
Harnessing Artificial Intelligence for Enhanced Performance Management in Organizations: A Case Study of Safaricom, Kenya

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Abstract

Performance management plays a pivotal role in organizational success by ensuring that employees contribute effectively towards achieving strategic goals. In recent years, the incorporation of artificial intelligence (AI) into performance management has emerged as a transformative trend, providing organizations with new tools to enhance efficiency, objectivity, and overall effectiveness in evaluating and optimizing employee performance. The specific objectives of the study were: assessing the impact of AI integration on performance management, evaluating employee satisfaction within the context of AI-enhanced performance management, and examining the effectiveness of AI in addressing performance gaps at Safaricom. The study adopted descriptive research designs. The study targeted 3250 employees, in (6) departments at safaricom, Kenya. The study used stratified random sampling design to select (4) departments where 165 employees were selected. Data was collected using a semi-structured questionnaire and key informant interview guide. Quantitative data was analyzed using SPSS version 22.0 software. Inferential statistics in the form of multiple regression and descriptive statistics were used to analyze the data. Descriptive statistics were presented in tables and figures. Qualitative data was analyzed using content analysis. The analysis revealed a significant positive association between AI Integration and Performance Management (Coeff/beta = 0.325, P-Value = 0.045), indicating that each unit increase in AI Integration corresponds to a 0.325 increase in Performance Management. However, Employee Satisfaction within AI lacks statistical significance (Coeff/beta = 0.315, P-Value= 0.075). Effectiveness of AI in addressing performance gaps shows no significance (Coeff/beta = 0.305, P-Value = 0.065). The study concludes that The Impact of AI Integration on enhanced Performance at Safaricom reflects overwhelmingly positive perceptions, particularly in optimizing resource allocation and operational efficiency.

Keywords: Performance Management, artificial intelligence

1. Introduction

In United States of America, performance management, as outlined by Varma & DeNisi (2023), involves the strategic processes of planning, monitoring, and evaluating employee performance to achieve both individual and organizational goals. Traditionally reliant on manual procedures and subjective assessments, the field has witnessed a transformative shift with the introduction of AI, ushering in an era characterized by precision and data-driven decision-making.

According to Robert et.al., (2020) AI cannot be overstated in Russia. The capability of AI to efficiently process and analyze extensive datasets at speeds unattainable by humans underscores its significance, particularly in the realm of performance management. In the context of businesses grappling with vast amounts of data concerning employee performance, AI emerges as a valuable tool capable of swiftly navigating through this information. By discerning patterns, trends, and insights that might elude human observation, the integration of AI into performance management processes contributes to heightened accuracy, objectivity, and overall efficiency. Consequently, this incorporation of AI facilitates more informed decision-making within the domain of performance management (Wamba-Taguimdje *et al.*,2020).

According to Abdeldayem and Aldulaimi (2020) South Korea, the transformative potential of artificial intelligence in human resource management with a specific focus on the public sector in Bahrain. They emphasize how artificial intelligence can enhance human resource practices by increasing efficiency and accuracy through task automation, improving decision-making with data-driven insights, personalizing the employee experience, and reducing bias in human resource processes. In the context of the public sector in Bahrain, the authors identify opportunities for artificial intelligent to support the Vision 2030 goals, address gender equality, and enhance transparency and accountability. Despite the promising prospects, Al-Ammal, H., & Aljawder, M. (2021) acknowledge challenges such as a lack of awareness among HR professionals, concerns about data privacy and security, and the associated costs and infrastructure requirements. Nevertheless, they envision that with careful planning and implementation, artificial intelligence has the potential to revolutionize human resource practices in the public sector, contributing to economic diversification, innovation, and improved public service delivery in line with Bahrain's strategic goals.

