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Electronic Human Resource Management Adoption and its Impact on Employee Productivity: Evidence from Deposit Money Banks in Lagos, Nigeria

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Abstract

Employee productivity is crucial for the success of deposit money banks, as it directly impacts operational efficiency. In recent years, banks have implemented various strategies to enhance productivity, including investing in promoting employee engagement initiatives. Despite these efforts, many banks have experienced a decline in productivity, which can be attributed to factors such as inadequate electronic human resource management (e-HRM), and the challenges of adapting to rapid technological changes. This disconnect highlights the need for a more holistic approach that not only focuses on tools but also addresses the underlying issues affecting employee morale and effectiveness. This study, therefore, examined the effect of e-HRM on employee productivity of selected deposit money banks in Lagos State, Nigeria. The study utilized a survey research design, focusing on a population of 3,098 employees from five chosen deposit money banks. A sample size of 450 was calculated using the Research Advisor's sample size table. The samples were proportionally distributed among the five banks, and respondents were selected through a simple random sampling method. Data collection was conducted using a structured and validated questionnaire, with the Cronbach's alpha reliability coefficients of the constructs ranging from 0.71 to 0.90. The study achieved a response rate of 96.2%. Data analysis was performed using descriptive and inferential statistics, including multiple linear regression, at a 5% significance level. The findings revealed that electronic human resource management had significant effect on employee productivity in selected deposit money banks in Lagos State, Nigeria ($Adj.R^2$= 0.664, $F(5, 432) = 171.546$, $p<0.05$). The study concluded that electronic human resource management influenced employee productivity in selected deposit money banks in Lagos State, Nigeria. The study recommended that management deposit money banks should invest in robust E-HRM systems to optimize their human resource functions and enhance employee productivity.

Keywords: *E-learning, E-recruitment, E-Selection, Electronic human resource management, Employee productivity*.

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Background to the Study

Employee productivity is crucial for the success and competitiveness of organizations, especially in the banking sector, where efficiency can significantly impact profitability and customer satisfaction. Various initiatives have been implemented to enhance productivity, such as training programs, performance management systems, and technology integration. However, these efforts may not have produced the expected results, as evidenced in the decline in employee productivity, often linked to inadequate electronic human resource management (e-HRM) systems. While existing studies propose remedies for improving productivity, they largely focus on developed countries, leaving a gap in research pertaining to developing economies like Nigeria. Hence, this study investigated the effect of e-HRM on employee productivity in selected deposit money banks in Lagos State, Nigeria.

The global decline in employee productivity in the banking sector has become a pressing issue, with recent data indicating a continued slowdown despite technological advancements. According to the International Labour Organization (ILO, 2023), global labor productivity growth in the financial services sector, including banking, averaged just 0.9% annually between 2022 and 2023, a significant drop from the 1.5% growth rate observed between 2015 and 2020. In developed economies, this trend is particularly pronounced; for instance, a 2023 report by Deloitte highlighted that productivity in U.S. banks declined by 0.7% annually from 2022 to 2023, despite substantial investments in digital transformation initiatives. Similarly, the European Banking Federation (2023) reported stagnant productivity growth of 0.2% annually in the European banking sector during the same period, citing challenges such as inefficient adoption of digital tools and low employee engagement. In developing economies, the situation is exacerbated by inadequate infrastructure and poor implementation of Electronic Human Resource Management (e-HRM) systems, leading to even lower productivity levels (Adeyemi & Ademola, 2022). Addressing this global decline requires a comprehensive approach, including better integration of technology, targeted employee training, and context-specific strategies tailored to both developed and developing economies.

In Asia, the decline in employee productivity in the banking sector is particularly pronounced in countries experiencing conflict, such as Myanmar, where ongoing civil war and political instability have severely disrupted economic activities. Since the military coup in February 2021, Myanmar's banking sector has faced significant challenges, including frequent internet shutdowns, reduced access to digital banking tools, and a collapse in investor confidence. According to a 2023 report by the World Bank, Myanmar's financial sector productivity declined by 12% annually between 2022 and 2023, with employee productivity in banks dropping by nearly 15% during the same period due to operational disruptions and workforce displacement (CBN, 2023). The implementation of Electronic Human Resource Management (e-HRM) systems, which could potentially mitigate some of these challenges, has been hindered by poor infrastructure, lack of training, and limited access to technology (Kyaw et al., 2024). Additionally, the exodus of skilled professionals and the inability to maintain stable banking operations have further exacerbated the decline in productivity.

