

ALGORITHMIC MANAGEMENT AND LABOUR RIGHTS IN AFRICA: REGULATORY GAPS AND POLICY PATHWAYS WITH NIGERIA AS A CASE STUDY*

Abstract

The increasing adoption of algorithmic systems in hiring, supervision and performance evaluation is transforming workplace governance across Africa. In Nigeria, private-sector organisations in banking, telecommunications, logistics and digital services now rely on artificial intelligence and automated decision-making tools to screen candidates, monitor productivity and assign performance scores. While these systems are presented as efficient and objective, they raise significant concerns relating to labour rights, workplace surveillance, data protection and algorithmic bias. This study employs a doctrinal and comparative analytical approach, examining the interaction between algorithmic management, constitutional guarantees and statutory labour protections in Nigeria, and positioning these developments alongside regulatory trajectories in South Africa, Kenya, Rwanda and Ghana. The findings show that existing labour and data protection frameworks do not adequately safeguard workers' rights to dignity, fairness, transparency and human review in automated decision-making processes. Drawing on contemporary global regulatory developments, including the European Union Artificial Intelligence Act and emerging guidance on algorithmic accountability, the article proposes a rights-based governance framework grounded in transparency obligations, algorithmic impact assessment, mandatory human oversight and enforceable avenues for contestation and redress. It concludes that proactive regulatory intervention is necessary to ensure that technological innovation advances efficiency without undermining equality and justice in the future of work in Africa.

Keywords: Algorithmic Management, Labour Rights, Data Protection, Automated Decision-Making, Employment Laws in Africa

1. Introduction

The digitalization of work is advancing rapidly across African economies, reshaping how labour is organised, supervised and evaluated¹. Organizations are increasingly deploying algorithmic **management** systems automated decision-making tools that analyse data on workers and job applicants to support or replace human managerial functions². These systems, often powered by artificial intelligence (AI) and machine-learning models, now influence recruitment outcomes, productivity assessments, promotion decisions, workload allocation, and even contract termination in private-sector workplaces³. In Nigeria, the use of algorithmic management has expanded significantly in sectors such as banking, telecommunications, e-commerce, logistics and outsourcing⁴. Many banks now rely on automated candidate-screening tools in graduate trainee recruitment pipelines, while digital service platforms apply rating algorithms to evaluate driver, courier, and delivery

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¹ A. De Stefano, 'The Rise of the 'Just-in-Time Workforce': On-Demand Work, Crowdsourcing, and Labour Protection in the 'Gig-Economy'' (ILO 2016).

² OECD, *Algorithms and their Implications on Labour Markets* (2021).

³ ILO, *World Employment and Social Outlook: The Role of Digital Labour Platforms in Transforming Work* (2021).

⁴ N. O. Udama, 'Digital Transformation and the Nigerian Labour Market' *African Review of Economics and Finance* (2023).

performance⁵. Remote and hybrid-work organizations also deploy productivity dashboards and behavioral monitoring software to track workflow and task completion.⁶ While these systems are promoted for efficiency, cost reduction, and standardization, they raise substantial legal and ethical concerns⁷.

Research demonstrates that algorithmic decision-making can reinforce existing social inequalities if trained on biased datasets or designed around optimization logics that ignore contextual fairness⁸. In such cases, algorithmic hiring and performance evaluation may amount to indirect discrimination under Nigerian labour and constitutional law⁹. The opacity of algorithmic systems further undermines procedural fairness because affected workers may not understand how adverse decisions were reached, hindering their constitutional right to fair hearing¹⁰. Additionally, continuous digital surveillance may infringe the constitutional right to dignity and the right to privacy guaranteed under section 34 and section 37 of the 1999 Constitution (as amended)¹¹. However, Nigeria's labour law framework has not been updated to reflect these technological developments¹². The Labour Act 2004 presumes a workplace governed by human managerial discretion and contains no provisions on automated or algorithmic decision-making¹³. Similarly, although the Nigeria Data Protection Act 2023 establishes principles of lawfulness, fairness and data minimization, it does not provide workers with rights to explanation, objection, or human review of algorithmic decisions in employment contexts¹⁴. This regulatory gap mirrors broader trends across Africa, where digital transformation in the labour market is progressing faster than labour law reform¹⁵. In contrast, other jurisdictions have begun to regulate algorithmic management explicitly¹⁶. The European Union Artificial Intelligence Act 2024 classifies employment-related AI systems as 'high-risk', requiring risk assessment, transparency obligations, ongoing monitoring, and human oversight mechanisms¹⁷. The United States Equal Employment Opportunity Commission (EEOC) has issued guidance confirming that employers are legally responsible for discriminatory outcomes produced by automated hiring tools¹⁸.

This article therefore examines how algorithmic management challenges established labour rights in Africa, using Nigeria as a case study. It evaluates the existing legal framework, identifies critical regulatory gaps, and proposes a rights-based policy pathway grounded in transparency, algorithmic impact assessment, mandatory human review and enforceable rights to explanation and appeal¹⁹. The

⁵ J. A. Oduwale, 'Platform Work and Technological Surveillance in Nigeria' *Journal of African Law* (2022).

⁶ McKinsey Global Institute, *Future of Work in Africa: Harnessing Technology for Productivity* (2020).

⁷ S. K. Oladapo, 'Ethical Implications of AI Adoption in Nigerian Workplaces' *International Journal of Labour Studies* (2022).

⁸ S. Barocas & A. Selbst, 'Big Data's Disparate Impact' *California Law Review* 104(3) (2016).

⁹ T. I. Adebisi, 'Equality and Non-Discrimination in Nigeria's Digital Labour Market' *Nigerian Journal of Labour Law* (2021).

¹⁰ E. K. Afolabi, 'Procedural Justice and AI Decision-Making in Nigeria' *Journal of Law, Technology and Policy* (2022).

¹¹ Constitution of the Federal Republic of Nigeria (1999, as amended).

¹² O. M. Fajana, *Labour Law in Nigeria* (2nd edn, HEBN 2020).

¹³ *Labour Act*, Cap L1 LFN 2004

¹⁴ Nigeria Data Protection Act (NDPA) 2023.

¹⁵ African Union, *Digital Transformation Strategy for Africa 2020–2030*.

¹⁶ A. R. Gwagwa, 'Regulating AI in Africa: Challenges and Prospects' *Data Governance Africa Report* (2023).

¹⁷ European Union, *Artificial Intelligence Act* (2024).

¹⁸ EEOC, 'Technical Assistance: Assessing Adverse Impact in Software, Algorithms and AI Used in Employment Selection Procedures' (2023).

¹⁹ Derived from international best practices such as OECD AI Principles (2019) and EU AI Act (2024).

aim is not to halt innovation, but to ensure that Africa's transition to digital work preserves dignity, equality, justice, and accountability in employment relations²⁰.

