

THE NIGERIAN ARTISAN: CHANGING EMPLOYMENT RELATIONSHIPS AND INDUSTRIAL STRUCTURES IN THE CONSTRUCTION INDUSTRY

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Abstract

The Nigerian construction industry continues to depend on artisans whose practical skills determine the quality, durability, and cost-efficiency of construction projects. However, the employment arrangements governing this workforce have changed markedly over the past four decades. Permanent, employer-based engagement has been progressively displaced by subcontracting, casual labour, labour outsourcing, self-employment, and project-based work. These developments are generally attributed to economic liberalisation, technological innovation, urbanisation, and globalisation. This paper aims to synthesize existing literature on Nigerian construction artisans through the lens of Atkinson's (1984) Flexible Firm Model to explain how workforce segmentation reshapes artisan employment and productivity. Applying this core-periphery framework to the Nigerian evidence suggests that the artisan workforce is increasingly organised into a small, functionally flexible core and an expanding, numerically and financially flexible periphery. This structural shift carries critical consequences for skills investment, job security, and productivity that existing Nigerian literature describes without theorising explicitly. Strengthening technical education, extending labour protection to peripheral workers, and supporting digital and entrepreneurial skills development are necessary measures to prevent industrial flexibility from eroding workforce capability.

Keywords: Construction industry, Employment relationships, Flexible firm model, Labour casualisation, Nigerian artisans

INTRODUCTION

The construction industry occupies a strategic position in national development because it produces the physical infrastructure on which economic growth and social wellbeing depend; in Nigeria, the sector is understood to contribute substantially to gross domestic product, employment generation, and urban development while exerting sizeable multiplier effects across manufacturing, transport, finance, and professional services (Oladinrin et al., 2012; Ofori, 2015). Construction artisans, including masons, carpenters, electricians, plumbers, welders, painters, steel fixers, roofers, and tilers, convert architectural and engineering designs into completed physical structures (Ashworth et al., 2013; Fewings & Henjewe, 2019). Their workmanship shapes project quality, cost, and safety more directly than any

other category of site labour. Historically, entry into these trades ran largely through traditional apprenticeship, a system that combined technical training with occupational discipline to produce generations of independent craftsmen (Odediran & Babalola, 2013). Indigenous building techniques were transmitted through informal channels long before formal engineering practice was introduced, but the institutional development of artisan employment has remained weak, leaving most workers reliant on informal training without standardized certification (Odediran & Babalola, 2013).

Over the last four decades, the employment relationships surrounding this workforce have changed considerably. Firms that once maintained large permanent workforces increasingly coordinate networks of subcontractors, temporary labour, and self-employed artisans, a shift widely attributed to economic liberalisation, competitive procurement, and globalisation (Ball, 2014; International Labour Organization [ILO], 2021). Simultaneously, digital technologies such as Building Information Modelling (BIM), prefabrication, and cloud-based coordination are altering required trade competencies (Succar & Kassem, 2015; Adekunle et al., 2021), while lean and offsite construction methods are reshaping site coordination (Daniel et al., 2024). Economic restructuring since the 1980s has accelerated private-sector participation, forcing contractors to minimize fixed labour costs through subcontracting. Permanent artisan employment has declined while casual and contract-based engagement expanded. Rapid urbanisation has intensified construction demand while heightening competition within the artisan labour market.

Although the existing Nigerian construction literature documents casualisation, subcontracting, digitalisation, and skills shortages, these trends are typically presented as a list of separate empirical phenomena rather than as manifestations of a single underlying organizational logic. What appears to be missing is an explicit theoretical framework that explains why these changes occur together and what they imply for different categories of artisans. Nigerian construction firms depend heavily on artisans for project execution, yet this workforce is increasingly organised as an expendable periphery rather than a protected core. Casualisation and subcontracting leave workers with irregular income, absent social protection, and limited safety oversight. Technological change raises skill requirements, yet firm-sponsored training remains concentrated among a small core. Skills shortages, informality, and safety deficits are not separate policy problems; they are predictable outputs of a single workforce-segmentation strategy. Addressing this theoretical gap is essential for developing targeted interventions rather than generic policies that fail peripheral workers.

