for the empirical study were randomly sampled from the construction professionals and control officers, town planners, Architects, Builders, Urban developers, Structural Engineers, Estate surveyors and residents, and 158 questionnaires were administered, of which 150 were returned (94% return rate) of which were structured closed ended questionnaires designed from relevant literatures and desk based approach. The analysis of the data obtained from the questionnaires were done using SPSS version 23 for descriptive statistics to find the Mean (μ) = Σ (W) / N, Standard Deviation (σ) to prioritise key findings and the Relative Importance Index (RII) for ranking to determine the most critically affected highest factor (corruption and weak enforcement), mid factor (insecure land title and bureaucratic process, and poverty) to the lowest (market dynamics and income level). This paper employs a descriptive qualitative approach and draws on the conceptual frameworks of urban planning, compliance, development control, planning regulations, Nigeria, informal development and governance.*

Keywords: urban planning, compliance, development control, planning regulations, Nigeria, conceptual framework, informal development, governance.

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INTRODUCTION

Nigeria's rapid and often unmanaged urbanization is marked by a huge disconnect between planning ideals as reflected in its various urban and regional planning laws and the reality on the ground (Agbola and Egunbiade, 2009). Failure to comply with planning laws is a key aspect of the urban fabric, with illegal conversions, failure to follow approved building plans, building on unsuitable land and the growth of informal settlements being all too common. Such non-compliance is detrimental to public safety, the cost of service provision and to urban inefficiencies and environmental hazards (Yakubu et al, 2026a; Jiboy, 2011).

The lack of enforcement or poverty as a major challenge has been some of the common motivations cited for this general lack of compliance (Nwokoro and Onenuchea, 2017). These are all crucial considerations but only part of a larger picture. A multi-dimensional perspective is required to gain a comprehensive understanding and to consider all the factors that impact socio-economic realities, cultural norms, political economy and institutional capacity (Yakubu et al, 2026a).

Hence, this paper aims to fill this gap by proposing an integrated conceptual framework which captures the major factors influencing compliance to planning regulations in Nigeria. The framework guided the empirical research that informed policy makers and enabled a structured analysis of the reasons behind compliance and/or non-compliance by individuals and developers with planning laws.

LITERATURE REVIEW

Foundations of Compliance

To comprehend compliance, one must have knowledge of a number of theory perspectives including:
Deterrence theory (rational choice model):
This view is based on Becker's (1968) rational choice theory, which assumes that actors consider the costs and benefits of committing to an act of noncompliance, along with the likelihood and consequences of punishment. The weak, and often corrupt, sanctioning system combined with the perceived low risk of detection, tips the scales towards non-compliance in the Nigerian context (Ujoh and Kwabe, 2012).

Institutional theory

The focus is on the importance of formal and informal institutions. Enforcement is not the only reason for compliance, however, but also the legitimacy of regulatory institutions, the clarity of rules, and the accessibility of approval processes (North, 1990). In cases where formal institutions are seen to be corrupt, inefficient and unhelpful, informal institutions (such as community

leadership, social norms, etc.) may be more dominant in influencing development behavior (Oluwole and Olojede, 2019).

Social norms and moral obligations
The theory is that people will respect rules when they believe it is right to do so and that others in their community do the same (Tyler, 2006). A vicious cycle of non-compliance is born when non-compliance is the social norm, as is the case in many urban areas in Nigeria.

Political economy perspective
This strategy helps to illuminate the influence of power dynamics and economic interests on regulatory outcomes. Land allocation, selective application of laws, and regularization of illegal development are often driven by political patronage and elite capture that send signals to the regime that are undermining the regime (Garba, 2018).

