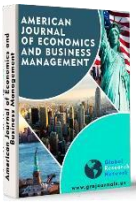

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Article

Office Automation and Employees Productivity in Commercial Banks in Rivers State

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Abstract: This study examines the relationship between office automation and employee productivity in commercial banks in Rivers State, Nigeria. The study was conceptualized given the dimensions of office automation as computer systems, automated banking software, while measures of employees' productivity are task completion time, accuracy of work. Two objectives, two research questions were raised and two hypotheses guided the study. The study adopted a correlational survey research design. A total of 63 copies of the questionnaire were distributed to bank employees, out of which 59 were duly completed and analyzed, representing a 93.6% response rate. Data were analyzed using descriptive statistics, weighted mean, standard deviation, and Spearman's Rank Order Correlation with the aid of SPSS version 26. The results showed that there is a statistically positive relationship between office automation and employee productivity in the selected banks. Research showed a strong correlation between computer system and completion time of task, employees using functional systems were able to complete the task in far shorter time. The automated banking software had an important association with accuracy of work, which explains that, these platforms reduced the error & Transaction processing was never more effective. Regular investment in modern digital infrastructure is recommended by the study for the potential increase employee performance of Nigerian banks. These include the recommendation that banks conduct regular training on office automation, conduct regular system updates and maintenance, and enhance internet speed and security to maximise employees output.

Keywords: Office Automation, Employee Productivity, Computer Systems, Automated Banking Software, Commercial Banks, Digital Infrastructure, Rivers State

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1. Introduction

Employee productivity is a fundamental determinant of organizational success, especially in service-driven sectors such as commercial banks. In a rapidly changing global economy, the performance and output of employees significantly influence the ability of banks to maintain competitiveness, satisfy customers, and achieve strategic objectives. As banking operations become more complex due to increasing regulatory demands and rising customer expectations, there is growing emphasis on enhancing productivity through innovative approaches. In commercial banks, productivity illustrates each employee performing assigned task in stipulated time and standard quality.

With employee productivity playing a key role in the success of banking institutions, we must assess this construct through the various quantifiable parameters it comprises.

In this research work, employee productivity has been defined in three broad categories such as time taken to perform the assigned work, quality of work and speed of service delivery The indicators are operational metrics for evaluating the effective use of skills, tools and time to execute a job. By comprehending these dimensions, it becomes easier to recognize steps one can take to rectify this deficiency and formulate organizational practices better suited to the performance aspirations in banking [1].

As the momentum increases for a more productive banking sector, office automation has become a focus of attention as a performance driver. Office automation includes the use of digital tools, systems, and processes that enable you to perform daily tasks with minimal human intervention. This entails application of computer systems, automated banking software, and internet/networking tools with the intention to simplify banks operations, eliminate mistakes, and speed up delivery of services. Therefore, a good understanding of the reflection of these technologies on the fundamental aspects of employee productivity is needed to postulate strategies to improve the workforce productivity at commercial banks [2].

In addition, it has been becoming one of the important factors in business modernization across different sectors, especially in banks. With the global shift towards more digital-first economies, organizations are bringing in technological tools and software-driven processes to streamline operations, minimize human mistakes and aid in strategic decision making. Office automation in commercial banks refers to the use of electronic mechanisms and software to make the functioning of the banks smooth and efficient by automating repetitive and tedious tasks such as data processing, data storage, data retrieval and data communication of information needed in the regular day-to-day activities of the banks. These tools not only give the backbone to deliver services in a faster and seamless fashion but also strengthen the workflow, which is highly vital to sustain in this cut-throat competitive financial service sector.

The positive influence of office automation is visible, but it still exists ongoing inquiry into the impact of office automation on employees productivity. Although some might say that it makes some jobs easier and less work, others argue that poor training, system failures, or improper execution could ultimately eliminate the advantages that automation is supposed to bring it.