In Africa, South Africa's banking sector has also experienced a notable decline in employee productivity, driven by a combination of economic instability, technological gaps, and workforce challenges. According to a 2023 report by the South African Reserve Bank (SARB), employee productivity in the banking sector decreased by 8% annually between 2022 and 2023, attributed to factors such as load shedding (frequent power outages), which disrupts digital banking operations and limits the effectiveness of Electronic Human Resource Management (e-HRM) systems (SARB, 2023). A study by Moyo and Smith (2022) revealed that only 40% of South African banks have successfully integrated e-HRM tools, with many employees reporting inadequate training and support to leverage these systems effectively. Furthermore, high levels of employee turnover, driven by economic uncertainty and job dissatisfaction, have exacerbated productivity challenges (Naidoo & Patel, 2023). The situation is further compounded by the country's high unemployment rate and skills shortages, which limit the availability of qualified personnel in the banking sector. Addressing these issues requires targeted investments in reliable energy infrastructure, enhanced e-HRM implementation, and comprehensive employee development programs to improve productivity and operational efficiency in South Africa's banking sector (Khosa, 2024).

The decline in employee productivity in the banking sector is particularly evident in Nigeria, where economic challenges and inadequate infrastructure have significantly impacted the financial industry. Despite being one of the largest economies on the continent, Nigeria has faced persistent issues such as inflation, currency devaluation, and unreliable power supply, all of which have hindered banking operations. According to a 2023 report by the Central Bank of Nigeria (CBN), employee productivity in the banking sector declined by 10% annually between 2022 and 2023, primarily due to inefficiencies in Electronic Human Resource Management (e-HRM) systems and poor digital infrastructure (CBN, 2023). A study by Adeyemi and Ademola (2022) found that only 30% of Nigerian banks have fully functional e-HRM systems, with many employees lacking the necessary training to utilize these tools effectively. Additionally, frequent strikes and employee dissatisfaction, often linked to poor working conditions and low wages, have further contributed to the productivity decline (Phina et al., 2022).

Studies indicate that despite technological advancements, productivity levels have not improved as expected. For instance, a report by the Central Bank of Nigeria (CBN) revealed a 15% decline in employee productivity in the Nigerian banking sector between 2018 and 2022, attributed to inefficiencies in Electronic Human Resource Management (e-HRM) systems (CBN, 2022). Similarly, a study by Oyoru et al. (2023) found that poor implementation of e-HRM tools, such as inadequate training and system failures, contributed to a 20% reduction in operational efficiency among Nigerian banks. These challenges are exacerbated by the lack of tailored solutions for developing economies, as most e-HRM frameworks are designed for developed countries (Labetubun & Dewi, 2022).

Several studies have examined electronic human resource management and employee productivity across different industries with varied outcomes (Anjum & Islam, 2020; Athithya et al., 2020; Škudienė et al., 2020; Sohail et al., 2020). However, these studies have specified

the effect of electronic human resource management on employee productivity as it concerns the banking industry in Nigeria. Moreso, these studies suggested that there exists a gap in knowledge that should be filled by future studies. The deficiency in electronic human resource management (e-HRM) implementation within deposit money banks in Nigeria has significantly contributed to a notable decline in employee productivity (Wege et al., 2019). This decline is evident in reduced task efficiency, prolonged response times to customer inquiries, and overall decreased output, leading to operational inefficiencies and a competitive disadvantage in the banking sector. The lack of robust e-HRM tools has hindered effective talent management, employee engagement, and skill development, resulting in a workforce ill-equipped to adapt to evolving industry demands such as technological advancements and regulatory changes (Balakrishnan & Duraipandian, 2020). Furthermore, the consequences of poor employee productivity among deposit money banks in Nigeria are significant and far-reaching. It has led to decreased profitability as lower productivity means fewer transactions processed, fewer accounts managed, and reduced revenue generation (Waheed et al., 2020). This often impair the bank's financial health and its ability to invest in growth initiatives. Inefficiencies often result in longer wait times, errors, and frustration for clients, eroding trust, and the bank's reputation (Imran et al., 2021).

Objective of the Study

The study evaluated the effect of electronic human resource management (e-recruitment, e-selection, e-learning, e-compensation and e-performance management) on employe productivity of selected deposit money banks in Lagos State, Nigeria.