RESEARCH METHODOLOGY

In collecting data for this study, this study used both quantitative and qualitative research approach. A total of 158 structured closed ended questionnaires were developed based on the relevant literature and a desk based approach to construction professionals and control officers including town planners, Architects, Builders, Urban developers, Structural Engineers, Estate surveyors and residents and administered. A 5 point Likert scale (1 - Very Low Impact, 5 - Very High Impact) was used, with 150 valid responses or 94% of the total. Random sampling techniques was used to select the respondents. The data collected from the questionnaires were analysed using descriptive data analysis which includes Mean (μ) = Σ(W) / N, Standard Deviation (σ) was used for prioritizing key findings. Relative Importance Index (RII) for ranking to determine the most critically affected factor (highest) to the lowest. All the ethical aspects were observed in this study.

RESULTS

The Proposed Conceptual Framework
The framework is conceptualized as compliance being the dependent variable, with three interrelated clusters of independent variables shown in Figure 1 below. The proposed framework incorporates the theoretical strands to provide a more comprehensive model of compliance behaviour.

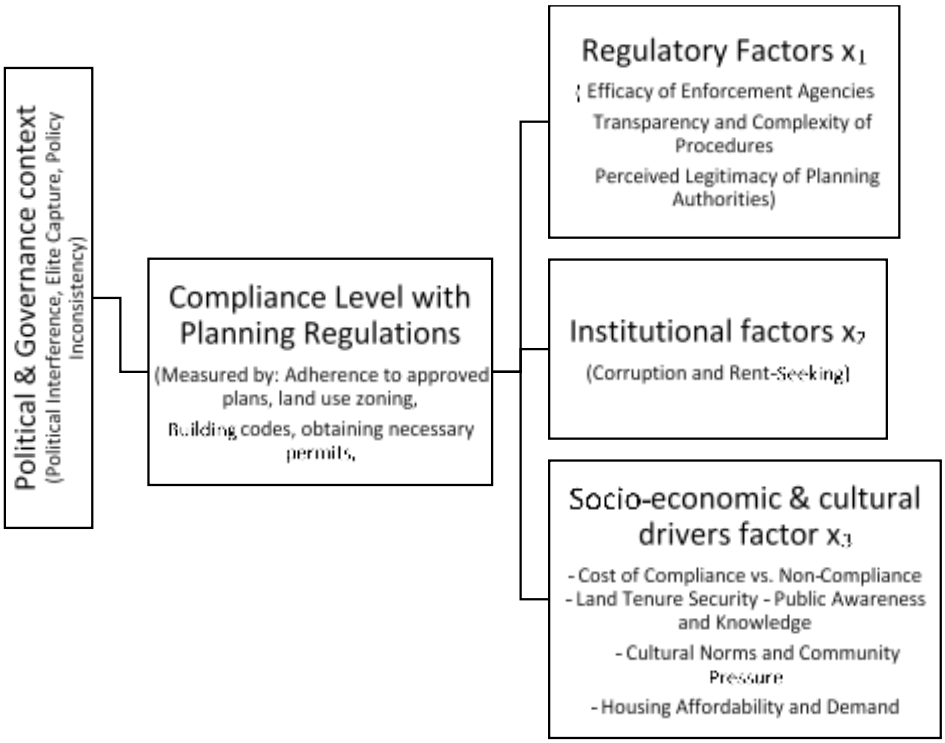


Figure 1: Conceptual Framework for Determinants of Compliance with Planning Regulations
Source: (Authors 2026)

Dependent Variable: Compliance with Scheme Regulations
This outcome can be achieved by the following indicators:

i. Percent of developers who get all permits before building.
ii. Degree of adherence to approved building plans, setbacks and density regulations.
iii. Compliance with specified land use zoning.
iv. Rate of illegal land subdivision and development.

Independent Variable Cluster

Cluster 1: Regulatory and institutional factors
This cluster includes regulatory and institutional factors. This cluster planning is based on a formal system of control and the effectiveness of the enforcement agencies. This includes the logistical capacity, funding, professional capacity and motivation of the agencies responsible for development control (e.g. state urban planning and development authorities). The probability of detection is reduced due to inefficient agencies (Nwokoro and Onyenuchea, 2017).