To address this gap, this paper applies Atkinson's (1984) Flexible Firm Model to examine how changing employment relationships and industrial structures are reshaping the position of Nigerian construction artisans. The specific objectives of the study are to:

1. Assess contemporary trends in employment relationships and industrial structures governing Nigerian construction artisans.
2. Apply the Flexible Firm Model to interpret the primary drivers of workforce restructuring in the Nigerian construction sector.
3. Identify the major challenges facing artisans and propose targeted policy measures to enhance workforce capability and welfare.

By synthesizing disjointed empirical findings under a single theoretical framework, this study contributes to construction management literature by clarifying the core-periphery dynamics in developing labour markets and providing actionable insights for technical and vocational education and training (TVET) reform and labour policy in Nigeria.

THEORETICAL FRAMEWORK: THE FLEXIBLE FIRM MODEL

The Flexible Firm Model was propounded by John Atkinson in 1984 as a theoretical framework to explain how modern enterprises strategically restructure their workforces to adapt to economic instability, technological change, and demand fluctuations (Atkinson, 1984). The model asserts that firms seek organizational flexibility by segmenting their workforce into distinct categories based on contractual relationships and functional roles (Atkinson, 1984). At the centre of this structural configuration lies the core workforce - a stable group of primary, highly skilled, and full-time employees who receive firm-specific training, relative job security, and career progression (Atkinson, 1984). Surround this core are peripheral labour segments, which provide operational elasticity and allow organizations to adjust overall labour inputs in response to market fluctuations (Loosemore et al., 2003).

The operational mechanics of Atkinson's framework rely on three distinct forms of labour flexibility: functional, numerical, and financial. Functional flexibility refers to the ease with which an enterprise can reallocate skilled core workers across varied tasks through multi-skilling and continuous training (Atkinson, 1984). In contrast, numerical flexibility reflects an enterprise's capacity to adjust site labour headcounts in direct alignment with fluctuating project demands through temporary, casual, or subcontracted arrangements (Atkinson, 1984). Financial flexibility underpins these mechanisms by structuring compensation and terms of engagement around output or project completion rather than continuous salary or wage employment (Atkinson, 1984). Together, these mechanisms produce a segmented workforce comprising a protected core and an expendable, loosely attached periphery (Atkinson, 1984).

Applying Atkinson's (1984) model to Nigerian construction employment provides a coherent lens for interpreting shifts that are often described in isolation. Construction work is inherently project-based and temporary, providing structural incentives for contractors to prioritize numerical and financial flexibility over permanent employment (Loosemore et al., 2003; Ball, 2014). Read through this lens, several trends documented separately in the literature resolve into a unified account. Odediran and Babalola (2013) describe a contracting pool of permanently employed artisans, representing the shrinking core. Wells (2007) and the National Bureau of Statistics (2023) document an expanding volume of subcontracting, casual labour, and self-employment, representing the peripheral segment. Furthermore, the persistent skills gap reported by employers (Akinshipe et al., 2022; Aminu et al., 2022) emerges as a predictable consequence of a workforce structure where firms lack incentives to invest in training non-permanent workers. Similarly, digital competence remains concentrated among a narrow group of core artisans, consistent with functional flexibility being reserved for key personnel (Adekunle et al., 2021).

This theoretical framework generates three testable propositions that structure the synthesis across subsequent sections. First, employment restructuring in Nigerian construction represents workforce segmentation into core and peripheral tiers rather than uniform labour market deregulation. Second, training deficits, occupational safety risks, and job insecurity concentrate disproportionately among peripheral artisans because firms lack structural incentives to invest in non-retained labour. Third, policy interventions treating construction artisans as a single undifferentiated group will inadvertently favour core artisans while failing to reach peripheral workers where welfare and skills deficits are most acute. Figure 1 illustrates this core-periphery segmentation model schematically.