Therefore, it is important to critically examine how specific components of office automation influence various dimensions of productivity among bank employees. This study focuses on three major dimensions of office automation computer systems, automated banking software, and internet/networking tools and how these tools affect task completion time, accuracy of work, and service delivery speed [3].

Statement of the Problem

Despite the increasing adoption of digital technologies in the Nigerian banking sector, employee productivity in commercial banks, particularly in Rivers State, still falls short of expectations. All through the business, task finish timeframes are still being breached; and mistakes with transaction estimations and slow-moving conveyance integrate to ruin the customer experience and decrease operational efficiency. However, such shortfalls also beg the question of whether employees are even deriving value from the multitude of office automation tools at their disposal, or whether deficiencies in implementation, usage, or integration are capping the benefits these innovations could reap [4].

Banks have spent a lot of money upgrading their operations by purchasing computers, installing onsite banking software, and setting up an Internet/networking foundation. These tools are designed to enhance the completion of tasks, reduce the chances of human errors, and expedite internal and customer-facing processes. Yet, benchmarks for productivity like the time taken for completing a task, quality of work, and service delivery at many bank branches in the state remain below par.

It appears that either these automation tools are not being fully utilized, or that employees lack the necessary training, access, or technical support to use them effectively. In some cases, outdated systems, software incompatibility, or unreliable internet connectivity further hinder employee performance [5].

Aim and Objectives of the Study

The aim of this study was to examine the relationship between office automation and employee productivity in commercial banks in Rivers State. The study sought:

1. To determine the relationship between the use of computer systems and employee productivity in commercial banks in Rivers State.
2. To examine the relationship between the use of automated banking software and employee productivity in commercial banks in Rivers State.

Research Questions

1. What is the relationship between the use of computer systems and employee productivity in commercial banks in Rivers State?
2. What is the relationship between the use of automated banking software and employee productivity in commercial banks in Rivers State?

Hypotheses

1. There is no significant relationship between the use of computer systems and employee productivity in commercial banks in Rivers State.
2. There is no significant relationship between the use of automated banking software and employee productivity in commercial banks in Rivers State [6].

Literature Review

Office automation is broadly understood as the integration and application of computer-based systems and digital tools that enhance and streamline routine office functions and business operations. It involves the use of technology to carry out office tasks such as data entry, document processing, communication, reporting, and record keeping with greater efficiency and accuracy. According to Oladele and Ogunleye, office automation encompasses the deployment of hardware, software, and networking systems to reduce manual work and improve decision-making and productivity across administrative and operational structures.

Computer systems are the backbone of office automation of almost all sectors like banking industry. Computer systems, which integrate hardware (like desktops, servers, and output devices) and software (operating systems and utility programs) that enable data to be input, processed, stored, and output. Computer systems are very critical in modernizing office functions since they have the ability to store, manage, organise and manipulate large quantities of information quickly and more accurately (Nwachukwu and Mba). They have been utilized for various purposes from data insertion and report rendering to customer information manipulation and digital communication in commercial banks [7].

Automated banking software means to develop application software for banking works with little or no human intervention. It includes the core banking software, loans management systems, payroll systems, customer relationship management (CRM), and a lot more. As noted by Olumide and Ezeani, this kind of software makes it possible to process transactions in real-time, automatically sort data, and access client information related to a specific process, all of which ultimately lead to better service delivery. Automated banking software helps commercial banks to streamline operations, reduce paperwork, and eliminate redundancies in high-volume transaction environments.

Employee productivity is the efficiency with which an employee performs their tasks and contributes toward the goals of the organization. It is an important metric of

institutional performance and often, the first measure of the extent of contribution employees bring to the institution in exchange for access to resources and time.

According to *Okon* and *Agbo* ployee productivity is the quantitative and qualitative output of an employee within a given time frame, shaped by both individual capabilities and the organizational environment. It reflects how well employees apply skills, time, and tools to perform their duties efficiently [8].

