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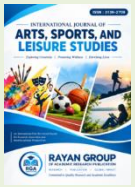

AUTOMATION, SKILLS POLARISATION AND THE FUTURE OF INDUSTRIAL EMPLOYMENT IN NIGERIA: A SOCIOLOGICAL ANALYSIS OF MANUFACTURING AND SERVICE WORK

By

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Abstract
This article interrogates the changing architecture of occupational structures in Nigeria's manufacturing and service sectors in light of accelerating automation and digital adoption. Rather than treating technological change as a purely economic affair, the study situates it within a sociological reading of work, arguing that Nigerian labour markets are being reorganized along polarized lines that favour a thin stratum of highly skilled workers and a much broader mass of precarious, low-skill service labour, while routine middle-skill positions in banking, manufacturing and clerical work are progressively hollowed out. Drawing on secondary data from the National Bureau of Statistics, the International Labour Organization, the World Economic Forum and a purposive review of Nigerian and international scholarship, the paper is anchored on dual labour market theory and the task-based automation framework associated with Autor, Levy and Murnane, and Acemoglu and Restrepo. Findings suggest that automation in Nigerian banking and manufacturing firms is displacing routine occupations, that the informal and gig economies are absorbing displaced labour under precarious terms, and that technical and vocational training systems remain poorly aligned with emerging skill demands. The paper concludes that inclusive industrial and educational policy, rather than resistance to technology, offers the more viable pathway for Nigeria's labour market.

Keywords: *automation; skills polarisation; industrial employment; Nigeria; sociology of work; manufacturing; gig economy*

1. Introduction and Background to the Study

Work has never been a fixed category. It bends, historically, to whatever tools a given epoch places in the hands of production. What is distinctive about the present moment, however, is the pace at which digital and robotic technologies are reconfiguring who does what kind of work, under what conditions, and for how much reward. In much of the industrialized world, this reconfiguration has already produced a well-documented pattern of job polarisation, in which employment grows at the top and bottom of the occupational ladder while the middle, historically the preserve of routine clerical and production work, thins out (Acemoglu & Restrepo, 2020). Whether a similar pattern is emerging in a developing, oil-dependent economy such as Nigeria, where the informal sector still absorbs the overwhelming majority of workers, is a question that has received comparatively modest sociological attention, even as it has attracted growing interest from economists and policy analysts.

Nigeria's industrial employment landscape sits at an uneasy intersection of several pressures. On one hand, the manufacturing sector, though contributing a modest share of gross domestic product, remains a strategic pillar of the country's economic diversification agenda, and firms in food processing, cement, textiles and light engineering are gradually adopting robotics, sensor-based quality control and predictive maintenance systems (Balogun, 2025). On the other hand, the service economy, particularly banking, telecommunications and the platform-mediated gig sector, has undergone a more visible and arguably more disruptive wave of automation, evident in the proliferation of automated teller machines, mobile banking applications, chatbots and algorithmically managed delivery and ride-hailing platforms (Eretan& Omotoso, 2025; Ajonbadi et al., 2025). These developments unfold against a backdrop of a labour force that, according to the most recent Nigeria Labour Force Statistics Report, records a headline unemployment rate of 4.3 per cent alongside youth unemployment of 6.5 per cent, time-related underemployment of 9.2 per cent, and an informal employment share as high as 93 per cent (National Bureau of Statistics, 2024). Figure 1 illustrates these indicators.

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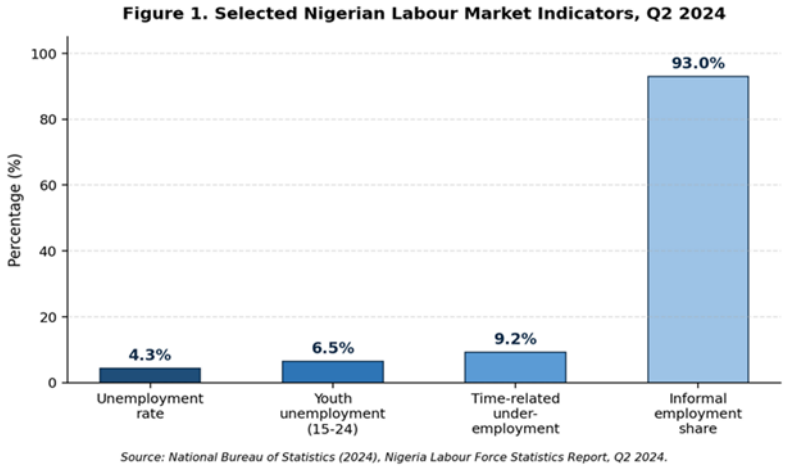

