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ADHERENCE TO CONSTRUCTION REGULATORY PRACTICES IN THE NIGERIAN CONSTRUCTION INDUSTRY

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ABSTRACT

Regulatory practices are essential for ensuring safety, quality, and sustainability in the construction industry globally. However, adherence to these practices in developing countries like Nigeria remains a challenge. This study assessed the current state of awareness of existing laws, effects of compliance and non-compliance, factors responsible for adherence, and strategies for improving compliance with regulatory activities for enhanced project delivery in Akure, Ondo State. A quantitative approach using questionnaires was adopted and distributed to professionals in the construction industry. The data obtained were analyzed using descriptive and inferential statistical tools such as mean score, standard deviation and percentage. The results showed varying levels of awareness across different regulatory areas, with only 4.7% of

Introduction

The construction industry stands as a cornerstone of Nigeria's economic and social progress, making substantial contributions to the nation's economic output and job market (Chete *et al.,* 2014). Despite its importance, the sector grapples with numerous obstacles, particularly in terms of adhering to regulatory standards (Albert, 2023). The journey of construction regulations in Nigeria has seen significant milestones, notably the establishment of the National Building Code in 2006 (Abolore, 2012). This code aimed to create

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respondents claiming expert knowledge in building codes, indicating a low level of advanced regulatory understanding. This study concluded that concerted efforts are needed to advance regulatory awareness, address compliance challenges, and implement recommended strategies. Embracing comprehensive regulatory practices can enhance safety, quality, and overall performance in Nigeria's construction industry, contributing to sustainable development and economic growth.

Keywords: Construction Industry, Compliance, Effect, Quality, Regulatory Practices.

a uniform set of standards for the design, construction, and upkeep of buildings across the country. However, putting these regulations into practice and ensuring their enforcement has proven to be an ongoing struggle, reflecting the intricate web of economic, societal, and institutional dynamics that shape Nigeria's construction environment (Idowu *et al.*, 2021; Amaeshi, Adegbite & Rajwani, 2016).

Recent years have witnessed considerable expansion in Nigerian construction sector, fueled by swift urban development, population increases, and a growing need for infrastructure (Albert, Shakantu & Saidu, 2021). Industry observers note that the sector has demonstrated resilience in the face of economic volatility, playing a crucial role in job creation and diversifying the economy (Martin *et al* 2016). Nevertheless, this growth has been accompanied by a rise in construction-related issues, particularly evident in urban centers. A distinctive feature of the industry is the coexistence of formal and informal activities, with the latter frequently operating beyond the scope of regulatory oversight (Gunningham & Rees, 1997). This dual nature creates unique challenges for enforcing regulations and maintaining quality standards. Furthermore, the sector is plagued by issues such as project delays, budget overruns, and subpar quality, which experts partially attribute to insufficient adherence to regulatory standards and inadequate project management (Rady *et al.,* 2023; Idoro, 2008).

One of the most pressing concerns in Nigerian construction industry is the frequent occurrence of building collapses and structural failures. These incidents, often resulting in fatalities and substantial economic losses, are typically linked to factors

such as disregard for building codes, utilization of inferior materials, and substandard workmanship (Lingard & Rowlinson, 2004).

Ezema & Olatunji (2018) in their research has identified the use of low-quality materials as a significant contributor to building collapses, underscoring the urgent need for more stringent enforcement of material standards and quality control measures in the construction process. The hurdles in achieving widespread regulatory compliance in Nigerian construction sector are multifaceted. Studies indicate that while many construction workers are aware of safety regulations, actual adherence remains low. This discrepancy is attributed to various factors, including weak enforcement mechanisms, insufficient safety training, economic pressures leading to cost-cutting, and a lack of awareness regarding the long-term benefits of regulatory compliance (Ayedun, Durodola & Akinjare, 2012).

