Innovations

Impact of Artificial Intelligence on Employee Engagement in Access Bank Plc, Abuja, FCT, Nigeria

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Abstract : *This study examined the effect of artificial intelligence on employee engagement in Access bank plc, Abuja, FCT, Nigeria. All over the world, the business environment is rapidly changing and constantly evolving as such artificial intelligence tools have become a must have if businesses are to remain competitive and survive. To this end, it has become imperative for organizations to equip and effectively engage their workforce if they are to achieve their goals and objectives efficiently. The study adopted a descriptive survey research design and the population comprised of 126 staff of Access bank. The sample size was the entire 126 staff of the bank. Data was collected using a structured likert scale questionnaire. Data was analysed using multiple regression via the Statistical Package for Social Sciences (SPSS) version 27. Findings from the study showed that artificial intelligence had a positive and significant effect on employee engagement. The statistical findings showed that artificial*

intelligence accounts for 48% variations in employee engagement at R=.693, R^2=.48 at p <.000. Artificial intelligence (uniqueness (UI = 2.2+0.27) was found to be positively significant. While artificial intelligence (inimitability (IM =2.2+0.23) and sustained advantage (SA = 2.2+0.07) on employee engagement (dedication) was found to be positive but insignificant. Therefore, the study recommends that for the business to perform well, the organization should be strongly advised to sensitize and effectively engage its employees on the use of artificial intelligence tools that can effectively aid in achieving their performance objectives.

Keywords: *Artificial Intelligence, Uniqueness, Inimitability, Sustained Advantage, Employee Engagement.*

1.0 Introduction

The integration of Artificial Intelligence (AI) within Human Resources (HR) practices signifies a transformative shift in workforce management and employee engagement. Tracing its historical development to the early 1980s, AI has evolved from basic computational tasks to sophisticated systems that enhance efficiency and productivity across various sectors, including financial services where its impact on job satisfaction, performance, and retention is notable (Ganatra & Pandya, 2023; Hughes et al., 2019). The automation of routine tasks and the provision of data-driven insights by AI have reshaped work environments, allowing employees in client-facing roles to engage in more strategic activities, potentially enhancing job satisfaction and engagement. However, this shift also necessitates continuous skill development and careful management of perceptions related to AI's impact on job security (Ganatra & Pandya, 2023).

In the public sector, the deployment of AI tools aims to streamline HR operations and improve employee engagement, although the pace and nature of AI adoption vary significantly due to regulatory constraints and the need for sector-specific models (Ganatra & Pandya, 2023). The critical considerations for integrating AI in employee management practices include building trust, ensuring fairness, and navigating the ethical implications of technology use. These factors are crucial in determining AI's effectiveness in enhancing job outcomes and employee engagement (Hughes et al., 2019).A growing body of literature supports the significant potential of AI to improve employee engagement through mechanisms like real-time monitoring, sentiment analysis, and natural language processing (Mittal, 2023; Ganatra, 2023; Ersoy, 2023; Wijayati, 2022). These studies collectively underscore the transformative power of AI in enriching employee engagement.

Statement of the Problem

The rapid integration of AI into organizational processes, especially in sectors like finance and public administration, has underscored a critical gap in understanding how technological advancements correlate with employee engagement levels. While AI can streamline tasks and enhance analytical support, there is an urgent need to investigate whether these efficiencies genuinely translate into improved employee engagement or inadvertently lead to disengagement by altering traditional roles, reducing human interaction, or heightening redundancy fears. Furthermore, the ethical deployment of AI involves addressing fairness in decision-making, maintaining transparency, and preserving workplace trust. The perceptions of employees regarding AI viewed either as a tool for empowerment or as a threat to job security significantly influence their engagement and overall job satisfaction. Thus, a critical assessment of AI's dual-edged impact on employee engagement is necessary, particularly in understanding how enhanced efficiency and productivity intersect with the psychological and emotional aspects of the employee experience.