Figure 1. Selected Nigerian Labour Market Indicators, Q2 2024

It would be a mistake, this paper suggests, to read these figures purely as a story of joblessness. A headline unemployment rate below five per cent, sitting alongside an informal employment share above ninety per cent, tells a more complicated story: one in which most Nigerians who count as "employed" are, in fact, working in unprotected, low-productivity, and frequently precarious arrangements. It is precisely this terrain, rather than formal joblessness as conventionally measured, onto which automation is now intruding. The concern of this article is therefore not whether robots will simply take Nigerian jobs in some crude, headline-grabbing sense, but rather how the qualitative texture of available work, its skill content, its security, and its rewards, is being reshaped as digital and robotic technologies diffuse unevenly across manufacturing firms, financial institutions and platform-based service enterprises.

It is also worth acknowledging, at the outset, that the African automation literature is itself divided between a comparatively optimistic school, which holds that low labour costs, a youthful population and the sheer scale of informality make wholesale robotic displacement unlikely on the continent in the near term, while emphasising the job-creating potential of new digital business lines (Fox &Signé, 2022), and a more cautious school, which warns that even partial automation of routine tasks in the still-small formal sector could disproportionately affect the limited stock of decent jobs available to African workers unless skills policy keeps pace (Walter et al., 2024). This paper does not attempt to adjudicate definitively between these positions; rather, it treats the tension between them as itself sociologically instructive, since it points to a labour market in which formal and informal segments are likely to experience technological change in quite different registers, a possibility that dual labour market theory is well equipped to accommodate.

The remainder of the paper proceeds as follows. Section two sets out the theoretical framework, drawing on dual labour market theory and the task-based automation literature. Section three reviews relevant Nigerian and comparative scholarship. Section four describes the secondary-data approach adopted. Section five presents and discusses findings on manufacturing, banking and gig work. Section six draws out policy implications, section seven acknowledges the study's limitations, and section eight concludes.

2. Theoretical Framework

2.1 Dual Labour Market Theory

The first theoretical lens adopted in this study is dual labour market theory, associated principally with Doeringer and Piore (1971), which distinguishes between a primary labour market characterised by stable employment, internal career ladders, relatively high wages and institutional protection, and a secondary labour market marked by insecurity, low pay, limited advancement and weak regulatory cover. Although the theory was originally formulated with reference to industrialisedlabour markets, it maps unusually well onto the Nigerian case, where a comparatively small formal sector, itself increasingly automating routine functions, coexists with a vast informal and gig economy into which displaced and new entrant workers are continuously channelled. What this framework usefully foregrounds is that automation does not simply remove jobs; it can also actively sort workers into starkly different labour market segments, reinforcing rather than dissolving existing inequalities of access, credential and social network. Sociologically, this segmentation is not incidental but structural, in the sense that mobility between the two segments is constrained by factors, such as educational access, geographic location and social capital, that automation itself does little to equalise.

2.2 Task-Based Automation Theory

The second framework, complementary to the first, is the task-based approach to automation and skill demand developed by Autor, Levy and Murnane (2003) and subsequently extended by Acemoglu and Restrepo (2020). Rather than treating occupations as undifferentiated bundles of "skill," this approach disaggregates jobs into constituent tasks and asks which of these tasks are routine, and therefore codifiable and machine-substitutable, and which are non-routine, whether manual or cognitive, and therefore comparatively resistant to automation, at least in the near term. The resulting prediction, empirically substantiated across several advanced economies, is a U-shaped or polarised pattern of employment change: growth at the lower end, in non-routine manual service occupations that are difficult to codify (caregiving, security, delivery), growth at

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the upper end, in non-routine cognitive occupations requiring judgement, creativity and interpersonal skill (management, finance, engineering), and contraction in the middle, among routine clerical, administrative and production occupations that automation most readily displaces. Figure 2 renders this pattern schematically, adapted to the Nigerian labour market context under discussion here.