The intricate nature of the construction industry necessitates the involvement of multiple stakeholders in ensuring regulatory compliance. Some of the experts emphasize the importance of enhancing the capability maturity of these stakeholders to improve overall adherence to construction regulations (Albert, Nathaniel & Olonilebi, 2025). Professional organizations, such as the Nigerian Institute of Building and the Nigerian Society of Engineers, play a vital role in promoting standard adherence among their members (Idowu, Winston & Kabir, 2020; Akadiri *et al.*, 2012). However, research has identified effective communication as a significant obstacle in Nigerian construction industry, impacting the dissemination of regulatory information and best practices among stakeholders (Ratcliffe *et al.,* 2021).

In recent times, there has been an increasing focus on sustainable construction practices and environmentally friendly building in Nigeria. Researchers highlight the need for regulations that encourage eco-friendly and sustainable building methods. However, the adoption of these practices faces challenges, including limited awareness, higher initial costs, and a lack of supportive policies (Ameh & Odusami, 2010). Studies on the motivations for adopting green building practices in Nigeria suggest that regulatory frameworks need to evolve to incorporate sustainability principles and provide incentives for green building adoption (Abisuga & Okuntade, 2020).

The integration of technology in construction processes and regulatory compliance monitoring presents opportunities for improving adherence to standards (Albert *et*

al., 2024). Experts discuss the adoption of information and communication technology (ICT) in Nigeria's construction industry, highlighting its potential to enhance efficiency and transparency in regulatory processes (Ebekozien *et al.,* 2023). Some researchers propose the development of mobile applications for health and safety knowledge sharing among construction workers, demonstrating the potential of technology in promoting regulatory compliance (Akinlolu *et al.,* 2022; Oyewobi *et al.*, 2019).

A significant challenge within the Nigerian construction sector is the weak enforcement and implementation of established regulations. Although frameworks such as the National Building Code (NBC) and oversight by the Federal Ministry of Works and Housing are in place, actual enforcement often falls short (Adebayo, 2020). Many construction projects ignore key safety and quality standards due to inadequate monitoring and enforcement practices (Ogunde, Owolabi & Olatunji, 2018). This enforcement gap contributes to structural failures and safety risks, as regulatory bodies frequently lack the resources and updated tools necessary for effective oversight (Van Loo, 2019). Enhancing enforcement mechanisms, including increasing inspection frequencies and employing modern technology, is crucial for ensuring compliance and improving construction safety (Okoye, *et al* 2016). The specific objectives are to: i. examine existing laws regulating construction activities; and, ii. investigate the effect of non-compliance with construction regulations

Literature Review

Adherence to Regulatory Practices

The industry's impact extends far beyond its direct GDP contribution. As a labour-intensive sector, construction plays a crucial role in job creation, employing an estimated 6.5 million people directly and indirectly, which represents about 8% of Nigeria's total workforce (Idowu & Iyabo, 2017). These jobs span a wide range of skills and education levels, from unskilled labourers to highly specialized engineers and architects, thus contributing significantly to poverty alleviation and skills development across the country. Moreover, the construction industry serves as a catalyst for growth in other sectors of the economy. It drives demand for raw materials, stimulating activity in manufacturing and mining. The development of infrastructure (roads, bridges, ports, and power plants) facilitated by the construction sector is crucial for enhancing productivity across all economic sectors

(Martinez, 2020). In urban areas, the burgeoning real estate market, driven by rapid urbanization and population growth, has made the construction of residential and commercial buildings a key economic activity (Ratcliffe *et al.,* 2021).

However, despite its economic significance, the Nigerian construction industry faces numerous challenges that hinder its full potential. Chief among these is the issue of regulatory compliance. The sector is governed by a complex web of regulations, including the National Building Code, state-level building laws, environmental regulations, and occupational health and safety standards (Ssimbwa, 2023). These regulations are designed to ensure the safety, durability, and sustainability of construction projects. Yet, adherence to these regulatory standards remains a significant challenge.

