

Human Resource Management Practice and the Performance of Mobile Telephone Network Nigeria (MTN) in Abuja, Nigeria

Zara Ibrahim Geidam¹; Ayasal Anthony Auya²; Ovivi Audu Jamiu³

^{2,3}PhD

^{1,2,3}Department of Business Administration, University of Abuja

Publication Date: 2025/11/22

Abstract: This study focused on the effect of Human Resource Management (HRM) and the performance of Mobile Telephone Network (MTN) Abuja. The main objective of the study investigates the effect of HRM on the performance of MTN in Abuja, Nigeria. The study used a quantitative research design and a descriptive survey research design. The population of the study was 254 respondents and 155 as the sample size using Yamane statistical formula. Simple regression technique, analysis of variance (ANOVA) and co-efficient analysis were used to test the hypotheses in this study by using Statistic Package for Social Science (SPSS Version 27.0) to analyse the data extracted from the organisation. The findings from the study indicated that there was a significant effect of HRM on the performance of MTN Abuja. The study also revealed that HRM had effect on employee productivity, operational efficiency and HR innovation of MTN in Abuja. The study concluded from these findings that effectiveness of HRM practice could enhance the strategic improvement in the performance of MTN to attain and sustain long term strategic goals and objectives. The study recommends that MTN Abuja should strengthen its HRM practices by prioritizing continuous employee training, performance-based rewards, and strategic talent development to significantly improve employee productivity, operational efficiency, innovation and overall business performance.

Keyword: Human Resource Management, Training, Performance Appraisal, HR Analytics, Performance, Employee Productivity, Operational Efficiency, HR Innovation.

How to Cite: Zara Ibrahim Geidam; Ayasal Anthony Auya; Ovivi Audu Jamiu (2025) Human Resource Management Practice and the Performance of Mobile Telephone Network Nigeria (MTN) in Abuja, Nigeria. *International Journal of Innovative Science and Research Technology*, 10(11), 1113-1127. <https://doi.org/10.38124/ijisrt/25nov410>

I. INTRODUCTION

Human Resource Management (HRM) is the strategic and coherent approach to managing an organization's workforce. It involves recruitment, training, development, compensation, and employee relations to enhance productivity and organizational effectiveness. HRM aims to align human capital with business goals, fostering employee growth and ensuring compliance with labour regulations. HRM has evolved globally as organizations increasingly recognize people as their most valuable assets. Globally, HRM trends emphasized digital transformation, workforce analytics, diversity, and remote work culture, driven by technological innovations and globalization (O'Brien, et al., 2025; Ng, et al., 2025; Zhivkova, 2025). Locally, HRM practices are adapting to socio-economic realities, labour market shifts, and government regulations that shape recruitment, training, and employee relations (Isiaka,

2025). Industry-specific trends revealed a strategic focus on aligning human capital with organizational goals, emphasizing continuous learning, talent retention, and performance optimization (Porkodi, et al., 2025; Vong, et al., 2025). Collectively, these trends highlight HRM's transition from administrative functions to a strategic driver of sustainable organizational success and competitive advantage.

HRM plays a pivotal role in shaping the success and sustainability of modern organizations (Bratton, et al., 2025). It encompasses strategic activities such as recruitment, training, performance appraisal, and employee engagement, all of which directly influence how effectively an organization achieves its goals. As organizations navigate increasingly competitive and dynamic environments, HRM has evolved from a support function into a central strategic partner (Minz, et al., 2024). The alignment of HR practices with organizational objectives

enables businesses to build a competent, motivated, and high-performing workforce, which is essential for driving innovation, improving productivity, and enhancing customer satisfaction (Ra, et al., 2025; Kavitha, 2025).

Organizational performance, often measured in terms of profitability, market share, employee productivity, operational efficiency, organisational innovativeness and customer satisfaction, is significantly influenced by the quality of human resource practices. Effective HRM ensures that employees are not only well-equipped to perform their roles but also aligned with the organizational vision and culture. Studies have shown that organizations with robust HRM systems tend to exhibit higher levels of efficiency and adaptability in achieving strategic outcomes (Milhem, 2025; Mebratie, et al., 2025). This underscores the need to investigate how various HRM practices impact organizational performance. Understanding this relationship is vital for managers and policymakers seeking to enhance overall effectiveness and maintain a competitive edge in today's rapidly changing business landscape.

➤ *Statement of the Problem*

Despite the growing recognition of the importance of human resource management (HRM) in enhancing organizational performance, significant gaps still exist in understanding the specific mechanisms through which HRM practices influence measurable outcomes such as productivity, efficiency, and employee engagement. While numerous studies have established a general link between HRM and performance, In Nigeria and similar economies, rapid workforce informality, weak institutional enforcement, and cultural variations in managerial practice create a mismatch between HRM policies and on-the-ground realities. Empirical studies frequently adopt western-centric frameworks and cross-sectional designs that obscure dynamic, context-specific causal mechanisms (Bratton, et al., 2025; Mebratie, et al., 2025; Sev, et al., 2025); few investigated how local labour market structures, regulatory unpredictability, and resource constraints interact with HRM practices to influence productivity, innovation, and employee retention (Adewole, et al., 2025; Adamu, et al., 2025; Adias, & Raimi, 2025). Additionally, there is limited empirical research focusing on how individual HR functions such as training, performance appraisal, and HR analytics collectively affects organizational performance in dynamic business environments (Arokiasamy, et al., 2024; Jiang, et al., 2024). limited attention has been given to how digitalization, gig work, and evolving employment relationships reshape HRM's role in fostering sustainable performance (Adam, & Alfawaz, 2025; O'Brien, et al., 2025). The lack of integrated models that examine the interaction between HRM practices and other organizational factors also limits the ability of managers to make informed decisions (Junaidi, et al., 2024; Aburumman, et al., 2024). Thus, this study seeks to fill these gaps by providing a more comprehensive analysis of HRM practice has effect on the performance of MTN in Abuja as fair of contribution to knowledge.

➤ *Statement of the Hypotheses*

- HO₁: Training has no effect on employee productivity of MTN, Abuja.
- HO₂: Performance appraisal has not affected the operational efficiency of MTN, Abuja.
- HO₃: HR analytics has no significant effect on HR innovation of MTN, Abuja.

II. CONCEPTUAL REVIEW

➤ *Human Resource Management*

HRM is the strategic and effective management of an organization's workforce, focusing on recruitment, development, performance, and employee relations to achieve organizational goals while ensuring employee well-being, motivation, and compliance with labour laws and ethical standards. HRM has evolved from traditional personnel management to a strategic function that aligns human capital with organizational objectives. Contemporary HRM focuses on acquiring, developing, and retaining talent to sustain competitive advantage in dynamic business environments (Tursunbayeva, 2024). Modern HRM practices include performance management, strategic recruitment, employee engagement, training, and development initiatives. According to Gowrishankar, et al. (2025), HRM is not only instrumental in managing workforce diversity and inclusion but also plays a critical role in enhancing organizational agility and innovation. Additionally, the integration of technology, particularly through Human Resource Information Systems (HRIS), has transformed how organizations manage HR processes, enabling data-driven decision-making and operational efficiency (Cahyono, 2025).

Recent studies emphasize the importance of strategic HRM in driving employee performance and organizational outcomes (Bratton, et al., 2025; Mebratie, et al., 2025; Sev, et al., 2025). For example, Adhami, and Timur, (2025) argue that a high-performance work system (HPWS) that includes selective hiring, extensive training, and performance-based rewards significantly contributes to organizational effectiveness. Moreover, HRM practices have increasingly been linked to employee well-being, which in turn influences productivity and retention (Ra, et al., 2025). With the global shift towards hybrid and remote work, HRM has had to adapt policies to ensure flexibility, employee engagement, and compliance with labour laws across jurisdictions. In sum, current literature highlights HRM as a vital strategic partner that not only supports operational goals but also contributes to long-term organizational sustainability and employee satisfaction.