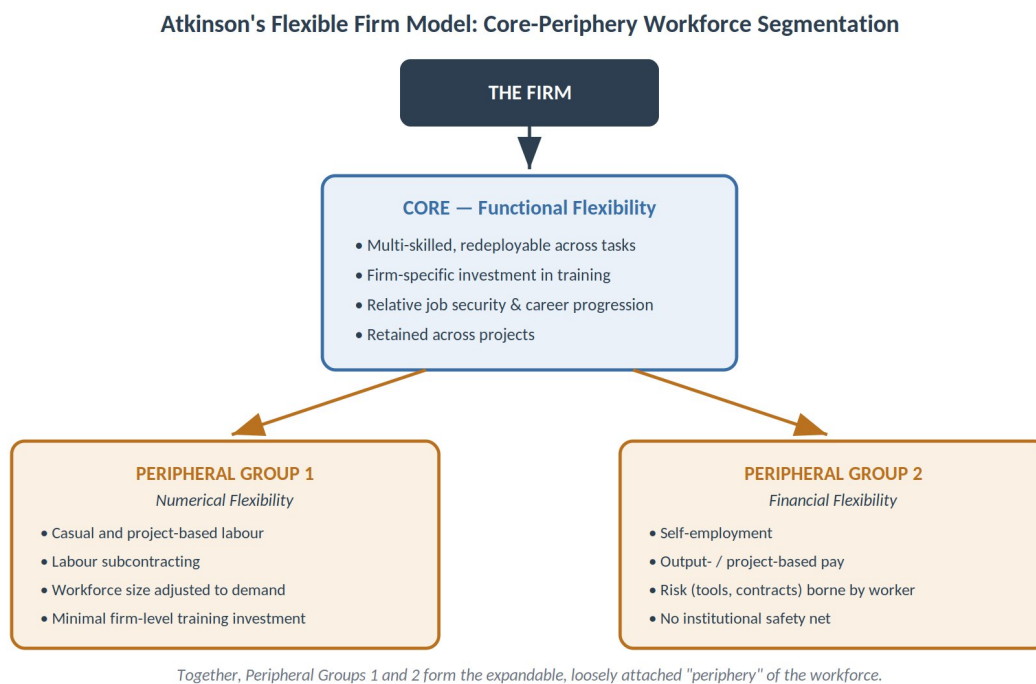


Figure 1: Atkinson's Flexible Firm Model of Core-Periphery Workforce Segmentation
Source: Adapted from Atkinson (1984)

METHODOLOGY

To address the objectives of this study, a structured narrative review methodology was adopted, combining systematic literature search protocols with deductive theoretical synthesis. Primary empirical data collection was not undertaken. Instead, the study synthesizes published peer-reviewed journal articles, book chapters, and authoritative institutional reports published between 2003 and 2025.

Search Strategy and Selection Process

Literature search was conducted across major academic databases, including Google Scholar, ResearchGate, Emerald Insight, Taylor & Francis Online, Elsevier (ScienceDirect), and SpringerLink. The search utilized Boolean combinations of primary keywords: ("construction

artisan*" OR "tradesmen") AND ("Nigeria" OR "developing countries") AND ("employment relationships" OR "labour casualisation" OR "subcontracting" OR "flexible firm" OR "skills gap").

To ensure analytical relevance, studies were selected based on three explicit inclusion criteria:

1. Empirical or theoretical focus on construction employment relationships, artisan skills, or industrial restructuring.
2. Direct geographical focus on Nigeria or relevant comparative developing economies.
3. Publication in peer-reviewed journals or official institutional policy reports (e.g., ILO, NBS, NBTE, OECD).

Studies focusing strictly on professional management categories (e.g., quantity surveyors, architects) without relevance to site-level craft labour were excluded. The initial search yielded 84 records. Following duplicate removal and title/abstract screening, 52 full-text articles were evaluated. Ultimately, N = 38 primary sources met all inclusion criteria and were included in the final synthesis.

Method of Analysis

Data extracted from the selected N = 38 sources were analyzed using a combination of Thematic Synthesis and Framework Analysis. Extracted evidence was categorized into five thematic clusters: employment patterns, industrial structure, drivers of restructuring, workforce challenges, and emerging opportunities. These themes were then deductively mapped onto the theoretical components of Atkinson's (1984) Flexible Firm Model (functional, numerical, and financial flexibility) to test how core-periphery dynamics manifest in the Nigerian context.