Literature Review

The conceptual, empirical and theoretical reviews were done in this section as well as the study model

Electronic Human Resource Management

Electronic Human Resource Management (e-HRM) is defined as a technology-based HR system that streamlines and automates the process of managing employee data and activities (Alshurideh et al., 2022). E-HRM platforms are used to manage tasks such as recruiting, onboarding, payroll, performance reviews, and employee benefits. Electronic Human Resource Management (e-HRM) is an automated system designed to manage and streamline human resource activities. It is used to track employee data, monitor attendance, handle payroll and benefits, and manage performance reviews (Ahmed, 2020). Electronic Human Resource Management (e-HRM) plays a pivotal role in deposit money banks by streamlining HR processes, enhancing efficiency, and supporting strategic decision-making. According to Shamout et al. (2022), e-HRM systems enable banks to automate routine tasks such as payroll processing, recruitment, and performance evaluations, reducing administrative burdens and minimizing errors. Alshurideh (2022) emphasizes that e-HRM fosters better data management and analytics, allowing banks to make informed decisions regarding workforce planning and talent management. Additionally, Rahman and Hosain (2021) highlight that e-HRM improves employee engagement and satisfaction by providing self-service portals and facilitating transparent communication. Muqaddim and Hosain (2021) further note that e-

HRM enhances organizational agility, enabling banks to adapt quickly to changing market demands and regulatory requirements. Collectively, these benefits underscore the importance of e-HRM in optimizing HR functions and driving overall performance in deposit money banks.

E-Recruitment

E-recruitment can be defined as the use of digital platforms and technologies to attract, screen, and hire candidates, streamlining the recruitment process and expanding the reach to a broader talent pool (Kucherov & Tsybova, 2021). Similarlyly, Cavaliere et al. (2021) describe it as an online approach to talent acquisition that leverages tools such as job boards, social media, and applicant tracking systems to enhance efficiency and effectiveness in hiring. In deposit money banks, e-recruitment offers significant advantages, including cost savings, faster hiring cycles, and access to a wider range of qualified candidates (Ţîru & Mohorâta, 2020; D'Silva, 2020). For instance, Abia and Brown (2020) highlight that e-recruitment enables banks to reduce administrative costs associated with traditional recruitment methods while improving the accuracy of candidate matching through data-driven algorithms. These benefits not only enhance the quality of hires but also strengthen the bank's ability to remain competitive in a dynamic financial sector.

E-Selection

E-selection can be defined as the use of digital tools and platforms to conduct recruitment and selection processes, enabling organizations to identify and hire the most suitable candidates efficiently (Razaaq & Abdul-Razzaq, 2022). Alternatively, Esimit and Kibet (2021) describe e-selection as an automated, technology-driven approach to evaluating applicants' skills, competencies, and cultural fit through online assessments, video interviews, and data analytics. In deposit money banks, e-selection offers numerous advantages, as highlighted by Cavaliere et al. (2021). For instance, e-selection reduces the time and cost associated with traditional recruitment methods, allowing banks to streamline hiring processes and allocate resources more effectively. It also enhances the accuracy of candidate evaluations by leveraging data-driven insights and standardized assessment tools, ensuring a fair and objective selection process (Freire et al., 2021). Furthermore, e-selections enable banks to access a broader talent pool, including remote candidates, thereby increasing the likelihood of finding highly skilled professionals. By improving efficiency, transparency, and reach of recruitment, e-selection contributes to building a competent workforce, which is critical for maintaining competitiveness and delivering high-quality services in the banking sector (Khashman, 2022).

E-Learning

E-learning can be defined as a technology-driven educational approach that facilitates learning through digital platforms, enabling access to resources and instruction anytime and anywhere (Pratiwi & Waskito, 2023). In the same vein, Agahi and Gulthawatvichai (2021) describe e-learning as a flexible and interactive method of delivering knowledge and skills, often leveraging multimedia tools to enhance engagement and understanding. In deposit money banks, e-learning offers numerous advantages, such as improving employee

competency, reducing training costs, and ensuring consistent knowledge dissemination across branches (Aityassine, 2022). De Alwis et al. (2022) highlight that e-learning allows banks to provide tailored training programs, enabling employees to acquire job-specific skills and stay updated with industry trends and regulatory changes. Additionally, Ziaul (2021) emphasizes that e-learning fosters a culture of continuous learning, which enhances employee productivity and adaptability in a rapidly evolving financial sector. By leveraging e-learning, deposit money banks can not only optimize their training processes but also build a more skilled and agile workforce capable of meeting organizational goals and customer expectations effectively.