The consequences of non-compliance are severe and far-reaching. Building collapses, a tragic and all-too-common occurrence in Nigeria, represent the most visible and devastating result of regulatory failures (Albert, Shakantu & Ibrahim, 2018). Between 2012 and 2022, Nigeria recorded over 200 building collapses, resulting in hundreds of fatalities and billions of naira in economic losses (Anikwudike & Tsunabavyon, 2024). These incidents not only lead to loss of life and property but also erode public trust in the industry and deter potential investments. Furthermore, poor regulatory compliance contributes to environmental degradation, inefficient use of resources, and substandard living conditions in many urban areas (Lanrewaju, 2012). It also fosters a culture of corruption and shortcuts that undermines the professionalism and reputation of the entire sector. The economic costs of non-compliance, while harder to quantify, are substantial, including increased maintenance and repair costs, higher insurance premiums, and lost productivity due to infrastructure failures.

Given these challenges, understanding and improving regulatory practices in Nigeria's construction industry is not just a matter of academic interest but a crucial step towards sustainable economic development (Amucheazi & Nwankwo, 2020). This literature review aims to provide a comprehensive assessment of the current state of regulatory practices in the Nigerian construction industry. It will examine existing laws and their implementation, analyse the effects of compliance and non-compliance, identify factors influencing adherence to regulations, and propose strategies for improvement.

By shedding light on these issues, this review seeks to contribute to the ongoing dialogue among policymakers, industry professionals, and researchers on how to create a more robust, compliant, and sustainable construction sector in Nigeria. The findings and recommendations presented here have implications not only for the construction industry itself but for Nigeria's broader goals of economic growth, job creation, and improved quality of life for its citizens.

Effects of non-compliance to regulatory activities

Failure to comply with regulatory requirements can lead to a range of serious consequences for individuals, organizations, and society (Fakunle *et al.*, 2020). These outcomes can vary based on the type of regulation violated and the severity of the infraction. Some key consequences include:

1. Increased Risk of Building Collapses**:** When construction regulations are disregarded, the structural integrity of buildings is severely compromised. This negligence dramatically escalates the likelihood of catastrophic failures, potentially leading to devastating collapses. Such incidents not only result in tragic loss of life but also cause extensive property damage, leaving lasting scars on communities. The recurring nature of building collapses in Nigeria serves as a stark reminder of the dire consequences that can unfold when safety standards are flouted in pursuit of short-term gains (Dahiru, Abdulazeez & Abubakar, 2012).
2. Compromised Public Safety**:** Non-compliance with construction regulations extends far beyond the risk of immediate structural failure (Debrah & Ofori, 2006). It creates a pervasive environment of danger for building occupants and the general public alike. Substandard electrical systems may spark fires, inadequate emergency exits can impede evacuation during crises, and poor sanitation facilities might breed disease. These ongoing safety hazards transform what should be secure spaces into potential death traps, constantly putting lives at risk and undermining the fundamental right to safety in one's environment.
3. Economic Losses**:** The financial repercussions of non-compliant construction ripple through the economy with devastating effect. Property owners face the prospect of costly rebuilding or extensive repairs, often without the safety net of insurance coverage. The value of surrounding properties may plummet,

creating economic dead zones in affected areas. On a broader scale, the need to address the fallout from building failures diverts resources from productive economic activities, stunting growth and development. The cumulative effect is a drag on the entire economy, undermining investor confidence and hindering progress.

