SASBE 2025 aims to encourage the international exchange of innovative ideas between researchers from academia and industry. In addition to knowledge dissemination, the conference offers a valuable platform for professional networking, particularly benefiting university professors, graduate students, and postdoctoral researchers.

Research Article/ Review Article/ Perspective Article (Remove where relevant)

The Culture of Practice: How the Organisational Culture of Architectural Firms Influences Sustainable Urban Development in Lagos, Nigeria

Oluwakemi A Oriowo[1], John M Kamara[1]

[1] School of Architecture, Planning and Landscape, Newcastle University, Newcastle upon Tyne, United Kingdom

Correspondence: adebojeoluwakemi@gmail.com, john.kamara@newcastle.ac.uk

Abstract

The global discourse on sustainable urban development often presumes a uniform context for professional architectural practice. However, this paper argues that the local organisational culture of architectural firms acts as a critical, yet overlooked, barrier to the widespread adoption of sustainable design. Through a qualitative, in-depth case study of eleven architectural firms in Lagos, Nigeria, this research identifies the key cultural dynamics that hinder sustainability efforts. The findings reveal two significant systemic barriers: the primacy of a 'Client-Driven Context,' where client demands for lower costs and faster delivery consistently override sustainability goals; and a 'Validation Vacuum,' an absence of local awards or professional recognition for sustainable design, which reinforces the focus on client satisfaction over innovation. This paper argues that these dynamics create a significant 'culture-policy gap,' where well-intentioned sustainability policies are likely to fail because they do not account for the on-the-ground realities of professional practice. By providing a nuanced understanding of these cultural forces, this research offers crucial insights for policymakers and professional bodies, concluding that achieving a sustainable built environment requires targeted, culturally sensitive interventions that address the profession itself.

Keywords: Architectural Practice; Organisational Culture; Sustainable Urban Development; Social Aspects of Urbanisation; Global South, Nigeria; Built Environment

Highlights

- A client-driven culture supersedes sustainability, necessitating proactive practice models.
- A culture of reductive functionalism demands that architects redefine project value beyond cost.
- Socio-economic realities, not global ideals, govern sustainable practice in Nigeria.

1 Introduction

It is widely acknowledged that architects make vital contributions to the development of the built environment, influencing broader societal goals such as sustainability and resilience (Allu, 2014; Opoko and Oluwatayo, 2015; Vos, 2018; Senibi and Akenosi, 2021; Romero-Lankao et al., 2023; Yin, 2023). This role is particularly critical in Nigeria, a country facing significant population growth and a housing deficit of approximately twenty-eight million units (World Bank, 2023; Enwin and Ikiriko, 2024). While architects are central to addressing these challenges, their ability to deliver sustainable outcomes is often constrained by factors that are not merely technical, but deeply cultural.

Architectural practice in Nigeria is a profession shaped by a dual tradition: its formal structures, derived from a British colonial legacy, and the volatile realities of a post-colonial, oil-dependent economy that places the construction industry at the centre of national development (Arayela, 2001; Qurix et al., 2024). This context has fostered a professional culture of profound pragmatism, where the aspirational ideals of the profession are constantly negotiated against the immediate demands of economic survival. This dynamic is amplified within the hyper-competitive environment of Lagos, the nation's economic engine and primary hub for architectural services (Senibi and Akenosi, 2021).

Existing literature identifies organisational culture as a critical determinant of internal organisational behaviours and processes (Hofstede, 2001; Campbell et al., 2002; Cameron and Quinn, 2011; Alvesson, 2014; Cacciattolo, 2014; Lau et al., 2017; Johnson et al., 2020). Despite the critical importance of this practice culture, it remains an underexplored area in academic literature (Oluwatayo and Amole, 2012; Oluwatayo et al., 2014; Ola-Adisa et al., 2019; Senibi and Akenosi, 2021). Previous studies on architectural firms in Nigeria have largely used quantitative survey methods without paying close attention to how organisational culture influences firms' engagement with, and capacity to deliver, sustainable design. This paper, therefore, addresses these critical gaps in both context and method by providing a deep, qualitative analysis of the organisational culture of architectural firms in Lagos, the country's primary architectural practice hub.