• *Training:*

Training is a fundamental component of Human Resource Management (HRM), serving as a strategic tool to enhance employee performance, productivity, and organizational competitiveness. Recent literature emphasizes that effective training programs not only improve individual capabilities but

also foster employee engagement, retention, and innovation (Yertas, 2024). As organizations face rapid technological and structural changes, training becomes essential for aligning workforce skills with evolving business needs (Ayanponle, et al., 2024; Ueasangkomsate, 2025). Moreover, empirical studies emphasized that training contributes to talent development and succession planning, positioning HRM as a driver of long-term sustainability (SheikholeslamiKandelousi, 2025; Okafor, et al., 2025; Rahman, 2025). That is, continuous learning and upskilling support a culture of adaptability, especially in knowledge-based economies. Therefore, training is not just a cost but a strategic investment in human capital essential for achieving organizational goals (Wardhani, et al., 2025).

- *Performance Appraisal:*

Performance appraisal is a critical component of human resource management (HRM), serving as a systematic process for evaluating employee performance and aligning individual outcomes with organizational goals. Recent literature emphasizes that performance appraisal plays vital role in enhancing employee productivity, identifying training needs, and supporting strategic decision-making (Daniel, 2024). Effective performance appraisal systems contribute to employee motivation, foster communication, and aid in succession planning (Ali, et al., 2019). Scholars postulated that performance appraisal is increasingly integrated with data-driven HR analytics to improve objectivity and fairness in evaluations (Thirunagalingam, et al., 2025; Lim, & Ravesangar, 2025; Monica, et al., 2025). However, challenges such as rater bias and lack of feedback mechanisms can undermine its effectiveness. Therefore, organizations must adopt continuous, transparent, and development-focused appraisal methods to drive performance and organizational success (Giamos, et al., 2025). Holistically, performance appraisal remains a vital indicator of HRM effectiveness and organizational sustainability.

- *HR Analytics:*

HR Analytics has emerged as a pivotal indicator of modern Human Resource Management, transforming intuition-driven decisions into evidence-based strategies that drive organizational value. Scholars asserted that, by leveraging data from recruitment, performance appraisals, learning and development, attendance, and employee engagement (Adias, 2025; Kasali, et al., 2025), studies also revealed that HR Analytics uncovers patterns and predictive insights that enable HR to anticipate workforce needs, reduce turnover, and optimize talent acquisition costs (Wibowo, et al., 2025; Betgeri, & Chekuri, 2025; Căvescu, & Popescu, 2025). Analytics empowers leaders to measure the return on investment of training programs, identify high-potential employees, and align staffing levels with business cycles, thereby improving both efficiency and strategic agility. Integration of people analytics with business intelligence also enhances workforce planning, diversity and inclusion monitoring, and compensation fairness by providing transparent, comparable metrics (Kadyan, &

Singh, 2025). Scholars emphasized that ethical use of HR data mandates robust governance, anonymization, and stakeholder communication to build trust and comply with data protection regulations (Ussher-Eke, 2025; Bahangulu, & Owusu-Berko, 2025; Bist, 2025). Moreover, democratizing analytics through accessible dashboards and cross-functional collaboration ensures that insights translate into actionable policies rather than remaining siloed reports. As technology evolves, combining machine learning with human judgment will refine predictive accuracy, but success depends on HR's capability to interpret findings, tell compelling data narratives, and foster a culture that values continuous measurement (Samuel, et al., 2025). Notably, HR Analytics is not merely a technical capability but a strategic discipline that signals a mature, accountable, and future-ready HRM function.

- *Organisational Performance*

Organizational performance remains a central theme in management literature, reflecting the ability of an organization to achieve its goals efficiently and effectively while sustaining long-term growth. Contemporary scholars emphasize that performance is multi-dimensional, encompassing financial outcomes, operational efficiency, customer satisfaction, innovation, and employee engagement (Adam, & Alfawaz, 2025). Recent study advocate for a balanced scorecard approach, integrating both financial and non-financial indicators to evaluate performance holistically (Ferreira, et al., 2025). Furthermore, dynamic capabilities such as agility, technological adoption, and strategic alignment are increasingly viewed as critical drivers of performance in today's rapidly changing environment (Zelenyte, 2025). Organizational culture, leadership style, and human resource practices also significantly shape performance outcomes by influencing motivation, commitment, and knowledge sharing (Riza, et al., 2025). Additionally, external factors such as market volatility, regulatory policies, and global competition demand adaptive strategies to sustain superior performance (Bozic, & Bozic, 2025). Performance measurement is therefore evolving from traditional metrics to more integrated systems that align with strategic goals and stakeholder expectations. This growing body of literature highlights that sustainable organizational performance requires continuous innovation, effective governance, and responsiveness to both internal and external challenges.

- *Employee Productivity:*

Employee productivity is widely recognized as a critical indicator of organizational performance, reflecting the efficiency and effectiveness with which human resources contribute to achieving strategic goals. Recent studies highlighted that those high levels of employee productivity led to enhanced profitability, customer satisfaction, and overall competitive advantage (Yertas, 2024; Majon, & Hameed, 2025; Nair, et al., 2025). Organizations that invest in employee training, motivation, and well-being tend to experience improved output and reduced operational costs, reinforcing productivity as a performance metric (Al Frijat, & Elamer,

2025). Furthermore, technological integration and supportive leadership have been linked to higher productivity levels, thus directly influencing organizational growth and sustainability (Ahmad, et al., 2025; Khaw, et al., 2022). Consequently, productivity remains a vital benchmark for assessing corporate success and operational efficiency.

- *Operational Efficiency:*

Operational efficiency is a critical indicator of organizational performance, reflecting the ability of an organization to optimize resources, reduce waste, and deliver value with minimal input. It encompasses streamlined processes, cost-effectiveness, and productivity enhancements that contribute to competitive advantage and profitability. Recent literature emphasizes that improved operational efficiency leads to better financial outcomes and customer satisfaction, which are essential for sustaining performance in dynamic business environments (Irwin, 2025; Adekunle, 2025). Moreover, digital transformation and data-driven decision-making have been identified as key drivers of operational efficiency (Yani, et al., 2025; Zong, & Guan, 2025). Thus, operational efficiency serves not only as a performance metric but also as a strategic tool for continuous improvement and organizational success.

- *HR Innovation:*

Human Resource (HR) Innovation refers to the creative transformation of traditional HR practices through the adoption of new ideas, technologies, and strategic approaches aimed at enhancing workforce performance, engagement, and organizational competitiveness. It embodies the integration of digital tools such as artificial intelligence, data analytics, and cloud-based systems to improve recruitment, performance management, training, and employee relations. Recent studies emphasize that HR innovation enhances strategic alignment by enabling data-driven decision-making, promoting agility, and fostering a culture of continuous improvement (Valentinovna, 2024; Vadithe, et al., 2025; Herawati, et al., 2025). According to Silva, (2025), organizations that adopt HR innovation experience higher productivity, improved talent retention, and better adaptability to change. The concept also encompasses innovative work arrangements, employee empowerment, and the redefinition of HR roles to support dynamic organizational needs. Scholars argued that HR innovation is a catalyst for organizational transformation, as it facilitates knowledge sharing, collaboration, and the creation of a responsive workforce (Vong, et al., 2025; Alemu, 2025). Moreover, the integration of technology-driven HR practices enhances transparency, employee satisfaction, and leadership effectiveness, aligning human capital management with long-term business sustainability goals (Martins, & Moreira, 2025; Gautam, & Popescu, 2025). Thus, HR innovation serves as a strategic enabler that drives competitive advantage by reshaping traditional HR functions into proactive, technology-oriented, and value-creating systems essential for thriving in today's fast-changing business environment.