4. Legal Consequences**:** Flouting construction regulations exposes stakeholders to a minefield of legal liabilities. Developers, contractors, and property owners may find themselves ensnared in protracted legal battles, facing hefty fines and penalties. In cases where negligence leads to injury or loss of life, criminal charges loom as a very real possibility. The specter of civil lawsuits from affected parties adds another layer of legal complexity, potentially resulting in crippling financial judgments. This legal quagmire not only punishes past transgressions but also serves as a deterrent, underscoring the high cost of cutting corners in construction.
5. Reputational Damage**:** In an industry where trust is paramount, the stigma of non-compliance can be a death knell for construction firms. Companies associated with substandard building practices often find their reputations in tatters, facing a steep uphill battle to regain public confidence. This loss of standing reverberates beyond individual firms, casting a shadow over the entire construction sector. As public trust erodes, attracting investment becomes increasingly challenging, and skilled workers may seek opportunities in other industries or countries perceived as more reputable and safety-conscious.
6. Environmental Degradation**:** When environmental regulations are sidestepped in the construction process, the natural world bears the brunt of this negligence. Ecosystems may be irreparably damaged by unchecked pollution and the haphazard disposal of construction waste. The use of unsustainable materials and energy-inefficient designs contributes to resource depletion and exacerbates climate change. These environmental transgressions not only degrade the immediate surroundings but also contribute to broader ecological challenges, undermining global efforts towards sustainability and environmental preservation.
7. Urban Planning Challenges**:** Non-compliance with zoning and development regulations throws urban planning into disarray, leading to chaotic and

unsustainable growth patterns. As unregulated construction proliferates, cities sprawl unchecked, outpacing the development of necessary infrastructure. This results in congested roadways, overtaxed utilities, and insufficient public services. The quality of life in urban areas deteriorates as green spaces disappear and community facilities struggle to meet the needs of burgeoning populations. The long-term consequences of this unplanned growth can cripple a city's ability to function efficiently and provide for its residents.

8. Health Risks**:** Buildings erected without adherence to health and safety standards become breeding grounds for a myriad of health issues. Poor ventilation can lead to the accumulation of toxic fumes and promote the growth of mold, triggering respiratory ailments. The use of hazardous materials, often cheaper alternatives to safe options, may cause long-term health complications for occupants. Inadequate sanitation facilities increase the risk of disease outbreaks, while the stress of living in substandard conditions can take a toll on mental health. These health impacts extend beyond individual suffering, placing additional strain on already overburdened healthcare systems.
9. Increased Insurance Costs**:** The insurance industry responds to the heightened risks associated with non-compliant construction by raising premiums or outright refusing coverage. This leaves property owners vulnerable to catastrophic financial losses in the event of accidents or structural failures. The ripple effect of these increased costs and reduced coverage options extends to tenants and businesses operating in these buildings, potentially stifling economic activity. In extreme cases, entire areas may become effectively uninsurable, creating zones of economic vulnerability that can persist for years.
10. Hindrance to Industry Growth**:** Widespread non-compliance acts as a ball and chain on the construction industry's potential for growth and innovation. Foreign investors, wary of the risks associated with a poorly regulated sector, may shy away from financing projects. This reluctance stifles the influx of capital and expertise that could drive technological advancements and best practices. The industry's capacity to handle large-scale, complex projects is called into question, limiting its ability to contribute fully to national

development goals. This stagnation not only affects the construction sector but also hampers progress in related industries and the broader economy.

11. Social Inequality**:** The burden of non-compliant construction often falls disproportionately on society's most vulnerable members. Lower-income areas, where regulatory oversight may be lax or easily circumvented, become hotspots for substandard housing. This perpetuates a cycle of poverty and disadvantage, as residents are exposed to heightened safety risks and health hazards. The disparity in living conditions between compliant and non-compliant areas reinforces social and economic divides, eroding community cohesion and exacerbating tensions within society. The long-term result is a deepening of inequalities that can take generations to address.
12. Strain on Public Resources**:** The fallout from non-compliant construction places an enormous burden on public resources and services. Emergency responders are frequently called upon to address preventable incidents, diverting their attention from other critical needs. Government funds that could be allocated to development and social programs are instead funnelled into addressing the consequences of regulatory violations. Regulatory bodies, often understaffed and underfunded, struggle to keep pace with the scale of non-compliance, creating a vicious cycle where lack of oversight leads to further violations. This strain on public resources undermines the state's capacity to provide essential services and invest in future growth.