The Significance of the Study

This study is pivotal as it aims to bridge the existing knowledge gap by exploring the intricate relationship between AI implementation, efficiency, productivity, and employee engagement. Understanding this relationship is crucial for organizations to utilize AI in ways that boost not only operational performance but also employee satisfaction and commitment. The findings could guide businesses in deploying AI technologies that foster a motivated and engaged workforce, thereby enhancing overall organizational health and competitiveness. Additionally, this research contributes to the broader discourse on the future of work by providing insights into how technological advancements can be harmonized with human-centric organizational goals. It emphasizes the need for ethical considerations and human-centered approaches in AI deployment within workplaces, advocating for strategies that prioritize employee well-being and job satisfaction alongside operational efficiency.

2.0 Literature review

The integration of Artificial Intelligence (AI) into human resource (HR) management has emerged as a transformative force, as evidenced by recent research demonstrating its capabilities in enhancing operational efficiencies and employee engagement (Jiang et al., 2022). AI-driven analytics have proven effective in predicting employee turnover, identifying talent gaps, and tailoring development programs to individual needs, thereby contributing to increased employee satisfaction and retention. For example, AI tools in HR streamline recruitment processes through automated candidate screening and selection while also

personalizing employee development programs (Kovach et al., 2021).Additionally, AI facilitates advanced performance management systems that utilize real-time data collection and analysis to monitor and enhance employee performance dynamically (Angrave et al., 2023). These systems empower managers and HR professionals with actionable insights, enabling more effective staff management and support. Furthermore, AI-driven tools such as chatbots and virtual assistants have revolutionized employee service delivery, providing continuous support and significantly improving the employee experience and engagement (Opatha & Ismail, 2020). Overall, AI's role in HR analytics has strengthened organizational decision-making regarding workforce management and strategic planning, aligning employee needs with organizational goals for enhanced engagement and productivity (Lee et al., 2021).

Uniqueness in the context of this study refers to the distinctive attributes of AI tools that set them apart from other technologies. This variable is critical as it measures how innovative and novel AI implementations, such as those used in Microsoft Dynamics, can provide a competitive edge by offering capabilities that are not easily found elsewhere. Uniqueness is essential for fostering a dedicated workforce, as employees perceive the AI tools they use as exclusive and tailored to their specific organizational needs. This perceived uniqueness enhances their engagement by instilling a sense of pride and value in their work environment (Ganatra & Pandya, 2023; Lee et al., 2021).
Inimitability assesses the extent to which AI tools and their configurations are difficult to replicate by competitors. This variable is pivotal in ensuring that the competitive advantages gained through AI implementation are sustained over time. Inimitability is achieved through complex customizations, proprietary algorithms, and unique integrations that are challenging for other organizations to duplicate. When employees recognize that their organization’s AI tools are not easily replicated, it can lead to higher engagement as they feel secure and confident in the competitive position of their employer, reducing the fear of redundancy and job loss (Jiang et al., 2022; Angrave et al., 2023).

Sustained Advantage refers to the long-term benefits that an organization gains from AI tools that are continuously innovative and adaptable. This variable evaluates how well an organization can maintain its competitive edge over time by leveraging AI. Sustained advantage is achieved through ongoing improvements, updates, and the strategic use of AI to keep pace with or exceed industry standards. Employees engaged with AI tools that contribute to sustained advantage are likely to exhibit higher levels of dedication, as they see their work contributing to the long-term

success and stability of the organization, which in turn supports their career growth and job security (Ganatra & Pandya, 2023; Angrave et al., 2023).

Employee Engagement, proxied in this study as Dedication, measures the commitment and enthusiasm employees have towards their work and the organization. This variable is crucial as it reflects the level of motivation and willingness of employees to go above and beyond their job requirements. High levels of dedication indicate that employees are fully invested in their roles, take pride in their work, and are committed to the organization's success. In the context of AI implementation, engagement is influenced by how unique, inimitable, and advantageous the AI tools are perceived to be. Employees who feel that their work environment is technologically advanced and competitively secure are more likely to be dedicated and engaged, driving overall organizational performance (Opatha & Ismail, 2020; Hughes et al., 2019).

Conceptual Framework

The conceptual framework of this research, rooted in the principles of Uniqueness, Inimitability, and Sustained Advantage, focuses on enhancing employee engagement through the integration of Artificial Intelligence (AI) in organizational practices. Unique AI-driven initiatives, measured using metrics like the Innovation Index, are emphasized for their novelty and value, contributing to a dedicated workforce. Inimitability underscores the strategic advantage of AI practices that are challenging to replicate, fostering sustained competitive edges and employee dedication. This sustained advantage is seen as a result of AI technologies being effectively harnessed and aligned with organizational goals, leading to enduring benefits in employee engagement and organizational success (Davis, 1989; Jiang, Lepak, Hu, & Baer, 2022).

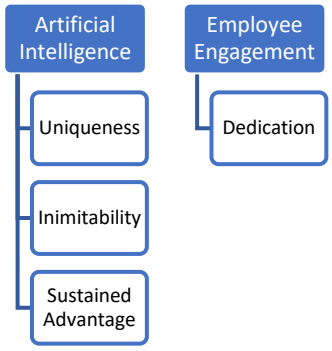

Figure 1.1: Conceptual Framework of the Study

Theoretical Review

The theoretical underpinnings of integrating Artificial Intelligence (AI) in human resource (HR) management are anchored in several established management and psychological theories. One of the core theories is the Technology Acceptance Model (TAM), which posits that the perceived usefulness and ease of use of a technology are critical factors influencing its adoption (Davis, 1989; updated by Lee, Lee, & Kim, 2021). In the context of HR, this suggests that AI tools perceived as beneficial and user-friendly are more likely to be adopted and effectively utilized by HR professionals. Moreover, the Resource-Based View (RBV) of the firm provides a framework for understanding how unique organizational resources, such as AI capabilities, can serve as a source of competitive advantage. According to RBV, organizations that can leverage unique, valuable, and inimitable resources can achieve superior performance (Barney, 1991; revised by Jiang, Lepak, Hu, & Baer, 2022). In HR management, AI technologies constitute such strategic resources, offering capabilities that enhance decision-making efficiency and strategic planning.

Another relevant theoretical perspective is the Diffusion of Innovations theory (Rogers, 2003), which explains how, why, and at what rate new ideas and technology spread through cultures. When applied to AI in HR, this theory aids in understanding how AI innovations propagate within an organization, the roles of change agents, and the organizational barriers to adoption (Angrave et al., 2023).Whilst the Job Demands-Resources (JD-R) model can also be applied to explore how AI impacts employee engagement and job satisfaction. This model posits that job resources (which could include AI-driven tools) can buffer the effects of job demands and contribute to higher job satisfaction and engagement by fostering a more supportive work environment (Bakker & Demerouti, 2017; explored in Opatha & Ismail, 2020).

Theoretical Framework

Adopting the RBV, this framework considers AI technologies as strategic resources that potentially offer competitive advantages when aligned with organizational goals (Barney, 1991; Jiang, Lepak, Hu, & Baer, 2022). This study will explore how the integration of AI technologies in HR aligns with organizational strategies to enhance decision-making and operational efficiencies. It will also examine whether AI capabilities in HR are unique, inimitable, and capable of providing sustained competitive advantage.

Empirical Review

The incorporation of Artificial Intelligence (AI) within Human Resource (HR) management practices has been subject to extensive empirical examination across diverse organizational contexts. This review synthesizes findings from recent studies

to elucidate the impacts of AI on HR functions, highlighting both the transformative potential of these technologies and the complexities they introduce. Empirical evidence supports that AI significantly enhances recruitment processes by automating candidate screenings and improving selection accuracy. Studies such as those by Jiang et al. (2022) demonstrate AI's capability to minimize biases in resume screening, thus ensuring a fairer and more efficient talent acquisition process. Despite these advantages, concerns persist regarding AI's potential to perpetuate existing biases if algorithms are not meticulously designed and continually monitored (Kovach et al., 2021).

AI's role in personalizing employee training programs has received positive empirical support. For example, research by Lee, Lee, and Kim (2021) suggests that AI systems can adaptively analyze individual learning needs, tailoring training initiatives that are both effective and engaging. Such customization not only enhances skill development but also aligns employee growth with organizational objectives, fostering a more competent and satisfied workforce. The transition to AI-enhanced performance management systems is shown to facilitate a shift towards continuous feedback and data-driven assessments (Angrave et al., 2023). This evolution from traditional, often subjective, performance evaluations to more objective, real-time feedback mechanisms improves managerial decisions and employee performance alike. However, integrating these systems requires significant cultural adjustments and poses challenges in employee acceptance and adaptation.

Utilizing AI for predictive analytics in employee engagement can proactively identify signs of employee turnover, allowing for timely interventions to enhance engagement and retention (Opatha & Ismail, 2020). While promising, the deployment of these tools necessitates careful consideration to avoid potential privacy infringements and to maintain trust within the employee-employer relationship. The rapid advancement of AI in HR also brings forth critical ethical and legal challenges. Recent empirical research highlights the urgent need for comprehensive ethical guidelines and robust legal frameworks to govern the use of AI in HR practices. These measures are essential to ensuring that AI supports fair labor practices and adheres to all applicable laws, safeguarding against discrimination and privacy violations (Kovach et al., 2021).

This empirical review articulates the significant potential of AI to revolutionize HR practices by enhancing efficiency, fairness, and strategic alignment in recruitment, training, and performance management. Nevertheless, it also underscores the critical need for meticulous implementation strategies that address ethical

considerations, foster cultural adaptation, and maintain rigorous oversight of AI applications.

Literature Gaps

The current body of research on Artificial Intelligence (AI) in Human Resource (HR) management has revealed several critical gaps that require further investigation to advance our understanding and implementation of AI within HR practices. Firstly, there is a notable absence of longitudinal studies examining the sustained effects of AI on HR functions over time. While existing research focuses on immediate impacts, longitudinal studies are essential to assess the long-term benefits, challenges, and potential evolution of AI in workforce dynamics and organizational health. Secondly, research on AI in HR has predominantly centered on large private corporations, neglecting smaller businesses, non-profits, and the public sector. Investigating AI's applicability and impact across diverse organizational contexts is crucial to tailor AI solutions effectively and address unique operational challenges. Thirdly, there is a lack of research exploring employee perceptions of AI-driven changes in HR and their influence on engagement and productivity. Understanding employee attitudes and cultural adaptations necessary for AI integration is vital for effective change management and maximizing AI's benefits. Additionally, ethical, privacy, and legal implications of AI in HR are recognized but require more comprehensive empirical investigation to develop robust guidelines and frameworks. Addressing these concerns will not only mitigate risks but also foster trust and acceptance of AI among employees. Finally, research on integrating AI with traditional HR practices is limited, highlighting the need for studies on hybrid models where AI complements rather than replaces human-centric HR functions. This research direction will offer practical insights on leveraging AI to enhance HR capabilities while preserving essential human elements.

3.0 Methodology

This study employs quantitative methods approach to explore the effect of Artificial Intelligence (AI) sophistication on employee engagement within human resource (HR) management. The research design combines quantitative surveys to ensure comprehensive data collection. Quantitative data was collected through structured surveys aimed at staff of operations department in Access Bank branches in Abuja, FCT, Nigeria, focusing on the integration level and sophistication of AI in employee engagement. A sample size of 126 respondents was used in the study. Data was presented using frequencies and percentages as well as mean and standard deviation. Data was analyzed using multiple regression analysis through the statistical package of social sciences (SPSS) version 27.

Model Specification

$Y = f(X_1, X_2, \ldots\ldots\ldots\ldots X_n)$ ……(1)

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

Where:

Y = Dependent Variable of the study

$X_1 \ldots\ldots X_n$ = Independent variable of the study

ß = Constant

α = Intercept

ε = Error terms

By putting the variable of this current study into equation 1 above, we have:

EE = f (UQ, IM, SA) …….. (2)

Where:

EE = Employee Engagement (measured as dedication)

UQ = Uniqueness

IM = Inimitability

SA = Sustained Advantage

From equation (2), the model will be further expressed as:

$EE = \beta_0 + \beta_1 UQ + \beta_2 IM + \beta_3 SA + \varepsilon$ ……..
(3)

Data Collection and Analytical Procedures

Data collection for the quantitative component involves deploying surveys to 126 head of operations in Access Bank branches in Abuja, FCT, Nigeria, chosen through purposive sampling, to assess AI sophistication and employee engagement levels.

