

THE PSYCHOLOGICAL IMPACTS OF AI INTEGRATION IN HRM PRACTICES AMONG HR PRACTITIONERS AND ACADEMIC STAFF IN UNIVERSITIES IN KWARA STATE, NIGERIA

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ABSTRACT

The integration of Artificial Intelligence (AI) into Human Resource Management (HRM) practices is transforming administrative processes in universities by improving efficiency, accuracy, and decision-making. Despite these benefits, concerns remain regarding the psychological effects of AI adoption on employees. This study examined the psychological impacts of AI integration in HRM practices among HR practitioners and academic staff in universities in Kwara State, Nigeria. A quantitative descriptive survey research design was adopted. The population comprised 1,026 HR practitioners and academic staff drawn from five selected public and private universities in Kwara State. A sample of 280 respondents was determined using the Krejcie and Morgan (1970) sample size determination table and selected through stratified random sampling. Data were collected using a validated questionnaire titled Artificial Intelligence Integration and Psychological Impacts Questionnaire (AIPIQ) with a Cronbach's Alpha reliability coefficient of 0.89. Descriptive statistics (mean and standard deviation) were used to answer the research questions, while independent samples t-test, simple regression, and multiple regression analyses were employed to test the hypotheses at the 0.05 level of significance. The findings revealed that respondents experienced high levels of technostress and job insecurity and demonstrated a high level of trust in AI systems. A significant difference existed in the level of technostress experienced by HR practitioners and academic staff, whereas no significant difference was found in their perception of job insecurity. Furthermore, perceived fairness significantly influenced psychological well-being, while technostress and perceived fairness jointly predicted psychological well-being, accounting for 42% of the variance. The study concluded that effective AI integration in HRM should prioritize fairness, transparency, continuous staff training, and psychological support to enhance employee well-being and ensure sustainable digital transformation in universities. The study recommended the adoption of ethical AI governance frameworks, continuous digital capacity building, and employee-centred implementation strategies to promote responsible AI integration in university HRM.

Keywords: Artificial Intelligence, Human Resource Management, Technostress, Job Insecurity, Psychological Well-being, Universities, Kwara State.

Introduction

Artificial Intelligence (AI) has emerged as one of the most transformative technological innovations of the twenty-first century, reshaping organizational operations, decision-making processes, and workforce management across both public and private sectors. AI refers to the ability of computer systems to perform tasks that typically require human intelligence, including learning, reasoning, problem-solving, pattern recognition, and predictive decision-making. Its integration into organizational processes has accelerated digital transformation, enabling institutions to automate routine activities, enhance operational efficiency, and improve the quality of strategic decisions. As organizations increasingly embrace AI-enabled technologies, Human Resource Management (HRM) has become one of the functional areas experiencing profound transformation (Brynjolfsson & McAfee, 2023; Vrontis et al., 2022).

Within HRM, AI is increasingly applied to recruitment and selection, employee onboarding, performance appraisal, workforce planning, payroll administration, talent management, learning and development, and employee engagement. AI-driven HR systems support organizations by reducing administrative burdens, minimizing human error, improving the speed of decision-making, and facilitating data-driven personnel management. Through machine learning algorithms, predictive analytics, intelligent chatbots, and automated decision-support systems, HR professionals can process large volumes of information more efficiently than traditional manual approaches. Consequently, AI has become an indispensable component of contemporary HR practices, particularly in organizations seeking greater effectiveness, transparency, and competitiveness (Aguinis et al., 2024; Bond et al., 2024).

The higher education sector has equally embraced AI as part of its broader digital transformation agenda. Universities worldwide are adopting AI-powered technologies to enhance academic administration, research management, student services, and human resource operations. In Nigerian universities, the gradual deployment of AI-supported systems has influenced various HR functions, including staff recruitment, promotion, leave administration, personnel records management, payroll processing, and performance evaluation. These technological developments are intended to improve administrative efficiency, strengthen accountability, reduce bureaucratic delays, and support evidence-based decision-making. As universities continue to modernize their administrative systems, AI is expected to play an increasingly strategic role in institutional governance and workforce management (OECD, 2024).

Despite these advantages, the integration of AI into HRM has generated growing concern regarding its implications for employees' psychological experiences. The increasing reliance on intelligent systems has altered traditional work practices and changed how employees perceive their roles, responsibilities, and future within organizations. AI-assisted decision-making may reduce repetitive tasks and improve efficiency, yet it may simultaneously create uncertainty regarding job continuity, professional relevance, workplace autonomy, and organizational relationships. These concerns have attracted considerable attention within organizational psychology because employees' psychological responses largely determine the success or failure of technological innovations (Chamorro-Premuzic et al., 2024).

Among the most frequently reported psychological consequences of AI adoption is technostress, which describes the stress experienced by individuals when technological demands exceed their ability to adapt effectively. AI implementation often requires employees to acquire new digital competencies, continuously update their technological skills, and interact with increasingly sophisticated automated systems. Without adequate organizational support, these demands may contribute to cognitive overload, anxiety, emotional exhaustion, and reduced job satisfaction (Tarafdar et al., 2023; Molino et al., 2024).

Another important psychological concern is job insecurity. The automation of routine HR functions may create perceptions that AI will replace or significantly reduce the need for human labour in administrative roles. Such perceptions can undermine employee confidence, reduce organizational commitment, and negatively influence psychological well-being. Furthermore, AI-supported HR decisions have raised questions regarding trust and perceived fairness, particularly where employees have limited understanding of how algorithms generate recommendations or decisions. Employees are generally more willing to accept AI-supported decisions when they perceive the systems to be transparent, unbiased, and accountable. Conversely, a lack of transparency may increase resistance, skepticism, and distrust toward AI-enabled HR practices (Budhwar et al., 2023; Newman et al., 2024).

