

**ARTIFICIAL INTELLIGENCE ANXIETY AND INNOVATIVE WORK BEHAVIOUR AMONG
EMPLOYEES OF MOBILE TELECOMMUNICATION FIRMS
IN RIVERS STATE**

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Abstract

This study examined the relationship between artificial intelligence anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State. Specifically, the study examined the relationships between job displacement anxiety, skill obsolescence anxiety, technological uncertainty anxiety and innovative work behaviour. The study was anchored on Conservation of Resources Theory and adopted a cross-sectional survey design. The accessible population comprised 140 employees of MTN Nigeria, Globacom, Airtel and T2 Mobile in Rivers State, while census sampling was adopted. Data were collected from respondents using a structured questionnaire and analysed using Spearman Rank Order Correlation Coefficient at the 0.01 level of significance. The findings revealed a significant negative relationship between job displacement anxiety and innovative work behaviour ($\rho = -.587$, $p < .01$). Skill obsolescence anxiety also demonstrated a significant negative relationship with innovative work behaviour ($\rho = -.524$, $p < .01$). Similarly, technological uncertainty anxiety had a significant negative relationship with innovative work behaviour ($\rho = -.468$, $p < .01$). The study concluded that artificial intelligence anxiety constitutes a significant psychological barrier to employees' innovative work behaviour. Among others, the study recommends that management of mobile telecommunication firms should strengthen job security communication by clearly explaining how AI will complement rather than unnecessarily replace employees, thereby reducing job displacement anxiety and encouraging employees to participate actively in innovative activities; The firms should establish continuous AI-related training and reskilling programmes to equip employees with relevant digital competencies, reduce skill obsolescence anxiety and improve their confidence in generating, promoting and implementing new ideas

Keywords: *Artificial intelligence anxiety, job displacement anxiety, skill obsolescence anxiety, technological uncertainty anxiety, innovative work behaviour.*

Introduction

Innovative work behaviour is rapidly "becoming an essential employee capability in contemporary organisations, as organisations increasingly depend on employees to generate, promote and implement new ideas to improve products, services and work processes. The importance of innovative work behaviour has become more pronounced as technological advancement, changing customer expectations and competitive pressures continuously reshape the workplace. In technology-intensive industries, employees are expected to demonstrate creativity, adaptability and willingness to experiment with new methods, particularly as organisations increasingly integrate artificial intelligence (AI) into their operations. AI has created opportunities for organisations to automate routine activities, analyse large volumes of information, improve decision-making and

enhance service delivery, while simultaneously altering the roles and competencies expected of employees. Recent evidence suggests that AI-supported work can enhance innovative work behaviour when employees perceive the technology as a challenge that creates opportunities for learning and task crafting, but may produce adverse outcomes when AI is perceived as a hindrance" (Narayanan et al., 2026; Zhang et al., 2025).

The mobile telecommunications sector represents an "important context for examining this phenomenon as its operations depend heavily on technological innovation, digital infrastructure and continuous adaptation to emerging technologies. Employees of mobile telecommunications firms increasingly interact with AI-enabled systems in areas such as customer service, network management, data analytics, marketing, technical support and administrative operations. The rapid integration of AI into these activities, however, may generate psychological concerns among employees regarding their employment security, relevance and ability to cope with technological change. One emerging concern is artificial intelligence anxiety, which refers to employees' apprehension, fear and uneasiness concerning the potential consequences of AI for their jobs, competencies and future careers (Li & Huang, 2020; Chen et al., 2025; Kaya et al., 2022; Nurgiz et al., 2026; Cengiz & Adem, 2025). AI anxiety is particularly important because AI possesses increasingly sophisticated capabilities that can perform cognitive and analytical tasks previously undertaken by human employees. Among others, AI anxiety could be dimensionalized into job displacement anxiety, skill obsolescence anxiety and technological uncertainty anxiety".