This paper argues that this 'culture of practice' acts as a critical yet overlooked factor in the success or failure of sustainable urban development. It therefore seeks to answer the question: How do the deep-seated cultural dynamics of architectural firms in Lagos act as a barrier to the widespread adoption of sustainable design? By answering this question, the research offers crucial insights for policymakers and professionals, concluding with a discussion of the implications for a more culturally sensitive approach to urban sustainability.

2 Literature Review

This review of literature establishes the context for this study by examining three key areas. First, it outlines the contested landscape of sustainable urbanisation on a global scale, grounding these trends in the Nigerian context. Second, it introduces the concept of organisational and professional culture as an analytical lens for understanding how the built environment is produced. Finally, it identifies a critical gap in the research at the intersection of these fields, thereby establishing the necessity and unique contribution of this study.

2.1 The Contested Landscape of Sustainable Urbanisation

The concept of "sustainable development" is itself a site of significant academic and political debate, moving beyond simple environmentalism to include complex social and economic dimensions. While global policy frameworks like the UN Sustainable Development Goals (SDGs) have been proposed to guide progress, their implementation in the rapidly growing cities of the Global South is fraught with complexity and contradiction. The sheer scale of contemporary urbanisation, which some scholars have termed the 'urbanisation of everything' (Brenner & Schmid, 2014), places immense pressure on resources and governance structures. A systematic review of the literature confirms that the challenges to urban sustainability in the Global South, ranging from economic precarity to institutional capacity, are profound and well-documented, with specific issues like construction waste management being a major concern in the Nigerian context (Ajayi et al., 2017; Addo et al., 2021). This body of work establishes that achieving sustainability is a critical global problem, but one that is experienced and contested in highly specific local ways. The professions responsible for producing the built environment, particularly architecture in a nation undergoing rapid urbanisation like Nigeria, are therefore at the critical front line of navigating these complex challenges.

2.2 The Social Production of the Built Environment: Organisational and Professional Culture

To understand how sustainability goals are translated into physical reality, it is necessary to analyse the professions responsible for producing the built environment. This study understands organisational culture through the lens of foundational theorists like Schein (2010), who defines it as the set of shared, unconscious assumptions that guide a group's behaviour and shape its perception of the world. To apply this concept to the architectural profession, this review draws on key studies that analyse the specific 'culture of practice' within firms. A significant body of sociological and ethnographic literature has established that architectural practice is a complex social field, rather than a purely technical or aesthetic endeavour. Foundational studies by sociologists such as Blau (1984) and, later, ethnographers like Cuff (1992) have long established that architectural practice is a field of constant negotiation, where professional ideals are tested against the pragmatic pressures of clients, budgets, and organisational constraints. This theoretical lens demonstrates that what architects produce is profoundly shaped by the culture of their practice, alongside various technical and material constraints, and not merely by their technical skills or design intentions alone. This 'culture of practice' therefore acts as the critical interface where broad economic pressures and global sustainability goals are interpreted, negotiated, and ultimately translated into the physical form of the built environment.

2.3 The Research Gap: An Awareness-Implementation Problem in the Global South

A critical gap in the literature exists at the intersection of practice culture and sustainability outcomes, particularly within Nigeria, where an "awareness-implementation crisis" is evident. Recent quantitative research from Enugu Metropolis highlights this disconnect, revealing a high conceptual awareness of sustainability among architects, yet finding that only 32.2% consistently apply such strategies in their designs. The study identifies key barriers stalling the mainstreaming of green building expertise, including "economic considerations" and "client preferences". This awareness-implementation gap is not unique to Nigeria but reflects a broader dynamic across the Global South. In India, for instance, a recent mixed-methods study highlights this dynamic; its qualitative interviews with architects confirm their crucial role in guiding material selection, while its consumer surveys identify high initial costs as a primary barrier to the adoption of green materials. Research from South Africa reinforces the

dominance of economic drivers, where the business case for green building is often a more significant motivator than purely ecological concerns, with implementation costs cited as a primary barrier to adoption (Marsh, Brent, and De Kock 2021). This comparative body of work demonstrates a shared challenge profoundly shaped by consumer-driven economics, underscoring the need for research that can explain the cultural mechanics behind these trends.