Data Analysis and Results

Table 1: Uniqueness

Items	**5(SA)**	**4(A)**	**3(N)**	**2(D)**	**1(SD)**
Microsoft Dynamics is highly innovative and distinct compared to others.	56 (43.8)	51 (39.8)	12 (9.4)	0 (0)	1 (7.0)
The configuration of the Microsoft Dynamics used are unique and difficult to replicate.	42 (32.8)	41 (32.0)	27 (21.1)	4 (3.1)	14 (10.9)
The customization of personalization features of Microsoft Dynamics is unique	54 (42.2)	51 (39.8)	15 (11.7)	0 (0)	8 (6.3)

and sets us apart from our competitors.					
Our competitive advantage is significantly enhanced by the unique aspect of Microsoft Dynamics.	48 (37.5)	54 (42.2)	19 (14.8)	0 (0)	7 (5.5)

Source: Authors' Computation, (2024)

In table 1, it indicates that 43.8% of the respondents strongly agree that Microsoft dynamics is highly innovative and distinct. 39.8% of the respondents agreed that Microsoft dynamics is highly innovative and distinct, 27% of the respondents were undecided and 3.1% of the respondents strongly disagreed that Microsoft dynamics is highly innovative and distinct compared to others.
Also, in same table, it indicates that 32.8% of the respondents strongly agreed that the configuration of the Microsoft Dynamics used are unique and difficult to replicate.32% of the respondents agreed to the statement, while 21.1% of the respondents were undecided. 10.9% of the respondents strongly disagreed and 3.1% of the respondents disagreed that the configuration of the Microsoft Dynamics used are unique and difficult to replicate.

Furthermore, the table indicates that 42.2% of the respondents strongly agreed to the statement that the customization of personalization features of Microsoft Dynamics is unique and sets us apart from our competitors. 39.8% of the respondents agreed. 11.7% were undecided. But 6.3% of the respondents strongly disagreed with the statement. Finally, table 1 indicates that 37.5% of the respondents strongly agreed to the statement our competitive advantage is significantly enhanced by the unique aspect of Microsoft Dynamics. 42.2% of the respondents agreed. 14.8% were undecided. But 5.5% of the respondents strongly disagreed with the statement.

Table 2: Inimitability

Items	**5(SA)**	**4(A)**	**3(N)**	**2(D)**	**1(SD)**
Microsoft Dynamics offerings are unique and difficult to replicate.	48 (37.5)	46 (35.9)	24 (18.8)	4 (3.1)	6 (4.7)
The alignment of the configuration with product and services is highly distinctive and not easily replicated by competitors	51 (39.8)	50 (39.1)	21 (16.4)	1 (0.8)	3 (3.9)
Microsoft Dynamics approaches to problem solving and information setting is distinct.	61 (47.7)	51 (39.8)	11 (8.6)	0 (0)	5 (3.9)
The competitive advantage we hold is tied to unique characteristics of Microsoft	55 (43)	41 (32)	23 (18)	3 (2.3)	6 (4.7)

Dynamics that are difficult to replicate by others.					

Source: Authors' Computation, (2024)

In table 2, it indicates that 37.5% of the respondents strongly agree that Microsoft Dynamics offerings are unique and difficult to replicate.35.9% of the respondents agreed. 18.8% of the respondents were undecided. 3.1% of the respondents disagreed and 4.7% of the respondents strongly disagreed with the statement. Also, in the same table, it indicates that 39.8% of the respondents strongly agreed that the alignment of the configuration with product and services is highly distinctive and not easily replicated by competitors. 39.1% of the respondents agreed to the statement while 16.4% of the respondents were undecided. 0.8% of the respondents disagreed and 3.9% of the respondents strongly disagreed with the statement. Furthermore, in the same table, it indicates that 47.7% of the respondents strongly agreed that Microsoft Dynamics approaches to problem solving and information setting is distinct. 39.8% of the respondents agreed to the statement while 8.6% of the respondents were undecided and 3.9% of the respondents strongly disagreed with the statement. Finally, table 2 indicates that 43% of the respondents strongly agreed that the competitive advantage we hold is tied to unique characteristics of Microsoft Dynamics that are difficult to replicate by others.32% of the respondents agreed. 18% were undecided. But 2.3% of the respondents disagreed and control and 4.7% of the respondents strongly disagreed with the statement.

