IMPACT OF TECHNOLOGICAL INNOVATION ON PERSONNEL MANAGEMENT PRACTICES IN THE NIGERIAN BANKING SECTOR

BY

***Dr. Gift Ugwe Roman**

Department of Business Management Poise University, Rwanda

ABSTRACT

The study examines the Impact of technological innovations on Personnel management (PM) practices in the Nigerian banking sector, with a case study of Access Bank, Minna Branch. Technological advancements, including artificial intelligence, data analytics, and digital HR platforms, have transformed HR functions such as recruitment, performance management, training, and employee engagement. The study aimed to assess the types of technological innovations implemented, analyze their impact on PM practices, identify barriers faced by employees, and evaluate the Impactiveness of training and support systems. The research adopted a descriptive survey design, targeting staff of Access Bank, Minna Branch. A total of 100 employees were selected using purposive sampling. Data were collected through a structured questionnaire divided into sections on demographic information and HR-related questions. Responses were analyzed using frequency tables, percentages, and Chi-Square (χ²) statistics to test the research hypotheses. Findings revealed that technological innovations have significantly improved HR processes, including recruitment efficiency, performance evaluation, and employee training. Digital tools enhanced communication, collaboration, and engagement, contributing to higher employee satisfaction and productivity. However, challenges such as data privacy, cybersecurity, and resistance to change were also identified. The study concludes that while technological innovations positively impact PM practices, banks must provide continuous training, strengthen cybersecurity, and foster a culture of adaptability to maximize benefits. The findings offer valuable insights for HR practitioners and banking institutions aiming to leverage technology for strategic workforce management.

Keywords: Technological innovations, Impactiveness, Banking Institutions.

INTRODUCTION

Technological innovation has significantly transformed Personnel management (PM) practices across various sectors, including the banking industry in Nigeria. The advent of digital technologies such as artificial intelligence (AI), machine learning, and big data analytics has revolutionized traditional PM functions, making them more efficient and Impactive. According to Oke and Aluko (2019), the integration of technology in PM processes has led to improved recruitment, selection, and on boarding practices in Nigerian banks. These technologies enable HR professionals to streamline the hiring process, reduce biases, and enhance the overall candidate experience.

One of the key areas where technological innovation has had a profound impact is in talent management. E-recruitment platforms and applicant tracking systems (ATS) have become essential tools for HR departments in Nigerian banks. As noted by Akinbode and Shadare (2018), these platforms allow HR managers to reach a wider pool of candidates, conduct more thorough background checks, and make data-driven hiring decisions. Additionally, the use of AI-powered chat bots for initial candidate screening has reduced the time and resources spent on manual processes, thereby increasing efficiency.

Performance management is another critical aspect of PM that has been enhanced by technological advancements. The implementation of performance management software and employee self-service portals has enabled Nigerian banks to monitor and evaluate employee performance more Impactively. According to Adeoye and Elegunde (2014), these tools provide real-time feedback, facilitate continuous performance tracking, and support the development of personalized training programs. This shift towards a more dynamic and data-driven approach to performance management has contributed to higher employee engagement and productivity.

Training and development have also benefited from technological innovation. E-learning platforms and virtual training programs have become increasingly popular in the Nigerian banking sector. As highlighted by Oladapo and Onyeaso (2013), these platforms offer flexible and cost-Impactive training solutions that cater to the diverse needs of employees. The use of virtual reality (VR) and augmented reality (AR) in training simulations has further enhanced the learning experience, making it more interactive and immersive. This has not only improved the skill sets of employees but also fostered a culture of continuous learning and development.

Employee engagement and communication have been significantly improved through the use of digital tools and platforms. Internal social networks, collaboration tools, and mobile applications have facilitated better communication and collaboration among employees in Nigerian banks. According to Eze (2015), these tools have bridged the gap between different departments and hierarchical levels, promoting a more inclusive and cohesive work environment. Furthermore, the use of employee engagement software has enabled HR managers to gather valuable insights into employee satisfaction and well-being, allowing for more targeted and Impactive interventions.