While existing studies effectively identify what these barriers are, a deep analysis focused specifically on the cultural dynamics that produce and sustain them is still required. It is one thing to identify 'client preference' as a factor; it is another to uncover the informal norms, validation systems, and power relations that give this factor its decisive force. This paper, therefore, builds directly on this foundation. It moves beyond measuring statistical trends to provide the deep, qualitative analysis of organisational culture that shapes them, answering the call from leading urban theorists like Susan Parnell (2007) for theoretical frameworks derived from the empirical realities of cities in the Global South.

3 Methodology

This study employed an exploratory, qualitative research methodology, guided by an interpretive philosophy. This approach was chosen as the most appropriate means to gain a deep and nuanced understanding of practice culture (Yin, 2015; Bryman, 2016). This complex social phenomenon cannot be fully captured by quantitative metrics alone (Lucas, 2016; Saunders, Lewis and Thornhill, 2019). The aim was to understand the factors defining the culture of architectural firms in Lagos and how that culture influences the services they provide, a goal for which an in-depth, multiple-case study design was crucial. This qualitative approach was necessary to uncover the informal norms, shared assumptions, and power dynamics that shape architects' decision-making and are often overlooked in survey-based research (Lucas, 2016). The research focused on architectural firms in Lagos, Nigeria, which is the country's primary hub for architecture with the highest concentration of registered firms (Dare-Abel, 2013; ARCON, 2017; Senibi and Akenosi, 2021). A multi-generational, purposive sampling strategy was employed to ensure the selection was broadly representative, with firms categorised by their year of establishment into three distinct generations (1955-1980, 1981-2000, and 2001-2020). A final sample of eleven architectural firms was selected based on their availability, accessibility, and willingness to participate.

Data was collected through a total of twenty-four semi-structured interviews with key personnel, including firm principals and architects. These interviews were supplemented by direct, non-participant observations. This observational work was twofold: it included assessments of the firms' physical office environments to understand workplace dynamics and team interactions, as well as site visits to a selection of their completed buildings to analyse the tangible outcomes of their design processes. All research activities were conducted under full ethical approval from Newcastle University, with informed consent obtained from all participants and confidentiality assured. Furthermore, a review of each firm's digital media, including their official websites and social media, was conducted to analyse public-facing identity and the types of projects they chose to showcase. To ensure participant anonymity while maintaining analytical transparency, a coding system was used to identify all interview excerpts, as detailed in Table 1.

Table 1. Interview Participant Coding

Code	Participant Role	Firm Generation
MD	Managing Director	Generation 1 (1955-1980)
ADP	Architect	Generation 1 (1955-1980)
PNA	Principal Partner	Generation 2 (1981-2000)
PP	Principal	Generation 3 (2001-2020)

The primary technique for data analysis was template analysis, a style of thematic analysis that allowed for the systematic identification, coding, and interpretation of cultural dynamics within and across the case study firms (King, Brooks and Tabari, 2018; Braun & Clarke, 2022). During this process, theoretical saturation was carefully monitored to determine the point at which new data no longer generated new insights. It was determined that saturation was reached after approximately 18 of the 24 interviews, as subsequent interviews began to predominantly reinforce existing themes (e.g., the primacy of client financial pressures).

To enhance the credibility and robustness of the findings, a systematic process of data triangulation was employed. This involved cross-verifying emergent themes from semi-structured interviews against field notes from direct observations and an analysis of the firms' digital media. For instance, when interviewees attributed their firm's small scale to both restrictive client budgets and economic pressures like high office running costs (interview data), this was corroborated by observations of minimal staffing within a compact office space (observation data). Further support was found in the firm's online portfolio, which highlighted projects prioritising cost-effective materials (digital media data). This process ensured the findings were not solely reliant on self-reported accounts but were grounded in a multi-faceted view of the practice culture.

4. Key Findings

The analysis of eleven architectural firms in Lagos reveals a set of deeply embedded cultural dynamics. These are not merely internal professional matters; they act as significant, systemic barriers that directly influence the city's sustainable development. This section outlines the two most impactful of these cultural drivers: the primacy of a "Client-Driven Context" and a systemic "Validation Vacuum". It also briefly touches on the adaptive practice models that have emerged as a consequence.