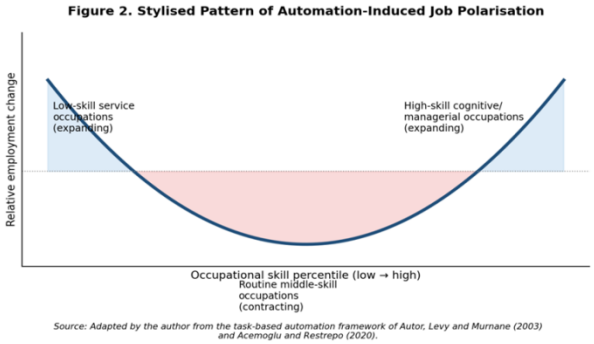

Figure 2. Stylised Pattern of Automation-Induced Job Polarisation

Taken together, these two frameworks allow the paper to ask not merely whether automation reduces aggregate employment in Nigeria, an empirical question this desk-based study is not positioned to settle definitively, but how automation reshapes the distribution of task content across occupations, and how that reshaping interacts with a labour market already segmented along formal-informal lines. It should be conceded that the polarisation thesis was derived from, and is best validated within, labour markets with comparatively complete occupational data and formal employment records; applying it to a setting where over ninety per cent of employment is informal necessarily involves a degree of theoretical extrapolation, a limitation this paper returns to in its concluding remarks.

3. Literature Review

3.1 Automation and Manufacturing Employment in Nigeria

A growing body of Nigerian scholarship has begun to interrogate how automation is reconfiguring manufacturing employment. Eretan and Omotoso (2025), surveying 524 workers across manufacturing firms, found a statistically significant positive association between robotics application and both job enhancement and employee benefits, a finding that complicates any simple displacement narrative and suggests that, at least at the firm level currently observed, robotics adoption in Nigerian manufacturing has thus far been more complementary than substitutive. Ogunsanwo and Oyelekan (2024), employing a structural equation model on data from three manufacturing organisations in the Lagos industrial cluster, similarly reported that artificial intelligence, the Internet of Things and data analytics each exerted a favourable, statistically significant influence on employment levels, jointly explaining a substantial proportion of variance in employment outcomes. These findings, it must be said, sit somewhat uneasily alongside the broader international literature on robotisation and employment, most notably Acemoglu and Restrepo's (2020) commuting-zone analysis of the United States, which documented a robust negative relationship between robot exposure and both employment and wages. One plausible reconciliation is that Nigerian manufacturing remains, in relative terms, at an early and still labour-augmenting stage of automation, in which machines are deployed to relieve bottlenecks and raise productivity rather than to substitute wholesale for labour, a pattern consistent with case-study evidence from African manufacturing more broadly (Balogun, 2025).

Balogun (2025) situates this discussion within Nigeria's wider deindustrialisation debate, observing that manufacturing contributes a modest share of gross domestic product and operates at a capacity utilisation rate below sixty per cent, even as the sector remains a significant employer. The mixed-methods study identifies erratic electricity supply and logistical inefficiency, rather than automation itself, as the more binding constraints on manufacturing competitiveness, while noting that firms such as Dangote Cement and Nestlé Nigeria have achieved meaningful productivity gains through robotics and predictive maintenance. This suggests a bifurcated manufacturing landscape: a relatively small stratum of large, capital-intensive firms pursuing automation from a position of relative strength, and a much larger population of small and medium enterprises for whom automation remains financially and infrastructurally out of reach, a distinction with direct implications for the polarisation thesis advanced in this paper.