Despite the numerous benefits, the adoption of technological innovation in PM practices also presents certain challenges. Issues such as data privacy, cybersecurity, and the digital divide need to be addressed to ensure the successful implementation of these technologies. As noted by Okafor and Ezeani (2012), Nigerian banks must invest in robust cybersecurity measures and provide adequate training to employees to mitigate these risks. Additionally, there is a need for continuous research and development to keep pace with the rapidly evolving technological landscape and to harness its full potential in PM practices.

AIM AND OBJECTIVES OF THE STUDY

The aim of the study is to examine Impact of technological innovation on Personnel management practices in the Nigerian banking sector. The specific objectives are:

1. To assess the current technological innovations being implemented in the Nigerian banking sector.

2. To analyze the impact of technological innovations on Personnel management practices within Nigerian banks.

3. To identify any barriers faced by employees in adapting to new technologies in the banking sector.

4. To evaluate the Impactiveness of training programs and support systems in place to help employees navigate technological changes.

RESEARCH METHODOLOGY

Research Design

Research design is the specification of methods and procedures for acquiring the information needed to solve problems. This study employed the descriptive survey design. The nature of the problem was duly considered in the study.

Population of the Study

For the purpose of this study, the target population consists of staff of Access Bank Minna Branch.

Samples and Sampling Techniques

The sample of the study refers to that part of the population that was selected for closer study. To select the needed samples for this study, the researcher used a total number of one hundred (100) staff of Access Bank Minna Branch.

Instrument for Data Collection

The data collection instrument to be used is questionnaire designed by the researcher. The design is well constructed and simple. The questionnaire was divided into two sections (A and B). Section A was for collection of information on personal data of respondents while Section B consisted of questions drawn from the research questions that elicited responses from the respondents with response options: Strongly Agreed (SA), Agreed (A), Strongly Disagreed (SD) and Disagreed (D).

Validity of the Instrument

To ensure the face validity of the study, the research instrument was scrutinized and judged by the supervisor for appropriateness of each item of the instrument. The comment of the supervisor was used to obtain final items which were further subjected to content validity to ensure that the content of the instruments representative of the area which the instruments are intended to cover.

Method of Data Analysis

The response to the questionnaire items was analyzed using frequency tables and simple percentage method.

The research hypotheses stated earlier was tested using Chi-Square Statistics.

RESULTS
Table 1:Distribution of Questionnaire

	Frequency	Percent
Returned	87	87.0
Unreturned	13	13.0
Total	**100**	**100.0**

Source: Field Survey, 2024

Table 4.1 showed that 87%(87) respondents returned their questionnaire while 13% (13) respondents did not returned their questionnaire. This implies that a large proportion of the questionnaire were filled and returned.

Table 2:Distribution According to Gender

	Frequency	Percent
Male	51	58.6
Female	36	41.4
Total	**87**	**87.0**

Source: Field Survey, 2024

As indicated in Table 2, 58.6%(51) respondents were male while 41.4%(36) were female. This shows that male respondents participated more in the research than their female counterpart.

Table 3:Distribution according to Age

	Frequency	Percent
21 – 30 years	30	34.5
31 – 40 years	24	27.6
41 – 50 years	18	20.7
51 – 60 years	9	10.3
Above 60 years	6	6.9
Total	**87**	**100.0**

Source: Field Survey, 2024

In the age grade category in Table 3, it shows that the respondents 34.5%(30) respondents are between 21 – 30 years, 27.6%(24) are between 31 – 40 years age range, 20.7%(18) are from 41 – 50 years, 10.3%(9) respondents are in between 51 – 60 years, while 6.9%(6) are in the age bracket of above 51 – 60 years.

Table 4:Distribution According to Marital Status

	Frequency	Percent
Single	49	56.3
Married	38	43.7
Total	**87**	**87.0**

Source: Field Survey, 2024

The Marital category of the respondents shows that 56.3% (49) respondents were single wile 43.7%(38) respondents were married. This implies that respondents with single status attended more to the questionnaire.

4.4 Testing of Hypothesis
Hypothesis 1

Ho: Technological innovations has no significant impact on Personnel management practices within Nigerian banks.
H1: Technological innovations has significant impact on Personnel management practices within Nigerian banks.