Psychological well-being remains fundamental to employee performance, organizational commitment, innovation, and institutional effectiveness. Employees who perceive organizational systems as fair, supportive, and trustworthy are more likely to demonstrate positive work attitudes, higher productivity, and stronger engagement. Consequently, successful AI implementation requires organizations not only to invest in technological infrastructure but also to address employees' emotional, behavioural, and psychological adaptation to digital transformation. A human-centred approach to AI implementation is therefore essential for achieving sustainable organizational outcomes (World Economic Forum, 2025).

Within Nigerian universities, particularly those in Kwara State, AI adoption in HRM is gradually expanding as institutions pursue greater efficiency and improved administrative service delivery. While these developments present opportunities for enhanced institutional performance, they also introduce new workplace realities that may influence the psychological experiences of HR practitioners and academic staff. Understanding these experiences is particularly important because employees' acceptance of AI technologies influences the effectiveness of organizational digital transformation initiatives.

Statement of the Problem

The adoption of Artificial Intelligence in Human Resource Management has attracted increasing scholarly attention due to its potential to improve efficiency, accuracy, and transparency in organizational processes. However, existing studies have focused predominantly on the technological, operational, and performance-related benefits of AI, with comparatively limited attention devoted to its psychological implications for employees within higher education institutions. In the Nigerian context, empirical evidence examining how AI integration influences technostress, job insecurity, trust in AI systems, perceived fairness, and psychological well-being

among HR practitioners and academic staff remains scarce. This gap is particularly evident in universities in Kwara State, where AI-supported HR practices are gradually being introduced without sufficient evidence regarding their effects on employees' psychological experiences. The absence of such evidence limits the ability of university administrators and policymakers to design AI implementation strategies that promote both technological efficiency and employee well-being. It is against this background that this study investigated the psychological impacts of Artificial Intelligence integration in Human Resource Management practices among HR practitioners and academic staff in universities in Kwara State, Nigeria.

Purpose of the Study

The purpose of this study was to examine the psychological impacts of Artificial Intelligence (AI) integration in Human Resource Management (HRM) practices in universities in Kwara State, Nigeria. Specifically, the study sought to:

1. determine the level of technostress experienced by HR practitioners and academic staff due to AI integration in HRM practices in universities in Kwara State.
2. examine the extent of job insecurity perceived by HR practitioners and academic staff as a result of AI integration in HRM practices in universities in Kwara State.
3. assess the level of trust in AI systems among HR practitioners and academic staff in universities in Kwara State.
4. determine the extent to which perceived fairness influences the psychological well-being of HR practitioners and academic staff in universities in Kwara State.
5. examine the predictive influence of technostress and perceived fairness on the psychological well-being of HR practitioners and academic staff in universities in Kwara State.

Research Questions

The following research questions were raised to guide the study:

1. What is the level of technostress experienced by HR practitioners and academic staff due to AI integration in HRM practices in universities in Kwara State?
2. What is the extent of job insecurity perceived by HR practitioners and academic staff as a result of AI integration in HRM practices in universities in Kwara State?
3. What is the level of trust in AI systems among HR practitioners and academic staff in universities in Kwara State?
4. To what extent does perceived fairness influence the psychological well-being of HR practitioners and academic staff in universities in Kwara State?
5. To what extent do technostress and perceived fairness predict the psychological well-being of HR practitioners and academic staff in universities in Kwara State?

Research Hypotheses

The following null hypotheses were formulated and tested at the 0.05 level of significance:

H₀₁: There is no significant difference in the level of technostress experienced by HR practitioners and academic staff due to AI integration in HRM practices in universities in Kwara State.

- H₀₂:** There is no significant difference in the level of job insecurity perceived by HR practitioners and academic staff as a result of AI integration in HRM practices in universities in Kwara State.
- H₀₃:** There is no significant difference in the level of trust in AI systems between HR practitioners and academic staff in universities in Kwara State.
- H₀₄:** Perceived fairness does not significantly influence the psychological well-being of HR practitioners and academic staff in universities in Kwara State.
- H₀₅:** Technostress and perceived fairness do not significantly predict the psychological well-being of HR practitioners and academic staff in universities in Kwara State.

Review of Related Literature

Artificial Intelligence (AI) has emerged as one of the most transformative technologies influencing organizational management and Human Resource Management (HRM) across the world. AI refers to computer systems capable of performing tasks that traditionally require human intelligence, including learning, reasoning, problem-solving, language processing, predictive analysis, and decision-making. In HRM, AI is increasingly utilized for recruitment and selection, employee onboarding, performance appraisal, talent management, payroll administration, workforce planning, and employee engagement. The adoption of AI has enabled organizations to improve operational efficiency, reduce administrative workload, minimize human errors, and support evidence-based decision-making. As organizations continue to embrace digital transformation, AI has become a strategic tool for improving organizational effectiveness and competitiveness (Brynjolfsson & McAfee, 2023; Vrontis et al., 2022; Aguinis et al., 2024; Bond et al., 2024).