➤ *Human Resource Management Practice and Organizational Performance*

Recent literature underscores the significant impact of Human Resource Management (HRM) practices on organizational performance, emphasizing the strategic role HRM plays in enhancing productivity, employee engagement, and overall effectiveness. Effective HRM practices such as recruitment and selection, training and development, performance appraisal, and compensation management are shown to contribute positively to organizational outcomes by fostering a skilled, motivated, and committed workforce (Bratton, et al., 2025; Mebratie, et al., 2025; Sev, et al., 2025). Scholars argue that organizations that align HRM strategies with corporate objectives experience improved financial and non-financial performance (Kavitha, 2025; Mwinuka, et al., 2025). Moreover, strategic HRM is increasingly seen as a driver of innovation, adaptability, and sustainable competitive advantage in dynamic business environments (Kess-Momoh, et al., 2024). Studies also highlight the mediating role of employee productivity and operational efficiency in linking HRM practices to performance outcomes (Siraj, et al., 2022). Contemporary HRM is not merely administrative but a critical enabler of strategic goals, making it imperative for organizations to invest in human capital development and integrate HR functions into the broader organizational strategy. Effective training equips employees with the necessary skills and knowledge to perform tasks proficiently, adapt to technological changes, enhances employee productivity and meet organizational goals (Yoma, et al., 2025; Wambura, 2025). Performance appraisal, on the other hand, provides a structured framework for evaluating employee contributions, identifying areas for improvement, and aligning individual performance with strategic objectives (Natsir, et al., 2025; Lakshmi, & Reddy, 2019). Together, these HRM tools foster a culture of continuous learning and accountability, which boosts motivation, reduces errors, and improves service delivery.

III. THEORETICAL FRAMEWORK

The Resource-Based View (RBV) theory, as proposed by Barney (1991), offers a strategic lens through which organizations like MTN in Abuja can understand how internal capabilities particularly in human resource management practices such as training and performance appraisal drive employee productivity and operational efficiency. RBV emphasizes the importance of valuable, rare, inimitable, and non-substitutable (VRIN) resources in achieving sustainable superior performance. In the context of MTN, effective training enhances employee competencies, adaptability, and innovation, while performance appraisal systems align individual objectives with organizational goals, thereby fostering productivity and operational efficiency (Natsir, et al., 2024). These HRM functions, when properly managed, become strategic assets that contribute significantly to employee output and process optimization, reflecting the core tenets of the RBV. Moreover, the unique configuration of MTN's HR practices tailored to its business environment in Abuja can create

resource heterogeneity that is difficult for competitors to replicate (Ochala, 2024). Thus, the RBV framework substantiates the argument that strategically developed and leveraged human capital is central to MTN's organizational success, making HRM a source of sustained performance advantages in the Nigerian telecommunications sector (William William, &Temilayo Ajiyon, 2023).

IV. EMPIRICAL STUDIES

Kavitha, (2025) investigated the impact of human resource practices on organizational performance, focusing on the mediating role of work engagement. The study highlighted how work engagement mediates the relationship between human resource practices and organizational performance among employees in SMEs. The study targeted employees with various functional positions and job designations, distributing questionnaires to 500 employees across selected organizations, of which 448 responses were deemed valid for analysis (reflecting an 89.6% response rate). Regression analysis was employed to analyse the data, revealing that extensive investment in HR practices enhances employee commitment, reduces turnover rates, and boosts productivity. Work engagement emerged as a critical mediator, significantly influencing the link between HR practices and organizational performance. Engaged employees demonstrated higher levels of enthusiasm, creativity, and commitment, aligning more closely with organizational objectives. Strategic alignment of HR strategies with organizational goals was found to enhance employee engagement, providing clear direction and fostering a motivated workforce. Organizations adopting HR approaches focused on enhancing work engagement achieved superior performance metrics, including improved operational efficiency and competitive advantages.

Bratton et al. (2025) Guest editorial: Sustainable human resource management and organizational performance: new definitions, navigating tensions, and global insights is the focus of this special issue. The relationship between organizational performance and sustainable human resource management (HRM) is explored, with emphasis on introducing new definitions, theoretical frameworks, and practical implications. The significance of sustainable HRM in managing tensions among social, environmental, and economic objectives is underscored, examining how HRM can facilitate the development of more innovative and sustainable workplaces. Through literature reviews, conceptual papers, and empirical studies, this issue contributes to understanding how sustainable HRM practices can effectively support sustainability and organizational performance. Insights are integrated from diverse geographical regions, including Asia, Oceania, Africa, the Middle East, North America, and Europe, across various industries such as hospitality, ICT, local government, and SMEs. Additionally, a new definition of sustainable HRM is introduced, along with the 5E conceptual framework, designed to manage tensions encompassing efficiency, equity, ethics, engagement, and environmental sustainability. The articles

collectively argue that sustainable HRM transcends traditional HR functions to play a transformative role in organizational strategy. A reconceptualization of sustainable HRM is proposed as an integrated approach that promotes sustainable employment relationships, fosters stakeholder collaboration, and aligns HR practices with broader sustainability objectives and the common good. The insights presented in this issue carry significant implications for HRM professionals, business leaders, and policymakers, advocating for a shift towards sustainable HRM practices to actively contribute to low-carbon, sustainability transitions. Through these practices, organizations can stimulate innovation and create long-term value for both businesses and society.

Adamu, et al. (2025) carried out an investigation into how training and development influence employee productivity within the modern workforce, focusing particularly on the academic staff of Niger State Polytechnic, Zungeru. The principal aim of the research was to evaluate the effects of training initiatives on employee productivity and to explore the nature of the correlation between both variables. A survey research design was employed, in which data were collected through a sample survey that assessed various parameters and their interconnections. The total study population comprised 367 academic staff members drawn from various departments and faculties within the institution, all of whom had benefited from local and international TETFund-sponsored training between 2010 and 2023. For participant selection, both stratified and simple random sampling methods were utilized to ensure representativeness. A sample size of 184 was derived using Krejcie and Morgan's sample size determination table. Data for the research were gathered using both primary and secondary sources. A carefully structured questionnaire was formulated and disseminated among the selected respondents. The responses collected were analysed using basic percentage calculations, while hypothesis testing was conducted using the chi-square method at a 5% level of significance. The findings revealed a positive association between training and development and the productivity of academic personnel, demonstrated through improvements in their expertise, pedagogical techniques, research quality, and attainment of further academic qualifications. The study recommended that Niger State Polytechnic, Zungeru, should continue to prioritize consistent training programs for its academic workforce to sustain and enhance institutional productivity and support the realization of its strategic goals.

In another scholarly effort, Inyang, et al. (2024) explored how employees perceive the impact of information systems on the operational efficiency of insurance firms. This empirical study focused on companies situated in Akwa Ibom State and examined the influence of specific systems such as Transaction Processing Systems (TPS), Decision Support Systems (DSS), and Office Automation Systems (OAS) on organizational performance. A cross-sectional data collection approach was adopted. A total of 100 employees from various insurance organizations in the state participated in the study. Participants

were chosen through a simple random sampling method, and data were collected using a self-designed questionnaire. The collected data were analysed using a one-sample t-test to determine statistical significance. The results of the analysis indicated that the application of TPS, DSS, and OAS significantly enhanced the operational efficiency of the insurance firms involved. Based on the findings, it was concluded that information systems play a crucial role in improving organizational performance. A key recommendation made was that insurance companies should invest in continuous training and development of a skilled workforce proficient in information systems to maintain and elevate operational effectiveness.

Despite valuable insights from the reviewed studies, several research gaps remain unaddressed. Kavitha (2025) concentrated on HR practices and work engagement in SMEs, yet the study failed to consider contextual variables such as leadership style, digital transformation, or organizational culture that may moderate the HR–performance nexus across industries. Similarly, Bratton et al. (2025) provided theoretical and conceptual advancements in sustainable HRM but lacked empirical validation of the proposed 5E framework across diverse organizational contexts, leaving questions about its practical applicability and measurement unresolved. Adamu et al. (2025) focused on training and productivity in an academic institution but did not examine how technological innovations or digital learning platforms could enhance training effectiveness in dynamic workplaces. Likewise, Inyang et al. (2024) emphasized information systems and efficiency in

insurance firms but overlooked how human factors, such as employee adaptability and skill alignment, interact with technology-driven performance outcomes. These gaps indicate the need for integrated, cross-sectoral, and technology-inclusive HRM research frameworks.