In a study by Nwagwu *et al.* (2023) Canada, research investigates the empirical implications of AI adoption on supply chain performance within Pakistan manufacturing and logistics organizations, offering valuable insights across various dimensions. The study highlights a direct positive relationship between AI adoption and key supply chain performance metrics, including cost reduction, lead time improvement, and delivery accuracy. Specific AI applications are scrutinized to determine their most impactful contributions. Furthermore, the research proposes the mediating role of supply chain collaboration in enhancing performance, shedding light on how AI fosters collaboration within and between organizations in the supply chain. The study contributes context-specific insights, addressing unique challenges and opportunities for AI adoption in the Pakistani manufacturing and logistics sector. Furthermore, the collective insights from the studies by Hooda *et al.*, (2020) and Rizwan, *et al.*, (2022) underscore the remarkable effectiveness of Artificial Intelligence (AI) in key dimensions of organizational performance.

Both studies emphasize the prowess of AI, particularly in the realm of real-time feedback, where AI systems excel in swiftly delivering insights into various processes. This agility enhances organizational workflows and promotes adaptability. The robustness of AI is evident in its ability to facilitate data-driven decision-making, enabling organizations to ground their choices in insightful analytics. This not only elevates decision accuracy but also minimizes risks, highlighting the indispensable role of AI in guiding organizations toward choices that are both informed and strategic.

According to a report by (Safaricom, 2022) the company strategically utilized artificial intelligence and machine learning to enhance performance across various domains. This technological integration was marked by significant milestones aligning with the company's strategic pillars, emphasizing customer obsession. Achievements included the implementation of a new customer value management tool for deepened customer engagement and an anti-fraud management tool for robust monitoring of M-PESA and international money transfers. Safaricom also introduced innovative platforms such as the Safaricom Baze Platform, M-PESA Consumer App, and surveillance management for SMEs. Technological investments involved the building and upgrading of sites, enhancing capacities, refreshing designs, and rolling out new fiber to improve the network experience. These advancements reflect Safaricom's commitment to innovation, aligning with Sustainable Development Goals (SDGs) and ensuring continuous responsiveness to customer needs and market dynamics to maintain competitiveness and sustain growth.

1.1 Problem Statement

According to a report by (Safaricom, 2023), a significant problem lies in the fact that the company has not yet achieved commercial viability and scale. To confront these challenges, there's a clear necessity for a comprehensive analysis of the potential advantages and drawbacks linked with integrating AI into performance management practices at Safaricom, Kenya.

From the report it's evident that the problem facing Safaricom lies in the optimization of its commercial viability and scale, compounded by the absence of AI integration in its operations. Safaricom struggles to maintain profitability and expand its operations amidst growing competition and market dynamics. Without AI-enabled solutions, Safaricom faces inefficiencies in its processes, limited scalability, and challenges in performance management. This hinders its ability to adapt to changing customer demands, leverage data-driven insights, and achieve sustainable growth. To address these challenges, Safaricom must embrace AI technologies strategically to enhance operational efficiency, drive innovation, and improve performance management practices, ultimately unlocking its full potential for commercial viability and scale in the telecommunications market.

The organization faces a significant gap in its understanding of the comprehensive impacts of artificial intelligence integration, particularly concerning its ability to enhance performance management. Furthermore, the technological advancements ushering in the era of AI present an unprecedented opportunity for Safaricom to modernize its performance management processes. However, it is crucial to scrutinize the adaptability of the existing organizational structure to

real-time monitoring facilitated by AI-powered systems and the potential implications for employee engagement. The study aims to navigate these complexities to offer Safaricom a clear roadmap for effectively harnessing AI within its performance management framework.

1.2 Research Objectives

- i. To Evaluate the Impact of AI Integration for enhanced Performance management at Safaricom, Kenya
- ii. To Evaluate Employee Satisfaction in the Context of AI Enhanced Performance Management at Safaricom, Kenya
- iii. To Examine the Effectiveness of AI in Addressing Performance Gaps at Safaricom, Kenya

1.3 Research Hypotheses

- i. H_0 : There was no significant impact of AI Integration for enhanced Performance management at Safaricom, Kenya
- ii. H_0 : There was no significant impact on Employee Satisfaction in the Context of AI Enhanced Performance Management at Safaricom, Kenya
- iii. H_0 : There was no significant impact on the Effectiveness of AI in Addressing Performance Gaps at Safaricom, Kenya

2. Method

Methodology includes the research design that was employed by the researcher, the sample and the instruments that were used in data collection, the systematic research procedure and techniques that the researcher used in collecting and analyzing the data.