4.1 The Primacy of the Client-Driven Context

The most significant cultural dynamic identified is the primacy of a "Client-Driven Context". This finding suggests that the professional environment is largely shaped by client demands, which consistently prioritise immediate costs, speed of delivery, and specific aesthetic outcomes over long-term performance and sustainability goals. The findings reveal that this client-focused approach is rooted in functionalist principles, with participants frequently echoing Louis Sullivan's phrase, "form follows function". While a broader theoretical interpretation might argue that true 'function' in the 21st century must include sustainability (Hosey, 2012), the findings show that in this context, the principle is often applied more narrowly, prioritising the client's immediate budgetary and programmatic requirements. However, this focus on foundational design values functionality and aesthetics often takes precedence over broader considerations, such as sustainability. This prioritisation is driven by significant external constraints, including uncertain client budgets, regulatory requirements, and economic volatility. As one managing director explained:

> "*One of the problems we often have is that most clients usually do not have a clear budget of what they want... It is hard because as an architect, you want to design something exciting... but we are always working within tight constraints, tight money, tight planning regulations, everything... and because most of our projects are built with cement and steel, with the high cost of steel and cement, and all of that, it certainly will affect what your buildings will look like. There is no money or time to be playing around with funny shapes that are not adding to the building." (MD)*

4.2 The "Validation Vacuum" as an Inhibitor of Sustainable Innovation

The dominance of the client-driven context is further entrenched by what this research identifies as a "Validation Vacuum". This refers to the absence of robust and respected local systems for professional validation, such as prestigious awards or critical publications specifically focused on sustainable design. This absence of objective, peer-led feedback was a consistent finding in the interviews. As one managing director stated:

> *"There are no official awards that I can think of organised for architects in Nigeria, that we could say we take part in…What happens here sometimes is that you get strange emails saying you've been selected to be awarded for something, they ask you to come and pay money or advertise or something, So that's why I say, things can be pretty strange here. So, I think that those kinds of things make whatever awards out there not very objective." (MD)*

This lack of a formal critique culture was confirmed by another participant, who noted that, "No architect reviews our designs…well, that's not really a culture in Nigeria." (PP). In this vacuum, the primary measure of a firm's success becomes client satisfaction and commercial viability, which creates a significant disincentive for firms to invest in the research and risk required to innovate in sustainable architecture. In response to this vacuum, however, the findings indicate that firms are not passive. Instead, they have begun to pioneer new, more intricate pathways to internal validation and quality control. For instance, some firms have implemented systematic client feedback and post-occupancy evaluations to create their own systems for learning and improvement. As two participants explained:

> *"We have a client feedback form that we send to our clients after project completion, so we get their perceptions about the project for lessons learned purposes…we document the lessons…" (ADP)*

> *"Because we occasionally conduct post-occupancy evaluations on projects that we have completed. What did we get wrong? On that project, which, of course, takes place. We know what we should not do again on another project." (PNA)*

While these internal systems demonstrate resilience and a commitment to quality, they remain firm-specific. They do not replace the need for a broader, public system of professional validation required to incentivise and recognise sustainable innovation across the entire profession.

4.3 Consequent Professional Norms and Adaptive Practice Models

These significant cultural pressures have shaped corresponding professional norms, including a strong emphasis on mentorship and a drive towards strategic diversification. Furthermore, the research identified the emergence of several distinct operational models as firms adapt. For instance, the research identified the emergence of what can be termed a 'Lean Practice' in the Nigerian context, a model characterised by low overheads and reliance on a flexible, non-permanent workforce. This can be seen as a direct strategic response to the economic precarity of the client-driven market. The founder of one such firm explained that this reliance on freelancers is a core strategy to manage the high operational costs specific to the Nigerian context:

> *"…in order not to incur too much running cost. The cost now is high in Nigeria; you are your own electricity provider. So, you run generators almost all day, and that is a huge cost. We try to maintain a slim workforce and ensure that we optimise the use of resources." (PP)*

While this model offers financial resilience, it also presents challenges for implementing complex sustainable design strategies, which require a level of deep, integrated team knowledge that can be difficult to achieve with a transient workforce (Oyedele et al., 2018).