E-Compensation

Pratiwi and Waskito (2023) defined e-compensation as the digital management and administration of employee remuneration, including salaries, bonuses, and benefits, through automated systems and platforms. Correspondingly, Qin et al. (2022) describe it as the use of technology to streamline and enhance the accuracy, transparency, and efficiency of compensation processes within organizations. In deposit money banks, e-compensation offers numerous advantages, such as reducing administrative costs, minimizing errors, and ensuring timely payments to employees (Yan et al., 2022). Balakrishnan and Duraipandian (2020) highlight that e-compensation systems improve transparency and fairness in salary distribution, which can boost employee morale and trust in the organization. Additionally, Haziazi et al. (2021) emphasize that e-compensation enables banks to integrate compensation data with performance metrics, facilitating more strategic decision-making and alignment with organizational goals. By automating compensation processes, banks can also enhance compliance with regulatory requirements and reduce the risk of discrepancies (Fraij, 2021). Overall, e-compensation systems contribute to operational efficiency, employee satisfaction, and organizational effectiveness in deposit money banks.

E-Performance Management

E-performance management can be defined as the use of digital tools and platforms to monitor, evaluate, and enhance employee performance in alignment with organizational goals (Simão et al., 2021). Ricciardone (2022) further elaborates that it involves the integration of technology to facilitate real-time feedback, data-driven decision-making, and continuous performance improvement. In deposit money banks, e-performance management offers numerous advantages, as highlighted by (Widodo et al., 2020). For instance, it enables banks to streamline performance appraisal processes, reduce biases, and ensure transparency in evaluations. Additionally, e-performance management systems provide real-time insights into employee productivity, allowing managers to identify skill gaps and implement targeted training programs. This not only enhances employee development but also improves overall operational efficiency and customer service quality (Pratiwi & Waskito, 2023). Furthermore, the automation of performance tracking reduces administrative workload, enabling HR departments to focus on strategic initiatives. By fostering a culture of continuous feedback and improvement, e-performance management contributes to higher employee engagement, retention, and organizational success in the competitive banking sector (Okoh et al., 2023).

Employee Productivity

Employee productivity can be defined as the measure of an employee's efficiency in achieving organizational goals within a specified timeframe, often evaluated through output relative to input (Esthi, 2020). Alternatively, Wijayadne (2021) describes it as the ability of employees to utilize resources effectively to maximize performance and contribute to the overall success of the organization. In the context of deposit money banks, employee productivity offers significant advantages, such as enhancing operational efficiency, improving customer satisfaction, and driving profitability (Gosnell et al., 2020; Rahmi & Wibowo, 2019). For instance, productive employees can process transactions faster, reduce errors, and provide better customer service, which ultimately strengthens the bank's reputation and competitive edge (Wijayadne, 2021). These benefits underscore the importance of fostering a productive workforce in the banking sector.

Underpinning Theory

The theoretical review was done in this section, exploring the foundational assumptions of the theory and its application to the study.

Technology Acceptance Model (TAM)

The underpinning theory for this study is the Technology Acceptance Model (TAM). The Technology Acceptance Model (TAM) was originally proposed by Fred Davis in 1986 as a psychological framework to explain and predict user acceptance of technology. TAM is grounded in two core constructs: perceived usefulness (PU) and perceived ease of use (PEOU). Perceived usefulness refers to the degree to which a user believes that a technology will enhance their job performance, while perceived ease of use refers to the extent to which a user believes that using the technology will be free from effort (Menant et al., 2021). TAM operates on the assumption that these two factors shape users' attitudes toward technology, which in turn influence their behavioral intentions and actual usage. Additionally, TAM acknowledges the role of external variables, such as social influence and organizational support, in shaping users' perceptions of usefulness and ease of use (Venkatesh & Davis, 2000). Over the years, TAM has been widely applied across various domains, including e-HRM, to understand how users interact with and adopt new technologies (Granić & Marangunić, 2019).

In the context of electronic human resource management (e-HRM) and employee productivity in deposit money banks, TAM provides a robust theoretical foundation for understanding how employees adopt and utilize e-HRM systems. By focusing on perceived usefulness and ease of use, TAM helps organizations identify factors that influence employees' willingness to adopt e-HRM tools, such as automated payroll systems, performance management platforms, and digital training modules. For instance, if employees perceive e-HRM systems as useful in simplifying their tasks and enhancing their productivity, they are more likely to adopt and engage with the technology (Al-Emran et al., 2018). Furthermore, TAM's emphasis on external factors, such as social influence and organizational support, highlights the importance of creating a supportive environment where colleagues and supervisors encourage the use of e-HRM systems. This is particularly

relevant in the banking sector, where efficiency and adaptability are critical for maintaining a competitive edge. By leveraging TAM, deposit money banks can design strategies to optimize e-HRM adoption, address potential barriers, and ultimately enhance employee productivity and job satisfaction (Rahimi et al., 2018).