The approval process is lengthy, opaque and cumbersome, and it can make it more difficult for developers to comply, which can lead to informal shortcuts that are not transparent and can result in complex processes (Ujoh and Kwabe, 2012). Where public trust in the impartiality, competence and integrity of planning institutions is crucial. When officials are considered corrupt or arbitrary, it is felt that compliance is less necessary or that it is illegitimate (Tyler, 2006). Bribery to circumvent regulations or regularize illegal development, in essence, undermines the regulatory system and promotes non-compliance (Garba, 2018).

Cluster 2: Socio-economic and cultural drivers
This cluster provides an overview of the features and computations of developers and residents. It requires a rational calculation in which actors balance official (compliance) costs, delays in processing, and the trouble and hassle of complying with the regulations against the costs of penalties for failure to comply (Becker, 1968). Those who do not have secure legal title to land (e.g. those living on customary land) are excluded from the formal planning system and do not have much reason to obey its rules (Agbola and Egunbiade, 2009). Lack of public awareness and knowledge of planning laws, what they are and how they are complied with is a major barrier (Jiboy, 2011). Communal land use and culture of self-help housing can also be at variance with formal planning in some contexts, with non-compliance being a socially acceptable norm (Oluwole and Olojede, 2019). In some instances, the lack of adequate housing and the cost of formal housing compel low-income groups to find an alternative to formal housing development by building it informally and non-compliant.

Cluster 3: Political and governance context (broad mediators)
Other factors act within this cluster to produce the wider context. For instance, politicians' tendency to shield themselves from enforcement actions or to affect zoning changes for personal or political reasons through their political supporters (Garba, 2018; Jacobs, 2017). Likewise, strong individuals or groups influence planning and enforcement to their own benefit, fostering a culture of impunity. This leads to planning policy inconsistency and the constant changes in government, planning laws and urban development policies create uncertainty and undermine the long-term credibility of the planning system.

The planning framework explanation of categories of determinant factors affecting compliance with physical planning regulations is not required to be included in this framework.This framework does not require the planning framework explanation of categories of determinant factors affecting compliance with physical planning regulations.

Framework explanation on categories of determinant factors affecting compliance with physical planning regulations

Regulatory and institutional factors.
The simple framework indicates that there should be clear (not opaque) and accessible process of regulations, this including; the land use plans, building codes and procedures should be clearly

documented and publicly accessible to everyone and not insiders alone. The framework advocates that administrative process should be simple, efficient, cost less and void of bureaucratic process of obtaining permits (e.g., building plan approval, EIA) (Garba, 2018).

a.)State/urban planning authorities must have the staff, technical resources and mobility to identify violations (such as illegal development, zoning violations) for successful monitoring and enforcement.
b.)Deterrence sanctions (fines, demolitions) should be consistently applied and sufficiently, and violations should be often resolved through negotiation and not bribery that will make non-compliance a rational risk.
c.Planning authorities, land bureaus, environmental agencies and local governments should plan in a coordinated manner rather than conflicting with each other (Oluwole & Olojede, 2029).

Socio-economic and cultural factors
i.)The costs of complying with the standards are considered to be greater than the risks and costs of non-compliance by individuals/businesses.
ii.) Rapid urbanisation and the need for affordable housing and commercial space drive informal and non-compliant development.
iii.) Lack of recognised land title may deter people with weak or informal ownership (for example, family or customary land) from participating in the formal planning system.
iv.) There is a clash between local practices and customary land use and formal rules. Low compliance if rules are perceived as illegitimate or foreign.
v.) Do citizens and developers know planning rules, their purpose and how they are complied with? (Jacobs, 2017).

Broader political and governance context

The broader questions on political will, corruption, policy, resource allocation and judicial efficiency
a.) Are political leaders on the side of strict enforcement or do they cover up for violators (voters or patrons)?) Are elites themselves involved in mass non-compliance?
b.) Violations can become a source of income (bribery instead of compliance) because of corruption in the institutions that regulate them, which can be widespread.Corruption in the institutions that regulate violations can be widespread and make violations a source of income (bribery instead of compliance), systematically undermining the rule of law.
c.) Are planning rules and master plans maintained or abandoned or altered for new projects when political leadership changes?
d.) Are local governments, who are typically on the front lines and enforcers, equipped with the financial and human resources needed to carry out their planning obligations?
e.)Do planning and land disputes get fair and speedy treatment in court or are delays and corruption in the judiciary stalling enforcement?