Research Method

This research adopts a quantitative research design to evaluate adherence to construction regulatory practices. Quantitative research focuses on measuring variables that can be quantified and subjected to statistical analysis (Duckett, 2021). It is well-suited for systematically investigating numerical data, making it ideal for identifying trends, patterns, and relationships related to compliance with construction regulations. The study follows a non-experimental design, aiming to provide a numerical description of the behaviours, attitudes, and patterns related to regulatory compliance within the construction sector (Mohajan, 2020). This approach is suitable for gathering data from a large sample, offering broad insights into how construction professionals adhere to regulations. The study population comprises construction professionals such as architects, builders, engineers, estate

valuers, quantity surveyors, surveying and geo-informatic, and town planners in Akure, Ondo State. 148 out of the expected 160 questionnaires were received and found suitable for analysis. The study achieved an overall purpose rate of 92.5% which is considered adequate. Baruch & Holtom (2008) analysed response rates across academic studies and found that average response rates for surveys vary by type and audience, with rates between 35-40% being typical for organizational research. This would suggest that 92.5% is indeed adequate for this study. The study employed a stratified random sampling technique to ensure adequate representation of all professional involved in construction regulatory compliance.

The instrument for this study was structured questionnaire as the main method for data collection. The questionnaire was designed to gather quantitative information on various aspects of regulatory compliance, such as the existing laws regulating construction and effect of non-compliance with construction regulations. The structured questionnaire contained a sequence of questions divided into three sections. Section A gathered demographic and professional information from the respondents and section B explored the existing laws regulating construction by using a five-point Likert scale in rating the opinions of respondents (where 1 = NK (No Knowledge), 2 = BK (Basic Knowledge), 3 = MK (Moderate Knowledge), 4 = GN (Good Knowledge), 5 = EK (Expert Knowledge). Section C assessed the effect of non-compliance with construction regulations. The instrument for the sections B to C used a five-point Likert scale in rating the opinions of respondents (where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree). The analysis was done through Software Package for Social Science (SPSS) and the analysis carried out includes mean, standard deviation, frequency distribution and percentage. The study adheres to stringent ethical protocols to safeguard participants and uphold research integrity. Comprehensive information about the study's objectives, methods, and data usage was provided to all participants, with written consent obtained prior to involvement.

Results and Discussion

Table 1: Existing laws regulating construction

Existing Regulatory Laws	NK	BK	MK	GN	EK	Mean score	Standard deviation
Disability Access	4(2.7)%	35(23.6)%	47(31.8)%	49(33.1)%	13(8.8)%	3.216	0.993
Contract laws	4(2.7)%	36(24.3)%	48(32.4)%	46(31.1)%	14(9.5)%	3.203	1.003
Fire Safety and Security	4(2.7)%	38(25.7)%	43(29.1)%	51(34.5)%	12(8.1)%	3.196	1.003
Noise control	6(4.1)%	33(22.3)%	52(35.1)%	44(29.7)%	13(8.8)%	3.169	1.006
Health and Safety regulations	4(2.7)%	39(26.4)%	42(28.4)%	54(36.5)%	9(6.1)%	3.168	0.979
Permitting and Licensing	5(3.4)%	39(26.4)%	43(29.1)%	50(33.8)%	11(7.4)%	3.156	1.008
Labour Laws	3(2.0)%	35(23.6)%	56(37.8)%	44(29.7)%	10(6.8)%	3.155	1.022
Zoning and land use regulations	6(4.1)%	36(24.3)%	48(32.4)%	45(30.4)%	13(8.8)%	3.155	1.022
Green Building	9(6.1)%	35(23.6)%	45(30.4)%	47(31.8)%	12(8.1)%	3.122	1.056
Environmental regulations	4(2.7)%	48(32.4)%	44(29.7)%	44(29.7)%	8(5.4)%	3.027	0.967
Building codes	4(2.7)%	54(36.5)%	32(21.6)%	51(34.5)%	7(4.7)%	3.020	1.007