Empirical Review

Empirical evidence from multiple studies consistently demonstrates that Electronic Human Resource Management (e-HRM) has a positive and significant effect on employee productivity across various sectors and regions. Muchsinati and Ardiansyah (2023) highlight the importance of e-HRM implementation in enhancing employee productivity within companies, emphasizing its role in streamlining HR processes and improving efficiency. Similarly, Muchsam et al. (2024) found that relational e-HRM practices positively influence employee productivity through improved employment performance, particularly in the healthcare sector in Bandung. Ishrata et al. (2020) further support this by showing that e-HRM practices significantly boost productivity in hospitals in Karachi, attributing this to better resource management and employee engagement. Farhan et al. (2021) add that innovation acts as a mediating factor, enhancing the impact of e-HRM on productivity. Additionally, Iqbal et al. (2018) and Iqbal et al. (2019) provide evidence from the banking sector in Pakistan, revealing that e-HRM not only improves employee productivity but also fosters impersonal trust, which further enhances employee performance. Collectively, these studies underscore the transformative potential of e-HRM in driving productivity by optimizing HR functions, fostering innovation, and building trust within organizations. Rumangkit and Dwiyan (2018) found that E-recruitment positively affected the effectiveness of employee recruitment, making job seekers more interested in using the technology. Malik and Mujtaba (2018) confirmed that e-recruitment had a significant impact on the effectiveness of HR departments in the private sector of Pakistan. Evitha and Hernawan (2022) examined the effect of recruitment, selection, and work environment on employees' work performance in PT Heksa Artha Sakti, Bangkalan Branch. The study found that recruitment, selection, and work environment had significant influences on employees' work performance. Karunarathna and Nanayakkara (2021) discovered that E-HRM positively impacted employee job performance in multinational companies in Colombo District, Sri Lanka. Their study highlighted that E-HRM systems enhanced HR process efficiency and directly boosted employee productivity. The quicker access to HR services, such as leave applications and payroll management, contributed to greater job satisfaction and improved performance.

Conceptual Model

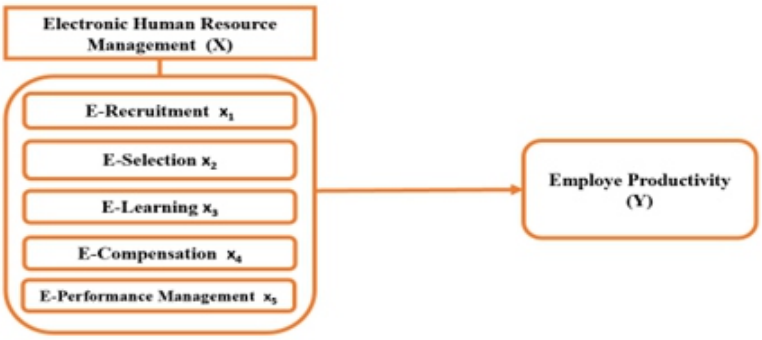

Figure: Conceptual Model for Electronic Human Resource Management and Employee Productivity
Source: Researcher's Conceptualization (2025)

Methodology

The study utilized a survey research design, enabling efficient and systematic data collection from a large participant pool. This approach aligns with the findings of previous studies (Nyathi & Kekwaletswe, 2024; Odunayo & Fagbemide, 2024). The sample's units of analysis were employees from specific deposit money banks. The choice of a survey research design is justified by the heterogeneous nature of the population, which includes individuals with diverse ages, behaviors, and opinions. This design is particularly suitable for capturing a scientifically valid snapshot of respondents at a single moment in time.

The study's population comprised 1,098 employees from five selected deposit money banks in Lagos State, Nigeria. These banks First Bank of Nigeria Plc, United Bank of Africa, Guaranty Trust Bank, Access Bank, and Zenith Bank Plc are collectively known as the FUGAZ banks and are recognized as Tier 1 players in Nigeria's banking industry. A sampling table provided by the research advisor was employed to determine the sample size, which was calculated to be 346, based on a 95 percent confidence level and a 5 percent margin of error. Therefore, 30% of 322 was calculated as 104. Adding this to 346 resulted in an approximate total of 450. A validated questionnaire was utilized for data collection, with Cronbach's alpha reliability coefficients for the constructs ranging from 0.71 to 0.82.