Theoretical Review

Socio-Technical Systems Theory

The Socio-Technical Systems (STS) Theory, originally developed by Trist and Bamforth in 1951, emphasizes the interdependence between the social and technical aspects of an organization. Specifically, the trick is to integrate the people (the social system) you included and the technology (the technical system) in a way that the two sub-systems are improved when they leverage one another that is when the social accommodates the technical and vice versa. The relevance of this theory is pronounced in workplace settings where a significant portion of work is determined through the use of technology like commercial banking operations.

Regarding the current study, STS theory provides a conceptual framework that can be used to explore how office automation tools including computer systems, automated banking software, and internet/networking tools are able to interact with and impact employee productivity.

It suggests that the success of automation initiatives depends on the integration of both human and technical elements. Therefore, the study's focus on how office automation correlates with task completion time, accuracy of work, and service delivery speed is consistent with the socio-technical argument for a balanced and integrated system design [9].

Empirical Reviews

Ojo conducted a study on *Office Automation and Administrative Staff Performance in Nigerian Public Universities* with the aim of determining how computerization influences employee performance. The study adopted a descriptive survey design, while the population considered for the study included administrative staff in three federal universities in Southwest, Nigeria. Stratified random sampling was employed to draw a sample of 200 respondents. The instrument was a structered questionnaire with a reliability index of 0.84 (Cronbach Alpha) Analytical methods have included descriptive and inferential statistics. The findings indicated that computer usage rather than the task was of a significant relationship. The research found that automation improves employee productivity and suggested training, infrastructural upgrades. So this research closely relates to the current research by illustrating that automation helps in improving task accomplishment and task accuracy, the most crucial aspect of employee productivity.

Eze and Ugwu studied The Influence of Computer Systems on Banking Service Delivery in Enugu State. This was to ascertain the level of impact of using of computer hardware and software tools in offering banking services. A correlational design was applied with a sample of 1,200 staff from five banks. It was provided by selecting 250 using purposive sampling. A questionnaire with a reliability index of 0.91 was used. Sample data were analyzed by means of Pearson correlation. Results show that there is a significant positive correlation between availability of computer systems with timeliness of customer service. The validity of the study came with a recommendation: A properly functioning computer system enhances the speed of work, minimizes delays through less reliance on communications and the authorities, and hence banks are advised to invest in upgrades to their systems. This supports the current study's focus on computer systems as a dimension of office automation [10].

2. Methodology

This study adopted a correlational survey research design. Correlational design is a non-experimental method used to examine the degree of relationship between two or more variables without manipulating them. This design is suitable for this study because it allows the researcher to determine the strength and direction of the relationship between office automation (computer systems, automated banking software) and employee productivity in commercial banks, Rivers State. The design enables the researcher to observe existing conditions and draw inferences on how variables relate without direct intervention.

The population for this study comprised all the Deposit Money Banks licensed by the Central Bank of Nigeria (CBN) and operational within Rivers State. As of the time of this study, twenty-one out of the twenty-two licensed deposit money banks in Nigeria were found to be actively operational in Rivers State and total number of 67 personnels was drawn out. The main branches of these banks located in Port Harcourt, the state capital, served as the representation of each bank's presence and were used as the unit of analysis. The study specifically targeted employees who are directly involved in day-to-day banking operations and who regularly interact with office automation tools. These include: Customer Service Officers, Tellers, Operations Staff, Other Frontline Operational Staff (e.g., transaction officers, bulk tellers, account processing clerks, etc.). These personnel were considered most appropriate for this study because they are the key users of banking automation systems and are best positioned to provide reliable data on how these systems affect employee productivity.

The sample for this study consisted of the entire population of the 21 operational Deposit Money Banks in Rivers State, making the study a census study. A census method was adopted because the number of banks was manageable and it allowed for full inclusion of all relevant participants across the institutions. From the main branch of each bank, respondents were selected comprising of Customer Service Officers, Tellers, Operations Staff, and Other Operational Employees. These categories were purposively selected because of their routine engagement with core banking systems such as computer terminals, automated software, and networking tools. This selection yielded a total of 67 respondents (from each of the 21 banks).