2.1 Target Population

The populace of concern for this study was the managers, department heads and senior managers at Safaricom, Kenya. A total of six (6) departments with a total of three thousand two hundred and fifty (3,250) staff was studied. Safaricom is the leading telecommunication company in Kenya. Hence has a high number of customers requiring their services. The number of employee's staff is as shown in Table 2.1.

Table: 2.1 Targeted population

Departments	No. of employees	Percentage
Finance & Administration	350	10.8%
Human Resource	200	6.2%
Marketing and Communication,	450	13.8%
Customer care	1500	46.2%
Risk and Strategy	150	4.6%
Information Technology	250	7.7%
Network Operations	350	10.8%
Total	3250	100%

Source: Safaricom, 2022

2.2 Sampling Procedures

The stratified random sampling technique was employed due to the heterogeneous nature of the target population. The population was subdivided into distinct units or strata to facilitate the sampling process. This technique ensured an equitable representation of the entire population by incorporating perspectives from all departments, thereby ensuring the collection of high-quality information.

2.2.1 Sample Size, Power, and Precision

The target population for this study was 3250 employees of Safaricom Limited as of 2023. The sample size was derived from 5% of the total target population.

Table 2.2 provides details on the determined sample size.

Departments	Frequency	Multiplier Factor	Sample size	Percentage
Finance & Administration	350	0.05	18	10.9%
Human Resource	200	0.05	10	6.1%
Marketing and Communication,	450	0.05	23	13.9%
Customer care	1500	0.05	75	45.4%
Risk and Strategy	150	0.05	8	4.8%
Information Technology	250	0.05	13	7.8%
Network Operations	350	0.05	18	10.9%
Total	3250		165	100%

2.2.2 Data Collection Methods

Primary data was collected by use of the structured (closed-ended) and unstructured (open-ended) questionnaires that captured the various variables of the study. The questionnaires were designed to address the specific objectives and to test the hypothesis (Mugenda & Mugenda, 2019). Secondary data was collected through evaluation of reports, organizational journals, publications and review of information from the websites of the Safaricom Company in as far as they provide relevant and up-to-date information and Microsoft cloud.

Questionnaires were administered to the respondents to determine the impact of harnessing artificial intelligence for enhanced performance management in organizations. A Likert scale was used to collect opinion data as it was the most frequent used variation of the summated rating scale. Key informant interview guide captured information on the impact of AI integration on performance management. The research involved conducting critical informant interviews with Safaricom administrators.

2.2.3 Research Design

This study employed a descriptive research design to investigate the integration of AI for enhancing performance management at Safaricom, Kenya. The chosen research design facilitated the depiction of facts and characteristics related to the study variables, offering a comprehensive overview of the dynamics within Safaricom, Kenya.

2.2.4 Data Analysis

Data were entered and analyzed using SPSS software version 22. Descriptive statistics (percentages, mean, and frequencies) were presented in tables, charts, and graphs for the analytical methods. For the qualitative portion of the study, the data collected from the key informant interview questionnaires were analyzed using content analysis which involved identifying, coding, and categorizing the content of the data into patterns/themes. For inferential analysis Multiple Linear Regression was used to test the relationship between the Performance management and the Impact of AI Integration, Employee Satisfaction in the Context of AI Enhanced Performance and Effectiveness of AI in Addressing Performance Gaps. Regression analysis was used to test the relationship between the independent variables and the dependent variable. The regression equation is presented as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e, \text{ where,}$$

Y = Performance management

β_0 = constant (coefficient of intercept)

X1 = Impact of AI Integration

X2 = Employee Satisfaction in the Context of AI Enhanced Performance

X3 = Effectiveness of AI in Addressing Performance Gaps

β_0 = The constant term

$\beta_1, \beta_2, \beta_3$ = The coefficients used to measure the sensitivity of the dependent variable (Y) to unit changes in the predictor variables X1, X2, and X3

μ = The error term which captures the unexplained variations in the model

3. Results

This presents the research findings and results of the study. The findings and discussions are in line with the research objective of the study and are based on mixed research design. Results from the study are systematically presented beginning with findings on demographic characteristics of respondents in the study. The chapter also reviews the results of statistical analysis to test the research hypothesis as well as presenting discussions of the results and implication arising from the findings.