3.2 Automation in Banking and the Financial Services Sector

The Nigerian banking sector offers perhaps the clearest domestic illustration of routine job displacement. Successive waves of automation, from automated teller machines through internet and mobile banking to, more recently, artificial intelligence-enabled customer service and fraud detection, have progressively reduced the demand for the sector's traditionally largest occupational category: the teller and routine transaction-processing clerk. Central Bank of Nigeria statistics cited in recent commentary indicate that deposit money banks closed a net 476 physical branches and cash centres between 2022 and 2025, an 8.8 per cent contraction in physical banking infrastructure nationwide, even as digital transaction volumes have risen (Business Post Nigeria, 2026). This is precisely the sort of routine-task contraction anticipated by task-based automation theory. At the same time, banks report a countervailing expansion of roles requiring judgement, relationship management, cybersecurity expertise and data analytic capability, illustrating the polarising rather than uniformly job-destroying character of banking sector automation.

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It is worth noting, however, that older Nigerian studies on this question found more starkly negative effects: survey-based research on Lagos-area deposit money banks reported that electronic banking adoption was directly associated with job losses and early retirement among teller staff, with automated teller machines and electronic payment platforms identified as the principal drivers of that displacement. The apparent tension between these earlier findings and the more recent, comparatively sanguine evidence from manufacturing may again reflect sectoral differences in the pace and labour-intensity of automation, with banking, being more amenable to digitisation of core transactional tasks, exhibiting displacement effects earlier and more visibly than manufacturing.

3.3 The Gig Economy, Platform Work and Informality

A parallel and, for a sociological analysis, arguably more consequential literature examines the digitally mediated gig economy into which many displaced and newly entering Nigerian workers are absorbed. Anwar and Graham (2021), drawing on a four-year study of sixty-five remote gig workers across South Africa, Kenya, Nigeria, Ghana and Uganda, characterise platform-based digital labour along four analytical dimensions, freedom, flexibility, precarity and vulnerability, arguing that these should be understood as existing on a continuum rather than as discrete categories. Their companion study (Anwar & Graham, 2020) further documents the everyday resistance and resilience strategies through which African gig workers manage algorithmic monitoring and income volatility, a finding that resonates with dual labour market theory's emphasis on the constrained agency available to secondary-segment workers. Ajonbadi et al. (2025), focusing specifically on Nigeria's platform economy, apply an institutional theory lens to examine the mechanisms, or rather the notable absence of effective mechanisms, through which platform workers might exercise collective voice, concluding that the regulative, normative and cultural-cognitive pillars of Nigeria's institutional environment presently offer weak protection for this expanding category of worker.

This body of work complicates any straightforward reading of the informal and gig sectors as simply "absorbing" displaced formal-sector labour. Rather, what emerges is a picture in which automation in the formal economy and the expansion of platform-mediated informal work are two faces of a single underlying process: the progressive substitution of standard, protected employment relations with more fragmented, individualised and algorithmically governed forms of work. Whether this constitutes genuine occupational mobility or merely a lateral shift between different forms of precarity is, this paper suggests, an open and pressing empirical question. It is also likely to be a gendered question, since the precarity and vulnerability that Anwar and Graham (2021) document for African gig workers in general is plausibly compounded, for women platform workers specifically, by unpaid care responsibilities and unequal access to the digital infrastructure on which platform participation depends. A fully gendered analysis of Nigerian platform work lies beyond the scope of this paper, but the pattern is flagged here as a necessary direction for subsequent sociological inquiry.

3.4 Skills, Human Capital and the Digital Divide

A further strand of literature situates Nigeria's automation debate within a human capital and skills-formation frame. Anowor, Chibuzo, Anigbo and Ukpere (2025), anchoring their analysis in human capital theory and signalling theory, argue that weak digital infrastructure, affordability constraints, low digital literacy and inconsistent policy execution collectively undermine youth employability even as digital competencies become increasingly central to labour market success. Ayodele, Gbajumo-Sheriff and Elegbede (2026) extend this argument into the domain of employment relations more broadly, contending that Nigeria's transition to a digital economy is generating emergent challenges for which existing regulatory and industrial relations frameworks are ill-prepared, and recommending targeted upskilling and reskilling programmes as a precondition for sustainable employment outcomes. Otighi (2025), approaching the question from a comparative legal-policy standpoint, examines the contested proposal of a "robot tax" as a fiscal instrument for funding worker retraining, drawing on South Korean and European Union experience to argue for a more deliberate Nigerian policy response to automation's distributive consequences. Read alongside one another, these contributions suggest a broad scholarly consensus that Nigeria's skills-formation architecture, spanning basic digital literacy, technical and vocational education, and tertiary curricula, has not kept pace with the skill demands that automation and digitalisation are generating, a mismatch that this paper treats as central to the polarisation dynamic under investigation.