The main instrument for data collection in this study is a structured questionnaire. The questionnaire was designed to obtain responses from selected operational staff in the main branches of deposit money banks in Rivers State on the relationship between office automation and employee productivity. The questionnaire was divided into two sections corresponding to the independent and dependent variables of the study. Each item in the questionnaire was rated on a 5-point Likert scale with the following response categories: Strongly Agree (SA = 5), Agree (A = 4), Undecided (U = 3), Disagree (D = 2), and Strongly Disagree (SD = 1).

The face and content validation was done in order to make sure that the instrument is adequate, relevant and precisely measures the variables. I submitted the first draft of the questionnaire to the research supervisor for academic scrutiny. Secondly, it was also assessed by two experts who have expertise in Office and Information Management regarding the clarity, format, wording, items relevance, and items coverage of the questionnaire items.

Non-participant deposit money banks in Rivers State were used for the purpose of checking the reliability of the instrument that had 30 respondents as a pilot study. Responses of the pilot study were analyzed using the Statistical Package for the Social Sciences (SPSS) version 29 and subjected to Cronbach Alpha reliability analysis. Close to a high reliability index of 0.89 was found for the overall data-set which suggests the instrument was internally consistent.

67 copies of the questionnaire were administered directly to the respondents at the main branches of the twenty-one selected deposit money banks in Port Harcourt, Rivers State. The researcher, with the help of trained assistants, visited each bank to distribute and retrieve the questionnaires. Adequate permission was obtained from branch authorities to allow respondents fill the questionnaire during break periods or less busy hours. The administration process lasted two weeks to ensure full participation and retrieval from all respondents.

The data collected were analyzed using both univariate and bivariate statistical techniques. Univariate Analysis Frequency counts and percentages were used to describe the demographic characteristics of respondents and summarize responses to individual questionnaire items. Bivariate Analysis, the Spearman Rank Order Correlation was employed to test the null hypotheses and determine the strength and direction of the relationship between each dimension of office automation and employee productivity.

3. Results

H_{01}: There is no significant relationship between the use of computer systems and employee productivity in commercial banks in Rivers State, see Table 1.

Table 1. Relationship Between the Use of Computer Systems and Employee Productivity

			Computer Systems	Employee Productivity
Spearman's rho	Computer Systems	Correlation Coefficient	1.000	.622**
		Sig. (2-tailed)	.	.000
		N	63	63
	Employee Productivity	Correlation Coefficient	.622**	1.000
		Sig. (2-tailed)	.000	.
		N	63	63

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1 result shows a strong, positive, and statistically significant relationship between the use of computer systems and employee productivity ($\varrho = 0.622$, $p < 0.05$). This implies that increased use of computer systems is associated with higher levels of employee productivity in commercial banks [11].

H_{02}: There is no significant relationship between the use of automated banking software and employee productivity in commercial banks in Rivers State, see Table 2.

Table 2. Relationship Between the Use of Automated Banking Software and Employee Productivity

			Automated Banking Software	Employee Productivity
Spearman's rho	Automated Banking Software	Correlation Coefficient	1.000	.594**
		Sig. (2-tailed)	.	.000
		N	63	63
	Employee Productivity	Correlation Coefficient	.594**	1.000
		Sig. (2-tailed)	.000	.
		N	63	63

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation coefficient ($\varrho = 0.594$, $p < 0.05$) indicates a moderate, positive, and statistically significant relationship between the use of automated banking software and employee productivity. This means that as employees make more use of automated software, their productivity tends to increase.

4. Discussion

The findings from the analysis revealed that there is a strong and statistically significant relationship between the use of computer systems and employee productivity in commercial banks in Rivers State. The Spearman Rank Order Correlation also yielded a high positive correlation coefficient ($\varrho = 0.622$, $p < 0.05$), proving that the higher the frequency of use of computer systems, the better the productivity of employees is. So, this means that computing systems are one of the devices that have a considerable impact in improving many aspects of employee work performance such as: Task performance time, Work accuracy and speed of delivery of service. Computer systems enable rapid data processing, automation of routine tasks, handling of customer inquiries, and (improved staff efficiency, job satisfaction in contemporary banking [12].