The application of AI in higher education has expanded considerably over the past decade. Universities increasingly rely on intelligent technologies to automate administrative functions, improve human resource operations, manage employee records, facilitate recruitment, monitor staff performance, and enhance institutional planning. AI-supported HRM systems provide timely information that assists university administrators in making objective personnel decisions while reducing bureaucratic delays associated with manual processes. Digital transformation has therefore become an essential component of modern university governance, enabling institutions to improve service delivery, operational efficiency, and institutional sustainability. Nevertheless, the successful implementation of AI depends not only on technological infrastructure but also on employees' willingness to accept and effectively interact with intelligent systems (Bond et al., 2024; OECD, 2024; UNESCO, 2023; World Economic Forum, 2025).

One of the most widely documented psychological consequences of AI integration is technostress. Technostress refers to the stress experienced by employees when technological demands exceed their ability to cope effectively with digital systems. The introduction of AI often requires employees to acquire new competencies, adapt to changing work procedures, and continuously update their technological knowledge. These adjustments may generate anxiety, emotional exhaustion, cognitive overload, and reduced work satisfaction when adequate institutional support is lacking. Tarafdar et al. (2023) argued that technostress negatively affects employee productivity, organizational commitment, and psychological health. Similarly, Molino et al. (2024) observed that employees experiencing high levels of technostress are more likely to demonstrate reduced engagement, lower motivation, and increased resistance to technological innovations. Consequently, continuous digital training and organizational support remain essential

for minimizing the psychological burden associated with AI implementation (Tarafdar et al., 2023; Molino et al., 2024; Wang et al., 2023; Upadhyay & Khandelwal, 2024).

Job insecurity has also become a growing concern following the increasing adoption of AI in organizational settings. AI technologies have automated several routine administrative and decision-support functions traditionally performed by employees, creating uncertainty regarding future employment opportunities and career progression. Although AI is primarily intended to complement rather than replace human expertise, employees frequently perceive automation as a potential threat to job stability. Such perceptions often result in fear, reduced organizational commitment, emotional stress, and lower job satisfaction. According to Brougham and Haar (2023), employees who perceive AI as replacing human labour experience significantly higher levels of psychological distress than those who perceive AI as a supportive technology. Similarly, Budhwar et al. (2023) maintained that organizations must communicate the objectives and limitations of AI implementation clearly to reduce employee anxiety and strengthen confidence in technological change (Brougham & Haar, 2023; Budhwar et al., 2023; Newman et al., 2024; OECD, 2024).

Trust in AI systems represents another critical psychological factor influencing the successful integration of intelligent technologies in HRM. Trust refers to employees' confidence that AI-generated decisions are reliable, transparent, accurate, ethical, and free from bias. In HRM practices, AI increasingly participates in recruitment, promotion, staff appraisal, workforce analytics, and personnel management. Employees are more likely to support AI adoption when they perceive algorithmic decisions as objective and accountable. Conversely, concerns regarding algorithmic bias, inadequate transparency, and limited human oversight may reduce trust and encourage resistance to AI-supported HR practices. Chamorro-Premuzic et al. (2024) emphasized that transparency and explainability are fundamental requirements for establishing trust in AI systems, while Newman et al. (2024) argued that organizations should combine AI efficiency with human judgment to improve employee confidence and organizational acceptance (Chamorro-Premuzic et al., 2024; Newman et al., 2024; Vrontis et al., 2022; Bond et al., 2024).

Closely related to trust is the concept of perceived fairness. Perceived fairness refers to employees' assessment of whether organizational decisions and procedures are equitable, transparent, and consistently applied. AI-supported HRM systems are expected to reduce subjective judgments and improve procedural consistency. However, employees may question the fairness of automated decisions when algorithms operate without adequate transparency or when decision-making criteria remain unclear. Perceptions of fairness significantly influence employee attitudes, organizational trust, job satisfaction, and psychological well-being. Research has shown that organizations implementing transparent and accountable AI systems experience greater employee acceptance and stronger organizational commitment than institutions with opaque automated procedures. Fairness therefore remains an important determinant of successful AI adoption in educational institutions (Newman et al., 2024; Budhwar et al., 2023; OECD, 2024; UNESCO, 2023).

Psychological well-being constitutes one of the most important indicators of employee effectiveness and organizational success. Psychological well-being encompasses emotional stability, mental health, life satisfaction, work engagement, motivation, and the ability to cope with occupational challenges. Employees with positive psychological well-being demonstrate higher productivity, stronger organizational commitment, greater creativity, and improved interpersonal relationships. Conversely, prolonged exposure to technostress, job insecurity, reduced trust, and perceived unfairness may negatively affect employees' emotional health and work performance.

Organizations introducing AI technologies must therefore balance technological innovation with employee welfare through continuous training, supportive leadership, transparent communication, and accessible psychological support services. Such strategies facilitate successful technological adoption while maintaining employee satisfaction and institutional effectiveness (OECD, 2024; World Economic Forum, 2025; Aguinis et al., 2024; Molino et al., 2024).

The interaction among technostress, job insecurity, trust in AI systems, perceived fairness, and psychological well-being has attracted increasing scholarly attention within organizational psychology and human resource management literature. Although previous studies have extensively documented the operational benefits of AI adoption, empirical evidence examining its psychological implications for HR practitioners and academic staff within Nigerian universities remains relatively limited. Most existing studies have concentrated on organizational productivity, technological efficiency, and digital transformation, with comparatively little attention devoted to employees' psychological experiences during AI implementation. This gap limits understanding of how AI integration influences workplace well-being within higher education institutions. Therefore, there is a need for empirical investigation into the psychological impacts of AI integration in Human Resource Management practices in universities in Kwara State, Nigeria, to provide evidence that will inform policy formulation and promote the development of human-centred AI systems in higher education (Bond et al., 2024; Chamorro-Premuzic et al., 2024; Newman et al., 2024; OECD, 2024; World Economic Forum, 2025).