4. Methodology

This study adopts a qualitative, desk-based research design premised on the systematic review and thematic synthesis of secondary data. Three categories of secondary source were drawn upon. First, official labour market statistics were obtained from the National Bureau of Statistics' Nigeria Labour Force Statistics Reports, supplemented by International Labour Organization and World Economic Forum publications, to establish the quantitative contours of Nigeria's employment structure. Second, peer-reviewed empirical studies, drawn predominantly from Nigerian-authored scholarship published between 2020 and 2026 in sociology, management, economics and labour-relations outlets, were purposively sampled to capture sector-specific evidence on manufacturing, banking and platform work. Third, comparative international literature on automation and job polarisation, principally the task-based automation tradition associated with Autor, Levy and Murnane (2003) and Acemoglu and Restrepo (2020), was reviewed to provide the theoretical scaffolding against which Nigerian evidence could be interpreted.

Sources were located through structured searches of academic databases and institutional repositories, using combinations of terms including "automation," "robotics," "job polarisation," "gig economy," "informal sector" and "Nigeria." Sources were included where they addressed, directly or substantially, the relationship between technological change and employment, work quality or skill demand within a Nigerian or comparable Sub-Saharan African context, or where they contributed a theoretical framework of direct relevance to the study's analytical objectives. Priority in source selection was given, wherever possible, to work authored or co-authored by Nigerian scholars, on the reasoning that locally grounded scholarship is best placed to capture the institutional and cultural texture of Nigeria's labour market, though comparative African and international literature was retained where it supplied theoretical grounding unavailable domestically.

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Data were analysed thematically, with recurring patterns coded manually across three broad categories: sectoral evidence of automation's employment effects, evidence of labour market segmentation and informality, and evidence relating to skills mismatch and policy response. Within each category, sources were further read for points of convergence and divergence, since a purely additive summary of findings risks obscuring genuine scholarly disagreement, such as that noted above between manufacturing studies reporting complementary automation effects and international evidence of net displacement. This approach, while inherently interpretive and dependent on the quality and availability of existing published research, was judged appropriate to the exploratory, theory-building character of the present inquiry, and is consistent with methodological precedents in comparable Nigerian desk-review studies (Anowor et al., 2025).

5. Findings and Discussion

5.1 Sectoral Patterns of Automation Adoption

Table 1 summarises the pattern of automation adoption and associated employment consequences identified across the three sectors reviewed. The table should be read as a synthesis of the reviewed literature rather than as an original primary-data tabulation.

Table 1. Sectoral Patterns of Automation and Employment Effects in Nigeria

Sector	Principal automation technologies	Reported employment effect	Key sources
Manufacturing	Robotics, IoT sensors, predictive maintenance, data analytics	Predominantly complementary; productivity and, in several studies, employment gains reported, concentrated in large firms	Eretan& Omotoso (2025); Ogunsanwo&Oyelekan (2024); Balogun (2025)
Banking and finance	ATMs, mobile/internet banking, AI-enabled customer service and fraud detection	Displacement of routine teller and clerical roles; branch network contraction; expansion of analytic and advisory roles	Business Post Nigeria (2026); earlier e-banking studies cited in text
Gig and platform services	Ride-hailing, delivery and freelance digital platforms; algorithmic task allocation	Absorption of displaced and new-entrant labour under precarious, weakly regulated terms	Anwar & Graham (2020, 2021); Ajonbadi et al. (2025)