Job displacement anxiety "represents refers to employees' fear that AI-driven automation may replace their jobs or reduce the demand for their existing roles. Recent research indicates that AI-supported work can be perceived as a hindrance that triggers job replacement anxiety and negative employee responses (Narayanan et al., 2026). Skill obsolescence anxiety represents employees' fear that their existing knowledge and competencies may become outdated as AI technologies develop rapidly. Wen et al. (2025) found that AI learning anxiety increased job insecurity, which subsequently undermined employees' innovative work behaviour among employees of Chinese internet companies. Technological uncertainty anxiety refers to apprehension arising from uncertainty about the pace, direction and consequences of AI development and how technological changes may affect employees' responsibilities and future work conditions. Zhang et al. (2025) demonstrated that technology-related stress in the AI era can generate anxiety and influence innovative behaviour depending on whether employees perceive technological change as a challenge or hindrance".

The relationship between AI anxiety and innovative work behaviour is therefore complex because AI may simultaneously provide opportunities for innovation and create psychological threats that discourage experimentation and risk-taking. Nazeer (2025) found that AI perceptions influenced innovative work behaviour through job crafting and AI anxiety, suggesting that employees' responses to AI depend partly on how they interpret and cope with technological change. Similarly, Özdemir (2025) reported that AI anxiety had a significant negative effect on employees' innovative behaviour, while resistance to change moderated the relationship. These findings are consistent with the argument that employees who fear job displacement, skill obsolescence or technological uncertainty may conserve psychological resources and become less willing to invest effort in generating and implementing novel ideas. From the perspective of Conservation of Resources Theory, AI-related anxiety may threaten valued resources such as employment security, competence, status and career continuity, causing employees to focus on resource protection rather than innovative engagement (Hobfoll et al., 2018).

Drawing from the precedent, the issue is increasingly relevant in Nigeria as telecommunications firms continue to invest in digital transformation and AI-enabled technologies. Recent industry developments indicate that major Nigerian telecommunications operators are moving towards greater AI integration, including AI-ready digital infrastructure and automated processes (Reuters, 2026). Such developments may improve organisational efficiency while simultaneously intensifying

employees' concerns about changing job requirements and future employability. Consequently, understanding employees' psychological responses to AI is important for maintaining innovative capacity within the telecommunications sector. Despite increasing international research on AI anxiety, limited empirical attention has been given to the relationship between its specific dimensions such as job displacement anxiety, skill obsolescence anxiety and technological uncertainty anxiety, and innovative work behaviour in Nigeria. Existing studies have also been concentrated largely in countries such as China, Pakistan, Turkey and the United States and across sectors such as banking, manufacturing, technology and construction, leaving limited evidence from Nigerian mobile telecommunications firms (Nazeer, 2025; Özdemir, 2025; Wen et al., 2025). In line with the above, this study examined the relationship between artificial intelligence anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State.

Statement of the Problem

Innovative work behaviour is increasingly important in mobile telecommunication firms as employees are expected to continually generate, promote and implement new ideas in responding to rapid technological change and competitive pressures. The growing adoption of artificial intelligence (AI), however, may create anxiety among employees concerning job security, skill relevance and future work roles. Oluoje (2026) reported that AI adoption is expanding rapidly among Nigerian organisations, underscoring the growing need for employees to develop capabilities for an AI-driven workplace. At the same time, Lawal (2025) and Nwafor (2025) highlighted concerns surrounding workforce preparedness and the need for training and mentorship as AI transforms employment. Such developments may heighten job displacement anxiety, as employees fear that AI-enabled automation could reduce the demand for human labour. They may also experience skill obsolescence anxiety because existing competencies may become outdated as AI technologies evolve, while rapid technological changes may generate technological uncertainty anxiety regarding future job responsibilities. These concerns are particularly relevant to telecommunications firms because the sector is at the forefront of digital and AI transformation, with the NCC and telecommunications operators advocating greater collaboration on AI infrastructure development (Okamgba, 2025). Although AI can facilitate creativity and innovation, anxiety associated with its adoption may cause employees to become more concerned with protecting their employment and competencies than with experimenting with new ideas. Despite emerging international evidence linking AI anxiety with innovative behaviour (Nazeer & Ahmad, 2025; Özdemir, 2025; Zhang et al., 2025), limited empirical evidence exists on the relationship between job displacement anxiety, skill obsolescence anxiety, technological uncertainty anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State. This contextual and dimensional gap necessitates the present study.