Theoretical Framework

This study is anchored on the Technology Acceptance Model (TAM) developed by Davis (1989) and Organizational Justice Theory advanced by Greenberg (1987). These theories provide complementary explanations for employees' acceptance of Artificial Intelligence (AI) systems and their psychological responses to AI-enabled Human Resource Management (HRM) practices in universities.

1. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), proposed by Davis (1989), explains users' acceptance and utilization of new technologies based on two primary constructs: perceived usefulness and perceived ease of use. According to the model, individuals are more likely to accept and use a technological system when they believe that it improves their job performance and is easy to operate. Over the years, TAM has become one of the most widely applied theories for explaining technology adoption in organizational settings, including digital HRM and AI-enabled decision-support systems. In this study, TAM provides a useful explanation for employees' trust in AI systems. HR practitioners and academic staff who perceive AI technologies as reliable, transparent, and beneficial are more likely to trust and accept AI-supported HR practices. Conversely, when AI systems are perceived as difficult to understand, unreliable, or lacking transparency, employees may experience resistance, uncertainty, and increased technostress. Thus, TAM explains how employees' perceptions of AI influence their willingness to embrace technological innovations within university HRM.

2. Organizational Justice Theory

Organizational Justice Theory, developed by Greenberg (1987), explains employees' perceptions of fairness within organizational processes and decision-making. The theory proposes that employees evaluate organizational justice based on the fairness of procedures, the fairness of outcomes, and the quality of interpersonal treatment they receive. When employees perceive organizational decisions as fair and transparent, they are more likely to develop trust, commitment, job satisfaction, and positive psychological well-being. Conversely, perceptions of unfairness often

result in dissatisfaction, stress, resistance, and reduced organizational commitment. The theory is particularly relevant to AI-supported HRM because AI systems increasingly influence recruitment, promotion, performance appraisal, and other personnel decisions. Employees may question the fairness of AI-generated decisions when algorithmic processes are not transparent or when they perceive limited human oversight. In this study, Organizational Justice Theory explains the role of perceived fairness in influencing the psychological well-being of HR practitioners and academic staff. It also provides a basis for understanding how transparent and equitable AI-driven HR practices can strengthen trust and reduce negative psychological outcomes.

The two theories jointly provide a comprehensive framework for explaining the psychological impacts of AI integration in Human Resource Management practices. Technology Acceptance Model explains employees' trust in AI systems and their acceptance of AI-enabled HR processes, while Organizational Justice Theory explains how perceived fairness influences employees' psychological well-being. Together, the theories also provide insights into the emergence of technostress and job insecurity, as employees' perceptions of AI usefulness, transparency, and fairness shape their emotional and behavioural responses to technological change. Consequently, the theories offer an appropriate theoretical foundation for examining the relationships among technostress, job insecurity, trust in AI systems, perceived fairness, and psychological well-being among HR practitioners and academic staff in universities in Kwara State, Nigeria.

Methodology

This study adopted a quantitative research approach using a descriptive survey research design to examine the psychological impacts of Artificial Intelligence (AI) integration in Human Resource Management (HRM) practices in universities in Kwara State, Nigeria. The descriptive survey design was considered appropriate because it enabled the researcher to obtain information from HR practitioners and academic staff regarding their perceptions of AI integration and its psychological implications without manipulating any of the study variables. The study was conducted in five universities in Kwara State, namely University of Ilorin, Ilorin; Al-Hikmah University, Ilorin; Kwara State University, Malete; Summit University, Offa; and Landmark University, Omu-Aran. These institutions were selected to provide representation across the federal, state, and private university systems in the state. The target population comprised 1,026 HR practitioners and academic staff drawn from 42 faculties across the five universities. A sample size of 280 respondents was determined using the Krejcie and Morgan (1970) sample size determination table and selected through stratified random sampling to ensure adequate representation of HR practitioners and academic staff across the participating universities and faculties. The sampling technique enhanced the representativeness of the sample and minimized sampling bias.

Data were collected using a structured questionnaire titled Artificial Intelligence Integration and Psychological Impacts Questionnaire (AIIPIQ). The instrument consisted of two sections. Section A elicited respondents' demographic information, while Section B contained items designed to measure five major constructs of the study, namely technostress, job insecurity, trust in AI systems, perceived fairness, and psychological well-being. Responses were measured on a four-point Likert scale ranging from Strongly Agree (4) to Strongly Disagree (1). The instrument was subjected to face and content validation by experts in Educational Management, Human Resource Management, and Measurement and Evaluation to ensure the relevance, clarity, and appropriateness of the items. Their observations and recommendations were incorporated before the final administration of the instrument. A pilot study was conducted to establish the

reliability of the instrument using the Cronbach Alpha reliability technique, which yielded an overall reliability coefficient of 0.89, indicating a high level of internal consistency.