Note: NK (No Knowledge), BK (Basic Knowledge), MK (Moderate Knowledge), GN (Good Knowledge), EK (Expert Knowledge)

The analysis of this study showed that 36.5% of respondents had basic knowledge about building codes, 21.6% had moderate knowledge about building codes and 4.7% had expert knowledge about building codes in construction. Likewise, in environmental regulations 32.4% had basic knowledge, 29.7% had moderate knowledge and 29.7% had good knowledge. For health and safety regulations, 2.7% had no knowledge, 26.4% and 28.4% had basic and moderate knowledge respectively. Fire, safety and Security 25.7% had basic knowledge, 29.1% had moderate knowledge and 8.1% had expert knowledge on these compliance features for construction. This aligns with the findings of Abiola & Adebayo (2021) that most professionals have no idea about safety measure in construction. Labour Law

measures also shown in the table revealed that 37.8 and 29.7 had moderate and good knowledge of the labour law in construction. 35.1 of respondents had moderate knowledge on noise control and 8.8% have expert knowledge on noise control.

Table 2: Effect of non-compliance with construction regulations

Effects of non-compliance	SD	D	N	A	SA	Mean	Standard deviation	Rank by Mean
Project delay	2(1.4)%	5(3.4)%	9(6.1)%	61(41.2)%	71(48.0)%	4.311	0.840	1
Economic losses	4(2.7)%	6(4.1)%	7(4.7)%	55(37.2)%	76(51.4)%	4.304	0.938	2
Project abandonment	4(2.7)%	5(3.4)%	8(5.4)%	59(39.9)%	72(48.6)%	4.284	0.919	3
Negative environmental impact	3(2.0)%	4(2.7)%	11(7.4)%	62(41.9)%	68(45.9)%	4.270	0.870	4
Legal Penalties and fines	0(0)%	6(4.1)%	14(9.5)%	64(43.2)%	64(43.2)%	4.257	0.972	5
Reduced Quality	2(1.4)%	7(4.7)%	11(7.4)%	61(41.2)%	67(45.3)%	4.243	0.870	6
Substandard Construction	5(3.4)%	4(2.7)%	10(6.8)%	64(43.2)%	65(43.9)%	4.216	0.937	7
Client dissatisfaction	2(1.4)%	8(5.4)%	9(6.1)%	72(48.6)%	57(38.5)%	4.176	0.871	8
Damages to company reputation	2(1.4)%	5(3.4)%	11(7.4)%	78(52.7)%	52(35.1)%	4.169	0.811	9
Increased safety risk	6(4.1)%	4(2.7)%	7(4.7)%	87(58.8)%	44(29.7)%	4.074	0.904	10

Increased safety risk, legal penalties and fines, damage to company reputation was agreed by 58.8%, 43.2% & 52.7% to be the effect of non-compliance to construction regulations. Forty-eight (48%) strongly agreed that project delays were one of the effects of non-compliance to construction regulations. Furthermore, project abandonment, substandard construction and economic losses were strongly agreed to as the effect of non-compliance with construction regulations. This is in consonance with the findings of Törner & Pousette (2009) Likewise, negative

environmental impact and client dissatisfaction was strongly agreed by 45.9% and 38.5% of respondents as effect of non-compliance with construction regulations.

Discussion of Findings

Existing laws regulating construction

The study revealed a diverse landscape of knowledge across different regulatory areas: Building Codes emerged as an area where a significant portion of professionals (36.5%) possessed basic knowledge, while 21.6% demonstrated moderate knowledge. However, only a small fraction (4.7%) claimed expert-level understanding, indicating a clear need for more advanced training and education in this crucial area. Environmental Regulations showed a more balanced distribution of knowledge, with 32.4% reporting, and an equal percentage (29.7%) claiming moderate and good knowledge. This suggests that environmental concerns are receiving increased attention, though there is still room for improvement.

Health and Safety Regulations presented a concerning picture, with 2.7% of respondents admitting to having no knowledge in this critical area. While 26.4% and 28.4% reported basic and moderate knowledge respectively, the lack of expert-level understanding in such a vital aspect of construction safety is a point of concern. Fire, Safety, and Security regulations showed a similar pattern to building codes, with 25.7% possessing basic knowledge and 29.1% moderate knowledge. The 8.1% claiming expert knowledge, while higher than in some other areas, still indicates a need for more specialized training in these life-critical aspects of construction. Labour Law demonstrated a relatively better understanding among professionals, with 37.8% reporting moderate knowledge and 29.7% good knowledge. This could be attributed to the universal nature of labour laws across industries, but there is need for construction-specific labour law education.

Noise Control, an often-overlooked aspect of construction regulations, showed moderate knowledge in 35.1% of respondents, with only 8.8% claiming expert knowledge. This suggests a need for greater emphasis on environmental impact regulations in professional development programs. These findings collectively indicate varying levels of awareness across different regulatory areas, with a clear need for more comprehensive and advanced education programs to elevate the overall level of expertise in the industry.

Effects of non-compliance to regulatory activities

Increased safety risks were a major concern, with 58.8% of respondents agreeing that non-compliance leads to heightened dangers on construction sites and in completed structures. Legal penalties and fines were acknowledged as a significant risk by 43.2% of respondents, highlighting the financial implications of regulatory violations. Damage to company reputation was a concern for 52.7% of respondents, indicating that non-compliance can have long-lasting effects on a company's standing in the industry and with clients. Project delays with 48% of respondents as a consequence of non-compliance, suggesting that regulatory issues can significantly impact project timelines and costs. Furthermore, respondents d that non-compliance could lead to project abandonment, substandard construction, and economic losses. These severe consequences underscore the critical importance of regulatory adherence in ensuring project success and industry sustainability.

Conclusion and Recommendations

This comprehensive study on regulatory practices in the Nigerian construction industry has unveiled critical insights into the current state of awareness and the effects of non-compliance. The findings paint a complex picture of an industry grappling with the challenges of regulatory compliance while recognizing its fundamental importance.

The assessment of awareness levels across various regulatory areas revealed a concerning lack of expert-level knowledge in crucial aspects such as building codes, health and safety regulations, and fire safety. While there was a base level of awareness across most areas, the scarcity of advanced understanding highlights a significant gap that needs to be addressed to ensure effective implementation of regulations.

The consequences of non-compliance were shown to be severe and far-reaching. Increased safety risks, legal penalties, reputational damage, and project delays were among the most significant negative outcomes identified. The potential for project abandonment, substandard construction, and economic losses further emphasizes the critical importance of regulatory adherence in ensuring the sustainability and credibility of the construction sector.

Based on the findings of this study, the following recommendations are proposed to enhance regulatory compliance in the Nigerian construction industry:

1. Enhance public awareness through workshops, seminars, and conferences: Develop a nationwide campaign to increase knowledge of regulatory requirements across all levels of the construction industry. This should include regular events tailored to different stakeholder groups, from on-site workers to executive management. These events should not only cover the content of regulations but also emphasize their importance and the benefits of compliance.

2. Collaborate between the construction industry and regulatory bodies: Establish formal partnerships to develop and provide affordable and accessible compliance tools and technologies. This could involve the creation of digital platforms for regulation tracking and reporting, as well as the development of industry-specific compliance management systems.

3. Incorporate regulatory practices and BIM training into academic curricula: Work with educational institutions to integrate comprehensive modules on construction regulations and Building Information Modelling into relevant degree programs. This ensures that future professionals enter the industry with a strong foundation in compliance and modern technological tools.

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