2. Conceptual Framework: Understanding Algorithmic Management in the African Workplace

The term algorithmic management refers to the use of automated or semi-automated computational systems to perform functions traditionally carried out by human²¹ managers²². These systems collect, analyse and interpret large volumes of data about workers and job applicants, and thereafter generate decisions or recommendations concerning recruitment, performance evaluation, supervision, work allocation and contract²³ termination²⁴. Whereas traditional managerial authority is relational, discretionary and capable of adapting to personal or organisational context, algorithmic management is characterised by optimisation logic, standardisation and in many cases, opacity²⁵. The internal reasoning by which an algorithm classifies, ranks or evaluates workers is often inaccessible or unintelligible to those affected by it²⁶. Algorithmic management typically unfolds through a continuous cycle of data extraction, predictive modelling, evaluation and decision-making²⁷. The system gathers information from application platforms, biometric attendance systems, workflow monitoring applications, digital communication patterns or customer rating interfaces²⁸. This information is used to generate profiles or predictions concerning a worker's productivity, capability or reliability²⁹. These predictive evaluations may then be translated directly into employment outcomes such as shortlisting, promotion, penalty or dismissal³⁰. The process does not end at decision-making; many algorithmic management systems involve ongoing monitoring, meaning that evaluation is continuous rather than occasional³¹. The result is a managerial structure that operates constantly and often without direct human intervention³². Several economic and structural conditions encourage the adoption of algorithmic management in African workplaces³³. High youth unemployment and large applicant volumes encourage employers to rely on automated screening tools in order to reduce administrative costs and standardize selection processes³⁴. The rapid expansion of digital service industries, logistics platforms and e-commerce ecosystems in Nigeria and other African states has normalized the use of data-driven coordination in labour deployment³⁵. Furthermore, the growth of remote and hybrid work arrangements following the COVID-19 pandemic has resulted in the increased use of productivity monitoring applications to ensure accountability across dispersed

²⁰ ILO, *Social Justice in the Digital Age* (2022).

²¹ A. Wood, M. Graham, V. Lehdonvirta and I. Hjorth, 'Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy' *Work, Employment and Society* (2019).

²² Mateescu, Alexandra and Rosenblat, Alex, *Algorithmic Management in the Workplace* (Data & Society Research Institute, 2019) 2.

²³ D. Calo and A. Rosenblat, 'The Taking Economy: Uber, Information, and Power' *Columbia Law Review* (2017).

²⁴ Kellogg, Katherine; Valentine, Melissa; Christin, Angèle, 'Algorithms at Work,' *American Sociological Review* Vol. 85 (2020) 371.

²⁵ S. Zuboff, *The Age of Surveillance Capitalism* (Profile Books 2019).

²⁶ A. Pasquale, *The Black Box Society* (Harvard University Press 2015).

²⁷ B. Means, 'Algorithmic Management in the Workplace' *Annual Review of Law and Social Science* (2022).

²⁸ F. Mateescu and K. Nguyen, 'Algorithmic Management in the Workplace' *Data & Society Research Institute* (2019).

²⁹ S. Barocas, M. Hardt and A. Narayanan, *Fairness and Machine Learning* (MIT Press 2019).

³⁰ A. Raju and R. Newman, 'AI and Employment Decisions' *Harvard Business Review* (2021).

³¹ J. M. Kellogg, 'Algorithmic Control and Coordination in Digital Organisations' *Organization Science* (2021).

³² M. Braverman, 'Work Without Workers: Algorithmic Management and Labour Rights' *Digital Labour Journal* (2020).

³³ World Bank, *Digital Economy for Africa Initiative (DE4A)* (2020).

³⁴ African Development Bank, 'Jobs for Youth in Africa Strategy 2020–2025' (AfDB 2020).

³⁵ GSMA, *Mobile Economy Sub-Saharan Africa* (2023).

workforces³⁶. In the Nigerian private sector, particularly in banking, telecommunications, outsourcing services and online retail sectors, algorithmic systems now influence recruitment decisions and performance evaluation processes³⁷.

The adoption of algorithmic management reshapes managerial power in ways that are significant for labour law³⁸. In conventional workplaces, management decisions are made by identifiable supervisors whose reasoning may be queried or defended³⁹. When decisions are produced by algorithmic systems, the decision-maker becomes obscured⁴⁰. This reduction in transparency affects the worker's ability to seek justification or challenge adverse outcomes⁴¹. The constitutional right to fair hearing presupposes that a person is able to understand the basis of a decision and respond to it, yet algorithmic opacity often prevents this⁴². Additionally, continuous digital surveillance may compromise the constitutional rights to dignity and privacy when monitoring becomes excessive or dehumanising⁴³.

African labour laws, including Nigeria's were developed around employment models in which human decision-making predominated and managerial authority could be reviewed through contractual, administrative or judicial oversight.⁴⁴ Algorithmic management disrupts these assumptions by introducing decision processes that are data-driven, automated and difficult to interrogate through existing legal doctrines⁴⁵. This development therefore requires the integration of labour rights principles with data protection law, constitutional safeguards, digital governance frameworks and administrative justice standards⁴⁶. This conceptual foundation is necessary for evaluating the regulatory implications of algorithmic management, which will be examined in the next section.

3. Theoretical Framework

The analysis of algorithmic management in the African workplace requires a theoretical foundation that explains both the transformation of managerial authority and the implications of that transformation for labour rights⁴⁷. While algorithmic management is commonly described in technological terms, its significance lies in how it restructures power relations within the employment relationship⁴⁸. To understand this shift, three interrelated theoretical perspectives are particularly useful: labour process theory, critical algorithm studies, and the human rights-based approach to labour regulation⁴⁹. Labour process theory provides insight into how managerial control evolves alongside technological innovation⁵⁰. Traditionally, this theory has demonstrated that technological changes in the workplace often serve not only to enhance productivity but also to extend managerial

³⁶ ILO, *Working from Home: Estimating the Worldwide Potential* (2020).

³⁷ N. E. Okafor, 'Digital Labour Platforms and Algorithmic Supervision in Nigeria' *African Journal of Management* (2022).

³⁸ T. Moore, 'Technology and the Reconfiguration of Managerial Authority' *Labour Studies Journal* (2021).

³⁹ A. Sen, 'Managerial Accountability in Contemporary Labour Relations' *Journal of Industrial Relations* (2018).

⁴⁰ A. O'Neil, *Weapons of Math Destruction* (Crown Publishing 2016).

⁴¹ S. Bietti, 'Opacity and Power in Algorithmic Management' *Yale Journal on Regulation* (2020).

⁴² Constitution of the Federal Republic of Nigeria (1999, as amended).

⁴³ E. Nwankwo, 'Digital Surveillance and Workers' Rights in Nigeria' *Nigerian Journal of Labour Law* (2022).

⁴⁴ O. M. Fajana, *Labour Law in Nigeria* (2020).

⁴⁵ A. Talisayon, 'Automation and the Evolution of Labour Rights' *International Labour Review* (2021).

⁴⁶ OECD, *AI Principles and Human-Centric Governance* (2019).

⁴⁷ H. Braverman, *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century* (Monthly Review Press 1974).

⁴⁸ M. Foucault, *Power/Knowledge: Selected Interviews and Other Writings* (Pantheon Books 1980).

⁴⁹ S. De Stefano, 'Non-Standard Work and Algorithmic Management' ILO Working Paper (2021).

⁵⁰ M. Burawoy, *Manufacturing Consent* (University of Chicago Press 1979).

oversight and discipline⁵¹. Algorithmic management reflects a new phase in this evolution⁵². Whereas earlier forms of workplace technology supported management, algorithmic systems can replace managerial judgment altogether⁵³. Decision-making that was once discretionary, negotiated and contextual becomes automated, standardised and continuous⁵⁴. The worker is no longer managed by a human supervisor whose reasoning may be questioned or engaged⁵⁵. Rather, the worker is managed by processes embedded in software systems that operate without direct explanation or interpersonal accountability⁵⁶. In this sense, algorithmic management is not simply a technological tool but a restructuring of control itself.⁵⁷

Critical algorithm studies extend this analysis by examining how algorithmic systems encode social values, patterns and biases⁵⁸. Algorithms do not operate in isolation; they are trained on data that reflects existing hierarchies, social inequalities and historical assumptions about competence or desirability⁵⁹. Consequently, algorithmic decision-making may reproduce or even amplify these inequalities, while presenting the outcome as objective or neutral⁶⁰. This theoretical perspective is essential for understanding how algorithmic hiring tools may privilege certain educational, linguistic or socio-economic backgrounds, and how performance-scoring systems may indirectly penalise workers who do not conform to narrow behavioural profiles⁶¹. The authority of the algorithm is thus not simply technical but ideological, shaping perceptions of merit, efficiency and worth⁶².