Conceptual Framework

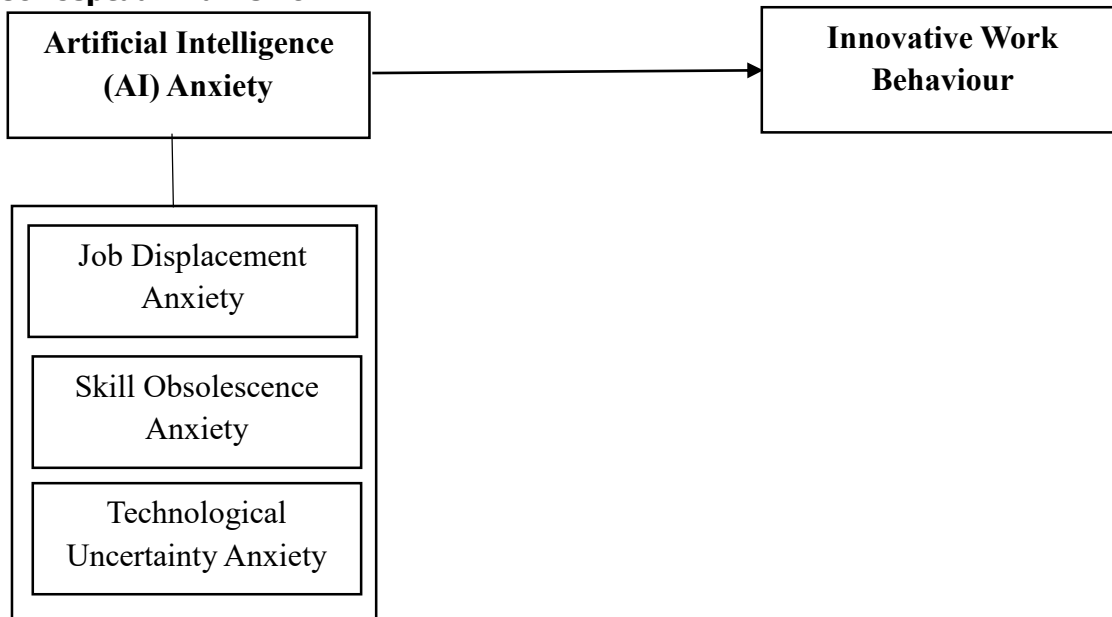


Figure 1: Conceptual Framework of Artificial Intelligence Anxiety and Innovative Work Behaviour.

Source: Researchers' Conceptualisation, 2026

Aim and Objectives

The aim of the study was to examine the relationship between artificial intelligence anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State. Specific objectives were to:

1. examine the relationship between job displacement anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State.
2. determine the relationship between skill obsolescence anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State.
3. investigate the relationship between technological uncertainty anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State.

Research Questions

1. To what extent does job displacement anxiety relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State?
2. To what extent does skill obsolescence anxiety relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State?
3. To what extent does technological uncertainty anxiety relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State?

Research Hypotheses

- Ho1: Job displacement anxiety does not significantly relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State.
- Ho2: Skill obsolescence anxiety does not significantly relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State.
- Ho3: Technological uncertainty anxiety does not significantly relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State.

Concept of Artificial Intelligence Anxiety

Artificial intelligence anxiety is defined as an affective response of fear and uneasiness regarding out-of-control AI that inhibits individuals from interacting with AI systems (Wang et al., 2024; Wang & Wang, 2022; Cengiz & Adem, 2025; Russo et al., 2025). The concept extends beyond earlier technophobia because AI operates autonomously without human intervention, makes opaque decisions, and raises ethical concerns that traditional computer anxiety did not encompass (Wang et al., 2024). Much of this anxiety stems from misunderstanding and confusion about what AI is and can ever be, including an exclusive focus on AI programs that leaves humans out of the picture and confusion about computational autonomy (Johnson et al., 2017). The phenomenon has a long history, tracing back to early fears that computers threatened the very idea of what it means to be human (Johnson et al., 2017).