3.1 Demographic Characteristics

3.1.1 Gender Distribution of the Respondents

Gender distribution of the respondents, according to the result 53.3% were female while 46.7% were male. This implied that the present study had a fair representation of overall opinions from all genders

Table 3.1 Gender distribution of the respondents

Gender	Frequency	Percentage (%)
Female	65	53.3%
Male	85	46.7%
Total	150	100%

3.1.2 Length of Service Distribution of the Respondents

Length of service of the respondents was evident that the majority have served for durations between 1 and 10 years, comprising 36.7% of the sample. This indicates a relatively youthful workforce or a cohort of employees who may be at the early stages of their careers within the organization. Notably, there is a substantial representation in the 10 to below 20 years' category (30%), highlighting the experienced group. The distribution also reveals a proportionate presence in the 20 to below 30 years' category (20.0%), while individuals with service lengths of 30 years and above contribute 13.3%.

Table 3.2 length of service distribution of the respondents

Length of service	Frequency	Percentage (%)
1-10 Years	55	36.7%
10-20 Years	45	30.0%
20-30 Years	30	20.0%
30-above Years	20	13.3%
Total	150	100

3.3 Descriptive Results

This delves into the analysis of findings aligned with the study variables. It encompasses descriptive statistics corresponding to the study objectives, providing a comprehensive overview of the variables under investigation.

3.3.1 Impact of AI Integration for enhanced Performance

The descriptive result on impact of AI integration for enhanced performance management as shown in table 3.3. The data indicated that majority of the respondents with 52.67% strongly agreed that AI integration has effectively optimized resource allocation.

Table 3.3 Impact of AI Integration for enhanced Performance

Statement	Strongly Disagree F(%)	Disagree F(%)	Neutral F(%)	Agree F (%)	Strongly Agree F(%)	Total F(%)
AI integration has effectively optimized resource allocation at Safaricom	7(4.67)	8(5.02)	5(3.64)	51(34.00)	79(52.67)	150(100)
The implementation of AI has led to efficient utilization of company resources.	2(1.33)	1(0.67)	98(65.33)	48(32.00)	1(0.67)	150(100)
AI tools have positively impacted the productivity of teams and individuals within Safaricom.	12(8.01)	2(1.33)	59(39.33)	61(41.33)	15(10.00)	150(100)

3.3.2 Evaluate Employee Satisfaction in the Context of AI Enhanced Performance Management

Table 3.4 illustrates the descriptive findings on the Impact of AI Integration for enhanced Performance. The results indicate that 51.33% of respondents agreed on Employee Satisfaction in the context of AI-Enhanced Performance Management, highlighting the positive contribution of AI tools to overall productivity.

Table 3.4 Employee Satisfaction in the Context of AI-Enhanced Performance Management

Statement	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	Total F (%)
I believe that AI tools have positively contributed to their overall productivity.	12(8.01)	2(1.33)	5(3.64)	59(39.33)	77(51.33)	150(100)
The use of AI in performance management has resulted in a noticeable increase in individual and team productivity	0(0.0)	1(0.67)	147(98.00)	1(0.66)	1(0.67)	150(100)
Employees find that AI has facilitated better communication and collaboration, leading to higher engagement levels.	12(8.01)	2(1.33)	89(59.33)	32(21.33)	15(10.00)	150(100)

3.3.3 Effectiveness of AI in Addressing Performance Gaps

The descriptive findings in Table 4.5, focusing on the Effectiveness of AI in Addressing Performance Gaps, highlight a strong agreement among the majority of respondents at 44.25% that AI tools deliver timely and relevant feedback on individual performance. This suggests a highly positive perception among respondents regarding the efficacy of AI tools in providing performance feedback.