Functional Model

In this study, there were two constructs: independent and dependent variable. The independent variable is Electronic Human Resource Management (E-HRM) which was measured with sub variables such as (e-recruitment, e-selection, e-learning, e-compensation and e-performance management) while the dependent variable is employee productivity which was measured as a whole.

The model for the variables is denoted in the equations below:

Model Specification

Y = Employee Productivity (EP)

X = Electronic Human Resource Management (E-HRM)

Y = f(X)

Variable Identification

$Y = (y_1, y_2, y_3 y_4 y_5)$

y_1 = Employee Agility (EA)

y_2 = Employee Resilience (ER)

y_3 = Employee Flexibility (EF)

y_4 = Employee Effectiveness (EE)

y_5 = Employee Productivity (EP)

Regression Model

The models formulated for each of the hypotheses are written as:

Hypothesis One

$y_1 = f(x_1, x_2, x_3 x_4 x_4 x_5)$

$EP = \beta_0 + \beta_1 ER + \beta_2 ES + \beta_3 EL + \beta_4 EC + \beta_5 EPM + \varepsilon_i$----------i

Results and Discussion

The data were processed using the Statistical Package for Social Sciences (SPSS) software, version 27.0, with a significance level of 5% maintained across all analyses. This methodology ensures the findings align with the research objectives. A total of 450 questionnaires were distributed to employees of selected deposit money banks (DMBs) in Lagos State, Nigeria. Of these, 433 questionnaires were returned and deemed suitable for analysis, representing approximately 96.2% of the total distributed. The remaining 17 questionnaires, accounting for 3.8%, were excluded due to issues such as incomplete responses, double-marked options, or lack of responses, rendering them invalid for analysis. Both descriptive and inferential statistical techniques were employed to analyze the data.

Restatement of Research Hypothesis

In the hypothesis, E-HRM (e-recruitment, e-selection, e-learning, e-compensation and e-performance management) are independent variables, while the employee productivity was dependent variable. Data for E-HRM was generated by adding together scores of responses from all the items under each practice to generate independent scores for each practice. Data for employee productivity was generated by adding together the responses of all items under the variable to create an index of employee agility. The results of the analysis and parameter estimates obtained are presented in the table below:

$H_0$1: Electronic human resource management has no significant effect on employee productivity.

Table 1: Summary of Multiple Regression Analysis for Hypothesis

N	Model	*B*	T	Sig.	ANOVA (Sig.)	R	Adjusted R^2	F (5, 432)
433	(Constant)	.542	12.328	.000	0.001[b]	0.817[a]	0.664	171.546
	E-Recruitment	.001	1.800	.073				
	E-Compensation	.001	1.868	.062				
	E-Selection	-.032	-.833	.405				
	E-learning	.233	7.618	.000				
	E-Performance	.372	8.370	.000				
	a. Dependent Variable: Employee Productivity							
	b. Predictors: (Constant), E -Performance, E -Recruitment, E-learning, E-Compensation, E-Selection							

Source: Researcher's Field Survey, (2025)

Interpretation

The above table presents the results of a multiple regression analysis assessing the effect of E-HRM dimensions on employee productivity in the selected DMBs in Lagos State, Nigeria. The results indicate that E-learning (β = .233, t = 7.618, $p < 0.05$) and E-performance (β = .372, t = 8.370, $p < 0.05$) have a significant positive effect on employee productivity. However, E-recruitment (β = .001, t = 1.800, $p > 0.05$), E-compensation (β = .001, t = 1.868, $p > 0.05$), and E-selection (β = -0.032, t = -0.833, $p > 0.05$) have insignificant effects on employee productivity.

The correlation coefficient (*R*) of 0.817 suggests a strong positive relationship between E-HRM and employee productivity. The Adjusted R-squared (*Adj.* R^2) value of 0.664 indicates that 66.4% of the variance in employee productivity can be explained by the E-HRM dimensions (E-learning and E-performance). The remaining 33.6% of the variance is attributed to other factors not included in the model.

The *F*-statistic value of 171.546 with a significant ANOVA value ($p < 0.05$) confirms that the overall model is statistically significant, meaning that E-HRM has a significant impact on employee productivity. These findings suggest that E-learning and E-performance are key drivers of employee productivity, while E-recruitment, E-compensation, and E-selection do not significantly contribute to productivity in the selected DMBs. This implies that organizations aiming to enhance employee productivity should focus more on training and performance management systems while refining their recruitment, compensation, and selection strategies to better align with productivity goals.

$EP = 0.542 + 0.001ER + 0.001LES + -0.032ES + 0.233EL + 0.372EPM + U_i$--------Eqn i (Predictive Model)

$EP = 0.542 + 0.233EL + 0.372EPM + U_i$----Eqn i (Prescriptive Model)

Where:
ER = Employee Productivity
ER = E-Recruitment
ES = E-Selection
EL = E-Learning
EC = E-Compensation
EPM = E-Performance Management

The regression model indicates that if E-Human Resource Management (E-HRM) were held constant at zero, employee productivity among the selected Deposit Money Banks (DMBs) in Lagos State, Nigeria, would be 0.542. This suggests that, even in the absence of E-HRM, employee productivity remains positive at 0.542. From the predictive model, two dimensions of E-HRM, e-learning and e-performance have a significant positive effect on employee productivity, while e-recruitment, e-compensation, and e-selection do not have a significant impact.

The coefficients suggest that improvements in e-learning and e-performance would increase employee productivity by 0.233 and 0.372, respectively. Among these, e-performance has the highest impact on productivity, followed by e-learning. On the other hand, e-recruitment, e-compensation, and e-selection are statistically insignificant in predicting employee productivity, with p-values of 0.073, 0.062, and 0.405, respectively. This implies that these dimensions do not have a strong direct influence on productivity in the selected DMBs.

The *F*-statistic (df = 5, 432) = 171.546 at $p < 0.05$ confirms that the overall model is statistically significant in predicting the effect of E-HRM on employee productivity. Since the p-value is less than 0.05, it indicates that the effect of E-HRM on employee productivity is significant. Furthermore, the R-value (0.817) and the Adjusted R^2 (0.664) suggest that 66.4% of the variation in employee productivity can be explained by the E-HRM dimensions included in the model. Given the significance of the model, the null hypothesis (H_0), which states that E-HRM has no significant effect on employee productivity, is rejected. These results imply that DMBs in Lagos State should prioritize e-learning and e-performance strategies to enhance employee productivity, as these dimensions have the most significant positive effects. However, e-recruitment, e-compensation, and e-selection do not significantly influence productivity, suggesting that they may not be primary drivers of employee performance in this context.

Discussion of Findings
The aggregated results of multiple regression analysis for the hypothesis showed that E-HRM (e-recruitment, e-selection, e-learning, e-compensation and e-performance management) has significant effect on employee productivity in the selected DMBs in Lagos State, Nigeria ($Adj.R^2 = 0.542$; ER = 0.001, EC = 0.001, ES = -0.032, EL = 0.233, EPM = 0.372, $p < 0.05$). These findings indicated E-HRM components are significant predictors of employee productivity in the selected DMBs in Lagos State, Nigeria.

The result of this study supports the findings of various empirical studies on E-HRM and employee productivity such as (Aravamudhan & Charumathi, 2019; Awan et al., 2020; Curry et al., 2018; Kuo & Tsai, 2019; Oh & Han, 2020). The findings of this study align with existing literature that underscores the significance of E-HRM components in enhancing employee productivity. Aravamudhan and Charumathi (2019) found that e-recruitment positively influences the supply of human resources, highlighting how digital recruitment strategies improve talent acquisition and workforce planning. Similarly, Meah and Sarwar (2021) emphasized that factors such as data quality and simplicity of navigation in social networking sites impact e-recruitment adoption, reinforcing the idea that a well-structured digital recruitment framework enhances HR efficiency. These insights support the current study's findings that e-recruitment is a critical factor in employee productivity. Additionally, the positive impact of e-selection and e-learning on workforce development echoes the conclusions of Awan et al. (2020), who found that effective performance management systems significantly influence employee engagement and task performance. As organizations transition to digital HR solutions, the role of e-recruitment and e-learning becomes increasingly vital in shaping a more agile and efficient workforce.