Justification for Comparative Literature

While the primary analytical focus is Nigeria, selected literature from other developing countries (e.g., South Africa) and developed economies (e.g., the United Kingdom) was selectively incorporated. The inclusion of UK literature is justified because Atkinson's Flexible Firm Model and flexible procurement frameworks originated in mature industrial systems; benchmarking against these sources allows the study to evaluate how flexibility strategies operate in different institutional settings (Ball, 2014). Literature from South Africa and other developing nations was drawn upon specifically where localized empirical data on specialized trade competencies or certification was sparse (Windapo, 2016). The authors explicitly acknowledge structural differences between Nigeria and these comparative contexts regarding population scale, colonial legislative histories, institutional capacity, and technological advancement, using foreign literature strictly to contextualize findings rather than assuming direct equivalence.

THE NIGERIAN ARTISAN IN THE CONSTRUCTION INDUSTRY

Construction artisans convert structural and architectural designs into physical assets, with their contributions extending beyond manual execution to operational problem-solving, quality control, and practical adjustments during project delivery (Loosemore et al., 2003). Traditionally, artisan trades held strong socio-economic standing within Nigerian communities, as the informal apprenticeship system trained skilled craftsmen who subsequently established independent enterprises, thereby sustaining local employment and skill transfer (Odediran & Babalola, 2014). Indigenous building techniques were transmitted through these informal channels long before formal engineering practice was introduced, but the institutional development of artisan employment has remained weak, leaving most workers reliant on informal training without standardized certification (Odediran & Babalola, 2013).

Contemporary empirical evidence reveals a far more segmented workforce structure than traditional accounts suggest. A narrow core of artisans who possess specialized technical skills or digital competence maintain relatively stable, repeat engagements with established contracting firms (Adekunle et al., 2021). These core workers benefit from informal on-the-job training and ongoing skill enhancement. Conversely, the majority of artisans operate as casual workers, labour-only subcontractors, or independent operators, recruited primarily through informal social networks and supervisor recommendations rather than structured corporate hiring channels (Odediran & Babalola, 2014). Data from the National Bureau of Statistics (2023) confirm that informal employment accounts for a substantial proportion of Nigeria's labour force, with the construction sector exhibiting high rates of non-standard work arrangements.

Adherence to workmanship standards and ethical conduct has become increasingly prominent as project complexities and client expectations rise in urban centres (Aje & Awodele, 2006). Effective human resource management practices, including structured supervision, fair compensation, and health provisions, directly enhance artisan productivity (Ameh & Daniel, 2017). However, empirical surveys indicate that formal human resource practices are applied inconsistently across Nigerian construction firms (Babalola et al., 2023). Such management practices remain concentrated among major contracting firms and are applied predominantly to core staff rather than casual site workers.

Technological developments are further widening this internal divergence. As project planning, procurement, and site management shift onto digital software platforms, artisans who acquire digital literacy gain preferential access to high-value projects (Aghimien et al., 2021). Artisans restricted to basic manual techniques are increasingly confined to low-margin, informal site work. This technological disparity reinforces the structural divide between core and peripheral artisans in the domestic construction market.

EMPLOYMENT RELATIONSHIPS AND INDUSTRIAL STRUCTURE

Employment relationships in construction possess unique characteristics because work is structured around temporary projects involving multiple specialized contractors collaborating on site (ILO, 2021). Historically, government public works departments and large private contractors directly employed artisans under long-term arrangements (Odediran & Babalola, 2013). These direct employment structures supported formal apprenticeship schemes and provided clear pathways for occupational advancement.

Economic reforms, market liberalization, and competitive procurement have driven contractors toward flexible workforce strategies (Ofori, 2015). Principal contractors increasingly maintain lean core organizations while transferring operational risks to networks of subcontractors and temporary workers. Three primary employment arrangements illustrate this structural transformation in Nigeria:

1. *Casual and Project-Based Employment*: Artisans are hired exclusively for the duration of specific construction phases. Employment terminates automatically upon task completion without provision for severance, health cover, or pension contributions. Ameh and Daniel (2017) link this high turnover and job instability directly to lower site productivity and reduced organizational loyalty.
2. *Labour Subcontracting*: General contractors delegate trade-specific execution to intermediary subcontractors who hire and supervise manual labour. While this arrangement grants general contractors rapid access to specialized trade skills without fixed overheads, it dilutes responsibility for worker welfare (ILO, 2021). Site safety enforcement becomes complex because operational accountability is split between the principal contractor and intermediary labour providers.
3. *Self-Employment and Independent Contracting*: Experienced artisans increasingly operate as independent sole proprietors. This status affords operational autonomy, but it forces individual workers to absorb business risks, including tool procurement, equipment maintenance, and contract negotiation, without access to institutional safety nets.