Table 3.5 Effectiveness of AI in Addressing Performance Gaps

Statement	Strongly Disagree F(%)	Disagree F(%)	Neutral F(%)	Agree F(%)	Strongly Agree F(%)	Total F(%)
AI in performance management has resulted in a noticeable increase in individual and team productivity	7(4.4)	2(1.00)	6(3.9)	66(44.2)	56(37.2)	150(100)
AI in performance management has resulted in a noticeable increase in individual and team productivity	2(1.33)	1(0.67)	98(65.33)	48(32.00)	1(0.67)	150(100)
AI in performance management has resulted in a noticeable increase in individual and team productivity	10(6.7)	23(15.6)	15(10.0)	61(40.0)	41(27.7)	150(100)

3.4 Multiple linear Regression

Multiple linear Regression analysis was used to test the relationship between the Performance management and the Impact of AI Integration, Employee Satisfaction in the Context of AI Enhanced Performance and Effectiveness of AI in Addressing Performance Gaps. The regression model was used as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Y = Performance management

β_0 = constant (coefficient of intercept)

X_1 = Impact of AI Integration

X_2 = Employee Satisfaction in the Context of AI Enhanced Performance

X_3 = Effectiveness of AI in Addressing Performance Gaps

e = Error Term

3.4.1 Coefficients of Multiple regression

The coefficients of multiple regression analysis, as displayed in Table 4.6, were computed to estimate the relationships between independent variables (AI Integration, Employee Satisfaction, and Effectiveness of AI influence) and the dependent variable, (Performance Management). Each coefficient represents the magnitude and direction of the relationship between a predictor

variable and the outcome, providing valuable insights into the impact of these factors on organizational performance.

Table 3.6 Coefficients of multiple regression Model

Model	Unstandardized	standardized	t	sig.
	Coefficients	Coefficients		
	B	Std. Error		
Constant	1.856	0.315	5.897	0.001
AI Integration	0.325	0.162	2.006	0.045
Employee Satisfaction	0.315	0.254	1.240	0.075
Effectiveness of AI in	0.305	0.312	0.978	0.065

a. Dependent variable: Performance Management

The study's findings highlight a significant positive correlation (Coeff/beta = 0.325, P-Value = 0.045) between AI integration and performance outcomes. Conversely, it reveals a noticeable absence of correlation (Coeff/beta = 0.315, P-Value = 0.075) between employee satisfaction and performance management. Additionally, the study suggests no significant correlation (Coeff/beta = 0.305, P-Value = 0.065) between the effectiveness of AI in addressing performance gaps and the broader domain of performance management. The relationship is represented by the equation:

$$Y = 1.856 + 0.325(X_1) + 0.315(X_2) + 0.305(X_3) + 0.315$$

The findings indicate that each of these factors positively influences Performance Management. Specifically, for every unit increase in Impact of AI Integration, there is a corresponding increase of 0.325 units in Performance Management, holding all other variables constant. Similarly, an increase in Employee Satisfaction by one unit results in a 0.315-unit increase in Performance Management, while a one-unit increase in the Effectiveness of AI in Addressing Performance Gaps corresponds to a 0.305-unit increase in Performance Management, keeping other variables constant. Moreover, the constant term of 1.856 represents the expected value of Performance Management when all independent variables are zero

3.5 Test of Hypothesis

The outcomes of hypothesis testing presented in Table 4.6 are based on a significance level of 0.05. Statistical significance is indicated when the p-value falls below this threshold, while non-significance is observed when the p-value exceeds the conventional significance level of 0.05.

Table 3.7: Hypothesis result

Model	Coefficient (B)	Std. Error	t-statistic	p-value
Constant	1.856	0.315	5.897	0.050
AI Integration	0.325	0.162	2.006	0.045
Employee Satisfaction	0.315	0.254	1.240	0.075
Effectiveness of AI	0.305	0.312	0.978	0.065

a. Dependent variable: Performance Management

The hypothesis testing results reveal a significant impact of AI integration on performance management at Safaricom, Kenya. The null hypothesis, suggesting no significant effect of AI integration on performance management (H₀: There was no significant impact of AI Integration for enhanced Performance management at Safaricom, Kenya), was rejected based on the associated p-value of 0.045, which falls below the conventional significance level of 0.05.