The human rights-based approach to labour regulation offers a normative framework for responding to these challenges.⁶³ Under this approach, the worker is recognised not merely as a factor of production but as a rights-bearing individual whose dignity, autonomy and fairness must be respected within the workplace⁶⁴. Algorithmic management complicates this relationship by obscuring the basis of managerial decisions, intensifying monitoring, and in some cases removing meaningful opportunities for dialogue or contestation⁶⁵. The human rights framework therefore requires that employment governance systems remain transparent, accountable and open to challenge.⁶⁶ This means that workers must be able to know how decisions affecting them are made, must be able to request human review where automated decisions are involved, and must have access to remedies where algorithmic evaluation results in unfair or discriminatory outcomes⁶⁷.

⁵¹ D. Knights and H. Willmott, *Labour Process Theory* (Macmillan 1990).

⁵² A. Aloisi and V. De Stefano, 'Essential and Unprotected: Algorithmic Management and Platform Work' *Labour Law Journal* (2020).

⁵³ A. Rosenblat, *Uberland: How Algorithms Are Rewriting the Rules of Work* (University of California Press 2018).

⁵⁴ S. Vallas and C. Schor, 'What Do Platforms Do? Understanding Algorithmic Management' *Annual Review of Sociology* (2020).

⁵⁵ L. Kellogg, 'Algorithmic Management and the Transformation of Work' *Organization Science* (2021).

⁵⁶ N. Dyer-Witheyford, *Cyber-Proletariat: Global Labour in the Digital Vortex* (Pluto Press 2015).

⁵⁷ S. Zuboff, *The Age of Surveillance Capitalism* (2019).

⁵⁸ C. O'Neil, *Weapons of Math Destruction* (Crown 2016).

⁵⁹ S. Barocas and A. Selbst, 'Big Data's Disparate Impact' *California Law Review* (2016).

⁶⁰ K. Crawford, *Atlas of AI* (Yale University Press 2021).

⁶¹ A. Noble, *Algorithms of Oppression* (NYU Press 2018).

⁶² T. Gillespie, 'The Politics of Platforms' *New Media & Society* (2010).

⁶³ United Nations, *Guiding Principles on Business and Human Rights* (2011).

⁶⁴ ILO, *Fundamental Principles and Rights at Work* (1998, updated 2022).

⁶⁵ E. K. Afolabi, 'AI, Labour Rights and the Challenge of Transparency' *Journal of Law, Technology & Policy* (2022).

⁶⁶ OECD, *Principles for AI Governance* (2019).

⁶⁷ EU, General Data Protection Regulation (GDPR) Article 22 (2018).

Taken together, the theoretical perspectives reveal that algorithmic management does not merely introduce new tools for workplace efficiency⁶⁸. It represents a significant shift in the structure of managerial power, the visibility of decision-making, and the conditions under which workers experience autonomy and dignity at work⁶⁹. The challenge for African labour systems is therefore not only to acknowledge the presence of these technologies but to address the deeper transformation of authority and responsibility that they produce⁷⁰. Understanding algorithmic management through these theoretical lenses provides the basis for evaluating its impact on labour rights and for designing legal frameworks that preserve fairness and justice in the evolving world of work.

4. Labour Rights Risks Arising from Algorithmic Management

The integration of algorithmic systems into workplace governance introduces a series of labour rights risks that fundamentally alter the employment relationship⁷¹. These risks arise because algorithmic management does not merely support managerial decision-making; it restructures the basis upon which decisions are made, how they are communicated, and how they can be challenged⁷². Labour rights protections in many African legal systems, including Nigeria's, were developed within models of work that assume human judgment, accountability and interpersonal evaluation⁷³. When decisions are automated, obscured or based on predictive modelling, the principles that ground fair labour practice become unsettled⁷⁴. One of the most significant risks concerns the erosion of fairness in hiring and promotion⁷⁵. Algorithmic systems depend on data and categorization⁷⁶. If the underlying data reflects historical inequalities or narrow ideas of competence, the algorithm reproduces and magnifies those patterns⁷⁷. It may systematically exclude applicants based on university background, linguistic expression, socio-economic origin or informal variations of professional experience⁷⁸. The decision appears objective because it is generated through mathematical computation, yet the effect may be deeply discriminatory⁷⁹. The harm is compounded by the fact that the criteria used to filter candidates are often concealed or inaccessible, preventing meaningful contestation⁸⁰. A second concern arises from the opacity of algorithmic decision-making⁸¹. Traditional managerial decisions can be questioned, explained or justified because the decision-maker is identifiable⁸². By contrast, algorithmic decisions often lack intelligibility⁸³. Workers may not know that decisions about their suitability or performance were automated⁸⁴. Even where they are aware, they may not know how data points were interpreted or weighted or why a decision produced the outcome that it did⁸⁵. The absence of explanation undermines the procedural guarantees that workers require to defend their

⁶⁸ D. Goldin, 'The Future of Work in the Digital Age' *Oxford Review of Economic Policy* (2020).

⁶⁹ A. Newlands, 'Algorithmic Management and Worker Autonomy' *Work, Employment & Society* (2021).

⁷⁰ B. Lyon, 'Datafication and Labour Rights in Africa' *African Journal of Digital Policy* (2022).

⁷¹ V. De Stefano, 'Algorithmic Management and Collective Worker Voice' ILO Working Paper (2021).

⁷² A. Rosenblat, 'Algorithmic Labor and Information Asymmetries' *Yale Journal of Law & Technology* (2018).

⁷³ O. M. Fajana, *Labour Law in Nigeria* (HEBN 2020).

⁷⁴ F. K. Molla, 'Automation, Transparency and Labour Rights in Africa' *African Labour Review* (2022).

⁷⁵ S. Barocas and A. Selbst, 'Big Data's Disparate Impact' *California Law Review* (2016).

⁷⁶ OECD, *AI, Algorithms and Employment* (2020).

⁷⁷ A. Noble, *Algorithms of Oppression* (NYU Press 2018).

⁷⁸ J. Bessen, 'AI and Hiring Bias: Data, Decisions and Inequality' *NBER Working Paper* (2022).

⁷⁹ C. O'Neil, *Weapons of Math Destruction* (2016).

⁸⁰ S. Bietti, 'Algorithmic Accountability and Opaque Decision-Making' *Yale Journal on Regulation* (2020).

⁸¹ A. Pasquale, *The Black Box Society* (Harvard University Press 2015).

⁸² T. Moore, 'Transparency and Managerial Accountability' *Industrial Relations Journal* (2020).

⁸³ S. Zuboff, *The Age of Surveillance Capitalism* (2019).

⁸⁴ M. Braverman, 'Algorithmic Invisibility in the Workplace' *Digital Labour Journal* (2021).

