

Sustainable Construction Policy Constraints in Nigeria: Stakeholders' Perspective

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Abstract

This study aimed to understand the policy challenges stakeholders face in implementing sustainable construction practices in the Nigerian construction industry. The research aim was achieved through the literature review and semi-structured interviews conducted among eleven built environment professionals in both Lagos and Abuja cities. Thematic analysis was done using NVivo 14, which resulted in seven themes. The findings reveal that there is a need for improved regulatory policy for sustainable construction with strict implementation. Adequate awareness before the enforcement of this policy is stressed. Results also advise that to obtain the maximum result in the application, the government, policymakers and professionals should effectively synergise on innovation and improved policy adaptation mechanisms for the industry. The study is of value to researchers within the built environment as it provides insights into the Nigerian construction industry's policy formation and implementation challenges, especially in relation to sustainable construction practice.

Keywords: Policy implementation, professionals, stakeholders, sustainable construction.

1. Introduction

Policy emerges from decision-making activities and serves as a framework for achieving societal goals. Public policies are designed to guide decision-making through a structured system of principles and plans to attain intended outcomes (Babalola et al, 2024). As a strategic roadmap for action, governance bodies typically adopt policies to prevent adverse effects or drive improvements. The effectiveness of policymaking is crucial to the strength of government authority and the overall stability of a nation (Isang, 2023).

Monetary and non-monetary costs can be significant when policies fail or remain unimplemented. In the construction sector, policies consist of regulations established at the national level to ensure proper governance and implementation within the industry (Hudson, Hunter, & Peckham, 2019). These regulations, enshrined in legal documents, serve to standardise construction practices, enhance industry performance, and safeguard public well-being by setting precise requirements for practitioners and stakeholders (Akadiri, Chinyio, & Olomolaiye, 2012). Governments have the overall responsibility to kick-start expected changes and developmental moves with the formulation and development of action plans, legal frameworks or strategies to encourage the application of appropriate standards and procedures upon which implementation and performance can subsequently be measured (Babalola et al, 2024). It is believed that unless pressured, the construction industry will not upgrade and implement required changes, as it has been adjudged as one with a low response rate to change and innovation (Babalola et al, 2024). Construction

professionals and the public must understand and realise the advantages and benefits inherent in an improved built environment.

The Nigerian construction industry, although robust, shows signs of malaise. This is evident in its poor construction output, incidents of building collapse and the low implementation of sustainable construction initiatives (Babalola et al, 2024). This study aimed to understand the policy challenges stakeholders face in implementing sustainable construction practices in the Nigerian construction industry. Policies compel professionals and stakeholders to practice sustainable construction as a standard instead of relying on individual knowledge bases.

2. Literature Review

2.1. Sustainable Construction in Nigeria

The Federal Republic of Nigeria is a West African country with about 923,770 square kilometres, and about 1.4% of its land is water. Nigeria has a population density of 1,442 per square kilometre. Nigeria has a federating unit, thirty-six states and 774 local government headquarters (Federal Republic of Nigeria, 2006). This large size poses a problem of adequate coordination; as such, clear policies and clear policy implementation strategies should be a priority.

The Nigerian construction industry policy development initiatives are still at a very early stage and are just evolving compared with other developed nations (Oyewobi & Jimoh, 2022; Onuoha et al., 2017). It was noted that while ample literature exists on green building, the focus is not on developing green building policies and skills in Nigeria, as the effective

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underlying policies are lacking. Onuoha et al. (2017) realised that the perceived inadequacies in the Nigerian young green building industry are challenges to formulating and implementing policies and programmes for sustainable construction in Nigeria.

The government sets the environmental rules for every trade, and the lack of legislation and policy is an extreme barrier to the implementation of sustainable construction practices, specifically in the Nigerian property development industry (Oyewobi & Jimoh, 2022). The government's silent encouragement of old practices through a lack of innovative trends in the industry and the non-usage of sustainable practices in government offices and on government projects are amongst other barriers that have far-reaching consequences (Oribuyaku, 2015).

Davies and Davies (2017) and Oyewobi and Jimoh (2022) caution that there are gaps in all aspects of construction practice regarding sustainable construction, advocating that it should be brought into the industry through training and academics. Government policies should generally favour sustainable construction and energy savings, knowing the impacts of both construction and living on the citizenry's quality of life (Isang, 2023). Usually, if implemented, these policies should help the built environment become safer to work in, more efficient due to the frameworks and desired strategy, and sustainable in terms of efficient service delivery to its clients (Akadiri et al., 2012).

Presently, there are no such policies, regulations, professional councils, or bodies to enhance knowledge in the sustainable construction domain and generally promote socio-economic and environmental sustainability (Isang, 2023). Despite several efforts to address the gap policies pose, such as the Global Environmental Forum (GEF) in 2011 (Atanda & Olukoya, 2019) and the Building Energy Efficiency Codes (BEEC) in 2018 (Geissler, Österreicher and Macharm, 2018), not much has been achieved within the Nigerian construction industry.

With regards to extant laws on environmental protection and the need for newer laws, Nwokoro and Onukwube (2015) noted that the advancement and fortification of municipal bye-laws for some major critical urban communities in Nigeria ought to be supported and energised because of their vital level of development. While Governments are responsible for nurturing the economy, they must drive corporate sustainability through legislation and benefits/penalties (Isang, 2023).

Teething problems associated with implementing new initiatives in an existing industry, such as the need to improve technical know-how and skills on sustainable construction, low awareness and insistence on

sustainable construction techniques on sites and during construction processes by clients and enlightened professionals and lack of adequate expertise are perceived as barriers to adequate implementation of sustainable construction from the industry stakeholders' perspective (Bungwon et al., 2018), these can be controlled with adequate policies being implemented as argued by (Goh et al., 2020). Most of these barriers are believed to be adequately overcome by adequate policies.

Policies, regulations and professional guidelines on sustainable construction and development should be taken very seriously by the government, as the consequences of not being proactive in this regard are dire (Davies & Davies, 2017). In Nigeria, the lack of sustainability in construction projects is visible, as there are still apparent deviations from ideal sustainability dictates and principles. Infusing these principles is vital to improving the construction environment in Nigeria to avoid further building collapses and enhance capital and economic growth (Isang, 2023).

2.2. Status of the Nigerian Building Code

Building codes establish the fundamental regulations for construction quality, with area-specific bylaws strengthening requirements in urban centres. Such codes are the foundation for all construction policies in developed nations like the United Kingdom (Gibbs & O'Neill, 2015) and Denmark (Drysdale, Mathiesen, & Paardekooper, 2019). However, the building code in Nigeria lacks regulatory backing and is rarely implemented in practice (Geissler et al., 2018).

There is an urgent need to revise and strengthen the Nigerian Building Code to support sustainable construction. Critics argue that the code lacks enforcement power and has low implementation rates (Ogunbiyi, 2014). While the code sets minimum standards for construction, its application begins at the local government level through the Building Code Advisory Committee (BCAC) (Federal Republic of Nigeria, 2006). Some scholars propose that sustainable construction should be driven at the municipal level (Babalola et al, 2024). However, the Nigerian building code has not been adequately empowered to establish minimum infrastructure requirements. Moreover, inconsistent professional adoption has led to uneven implementation across the industry (Isang, 2023).

Nigeria was registered as a prospective World Green Building Council member in 2014 (WGBC, 2018). There is no active green building council to further these interests and advise the construction clients appropriately on sustainable construction (Babalola et al, 2024). This lack of an active green building council has adversely affected the growth of sustainable construction practices in the Nigerian construction environment. Nigeria currently does not have a construction strategy/ agenda. Firms and professional

institutions only work according to client requirements and organisational preferences.

3. Research Methodology

This study adopted an interpretive approach, utilising semi-structured interviews with construction industry professionals. The target sample included architects, quantity surveyors, builders, civil engineers, and urban planners in Nigeria. Participants were selected to ensure diverse representation, as each profession brings unique perspectives on sustainable construction. Achieving this diversity was essential for capturing a comprehensive view of the industry's challenges and opportunities.