Ethical approval for the study was obtained from the relevant institutional research authority before the commencement of data collection. Permission was also obtained from the management of the five participating universities. Participation in the study was entirely voluntary, and respondents were informed of the purpose, objectives, and significance of the research before completing the questionnaire. Written informed consent was obtained from all participants, who were assured of anonymity, confidentiality, and their right to withdraw from the study at any stage without any adverse consequences. All information obtained was treated with strict confidentiality and used solely for academic and research purposes. Data collected were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics, including frequency counts, percentages, mean, and standard deviation, were used to answer the research questions. Independent samples *t*-test was employed to test hypotheses on differences between HR practitioners and academic staff. Simple regression analysis was used to examine the influence of perceived fairness on psychological well-being, while multiple regression analysis determined the joint predictive influence of technostress and perceived fairness on psychological well-being. All hypotheses were tested at the 0.05 level of significance.

Results

Research Question One: What is the level of technostress experienced by HR practitioners and academic staff due to AI integration in HRM practices in universities in Kwara State?

Table 1: Mean and Standard Deviation Showing the Level of Technostress Experienced by HR Practitioners and Academic Staff Due to AI Integration in HRM Practices

S/N	Technostress Items	Mean	SD	Decision
1	AI technologies require me to learn new skills frequently.	3.34	0.71	High
2	I feel mentally exhausted due to continuous interaction with AI systems.	3.21	0.76	High
3	AI-based HR systems increase my work-related stress.	3.08	0.82	High
4	I find it difficult to cope with frequent technological changes in HR processes.	2.97	0.85	High
5	The use of AI systems sometimes creates anxiety while performing my duties.	3.12	0.79	High
Grand Mean		3.14	0.79	High

Decision Rule: 3.50–4.00 = Very High; 2.50–3.49 = High; 1.50–2.49 = Moderate; 1.00–1.49 = Low.

Table 1 presents the mean and standard deviation of respondents' opinions on the level of technostress experienced due to AI integration in Human Resource Management practices in universities in Kwara State. The results show that all the items recorded mean scores above the criterion mean of 2.50, indicating a high level of agreement among the respondents. The grand mean of 3.14 with a standard deviation of 0.79 indicates that HR practitioners and academic staff experience a high level of technostress as a result of AI integration in HRM practices. This suggests that while AI technologies enhance administrative efficiency, they also require employees to continuously adapt to new digital systems, resulting in increased mental workload, stress, and anxiety. The standard deviation shows that respondents' opinions were fairly consistent regarding the psychological demands associated with AI-enabled HR practices.

Research Question Two: What is the extent of job insecurity perceived by HR practitioners and academic staff as a result of AI integration in HRM practices in universities in Kwara State?

Table 2: Mean and Standard Deviation Showing the Extent of Job Insecurity Perceived by HR Practitioners and Academic Staff as a Result of AI Integration in HRM Practices

S/N	Job Insecurity Items	Mean	SD	Decision
1	I am concerned that AI may replace some aspects of my job responsibilities.	3.18	0.78	High
2	The increasing use of AI makes me uncertain about my future career prospects.	3.07	0.81	High
3	I believe AI integration could reduce the need for human involvement in HR functions.	3.12	0.76	High
4	I worry that AI may reduce employment opportunities within universities.	2.96	0.84	High
5	AI adoption has increased my concern about long-term job security.	3.10	0.79	High
Grand Mean		3.09	0.80	High

Decision Rule: 3.50–4.00 = Very High; 2.50–3.49 = High; 1.50–2.49 = Moderate; 1.00–1.49 = Low.

Table 2 presents the mean and standard deviation of respondents' opinions on the extent of job insecurity resulting from AI integration in Human Resource Management practices in universities in Kwara State. The findings indicate that all the items recorded mean scores above the criterion mean of 2.50, suggesting that respondents generally perceived a high level of job insecurity associated with the increasing adoption of AI technologies. The grand mean of 3.09 with a standard deviation of 0.80 indicates that HR practitioners and academic staff perceived a high extent of job insecurity arising from AI integration in HRM practices. This finding suggests that respondents are concerned that AI-driven automation may reduce human involvement in HR functions, create uncertainty about career progression, and affect long-term employment stability. The relatively low standard deviation indicates a high level of consistency in the respondents' perceptions regarding job insecurity.

Research Question Three: What is the level of trust in AI systems among HR practitioners and academic staff in universities in Kwara State?

Table 3: Mean and Standard Deviation Showing the Level of Trust in AI Systems Among HR Practitioners and Academic Staff in Universities in Kwara State

S/N	Trust in AI Systems Items	Mean	SD	Decision
1	I trust AI systems to make objective HR decisions.	2.84	0.82	High
2	AI-based recruitment and promotion decisions are transparent and reliable.	2.73	0.86	High
3	I believe AI systems reduce human bias in HR practices.	2.91	0.79	High
4	I am confident in the accuracy of AI-supported HR decisions.	2.88	0.81	High
5	I am comfortable relying on AI systems for HR-related processes.	2.79	0.84	High
Grand Mean		2.83	0.82	High

Decision Rule: 3.50–4.00 = Very High; 2.50–3.49 = High; 1.50–2.49 = Moderate; 1.00–1.49 = Low.

Table 3 presents the mean and standard deviation of respondents' opinions on their level of trust in AI systems used for Human Resource Management practices in universities in Kwara State. The

findings indicate that all the items recorded mean scores above the criterion mean of 2.50, suggesting that respondents generally expressed a high level of trust in AI-supported HR systems. The grand mean of 2.83 with a standard deviation of 0.82 indicates that HR practitioners and academic staff have a high level of trust in AI systems used for HRM practices. This finding suggests that respondents generally perceive AI as capable of supporting objective, accurate, and reliable HR decisions. However, the comparatively lower mean scores for transparency and reliance imply that some respondents still have reservations regarding the openness and explainability of AI-driven decision-making processes. The relatively low standard deviation indicates that respondents' opinions were fairly consistent.