V. METHODOLOGY

Survey research design was used in this study. A survey design is justified for studying HRM's effect on MTN Abuja because it efficiently captures employees' and managers' perceptions across locations, enables quantitative analysis of relationships between HR practices and performance indicators, supports generalisation to the workforce, and is cost-effective and time-efficient; adopting structured questionnaires with stratified sampling yields reliable, comparable data for statistical inference and practical HR recommendations and clear policy guidance. This employed a stratified random sampling technique to ensure fair representation across various departments and units of the MTN, regional office in Abuja. This method enhances accuracy by categorizing different departments and units of the organization. The population of 254 respondents from MTN in Abuja, Nigeria, was determined through a systematic approach that comprise management and employee of the organisation. Stratified sampling ensured proportional representation across departments and units of the organization, while verification was conducted through field surveys and engagement with relevant management and non-Management staff.

Table 1 Population Frame

S/N	MTN Nigeria, Regional Office in Abuja	Population
1.	Management Staff	58
2.	Employees	196
	Total	254

Researcher's Computation (2025)

Taro Yamane's statistical formula was used to determines the sample size by balancing precision and confidence levels. The formula, $n = N / (1 + N(e^2))$, where n is the sample size, N is the population size, and e is the margin of error, ensures representativeness while minimizing sampling bias in research studies. The study sample size was 155 respondents.

$$n = \frac{N}{1 + N(e)^2}$$

Where:

N = Population Size 1 = Constant

n = Sample size

e = Error of Margin $(0.05)^2$

$$n = \frac{254}{1 + 254 (0.05)^2}$$

$$n = \frac{254}{1 + 254 (0.0025)} = \frac{154}{1 + 0.635}$$

$$n = \frac{254}{1.635}$$

$$n = 155.35 = 155$$

The study employed closed-ended structured questionnaire as instrument for data collection from among the staff of MTN in Abuja regional office. The questionnaire was designed on a five-point Likert scale such as "strongly agreed," "agreed," "undecided," "disagreed," and "strongly disagreed." The questionnaire was be adequately administered by experts and academicians in the field of study to meet the expected result from MTN in Abuja. Therefore, the study distributed 155 copies of the questionnaire administered to the sampled respondents from the MTN staff in Abuja, through their HR Department. The questionnaire for the respondents was structured based on the two main variables identified and sub-variables in the study. Content validity was used to assess the credibility of the study, as the items in the questionnaire was

systematically drawn from the research objectives, questions, and hypotheses. The items in the questionnaire were accurately vetted and critically administered by experts, professionals, and academicians in the field of the human resource management in an academic environment. Most studies previously have used questionnaire in the fields of human resource management and organizational performance consistently and have yielded reliable findings and conclusions, which made the same instrument usefully reliable in this study to attain creditability and acceptability.

The researcher used simple regression technique, analysis of variance (ANOVA) and correlation analysis were used to test the hypotheses in this study by using Statistic Package for Social Science (SPSS Version 27.0) to analyse the data extracted from the study. This ensures to ascertain the correlative effect between human resource management and the performance in MTN, Abuja, and to attain reliable findings and conclusions that supported the stated objective of the study respectively. Simple regression is used to examine the relationship between two continuous variables. It helps in understanding how changes in one variable (independent variable) are associated with changes in another variable (dependent variable). ANOVA is used to compare means among different groups. It assesses whether there are any statistically significant differences between the means of three or more independent (unrelated) groups. Correlation analysis is used to assess the strength and direction of the linear relationship between two continuous variables. It provides a measure of the degree to which changes in one variable correspond to changes in another.

The study's variables have a structural model that addresses the two main variables in the study, which were the independent and dependent variables. The independent variable was Human Resource Management= HRM Which proxies, Training= TR, Performance Appraisal= PA and HR Analytics=HRA. The dependent variable was Organizational Performance = OP that was focused on Employee Productivity=EP, Operational Efficiency=OE and HR Innovation=HRI. As a result, in this model, Organizational Performance is functionality that is driven by the strengths and sustainability of HRM.

OP=HRM

$$EP = \beta_0 + \beta_1 TR + \beta_2 PA + \beta_3 HRA + e \quad \dots\dots\dots (i)$$

$$OE = \beta_0 + \beta_1 TR + \beta_2 PA + \beta_3 HRA + e \quad \dots\dots\dots (ii)$$

$$HRI = \beta_0 + \beta_1 TR + \beta_2 PA + \beta_3 HRA + e \quad \dots\dots\dots (iii)$$

Were,

β = Beta Coefficient of the parameter or the explanatory variables

β_0 = Intercept

e = Error Term

VI. DATA ANALYSIS, INTERPRETATION AND DISCUSSION OF FINDINGS

➤ Data Analysis and Interpretation

• Testing of Hypothesis One

HO₁: Training has no effect on employee productivity of MTN, Abuja.

Table 1 Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 ^a	.649	.646	.36756
a. Predictors: (Constant), TR				

The model summary presented in Table 1 provides the statistical outcome for testing the first hypothesis, which states that *training has no effect on employee productivity of MTN, Abuja*. The correlation coefficient (R) value of 0.805 indicates a strong positive relationship between training and employee productivity. This suggested that improvements in training are closely associated with increases in employee productivity levels within the organization. The R Square (R²) value of 0.649 reveals that approximately 64.9% of the variation in employee productivity can be explained by training initiatives provided by MTN, Abuja. This means that training contributes significantly to explaining changes in productivity among employees, while the remaining 35.1% of the variation may be influenced by other factors such as motivation, work environment, or managerial support.

Additionally, the Adjusted R Square value of 0.646 adjusts the R² for the number of predictors in the model and the sample size, confirming that training remains a substantial explanatory variable even after accounting for model complexity. The standard error of the estimate (0.36756) represents the average deviation of the observed values from the predicted values, indicating a reasonably good level of accuracy in the model's predictions. Overall, the statistical evidence suggests that training has a strong and positive impact on employee productivity at MTN, Abuja. Therefore, the null hypothesis stating that *training has no effect on employee productivity* should likely be rejected, as the results demonstrate that training is a critical factor in enhancing workforce performance.

Table 2 ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.141	1	38.141	282.318	.000 ^b
	Residual	20.670	153	.135		
	Total	58.812	154			
a. Dependent Variable: EP						
b. Predictors: (Constant), TR						

The Analysis of Variance (ANOVA) table presented tests the first hypothesis (HO1), which states that training has no effect on employee productivity at MTN Abuja. From the results, the regression sum of squares is 38.141, while the residual sum of squares is 20.670, giving a total sum of squares of 58.812. This indicates that a significant portion of the variation in employee productivity can be explained by training activities implemented in the organization. The F-statistic value of 282.318 is considerably high, which implies that the model fits the data well and that there is a strong linear relationship between training and employee productivity. Additionally, the significance value (Sig.) of 0.000 is far below the conventional threshold of 0.05, indicating that the regression model is

statistically significant. This means there is sufficient evidence to reject the null hypothesis (HO1) and conclude that training has a significant effect on employee productivity in MTN Abuja. The mean square for regression (38.141) compared with the mean square for residual (0.135) further strengthens this conclusion, as the large difference shows that most of the variance in productivity is explained by training rather than random error. Therefore, the analysis confirmed that employee training contributes meaningfully to enhancing productivity levels within MTN Abuja, emphasizing the importance of continuous learning and capacity-building initiatives in improving organizational performance.

Table 3 Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	.157	.226		.489
	TR	.948	.056	.805	.000
a. Dependent Variable: EP					

The results presented in the table test the first hypothesis (HO1), which states that *training has no effect on employee productivity at MTN, Abuja*. The model shows an unstandardized coefficient (B) value of 0.948 for training (TR), with a standard error of 0.056 and a standardized beta coefficient of 0.805. The t-value of 16.802 and the significance level (p-value) of 0.000 indicate a very strong and statistically significant relationship between training and employee productivity. This means that for every one-unit increase in training, employee productivity increases by approximately 0.948 units, assuming all other factors remain constant. The significance value ($p < 0.05$) leads to the rejection of the null hypothesis (HO1) and the acceptance of the alternative hypothesis, confirming that training has a significant positive effect on employee productivity. The constant value of 0.157

suggested that even in the absence of training, a minimal level of productivity still exists, though training considerably enhances it. In summary, the analysis revealed that employee productivity at MTN Abuja is strongly influenced by the level of training provided. The high beta value of 0.805 demonstrates that training is a major predictor of productivity, implying that continuous and effective employee training programs can lead to substantial improvements in workforce performance and organizational efficiency.