In short, weak institutions is not the only technical problem of compliance in Nigeria. It is shaped by the interaction of dysfunctional formal systems, strong socio-economic incentives to informality and a political economy that can gain from selective enforcement (Yakubu et al., 2026). The following section discusses the operation and Application of the Framework conceptualized.

Operation and Application of the Framework

The conceptual framework was translated into empirical research by using a mixed methods approach:

a.) The questionnaire (quantitative) survey was designed and targeted to homeowners, property developers and built environment professionals to gather data on their perceptions and rating of determinants variables in the framework (for example, bureaucratic & procedural delays, likelihood of weak enforcement, level of corruption among others).

b.) Objective data on compliance rates and institutional performance are provided by the review of relevant published literatures and that of planning authority records, case files of enforcement actions and government reports.

The value of the framework is in its clinical effectiveness. For instance, if an urban area is identified as having a low compliance rate, the city can use this matrix to investigate and determine the underlying cause: is it an enforcement issue (Cluster 1), is it an issue of high costs and lack of awareness (Cluster 2), or does it lack political will due to political patronage (Cluster 3)? The intervention designed will depend greatly on the diagnosis.

Determinant factors affecting compliance with physical planning regulations in Nigeria

Multiple interlocking determinant factors for compliance with physical planning regulations in Nigeria from stakeholders and literatures were identified and analysed and ranked in Table 1 which includes Administrative and Institutional factor, Socioeconomic, Legal, Policy and Land Tenure factor, Professional and Technical factor, Awareness and Public Perception, Specific Planning Standard Violation factor, and Market & Economic Dynamics

Table 1: Mean, SD, and RII for All factors affecting compliance with physical planning regulations in Nigeria

S/no	Category	Determinant Factor	Mean (μ)	Std. Dev (σ)	RII (μ/5)	Rank
1	Administrative & Institutional	Corruption & Ineffective Administration	4.7	0.8	0.940	1
2	Administrative & Institutional	Weak Enforcement & Inadequate Manpower	4.6	0.7	0.920	2
3	Professional & Technical	Presence of nonprofessionals (Quacks)	4.5	0.8	0.900	3

4	Awareness & Public Perception	Lack of Awareness	4.5	0.9	0.900	4
5	Legal, Policy, Land Tenure	Insecure Land Tenure	4.4	0.9	0.880	5
6	Legal, Policy, Land Tenure	High Cost of Land Registration	4.3	0.9	0.860	6
7	Administrative & Institutional	Lack of Information & Master Plans	4.2	1.0	0.840	7
8	Awareness & Public Perception	Disconnect Between Government and People	4.2	1.0	0.840	8
9	Professional & Technical	Lack of Technical Expertise & Capacity	4.1	0.9	0.820	9
10	Specific Planning Standards	Plot Coverage & Setback Stipulations	4.1	1.0	0.820	10
11	Socioeconomic	Poverty	4.0	1.0	0.800	11
12	Awareness & Public Perception	Public Apathy & Disdain	4.0	1.0	0.800	12
13	Administrative & Institutional	Bureaucratic & Procedural Delays	3.9	1.1	0.780	13
14	Legal, Policy, Land Tenure	Inconsistent Application of Standards	3.9	1.0	0.780	14
15	Specific Planning Standards	Change of Land Use	3.9	1.1	0.780	15
16	Administrative & Institutional	Poor Inter-Agency Coordination	3.8	1.1	0.760	16
17	Market & Economic Dynamics	Financial Strength	3.8	1.1	0.760	17
18	Legal, Policy, Land Tenure	Inappropriate Legislation	3.7	1.2	0.740	18
19	Professional & Technical	Professional Rivalry & Vested Interests	3.6	1.1	0.720	19