Digital technologies are accelerating workforce segmentation. Building Information Modelling (BIM), digital procurement platforms, and cloud coordination tools alter project workflows and raise entry thresholds for high-tier projects (Succar & Kassem, 2015; Adekunle et al., 2021). Because opportunities for digital upskilling remain concentrated among core personnel, digital adoption widens the divide between technologically competent core artisans and peripheral workers reliant solely on manual execution.

These observed trends support Proposition 1, indicating that Nigerian construction employment is not undergoing uniform market degradation, but rather an explicit structural bifurcation. Table 2 synthesizes the operational distinctions between core and peripheral artisans resulting from this structure. Figure 2 illustrates the transformation from traditional direct employment to a segmented core-periphery model.

Table 2: Core-Periphery Differentiation Among Nigerian Construction Artisans

Feature	Core Artisans	Peripheral Artisans
Typical Engagement	Main contractor, long-term or repeat engagement	Subcontractor, casual, or self-employed
Job Security	Relatively high	Low
Pension / Medical Benefits	Selectively available	Absent
Training Investment	Employer-sponsored or firm-linked	Self-funded or absent
Income Stability	Relatively stable	Variable and project-dependent
Digital / BIM Competence	Frequently present	Largely absent

Source: Synthesis, applying Atkinson's (1984) Flexible Firm Model to empirical findings in Odediran and Babalola (2013), Ameh and Daniel (2017), Adekunle et al. (2021), and ILO (2021).

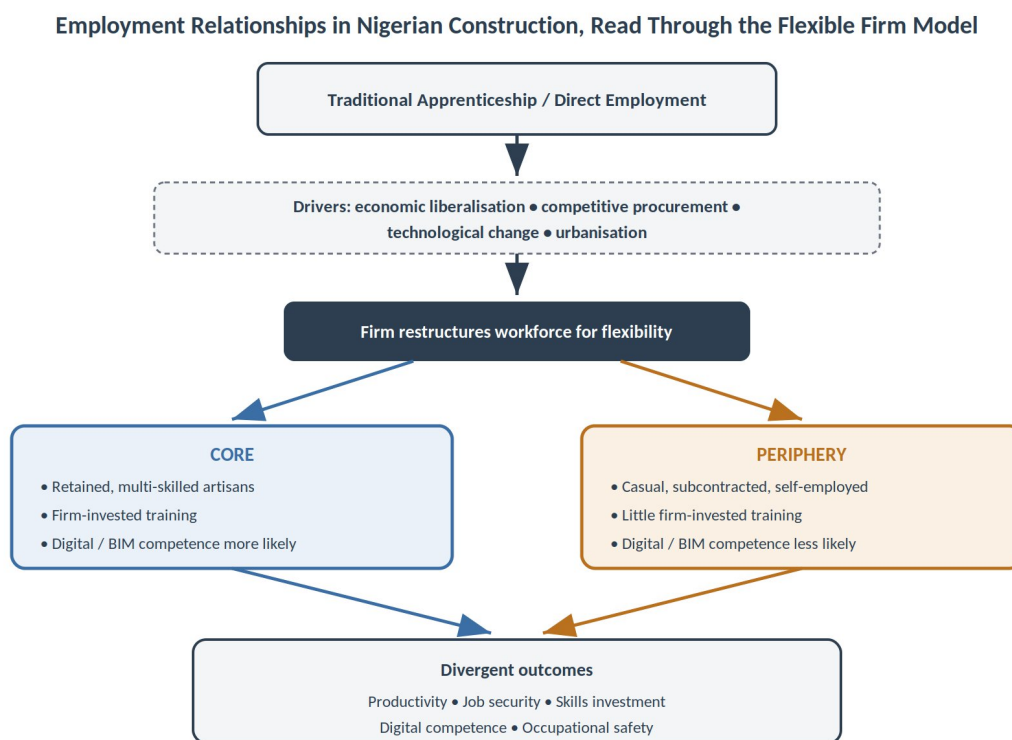


Figure 2: Employment Relationships in Nigerian Construction, Read Through the Flexible Firm Model

Source: Synthesis based on Atkinson (1984), Ball (2014), and ILO (2021).