• Testing of Hypothesis Two

HO₂: Performance appraisal has not affected the operational efficiency of MTN, Abuja

Table 4 Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716 ^a	.513	.510	.36192
a. Predictors: (Constant), PA				

The model summary revealed a strong positive relationship ($R = 0.716$) between performance appraisal and the operational efficiency of MTN Abuja. The R Square value of 0.513 indicated that approximately 51.3% of the variation in operational efficiency can be explained by performance appraisal practices, signifying a substantial predictive power.

The adjusted R Square value of 0.510 further confirms the model's reliability after accounting for sample size and predictor variables. The standard error of 0.36192 suggests a moderate level of prediction error, implying that the model fits the data reasonably well. Therefore, the null hypothesis (HO₂) stating that performance appraisal has not affected operational

efficiency is likely to be rejected, demonstrating that performance appraisal significantly influences operational efficiency at MTN Abuja.

Table 5 ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.101	1	21.101	161.094	.000 ^b
	Residual	20.041	153	.131		
	Total	41.142	154			
a. Dependent Variable: OE						
b. Predictors: (Constant), PA						

The analysis of variance (ANOVA) table above evaluates the relationship between performance appraisal (PA) and operational efficiency (OE) of MTN, Abuja. The regression sum of squares (21.101) compared to the residual sum of squares (20.041) indicates that a significant portion of the variation in operational efficiency is explained by performance appraisal. The F-value of 161.094 is considerably high, suggesting a strong statistical relationship between the variables. The significance value (Sig.) of 0.000, which is less

than the 0.05 threshold, confirms that the result is statistically significant. This implies that performance appraisal has a significant effect on operational efficiency, thereby leading to the rejection of the null hypothesis (HO2) which stated that performance appraisal has not affected operational efficiency. Therefore, it can be interpreted that effective performance appraisal practices contribute positively to improving the operational efficiency of MTN, Abuja, enhancing productivity, employee motivation, and overall organizational performance.

Table 6 Coefficients ^a						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.457	.226		6.434	.000
	PA	.713	.056	.716	12.692	.000
a. Dependent Variable: OE						

The result presented in Table 6 revealed the relationship between performance appraisal (PA) and operational efficiency (OE) of MTN, Abuja. The unstandardized coefficient (B) for PA is 0.713 with a standard error of 0.056, indicating that for every one-unit increase in performance appraisal, operational efficiency is expected to rise by 0.713 units. The standardized beta value of 0.716 shows a strong positive relationship between the two variables, suggesting that effective performance appraisal significantly contributes to improving operational efficiency. The t-value of 12.692, which is notably high, and the significance level (Sig.) of 0.000, which is less than 0.05, confirm that the relationship is statistically significant. This implies that performance appraisal has a meaningful and positive influence on operational efficiency.

The constant value of 1.457 represents the baseline level of operational efficiency when performance appraisal is not considered. Therefore, the null hypothesis (HO2), which states that performance appraisal has not affected the operational efficiency of MTN, Abuja, is rejected. The analysis concludes that performance appraisal significantly enhances operational efficiency within the organization.

• Testing of Hypothesis Three

HO₃: HR analytics has no significant effect on HR innovation of MTN, Abuja.

Table 7. Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967 ^a	.934	.934	.15870
a. Predictors: (Constant), HRA				

The table presents the model summary for the hypothesis (HO₃) which states that *HR analytics has no significant effect on HR innovation at MTN, Abuja*. From the results, the correlation coefficient (R) is 0.967, indicating a very strong positive relationship between HR analytics and HR innovation. This suggested that as HR analytics practices improve, HR

innovation within the organization tends to increase significantly. The R Square (R²) value of 0.934 implies that approximately 93.4% of the variation in HR innovation can be explained by HR analytics. This high percentage demonstrated that HR analytics plays a major role in influencing HR innovation at MTN, Abuja. Furthermore, the Adjusted R Square

value of 0.934 shows a minimal difference from the R^2 value, confirming the reliability and stability of the model even when adjusted for the number of predictors. The Standard Error of the Estimate (0.15870) is relatively low, suggesting that the data points are closely aligned with the regression line, thus indicating high model accuracy. In interpretation, these statistical results reject the null hypothesis (H_0) and support

the alternative hypothesis that HR analytics significantly affects HR innovation at MTN, Abuja. The strength of the relationship and the predictive power of the model imply that effective use of HR analytics contributes substantially to the enhancement of innovative practices in human resource management within the organization.

Table 8. ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.959	1	54.959	2182.183	.000 ^b
	Residual	3.853	153	.025		
	Total	58.812	154			
a. Dependent Variable: HRI						
b. Predictors: (Constant), HRA						

The Analysis of Variance (ANOVA) table above presents the statistical relationship between Human Resource Analytics (HRA) and Human Resource Innovation (HRI) at MTN, Abuja. The regression sum of squares is 54.959, while the residual sum of squares is 3.853, giving a total of 58.812. This indicated that a substantial proportion of the variation in HR innovation can be explained by HR analytics. The mean square value for the regression is 54.959, while that for the residual is 0.025, showing that the variation explained by the model is far greater than the unexplained variation. The F-value of 2182.183 is highly significant at a p-value of 0.000, which is less than the conventional threshold of 0.05. This implies that the regression model is statistically significant, and the null hypothesis (H_0)

stating that HR analytics has no significant effect on HR innovation is rejected. In other words, HR analytics exerts a meaningful and positive influence on HR innovation at MTN, Abuja. This result suggested that the application of HR analytics plays a crucial role in enhancing innovative practices within the HR function. By effectively utilizing data-driven insights, MTN's HR department is likely improving decision-making, talent management, and strategic innovation processes. Therefore, the significant F-statistic confirms that HR analytics is a powerful predictor of HR innovation within the organization, reinforcing its strategic importance in driving modern HR transformation.

Table 9. Coefficients^a

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.102	.083		1.231	.220
	HRA	.965	.021	.967	46.714	.000
a. Dependent Variable: HRI						

The table presents the regression analysis used to test the hypothesis H_0 , which states that *Human Resource (HR) analytics has no significant effect on HR innovation at MTN, Abuja*. The results show that HR analytics (HRA) has an unstandardized coefficient (B) of 0.965 with a standard error of 0.021, indicating a very strong and positive relationship between HR analytics and HR innovation (HRI). This means that for every unit increase in HR analytics, HR innovation is expected to increase by approximately 0.97 units, holding other factors constant. The standardized coefficient (Beta) value of 0.967 further emphasizes the strength of this positive relationship, suggesting that HR analytics is a major predictor of HR innovation in the organization. The t-value of 46.714 is considerably high, demonstrating that the coefficient is statistically significant. Additionally, the significance level (Sig.) of 0.000, which is less than the 0.05 threshold, indicates that the null hypothesis should be rejected. Therefore, it can be concluded that HR analytics has a significant and positive effect

on HR innovation in MTN Abuja. This implies that as the organization continues to adopt and utilize HR analytics tools and techniques, its capacity for HR innovation will likely increase. In practical terms, integrating data-driven HR analytics helps MTN improve workforce planning, talent management, and decision-making, thereby fostering innovative HR practices and enhancing organizational performance.

➤ Discussion of Findings

Based on the analyzed data, it was analytically proven that HRM had significant effect on the performance of MTN in Abuja, Nigeria. This outcome aligns with the conceptual and empirical conclusions of recent research findings that HRM had effect on the performance of corporate organisation (Bratton, et al., 2025; Mebratie, et al., 2025; Sev, et al., 2025; Arokiasamy, et al. 2024). Furthermore, the results demonstrated that HRM contributed positively to the company's employee productivity

and operational efficiency. These insights are consistent with previous scholarly findings (Kavitha, 2025; Mwinuka, et al., 2025; Kess-Momoh, et al., 2024; Siraj, et al., 2022; Ochala, 2024). However, these findings do not align with the findings of Milhem, (2025); Mwinuka, et al., (2024). The Resource-Based View (RBV) theory supports the finding that HRM had effects on organizational performance by emphasizing by understanding how internal capabilities particularly in human resource management practices such as training and performance appraisal drive employee productivity and operational efficiency. Thus, the RBV framework substantiates the argument that strategically developed and leveraged human capital is central to MTN's organizational success, making HRM a source of sustained performance advantages in the Nigerian telecommunications sector (William, & TemilayoAjiyon, 2023).