20	Specific Planning Standards	Provision of Utilities	3.6	1.2	0.720	20
21	Socioeconomic	Income Level	3.5	1.2	0.700	21
22	Market & Economic Dynamics	Market Dynamics	3.2	1.3	0.640	22
23	Specific Planning Standards	Room Size	2.8	1.3	0.560	23
24	Socioeconomic	Marital Status	2.5	1.4	0.500	24

Source: (Authors 2026)

In furtherance for deeper understanding and effective interpretation, most affected categories of determinant factors affecting compliance with physical planning regulations via average RII per group is presented in Table 3.

Table 3: Categorical Ranking (Average RII per Group)

Rank	Category	Average RII
1	Administrative & Institutional Factors	0.848
2	Professional & Technical Factors	0.813
3	Awareness & Public Perception	0.813
4	Legal, Policy, and Land Tenure Factors	0.815 *(tied with above, technically)*
5	Specific Planning Standards Violated	0.720
6	Socioeconomic Characteristics	0.667
7	Market & Economic Dynamics	0.700

Source: (Authors 2026)

THE FINDINGS

The Findings are therefore interpreted according to Top tier, Mid-tier and lowest tier factors

a. Top-Tier Critical Factors (RII > 0.85: in this tier urgent Intervention is highly needed).

1. Corruption has RII of (0.940) and Weak Enforcement of (0.92) RII rank highest. Planning authorities are underfunded and understaffed, and enforcement officers are easily corruptible and therefore physical development laws are virtually unenforceable in many cities in Nigeria particularly in Lagos, Abuja and Port Harcourt.

2. The Non-professional factor (Quacks) and the Lack of Awareness (0.900) were recorded non-professionally. This is a risky combination: unregistered professionals are creating shoddy buildings, and the people are not informed about the legal planning process, resulting in a high incidence of violations.

b. Mid-Tier Significant Factors (RII 0.70 - 0.84):
1. Insecure Land tenure (0.880) and High Registration costs (0.860) which represents structural barriers. Nigerians with low incomes are unable to afford the process and expense of getting legal land titles (such as Governor's consent) and are forced to develop informally that is without planning approvals.
2. Poverty recorded (0.800) and Financial Strength (0.760) indicate that although economics are important, they are not as significant as governance failures. Violations of setbacks and coverage (Plot Coverage - 0.820) are not related to poor people, but to the desire to maximise the rentable area, while enforcement is lax.

c.) Lowest-Tier Factors (RII < 0.65 - Least Affected):
1. Macro-level variables affecting demand for housing but not necessarily affecting compliance with physical planning regulations include Market Dynamics (0.640) and Income Level (0.700).
2. Marital Status (0.500) and Room Size (0.560) are at the bottom. This means that if a resident is married or if the size of a room doesn't really influence a developer, they are unlikely to breach a planning permit. These are technical details that are not primary cause of systemic non-compliance in Nigeria and are usually not considered by violators.

The Implication for Research and Policy
1.The framework offers a comprehensive model for the empirical studies, which makes it possible to investigate the empirical studies in a holistic way and not an esoteric way.
2.The framework proposes a multi-dimensional approach to solutions. Enforcement is not enough. The policy should also cover transparency in the procedures, awareness to the public, security of tenure for scheme administration and political will to ensure that the administration of the scheme is kept free from undue interference.

CONCLUSION

From the framework it is revealed that compliance is not only about good laws (Regulatory). It is the result of a systematic calculation influenced by socio-economic pressures (Socio-Economic) and the credibility of the state's enforcement threat, which is mostly defined by the Political & Governance context with Corruption in all dimensions. This paper has suggested a multidimensional conceptual framework for the understanding of compliance of planning regulations in Nigeria. The framework incorporates regulatory, socio-economic and political aspects, going beyond the simple explanation and offering a solid analytical structure that was empirically analysed for the purposes of ranking variable factors for RII. The findings reveal that

determinant factors affecting compliance are in three (3) categories; top tier factors (for example: corruption, weak enforcement, non-professionals and lack of awareness), Mid-tier (e.g. Insecure land tenure, bureaucratic process, cost of registration of legal title, and poverty level), and lowest tier factors (e.g. market dynamics, income level, and marital status and room sizes). In the end, a culture of compliance necessitates the development of a planning system that is effective in implementation, but also that is seen as legitimate, accessible and fair by the citizens it serves.