Research has identified several recurring dimensions of AI anxiety through validated psychometric instruments. Wang and Wang's foundational scale captures four dimensions: learning anxiety, job replacement anxiety, sociotechnical blindness, and AI configuration anxiety (Kaya et al., 2022; Nurgiz et al., 2026; Cengiz & Adem, 2025). Li and Huang (2020) extended this framework by adding privacy violation, transparency, bias, and ethics as distinct anxiety factors (Kaya et al., 2022; Li & Huang, 2020). A nine-dimensional framework further refined the construct to include technoparanoia, cybernetic revolt fear, AI interaction anxiety, and technology self-efficacy alongside the original dimensions (Uğur & Dursun, 2025). Domain-specific scales have also emerged, such as a five-dimensional measure for EFL teachers capturing technical proficiency, job displacement, technological support, student experience, and research development (Liu & Huang, 2025). However, this study dimensionized artificial intelligence anxiety into job displacement anxiety, skill obsolescence anxiety and technological uncertainty anxiety.

Job Displacement Anxiety: Job displacement anxiety refers to employees' fear, apprehension and uncertainty that AI-enabled technologies may replace their current jobs or substantially reduce the need for human labour. It arises when employees perceive AI as a threat to their job security, career continuity and future employability. Recent evidence identifies job replacement anxiety as a distinct dimension of workplace AI anxiety and shows that it can negatively affect employees' work-related attitudes and outcomes (Chen et al., 2025; Jo & Park, 2025). In the context of mobile telecommunication firms, such anxiety may become pronounced as AI increasingly performs analytical, customer-service, technical and administrative tasks. A recent systematic review further confirms that job replacement anxiety remains an important but comparatively underexplored dimension of AI anxiety among employees (Wang & Wang, 2022).

Skill Obsolescence Anxiety: Skill obsolescence anxiety refers to employees' fear that the rapid development and application of artificial intelligence may make their existing knowledge, competencies and professional skills outdated or less valuable in the workplace. It emerges when employees perceive that AI is developing faster than their ability to acquire new competencies, creating concerns about their future competence, employability and career relevance. Recent literature identifies skill obsolescence as an important component of AI anxiety, alongside concerns about job displacement and changing work roles (Ding, 2025). Recent empirical evidence also shows that employees who perceive themselves as lacking the resources and capabilities required to adapt to AI-driven changes experience greater anxiety associated with skill obsolescence (Uğur & Dursun, 2025; Wang & Wang, 2022). Thus, skill obsolescence anxiety may encourage employees to continuously reskill while simultaneously generating psychological strain and uncertainty about their long-term career relevance (Ge, 2026).

Technological Uncertainty Anxiety: Technological uncertainty anxiety refers to employees' fear, apprehension and psychological discomfort arising from uncertainty about the rapid development,

unpredictability and consequences of artificial intelligence in the workplace. It occurs when employees are unsure how AI will alter their work roles, responsibilities, required competencies, autonomy and future employment conditions. Recent research indicates that uncertainty surrounding technological upgrading is an important source of employee AI anxiety, particularly where workers perceive AI-driven changes as difficult to understand or anticipate (Chen et al., 2025). Recent evidence also identifies tech uncertainty as a driver of AI-related anxiety and occupational anxiety among employees, while a systematic review confirms that AI anxiety involves cognitive and affective responses to the uncertain consequences of AI adoption (Ataseven et al., 2026; Alsudays, 2026).

Concept of Innovative Work Behaviour

Innovative work behavior (IWB) is defined as the intentional generation, introduction, and application of new ideas within a work role, group, or organization to benefit performance (AlEssa & Durugbo, 2022; Bos-Nehles et al., 2017; Kmiecik, 2020). The concept is widely regarded as a microfoundation of organizational innovation, serving as the individual-level mechanism through which firms retain competitive advantage (AlEssa & Durugbo, 2022; Pajuoja et al., 2025; Lukeš & Stephan, 2017). Although creativity and innovation are closely related, scholars now distinguish creativity as the cognitive generation of new ideas from innovation as the broader implementation process (Pajuoja et al., 2025; Liu et al., 2023; Masianoga & Chakauya, 2023). The innovation process typically begins with problem recognition, where employees identify opportunities for improvement based on existing business challenges (Pajuoja et al., 2025). Subsequent stages involve generating solutions, which can be entirely novel or new to the specific organizational context (Pajuoja et al., 2025; Yen et al., 2025). Because innovation is inherently a change process that can provoke resistance, ideas often require promotion or championing to secure approval, resources, and coalition support (Pajuoja et al., 2025; Srirahayu et al., 2023). The final stage entails implementation, preparing plans and securing resources to embed the innovation into routine practice. While these stages are often presented sequentially, in practice they overlap and follow a non-fixed, reiterative order.