DRIVERS OF WORKFORCE RESTRUCTURING

Five key drivers interact to shape workforce restructuring within the Nigerian construction sector. Interpreted through Atkinson's Flexible Firm Model, these distinct pressures combine to reinforce workforce segmentation rather than operating as isolated market forces.

Chief among these influences is technological change. Advanced tools such as Building Information Modelling, prefabrication, drone-assisted monitoring, and digital coordination platforms enhance project planning and quality control among adopting firms (Succar & Kassem, 2015; Adekunle et al., 2021). Simultaneously, lean and off-site construction techniques require artisans to operate within structured assembly systems demanding precision and multi-skilling (Daniel et al., 2024). Because technology adoption in Nigeria remains concentrated among large contracting enterprises, technological advancement selectively expands the core workforce while leaving peripheral artisans reliant on traditional, manual execution.

Parallel to technological shifts, demographic expansion and rapid urbanisation drive sustained demand for residential, commercial, and infrastructure development across Nigeria (United Nations, 2019). While high market demand maintains overall work volume for site labour, it does not automatically translate into stable or permanent employment. Instead, aggregate growth in construction activity has occurred alongside an expansion of casualised, project-based arrangements where competitive market pressures force peripheral tradesmen to accept flexible, short-term engagements.

Market liberalisation, competitive bidding requirements, and public procurement reforms further compound this trend by encouraging contractors to minimize fixed overhead costs. Subcontracting and outsourcing enable firms to adjust labour capacity rapidly according to project cycles (Ball, 2014). Furthermore, the participation of international contractors exposes the domestic market to global supply-chain strategies that favour lean core staffing supplemented by temporary specialist subcontracts (Ofori, 2015). These economic pressures incentivize main contractors to maintain a small functional core while shifting volume risks onto peripheral workers.

Institutional frameworks have similarly struggled to keep pace with these market pressures. National vocational training policy aims to align artisan skills with industrial demands through modernized frameworks established by the National Board for Technical Education (2020). However, empirical evaluations highlight persistent discrepancies between institutional curricula and site requirements, with employers reporting that vocational graduates lack practical competence and site adaptability (Windapo, 2016). As Clarke and Winch (2006) and the OECD (2021) observe, effective skill development requires broad occupational capability and continuous upskilling, benchmarks that domestic vocational frameworks have yet to realize fully for non-permanent site workers.

Finally, environmental sustainability standards represent an emerging influence on trade expectations. Green building principles and energy-efficient retrofitting are gradually entering the Nigerian market, creating demand for tradesmen trained in sustainable installation techniques (Abisuga & Okuntade, 2020; Chukwu et al., 2026). While currently restricted to a specialized market segment, these requirements offer functional expansion opportunities for core-adjacent artisans possessing formal certifications.

Table 3 synthesizes these five drivers and their differentiated distributional impacts across the core and peripheral workforce segments.

Table 3: Drivers of Restructuring and Their Differentiated Effects on Core and Peripheral Artisans

Driver	Primary Mechanism	Distributional Effect (Core vs. Periphery)
Technological Change	Raises skill thresholds through digital tools and off-site assembly	Expands core skills; isolates digitally untrained peripheral workers
Urbanization	Sustains high aggregate demand for building construction	Maintains overall work volume under flexible, competitive terms
Economic Liberalization	Incentivizes subcontracts to minimize fixed labor overheads	Reduces permanent core employment; expands peripheral subcontracting
Educational Reform	Modernizes TVET frameworks and formal vocational curricula	Benefits formal trainees; exhibits limited reach into informal periphery
Sustainability / Green Building	Generates demand for specialized environmental execution	Creates niche advancement opportunities for certified core artisans

Source: Synthesis based on Ball (2014), Ofori (2015), Succar and Kassem (2015), United Nations (2019), National Board for Technical Education (2020), Abisuga and Okuntade (2020), Daniel et al. (2024), and Chukwu et al. (2026).

OPERATIONAL AND STRUCTURAL CHALLENGES FACING NIGERIAN ARTISANS

The structural divide between core and peripheral construction workers manifests across a spectrum of persistent operational challenges that undermine artisan welfare and project performance. Interpreted through Atkinson's analytical lens, these obstacles demonstrate how numerical flexibility shifts systemic market risks onto non-permanent site workers while depriving them of institutional protection.