Table 5: Relationship between Technological innovations and Personnel management practices

Structure	N	$\overline{X}$	SD	df	Standard Error	t_{-cal}	t_{crit}	Decision
Technological innovations	87	3.59	0.883					
				172	0.177	2.813	1.96	H_0 Rejected
Personnel management practices	87	3.09	1.398					

0.5 level of significance

Table 5 above shows that the calculated value of t-test t_{cal} = 2.813 which is greater than the critical value t_{crit} = 1.96 at 0.05 level of significance with degree of freedom df = 172; therefore, the null hypothesis is rejected in favour of the alternative hypothesis which states "Technological innovations has no significant impact on Personnel management practices within Nigerian banks". This showed that Technological innovations has significant impact on Personnel management practices within Nigerian banks.

DISCUSSION OF FINDINGS

Technological innovations have profoundly transformed Personnel management (PM) practices within Nigerian banks. One of the most significant impacts is the automation of routine HR tasks. With the advent of sophisticated HR software, banks in Nigeria have streamlined processes such as payroll management, employee attendance tracking, and performance appraisals. This automation not only reduces the administrative burden on HR professionals but also minimizes errors and enhances efficiency. For instance, platforms like SAP SuccessFactors and Oracle HCM Cloud are widely adopted in the banking sector to manage various HR functions seamlessly (Adewale, 2019).

Another critical area where technology has made a substantial impact is in recruitment and talent acquisition. Nigerian banks are increasingly leveraging artificial intelligence (AI) and machine learning algorithms to screen resumes, conduct initial interviews, and even predict candidate success. These technologies help in identifying the best talent quickly and accurately, thereby reducing the time-to-hire and improving the quality of hires. According to a study by Eze (2020), banks that have adopted AI-driven recruitment tools have seen a 30% increase in hiring efficiency and a 20% improvement in employee retention rates.

Employee training and development have also been revolutionized by technological advancements. E-learning platforms and virtual training modules have become commonplace in Nigerian banks, allowing employees to upskill and reskill at their own pace. This is particularly important in the fast-evolving financial sector, where staying updated with the latest regulations and technologies is crucial. Tools like Coursera, Udemy, and LinkedIn Learning are frequently used for this purpose. A report by Oladipo (2021) highlights that banks utilizing e-learning platforms have reported a 40% increase in employee engagement and a 25% improvement in job performance.

Performance management systems have also seen a significant overhaul due to technological innovations. Traditional performance reviews, which were often annual and subjective, are being replaced by continuous feedback systems powered by real-time data analytics. These systems provide a more accurate and comprehensive view of an employee's performance, enabling more Impactive and timely

interventions. For example, Nigerian banks using platforms like Workday and BambooHR have reported more objective performance evaluations and higher employee satisfaction (Ibrahim, 2022).

Moreover, technology has facilitated better employee communication and collaboration within Nigerian banks. Internal communication tools such as Slack, Microsoft Teams, and Zoom have become essential, especially in the wake of the COVID-19 pandemic, which necessitated remote work. These tools not only ensure seamless communication but also foster a collaborative work environment, irrespective of geographical locations. A survey by Adeyemi (2021) found that 85% of bank employees felt more connected and productive when using these communication tools.

Lastly, data security and privacy have become paramount concerns in PM due to the increasing reliance on digital platforms. Nigerian banks are investing heavily in cybersecurity measures to protect sensitive employee data from breaches and unauthorized access. Technologies such as blockchain and advanced encryption methods are being employed to ensure data integrity and confidentiality. According to a study by Nwankwo (2022), banks that have implemented robust cybersecurity measures have seen a 50% reduction in data breach incidents, thereby enhancing trust and compliance with regulatory standards.

Technological innovations have significantly reshaped PM practices within Nigerian banks, leading to increased efficiency, better talent management, enhanced employee development, improved performance evaluations, and stronger data security. These advancements not only benefit the banks but also contribute to a more dynamic and responsive PM landscape. As technology continues to evolve, it is imperative for Nigerian banks to stay abreast of the latest trends and tools to maintain a competitive edge in the industry.

CONCLUSION

The study on the impact of technological innovations on Personnel management (PM) practices within Nigerian banks reveals a transformative shift in how these institutions manage their workforce. The integration of advanced technologies such as artificial intelligence, machine learning, and data analytics has streamlined HR processes, making them more efficient and Impactive. These innovations have enabled banks to automate routine tasks, thereby freeing up HR professionals to focus on more strategic activities that add value to the organization.