The hypothesis testing regarding the impact of employee satisfaction within the context of AI-enhanced performance management at Safaricom, Kenya, yielded results indicating no significant association between these variables. The null hypothesis (H₀: There was no significant impact on Employee Satisfaction in the Context of AI Enhanced Performance Management at Safaricom, Kenya) was retained, as the p-value associated with the coefficient for Employee Satisfaction was 0.075, exceeding the conventional significance level of 0.05. This suggests insufficient evidence to conclude a significant impact of employee satisfaction on performance management in the context of AI integration. The coefficient estimate of 0.315 implies that a one-unit increase in employee satisfaction within the realm of AI is associated with a 0.315-unit increase in performance management, holding other variables constant. However, the lack of statistical significance undermines the credibility of this relationship, highlighting the need for further investigation or consideration of additional factors that may influence performance management outcomes within the organizational setting.

The hypothesis testing conducted to assess the effectiveness of AI in addressing performance gaps at Safaricom, Kenya, yielded results that failed to support the claim of a significant impact. The null hypothesis (H₀: There was no significant impact on the Effectiveness of AI in Addressing Performance Gaps at Safaricom, Kenya) was upheld, as the p-value associated with the coefficient for the effectiveness of AI was 0.065, exceeding the conventional significance level of 0.05. This suggests insufficient evidence to conclude that AI is effective in addressing performance gaps within the organization. The coefficient estimate of 0.305 implies that a one-unit increase in the effectiveness of AI in addressing performance gaps corresponds to a 0.305 unit increase in the dependent variable, though this relationship lacks statistical significance. The marginal significance of the p-value further emphasizes the need for cautious interpretation and additional investigation into the complex interplay between AI integration, employee satisfaction, and performance management.

3.6 Discussion of findings

3.6.1 Impact of AI Integration for enhanced Performance management at Safaricom, Kenya

The study's findings show a positive and statistically significant association (Coeff/beta = 0.325, P-Value = 0.045) between AI integration and performance management, underscoring the pivotal role of artificial intelligence in shaping organizational effectiveness. Notably, the impact of AI integration at Safaricom manifests in the optimization of resource allocation, leading to substantial cost reductions and heightened operational efficiency. However, challenges persist in achieving efficient utilization of company resources, as indicated by the diverse opinions among respondents. The study underscores the need for specialized skills in implementing advanced AI technologies, as articulated by key informants in the ICT department. Despite these challenges, AI tools emerge as significant contributors to team and individual productivity, enhancing various facets such as customer support, personalization, network performance, and overall service efficiency, as articulated by a key informant in the network and operations department. These insights collectively highlight the transformative impact of AI integration processes and the potential for continued improvements in performance management at Safaricom.

3.6.2 Employee Satisfaction in the Context of AI Enhanced Performance Management at Safaricom, Kenya

The results of the study demonstrate a noteworthy lack of association ((Coeff/beta = 0.315, P-Value = 0.075) between employee satisfaction and performance management, underscoring the significance of contentment in shaping overall performance outcomes. In the context of AI-enhanced performance, the findings indicate a substantial consensus that AI tools contribute positively to overall productivity, as evidenced by the high agreement level among respondents. However, challenges emerge in gauging whether AI in performance management has led to a noticeable increase in individual and team productivity, revealing a nuanced perspective among participants.

3.6.3 Effectiveness of AI in Addressing Performance Gaps at Safaricom, Kenya.

The study uncovered a no significant association (Coeff/beta = 0.305, P-Value = 0.065) between the effectiveness of AI in addressing performance gaps and the broader domain of performance management. This underscores the instrumental role of AI in delivering timely and pertinent feedback on individual performance. Despite this positive aspect, a sense of uncertainty prevails regarding the reliability of the AI-enhanced system in evaluating performance gaps. Key informants in risk management expressed concerns related to data quality, potential bias, and the crucial element of employee trust. However, the study's overarching finding indicates that AI has enhanced overall performance management effectiveness by adeptly addressing gaps through real-time monitoring, data-driven decision-making, and the formulation of personalized development plans. This suggests that while challenges exist, the positive impact of AI in refining performance management processes is evident, marking a significant stride in leveraging technology.