Recommendations based on RII ranking

a.) Interventions in the Nigeria context should focus on Institutional Reforms (anti-corruption courts for planning officers),
b.) They should be a huge recruitment of compliance inspectors,
c.) A digitization of land titles and land tenure system should be implemented to lower costs,
d.) Actions should be directed towards fine-tuning building regulatory reforms with a massive awareness drive.

Further Research Plan for the Framework.

To gain an in-depth understanding of how and why, qualitative research approach of this framework can be achieved through In-depth interviews and focus group discussions with planning officials, community leaders and developers. This study can be further analyzed using regression analysis to know the relative power of the determinants factors to compliance behavior.

REFERENCES

Agapiou A and Yakubu S (2019). "Determinants of non-compliance with structural building code standards in Nigeria". Management, Procurement and Law, Vol.172 (2), pp47-59, 2019

Agbola, T., and Egunbiade, E.M. (2009). Urbanization, slum development and security of tenure: challenges to meeting millennium development goal 7 in metropolitan Lagos, Nigeria. In Urban population-environment dynamics in the developing world: Case studies and lessons learned (pp. 77-106). Paris: CICRED.

Baker, G.S. (1968). Crime and Punishment: An Economic Perspective. Journal of Political Economy, 76(2), 169-217.

Garba, S.B. (2018). The Challenge of Governance and Urban Development in Nigeria. In Urban planning and housing in Nigeria (pp. 45-62). Ibadan: Ibadan University Press.

Jiboye, A.D. (2011). Achieving Sustainable Housing Development in Nigeria: A Critical Challenge for Governance. International Journal of Humanities and Social Sciences, 1(9), 121-127.

North, D.C. (1990). Institutions, Institutional Change and Economic Performance. Cambridge University Press. Nwokoro, I., and Onyenuchya, C. (2017). Informal urban development and planning regulation in Lagos, Nigeria. Urban, Planning and Transportation Research, 5(1), 1-19.

Oluwole, A.O., and Olojede, O.A. (2019). Determinants of non-compliance with physical planning laws in Nigerian cities: A case study of Ikorodu, Lagos. Journal of Urban Management, 8(2), 255-267.

Tyler, T.R. (2006). Why do people follow the law? Princeton University Press.

Ujoh, F., and Kwabe, I.D. (2012). Understanding the dynamics of urban sprawl in the federal capital city, Abuja: Towards sustainable urbanization in Nigeria. Journal of Geography and Regional Planning, 5(9), 239-251. Jacobs,

Yakubu, U.S (2017). "The barriers to the implementation and enforcement of the Building Code University of Strathclyde, UK. 2017. Official URL: https://doi.org/10.48730/p0sa-4w74.

Yakubu, U. S., Baba, B. and Ekule, A.A (2026b). Compliance with Minimum Set-Back Regulations in The Development of Residential &Commercial Buildings In Ekiti, Nigeria. Journal of Sustainable Cities and Built Environment, 01(01), 01-15. Retrieved from http://jscbe.ku.edu.bh. DOI: https://doi.org/10.58757/jscbe.0x.0x.0x

Yakubu, U.S.,.,Hambolu, A.T., Egbuta, J.N and Zakka S.D. (2026a). Green Zone Compliance for Promoting Community Health and Wellbeing: The Case of Lokoja, Nigeria. Journal of Sustainable Cities and Built Environment, 04(01), 01-27. Retrieved from http://jscbe.ku.edu.bh DOI: https://doi.org/10.58757/jscbe.04.01.01