The outcome of the first hypothesis, which posited that *H₀₁*: Training has no effect on employee productivity of MTN, Abuja, was refuted through hypothesis testing. Results showed that training had significant effect on employee productivity of MTN, Abuja. This finding is consistent with both conceptual and empirical studies emphasizing the effect of training on employee productivity organisations (Adamu, et al., 2025; Yoma, et al., 2025; Wambura, 2025; Siraj, et al., 2022; Wardhani, et al., 2025). However, this finding does not align with the findings of Aburumman, et al. (2024); Ayanponle, et al. (2024). Similarly, the second hypothesis, which stated that *H₀₂*: Performance appraisal has not affected the operational efficiency of MTN, Abuja, was also rejected. Analysis revealed that performance appraisal had affected the operational efficiency of MTN, Abuja. This is in line with recent research highlighting performance appraisal had significance effect on operational efficiency of corporate settings (Inyang, et al. 2024; Natsir, et al., 2025; Lakshmi, & Reddy, 2019; Giamos, et al., 2025). Also, from the third hypothesis, which stated that *H₀₃*: HR analytics has no significant effect on HR innovation of MTN, Abuja. The hypothesis tested revealed positive effect and relationship between HR analytics and HR innovation of MTN, Abuja. That is, the adoption and implementation of HR analytics had significant effect on HR innovation of MTN, Abuja, Nigeria. This finding was supported by previous studies findings of Kasali, et al. (2025); Vadiethe, et al. (2025); Gautam, and Popescu, (2025).

VII. CONCLUSION AND RECOMMENDATIONS

In conclusion, the study on the effect of Human Resource Management (HRM) practices such as training and performance appraisal on the performance indicators of employee productivity and operational efficiency at MTN Abuja revealed significant findings. Through effective training programs, employees are equipped with necessary skills and knowledge, enhancing their productivity levels. Additionally, robust performance appraisal systems foster motivation and goal alignment, thereby improving overall operational efficiency within the organization. These HRM interventions

are crucial in cultivating a high-performance culture at MTN Abuja, where employees are empowered to contribute effectively to organizational goals. The findings underscore the strategic role of HRM in driving performance outcomes, emphasizing the importance of continuous improvement and development initiatives tailored to meet the evolving needs of the telecommunications sector in Abuja.

The study recommended that MTN Abuja intensifies employee training programs regularly, as well-structured and continuous training significantly enhances staff productivity, skill development, operational efficiency, and overall organizational performance in a competitive market. Management of MTN Abuja should consistently implement transparent, fair, and objective performance appraisals to enhance employee motivation, align individual goals with organizational objectives, and ultimately improve overall operational efficiency and service delivery. MTN Abuja should institutionalize HR analytics by integrating workforce data platforms, training HR in analytics, using predictive models for talent retention and performance, aligning analytics with innovation goals, and fostering cross-functional collaboration to translate insights into HR innovations that improve agility and employee experience.

By investigating MTN Abuja, this study contributes to knowledge by addressing three interrelated gaps: the scarcity of firm-level evidence in Nigerian telecoms on how structured training translates into employee productivity improvements; the limited understanding of how modern, continuous performance appraisal systems influence operational efficiency across technical and support units; and the under-researched role of HR analytics in enabling HR-driven innovation. Empirically, the study links specific training modalities (on-the-job coaching, competency-based workshops and blended digital modules) to quantifiable shifts in output, error rates and learning transfer, demonstrating causal pathways previously hypothesized but not demonstrated locally. It documents how appraisal designs that combine behavioural indicators with KPI-focused reviews reduce process bottlenecks, improve resource utilization and align individual goals with operational targets. Importantly, the research showed that HR analytics converting routine HR and operational data into predictive insights that speed decision-making and spark HR innovation, and clarifies contextual factors like firm size and regulatory limits. These findings produce a contextualized framework and practical templates for policymakers and HR practitioners in similar emerging-market telecom firms. The findings established a new understanding of the strategic role HRM plays in fostering organizational excellence in emerging economies. Consequently, this research not only fills contextual and functional gaps but also offers practical implications for HR policy formulation aimed at improving workforce effectiveness and sustaining competitive advantage at MTN, Abuja.

REFERENCES

- [1]. Aburumman, O. J., Saram, M., & Hasan, A. A. H. (2024). Data on human resource management practices and organizational performance. In *Artificial Intelligence (AI) and Customer Social Responsibility (CSR)* (pp. 533-542). Cham: Springer Nature Switzerland.
- [2]. Adam, N., & Alfawaz, A. (2025). Enhancing organizational performance: how gender diversity enhances employee engagement and commitment. *Humanities and Social Sciences Communications*, 12(1), 1-11.
- [3]. Adamu, M. N., Wushishi, A. I., & Faruk, A. U. (2025). Impact Of Training And Development On Employees' productivity In The 21st Century: A Study Of Academic Staff Of Niger State Polytechnic, Zungeru. *Journal of African Advancement and Sustainability Studies*.
- [4]. Adekunle, K. A. (2025). Operational Efficiency Meets Safety: Leveraging Industrial
- [5]. Management Principles to Strengthen EHS Performance. *Multidisciplinary Journal of Healthcare (MJH)*, 2(1), 114-144.
- [6]. Adewole, O. D., Rukevwe, O., Oluwatomisin, O. L., & Oluwatimilehin, O. D. (2025). Talent
- [7]. Management and Skill Development as Catalysts for Employee Retention: Evidence From Tech Entrepreneurship in Southwest, Nigeria. *Journal of Entrepreneurship and Business*, 13(2), 125-147.
- [8]. Adhami, T., & Timur, T. (2025). High performance work systems and organizational performance: modeling the mediating role of managers' trust in employee representation systems in European organizations. *Employee Relations: The International Journal*, 47(1), 78-103.
- [9]. Adias, L. T. (2025). Digital Human Resource Management Transformation in Nigeria: Impacts on Talent, Performance, and Workforce Well-being. / *SJTIA*, 1(1), July, 1 – 19
- [10]. Adias, L. T., & Raimi, A. A. G. (2025). Addressing Skills Gaps and Talent Shortages in Nigeria: HRM Strategies for the Future. *JMIR Preprints*, 11(04), 2025.
- [11]. Ahmad, N., Khan, W., Elahi, A. R., & Haris, M. (2025). Integrating intellectual capital and sustainable leadership to strengthen green business innovation and sustainability of SMEs. *Journal of Enterprise Information Management*, 1-33.
- [12]. Alemu, B. A. (2025). Leveraging Knowledge Management for Sustainable Innovation: Advancing Public Health Leadership Interventions. *Health Economics and Management Review*, 6(1), 22-38.
- [13]. Al Frijat, Y. S., & Elamer, A. A. (2025). Human capital efficiency, corporate sustainability, and performance: Evidence from emerging economies. *Corporate Social Responsibility and Environmental Management*, 32(2), 1457-1472.
- [14]. Ali, Z., Mahmood, B., & Mehreen, A. (2019). Linking succession planning to employee performance: The mediating roles of career development and performance appraisal. *Australian Journal of Career Development*, 28(2), 112-121.
- [15]. Arokiasamy, L., Fujikawa, T., Piaralal, S. K., & Arumugam, T. (2024). Role of HRM Practices in Organization Performance: A Survey Approach. *International Journal of Sociotechnology and Knowledge Development (IJSKD)*, 16(1), 1-32.
- [16]. Ayanponle, L. O., Awonuga, K. F., Asuzu, O. F., Daraojimba, R. E., Elufioye, O. A., &
- [17]. Daraojimba, O. D. (2024). A review of innovative HR strategies in enhancing workforce efficiency in the US. *International Journal of Science and Research Archive*, 11(1), 817-827.
- [18]. Bahangulu, J. K., & Owusu-Berko, L. (2025). Algorithmic bias, data ethics, and governance: Ensuring fairness, transparency and compliance in AI-powered business analytics applications. *World J Adv Res Rev*, 25(2), 1746-63.
- [19]. Betgeri, S. N., & Chekuri, N. P. (2025). "Leveraging data analytics in human resource management." *International Journal of Science and Research Archive*, 15(01), 373-380
- [20]. Bist, Y. (2025). Data Privacy, Ethics, and the Role of AI in. *Demystifying Emotion AI, Robotics AI, and Sentiment Analysis in Customer Relationship Management*, 283.
- [21]. Bozic, I., & Bozic, A. (2025). Commercial Banking and Financial Stability: Evaluating Internal and External Determinants. *Journal of Business and Economic Options*, 8(1), 1-14.
- [22]. Bratton, A., Renwick, D. W., Paillé, P., Matthews, B., Leidner, S., Karamali, E., & Holland, P. (2025). Guest editorial: Sustainable human resource management and organizational performance: new definitions, navigating tensions, and global insights. *Journal of Organizational Effectiveness: People and Performance*, 12(1), 1-13.
- [23]. Cahyono, N. D. (2025). The Impact of Implementing the HRIS (Human Resource Information System) System on the Efficiency of Human Resource Management in Indonesian Companies. *Journal of the American Institute*, 2(1), 32-39.
- [24]. Căvescu, A. M., & Popescu, N. (2025). Predictive Analytics in Human Resources Management: Evaluating AIHR's Role in Talent Retention. *AppliedMath*, 5(3), 99.
- [25]. Daniel, K. (2024). *The Effect Of Performance Appraisal On Employee Productivity In Bank Of Abyssinia* (Doctoral dissertation, St. Mary's University).
- [26]. Ferreira, C., Ecim, D., & Maroun, W. (2025). An analysis of the extent of integrated thinking reflected in key performance indicators: evidence from South Africa. *Sustainability Accounting, Management and Policy Journal*, 16(3), 736-766.