Despite the multistage conceptualization, empirical measurement of IWB remains contested. The most widely referenced frameworks propose three dimensions namely idea generation, idea promotion, and idea realization (Yen et al., 2025; Liu et al., 2023). De Jong and den Hartog expanded this to four, adding idea exploration, but their confirmatory factor analyses across 703 dyads found weak evidence for dimensional distinctiveness, suggesting IWB may be effectively one-dimensional (Jong & Hartog, 2010). Lukeš and Stephan (2017) identified six facets such as idea generation, idea search, idea communication, implementation starting activities, involving others, and overcoming obstacles, validated cross-culturally across four countries. Most studies, however, continue to employ unidimensional measures, which may not capture the complex, multi-dimensional properties of the construct (Yen et al., 2025; Lukeš & Stephan, 2017). Scholars have called for examining IWB dimensions separately, as different antecedents may influence each stage distinctly (Lajçi et al., 2026).

Theoretical Review

The study was theoretically anchored on conservation of resources theory by Stevan Eric Hobfoll in 1989. The theory assumes that individuals are motivated to acquire, retain, protect and build valuable resources, including personal characteristics, skills, social relationships, employment and psychological resources. The theory further assumes that psychological stress occurs when these valued resources are threatened with loss, actually lost, or when individuals invest resources without achieving anticipated gains (Hobfoll et al., 2018). In organisational settings, the theory explains how resource loss and resource gain influence employees' stress, motivation and work-related behaviours.

The theory implies that employees' innovative behaviour is influenced by their perception of available and threatened resources in the workplace. In the context of artificial intelligence, employees who perceive AI as a threat to their jobs, skills and career prospects may experience anxiety arising from anticipated resource loss. Such anxiety may cause employees to conserve their remaining psychological resources rather than invest additional effort in generating, promoting and implementing new ideas. The theory therefore implies that job displacement anxiety may reduce employees' willingness to engage in innovative work behaviour. Similarly, skill obsolescence anxiety may weaken employees' confidence in their competencies and discourage experimentation with new work methods. Technological uncertainty anxiety may further create psychological strain as employees struggle to anticipate how AI will transform their roles. COR Theory also implies that organisations can mitigate these negative effects by providing AI training, career development, supportive supervision and job security. These resources can help employees cope with perceived resource threats and develop confidence in working with AI. Consequently, mobile telecommunication firms in Rivers State can promote innovative work behaviour by strengthening employees' resource reserves during AI-driven technological transformation.

Empirical Review

Mirkhil (2026) investigated artificial intelligence (AI) anxiety, its association with employee performance, and its demographic distribution among employees in India's Banking, Financial Services, and Insurance (BFSI) sector. Drawing on Cognitive Appraisal Theory, Conservation of Resources Theory, and the Job Demands–Resources Model, the research utilised a cross-sectional quantitative design with a sample of 349 BFSI employees recruited through an online survey. The Artificial Intelligence Anxiety Scale (AIAS) and the Individual Work Performance Questionnaire (IWPQ) were employed as validated psychometric instruments. Pearson correlation analysis revealed a statistically significant negative relationship between AI anxiety and employee performance. Hierarchical multiple regression demonstrated that AI anxiety significantly predicted employee performance beyond demographic controls, accounting for meaningful additional explained variance. Female employees reported significantly higher AI anxiety than male employees. A statistically significant qualification-level effect on AI anxiety was identified at the omnibus level, however, no pairwise contrast reached significance following post hoc correction. No significant differences in AI anxiety were found across job levels. These findings contribute to the theoretical understanding of AI-related psychological strain in the workplace and offer practical implications for AI transition management, gender-responsive human resource practices, and workforce policy in India's digitally transforming BFSI sector.