The most pervasive of these difficulties is acute income instability and widespread underemployment. Because peripheral tradesmen depend almost entirely on short-term site contracts, their earnings fluctuate sharply according to local construction cycles and broader macroeconomic trends (Odediran & Babalola, 2013). During periods of economic downturn or project delay, artisans endure extended spells of unpaid idleness without access to social safety nets or unemployment relief (International Labour Organization, 2021). Even during active engagements, informal wage negotiations frequently leave workers vulnerable to wage suppression, delayed payments, and arbitrary retentions by main contractors or intermediary sub-contractors (Ameh & Daniel, 2017).

Beyond financial precariousness, peripheral artisans encounter severe hazards regarding occupational health and safety (OHS) compliance. Although major construction firms maintain formalized safety protocols for core staff, site-level enforcement for casual tradesmen remains fragmented and weak across domestic residential and commercial builds (International Labour Organization, 2019). Artisans routinely operate without fundamental

personal protective equipment (PPE), exposure controls, or adequate site safety inductions, leading to high rates of work-related injury and chronic occupational distress (Aghimien et al., 2021). When injuries occur on site, non-permanent workers rarely receive institutional compensation or medical coverage, burdening individual households with emergency medical expenses.

Compounding these physical hazards is a widespread deficit in formal skill certification and technical recognition. The overwhelming majority of traditional Nigerian artisans acquire their trade competencies through informal apprenticeship systems rather than accredited technical colleges (Akinshipe et al., 2022). While these indigenous training pathways build practical trade familiarity, they leave workers without standardized credentials recognised by corporate clients or public sector procurers (National Board for Technical Education, 2020). Lacking recognized certification under frameworks like the National Skills Qualification Framework (NSQF), highly experienced artisans remain locked into lower-tier, lower-paid peripheral roles regardless of their actual site proficiency (Aminu et al., 2022).

This lack of formal credentialing is further exacerbated by restricted access to modern technical tools, digital devices, and specialized equipment. As corporate construction increasingly integrates digital modelling, power machinery, and advanced assembly methods, casual artisans are expected to supply their own manual hand tools (Loosemore et al., 2003; Oke et al., 2025). High capital costs prevent peripheral workers from acquiring specialized modern equipment independently, creating a technical barrier that restricts their capacity to execute high-precision work or transition into high-value core positions.

Finally, weak institutional organization and limited collective bargaining power restrict artisans from advocating for improved working conditions. Trade unions and master craft associations within the Nigerian informal sector remain fragmented, localized, and under-resourced (Wells, 2007). Unlike core managerial or professional staff represented by statutory professional bodies, peripheral artisans lack effective representation to negotiate standardized wage floors, enforce safety standards, or challenge unfair contractual practices (Aje & Awodele, 2006). This institutional marginalization perpetuates the precarious core-periphery divide, locking the bulk of the artisan workforce into persistent informality.

Table 4 summarizes these operational challenges alongside their structural manifestations within the Nigerian construction labour market.

Table 4: Major Challenges Facing Nigerian Construction Artisans, Mapped to Workforce Position

Challenge	Concentrated In	Underlying Mechanism
Skills Shortages / Mismatch	Periphery	Absence of firm-sponsored training for non-permanent staff
Weak Occupational Safety	Periphery (subcontracted)	Diffused operational accountability across subcontracting layers
Informal Employment	Periphery	Labor cost minimization via short-term, unrecorded hiring
Weak HRM Implementation	Periphery and select core	Enterprise capacity constraints and informal management habits
Limited Credit Access	Periphery (self-employed)	Lack of institutional collateral and formal business backing
Declining Apprenticeship Uptake	Cross-cutting (core and periphery)	Shifts in occupational preferences among younger demographics

Source: Synthesis based on Wells (2007), ILO (2015, 2019), Akinshipe et al. (2022), Aminu et al. (2022), and Babalola et al. (2023).

STRATEGIC POLICY AND INDUSTRY INTERVENTIONS

Addressing the structural vulnerabilities of the Nigerian artisan workforce requires multi-level interventions that bridge the core-periphery gap. Rather than attempting to eliminate labour flexibility entirely - which would conflict with the commercial realities of project-based construction - policy measures must focus on raising baseline protections, expanding skill recognition, and enhancing the functional capability of non-permanent workers.