To ensure validity, professionals were chosen based on their years of practice and depth of experience in sustainable construction. Experience was a key criterion, given the study's focus on policymakers and senior industry personnel. A purposive list of fifteen participants was initially identified in Abuja and Lagos, with invitations sent via email and phone calls. Ultimately, eleven professionals agreed to participate, and eleven interviews were conducted. This sample size was deemed sufficient, aligning with Tracy's (2012) recommendation of 10 to 12 interviews for qualitative research. Due to the small sample size, the findings of this study cannot be generalised.

Abuja and Lagos were selected due to their status as the country's administrative and commercial capitals and their high concentration of construction professionals due to urbanisation. Interviews were conducted in the office and open spaces during work hours, with each session averaging forty-five minutes. The interviewee profiles are summarised in Table 1.

4. Findings and Discussion

Results obtained were multi-coded using NVivo 14. Responses were transcribed and coded under likely themes. Seven themes emerged, namely: the perception of professionals on sustainable construction practice in their location and the country generally, the significant challenges observed to the complete uptake of sustainable construction in the Nigerian construction industry, the interviewee's perception of the usage of the Nigerian building code, their ideas on improving sustainable construction practice through a policy, the need for strict policies and implementation mechanisms, stakeholder's inputs to improve sustainable construction practice and the possibility and capacity of the local government in the implementation and enforcement of sustainable construction policy. These are discussed below:

4.1. Perception of sustainable construction practice

Respondents agreed that the practice of sustainable construction is low in the locations (Abuja and Lagos) and practically non-existent in other parts of the country. *"Being a new concept, the level of practice is very low; in Lagos, for example, you can count the number of houses built with sustainable materials"* Participant 10. This non-existence was occasioned by the fact that there are no existing policies to control the actions of stakeholders in the construction industry. *"More needs to be done about sustainable construction on the level of policies and adequate implementation"*, Participant 2. Respondents believed that the political will to affect the existing environmental laws was lacking. *"The level of sustainable construction practice is very low even in Lagos, which hosts most construction activities in the country,"* Participant 8. In the cities where there is some evidence of sustainable construction, it is due to these areas' population and Urbanisation rate and the level of challenges these have posed to residents. This is in line with the literature, wherein Ogunbiyi (2014) and Onuoha et al. (2017) identified the level of sustainable construction practice as low.

4.2. Major challenges to the complete uptake of sustainable construction

Respondents were then requested to assist with perceived significant challenges in implementing sustainable construction in the Nigerian construction industry, especially in their location. Results were generated into four sub-themes, as discussed below.

Bungwon et al. (2018) identified a lack of awareness and adequate training as part of cultural enshrinements expected to improve knowledge of sustainable construction within the industry. The lack of adequate awareness was also confirmed in this study. Sensitisation and training were advocated to introduce people within and outside the industry to the basic knowledge and benefits of sustainable construction practices.

Lack of policy enforcement and educational issues were highlighted by Davies and Davies (2017) in the literature as a key challenge. Participant 7 indicated that the absence of a government-laid-down plan or strategy

Table 1: The demographic details of the participants

Interviewee	Profession	Age	Gender	Qualification	Years of Experience	Place of work
Participant 1	Architect	>50	Male	Masters, PMP, FNIA	30	Federal Govt. Agency, Abuja
Participant 2	Architect	>50	Male	Masters, MBA, FNIA	25	Private Practice, Abuja
Participant 3	Civil Engineer	45 -50	Male	MSc, MNSE	30	Govt. Agency
Participant 4	Builder	45- 50	Male	MSc, FNIOB	30	Building Control Agency, Abuja
Participant 5	Quantity Surveyor	40-45	Male	MSc, FNIQS	20	Govt Agency, Abuja
Participant 6	Quantity Surveyor	40-45	Male	MSc, MNIQS	15	Private Practice, Abuja
Participant 7	Builder	35-40	Male	MSc, MNIOB	13	Private Practice, Lagos
Participant 8	Civil Engineer	45-50	Male	BSc, MNSE,	20	Private Practice, Lagos
Participant 9	Urban Planner	35-40	Female	BSc, MNITP	15	Local Govt. Municipal office in Lagos
Participant 10	Quantity Surveyor & Lecturer	50-55	Male	PhD, MNIQS	21	Private Practice & Academic
Participant 11	Quantity Surveyor	45-50	Female	MSc, MNIQS, PMP	24	Project Mgt Firm