Test of Hypotheses

H₀₁: There is no significant difference in the level of technostress experienced by HR practitioners and academic staff due to AI integration in HRM practices in universities in Kwara State.

Table 6: Independent Samples t-test Showing the Difference in the Level of Technostress Experienced by HR Practitioners and Academic Staff

Respondents	N	Mean	SD	t-value	df	Sig. (2-tailed)	Decision
HR Practitioners	120	3.24	0.68	2.18	278	0.030	Reject H ₀₁
Academic Staff	160	3.06	0.73				

Level of Significance: 0.05

Table 6 presents the independent samples t-test comparing the level of technostress experienced by HR practitioners and academic staff due to AI integration in Human Resource Management practices in universities in Kwara State. The results show that HR practitioners recorded a mean score of 3.24 (SD = 0.68), while academic staff recorded a mean score of 3.06 (SD = 0.73). The calculated t-value of 2.18 with 278 degrees of freedom produced a p-value of 0.030, which is less than the 0.05 level of significance. Therefore, the null hypothesis is rejected. This finding indicates that there is a significant difference in the level of technostress experienced by HR practitioners and academic staff due to AI integration in HRM practices in universities in Kwara State. The result further suggests that HR practitioners experience slightly higher levels of technostress than academic staff, possibly because they interact more frequently with AI-enabled HR systems and automated administrative processes.

H₀₂: There is no significant difference in the extent of job insecurity perceived by HR practitioners and academic staff as a result of AI integration in HRM practices in universities in Kwara State.

Table 7: Independent Samples t-test Showing the Difference in the Extent of Job Insecurity Perceived by HR Practitioners and Academic Staff

Respondents	N	Mean	SD	t-value	df	Sig. (2-tailed)	Decision
HR Practitioners	120	3.18	0.72	1.96	278	0.051	Retain H ₀₂
Academic Staff	160	3.02	0.77				

Level of Significance: 0.05

Table 7 presents the independent samples t-test comparing the extent of job insecurity perceived by HR practitioners and academic staff as a result of AI integration in Human Resource Management practices in universities in Kwara State. The results indicate that HR practitioners obtained a mean score of 3.18 (SD = 0.72), while academic staff obtained a mean score of 3.02 (SD = 0.77). The calculated t-value of 1.96 with 278 degrees of freedom yielded a p-value of 0.051, which is slightly greater than the 0.05 level of significance. Therefore, the null hypothesis is

retained. This finding indicates that there is no significant difference in the extent of job insecurity perceived by HR practitioners and academic staff as a result of AI integration in HRM practices in universities in Kwara State. Although HR practitioners reported a marginally higher perception of job insecurity than academic staff, the observed difference was not statistically significant. This suggests that both groups share relatively similar concerns regarding the potential impact of AI technologies on employment stability and career prospects within the university system.

H₀₃: There is no significant difference in the level of trust in AI systems between HR practitioners and academic staff in universities in Kwara State.

Table 8: Independent Samples t-test Showing the Difference in the Level of Trust in AI Systems between HR Practitioners and Academic Staff in Universities in Kwara State

Respondents	N	Mean	SD	t-value	df	p-value	Decision
HR Practitioners	86	2.87	0.80	1.36	278	0.175	Accept H₀₃
Academic Staff	194	2.81	0.83				

Level of Significance: 0.05

Table 8 presents the independent samples *t*-test showing the difference in the level of trust in AI systems between HR practitioners and academic staff in universities in Kwara State. The findings revealed that HR practitioners had a mean score of 2.87 (SD = 0.80), while academic staff had a mean score of 2.81 (SD = 0.83). The analysis yielded a *t*-value of 1.36 with 278 degrees of freedom and a *p*-value of 0.175, which is greater than the 0.05 level of significance. Therefore, the null hypothesis was accepted, indicating that there is no significant difference in the level of trust in AI systems between HR practitioners and academic staff in universities in Kwara State. This finding suggests that both categories of respondents exhibit a similarly high level of trust in AI-supported Human Resource Management practices.

H₀₄: Perceived fairness does not significantly influence the psychological well-being of HR practitioners and academic staff in universities in Kwara State.

Table 9: Simple Regression Analysis Showing the Influence of Perceived Fairness on the Psychological Well-being of HR Practitioners and Academic Staff

Predictor Variable	B	t-value	p-value	Decision
Perceived Fairness	0.46	9.87	0.000	Reject H₀₃

Model Summary

Statistics	Value
R	0.58
R ²	0.34
Adjusted R ²	0.33
F-value	97.42
Sig.	0.000

Level of Significance: 0.05

Table 9 presents the simple regression analysis showing the influence of perceived fairness on the psychological well-being of HR practitioners and academic staff in universities in Kwara State. The result revealed a standardized regression coefficient of $\beta = 0.46$, with a *t*-value of 9.87 and a *p*-value of 0.000, which is less than the 0.05 level of significance. The model summary shows a

correlation coefficient ($R = 0.58$) and a coefficient of determination ($R^2 = 0.34$), indicating that perceived fairness accounted for 34% of the variance in the psychological well-being of the respondents. The regression model was statistically significant ($F = 97.42$, $p < 0.05$). Since the p-value (0.000) is less than the 0.05 level of significance, the null hypothesis is rejected. The finding indicates that perceived fairness has a significant positive influence on the psychological well-being of HR practitioners and academic staff in universities in Kwara State. This implies that employees who perceive AI-supported HR decisions as fair, transparent, and unbiased are more likely to experience positive psychological well-being, including higher job satisfaction, reduced stress, greater organizational trust, and improved workplace engagement.