At the national level, policy reforms must prioritize the systemic expansion and decentralization of the National Skills Qualification Framework (NSQF). Recognizing that the vast majority of tradesmen learn on the job, the National Board for Technical Education (NBTE) and industry skill councils should establish accessible, localized centres for the Recognition of Prior Learning (RPL) (National Board for Technical Education, 2020). By enabling experienced informal artisans to undergo practical assessment and achieve formal trade certification without requiring extended formal schooling, RPL pathways directly remove the credentialing barrier that confines skilled workers to peripheral status (Aminu et al., 2022; Windapo, 2016).

Parallel to institutional certification, the formalization of casual employment practices represents an urgent regulatory priority. Public sector procurement frameworks should mandate basic labour standards, site safety compliance, and mandatory insurance coverage for all sub-contracted tradesmen on government-funded infrastructure projects (International Labour Organization, 2015). Enforcing transparent, written trade agreements and standardizing site safety protocols across medium-to-large contracts would significantly reduce payment default and mitigate physical hazards for non-permanent workers (Ameh & Daniel, 2017; Fewings & Henjewe, 2019).

Industry-led initiatives can further complement public policy by expanding access to modern construction technology and specialized equipment. Contractor associations and municipal trade guilds should establish equipment-sharing cooperatives and localized technology hubs where peripheral artisans can access, rent, or receive training on advanced tools, BIM viewers, and digital layout equipment (Adekunle et al., 2021; Oke et al., 2025). Furthermore, main contractors can build continuous skill-upgrading modules into major projects, enabling casual tradesmen to gain multi-skilled competencies in sustainable and off-site construction techniques during active developments (Chukwu et al., 2026; Daniel et al., 2024).

Ultimately, strengthening trade association governance is vital for giving artisans a unified platform for market participation and collective bargaining. Empowering local master craft associations to interface directly with main contractors, financial institutions, and vocational bodies allows peripheral workers to secure pooled healthcare, micro-credit access, and equitable wage structures (Odediran & Babalola, 2014; Wells, 2007). Through coordinated policy, technical, and institutional reforms, the Nigerian construction sector can build a more resilient, equitable, and highly skilled artisan ecosystem capable of supporting sustainable national development.

LIMITATIONS OF THE STUDY

This study adopts a structured narrative review and theoretical synthesis methodology rather than primary empirical data collection. While the synthesis covers $N = 38$ primary studies and official policy documents, a different search strategy or database selection could identify additional localized literature, particularly conference proceedings or recent grey literature. Furthermore, where direct Nigerian empirical literature on specific trade practices was limited, evidence was selectively incorporated from comparative foreign contexts, such as South Africa and the United Kingdom. While these international comparative sources provide valuable theoretical baselines, institutional differences in governance, economic scale, and industrial development limit direct equivalence. Finally, the core-periphery classification applied across Nigerian artisan trades represents an interpretive framework synthesis rather than a quantitative categorization validated through primary survey data. National labour statistics currently lack sufficient disaggregation to measure core-periphery ratios directly. Empirical validation of these theoretical propositions through large-scale field surveys remains a critical priority for future research.

CONCLUSION

The changing employment relationships observed in the Nigerian construction sector, including widespread casualisation, labour subcontracting, self-employment, and persistent skill gaps, do not represent isolated empirical developments. Interpreted through Atkinson's Flexible Firm Model, these changes resolve into a single, coordinated workforce-segmentation strategy. Contractors increasingly maintain a small, multi-skilled core of

functionally flexible artisans while shifting demand volatility, training burdens, and safety risks onto an expanding periphery of casual and subcontracted labour.

By providing a unified theoretical interpretation of disjointed empirical findings, this study advances construction management literature and provides an explicit foundation for targeted policy formulation. The primary practical insight is that policies addressing construction artisans as a single, undifferentiated demographic will inadvertently disproportionately benefit core artisans while failing peripheral workers. Closing the sector's skill and welfare deficits requires targeted interventions. Reforming vocational education to reach informal workers, enforcing joint safety liability across subcontracting tiers, and expanding digital literacy and micro-finance access for self-employed tradesmen are essential measures to ensure industrial flexibility does not undermine long-term workforce capability.

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