Table 3: Sustained Advantage

Items	**5(SA)**	**4(A)**	**3(N)**	**2(D)**	**1(SD)**
My organization offers a unique value proposition that competitors cannot easily replicate through our Microsoft Dynamics.	63 (49.2)	45 (35.2)	14 (10.9)	0 (0)	6 (4.7)
My organization continuously innovates and adapts to maintain its competitive edge using Microsoft Dynamics.	70 (54.7)	43 (33.6)	10 (7.8)	0 (0)	5 (3.9)
We effectively utilize this resource (Microsoft Dynamics) to sustain our competitive advantage over time.	59 (46.1)	52 (40.6)	12 (9.4)	0 (0)	5 (3.9)
We enjoy high levels of customer loyalty that contribute to sustained advantage using Microsoft Dynamics.	62 (48.4)	37 (28.9)	21 (16.4)	3 (2.3)	5 (3.9)

Source: Authors' Computation, (2024)

In table 3, it indicates that 49.2% of the respondents strongly agree that my organization offers a unique value proposition that competitors cannot easily replicate through our Microsoft Dynamics.35.2% of the respondents agreed. 10.9% of the respondents were undecided while 4.7% of the respondents strongly disagreed with the statement. Also, in same table, it indicates that 54.7% of the respondents strongly agreed that my organization continuously innovates and adapts to maintain its competitive edge using Microsoft Dynamics. 33.6% of the respondents agreed to the statement, while 7.8% of the respondents were undecided. 3.9% of the respondents strongly disagreed with the statement. Furthermore, the table indicates that 46.1% of the respondents strongly agreed that we effectively utilize this resource (Microsoft Dynamics) to sustain our competitive advantage over time. 40.6% of the respondents agreed. 9.4% were undecided. But 3.9% of the respondents strongly disagreed with the statement. Finally, table 3 indicates that 48.4% of the respondents strongly agreed that we enjoy high levels of customer loyalty that contribute to sustained advantage using Microsoft Dynamics.28.9% of the respondents agreed. 16.4% were undecided. But 2.3% of the respondents disagreed while 3.9% of the respondents strongly disagreed with the statement.

Table 4: Employee Engagement (Dedication)

Items	**5(SA)**	**4(A)**	**3(N)**	**2(D)**	**1(SD)**
I am fully committed to fulfilling my job responsibilities.	112 (87.5)	7 (5.5)	1 (0.8)	0 (0)	8 (6.3)
I am willing to go above and beyond what is required to help the bank succeed.	100 (78.1)	18 (14.1)	1 (0.8)	0 (0)	9 (7.0)
I take great pride in the quality of my work.	110 (85.9)	10 (7.8)	0 (0)	0 (0)	8 (6.3)
My Colleagues can rely on me to do consistently deliver high quality work on time	102 (79.7)	25 (19.5)	0 (0)	0 (0)	1 (0.8)

Source: Authors' Computation, (2024)

In table 4, it indicates that 87.5% of the respondents strongly agree that I am fully committed to fulfilling my job responsibilities. 5.5% of the respondents agreed. 0.8% of the respondents were undecided while 6.3% of the respondents strongly disagreed with the statement. Also, in same table, it indicates that 78.1% of the respondents strongly agreed that I am willing to go above and beyond what is required to help the bank succeed.14.1% of the respondents agreed to the

statement, while 0.8% of the respondents were undecided. 6.3% of the respondents strongly disagreed with the statement. Furthermore, the table indicates that 85.9% of the respondents strongly agreed that I take great pride in the quality of my work. 7.8% of the respondents agreed and 6.3% strongly disagreed with the statement. Finally, the table indicates that 79.7% of the respondents strongly agreed that my Colleagues can rely on me to do consistently deliver high quality work on time. 19.5% of the respondents agreed and 0.8% strongly disagreed with the statement.