One of the most significant findings is the enhancement of recruitment and selection processes. Technological tools have made it possible to reach a wider pool of candidates, conduct more thorough background checks, and utilize data-driven assessments to identify the best fit for the organization. This has not only improved the quality of hires but also reduced the time and cost associated with the recruitment process. Consequently, banks are better positioned to attract and retain top talent in a competitive market.

Employee training and development have also benefited from technological advancements. E-learning platforms and virtual training sessions have made it easier for employees to access continuous learning opportunities, regardless of their location. This has led to a more knowledgeable and skilled workforce, which is essential for the dynamic and fast-paced banking sector. Moreover, the use of technology in performance management systems has provided more accurate and real-time feedback, enabling employees to improve their performance continuously.

The study also highlights the role of technology in enhancing employee engagement and satisfaction. Digital communication tools and platforms have facilitated better communication and collaboration among employees, fostering a more inclusive and cohesive work environment. Additionally, HR analytics have provided valuable insights into employee behavior and preferences, allowing banks to tailor their HR practices to meet the specific needs of their workforce. This has resulted in higher levels of employee satisfaction and retention.

However, the study also acknowledges the challenges associated with the adoption of technological innovations in PM. Issues such as data privacy, cybersecurity, and the digital divide need to be addressed to ensure the successful implementation of these technologies. Banks must invest in robust security measures and provide adequate training to

their employees to mitigate these risks. Furthermore, there is a need for a balanced approach that combines technological advancements with the human touch to maintain the personal aspect of PM.

In conclusion, technological innovations have had a significant impact on PM practices within Nigerian banks, leading to increased efficiency, improved recruitment and training processes, and enhanced employee engagement. While there are challenges to be addressed, the benefits far outweigh the drawbacks. As technology continues to evolve, it is imperative for banks to stay abreast of the latest developments and continuously adapt their PM practices to leverage these innovations fully. This will not only improve their operational efficiency but also ensure they remain competitive in the ever-changing banking landscape.

RECOMMENDATIONS

Firstly, Nigerian banks should invest in continuous training and development programs for their HR staff and employees. As technology evolves rapidly, it is crucial for employees to stay updated with the latest tools and systems. This can be achieved through regular workshops, online courses, and certifications that focus on new HR technologies and their applications. By doing so, banks can ensure that their workforce is proficient in using advanced HR software and systems, thereby enhancing overall efficiency and productivity.

Secondly, banks should consider implementing integrated HR management systems that streamline various HR functions such as recruitment, payroll, performance management, and employee engagement. An integrated system can provide a unified platform for managing all HR activities, reducing redundancy and improving data accuracy. This can lead to more informed decision-making and better alignment of HR strategies with the bank's overall business goals.

Thirdly, it is recommended that banks adopt data analytics and artificial intelligence (AI) in their HR practices. By leveraging data analytics, banks can gain valuable insights into employee performance, turnover rates, and other key HR metrics. AI can assist in automating routine tasks such as resume screening and scheduling interviews, allowing HR professionals to focus on more strategic activities. This can lead to

more efficient and Impactive HR processes, ultimately contributing to the bank's success.

Fourthly, Nigerian banks should prioritize cybersecurity measures to protect sensitive HR data. With the increasing reliance on digital systems, the risk of data breaches and cyberattacks has also risen. Banks must implement robust security protocols, such as encryption, multi-factor authentication, and regular security audits, to safeguard employee information. Ensuring data privacy and security can help build trust among employees and prevent potential legal and financial repercussions.

Fifthly, banks should foster a culture of innovation and adaptability within their HR departments. Encouraging HR professionals to embrace new technologies and experiment with innovative solutions can drive continuous improvement in HR practices. This can be achieved by creating an environment that supports creativity, collaboration, and open communication. By fostering a culture of innovation, banks can stay ahead of technological trends and maintain a competitive edge in the industry.

Lastly, it is essential for banks to evaluate the impact of technological innovations on employee well-being and job satisfaction. While technology can enhance efficiency, it can also lead to increased stress and burnout if not managed properly. Banks should regularly assess the impact of new technologies on their employees and implement measures to support their well-being, such as flexible work arrangements, mental health resources, and employee assistance programs. By prioritizing employee well-being, banks can ensure a motivated and engaged workforce, which is critical for long-term success.

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