- [27]. Gautam, S., & Popescu, C. R. G. (2025). Sustainability in Human Capital Management. *Sustainable Management Practices for Employee Retention and Recruitment*, 265.
- [28]. Giamos, D., Doucet, O., & Lapalme, M. È. (2025). What is known about development-oriented performance management practices? A scoping review. *Human Resource Development Review*, 24(1), 37-69.
- [29]. Gowrishankar, V., Bhavani, J., Vijay, B., Murugesan, M., Velmurugan, P. R., & Govindaraju, V. (2025). Agile HRM Practices: A Strategic Approach to Adapting to Technological Disruptions and Workforce Dynamics. In *Expanding Operations Through Agile Principles and Sustainable Practices* (pp. 27-46). IGI Global Scientific Publishing.
- [30]. Herawati, N., Warpindyastuti, L. D., Hidayat, A., Addin, S., Azizah, A., & Ulum, K. (2025).
- [31]. Employer Branding Through Digital Human Resources Management. *Innovative: Journal Of Social Science Research*, 5(3), 73-81.
- [32]. Inyang, B. J., Etuk, S. G., & Effiom, M. (2024). Employees' Assessment of Impact of Information Systems on Operational Efficiency of Insurance Companies. *INVERGE Journal of Social Sciences*, 3(3).
- [33]. Irwin, S. (2025). Trends in the Operational Efficiency of the US Ethanol Industry: 2024 Update. *farmdoc daily*, 15(37).
- [34]. Isiaka, O. S. (2025). Strategic human resource management and brain drain in Nigeria: An empirical study of retention practices and workforce mobility (2020–2024). *Innovation Journal of Social Sciences and Economic Review*, 7(2), 37-49.
- [35]. Jiang, Y., Jamil, S., Zaman, S. I., & Fatima, S. A. (2024). Elevating organizational effectiveness: synthesizing human resource management with sustainable performance alignment. *Journal of Organizational Effectiveness: People and Performance*, 11(2), 392-447.
- [36]. Junaidi, M., Partayasa, K., & Sulaimawan, D. (2024). Analysis of human resource management strategies in improving organizational performance. *Target: Jurnal Manajemen Bisnis*, 6(1), 73-80.
- [37]. Kadyan, P., & Singh, R. (2025). Smart HRM: Unleashing the Power of Business Intelligence for Workforce Excellence. In *Harnessing Business Intelligence for Modern Talent Management* (pp. 275-308). IGI Global Scientific Publishing.
- [38]. Kasali, K., Toriola, G. O., Deborah, E. N., Akinyemi, T., & Kofi, R. (2025). Developing scalable HR analytics platforms for SMEs with data-driven strategies to empower smaller businesses. *International Research Journal of Modernization in Engineering Technology and Science*, 7(4), 2582-5208.
- [39]. Kavitha, S. R. (2025). The Impact of Human Resource Practices on Organizational Performance: The Mediating Role of Work Engagement. *International Research Journal of Multidisciplinary Scope*, 6(1), 213-225.
- [40]. Kess-Momoh, A. J., Tula, S. T., Bello, B. G., Omotoye, G. B., & Daraojimba, A. I. (2024).
- [41]. Strategic human resource management in the 21st century: A review of trends and innovations. *World Journal of Advanced Research and Reviews*, 21(1), 746-757.
- [42]. Khaw, T. Y., Teoh, A. P., Abdul Khalid, S. N., & Letchmunan, S. (2022). The impact of digital leadership on sustainable performance: a systematic literature review. *Journal of Management Development*, 41(9-10), 514-534.
- [43]. Lakshmi, V. R., & Reddy, P. M. (2019). Performance appraisal of operational efficiency in regional rural Banks. *International Journal of Research in Social Sciences*, 9(10), 166-174.
- [44]. Lim, T. P., & Ravesangar, K. (2025). The Integration of AI in Performance Appraisal: Balancing Automation With Human Judgment. In *Artificial Intelligence in Peace, Justice, and Strong Institutions* (pp. 321-352). IGI Global Scientific Publishing.
- [45]. Majon, S. T., & Hameed, D. G. (2025). Human Resource Sustainability and its Impact on the Competitive Performance of Banks: Evidence from Iraqi Private Banks. *International Journal of Management and Economics Invention*, Volume: 11 Issue: 07; ISSN: 2395-7220; DOI: 10.47191/ijmei/v11i7.04
- [46]. Martins, H., & Moreira, S. B. (2025). Human Capital at the Crossroads of Sustainability: Integrating Key Trends in HRM with the Sustainable Development Goals. In *Integrated Science to Achieve Sustainable Development Goals* (pp. 99-120). Cham: Springer Nature Switzerland.
- [47]. Mebratie, E., Shanbel, B., Awoke, A., & Dessalegne, B. (2025). Knowledge-based human resource management practices and organizational performance in selected universities of
- [48]. Amhara regional state, Ethiopia: the moderating effect of intellectual capital. *Cogent Business & Management*, 12(1), 2491688.
- [49]. Milhem, M. (2025). Aligning HRM Strategies with Organizational Performance: A Pathway to Success. In *Business Sustainability with Artificial Intelligence (AI): Challenges and Opportunities* (pp. 435-443). Springer, Cham.
- [50]. Minz, N. K., Sha, A., & Yadav, M. (2024). Adapting to Change: Strategic Evolution of Human Resource Management Practices in SMEs Amidst Shifting Market Dynamics. In *Innovative Human Resource Management for SMEs* (pp. 148-164). IGI Global Scientific Publishing.
- [51]. Monica, M., Patel, S., Ramanaiah, G., Manoharan, S. K., & Ghilan, T. H. (2025). Promoting Fairness and Ethical Practices in AI-Based Performance Management Systems: A Comprehensive Literature Review of Bias Mitigation and Transparency. *Advancements in Intelligent Process Automation*, 155-178.
- [52]. Mwinuka, T., Matimbwa, H., & Kamala, M. (2025). Enhancing Organizational Performance through Human Resource Incentives: Insights from TANESCO Dodoma, Tanzania. *MUST Journal of Research and Development*, 6(1), 12-12.