Theoretical Background This outcome is grounded in the Technological Determinism Theory by Marshall McLuhan, which believes technological development as the major force behind changes in the social structure and the major driver for workplace productivity. The banking sector would face a significant restructuring of employees' roles and how operations run with the successful implementation of modern computing technology. Additionally, this outcome correlates with the Cognitive Load Theory that states maximizing cognitive load while performing tasks leads to positive results. By automating routine and repetitive tasks through the use of computers, employees are better positioned to focus on analytical and customer-centric functions that require higher-order thinking.

Empirically, this finding is supported by Okon and Udoh who found that the deployment of up-to-date computing systems in Nigerian banks improved staff efficiency and service delivery. Similarly, Lawal, Yusuf, and *Adeyemi* discovered that the presence of advanced digital systems enhanced employee work quality and reduced operational bottlenecks. *Eze* and *Iwu* further established that computer systems significantly enhance employee performance, decrease workload stress and render documentation guilt-free. All in all, these studies prove that computer systems are an important building block for the productivity of banking staff [13].

The result of the analysis confirmed that automated banking software had a positive relationship with employee productivity at a statistically significant level. What this evidence suggests is that automating systems like core banking software, digital platforms and transaction processing systems offer significant productivity gains. In particular, the employees who reported why such tools were useful say that it lets them view customer data in one place, lessens errors while making transactions, and hastens report generation, ultimately making them more efficient, effective, and timely in their work.

This result is consistent with the Task-Technology Fit (TTF) Theory by Goodhue and Thompson, which observes that the intersection of task demands and technological capabilities augments individual performance. Employees perform vital banking functions such as account management, verification, and customer service delivery with the help of the banking software they use, which confirms what this theory argues [14].

Empirical studies support this conclusion. Agbaje and Okonkwo discovered that automation tools helped increase the level of efficiency among employees in Nigerian banks and the level of service output produced. In the same vein, Ayeni and Ogunyemihighlighted that the automated banking platforms reduced work load and also enhanced the speed and accuracy of work, which in turn improved customer satisfaction, as well as employee effectiveness to a great extent. Furthermore, Lawal, Yusuf, and

Adeyemi demonstrated that automated software tools in deposit money banks in Nigeria played a vital role in reducing turnaround time and increasing service quality [15].

Thus, the use of automated banking software is not merely supportive but is instrumental in improving employee productivity in today's digital banking environment.

5. Conclusion

The study examined the relationship between office automation and employee productivity in commercial banks in Rivers State. Specifically, it assessed how the use of computer systems, automated banking software relationship with various dimensions of employee productivity such as task completion time, accuracy of work. Findings from the analysis, using the Spearman Rank Order Correlation, showed significant and positive relationships between each dimension of office automation and employee productivity. The use of computer systems was found to enhance employees' ability to complete tasks on time and with greater accuracy. Automated banking software enabled faster processing, reduced manual errors, and improved overall work output. These findings underscore the importance of digital infrastructure in modern banking operations and confirm the relevance of technology in enhancing employee performance in dynamic work environments.

Recommendations

Based on the findings, the following recommendations were made:

1. Commercial banks should continue to invest in up-to-date computer systems, networking infrastructure, and reliable software solutions to enhance work efficiency and productivity.
2. Employees should be continuously trained on the effective use of office automation tools to ensure they maximize the benefits of available technology.
3. Banking software should be regularly updated and maintained to avoid downtimes, system errors, or breaches that could hinder employee performance.
4. Banks should prioritize improving internet speed and network security to prevent delays and safeguard customer data, which in turn boosts employees' confidence and service delivery.
5. Developers and IT departments should ensure that automation tools are intuitive and user-friendly to reduce learning curves and error rates among staff.

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