5 Discussion

The findings of this study reveal that the adoption of sustainable design in Lagos is profoundly shaped by a set of deeply embedded cultural dynamics, namely the primacy of a 'Client-Driven Context' and a systemic 'Validation Vacuum'. This section interprets these findings by arguing that this professional culture does not merely act as a passive barrier to sustainability; it actively produces environmental outcomes. It reveals a significant 'culture-policy gap' and points towards actionable implications for developing a more culturally sensitive approach to urban sustainability.

5.1 The Culture-Policy Gap: A Nigerian Perspective on Practice Pressures

This study's finding on the primacy of a "Client-Driven Context" provides a significant, Nigerian-based empirical validation of the foundational works of Blau (1984) and Cuff (1992), who revealed the reality of architectural firms where design ideals are constantly negotiated against the pragmatic pressures of clients and budgets. However, this research demonstrates that this is not a neutral professional reality; it is a cultural dynamic with direct environmental consequences. Rooted in a narrow interpretation of functionalism where 'form follows function' is often reduced to meeting a client's immediate budgetary and functional requirements, this culture actively prioritises low-cost, often high-carbon, materials and results in the "value-engineering" of essential sustainable features out of projects (Oliveira et al., 2023; Khan et al., 2024).

This dynamic is critically exacerbated in the Lagos context by the "Validation Vacuum". With few alternative channels for building the professional status and media visibility that are crucial for contemporary architectural careers (Exposito, 2021), firms are incentivised to prioritise client satisfaction above all else. Crucially, this is not to suggest client satisfaction is a negative feature of practice; rather, the Validation Vacuum elevates it from a core objective to the sole measure of success. In the absence of strong ethical or professional rewards for sustainability, this reframes the architect-client relationship. The architect is implicitly repositioned from a professional with societal obligations to a service provider for a customer. This shift provides a deep cultural explanation for the persistent gap between high sustainability awareness and low implementation in Nigeria. It disincentivises architects from championing innovative solutions that clients have not explicitly requested, as this would risk jeopardising their primary source of validation. The challenge, therefore, is not a lack of knowledge, but rather a professional culture that overemphasises the client-as-customer, leading to the neglect of an architect's broader duties to the environment and the public good. While these cultural barriers are significant, the analysis did not solely reveal constraints. The findings also identified significant cultural assets, the most prominent of these being the deeply embedded practice of mentorship, which functions as the primary channel for transferring tacit knowledge and professional norms. This finding provides a key example of the kind of context-specific social institution that Parnell (2007) argues is crucial for developing theoretical frameworks derived from the empirical realities of cities in the Global South. These inherent cultural mechanisms represent authentic foundations upon which culturally resonant sustainability strategies can be built.

5.2 Implications and Recommendations for a Culturally-Sensitive Urbanism

This research suggests that addressing the complex challenges of sustainable urbanisation requires interventions that are not just technical, but culturally sensitive. The findings point to a clear implementation pathway that moves beyond simply raising awareness towards actively reshaping the cultural and institutional landscape of architectural practice. The following recommendations are proposed, each identifying key stakeholders, implementation steps, and connections to broader urban policy.