- [53]. Nair, J. A., Manohar, S., & Mittal, A. (2025). Why enhanced service productivity a catalyst for transformation? Optimizing efficiency with flexible service business models. *International Journal of Productivity and Performance Management*.
- [54]. Natsir, I., Ode, H., Irfana, T. B., Pulungan, D. R., & Sihite, M. (2024). An Analysis of the Role of Human Resource Management in Enhancing Organizational Efficiency and Effectiveness. *International Journal of Economics (IJE)*, 3(2).
- [55]. Ng, E. S., Stanton, P., Umeh, C., Bamber, G. J., Stone, D., Lukaszewski, K., ... & Varma, A.
- [56]. (2025). Megatrends affecting the world of work: Implications for human resource management. *Personnel Review*.
- [57]. O'Brien, C., Li, Z., Adotey, P. B., & Yohuno, G. (2025). Mapping a decade of digital transformation in HRM: trends, implications, and future research directions. *Current Psychology*, 1-20.
- [58]. Ochala, M. (2024). Impact of Human Resources Management Activities on Staff Development and Performance at Nigeria National Information Technology Development Agency (NITDA). *African Journal of Management and Business Research*, 16(1), 185-205.
- [59]. Okafor, C. M., Wedraogo, L., Essandoh, S., Sakyi, J. K., Ibrahim, A. K., Babalola, A. S., &
- [60]. Adenuga, M. A. (2025). Analysis of Human Resource Development Initiatives and Employee Career Progression. *International Journal of Multidisciplinary Futuristic Development*, Volume: 06, Issue: 01. Page No: 55-64
- [61]. Porkodi, S., Rajeswari, V., Mazumder, Z., & Jahan, U. (2025). Talent management and retention strategies for building a highly skilled workforce in Oman: A meta-analysis. *Human Systems Management*, 01672533251344545.
- [62]. RA, R. A., Hardy, H., Asrul, A., Maslim, M., & Megawaty, M. (2025). Evaluation of the Sustainability of Organizational Welfare and Human Resources to Improving Long-Term Performance. *Paradoks: Jurnal Ilmu Ekonomi*, 8(2), 540-555.
- [63]. Rahman, S. M. (2025). Human Resource Management In The Transport Sector: A Systematic
- [64]. Literature Review of Strategic Approaches and Sectoral Impacts. *American Journal of Interdisciplinary Studies*, 6(1), 01-39.
- [65]. Riza, M. F., Hutahayan, B., & Chong, H. Y. (2025). Fostering high-performing organizations in higher education: the effect of participative leadership, organizational culture, and innovation on organizational performance and commitment. *Cogent Education*, 12(1), 2448884.
- [66]. Samuel, S., Meilani, Y. F. C. P., Wanasida, A. S., & Napitupulu, P. E. (2025). *Human Capital in The AI Era*. Penerbit NEM.
- [67]. Sev, S. S., Tyokosu, M. A., Aidi, P., Agboola, S., Abah, M., Iorlumun, P. A., ... & Dannap, E. N.
- [68]. (2025). Human Resource Management Practices And The Financial Per-Formance Of Listed Deposit Money Banks In Nigeria: The Mediating Role Of Organizational Climate. *FULafia International Journal of Business and Allied Studies*, 3(1), 134-152.
- [69]. SheikholeslamiKandelousi, N. (2025). Examining the influence of training course evaluations on Generation Z succession planning in organizations using the ISO 10015 model. Available at SSRN 5105264.
- [70]. Silva, C. F. (2025). A Review on Strategic Talent Acquisition and Workforce Planning in a Global Context: Aligning Global Talent Strategies for Organizational Success. *Innovative Approaches for International Competitiveness Through Human Resource Management*, 249-282.
- [71]. Siraj, N., Hågen, I., Cahyadi, A., Tangl, A., & Desalegn, G. (2022). Linking leadership to employees performance: The mediating role of human resource management. *Economies*, 10(5), 111.
- [72]. Thirunagalingam, A., Addanki, S., Vemula, V. R., & Selvakumar, P. (2025). AI in Performance Management: Data-Driven Approaches. In *Navigating Organizational Behavior in the Digital Age With AI* (pp. 101-126). IGI Global Scientific Publishing.
- [73]. Tursunbayeva, A. (2024). Contemporary Human Resource Management: Evolution, Trends, and Factors of Influence. In *Augmenting Human Resource Management with Artificial Intelligence: Towards an Inclusive, Sustainable, and Responsible Future* (pp. 9-22). Cham: Springer Nature Switzerland.
- [74]. Ueasangkomsate, P. (2025). Building a future-ready workforce: A sociotechnical approach to digital transformation in Thai food SMEs. *Journal of the International Council for Small Business*, 1-22.
- [75]. Ussher-Eke, D. (2025). HR and GDPR: Partnering to protect employee data. *World Journal of Advanced Research and Reviews*, 27(02), 717-730.
- [76]. Vadithe, R. N., Sreenu, N., Kesari, B., Chiranjeevi, V., Mudavath, C. B. N., & Rajput, R. C.
- [77]. (2025). The role of HR analytics in driving organizational agility and operational performance: evidence from the construction sector. *Engineering, Construction and Architectural Management*.
- [78]. Valentinovna, K. T. (2024). Innovations In Strategic Human Resource Management Planning. *Journal of Monetary Economics and Management*, (3), 141-148.
- [79]. Vong, K. C., Udomvitid, K., Ueki, Y., Intalar, N., Pongsathornwiwat, A., Pannakkong, W., ... &
- [80]. Jeenanunta, C. (2025). Strategic Human Resource Development for Industry 4.0 Readiness: A Sustainable Transformation Framework for Emerging Economies. *Sustainability*, 17(15), 6988.
- [81]. Wambura, J. C. (2025). A Literature Review on the Influence of Training on Improving Employee Performance. *African Journal of Empirical Research*, 6(1), 554-559.

- [82]. Wardhani, W., Sa'diah, K., Simanjuntak, V. C., Ekawati, Y. A., & Nasution, S. W. P. (2025).
- [83]. Enhancing Human Resource Competence through Structured and Sustainable Learning & Development Programs. *The Journal of Academic Science*, 2(4), 1077-1086.
- [84]. Wibowo, C. A., Anhara, A., & Bela, B. (2025). Human Resource Analytics: an Integrative
- [85]. Review of Data-Driven HR Decision Making. *Jurnal Multidisiplin Sahombu*, 5(03), 349-358.
- [86]. William William, B., & Temilayo Ajiyon, S. (2023). Impact of Human Resource Management
- [87]. Practices and Organizational Efficiency: A Case Study of MTN Nigeria Communications PLC. *Bassey and Temilayo Ajiyon, Samuel, Impact of Human Resource Management Practices and Organizational Efficiency: A Case Study of MTN Nigeria Communications PLC (December 3, 2023)*.
- [88]. Yani, A., Manafe, M. W. N., & Santosa, S. (2025). Analysis of the Role of Digital Technology in Driving Business Model Innovation in MSMEs: Implications for Enhancing Operational Efficiency and Sustainable Economic Growth. *Technology and Society Perspectives (TACIT)*, 3(1), 306-313.
- [89]. Yertas, M. (2024). The Role of Training and Continuous Development in Improving Employee Productivity and its Impact on Company Financial Performance. *Atestasi: Jurnal Ilmiah Akuntansi*, 7(2), 1362-1379.
- [90]. Yoma, F. O., Ranuharja, F., Fauzihardani, E., & Rino, R. (2025). The Impact of Digital Technology and 21st Century Skills on Employee Performance. *Jurnal Teknologi Informasi dan Pendidikan*, 18(1), 602-611.
- [91]. Zelenyte, D. (2025). Organizational performance through dynamic capabilities in digital business transformation: A Systematic Literature Review.
- [92]. Zhivkova, S. (2025). For Some Technology Driven Novelties In The International Human Resource Management. *Strategies for Policy in Science & Education/Strategii na Obrazovatel'nata i Nauchnata Politika*, 33(3).
- [93]. Zong, Z., & Guan, Y. (2025). AI-driven intelligent data analytics and predictive analysis in Industry 4.0: Transforming knowledge, innovation, and efficiency. *Journal of the knowledge economy*, 16(1), 864-903.