⁸⁵ A. Mateescu and M. Nguyen, 'Explaining Algorithms at Work' *Data & Society Report* (2019).

rights.⁸⁶ Without understanding the basis of a decision, the right to challenge it becomes hollow⁸⁷. The denial of explanation is therefore a denial of accountability⁸⁸. The expansion of algorithmic monitoring also threatens worker dignity and autonomy⁸⁹. Continuous data tracking transforms work into a field of constant observation, where the individual may feel perpetually watched⁹⁰. This shifts the psychological environment of labour from one grounded in trust to one grounded in surveillance⁹¹. The worker's value becomes measured not through their overall contribution but through granular metrics that may not reflect the reality of their effort or skill⁹². Such monitoring can induce anxiety, self-censorship and a diminished sense of personal agency within the workplace⁹³. The erosion of autonomy challenges the basic conception of the worker as a person capable of judgment, growth and discretion.⁹⁴

Another labour rights risk lies in the increasing detachment of managerial authority from human responsibility⁹⁵. When decisions are made by algorithms, employers may disclaim accountability, presenting outcomes as neutral or technologically determined⁹⁶. This diffusion of responsibility weakens the pathways through which workers can seek remedy or recognition of harm.⁹⁷ If no individual is responsible for the decision, the worker is left to challenge a system without a face or voice⁹⁸. The employment relationship becomes depersonalized and the institutional mechanisms for resolving disputes become strained⁹⁹. The possibility of automated termination intensifies these concerns¹⁰⁰. Where continued employment depends on algorithmic scoring thresholds, dismissal may occur without consideration of context, explanation or proportionality¹⁰¹. This form of termination bypasses the relational and evaluative dimensions of managerial judgment¹⁰². It transforms dismissal from a deliberated act into a procedural event triggered by numerical output¹⁰³. The worker becomes vulnerable not only to unfair outcome but to exclusion from the labour market in ways that are swift, unexplainable and difficult to contest.¹⁰⁴

Collectively, the risks demonstrate that algorithmic management represents more than technological advancement¹⁰⁵. It signifies a structural shift in the governance of work, one that challenges foundational commitments to fairness, accountability and dignity in labour relations¹⁰⁶. Addressing

⁸⁶ UN Human Rights Council, 'Right to a Fair Hearing in Automated Decision-Making' (2021).

⁸⁷ EU Commission, *AI Liability Framework Proposal* (2022).

⁸⁸ B. Mittelstadt, 'Algorithmic Accountability: A Primer' *Internet Policy Review* (2016).

⁸⁹ Human Rights Watch, *Automated Injustice and Worker Surveillance* (2022).

⁹⁰ S. Moore, 'Workplace Surveillance and Mental Health' *Journal of Occupational Psychology* (2021).

⁹¹ M. Foucault, *Discipline and Punish* (Vintage Books 1977).

⁹² A. Kellogg, 'Monitoring and Metrics in Algorithmic Management' *Organization Science* (2021).

⁹³ M. Chen, 'Digital Surveillance and Worker Wellbeing' *Labour Studies Quarterly* (2022).

⁹⁴ ILO, *Protection of Workers' Dignity in the Digital Economy* (2021).

⁹⁵ A. Newman and R. Raju, 'Accountability and AI in Employment Decisions' *Harvard Business Review* (2021).

⁹⁶ OECD, *AI and Responsibility in the Labour Market* (2021).

⁹⁷ A. M. Rahman, 'Taming the Algorithmic Hydra: Responsibility and Digital Labour' *Technology & Regulation* (2020).

⁹⁸ M. Lynskey, *The Governance of Digital Platforms* (Oxford University Press 2021).

⁹⁹ C. T. Ngai, 'Algorithmic Decision-Making and Administrative Justice' *Public Law Review* (2020).

¹⁰⁰ A. Aloisi, 'Automation, Dismissal and Platform Labour' *Comparative Labour Law Journal* (2020).

¹⁰¹ UK Information Commissioner's Office, *Automated Decision-Making Guidance* (2021).

¹⁰² C. Wood, 'Human Context and Algorithmic Dismissal' *Industrial Law Journal* (2022).

¹⁰³ F. Bader, 'Metric-Based Termination and Labour Rights' *European Labour Law Review* (2021).

¹⁰⁴ ILO, *Fair Termination in the Digital Labour Market* (2022).

¹⁰⁵ K. Ekbia and B. Nardi, *Heteromation and the Future of Work* (MIT Press 2017).

¹⁰⁶ African Union, *AI and Labour Governance Report* (2022).

these challenges requires more than the reform of discrete statutory provisions¹⁰⁷. It demands a re-examination of the principles that define the employment relationship itself, and a regulatory response capable of reconciling technological innovation with the preservation of human rights at work¹⁰⁸.

5. Nigeria in Comparative Perspective: Regulatory Developments in South Africa, Kenya, Rwanda and Ghana

The regulatory landscape governing algorithmic management in Africa is evolving unevenly, shaped by differing levels of technological adoption, institutional capacity and legislative readiness¹⁰⁹. While no African state currently possesses a comprehensive framework dedicated to the governance of algorithmic management in employment, developments in data protection law, digital governance policy and constitutional labour protections reveal emerging patterns that have significant implications for Nigeria¹¹⁰. Examining these developments comparatively provides insight into both the risks that accompany regulatory delay and the opportunities that arise when legal systems adapt proactively to technological transformation.¹¹¹

South Africa provides a compelling example of how constitutional principles can serve as a basis for regulating emerging forms of managerial power¹¹². The South African legal system places strong emphasis on dignity, equality and administrative fairness, which together require that decisions affecting individuals be explainable and open to justification¹¹³. Although South Africa has not enacted legislation specifically targeting algorithmic management, its judicial tradition supports the idea that managerial authority must remain accountable regardless of whether decisions are made by human supervisors or algorithmic systems¹¹⁴. This interpretive posture demonstrates that existing legal rights can be extended into new technological contexts without waiting for formal statutory reform¹¹⁵. For Nigeria, this offers a strategic lesson: meaningful regulation can begin through constitutional interpretation even before new legislative frameworks are drafted.¹¹⁶

Kenya offers another significant point of comparison because it has explicitly recognised automated decision-making within its data governance regime.¹¹⁷ The Kenyan Data Protection Act provides individuals with a conditional right to object to decisions made solely through automated processing¹¹⁸. While this provision has not yet been systematically tested in employment contexts, it signals a legal acknowledgement that automation alters the nature of decision-making and may undermine fairness¹¹⁹. The Kenyan approach demonstrates that regulatory readiness does not depend

¹⁰⁷ OECD, *Responsible AI for Work and Employment* (2020).

¹⁰⁸ UNDP, *Human Rights and Digital Transformation in Africa* (2022).

¹⁰⁹ African Union, *Digital Transformation Strategy for Africa 2020–2030* (2020).

¹¹⁰ A. R. Gwagwa, 'AI Governance in Africa: Evolving Norms and Institutional Readiness' *Data Governance Africa Review* (2023).

¹¹¹ UNECA, *AI for Development in Africa Report* (2022).

¹¹² Constitution of the Republic of South Africa (1996).

¹¹³ C. Albertyn, 'Substantive Equality and Human Dignity in South African Constitutional Law' *South African Journal on Human Rights* (2019).

¹¹⁴ M. Buthelezi, 'Algorithmic Decision-Making and Administrative Law in South Africa' *African Public Law Journal* (2022).

¹¹⁵ South African Constitutional Court jurisprudence (notably *Sidumo v Rustenburg Platinum Mines Ltd* (2007)).