4. Discussion

The findings from the Impact of AI Integration for enhanced Performance underscore the overwhelmingly positive perception of AI's effectiveness in optimizing resource allocation at Safaricom, as indicated by the majority of respondents strongly agreeing with this impact. This aligns with the testimonial from the HR Department, emphasizing significant cost reductions and operational efficiency improvements resulting from strategic AI implementation.

The insights derived from examining the Impact of AI Integration on enhanced Performance at Safaricom present a multifaceted view of AI's impact across different domains. AI-enhanced Performance Management brings about tangible advantages such as streamlined data analysis and task automation, leading to increased individual and team productivity.

The findings on the Effectiveness of AI in Addressing Performance Gaps at Safaricom highlight a predominantly positive perception expressing agreement that AI tools deliver timely and relevant feedback on individual performance. Furthermore, AI enhances the performance management ecosystem, emphasizing tools such as performance analytics dashboards, automated goal tracking, personalized learning recommendations, and predictive insights.

5. Conclusion

Implications of these findings suggest the need for Safaricom to continue leveraging the proven benefits of AI in resource optimization while addressing challenges related to perception and resource utilization. Strategies should focus on targeted training programs to enhance workforce skills and understanding of AI systems. Communication and training efforts can help bridge the perception gap and foster a more unified understanding of AI's role in efficient resource utilization. Additionally, Safaricom may consider implementing improvement initiatives tailored to specific concerns raised by employees and departments, ensuring a comprehensive and effective integration of AI across the organization. This approach can help Safaricom capitalize on the positive aspects of AI integration while actively addressing and mitigating challenges for sustained success. These findings highlight the multifaceted impact of AI, emphasizing the importance of addressing challenges while optimizing its positive contributions for a more effective and collaborative work environment at Safaricom.

6. Recommendations

Researchers recommends that Safaricom Company should prioritize gaining a comprehensive understanding of how AI technologies can specifically improve performance management within its organizational context. This involves conducting thorough assessments to identify areas where AI can streamline processes, optimize resource allocation, and enhance decision-making capabilities. Investment in robust training programs aimed at upskilling employees to effectively leverage AI tools and platforms for performance management purposes should be upheld. In addition, providing employees with the necessary knowledge and skills will foster a culture of innovation and collaboration, enabling them to harness the full potential of AI technologies. A focus on ensuring the quality and integrity of data utilized by AI systems is necessary as accurate

and reliable data are essential for generating meaningful insights and driving informed decision-making.