Lu and Sirou (2025) examined the relationship between artificial intelligence anxiety and innovative behavior of new generation employees: the roles of organizational attachment and job crafting. The study conducted a survey in two phases with data from November 2023 to February 2024 through a multi-time point survey methodology. The target population consists of employees across various sectors, including the Internet and Technology (IT) industry, manufacturing, catering services, and education. There are 343 valid responses out of 435 questionnaires, which corresponds to a robust response rate of 78. 85%. The study employs SPSS 23. 0 and Mplus 8. 0 software to assess the reliability and validity of the research model. To evaluate the discriminant validity among the four key variables of artificial intelligence anxiety, organizational attachment, work remodeling, and employee innovative behavior, it conducts the confirmatory factor analysis (CFA) using Mplus 8. 0. Additionally, to ensure that common method bias was not a significant concern in this research, Harman's single-factor test was applied to an exploratory factor analysis of the 40 items pertaining to these four variables. It delves into the mediating effect of job crafting, and the moderating effect of organizational attachment; and then it explores the boundary of the relationship among AI anxiety, job crafting and the innovative behavior of the new generation of employees under different levels of organizational attachment. The results show that artificial intelligence anxiety positively

affects the innovation behavior of the new generation of employees through job crafting, and the degree of organizational attachment of employees plays a moderating role in this process. When employees' organizational attachment is low, the positive mediating effect of AI anxiety on the innovation behavior of new generation employees through job crafting is significant. When employees have a high degree of organizational attachment, the mediating effect above is not significant.

Narayanan et al. (2026) examined how AI-supported work functions as a daily stressor that can elicit both engagement and disengagement responses depending on individual challenge and hindrance appraisals. Using a 10-day diary study design conducted in the US (N = 173), we tested dual pathways through which daily AI supported work influenced employee behavioral and attitudinal responses. On days when employees perceived having more AI-supported work, they were more likely to appraise it as a challenge, which in turn was associated with higher levels of task crafting and innovative work behavior. At the same time, AI-supported work was also appraised as a hindrance, triggering job replacement anxiety and resulting in higher levels of organizational cynicism.

Özdemir (2025) analyzed how anxiety about AI affects innovative behavior and to examine the moderating effect of resistance to change within this dynamic. It focuses on employees in financial services, technology, manufacturing, and service sector organizations operating in Istanbul. No previous research has been found in the literature that addresses these three concepts together. The study used demographic information from 281 participants and data obtained through a survey consisting of three different scales. Descriptive statistics, reliability analysis, validity, normality assessment, Pearson correlation analysis, and regression analysis were applied to analyze the data. The study results revealed that AI anxiety had a significantly negative effect on employees' innovative behavior, resistance to change served as a moderator in the relationship between AI anxiety and innovative behavior and financial services and technology sectors exhibited higher AI anxiety than manufacturing and service sectors.

Zhang et al. (2025) conducted a study on anxiety or engaged? Research on the impact of technostress on employees' innovative behavior in the era of artificial intelligence. Specifically, it investigates the mechanisms linking technostress to innovation behavior through the mediating roles of job anxiety and work engagement, with corporate digital responsibility (CDR) (i.e., organizational obligations in digital transformation encompassing data ethics, lawful technology use, and mitigation of digitalization's adverse effects) serving as a contextual boundary condition. Based on two-wave survey data from 500 employees across Chinese manufacturing firms, this study conducted confirmatory factor analysis (CFA) and path regression analysis using Mplus 8.3. The results reveal that the effect of technostress on employee innovative behavior hinges on employees' appraisal of technostress. Specifically, when perceived as a hindrance, technostress triggers job anxiety, thereby inhibiting innovation behavior. When perceived as a challenge, it fosters work engagement, which enhances innovation behavior. Furthermore, CDR attenuates the positive relationship between technostress and job anxiety while amplifying its positive association with work engagement. Additionally, CDR moderates the mediating effect of job anxiety in the technostress–innovation behavior link. However, CDR does not significantly moderate the mediating role of work engagement, possibly because this mechanism is influenced by multiple contextual factors and requires further research in the future. This paper contributes to the technostress literature by clarifying how technostress affects employee innovative behavior through different mechanisms. This study holds important theoretical and practical significance for improving employees' adaptability and promoting the innovative development of enterprises amidst the technostress induced by AI.

Chen et al. (2025) examined the impact of AI anxiety on employees' work passion: A moderated mediated effect model. The study obtained necessary data by distributing questionnaires to 430 employees in manufacturing companies and conducted empirical analysis to examine how

employees' anxiety about artificial intelligence affects their work passion. The results show that anxiety about job replacement and anxiety about learning both diminish employees' work passion, and emotional exhaustion plays a partially mediating role in this process. In addition, service-oriented leadership and learning goal orientation have different moderating effects in the relationship. The findings of this study provide a reference for companies to develop strategies to alleviate the negative impact of employees' anxiety about artificial intelligence on their work passion and enhance the effectiveness of artificial intelligence applications.