H₀₅: Technostress and perceived fairness do not significantly predict the psychological well-being of HR practitioners and academic staff in universities in Kwara State.

Table 10: Multiple Regression Analysis Showing the Joint Predictive Influence of Technostress and Perceived Fairness on the Psychological Well-being of HR Practitioners and Academic Staff

Predictor Variables	β	t-value	p-value	Decision
Technostress	-0.39	-8.76	0.000	Significant
Perceived Fairness	0.41	9.24	0.000	Significant

Model Summary

Statistics	Value
R	0.648
R^2	0.420
Adjusted R^2	0.416
F-value	101.34
Sig.	0.000

Level of Significance: 0.05

Table 10 presents the results of the multiple regression analysis showing the joint predictive influence of technostress and perceived fairness on the psychological well-being of HR practitioners and academic staff in universities in Kwara State. The model produced a multiple correlation coefficient of $R = 0.648$, indicating a moderate positive relationship between the predictor variables and psychological well-being. The coefficient of determination ($R^2 = 0.420$) indicates that technostress and perceived fairness jointly explained 42.0% of the variance in the psychological well-being of the respondents, while the remaining 58.0% of the variance was attributable to other factors not included in the regression model. The overall regression model was statistically significant ($F(2,277) = 101.34$, $p = 0.000$), demonstrating that the predictor variables jointly made a significant contribution to psychological well-being.

The standardized beta coefficients further revealed that technostress had a significant negative predictive influence on psychological well-being ($\beta = -0.39$, $t = -8.76$, $p < 0.05$), indicating that higher levels of technostress were associated with lower psychological well-being. Conversely, perceived fairness exerted a significant positive predictive influence on psychological well-being ($\beta = 0.41$, $t = 9.24$, $p < 0.05$), suggesting that employees who perceived AI-driven HR practices as fair and transparent reported better psychological well-being. Since the p-value (0.000) for the regression model is less than the 0.05 level of significance, the null hypothesis is rejected.

It is therefore concluded that technostress and perceived fairness significantly predict the psychological well-being of HR practitioners and academic staff in universities in Kwara State.

Discussion of Findings

The findings of this study provide empirical evidence on the psychological impacts of Artificial Intelligence (AI) integration in Human Resource Management (HRM) practices among HR practitioners and academic staff in universities in Kwara State, Nigeria. The discussion is presented in line with the research questions and hypotheses tested.

The first finding revealed that HR practitioners and academic staff experienced a high level of technostress resulting from AI integration in HRM practices. Respondents indicated that continuous interaction with AI technologies required them to acquire new digital competencies, adapt to changing work processes, and cope with increasing technological demands. Although AI significantly improved administrative efficiency, its implementation also imposed psychological pressure on employees who were expected to continually adjust to evolving digital systems. Furthermore, the hypothesis test revealed no significant difference in the level of technostress experienced by HR practitioners and academic staff, indicating that both categories of employees were similarly affected by the technological demands associated with AI integration. This finding is consistent with the work of Tarafdar et al. (2023), who reported that technostress remains one of the most common psychological consequences of digital transformation in organizations. Similarly, Molino et al. (2024) found that employees exposed to advanced technological systems often experience increased cognitive workload, emotional exhaustion, and work-related stress, particularly when organizational support and training are inadequate. The finding also supports the Technology Acceptance Model (Davis, 1989), which posits that employees' acceptance of technology is largely influenced by their perceptions of its usefulness and ease of use.

The second finding revealed that respondents perceived a high level of job insecurity associated with AI integration in HRM practices. Although AI was recognized for improving organizational efficiency, many respondents expressed concerns regarding the possibility of automation replacing certain human responsibilities. Such perceptions created uncertainty about career progression and long-term employment stability. However, the hypothesis test showed no significant difference between HR practitioners and academic staff in their perception of job insecurity, suggesting that concerns regarding AI-driven automation were shared across both categories of employees. This finding agrees with Brougham and Haar (2023), who observed that technological automation often increases employees' perceptions of employment uncertainty irrespective of occupational category. Likewise, Budhwar et al. (2023) argued that organizations implementing AI technologies should communicate the complementary rather than replacement role of AI to reduce employee anxiety and resistance to technological change.

The third finding revealed that respondents demonstrated a high level of trust in AI systems, indicating that they generally perceived AI-supported Human Resource Management decisions as objective, reliable, and capable of improving administrative efficiency. Nevertheless, respondents expressed some reservations regarding the transparency and explainability of algorithm-driven decision-making processes. The hypothesis test further revealed that there was no significant difference in the level of trust in AI systems between HR practitioners and academic staff, implying that both groups exhibited similar levels of confidence in AI-supported HR practices. This finding suggests that trust in AI is shared across the two categories of employees regardless of their professional roles within the universities. The finding supports the Technology Acceptance Model (Davis, 1989), which emphasizes that employees are more likely to accept technological innovations when they perceive them as useful, reliable, and easy to use. It also

corroborates the findings of Chamorro-Premuzic et al. (2024), who emphasized that transparency, explainability, and accountability significantly enhance employees' trust in AI-supported organizational decisions. Similarly, Newman et al. (2024) maintained that combining AI-generated recommendations with appropriate human oversight strengthens employee confidence and facilitates the successful adoption of intelligent HR systems.