5.2 Manufacturing: Complementary Automation, for Now

The manufacturing evidence reviewed above resists a simple displacement narrative. Where Eretan and Omotoso (2025) and Ogunsanwo and Oyelekan (2024) each report positive associations between automation technologies and employment outcomes, the more plausible reading, this paper argues, is not that automation straightforwardly creates jobs in Nigerian manufacturing, but that the current, still-early stage of adoption is concentrated among a small number of well-capitalised firms for whom automation complements, rather than substitutes for, existing labour, chiefly by relieving productivity bottlenecks associated with erratic power supply and logistical inefficiency (Balogun, 2025). This pattern is consistent with dual labour market theory's expectation that primary-segment firms, characterised by greater capital intensity and institutional stability, will experience automation differently from the far larger population of micro, small and medium manufacturing enterprises that continue to rely on manual, low-productivity production methods. Should automation adoption deepen and diffuse beyond this primary segment, however, the task-based literature would predict a shift toward the more classically polarising pattern already visible in banking, a possibility Nigerian manufacturing has arguably not yet reached but cannot be assumed to be permanently exempt from.

5.3 Banking: A Domestic Illustration of Routine-Task Displacement

Banking presents the most legible domestic case of the routine-biased displacement anticipated by Autor, Levy and Murnane's (2003) framework. The physical contraction of banking infrastructure alongside continued growth in digital transaction volumes indicates that routine, codifiable transaction-processing tasks, precisely those most amenable to automation, are being progressively withdrawn from human labour, while tasks requiring interpersonal judgement, complex problem-solving or specialised technical knowledge, such as cybersecurity and data analysis, are comparatively insulated and, in some cases, expanding. This bifurcation within a single sector offers a compact illustration of the broader polarisation thesis: it is not that banking employment is uniformly contracting, but that its occupational composition is being reshaped, favouring workers with either advanced technical or relational skill sets over those whose competence lies chiefly in routine procedural execution.

5.4 The Gig Economy as Shock Absorber and Site of New Precarity

Where displaced routine workers, and new labour market entrants unable to secure formal employment, ultimately land is a question this paper considers sociologically decisive. The evidence reviewed here points overwhelmingly toward the informal and platform-mediated gig economy, a sector whose share of total employment, at 93 per cent nationally (National Bureau of Statistics, 2024), was already vast before the current wave of digital disruption. Ajonbadi et al.'s (2025) finding that Nigerian platform workers possess weak institutional mechanisms for collective voice, combined with Anwar and Graham's (2021) characterisation of gig work as existing on a precarity-vulnerability continuum, suggests that this absorption occurs on markedly unequal terms relative to the routine formal employment it often replaces. Table 2 contrasts stylised features

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of routine formal employment with the platform-mediated informal work into which many displaced workers transition, synthesising the qualitative distinctions drawn out across the reviewed literature.

Table 2. Stylised Comparison of Routine Formal Employment and Platform-Mediated Informal Work

Dimension	Routine formal employment (pre-automation)	Platform-mediated informal work
Income stability	Fixed monthly wage	Variable, task-contingent earnings
Social protection	Pension, health insurance, union representation (where applicable)	Largely absent; minimal statutory coverage
Working-time control	Employer-set, fixed schedules	Nominally flexible, but algorithmically shaped
Voice and representation	Collective bargaining channels, however imperfect	Fragmented; weak institutional voice mechanisms
Skill trajectory	Internal promotion, on-the-job training	Limited formal skill accumulation pathways

This comparison should not be read as a romanticisation of Nigeria's pre-automation formal sector, which itself excluded the majority of the workforce and carried its own well-documented deficiencies. Rather, the point is a narrower, sociologically significant one: that the transition from routine formal work to platform-mediated informal work represents, on most of the dimensions summarised in Table 2, a net deterioration in job quality, even where it may occasionally offer greater nominal flexibility or, for a minority of digitally skilled workers, higher earnings than the routine positions being displaced.

5.5 Skills Mismatch as the Binding Constraint

A recurring theme across the literature reviewed, and one this paper regards as analytically central, is that the constraint on more inclusive automation outcomes in Nigeria is less a matter of technology itself than of the country's skills-formation architecture. Anowor et al. (2025) attribute weak youth employability substantially to infrastructural and policy failures rather than to any inherent deficit of ability among Nigerian youth, a framing consistent with human capital theory's emphasis on investment, rather than innate endowment, as the principal lever of productivity and employability. Ayodele et al.'s (2026) call for targeted upskilling and reskilling, and Otighi's (2025) proposal for automation-linked fiscal instruments to fund such retraining, both point toward the same underlying diagnosis: that without deliberate and well-resourced intervention in technical and vocational education, the polarisation pattern documented in this paper's findings is likely to deepen rather than self-correct.