In consistent with the study findings was Zafar (2021) who found that E-HRM has a significant effect on employee effectiveness, which subsequently enhances organizational outcomes, especially in the private sector. The research highlights the growing role of electronic HR systems in optimizing employee management processes and increasing the overall efficiency of HR departments. Through various digital HR tools, organizations are able to streamline workflows, which contributes positively to the company's performance. Similarly, the results of Jayabalan and Kumar (2021) revealed that E-HRM has a significant positive effect on human resource management practices, particularly in the automotive manufacturing industry. The study demonstrated how digitalization has reshaped traditional HR practices, leading to improved employee productivity. Srivastava and Kumar (2021) also found that E-HRM has a significant effect on organizational performance by enhancing HR functions through digital transformation. Their research indicated that E-HRM systems streamline key HR activities such as recruitment, training, and employee performance management, making them more efficient and less time-consuming. The use of E-HRM tools not only reduces operational costs but also improves employee satisfaction due to better transparency and communication within the organization. Their findings align with the idea that technology in HR can be a key driver of organizational success.

The findings of this aligns with results from Hamdoon et al. (2021) who found that securing the Electronic Human Resource Management (E-HRM) system using compatible information security measures has a significant effect on HR operations. Their research emphasized the importance of integrating robust security protocols to protect sensitive employee data in E-HRM systems, especially in an era of increasing cyber threats. Similarly, the results of Thathsara and Sutha (2021) revealed that E-HRM has a significant effect on employee performance, with organizational agility playing a mediating role. The research found that E-HRM practices enhance employee effectiveness and efficiency and streamline processes, contributing to improved performance. However, they noted that the effectiveness

of E-HRM practices is amplified when organizations exhibit high levels of agility. This study supports the idea that while E-HRM can improve HR functions, organizational responsiveness and flexibility are crucial to fully realizing its benefits. Mitrofanova and Mitrofanova (2021) also found that E-HRM has a significant positive effect on HR management in the digital economy. Their study highlighted that E-HRM systems are essential tools in modern HR practices, particularly in streamlining administrative tasks, improving data management, and facilitating strategic decision-making. By adopting E-HRM, organizations are able to reduce operational costs, improve transparency, and enhance overall employee management. This supports the idea that E-HRM is a critical component of HR modernization in today's digital economy. On the other hand, Haziazi et al. (2021) found that while E-HRM positively influences employee satisfaction, its success largely depends on the framework of implementation. The study, conducted in the Sultanate of Oman, revealed that organizations that implemented E-HRM with a clear strategy and adequate employee training saw a significant increase in employee satisfaction and operational efficiency. However, they also noted that organizations that rushed the implementation process without proper planning faced difficulties, resulting in reduced employee satisfaction and lower-than-expected performance improvements.

The findings of this study align with the Technology Acceptance Model (TAM), which suggests that perceived usefulness and perceived ease of use influence an individual's intention to adopt technology (Granić & Marangunić, 2019). As demonstrated in this study, successful implementation of E-HRM depends on employees' acceptance and readiness to use digital HR systems effectively. Al-Emran et al. (2018) emphasize that organizational support and training enhance technology acceptance, aligning with findings that well-structured E-HRM strategies improve employee productivity. Nasar and Ray (2024) further highlight that technological interventions in HR improve decision-making and employee engagement, reinforcing the positive impact of E-HRM on performance. Rahimi et al. (2018) also note that resistance to technology can hinder adoption, consistent with challenges identified in this study, such as infrastructure limitations and employee reluctance to change.

Conclusion and Recommendations

The study concluded that Electronic Human Resource Management (E-HRM) practices within Deposit Money Banks (DMBs) in Lagos State, Nigeria, has yielded compelling insights into their impact on employee productivity. By integrating technological solutions into HR management, such as digital platforms for recruitment, training, performance evaluation, and employee communication, these banks have seen significant improvements in productivity and employee engagement. This integration allows for streamlined processes, quicker access to information, and more effective communication channels, ultimately contributing to a more efficient and motivated workforce. The findings underscore the transformative potential of E-HRM in enhancing organizational effectiveness and competitiveness in the banking sector, highlighting the pivotal role of technology in modern HR practices. As organizations increasingly rely on technology to manage human resources, it is evident that E-HRM not only contributes to higher productivity levels but also fosters a more engaged and skilled workforce.

Based on these findings, it is recommended that DMBs in Lagos State further invest in robust E-HRM systems to optimize their human resource functions and enhance employee productivity. Training programs should be established to ensure that employees are proficient in using these digital tools, thereby maximizing their potential benefits. Additionally, management should continuously evaluate and update their E-HRM strategies to align with emerging trends and technologies, ensuring that they remain competitive in the banking sector. By prioritizing E-HRM initiatives, organizations can enhance employee satisfaction and performance, ultimately driving overall business success.

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