- **Establish a National Award for Sustainable Design:** To directly counter the "Validation Vacuum", a primary recommendation is the establishment of a high-profile, juried award. This initiative should be led by professional bodies, namely the Nigerian Institute of Architects (NIA) and the Architects' Registration Council of Nigeria (ARCON), its implementation pathway would involve creating context-specific judging criteria and securing sponsorship to build the award's prestige, thereby creating a vital non-client-based form of professional validation.
- **Launch a Client-Facing Awareness Campaign:** To address the "Client-Driven Context", professional bodies should lead a campaign to educate clients on the long-term benefits of sustainable design, helping to create informed demand. The NIA should spearhead this campaign, working in partnership with financial institutions that provide development loans. Furthermore, the campaign must frame sustainability in terms of tangible, long-term economic benefits, such as reduced operational energy costs, higher asset value, and improved occupant well-being. This involves creating accessible materials (case studies, financial models, brochures) and targeting specific client groups, thereby shifting the demand side of the equation from a focus on initial costs to long-term investment value.
- **Develop 'Train-the-Mentor' Programmes:** To work with the grain of the existing professional culture, the established channel of mentorship must be leveraged. This requires a strategic collaboration between professional bodies (NIA/ARCON) for accreditation and promotion, and academic institutions (Schools of Architecture) for curriculum development and delivery. The programme should be designed as a formal Continuing Professional Development (CPD) module for senior architects and firm principals. A pilot programme with a cohort of influential practitioners could demonstrate its value, leading to wider adoption and ensuring that sustainability principles are disseminated organically and effectively throughout the profession.
- **Provide Targeted Support for 'Lean Practices'**: Recognising that adaptive models like the "Lean Practice" arise from real constraints, support for smaller firms must be targeted. Interventions should focus on realistic, low-cost sustainable strategies. This could be achieved through initiatives led by professional bodies, offering workshops and developing open-source resources on high-impact, low-cost strategies compatible with the operational realities of smaller firms.
- **Integrate Cultural Insights into Urban Policy:** These findings have direct implications for governance. Technical policies like green building codes will likely be ineffective unless paired with cultural interventions. Effective urban policy requires a duet of regulation and cultural reform. For instance, a new code could be supported by public recognition systems for certified sustainable projects and their lead architects, directly addressing the 'Validation Vacuum'. To target the 'Client-Driven Context', policy can mandate that all building permit submissions

must include a formal Sustainability Compliance Statement signed by the principal architect. This places the professional responsibility squarely on the architect, providing the regulatory leverage to enforce these considerations with clients. This culturally attuned approach is essential for fostering a genuine and lasting sustainable urbanism.

6 Conclusion and Future Research

In conclusion, this research provides a culturally grounded explanation for why sustainability struggles to take root in Nigerian architectural practice, moving beyond statistical trends to uncover the underlying professional logics at play. While the study's Lagos-centric focus restricts generalisability and its purposive sampling may have overlooked key counter-examples of successful sustainable practice, these limitations offer clear directions for future inquiry: comparative studies in other African cities, case studies of successful practices, and an investigation into digital validation platforms. Finally, the core dynamics identified the tension between global ideals and local market pressures, mediated by the need for professional validation, are likely not unique to Lagos. It is hoped that these findings will stimulate a broader conversation among practitioners and researchers across the Global South, inviting a critical examination of how their own professional cultures shape sustainable urban futures.

Funding
The research reported in this paper is mostly the outcome of doctoral research, which was part funded by Newcastle University

Conflicts of Interest
The authors declare no conflict of interest.

References

Addo, F. M., Adjei, J. A. O., & Asante, E. A. (2021). Urban sustainability in the context of the Global South: A systematic review. *Journal of Cleaner Production*, *280*, 124443. doi:10.1016/j.jclepro.2020.124443

Ajayi, S. O., Oyedele, L. O., Bilal, M., Akinade, O. O., Alaka, H. A., Owolabi, H. A., & Kadiri, K. O. (2017). Critical management practices influencing on-site waste minimisation in construction projects. *Waste Management*, *59*, 330–339. doi:10.1016/j.wasman.2016.11.001

Allu, E. (2014). The Role of Architects in Nation Building. *Journal of Environmental Design*, *1*(1), 108–117.

Alvesson, M. (2014). *The triumph of emptiness: Consumption, higher education, and work organisation*. Oxford, UK: Oxford University Press. ISBN: 978-0-19-966094-2

Arayela O (2001) An introspection into forty years of architectural practice in Nigeria (1960-2000) the way forward. In: Nkwogwu UO (ed) Architects and Architecture in Nigeria: A Tribute to Prof. E.A. Adeyemi. AARCHES, pp 18-25

Architects Registration Council of Nigeria (ARCON). (2017). *Register of architectural firms*. Retrieved from http://www.arconigeria.org.ng, Last Access: October 3, 2025.

Blau, J. R. (1984). *Architects and firms: A sociological perspective on architectural practice*. Cambridge, MA: MIT Press. ISBN: 978-0-262-52123-3

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. London, UK: Sage Publications. ISBN: 978-1-4739-5324-6

Brenner, N., & Schmid, C. (2014). The 'urbanisation of everything' - a research agenda. *Urban Studies*, *51*(8), 1601–1613. doi:10.1177/0042098013501383

Brooks, J., McCluskey, S., Turley, E., & King, N. (2015). The utility of template analysis in qualitative psychology research. *Qualitative Research in Psychology*, *12*(2), 202–222. doi:10.1080/14780887.2014.955224

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford, UK: Oxford University Press. ISBN: 978-0-19-968945-3

Cacciattolo, K. (2014). Understanding organisational culture. *Journal of European Industrial Training*, *38*(2), 122-144. doi:10.1108/JEIT-02-2013-0010

Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organisational culture: Based on the competing values framework* (3rd ed.). San Francisco, CA: Jossey-Bass. ISBN: 978-0-7879-8283-6

Campbell, A., Whitehead, J., & Finkelstein, S. (2002). In search of the best way to lead. *Harvard Business Review*, *80*(9), 13–14.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). London, UK: Sage Publications. ISBN: 978-1-4522-2609-5

Cuff, D. (1992). *Architecture: The story of practice*. Cambridge, MA: MIT Press. ISBN: 978-0-262-53112-6

Dare-Abel, O. A. (2013). *Information and communication technology (ICT) deployment in architectural firms in Nigeria* (Doctoral dissertation, Covenant University, Ota, Nigeria). Retrieved from http://eprints.covenantuniversity.edu.ng/1324/, Last Access: October 3, 2025.

Enwin, A. A., & Ikiriko, D. C. (2024). An overview of the housing deficit in Nigeria. *International Journal of Housing and Sustainable Development*, *9*(1), 1–18.

Exposito, M. G. (2021). Starchitects and the 'third-way' city: A critical review of the role of iconic architecture in urban regeneration. *Journal of Urban Design*, *26*(1), 1–19. doi:10.1080/13574809.2020.1764104

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). London, UK: Sage Publications. ISBN: 978-0-8039-7323-7

Hosey, L. (2012). *The shape of green: Aesthetics, ecology, and design*. Washington, D.C.: Island Press. ISBN: 978-1-59726-786-3

Johnson, G., Whittington, R., Scholes, K., Angwin, D., & Regnér, P. (2020). *Exploring strategy* (12th ed.). London, UK: Pearson. ISBN: 978-1-292-28245-9

Khan, A. M., Alaloul, W. S., & Musarat, M. A. (2024). A critical review of digital value engineering in building design towards automated construction. *Environmental Development and Sustainability*. Advance online publication. doi:10.1007/s10668-024-05595-1

King N, Brooks J, Tabari S (2018) Template analysis in business and management research. In: Cassell C, Cunliffe AL, Grandy G (eds) *Qualitative Methodologies in Organization Studies*. Springer, Cham, pp 179-202. https://doi.org/10.1007/978-3-319-65442-3_8

Lau, E., Lee, L. L., & Yap, C. S. (2017). The Role of Organisational Culture in the Success of an Organisation. *International Journal of Social Sciences*, *6*(3), 220–229. doi:10.20533/ijss.2042.4546.2017.0673

Lucas, P. (2016). A critical review of the case study method in social research. *Journal of Social Policy*, *45*(4), 689–705. doi:10.1017/S004727941600020X

Marsh RJ, Brent AC, De Kock IH (2021) Understanding the barriers and drivers of sustainable construction adoption and implementation in South Africa: a quantitative study using the theoretical domains framework and COM-B model. *Journal of the South African Institution of Civil Engineering* 63(4):11-23. https://doi.org/10.17159/2309-8775/2021/v63n4a2

Mba EJ, Okeke FO, Igwe AE, Ozigbo CA, Oforji PI, Ozigbo IW (2024) Evolving trends and challenges in sustainable architectural design; a practice perspective. *Heliyon* 10:e39400. https://doi.org/10.1016/j.heliyon.2024.e39400

Okeke, F. O., Eziyi, E. I., & U-Duh, A. U. (2023). Assimilating sustainability principles in architectural design practices in Enugu Metropolis, Nigeria. *Cleaner Production Letters*, *6*, 100057. doi:10.1016/j.clpl.2023.100057

Ola-Adisa, E. O., Amole, D., & Alagbe, O. A. (1992). An appraisal of the structure and organisation of architectural firms in Nigeria. *Journal of Construction Business and Management*, *3*(2), 1–12. doi:10.15641/jcbm.3.2.535

Oluwatayo, A. A., & Amole, D. (2012). Organisational culture of architectural firms in Nigeria. *Journal of Construction in Developing Countries*, *17*(1), 1–16.