6. Policy Implications and Recommendations

Several policy implications follow from the foregoing analysis, though it must be stressed that these are advanced tentatively, given the desk-based and interpretive character of the evidence base. First, technical and vocational education institutions require substantial curricular and infrastructural reform to align training provision with the non-routine cognitive and manual competencies that automation is rendering increasingly valuable, rather than continuing to produce graduates skilled chiefly in the routine tasks most exposed to displacement. Second, policymakers should consider extending social protection instruments, including portable benefits and minimum income guarantees, to platform and gig workers, whose growing numerical significance within the Nigerian labour force is not matched by commensurate institutional protection. Third, the fiscal and regulatory proposals advanced by scholars such as Otighi (2025) merit serious policy consideration, not necessarily in their specific form, but as instances of the broader principle that firms benefiting from automation-driven productivity gains might reasonably be expected to contribute toward the retraining of workers whose tasks those same technologies displace. Fourth, given the evident divergence between large, capital-intensive manufacturing firms and the far larger population of small and medium enterprises, industrial policy should differentiate its automation-support instruments accordingly, ensuring that smaller firms are not simply left further behind in productivity terms.

A fifth and, in this paper's assessment, underappreciated implication concerns the institutional voice of workers already inside the platform and informal economies. Ajonbadi et al. (2025) demonstrate that regulative, normative and cultural-cognitive institutions in Nigeria presently offer these workers only weak channels through which to negotiate terms with platform firms; strengthening sectoral bargaining forums, cooperative structures or digitally enabled worker associations would therefore address not automation as such, but the institutional vacuum into which automation-displaced and newly entering labour is currently absorbed. Taken together, these five recommendations share a common orientation: they treat automation as a structural feature of Nigeria's economic future to be actively managed and distributed more equitably, rather than as a phenomenon to be resisted or, conversely, left to resolve itself through market forces alone.

7. Limitations of the Study

As a desk-based synthesis of secondary sources, this study is subject to several limitations that should temper the confidence with which its arguments are held. First, the Nigerian empirical studies reviewed vary considerably in methodological rigour, sample composition and geographic coverage, several being confined to Lagos-area firms, so that generalisation to the country's more diverse regional economies should

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be made cautiously. Second, the task-based automation framework underpinning the paper's central analytical claims was developed principally from labour markets with far more complete occupational and wage data than Nigeria currently produces, meaning that the paper's polarisation argument is, at this stage, better understood as a plausible theoretical extrapolation than as a directly tested empirical finding for the Nigerian case. Third, the absence of primary panel data linking individual workers' occupational transitions before and after automation events, the kind of data that has anchored the international polarisation literature, means the paper cannot speak with precision to the magnitude, timing or reversibility of the employment effects it describes. These limitations point directly toward the research agenda identified in the concluding section below.

8. Conclusion

This paper has argued that automation's advance into Nigerian manufacturing, banking and service work is best understood not as a uniform threat to employment as conventionally measured, but as a force reshaping the internal composition of available work along polarised lines, a pattern for which dual labour market theory and the task-based automation framework together provide considerable explanatory purchase. The evidence reviewed suggests that Nigerian manufacturing remains, for now, at a largely complementary stage of automation concentrated among a narrow band of large firms, that banking offers the clearest domestic instance of routine-task displacement, and that the informal and platform-mediated gig economy is absorbing much of the resulting labour reallocation on markedly unequal terms. Whether this trajectory consolidates into the sharper, more entrenched polarisation observed in advanced industrial economies will depend substantially on choices Nigerian policymakers, educational institutions and employers make now, particularly regarding the country's skills-formation architecture. Future research, ideally incorporating primary occupational panel data of the kind that has underpinned much of the international polarisation literature, would considerably strengthen the empirical foundation on which the arguments advanced here currently rest.

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