References

- Abdeldayem, M. M., & Aldulaimi, S. H. (2020). Trends and opportunities of artificial intelligence in human resource management: Aspirations for public sector in Bahrain. *International Journal of Scientific and Technology Research*, 9(1), 3867-3871. Adoption of blockchain in operations and supply chain management among Malaysian SMEs. *International Journal of Information Management*, 52, Article No. 101997. <https://doi.org/10.1016/j.ijinfomgt.2019.08.005>
- Al-Ammal, H., & Aljawder, M. (2021). Strategy for Artificial Intelligence in Bahrain: Challenges and Opportunities. *Artificial Intelligence in the Gulf: Challenges and Opportunities*, 47-67.
- Almansour, M. (2023). Artificial intelligence and resource optimization: A study of Fintech start-ups. *Resources Policy*, 80, 103250.
- Bhima, B., Zahra, A. R. A., Nurtino, T., & Firli, M. Z. (2023). Enhancing Organizational Efficiency through the Integration of Artificial Intelligence in Management Information Systems. *APTISI Transactions on Management*, 7(3), 282-289.
- Chowdhury, S., Dey, P., Joel-Edgar, S., Bhattacharya, S., Rodriguez-Espindola, O., Abadie, A., & Truong, L. (2023). Unlocking the value of artificial intelligence in human resource management through AI capability framework. *Human Resource Management Review*, 33(1), 100899.
- Hammer, A., & Karmakar, S. (2021). Automation, AI and the future of work in India. *Employee Relations: The International Journal*, 43(6), 1327-134
- Hooda, M., Rana, C., Dahiya, O., Rizwan, A., & Hossain, M. S. (2022). Artificial intelligence for assessment and feedback to enhance student success in higher education. *Mathematical Problems in Engineering*, 2022.
- Kim, M. J., Kim, K. J., Kim, S., & Dey, A. K. (2018). Performance evaluation gaps in a real-time strategy game between human and artificial intelligence players. *IEEE Access*, 6, 13575-13586.
- Maley, J. F., Dabic, M., & Moeller, M. (2021). Employee performance management: charting the field from 1998 to 2018. *International Journal of Manpower*, 42(1), 131-149.
- Nazareno, L., & Schiff, D. S. (2021). The impact of automation and artificial intelligence on worker well-being. *Technology in Society*, 67, 101679.
- Nwagwu, U., Niaz, M., Chukwu, M. U., & Saddique, F. (2023). The influence of artificial intelligence to enhancing supply chain performance under the mediating significance of supply chain collaboration in manufacturing and logistics organizations in Pakistan. *Traditional Journal of Multidisciplinary Sciences*, 1(02), 29-40.
- Pereira, V., Hadjielias, E., Christofi, M., & Vrontis, D. (2023). A systematic literature review on the impact of artificial intelligence on workplace outcomes: A multi-process perspective. *Human Resource Management Review*, 33(1), 100857.
- Ransbotham, S., Khodabandeh, S., Kiron, D., Candelon, F., Chu, M., & LaFountain, B. (2020). Expanding AI's impact with organizational learning.

- Rath, M., Mishra, N., & Jayasuria, J. G. A Smart Human Resource Approach using Artificial Intelligence with Improved Employee Satisfaction for Better Sustainability in Organisation.
- Robert, L. P., Pierce, C., Marquis, L., Kim, S., & Alahmad, R. (2020). Designing fair AI for managing employees in organizations: a review, critique, and design agenda. *Human-Computer Interaction*, 35(5-6), 545-575.
- Safaricom. (2022). Annual Report 2022: Our Technology. Retrieved from https://www.safaricom.co.ke/annualreport_2022/our-technology/#1658927992009-ac426f91-5949
- Safaricom PLC. (2022). Safaricom Investor Relations Report 2022. Retrieved from https://www.safaricom.co.ke/images/Downloads/Safaricom_IR_2022_Final.pdf
- Safaricom PLC. (2023). Safaricom Sustainability Report 2022. Retrieved from https://www.safaricom.co.ke/sustainabilityreport_2022/wp-content/uploads/2023/01/Safaricom_22-1.pdf
- Saxena, M., & Mishra, D. K. (2023). Artificial intelligence: the way ahead for employee engagement in corporate India. *Global Knowledge, Memory and Communication*.
- Uzumcu, O., & Acilmis, H. (2023). Do innovative teachers use AI-powered tools more interactively? A study in the context of diffusion of innovation theory. *Technology, Knowledge and Learning*, 1-20.
- Varma, A., Budhwar, P. S., & DeNisi, A. (Eds.). (2023). *Performance management systems: A global perspective*. Taylor & Francis.
- Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A., & Trichina, E. (2022). Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review. *The International Journal of Human Resource Management*, 33(6), 1237-1266.
- Wamba-Taguimdje, S. L., Fosso Wamba, S., Kala Kamdjoug, J. R., & Tchatchouang Wanko, C. E. (2020). Influence of artificial intelligence (AI) on firm performance: the business value of AI-based transformation projects. *Business Process Management Journal*, 26(7), 1893-1924.
- Wong, L. W., Leong, L. Y., Hew, J. J., Tan, G. W. H., & Ooi, K. B. (2020). Time to seize the digital evolution: