PERCEPTIONS VS REALITY: JOB SECURITY IN THE AGE OF AI EVIDENCED FROM PUBLIC ORGANISATIONS IN ABUJA, NIGERIA

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Abstract

This study uncovers a clear disconnect between employees' perceptions of AI-related job threats and the actual realities in Abuja's public sector. Using a mixed-methods approach that combines quantitative surveys (with 323 respondents, sampled via Cochran's formula from a population of 5,105) and qualitative interviews (with 4 purposively selected staff), we found that although 58.8% of employees viewed AI as a significant threat to job security (16.1% strongly agreeing, 42.7% agreeing), 74.6% reported no actual AI-related job losses, with 0% confirming displacement. This mismatch highlights how psychological worry outweighs current technological impact, reflecting fears about the future driven by organisational opacity. Managers perceived the threat differently (they reported lower anxiety, $p < 0.05$), but age showed no effect, contradicting assumptions about technophobia. Based on socio-technical theory, we argue that this gap between perception and reality destabilises workplace balance and calls for policy responses that promote transparent AI communication to bridge the gap between psychological fears and operational facts. These findings provide a guide for global contexts managing AI adoption, emphasising fair workforce transitions through STS-informed governance. By focusing on human elements alongside technical deployment, public organisations can shift AI from being seen as a threat of displacement to a tool for inclusive productivity.

Keywords: Perceptions, AI Threats, Public Organizations.

Introduction

The Fourth Industrial Revolution, marked by rapid advancements in Artificial Intelligence (AI), is transforming global workplaces, with AI applications such as machine learning, natural language processing, and robotic process automation reshaping organisational functions (Schwab, 2016; Bughin, et al., 2018). While AI promises efficiency gains in public administration, streamlining decision-making, automating routine tasks, and enhancing service delivery, its adoption has also sparked concerns about job displacement and workforce restructuring (Autor, 2015; Arntz, et al., 2016;). In Abuja, Nigeria's administrative capital, public sector institutions face unique challenges in AI integration, including infrastructural deficits, bureaucratic inertia, and skill shortages (Ojo & Adebayo, 2019). These constraints complicate the anticipated benefits of AI, raising critical questions about its impact on job security in a labour market already strained by unemployment and underemployment.

Existing research on AI's labour market effects predominantly focuses on high-income economies, where robust digital infrastructure and adaptive labour policies mitigate displacement risks (Acemoglu & Restrepo, 2019; Dwivedi, et al., 2019). However, in developing contexts like Nigeria, AI adoption unfolds amid systemic vulnerabilities: unreliable electricity, low digital literacy, and resistance to technological change. While studies predict AI will automate routine tasks globally, the implications for Abuja's public sector remain understudied (Autor, 2015). Unlike standardised roles in advanced economies, many Nigerian public sector jobs involve non-routine, context-dependent tasks, suggesting that AI's disruptive potential may differ significantly (Ojo & Adebayo, 2019).

Moreover, the psychosocial dimensions of AI adoption, particularly employees' perceived threats to job security, are often overlooked in favour of macroeconomic displacement metrics. Preliminary evidence from African public sectors reveals a paradox: fears of job loss persist even where AI implementation remains nascent (Gwagwa, et al., 2021; Plantinga, et al., 2024). This dissonance underscores the need to examine how institutional readiness, workforce demographics, and socio-technical misalignments shape job security perceptions in resource-constrained settings.

The rapid adoption of Artificial Intelligence (AI) in Nigeria presents both opportunities and challenges for job security in the public sector. While government initiatives like the National Centre for Artificial Intelligence and Robotics (NCAIR, established 2020) and the 3 Million Technical Talents (3MTT) program aim to position Nigeria as an AI leader in Africa, these advancements raise critical questions about workforce displacement and the future of public sector employment. In the World Economic Forum report, as AI transforms operations across healthcare, education, and public administration, research suggests its impact on jobs follows a paradoxical pattern: while automating routine tasks threatens certain roles, it simultaneously creates demand for new technical positions. In Nigeria's public sector, where bureaucratic roles dominate, AI-driven chatbots and virtual assistants are already reducing the need for clerical staff handling routine inquiries, mirroring global trends observed in Estonia's e-government services (European Commission, 2020). However, unlike advanced economies with robust social safety nets, Nigeria's high unemployment rate (33% in 2023, NBS) exacerbates anxieties about technological displacement, particularly among mid-career public servants with limited digital skills (Ojo & Adebayo, 2019). Compounding these challenges, Nigeria's infrastructural deficits - including unreliable electricity and low internet penetration - hinder equitable AI adoption, potentially widening skills gaps between urban and rural public employees. Yet, initiatives like NAIRS research grants and AI curricula in universities signal

attempts to build a future-proof workforce, though their effectiveness remains untested. The stakes are high: without proactive reskilling policies, Nigeria risks replicating the "job polarisation" seen in advanced economies, where middle-skill public sector jobs erode while high-skill AI management roles remain inaccessible to most (Acemoglu & Restrepo, 2019). As the National AI Policy (2023) moves toward implementation, understanding these dynamics becomes crucial - not only for mitigating employee fears but for designing inclusive transitions that balance AI's efficiency gains with workforce stability in Abuja's critical public institutions.

Job security is a complex and multifaceted concept essential for employee well-being and organisational stability. Understanding its dimensions and influencing factors is crucial for assessing the impact of AI adoption on employees in public organisations. As AI technologies continue to evolve in Nigeria, public organisations must adopt strategies that enhance job security while leveraging the benefits of AI to improve organisational performance. Addressing job security concerns requires a balanced approach that includes stakeholder engagement, policy development, and continuous workforce development.

This study addresses these gaps by investigating the perceived impact of AI on job security among employees in Abuja's public organisations. Grounded in socio-technical theory, it analyses the extent to which AI adoption correlates with job insecurity anxieties, disparities in perceptions across hierarchical levels and structural barriers, exacerbating workforce apprehensions (Trist, 1981). This study investigates the divergence between employee perceptions and the reality of AI's impact on job security in Abuja's public sector organisations, aiming to assess how AI adoption influences perceived job insecurity as well as exploring disparities in these perceptions across hierarchical levels and occupational roles.

Methodology

This study employed a mixed-methods approach to examine AI adoption's impact on job security across three public organisations in Abuja, Nigeria, henceforth known as Organisation A (population: 3,255 employees, sector: banking), Organisation B (population: 1,627 employees, sector: healthcare), and Organisation C (population: 223 employees, sector: transportation). The research design integrated quantitative surveys (n = 323) and qualitative interviews (n = 4) to capture both statistical patterns and contextual insights, a sample that was derived using Cochran's formula for large populations, at a 95% confidence level with a 5% margin of error. Stratified random sampling ensured proportional representation across organisations, and purposive sampling was used to select organisations as sectoral exemplars, alongside stratified randomisation to mitigate selection bias.

The quantitative data were collected via structured questionnaires administered electronically and in-person with two trained research assistants, facilitated distribution under researcher supervision to ensure protocol adherence. The questionnaire was validated by experts in the field of social research before the fieldwork. Qualitative data were elicited from semi-structured interviews with relevant staff at each organisation, as well as with a Director at Nigeria's National Centre for AI Research (NCAIR), (CBN, NHA, DRTS). The researchers focused on these agencies because they have a high rate of AI compliance or adoption in their operations. The analysis was done by combining descriptive statistics with inferential techniques (Kruskal-Wallis tests, Mann-Whitney U) using Jamovi 2.6.17.0, Microsoft Excel, and Ethical protocols were upheld by ensuring informed consent and anonymity safeguards.

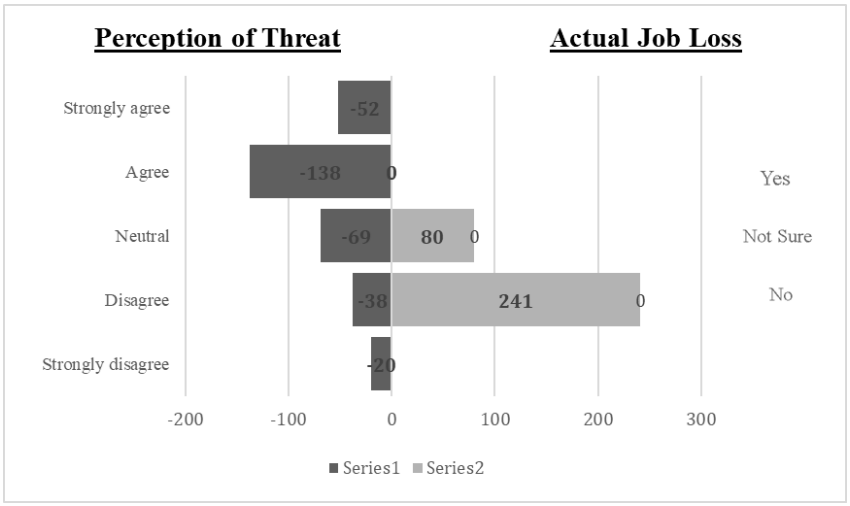
One of the major weaknesses of this study is that only four (4) interviews were conducted. Therefore, the findings from these data cannot be generalised to the entire target population because the sample size is not large enough to warrant generalisation. Some limitations included reliance on self-reported data, a cross-sectional design (constraining longitudinal insights), and budgetary constraints preventing AI system audits. However, methodological triangulation strengthened validity by converging survey and interview findings. The approach balanced breadth (quantitative generalizability) with depth (qualitative nuance), offering a robust foundation for policy-relevant conclusions.

Results and Discussion

This section will begin with a series of tests using several testing techniques, such as One-Way ANOVA and Independent Samples T-Test (Mann-Whitney U), using a quantitative approach to examine the relationship between variables. This test was conducted to examine the strength of the relationship between perception and the reality of work in Abuja, Nigeria, at this time due to the presence of Artificial Intelligence (AI) technology. The following is an overview of the results of the test between variables.

In distributing the answers, the researchers used the perception of threats and actual job losses as a comparison in the questionnaire that had been distributed. The answers available in this questionnaire only cover 5 scales, namely strongly disagree, disagree, neutral, agree, and strongly agree. This step was taken to facilitate the mapping of the responses from the respondents whom the researchers had met. The responses obtained were also very diverse, given that the total number of respondents in this study was quite large and in accordance with the sampling error requirements that had been calculated and agreed upon, which was 5% of the three companies. We have summarized these responses in a bar chart in this figure.

Figure 1: The Perception - Reality Dissonance in AI's Job Impact



Source: Own Elaboration based on Survey Data, 2025.

The heart of our study reveals a profound dissonance between perception and reality. As demonstrated above, a majority of respondents (58.8%) agreed or strongly agreed that AI poses a job security threat, while only 18.0% dismissed this fear. This widespread anxiety stands in stark contrast to actual workforce impacts: 74.6% reported no AI-related job losses, with 0% confirming displacement and 24.8% remaining uncertain. This 58.8-point perceptual chasm was qualitatively validated through interviews where Organisation B staff showed some apprehension admitting AI "makes me lazy," showing concern at the ease with which AI completed tasks, while conceding no positions had been eliminated. The dissonance more so reflects anxiety about future roles or misperceptions about AI's current capabilities, as AI anxiety often exceeds real job loss. This supports the socio-technical theory's emphasis on psychosocial impacts, where anxiety disrupts socio-technical equilibrium, necessitating transparent communication (Mumford, 2006).

An NCAIR director, in an interview, sought to reframe concerns, observing: "It's not AI taking over, but AI-enabled individuals outpacing others", capturing how anticipatory anxieties eclipse current realities. This gap underscores STS theory's relevance: when technical integration outpaces social adaptation, perceived threats flourish regardless of material impacts. Furthermore, the findings are in line with the technological deterministic standpoint in which automation anxiety persists when AI's role is unclear (Frey & Osborne, 2017). The 24.8% "not sure" responses further indicate the uncertainty about AI's long-term labour implications. Crucially, this gap is not merely academic: it reflects systemic communication

failures with real-world consequences. Employees overestimate AI's current disruptive power, potentially resisting innovation or disengaging from work, which is a risk requiring immediate policy action. Transparent dialogue about AI's actual scope and upskilling pathways is essential to realign perception with reality.

Figure 2. Employees in Managerial Roles Perceive Artificial Intelligence as Less of a Threat to Job Security Compared to Other Employees.

Kruskal-Wallis				Dwass-Steel-Critchlow-Fligner pairwise comparisons			
χ^2	df	p	ε^2			W	p
8.03	2	0.018	0.0249	**Junior Staff**	**Senior Staff**	-0.327	0.971
				Junior Staff	**Management**	-3.420	0.041
				Senior Staff	**Management**	-3.893	0.016

Source: Own Elaboration based on Survey Data, 2025.

The dissonance this study is grounded in transcends demographics, as further statistical analysis, as evidenced by the Kruskal-Wallis test presented above ($\chi^2 = 8.03$, df = 2, $p = 0.018$, $\varepsilon^2 = 0.0249$), reveals a significant difference in perceptions of AI as a job security threat across hierarchical levels. This finding justifies the rejection of the null hypothesis that employees in managerial roles do not perceive AI as less of a threat compared to other employees. Carrying out a Post-hoc Dwass-Steel-Critchlow-Fligner pairwise comparisons further elucidates this pattern, demonstrating that while no significant difference exists between junior and senior staff ($W = -0.327$, $p = 0.971$), management personnel perceive AI as substantially less threatening than both junior ($W = -3.420$, $p = 0.041$) and senior staff ($W = -3.893$, $p = 0.016$). The effect size, though modest ($\varepsilon^2 = 0.0249$), confirmed the statistical significance of these differences. These results support the alternate hypothesis that managerial employees perceive AI as less of a job security threat than their non-managerial counterparts, suggesting that hierarchical position mediates threat perception, potentially due to factors such as greater job autonomy, strategic oversight of AI implementation, or differentiated exposure to AI's augmentative rather than displacive functions. The consistency of these findings across pairwise comparisons further strengthens the conclusion that managerial status attenuates AI-related job security concerns, aligning with emerging literature on the organisational hierarchy's role in shaping technology adoption attitudes.

Figure 3. Older Employees in Public Organisations in Abuja Express Higher Levels of Fear Towards AI Adoption than Younger Employees.

Independent Samples T-Test					
Group	**N**	**Mean**	**Mann-Whitney U**	**p-value**	**Effect Size Rank biserial correlation**
Older Staff	174	3.21	12548	0.697	0.0321
Younger Staff	149	3.23			
Note. H_a $\mu_{Old} > \mu_{Young}$					

Source: Own Elaboration based on Survey Data, 2025.

The analysis comparing fear levels toward AI adoption between older (36–60+) and younger (18–35) employees in Abuja's public organisations yielded a Mann-Whitney U value of 12,548 ($p = 0.697$), with a negligible effect size (rank-biserial correlation = 0.0321). Because the mean fear scores were almost identical across the groups (older: 3.21; younger: 3.23) and the non-significant p-value coupled with the trivial effect size, the results provide no empirical support for the alternate hypothesis, which posits greater AI-related fear among older employees.

This finding contradicts common assumptions about age-based technophobia, instead aligning with literature that emphasises other workplace-specific factors (e.g., training exposure, role adaptability) as more salient mediators of AI anxiety than chronological age alone. The null hypothesis is thus accepted and the alternate hypothesis rejected, with the implication that interventions targeting AI apprehension in public organisations should prioritise universal strategies such as competency-building and transparent communication, over age-specific approaches. This outcome underscores the nuanced nature of technology acceptance, where institutional and psychosocial variables may outweigh demographic determinants. An unexpected finding was the lack of significant age-based differences in AI-related fear, contradicting assumptions about older employees' technophobia. Instead, workplace-specific factors like training exposure and role adaptability emerged as more salient mediators of anxiety. This aligns with recent literature emphasising contextual over demographic determinants of technology acceptance, suggesting that interventions should focus on universal competency-building rather than age-specific approaches.

Use of Artificial Intelligence in Nigeria

The adoption of Artificial Intelligence (AI) in Nigeria has gained momentum in recent years, significantly influenced by both governmental and private sector initiatives. As AI technology continues to evolve, its integration into various sectors promises to transform operational efficiencies, enhance decision-making, and foster innovation. Nigeria's commitment to AI began to take formal shape with the establishment of the National Centre for Artificial Intelligence and Robotics (NCAIR) in November 2020. This initiative, spearheaded by the former Minister of Communications and Digital Economy, Isa Pantami, was a critical step towards embedding AI into the national technological agenda. The NCAIR, the first of its kind in Africa, was designed to promote research and development in AI, robotics, drones, and other emerging technologies, aligning with the National Digital Economy Policy and Strategy (NDEPS) 2020-2030. Subsequent policy measures further emphasised AI's importance. In 2021, the NCAIR launched programs to teach coding and machine learning to children, aiming to build a future workforce proficient in AI technologies. The same year saw the Nigerian Communications Commission (NCC) being directed to provide AI research grants to tertiary institutions, fostering innovation and economic resilience.

In March 2023, Pantami's ministry introduced a draft National AI Policy, crafted in collaboration with the National Information Technology Development Agency (NITDA) and industry experts. This policy set the groundwork for a comprehensive AI strategy, aimed at mainstreaming AI across various sectors. In August 2023, the newly appointed Minister of Communications and Digital Economy, Bosun Tijani, expanded on this draft by engaging top Nigerian AI researchers globally to develop a detailed National AI Strategy. Key initiatives under Tijani's leadership include the 3 Million Technical Talents (3MTT) program, launched in October 2023, which aims to train three million young people in AI and other digital domains over four years. This initiative builds on earlier programs such as the 2021 Digital States Initiative, which, although broader in scope, lacked an explicit focus on AI.

The Nigerian government has been proactive in integrating AI into public sector operations to enhance efficiency and service delivery. The adoption of AI-driven e-government services is aimed at reducing bureaucratic inefficiencies and improving citizen engagement. AI applications such as chatbots and virtual assistants are increasingly used to handle routine inquiries, thereby allowing human resources to focus on more complex tasks.

In healthcare, AI is being leveraged for diagnostics, treatment planning, and resource management. AI-powered systems aid in early disease detection, predictive analytics for outbreak management, and the optimisation of medical resource allocation. These advancements are particularly crucial in underserved regions, where healthcare access remains

a significant challenge. Education is another critical area where AI is making an impact with AI-driven platforms providing personalised learning paths for students, automating grading processes, and enhancing administrative efficiency. These technologies are being incorporated into curricula and research at educational institutions, fostering a new generation of AI-literate professionals.

Despite significant strides, Nigeria faces challenges in its AI adoption journey. According to the Oxford Insights 2023 AI Readiness Index, Nigeria ranks 103rd out of 193 countries, indicating substantial room for improvement in terms of government readiness, technology sector development, and data infrastructure (Hankins, et al., 2023). The country's goal to achieve a top 50 ranking by 2030 necessitates continued investment in AI research, education, and infrastructure. Various research and development schemes also support efforts to mainstream AI. The Nigeria Artificial Intelligence Research Scheme (NAIRS), launched in October 2023, provides substantial grants to AI startups and researchers. Similarly, the Fourth Industrial Revolution Technology Application (4IRTA) project supports startups applying innovative solutions in AI, UAVs, and blockchain to agriculture, aiming to enhance food security and farming efficiency.

Artificial Intelligence and Job Security: A Global Perspective

Governments worldwide are integrating AI technologies to improve public sector efficiency, but the workforce implications vary significantly across contexts. While AI adoption in developed nations has demonstrated both productivity gains and job transformation effects, these outcomes are mediated by institutional readiness and labour market structures - factors that remain understudied in developing economies (Manyika, et al., 2017; Acemoglu & Restrepo, 2019). In the United States, Federal agencies like the U.S. Department of Veterans Affairs (VA) have reported notable improvements in healthcare delivery through the use of AI-powered predictive analytics, but simultaneously displaced routine clerical roles, creating workforce anxieties that mirror findings in Nigeria's public sector. Similarly, the UK's NHS has achieved 30% reductions in patient wait times through AI diagnostics, yet staff unions have raised concerns about deskilling and job insecurity, a tension observed across sectors implementing automation. These developed economy cases reveal a persistent paradox: while AI creates high-skilled technical roles, the transition often leaves mid-level administrative workers vulnerable without reskilling interventions.

According to the World Bank report, the contrast with developing nations is stark, with Estonia's much-lauded AI chatbots having reduced human staffing needs in citizen services by

40%, but such workforce reductions would be untenable in Nigeria's public sector, where government employment serves as a critical social safety net. Similarly, Singapore's AI-driven traffic management systems assume infrastructure and digital literacy levels absent in Abuja, where basic computer skills remain limited among civil servants, a disparity underscores the risk of technological determinism in AI policy - the assumption that global "best practices" can be directly transplanted without considering local labour market realities. Nowhere is this more evident than in the domain of job security, where studies in advanced economies focus on net employment effects, while African research highlights how AI anxieties persist even before implementation due to inadequate communication and training (Arntz, et al., 2017; Gwagwa, et al., 2021; Plantinga, et al., 2024).

The workforce implications extend beyond displacement. In a report by India's Ministry of Electronics and Information Technology, the implementation of India's Umang app reduced processing times at the cost of consolidating clerical jobs into centralised AI hubs, creating geographical mismatches in employment opportunities. According to the Australian Taxation Office report, Australia's tax authority achieved compliance improvements through AI audits, but simultaneously eroded job security for field inspectors. These cases demonstrate that even when AI doesn't eliminate jobs outright, it frequently reconfigures them in ways that destabilise workers - a phenomenon particularly acute in public sectors with rigid career ladders (Deranty & Corbin, 2022). For Abuja's civil servants, these global precedents raise critical questions about whether Nigeria's National AI Policy sufficiently addresses the human dimensions of technological change, or risks replicating the job insecurity patterns observed elsewhere without the compensating job creation seen in more dynamic economies.

The Phenomenon of AI in Job Security in Abuja, Nigeria, in Socio-Technical Systems (SKS) Theory

It could be deduced from the study that the major flaw regarding methodological limitations is the small number of participants interviewed for the study. This arose because the study focused on a few agencies in Abuja, Nigeria, with high usage of AI in their operations. The theoretical implication of the findings of this study has advanced Socio-Technical Systems (STS) theory in explaining the adoption of AI in a developing country like Nigeria or the Global South. It has been shown that the employees in large organisations carry out their tasks with ease and efficiency, reducing the distance between time and space in the discharge of responsibilities. Furthermore, the broader "Reality is not just the absence of layoffs, it also includes deskilling, workload changes, or hiring freezes, which influence perceptions or

opinions of the employees of different cadres. Socio-technical systems theory elucidates this dynamic: when technical changes (e.g., AI integration) outpace social adaptation (e.g., role clarity, trust), anxiety disrupts equilibrium, fostering resistance even in the absence of job cuts (Mumford, 2006).

The profound dissonance extends beyond just the STS theory, resonating with Ulrich Beck's Risk Society theory: in Abuja's public sector, a microcosm of globalising institutions, AI embodies a "manufactured risk": its perceived threat eclipses tangible harm, reflecting a societal shift where anticipation of technological risk dominates lived experience (Beck, 1992). Opaque organizational communication exacerbates this, transforming AI into an abstract spectre of insecurity, a phenomenon amplified in bureaucratic settings where information hierarchies intensify perceived vulnerability (Siau & Wang, 2018). All this underscores the need for participatory design where transparent dialogue about AI's augmentative (not substitutive) potential could recalibrate employee perceptions (Janssen & Kuk, 2016).

Hierarchical disparities observed in the hypothesis testing further complicate this narrative, as managers perceived AI as significantly less threatening than junior or senior staff. This finding indicates that leadership's strategic oversight fosters a sense of control over AI's trajectory, while non-managerial staff are often excluded from decision-making, and perceived job insecurity correlates with powerlessness in technological transitions (Wilson & Daugherty, 2018). This hierarchy-effect suggests that job security is less about age or role seniority (as evidenced by the null result for age-based fear, $p = 0.697$) and more about institutional agency, the capacity to influence how AI reshapes work. For instance, Organisation C's success in mitigating fears through retraining (reported in interviews) aligns with Autor's argument that proactive reskilling attenuates displacement anxieties by reframing AI as a tool for competency elevation rather than obsolescence.

Furthermore, the absence of age-based differences in AI anxiety challenges prevailing narratives of generational technophobia instead implicates workplace context as the primary mediator. Younger and older employees alike expressed comparable apprehension, reinforcing established contention that digital literacy and role adaptability, not age, determine technology acceptance (Venkatesh, et al., 2016; Hauk, et al, 2018). This has profound policy implications: universal upskilling initiatives (e.g., Nigeria's aforementioned 3MTT program) may prove more effective than demographic-targeted interventions. Moreover, the 24.8% "not sure" responses about job losses signal a vacuum of credible information, a gap that STS theory posits can be bridged through co-design, integrating employee feedback into AI rollout plans to demystify its impacts (Mikalef, et al., 2022).

When contextualised through Feenberg's critical theory of technology, Abuja's experience reveals AI's impacts as socially negotiated rather than technologically predetermined findings, critiquing deterministic models of AI-driven displacement. Organisation C's successful phased integration, where participatory design transformed AI from displacement to a competency tool, exemplifies STS principles adapted to bureaucratic Global South contexts. This case extends Trist's original framework, bolstered by Feenberg's theory, by showing how infrastructural deficits become socio-technical misalignments and how hierarchical communication cultures amplify anxieties. Ultimately, bridging the perception-reality gap requires acknowledging that job security in the AI era is as much about narrative construction as material change, a theoretical synthesis positioning Abuja as a critical case for understanding technological anxiety across developing economies. Public organisations worldwide must prioritise pairing technical deployment with cultural interventions (e.g., transparency, co-creation) to transform AI from a spectre of uncertainty into a lever for equitable workforce evolution. This informed approach not only mitigates resistance but also harnesses AI's potential to augment public-sector resilience, an imperative for developing economies navigating digital transition.

Conclusion

There is a profound disconnect between the perceived and actual impacts of AI on job security in Abuja's public sector. However, some employees are anticipating displacement due to the rapid adoption of technology in their workplace or organisations. This perception is based on previous experiences of retrenched staff in the banking industry when ATM and other computerised devices were introduced. Psychosocial anxieties, rather than material realities, underscore the urgent need for policies that address not only the technical implementation of AI but also the human dimensions of technological change. Socio-technical systems (STS) theory provides a roadmap for this balance, emphasising that sustainable AI integration requires harmonising technological capabilities with workforce well-being through inclusive design, transparent communication, and proactive reskilling. Public organisations must demystify AI's role by clearly articulating its augmentative (rather than substitutive) functions through training and programs akin to Singapore's AI transparency initiatives, to bridge the information gap fuelling employee anxiety. Participatory AI Deployment should be promoted and adopted like the STS-driven co-design processes, where employees at all levels contribute to AI implementation plans. For instance, Organisation C's success with phased, staff-informed rollouts could be replicated across sectors, ensuring that AI tools align with on-the-ground

needs while mitigating resistance. The null effect of age on AI-related fear suggests that competency, not demographics, should guide training investments. Nigeria's 3MTT initiative could be expanded to prioritise role-specific AI literacy (e.g., data analytics for clerical staff, ethical oversight for managers). The study challenges one-size-fits-all narratives of AI disruption, advocating instead for contextual resilience policies tailored to institutional cultures and labour realities. By treating AI adoption as a socio-technical negotiation rather than a technological inevitability, Abuja's public organisations can model equitable digital transformation for peer institutions across the Global South.

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