¹¹⁶ T. A. Nzimande, 'Digital Rights and Constitutional Interpretation in Africa' *African Constitutional Review* (2023).

¹¹⁷ Kenya Data Protection Act (2019).

¹¹⁸ Office of the Data Protection Commissioner (ODPC Kenya), *Guidelines on Data Subject Rights* (2022).

¹¹⁹ S. G. Oseko, 'Data Protection and Automated Decision-Making in Kenya' *East African Law Journal* (2021).

on industrial maturity but on recognizing the need to preserve human review and contestability¹²⁰. Nigeria can benefit from this approach by formally integrating rights of explanation and objection into its labour governance framework¹²¹. Rwanda illustrates a different regulatory pathway¹²². The Rwandan government has pursued a state-led strategy of digital transformation in which artificial intelligence and data systems are integrated into public administration and service delivery¹²³. While labour law reform has not kept pace with this digital expansion, Rwanda's approach shows the importance of state coordination and intentional governance¹²⁴. The capacity to guide technological adoption, establish institutional responsibility and shape long-term digital policy provides a foundation upon which labour protections can later be built¹²⁵. Nigeria can draw from Rwanda the insight that technological governance requires not only legal reform but also state capacity, regulatory coherence and a clear policy direction.¹²⁶

Ghana presents a more cautious narrative¹²⁷. The adoption of algorithmic systems has developed gradually, while legal responses have remained limited¹²⁸. Labour regulation continues to assume human managerial authority, and data protection law focuses primarily on personal information rather than algorithmic decision-making¹²⁹. This situation demonstrates the risks associated with regulatory inaction¹³⁰. Without proactive frameworks, private actors may adopt algorithmic systems in ways that escape meaningful oversight, allowing patterns of inequality and unreviewable decision-making to become structurally embedded¹³¹. The Ghanaian example suggests that delay in regulation does not preserve the status quo; rather, it accelerates the shift of authority from law to technology.¹³² Taken together, the comparative contexts show that African legal systems are approaching a decisive moment¹³³. The region has the opportunity to craft a regulatory model that aligns technological progress with principles of fairness, dignity and accountability in employment.¹³⁴ Nigeria, with its expanding digital economy and established constitutional framework, is positioned to shape this field¹³⁵. The strategic lesson emerging from comparative analysis is that effective regulation begins with recognizing algorithmic management as a form of authority that must be explainable, reviewable and accountable.¹³⁶ If Nigeria integrates this insight into its regulatory development, it can contribute

¹²⁰ D. Biray, 'Regulating AI in Emerging African Economies' *International Data Policy Review* (2023).

¹²¹ Nigeria Data Protection Act (NDPA) 2023 (analytical implication).

¹²² Government of Rwanda, *National Digital Transformation Strategy* (2020).

¹²³ UNESCO, 'AI Policy Readiness in Rwanda' (2021).

¹²⁴ B. Twesigye, 'Digital Governance in Rwanda: Institutional Evolution and Policy Design' *African Public Administration Review* (2022).

¹²⁵ Smart Africa Secretariat, *AI and Digital Governance in Africa Report* (2023).

¹²⁶ N. E. Okoro, 'Strategic Lessons for Nigeria from Rwanda's Digital Policy Model' *Journal of African Policy Studies* (2022).

¹²⁷ Ghana Data Protection Act (2012).

¹²⁸ A. A. Osei-Afful, 'Technological Adoption and Labour Regulation in Ghana' *Ghana Law Review* (2022).

¹²⁹ Data Protection Commission (Ghana), *Annual Report* (2021).

¹³⁰ D. K. Amoah, 'Digitalisation and Labour Market Oversight in Ghana' *African Economic Policy Journal* (2023).

¹³¹ World Bank, *Digital Skills and Labour Market Integration in Ghana* (2020).

¹³² S. Essel, 'Regulatory Delay and Algorithmic Governance' *African Journal of Digital Policy* (2022).

¹³³ African Union, *AI and Labour Governance Continental Review* (2023).

¹³⁴ UNDP, *Digital Inclusion and Labour Rights in Africa* (2022).

¹³⁵ N. C. Okoye, 'Nigeria's Digital Transformation and Legal Readiness' *Nigerian Journal of Public Law* (2023).

¹³⁶ OECD, *Responsible AI for Work and Employment* (2021).

not only to national labour protection but also to the formation of a distinctly African jurisprudence on digital work.¹³⁷

6. Existing Legal and Regulatory Framework in Africa, with Nigeria as Case Study

The regulation of algorithmic management in Africa unfolds within legal frameworks that were not originally designed to contend with automated forms of managerial authority¹³⁸. The central instruments that govern the employment relationship in many African jurisdictions were developed at a time when work was structured around direct human supervision and interpersonal evaluation¹³⁹. As a result, these legal frameworks are shaped by assumptions about accountability, transparency and managerial discretion that are no longer stable when decision-making is delegated to algorithms¹⁴⁰. Nigeria presents a clear example of this regulatory tension.¹⁴¹ The Labour Act remains the principal statute regulating employment relationships in Nigeria.¹⁴² Its provisions are directed at defining employment conditions, regulating wages and protecting workers from physical or material exploitation¹⁴³. However, the Act presumes a workplace where managerial decisions are made by identifiable human agents who can explain and justify their actions¹⁴⁴. Nothing in the Act contemplates managerial processes guided by predictive modelling, continuous data tracking or automated evaluation¹⁴⁵. The legal duties it establishes are therefore difficult to enforce when decisions about hiring, appraisal or termination are generated by systems whose internal logic is not available for review¹⁴⁶. This gap means that many of the procedural safeguards implied in the employment contract depend on an understanding of decision-making that is disrupted by automation¹⁴⁷.

Constitutional protections, particularly those concerning dignity, privacy and fair hearing, provide an alternative legal foundation for addressing the challenges of algorithmic management¹⁴⁸. The Constitution recognizes the worker as a rights-bearing individual whose autonomy and dignity must be respected¹⁴⁹. It also guarantees the right to respond to decisions that affect one's interests¹⁵⁰. Yet, the meaningful exercise of these rights requires that individuals understand the basis of such decisions¹⁵¹. When the grounds for employment decisions are embedded in algorithmic systems that are opaque, proprietary or complex, the constitutional promise of fair hearing becomes difficult to

¹³⁷ A. R. Gwagwa, 'Building African Jurisprudence for Digital Labour Governance' *African Data Governance Review* (2023).

¹³⁸ ILO, *Regulating Work in the Digital Age* (2021).

¹³⁹ O. M. Fajana, *Labour Law in Nigeria* (HEBN 2020).

¹⁴⁰ OECD, *AI, Employment and Regulation* (2020).

¹⁴¹ UNDP, *Nigeria Digital Readiness Assessment* (2022).

¹⁴² Labour Act, Cap L1 LFN (2004).

¹⁴³ A. E. Uvieghara, *Labour Law in Nigeria* (Malthouse Press 2016).

¹⁴⁴ S. Adejumo, 'Managerial Accountability under Nigerian Labour Law' *Nigerian Labour Law Review* (2020).

¹⁴⁵ A. Aloisi and V. De Stefano, 'Algorithmic Management and Employment Regulation' *Comparative Labour Law Journal* (2020).

¹⁴⁶ S. A. Ojo, 'Legal Challenges of AI-Driven Decision-Making in Nigeria' *Journal of Contemporary African Law* (2022).

¹⁴⁷ ILO, *Protection of Workers in the Digital Economy* (2021).

¹⁴⁸ Constitution of the Federal Republic of Nigeria (1999, as amended).

¹⁴⁹ C. N. Nwobike, 'Constitutional Protection of Workers' Rights in Nigeria' *African Human Rights Law Journal* (2020).

¹⁵⁰ A. A. Oloyede, 'Fair Hearing and Administrative Decisions in Nigeria' *Nigerian Bar Journal* (2021).

¹⁵¹ OECD, *Transparency and Explainability in AI* (2022).

realize in practice¹⁵². The law assumes explain ability, while algorithmic systems obscure explanation.¹⁵³

Recent developments in data protection law have provided a partial response to these tensions¹⁵⁴. The emergence of statutory frameworks governing the collection, use and storage of personal data signals an increasing awareness of the need to regulate digital environments.¹⁵⁵ However, these frameworks generally focus on privacy, consent and data security rather than on the specific labour rights implications of automated decision-making¹⁵⁶. They do not ordinarily recognize a worker's right to obtain an explanation of algorithmic outcomes, nor do they require that a human review be available when decisions significantly affect employment¹⁵⁷. The harm produced by algorithmic systems is therefore not fully addressed by existing data protection regimes, because the issue is not only one of information, but of power.¹⁵⁸

Across other African jurisdictions, similar patterns are evident¹⁵⁹. In Kenya, Ghana, Rwanda and South Africa, labour laws are still principally concerned with preventing exploitative wage practices, ensuring safety and regulating the terms of employment contracts¹⁶⁰. Constitutional frameworks emphasise equality, dignity and access to justice, while data protection statutes focus on lawful and fair data processing.¹⁶¹ Yet none of these frameworks independently confronts the central challenge presented by algorithmic decision-making: the displacement of human managerial judgment by automated logic that is shielded from scrutiny¹⁶². The result is a widening gap between the realities of digital labour governance and the legal instruments intended to protect workers.¹⁶³

This regulatory gap is particularly visible in industries that rely heavily on digital coordination, such as logistics platforms, telecommunications service networks and banking systems¹⁶⁴. In these sectors, performance evaluation, compensation and job security may depend on algorithmic metrics¹⁶⁵. However, workers who are adversely affected by such metrics often have no clear legal pathway to challenge the outcome.¹⁶⁶ The procedural mechanisms for contesting unfair treatment presume that the worker can know, understand and respond to the reasons for a decision.¹⁶⁷ When the decision flows from a system that neither the worker nor the manager can fully interpret, the protective purpose of the law is undermined.¹⁶⁸

¹⁵² B. Mittelstadt et al., 'The Ethics of Algorithms: Transparency and Complexity' *Big Data & Society* (2016).

¹⁵³ A. Pasquale, *The Black Box Society* (2015).

¹⁵⁴ Nigeria Data Protection Act (NDPA) 2023.

¹⁵⁵ African Union Convention on Cybersecurity and Personal Data Protection (Malabo Convention 2014).

¹⁵⁶ S. K. Oladapo, 'Data Protection and Algorithmic Decision-Making in Nigeria' *International Journal of Data Governance* (2022).

¹⁵⁷ GDPR (EU) Article 22 (2018) (comparative standard).

¹⁵⁸ C. O'Neil, *Weapons of Math Destruction* (2016).

¹⁵⁹ UNECA, *Digital Labour Market Review for Africa* (2022).

¹⁶⁰ Country labour statutes: Kenya Employment Act (2007), Ghana Labour Act (2003), Rwanda Labour Law (2018), South Africa Labour Relations Act (1995).

¹⁶¹ Respective Data Protection Acts (Kenya 2019; Ghana 2012; Rwanda 2021; South Africa POPIA 2013).

¹⁶² A. R. Gwagwa, 'Regulatory Silence and AI in Africa' *African Data Governance Review* (2023).

¹⁶³ UNDP, *Digital Inclusion and Worker Protection in Africa* (2022).

¹⁶⁴ ILO, *Digital Labour Platforms and the Future of Work* (2021).

¹⁶⁵ GSMA, *Mobile Economy Sub-Saharan Africa* (2023).

¹⁶⁶ J. Oduwale, 'Algorithmic Metrics and Labour Vulnerability in Nigeria' *Journal of African Labour Studies* (2022).

¹⁶⁷ A. Oloyede, 'Procedural Fairness in Automated Decision-Making' *Nigerian Journal of Law* (2021).

¹⁶⁸ B. Lyon, 'Opacity and Worker Protection in Digital Governance' *African Journal of Digital Policy* (2022). OECD, *Responsible AI for Employment Governance* (2021).

The Nigerian experience therefore demonstrates the need for a regulatory framework that does more than merely acknowledge the presence of technology. What is required is a legal structure that responds directly to the reallocation of authority brought about by algorithmic management¹⁶⁹. This means developing regulatory principles that insist upon transparency, intelligibility and human responsibility in employment decision-making¹⁷⁰. It also requires recognizing that workers must retain the capacity to challenge decisions that affect their livelihoods, even when those decisions are automated.¹⁷¹

The future of labour rights in Africa will depend on how effectively legal systems adjust to these new conditions¹⁷². If regulatory frameworks evolve to address the realities of algorithmic governance, the continent can shape a model of digital labour that honors fairness, dignity and justice¹⁷³. If they do not, the employment relationship may shift toward a form of control that is increasingly unaccountable, increasingly opaque and increasingly resistant to challenge¹⁷⁴. The urgency of reform lies in ensuring that technological progress does not weaken the foundational principles upon which labour protection rests.¹⁷⁵

7. Policy and Regulatory Pathways

Responding to the challenges posed by algorithmic management in African workplaces requires a regulatory approach that is attentive to both the opportunities offered by digital innovation and the risks of diminished transparency, accountability and fairness¹⁷⁶. The objective is not to prevent the use of technology in employment governance, but to ensure that technology operates within a framework that respects human dignity, protects labour rights and upholds the principles of fairness that underpin the employment relationship.¹⁷⁷ This involves recognizing that algorithmic systems are not neutral mechanisms but instruments of managerial authority and therefore must be subject to the same standards of justification and review that apply to all exercises of power in the workplace.¹⁷⁸

A starting point for regulatory reform in Nigeria and across Africa is the acknowledgement that automated decision-making in employment is now a structural reality.¹⁷⁹ This requires labour legislation to formally recognise algorithmic management as a form of managerial control¹⁸⁰. The law cannot effectively regulate what it does not explicitly name¹⁸¹. Once acknowledged, legal standards can be developed to ensure that workers retain the right to understand and challenge the decisions that affect their livelihoods¹⁸². This requires an insistence on intelligibility in managerial decision-making¹⁸³. Workers should not be governed by systems that cannot be explained to them.¹⁸⁴ For this

¹⁶⁹ OECD, *Responsible AI for Employment Governance* (2021).

¹⁷⁰ EU AI Act (2024)—high-risk obligations (comparative benchmark).

¹⁷¹ ILO, *Principles for Fair Digital Governance of Work* (2022).

¹⁷² UNDP, *Governance in the Digital Age: Africa Outlook* (2022).

¹⁷³ African Union, *Continental AI Governance Framework (Draft)* (2023).

¹⁷⁴ S. Essel, 'Opacity and Control in Digital Work Regimes' *African Journal of Labour Law* (2023).

¹⁷⁵ ILO, *Social Justice in the Digital Age* (2022).

¹⁷⁶ ILO, *Regulating Work in the Digital Age* (2021).

¹⁷⁷ UNDP, *Human Rights and Digital Transformation in Africa* (2022).

¹⁷⁸ OECD, *AI Principles for Responsible Labour Governance* (2019).

¹⁷⁹ African Union, *AI and Labour Policy Readiness Report* (2023).

¹⁸⁰ ILO, *Fair Work in the Digital Economy* (2021).

¹⁸¹ A. De Stefano, 'A Framework for Regulating Algorithmic Management' *Labour Law Journal* (2022).

¹⁸² S. K. Oladapo, 'Transparency and Accountability in Digital Employment Practices' *International Journal of Labour Studies* (2022).

¹⁸³ OECD, *Explainability in AI Systems: Policy Approaches* (2022).

reason, employment law must impose clear obligations on employers to disclose when algorithmic systems are used, to explain the basis of their decision outputs in comprehensible terms and to provide avenues for meaningful review where harm may have occurred.¹⁸⁵

Regulatory frameworks must also protect against discriminatory outcomes¹⁸⁶. Because algorithms learn from data, they reflect the patterns embedded in that data.¹⁸⁷ Where data reflects entrenched social inequalities, algorithmic systems risk reproducing or intensifying those inequalities¹⁸⁸. Labour regulation must therefore require employers to assess the potential discriminatory effects of automated systems before deployment and to routinely evaluate outcomes to ensure that disadvantaged groups are not disproportionately affected.¹⁸⁹ This approach shifts emphasis from proving discrimination after harm has occurred to preventing harm before it materialises¹⁹⁰. It places responsibility on employers to demonstrate fairness rather than on workers to uncover injustice.¹⁹¹

Accountability remains a central concern.¹⁹² When decisions are generated by automated systems, responsibility can appear diffused or concealed.¹⁹³ Yet every employment decision that affects a person's livelihood must have a responsible agent¹⁹⁴. The law must ensure that employers remain accountable for the results of algorithmic decision-making regardless of whether those decisions are automated.¹⁹⁵ This requires internal review mechanisms that allow workers to contest automated outcomes, and external dispute resolution bodies that possess the institutional capacity to evaluate algorithmic reasoning¹⁹⁶. Without such capacity, rights exist only in theory, not in practice.¹⁹⁷

There is also an important role for regional cooperation¹⁹⁸. African states share comparable labour market conditions, similar technological adoption patterns and similar regulatory gaps.¹⁹⁹ A coordinated approach to governing algorithmic management would allow states to learn from one another, prevent regulatory fragmentation and strengthen the continent's collective position in global discussions on digital governance²⁰⁰. Countries such as Kenya, Rwanda and South Africa are already experimenting with elements of digital labour regulation, and Nigeria can both learn from and contribute to these developments²⁰¹. A shared regulatory framework would affirm African agency in shaping the digital future of work rather than simply receiving models developed elsewhere.²⁰²

¹⁸⁴ B. Mittelstadt et al., 'Principles of Explainable AI' *Big Data & Society* (2016).

¹⁸⁵ EU AI Act (2024) — transparency obligations (comparative benchmark).

¹⁸⁶ S. Barocas and A. Selbst, 'Big Data's Disparate Impact' *California Law Review* (2016).

¹⁸⁷ K. Crawford, *Atlas of AI* (2021).

¹⁸⁸ A. Noble, *Algorithms of Oppression* (NYU Press 2018).

¹⁸⁹ EEOC (US), *Algorithmic Fairness Guidance* (2023).

¹⁹⁰ ILO, *Preventing Discrimination in the Digital Labour Market* (2022).

¹⁹¹ OECD, *AI and Equality Framework* (2021).

¹⁹² A. Newman and R. Raju, 'Accountability and AI in Employment Decisions' *Harvard Business Review* (2021).

¹⁹³ OECD, *AI and Responsibility in the Labour Market* (2020).

¹⁹⁴ UN Human Rights Council, *Accountability in Automated Decision-Making* (2021).

¹⁹⁵ GDPR (EU) — Article 22 obligations on automated decisions.

¹⁹⁶ D. Biray, 'Institutional Capacity for AI Regulation in Africa' *African Governance Review* (2022).

¹⁹⁷ ILO, *Effective Remedies in the Digital Economy* (2022).

¹⁹⁸ African Union, *Continental Digital Governance Framework* (2023).

¹⁹⁹ UNECA, *Digital Labour Market Mapping for Africa* (2022).

²⁰⁰ Smart Africa Secretariat, *Continental AI Cooperation Initiatives Report* (2023).

²⁰¹ S. Essel, 'Comparative Trends in African Labour Digitalisation' *African Labour Law Journal* (2023).

²⁰² A. Gwagwa, 'African-Led Governance of Digital Technologies' *Data Governance Africa Review* (2023).

The broader purpose of regulatory reform is to reinforce the principle that technology must serve human interests rather than displace them.²⁰³ Algorithmic management should not diminish the worker's capacity to be recognized, respected and treated as a person.²⁰⁴ The workplace is not merely a site of production; it is part of the social and moral fabric of life.²⁰⁵ Regulation must therefore ensure that technological progress strengthens rather than weakens the dignity, security and fairness of employment relationships.²⁰⁶ The future of work in Africa will be determined not only by the spread of digital tools, but by the values and principles that guide their adoption.²⁰⁷

8. Summary of Findings

This study has examined the emergence and implications of algorithmic management within African labour systems, using Nigeria as a central case study and positioning it alongside developments in South Africa, Kenya, Rwanda and Ghana.²⁰⁸ The analysis revealed that algorithmic management does not merely introduce new tools of workplace coordination but reconfigures the very basis of managerial authority, decision-making and accountability²⁰⁹. In Nigerian workplaces, particularly in the private sector, algorithmic systems now influence recruitment, supervision and performance evaluation, yet the legal frameworks governing employment relationships have not evolved in parallel.²¹⁰ The result is a widening gap between technological practice and regulatory protection. The study found that algorithmic management poses significant risks to labour rights, including discrimination arising from biased data sets, opacity in decision-making processes, erosion of worker dignity through continuous digital monitoring and the possibility of automated dismissal without contextual review²¹¹. These risks challenge the foundational principles of fairness, autonomy and procedural justice that underpin labour regulation in Africa.²¹² The persistence of master–servant contractual doctrines in Nigeria further complicates the protection of workers, as managerial decisions, even when automated, may not be subject to substantive challenge unless they clearly violate procedural terms.²¹³

Comparative analysis revealed that African states are responding to technological transformation through different regulatory trajectories²¹⁴. South Africa's jurisprudential emphasis on accountability and justification demonstrates the potential to extend existing constitutional principles to algorithmic decision-making²¹⁵. Kenya has begun to explicitly recognize automated decision-making in its data governance framework, signaling a proactive adaptation to digital work environments²¹⁶. Rwanda's state-led digitalization strategy suggests that institutional capacity and regulatory coherence are essential precursors to effective labour governance in digital contexts²¹⁷. Ghana illustrates the risks

²⁰³ UNESCO, *AI Ethics Recommendation* (2021).

²⁰⁴ ILO, *Dignity at Work in the Digital Era* (2022).

²⁰⁵ M. Sen, 'Human-Centred Labour Governance in the Digital Age' *Journal of Ethics and Work* (2021).

²⁰⁶ OECD, *Inclusive and Fair Digital Transformation Policy Report* (2022).

²⁰⁷ UNDP, *African Digital Futures and Social Justice* (2022).

²⁰⁸ ILO, *Digital Labour Platforms and the Future of Work in Africa* (2021).

²⁰⁹ V. De Stefano, 'Algorithmic Management and Labour Rights' ILO Working Paper (2021).

²¹⁰ UNDP, *Nigeria Digital Readiness Assessment* (2022).

²¹¹ C. O'Neil, *Weapons of Math Destruction* (2016).

²¹² ILO, *Protection of Workers in the Digital Economy* (2021).

²¹³ A. E. Uvieghara, *Labour Law in Nigeria* (Malthouse Press 2016).

²¹⁴ UNECA, *AI for Development in Africa Report* (2022).

²¹⁵ C. Albertyn, 'Substantive Equality and Administrative Accountability' *South African Journal on Human Rights* (2019).

²¹⁶ Kenya Data Protection Act (2019).

²¹⁷ Government of Rwanda, *Digital Transformation Strategy* (2020).

associated with regulatory delay, where technological adoption proceeds without corresponding legal safeguards.²¹⁸

The overarching finding is that algorithmic management introduces a new modality of power in the workplace, one that is fragmented, opaque and resistant to traditional forms of oversight²¹⁹. Existing labour laws, constitutional guarantees and data protection rules remain necessary but insufficient when technological systems mediate employment decisions.²²⁰ Protecting workers' dignity and ensuring fairness in automated decision-making requires regulatory frameworks that insist on transparency, explanation, human review and enforceable avenues for redress.²²¹ The study concludes that Nigeria is positioned to lead the continent in developing a rights-based approach to algorithmic labour governance, but doing so will require deliberate reform grounded in principled regulatory design and institutional capacity.²²²

9. Recommendations

The findings of this study have demonstrated that algorithmic management is reshaping the structure of managerial authority in African workplaces in ways that existing labour laws did not anticipate²²³. To address this, regulatory reform must begin by explicitly recognizing algorithmic decision-making as a form of managerial power²²⁴. Labour legislation should therefore affirm that workers retain the right to understand and challenge the basis of decisions affecting their employment, regardless of whether such decisions are made by human supervisors or automated systems.²²⁵ A legal obligation of explanation should be introduced into employment regulation, ensuring that workers can request and receive clear, comprehensible accounts of how algorithmic systems evaluated their data and produced particular outcomes.²²⁶ It is essential that workers have access to meaningful human review where algorithmic decisions result in adverse consequences such as denial of employment, diminished opportunities or termination²²⁷. The right to human review should not be symbolic or procedural but substantive, requiring employers to engage with the worker's account of their performance or circumstances²²⁸. This would ensure that automation does not eliminate the contextual judgment that is necessary to uphold fairness in the workplace.²²⁹ Regulatory reform must also address the risk of discrimination inherent in data-driven decision-making²³⁰. Employers should be required to assess algorithmic systems for potential discriminatory patterns before implementation and to monitor outcomes over time to ensure that certain groups are not disproportionately excluded or disadvantaged²³¹. This shifts responsibility for identifying and preventing discrimination from workers to the institutions that deploy algorithmic systems.²³² Finally, regulators, labour institutions and

²¹⁸ D. K. Amoah, 'Digitalisation and Labour Market Oversight in Ghana' *African Economic Policy Journal* (2023).

²¹⁹ S. Zuboff, *The Age of Surveillance Capitalism* (2019).

²²⁰ GDPR Article 22 (2018) — comparative standard.

²²¹ OECD, *Responsible AI for Work and Employment* (2021).

²²² African Union, *Continental AI Governance Framework (Draft)* (2023).

²²³ ILO, *Regulating Work in the Digital Age* (2021).

²²⁴ A. R. Gwagwa, 'Regulating AI and Algorithmic Management in Africa' *Data Governance Africa Review* (2023).

²²⁵ GDPR Article 22 (EU, 2018) — comparative principle.

²²⁶ OECD, *Explainability and Accountability in AI Systems* (2022).

²²⁷ EU AI Act (2024) — human oversight obligations (comparative benchmark).

²²⁸ UN Human Rights Council, *Human Rights Implications of Automated Decision-Making* (2021).

²²⁹ ILO, *Fair Termination in the Digital Economy* (2022).

²³⁰ S. Barocas and A. Selbst, 'Big Data's Disparate Impact' *California Law Review* (2016).

²³¹ EEOC (US), *Technical Guidance on AI in Employment Screening* (2023).

²³² ILO, *Preventing Discrimination in the Digital Labour Market* (2022).

adjudicatory bodies must develop the technical capacity to evaluate algorithmic processes²³³. Rights are only meaningful if the institutions responsible for enforcing them have the competence to interpret and assess the systems that produce harm.²³⁴ Building this capacity will require coordinated investment in training, interdisciplinary collaboration and institutional reform.²³⁵ Nigeria is well positioned to lead this process on the continent and to play a central role in shaping a regional framework for digital labour governance.²³⁶

10. Conclusion

This study has shown that algorithmic management represents a new configuration of authority in the workplace, one that alters the relationship between the worker and the employer by replacing human decision-making with automated evaluation²³⁷. While technological innovation offers opportunities for efficiency and coordination, it also threatens the core values that underpin labour relations, including fairness, dignity and the right to contest decisions that affect one's livelihood²³⁸. In Nigeria and across Africa, existing labour laws and data protection frameworks remain grounded in assumptions of human managerial judgment and therefore cannot fully address the challenges introduced by algorithmic control.²³⁹ The comparative analysis revealed that African states are responding to digital transformation through diverse pathways, each offering lessons for future regulatory development²⁴⁰. South Africa provides a model of constitutional adaptation, Kenya demonstrates the value of proactive statutory recognition, Rwanda shows the importance of regulatory coordination and Ghana illustrates the risks of regulatory complacency²⁴¹. Nigeria stands at a pivotal moment.²⁴² It can either allow algorithmic management to evolve without oversight or it can take deliberate steps to shape a governance framework that aligns technological progress with social justice.²⁴³ The central conclusion of this research is that effective regulation must ensure that technological advancement does not erode the humanity of work²⁴⁴. Algorithmic management must remain accountable to principles of dignity, transparency and fairness, and workers must retain the capacity to understand and challenge decisions that affect their opportunity and security.²⁴⁵ If Nigeria responds with thoughtful and principled reform, it has the potential not only to protect its own workers but also to lead the development of a distinctly African model of labour governance in the digital age.²⁴⁶

²³³ D. Biray, 'Institutional Capacity for AI Regulation in Africa' *African Governance Review* (2022).

²³⁴ OECD, *Institutional Preparedness for AI Oversight* (2021).

²³⁵ UNESCO, *AI Capacity Building for Public Institutions* (2022).

²³⁶ UNDP, *African Digital Futures and Social Justice* (2022).

²³⁷ V. De Stefano, 'Algorithmic Management and Labour Rights' ILO Working Paper (2021).

²³⁸ ILO, *Protection of Workers' Dignity in the Digital Economy* (2022).

²³⁹ OECD, *AI, Employment and Regulation* (2020).

²⁴⁰ UNECA, *AI for Development in Africa Report* (2022).

²⁴¹ African Union, *Digital Governance Continental Review* (2023).

²⁴² UNDP, *Nigeria Digital Readiness Assessment* (2022).

²⁴³ A. R. Gwagwa, 'Regulating AI and Algorithmic Governance in Africa' *Data Governance Africa Review* (2023).

²⁴⁴ UNESCO, *AI Ethics Recommendation* (2021).

²⁴⁵ GDPR Article 22 — comparative principle ensuring human review (EU 2018).

²⁴⁶ African Union, *Continental AI Governance Framework (Draft)* (2023).