Oluwatayo, A. A., Amole, D., & Alagbe, O. A. (2014). The effect of organisational culture on business growth of architectural firms in Nigeria. *Journal of Construction in Developing Countries*, *19*(2), 57–74.

Oliveira, S., Betancour, A., Mosley, J., & Schröder, T. (2023). New ways of seeing, new ways of imagining. *AJAR: Arena Journal of Architectural Research*, *8*(1), 2. doi:10.55588/ajar.390

Opoko, A. P., & Oluwatayo, A. A. (2015). An assessment of the state of housing in Nigeria. *International Journal of Civil Engineering, Construction and Estate Management*, *1*(1), 1–13.

Oyedele, L. O., Ajayi, A. O., & Akinade, O. O. (2018). Knowledge management in the sustainable construction industry. *International Journal of Energy Sector Management*, *12*(1), 27–53. doi:10.1108/IJESM-12-2016-0001

Parnell, S. (2007). Southern urbanism in theory and practice. *Urban Geography*, *28*(4), 364–384. doi:10.2747/0272-3638.28.4.364

Qurix WB, Ayuba P, Dikki AI (2024) The development of architecture in Kaduna City, Nigeria, from 1960 to 2020. *International Journal of Engineering Trends and Technology* 72(6):238-258. https://doi.org/10.14445/22315381/IJETT-V72I6P124

Rajendra P, Mohanasundaram T (2025) Factors driving consumer adoption of smart and green building materials: the role of civil engineers and architects. *Journal of Asian Architecture and Building Engineering* 24(1):332-349. https://doi.org/10.1080/13467581.2024.2373819

Redclift, M. (1992). The discourse of domes: A critique of the theory of sustainable development. *Town Planning Review*, *63*(3), 231–250. doi:10.3828/tpr.63.3.37v74163445p5272

Romero-Lankao, P., McPhearson, T., & Davidson, D. J. (2023). Urban sustainability and resilience in the era of climate change. *Nature Sustainability*, *6*(1), 14–22. doi:10.1038/s41893-022-01016-x

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). London, UK: Pearson. ISBN: 978-1-292-20878-7

Schein, E. H. (2010). *Organisational culture and leadership* (4th ed.). San Francisco, CA: Jossey-Bass. ISBN: 978-0-470-19060-9

Senibi, J., & Akenosi, I. (2021). *Assessing the state of architectural firms in Nigeria: Firm registration, culture and economies*. Saarbrücken, Germany: Lambert Academic Publishing. ISBN: 978-620-3-91185-1

Senibi, V., & Akenosi, C. (2021). The architectural profession and sustainable development in Nigeria: challenges and prospects. *Journal of Physical Planning Science*, *16*(1), 1–12.

Tam, V. W. Y., & Hao, J. J. L. (2019). Adaptive reuse in sustainable development. *International Journal of Construction Management*, *19*(6), 509–521. doi:10.1080/15623599.2018.1461324

Vos, T. (2018). Architects, resilience, and the built environment. *Architectural Design*, *88*(3), 8–15. doi:10.1002/ad.2290

Watson, V. (2016). The UN sustainable development goals: a new era for urban planning and development in the global south? *Planning Theory & Practice*, *17*(4), 557–561. doi:10.1080/14649357.2016.1213038

World Bank. (2023). *Nigeria economic data and progression*. Retrieved from https://www.focuseconomics.com/countries/nigeria/, Last Access: November 23, 2024.

Yin, R. K. (2015). *Qualitative research from start to finish* (2nd ed.). New York, NY: Guilford Publications. ISBN: 978-1-4625-1797-8

Yin, W. (2023). The importance of architecture in shaping our built environment. *Journal of Architecture and Design*, *14*(2), 101–112.