Gap in Literature

The literature revealed a contextual, conceptual and empirical gap in understanding the relationship between artificial intelligence anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State. Mirkhil (2026), Lu and Sirou (2025), and Özdemir (2025) examined AI anxiety and employee performance or innovative behaviour in banking, technology, manufacturing and service sectors, but not telecommunications in Nigeria. Existing studies also largely treat AI anxiety as a general construct, with limited attention to job displacement anxiety, skill obsolescence anxiety and technological uncertainty anxiety as distinct dimensions. Narayanan et al. (2026) examined job replacement anxiety, while Chen et al. (2025) considered job replacement and learning anxiety, leaving technological uncertainty comparatively underexplored. Furthermore, Zhang et al. (2025) focused on technostress rather than the multidimensional nature of AI anxiety and its direct relationship with innovative work behaviour. Therefore, there is a clear contextual and dimensional gap regarding how these three dimensions of AI anxiety influence innovative work behaviour among employees of mobile telecommunication firms in Rivers State, which the present study seeks to address.

Methodology

The study adopted cross-sectional survey research designed. The study population comprises 140 employees of MTN Nigeria Communications PLC, Airtel Networks Limited (Airtel Africa PLC), Globacom Limited and 9Mobile (Emerging Markets Telecommunication Services Ltd.) recently rebranded to T2 Mobile, with 35 employees selected from each firm. The respondents were drawn from Technical, Information Technology, Customer Service, Marketing, Administration and Network Operations units. These employees were considered appropriate because their jobs increasingly involve AI-enabled technologies and digital transformation. The study adopted census sampling because the accessible population of 140 employees is small and manageable. Data were collected through primary sources using a structured questionnaire and secondary sources comprising textbooks, journal articles and relevant online publications. The questionnaire was titled "Artificial Intelligence Anxiety and Innovative Work Behaviour Questionnaire (AIAIWbQ)" and was structured on a four-point Likert rating scale of Strongly Agreed (SA) = 4, Agreed (A) = 3, Disagreed (D) = 2 and Strongly Disagreed (SD) = 1. The instrument was validated by two experts in management and organisational behaviour, while its reliability was established using Cronbach Alpha. 132 (94%) copies of the questionnaire were successfully filled and retrieved for data analysis. Spearman Rank Order Correlation Coefficient (ρ) was employed to test the hypotheses. Data were analysed using SPSS Version 25.0, with the hypotheses tested at the 0.01 level of significance.

Results

H₀₁: Job displacement anxiety does not significantly relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State.

Table 1 Correlation between Job Displacement Anxiety and Innovative Work Behaviour

	Job Displacement Anxiety	Innovative Work Behaviour
Job Displacement Anxiety	1.000	-.587
Sig. (2-tailed)	.	.000
N	132	132
Innovative Work Behaviour	-.587	1.000
Sig. (2-tailed)	.000	.
N	132	132

**Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data, 2026

Table 1 shows the correlation between technological uncertainty anxiety and innovative work behaviour. Since $p = .000 < .01$, the null hypothesis is rejected. Therefore, there is a significant negative relationship between job displacement anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State. The coefficient ($\rho = -.587$) indicates a moderately strong negative relationship, implying that higher levels of job displacement anxiety are associated with lower levels of innovative work behaviour.

H₀₂: Skill obsolescence anxiety does not significantly relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State.

Table 2 Correlation between Skill Obsolescence Anxiety and Innovative Work Behaviour

	Skill Obsolescence Anxiety	Innovative Work Behaviour
Skill Obsolescence Anxiety	1.000	-.524
Sig. (2-tailed)	.	.000
N	132	132
Innovative Work Behaviour	-.524	1.000
Sig. (2-tailed)	.000	.
N	132	132

**Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data, 2026

Table 2 shows the correlation between technological uncertainty anxiety and innovative work behaviour. Since $p = .000 < .01$, the null hypothesis is rejected. Therefore, there is a significant negative relationship between skill obsolescence anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State. The correlation coefficient ($\rho = -0.524$) indicates a moderate negative relationship, implying that higher skill obsolescence anxiety is associated with lower innovative work behaviour among employees.