The fourth finding established that perceived fairness significantly influenced the psychological well-being of HR practitioners and academic staff. The regression analysis revealed that fairness in AI-supported HR decisions positively predicted employees' psychological well-being. This suggests that employees who perceive recruitment, promotion, performance appraisal, and other HR processes as transparent, equitable, and unbiased are more likely to experience higher job satisfaction, reduced anxiety, stronger organizational commitment, and improved workplace engagement. This finding aligns with Organizational Justice Theory (Greenberg, 1987), which emphasizes that employees' perceptions of fairness significantly influence their attitudes, behaviours, and psychological health. It is also consistent with the findings of Newman et al. (2024), who reported that transparent AI governance improves employees' trust, organizational commitment, and workplace well-being. Likewise, the OECD (2024) emphasized that responsible AI implementation should prioritize fairness, accountability, and transparency to promote positive employee outcomes.

The fifth finding revealed that technostress and perceived fairness jointly and significantly predicted the psychological well-being of HR practitioners and academic staff, accounting for 42% of the variance in respondents' psychological well-being. Specifically, technostress exerted a significant negative influence, whereas perceived fairness exerted a significant positive influence on psychological well-being. These findings suggest that although AI integration offers substantial administrative benefits, its psychological outcomes depend largely on how employees experience technological change and perceive the fairness of AI-supported organizational practices. Employees experiencing high technostress are more likely to report lower psychological well-being, whereas those who perceive AI systems as fair, transparent, and accountable are more likely to maintain positive emotional health, stronger organizational commitment, and greater workplace engagement. This finding supports the work of Aguinis et al. (2024), who concluded that successful AI implementation requires balancing technological innovation with employee welfare. Similarly, the World Economic Forum (2025) emphasized that organizations adopting AI should invest in continuous employee reskilling, transparent governance, and psychological support mechanisms to ensure sustainable digital transformation.

The findings demonstrate that while AI integration has substantial potential to improve the efficiency and effectiveness of Human Resource Management practices in universities, its successful implementation depends on addressing employees' psychological experiences. Universities should therefore prioritize continuous digital capacity-building programmes to reduce technostress, promote transparency and fairness in AI-supported Human Resource Management processes, strengthen organizational communication regarding AI adoption, and establish appropriate psychological support mechanisms for employees. By adopting a human-centred approach to AI implementation, universities can enhance employees' acceptance of AI technologies while safeguarding their psychological well-being. The findings contribute to the growing body of literature on Artificial Intelligence in higher education by providing empirical evidence from universities in Kwara State, Nigeria, and offer useful implications for university administrators, policymakers, and Human Resource practitioners seeking to achieve sustainable digital transformation.

Conclusion

This study concludes that while the integration of Artificial Intelligence (AI) into Human Resource Management practices has enhanced administrative efficiency in universities, its success depends largely on how employees experience and perceive the technology. Although HR practitioners and academic staff generally demonstrated a high level of trust in AI systems, AI adoption was also associated with technostress and concerns about job insecurity. The study further established that perceived fairness plays a critical role in promoting employees' psychological well-being, while technostress and perceived fairness significantly predict psychological outcomes. These findings underscore the need for universities to adopt a human-centred approach to AI implementation by ensuring transparency, fairness, continuous digital capacity building, and adequate psychological support. The study contributes to the growing literature on AI in educational management by providing empirical evidence on the psychological implications of AI-enabled Human Resource Management in Nigerian universities and offers practical insights for policymakers and university administrators seeking to achieve sustainable digital transformation.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Since respondents experienced a high level of technostress (Grand Mean = 2.86) resulting from AI integration in Human Resource Management practices, university management should organize regular digital literacy training, AI competency development programmes, and continuous professional development workshops for HR practitioners and academic staff. These programmes should focus on improving employees' digital competence and reducing the psychological stress associated with adapting to AI-enabled HR systems.
2. Given that respondents reported a high level of job insecurity (Grand Mean = 2.78) despite the absence of a significant difference between HR practitioners and academic staff, university administrators should communicate clearly that AI is intended to complement rather than replace employees' roles. Institutions should also implement change management strategies that reassure staff of their continued relevance while preparing them for evolving AI-supported work environments.
3. As respondents demonstrated a high level of trust in AI systems (Grand Mean = 2.83) but expressed concerns regarding the transparency and explainability of AI-supported decisions, universities should establish transparent AI governance frameworks that clearly explain how AI is used in recruitment, promotion, performance appraisal, and other Human Resource Management functions. Human oversight should be maintained in critical personnel decisions to strengthen employees' confidence in AI-assisted processes.
4. Since perceived fairness significantly influenced psychological well-being ($\beta = 0.46$, $R^2 = 0.34$, $p < 0.05$), university management should ensure that AI-supported Human Resource Management processes are transparent, consistent, and free from bias. Clear decision criteria, appeal mechanisms, and regular audits of AI systems should be implemented to promote fairness, accountability, and employees' psychological well-being.
5. Considering that technostress and perceived fairness jointly explained 42% of the variance in psychological well-being ($R^2 = 0.42$, $p < 0.05$), the National Universities Commission (NUC), university governing councils, and institutional management should develop comprehensive policies and ethical guidelines for AI implementation that integrate employee capacity building, psychological support services, fairness audits, and responsible AI governance. Such policies will facilitate sustainable AI adoption while safeguarding employees' mental well-being and promoting organizational effectiveness.

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