Table 5: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
UQ	128	1.00	5.00	4.0098	.94920
IM	128	1.00	5.00	4.2500	.89454
SA	128	1.00	5.00	4.1055	.91122
EE	128	2.00	5.00	4.6719	.73759
Valid N (listwise)	128				

Source: Authors' Computation, (2024)

The table revealed the result of the descriptive statistics which indicated the range, mean and standard deviation as well as variance. The mean value of uniqueness (UQ) is 4.00, inimitability (IM) is 4.25, the mean value of sustainable advantage (SA) is 4.10, and the mean value of employee engagement (EE) is 4.67. The table recorded standard deviation of the variables as listed also.

Test of Hypotheses

Table 6 Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.693[a]	.480	.467	.53827

a. Predictors: (Constant), SA, UQ, IM

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.167	3	11.056	38.158	.000[b]
	Residual	35.927	124	.290		
	Total	69.094	127			

a. Dependent Variable: EE

b. Predictors: (Constant), SA, UQ, IM

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.233	.236		9.466	.000
	UQ	.275	.081	.353	3.377	.001
	IM	.239	.135	.289	1.767	.080
	SA	.079	.130	.097	.606	.545
a. Dependent Variable: EE						

Source: Authors' Computation, (2024)
Decision rule: 5%

The regression result from the coefficient table shows that the model is fit for the study since the f-statistics is significant at 5% level of significance. The result shows that only uniqueness UQ = (2.2+.27) has a positive and significant effect on employee engagement in Access bank plc, Abuja, FCT, Nigeria as indicated by the t-statistics. Inimitability IM = (2.2+.23) and sustainable advantage SA = (2.2+.07) has a positive but insignificant effect on employee engagement of Access bank plc, Abuja, FCT, Nigeria. These effects are insignificant since the P-values are more than 5%. However, a combination of the three proxies used in the study shows that artificial intelligence has a significant effect on employee engagement as shown by the anova table at $p < .000$. Thus, the study accepts the alternative hypotheses and concluded that artificial intelligence has a positive and significant effect on employee engagement in Access bank plc, Abuja, FCT, Nigeria. Furthermore, in the model summary table R = .693 shows that there is a correlation between artificial intelligence and employee engagement while the R^2 = .480 indicates that only 48% of variation on artificial intelligence can be used to explain employee engagement in Access bank plc, Lagos, Nigeria. The remaining 52% can be explained by other factors not noted in the regression model which is referred to as error term.

Discussion of Findings

From the regression table, the results of the analysis indicated that there is a positive and significant effect of artificial intelligence on employee engagement of Access bank plc. This means that artificial intelligence (uniqueness) positively and significantly affects the dedication of employees in Access bank plc, Abuja, FCT, Nigeria. While inimitability and sustainable advantage has a positive but insignificant effect on employee dedication. From this finding, we say that the study

is in agreement with the findings of Opatha and Ismail, (2020) who explored the impact of artificial intelligence on employee engagement and organizational performance and found a positive effect between both variables. Also, Hughes, et al., (2019) who focused their research on the impact of artificial intelligence on employee engagement in the financial services sector, found both positive and negative effect on the variables used. The theoretical framework that supports this study is the resource-based view theory as put forth by Barney (1991). The theory was premised on the notion that organizations that can leverage rare, unique, valuable, and inimitable resources can achieve superior performance (Barney, 1991; revised by Jiang, Lepak, Hu, & Baer, 2022). The choice of the resource-based view theory is due to its design framework that focuses on the integration of all three proxies used in the study for the purpose of achieving goals, objectives and gaining sustainable competitive advantage for the business when employees are effectively engaged.

Conclusions and Recommendations

Based on the findings of this study, the study concludes that artificial intelligence based on uniqueness has a positive and significant effect on employee engagement in Access bank plc, Nigeria. Furthermore, employees of Access bank plc in Abuja should be sensitized about the use of artificial intelligence tools that can effectively aid in achieving their performance objectives. Based on this conclusion, the study therefore recommends that Access bank plc in Abuja should take proper measures to ensure that their artificial intelligence tools are not easily replicated so as to have an edge over competitors. Also, more focus should be placed on gaining sustainable advantage through the uniqueness of artificial intelligence tools such as the Microsoft dynamics which aids in problem solving. Potential employees of the bank should also be trained and properly sensitized on the use of artificial intelligence tools and its relevance in today's rapidly changing and constantly evolving business environment.

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