H₀₃: Technological uncertainty anxiety does not significantly relate to innovative work behaviour among employees of mobile telecommunication firms in Rivers State.

Table 3 Correlation between Technological Uncertainty Anxiety and Innovative Work Behaviour

	Technological Uncertainty Anxiety	Innovative Work Behaviour
Technological Uncertainty Anxiety	1.000	-.468
Sig. (2-tailed)	.	.000
N	132	132
Innovative Work Behaviour	-.468	1.000
Sig. (2-tailed)	.000	.
N	132	132

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data, 2026

Table 3 shows the correlation between technological uncertainty anxiety and innovative work behaviour. Since $p = .000 < .01$, the null hypothesis is rejected. Therefore, there is a significant negative relationship between technological uncertainty anxiety and innovative work behaviour among employees of mobile telecommunication firms in Rivers State. The correlation coefficient ($\rho = -0.468$) indicates a moderate negative relationship, implying that higher technological uncertainty anxiety is associated with lower innovative work behaviour among employees.

Discussion of Findings

The findings revealed that job displacement anxiety had a significant negative relationship with innovative work behaviour among employees of mobile telecommunication firms in Rivers State ($\rho = -.587$, $p < .01$). This implies that employees who were more apprehensive about AI replacing their jobs were less likely to generate, promote and implement innovative ideas. The finding suggests that perceived threats to job security may divert employees' psychological resources from innovation towards protecting their employment positions. Similarly, skill obsolescence anxiety demonstrated a significant negative relationship with innovative work behaviour ($\rho = -.524$, $p < .01$), indicating that employees who feared their existing skills would become obsolete were less inclined to engage in innovative activities. This may be because concerns about declining competence reduce employees' confidence and willingness to experiment with new approaches. Technological uncertainty anxiety also showed a significant negative relationship with innovative work behaviour ($\rho = -.468$, $p < .01$), suggesting that uncertainty about the consequences and future direction of AI may discourage innovative engagement. The findings are consistent with Mirkhil (2026), who reported a significant negative relationship between AI anxiety and employee performance among BFSI employees in India. The result also agrees with Özdemir (2025), who found that AI anxiety significantly negatively affected employees' innovative behaviour across financial, technology, manufacturing and service organisations in Istanbul. However, the present findings differ from Lu and Sirou (2025), who found that AI anxiety could positively influence innovative behaviour through job crafting, particularly among employees with low organisational attachment. This difference suggests that AI anxiety may produce different behavioural outcomes depending on employees' coping mechanisms and organisational conditions. The findings also resonate with Narayanan et al. (2026), who demonstrated that AI-supported work could produce both positive and negative employee responses depending on whether employees appraised AI as a challenge or a hindrance. From the perspective of Conservation of Resources Theory, the negative relationships imply that AI-related anxiety represents a perceived threat to valued resources such as job security, competence and career continuity, causing employees to conserve psychological resources rather than invest them in innovation (Hobfoll et al., 2018). Overall, the findings establish that the three dimensions of AI anxiety examined in the study constitute significant psychological

barriers to innovative work behaviour among employees of mobile telecommunication firms in Rivers State.

Conclusion

The study concluded that artificial intelligence anxiety significantly and negatively relates to innovative work behaviour among employees of mobile telecommunication firms in Rivers State. Specifically, job displacement anxiety, skill obsolescence anxiety and technological uncertainty anxiety were found to constrain employees' willingness to generate, promote and implement innovative ideas. Therefore, effective management of AI-related anxiety through training, communication and organisational support is essential for sustaining employee innovation in the telecommunications sector.

Recommendations

1. Management of mobile telecommunication firms should strengthen job security communication by clearly explaining how AI will complement rather than unnecessarily replace employees, thereby reducing job displacement anxiety and encouraging employees to participate actively in innovative activities.
2. The firms should establish continuous AI-related training and reskilling programmes to equip employees with relevant digital competencies, reduce skill obsolescence anxiety and improve their confidence in generating, promoting and implementing new ideas.
3. Management should provide clear information about planned and ongoing AI technologies through regular briefings, employee consultations and transparent communication, thereby reducing technological uncertainty anxiety and creating a more psychologically secure environment for innovative work behaviour.

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