Key: FNIA - Fellow of the Nigerian Institute of Architects

MNIQS – Member, Nigerian Institute of Quantity Surveyors for the quantity surveyors

MNITP – Member, Nigerian Society of Urban (town) planners

MNIOB - Member, Nigerian Institute of Building

MNSE – Member, Nigerian Society of Engineers

for stakeholders to follow is challenging. The Nigerian construction industry lacks strategic short-term and long-term goals concerning sustainable construction. Hence, there is a gap as knowledge of sustainable construction is not even taught to incoming professionals.

The incoming professionals need to start learning experientially as it relates to the organisational ethos of the individual companies they work with; this is not ideal. The lack of current policy enforcement was a typical comment by participants 2, 5 and 11, and it is a key barrier. It was noted that although the enforcement mechanism of the industry is currently non-existent, no practising professional wants to be seen as being on the wrong side of the law, so if the policy is actively put in place with necessary enforcement mechanisms, the likelihood of success is high.

The lack of adequate and sustainable building codes emerged as a challenge. There are problems with enforcing the existing building code, as stated by Participant 1, and formulating a new sustainable building code is not exactly forthcoming unless underlying issues with the non-performing building code are resolved (Participant 10). These underlying

issues include the lack of teamwork and harmony among professional institutions in the country, the lack of a coordinating agency/board for all professional institutions, and the lack of monitoring and regulatory agencies for contractors and subcontractors within the industry. Oribuyaku (2015) and Ogunbiyi (2014) mentioned the lack of enforcement of the code in the literature.

Lack of ‘Political will’ by the government. The general perception of the lack of political will from the government to get things done within the industry and economy at large was not distinctly identified in the literature. However, it is identified from the field interview. Participant 2 stated that “*it is the lack of political will to get things done that encourages corruption and a lukewarm attitude within the industry.*” Participant 6 responded, “If the government wants something implemented, it gets implemented and ‘political will’ is essential to implementing policies in a democracy”.

4.3. Status of the building code

The building code was generally accepted not to be in full active use except in cities where it was minimally

utilised. This comatose state of the building code agrees with the views and concerns raised by Ogunbiyi (2014).

Various reasons were highlighted for its non-performing status, including its status as a regulation versus an enforceable law, as offenders of the building code generally go unpunished. *"There may be building codes in Nigeria, but implementation is limited only to major projects and urban developments,"* Participant 8. Participant 4 stated, *"Not adhered to, because it is not a law. Resistance even from other relevant bodies within the industry (Planners and Architects)."* *"The code is good, but theoretical without the ability to act. Also, personal and professional interests hinder the implementation,"* Participant 5. Participant 11 expressed frustration by stating, *"As of now, the building code has many lapses. Some professionals (especially engineers) in the construction industry refused to adopt it because they felt they did not contribute to its content."*

4.4. Improving sustainability in the Nigerian construction practice

Outcomes from this theme were coded into professional and government inputs to capture the efforts needed to ensure sustainable construction.

Government inputs: The government's focus on sustainable construction must be clear and not change with a change of power. Also, policies on tax subsidies, reducing costs, and discouraging importation are primarily in the purview of the government. *"Subsidies and reduced costs, discouraging importation and allowing local research and production to grow, Research aimed at commercial production by the Government."* Participant 1. The government must also allow local research and production to grow through commercial production and embrace cultural sustainability, which requires a serious and consistent approach. Awareness, training and retraining of policy implementers within the industry and a general orientation are also needed on the part of the government to ensure sustainability is 'homegrown' within the industry. *"We need to make sustainability a way of life, culturally, and teach it in schools. It requires a lot of seriousness and consistency,"* stated Participant 2.

Professionals' inputs: For the professionals and the professional institutes, improvements through awareness, training, upholding professional standards, artisanal training, and inputting sustainable construction deliverables from the design stage are envisaged. Local research on adaptation and enhancing the use and development of alternative building materials is also key, as noted by Bungwon, Dabo, and Ishaya (2018). *"Research and Development on improved and enhanced alternative building materials and development generally,"* Participant 1.

4.5. The need for strict regulations and policies for SC practice

Outcomes from this theme were unanimous in specifying that strict regulations are essential for the Nigerian construction industry. Strict policies and consistent regulations on sustainable construction and punitive measures for defaulters were stressed by almost all the respondents in the interview sessions. *"Yes, People must know there are consequences for their actions and inactions. People do things because they know they will get away with it. We need to be consistently strict,"* Participant 2. Construction processes generally must be improved within the Nigerian construction industry. All the participants agreed that unlawful actions must have consequences in line with the government's plans for the industry. People tend to fear the law and ordinarily do not want to obstruct laid-down principles, as they know the consequences of doing so.

However, adequate training and orientation of the general public must be carried out before the regulations come into full force. This is to ease the implementation phase and achieve some policy legitimacy when the policies are being applied.

4.6. Input of stakeholders to drive sustainability

The contributions expected from stakeholders to drive sustainability in the Nigerian construction industry are as follows:

Professional Institutes and Professionals

Professionals must uphold high standards in their practices and provide well-informed advice to clients. Additionally, interdisciplinary research within the industry and firmer collaboration among professionals are encouraged. Professional institutes must take greater responsibility by engaging in research, increasing public awareness, and fostering synergy among fellow professional bodies.

Government as a Stakeholder

The government plays a critical role in policy creation for the industry, as emphasised in the literature (Akadiri et al., 2012; Ojo et al., 2014). Raising awareness and increasing publicity efforts are essential, as contractors and other industry practitioners look to the government for guidance and patronage. Furthermore, investment in research and development is necessary to ensure effective policy adaptation. As noted by Participant 4, *this will prevent situations where "policies are not just lifted from Europe and other developed nations"* without proper consideration for Nigeria's unique context.

Clients and End-Users

Clients must be made aware of the benefits of sustainable construction, particularly how it impacts their quality of life and overall comfort. Greater

awareness is expected to influence client demands, which, in turn, will shape construction outputs.

Other Stakeholders

Actors such as developers must comply with the industry's minimum standards, ensuring adherence to regulations throughout all stages of construction. Coordination among all industry players is crucial to achieving sustainability goals. However, as Participant 6 observed, "*Developers in the Nigerian construction industry are mostly profit-driven and, as such, have reserved regard for quality delivery.*"

4.7. Implementation of Sustainable construction through the municipality

Local government is best suited as the starting point for implementing sustainable construction (Davies & Davies, 2017), as local governments are closer to the people and spatially cover the whole country. However, the current capacity of the local government to handle the implementation of sustainable construction, given its inadequate staffing and ineffectiveness, was doubted, as they have not been active. "*Yes, if the local level can be active, it will greatly reduce the negative effects at the federal level, but it is currently the weakest unit of government.*" Participant 2. "*Local government is best suited, but the capacity could be a challenge right now*" Participant 1. Also, the fact that they can be easily compromised was raised because they are easily exposed to bribery and corruption. "*They are corrupt; they compromise easily. They are also not adequately motivated to carry out the enforcement. They are poorly remunerated, so they are exposed to the temptation of bribery and corruption,*" according to Participant 11. To successfully implement sustainable construction through this route, adequate measures should be implemented to face the concerns raised.

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5. Conclusion and Further Research

This study investigated the policy challenges stakeholders face in implementing sustainable construction practices in the Nigerian construction industry. The findings emphasise the need for active regulatory policies, an improved building code with enforcement mechanisms, and stronger stakeholder collaboration, which is currently lacking.

The study stressed that the government's political will is crucial, including professional involvement in policy discussions. While sustainable construction exists at individual levels, a clear regulatory framework hinders widespread adoption. Strict policies are necessary, but should be implemented with adequate stakeholder training. Local government involvement offers potential but is limited by a lack of trained professionals. Capacity building is essential for effective policy execution.

Addressing these challenges will require a coordinated effort among government agencies, industry professionals, and other stakeholders to create a sustainable construction framework that is both practical and enforceable. Without decisive action, the Nigerian construction industry risks lagging in global sustainability efforts, impacting environmental and economic progress.

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