

Digital Communication and Employee Engagement of Commercial Banks in Rivers State

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Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.	<p><i>This study investigated the relationship between digital communication and employee engagement in commercial banks in Rivers State, Nigeria. The study specifically examined how dimensions of digital communication—namely collaboration, file sharing, and project management—relate to employee engagement, measured in terms of innovation and quality service delivery. A descriptive research design was adopted, and data were analyzed using descriptive statistics, including mean and standard deviation. The population of the study consisted of 3,318 employees drawn from the regional offices of selected commercial banks, from which a sample size of 357 respondents was determined using the Taro Yamane formula. Data were collected through a structured questionnaire administered to the respondents. The findings revealed mean scores of 4.13 for collaboration, 4.16 for file sharing, 4.18 for project management, 4.19 for innovation, and 4.18 for quality service delivery, indicating a high level of agreement among respondents. The results further showed a positive and significant relationship between employee collaboration and innovation, as well as between collaboration and quality service delivery. Significant relationships were also found between file sharing and innovation, and between file sharing and quality service delivery. In addition, project management was found to have a significant relationship with innovation; however, no significant relationship was observed between project management and quality service delivery in commercial banks in Rivers State. Based on these findings, the study concludes that effective digital communication enhances employee engagement in commercial banks. It is therefore recommended that commercial banks invest in advanced digital communication technologies and provide adequate training to employees to maximize their effective utilization, improve service delivery, enhance customer experience, and strengthen employee engagement in an increasingly competitive banking environment.</i></p>
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INTRODUCTION

Businesses and organisations rely on employee engagement, which is considered essential to their performance and ability to compete. When workers are enthusiastic about what they do for a living and the value they bring to the company, we say that they are engaged. An invested worker understands the bigger picture of the company and collaborates with coworkers to boost productivity on the job. Employee engagement has also been the subject of a great deal of study since it is becoming crucial in the corporate world and has a direct correlation to the success of organisations (Tur, Harstad & Antonakis,

2021). Sugihyanto and Arsjah (2023) found that when staff are engaged, they provide better service, which leads to increased customer satisfaction and more income. Digital work tools and organisations, like those in the banking industry, can make all of the above possible.

The conventional brick-and-mortar method of providing banking services has been revolutionised by the use of electronic and information communication technology, which has also altered the interaction between banks and their customers. It hails from the realm of online banking.

To meet the needs of its more discerning customers, who often hold a variety of banking products at many banks, banks must expand their global reach, provide new financial services, and differentiate themselves from competitors. According to Nambisan et al. (2019) and Verhoef et al. (2021), digital technologies have brought about a new era of transformation, which has not only changed human communication but also disrupted established business models (Flanagin 2020; Kovaită et al. 2020). The elimination of physical communication expenses and the fundamental transformation of information flow and, more importantly, the attribution of meaning between communicators were both brought about by the parallel communication space made possible by digital instruments. According to Tomczak, Ziemiański, and Gawrycka (2023), the introduction of this new mode of communication and interaction caused a paradigm shift, which in turn altered the foundations of modern society. Novel social communication spaces marked by high connection with various possible linkages have resulted from the structural alterations in these complexes, which have gone beyond earlier forecasts. These spaces eventually gave rise to network-based social structures.

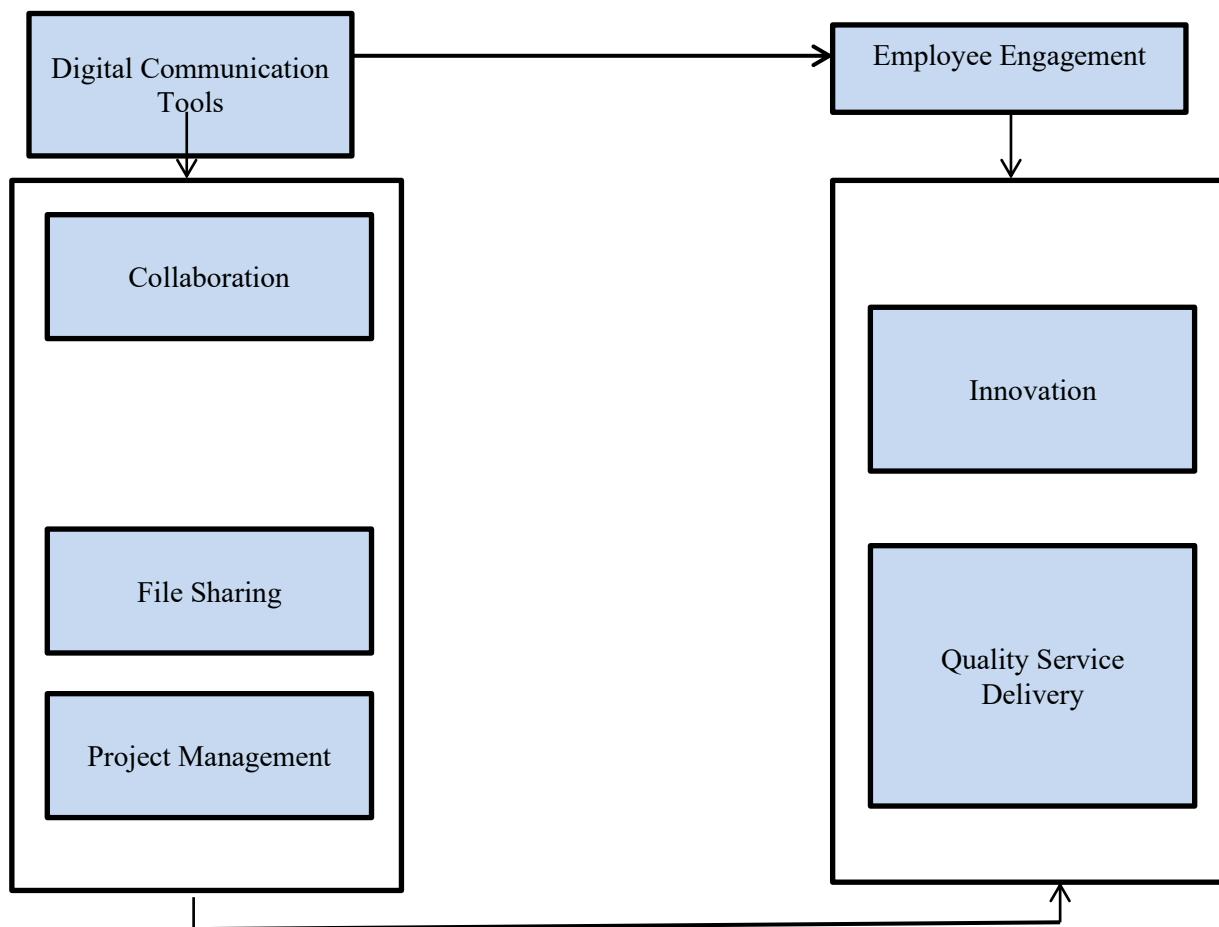
According to Nambisan et al. (2019), one of the most important factors in employee engagement is open communication, which helps businesses communicate their values and goals to workers. Motivated workers that enjoy what they do and want to make a difference for their coworkers. To increase employee engagement, communication should be seen as a two-way street, according to Swarnalatha and Prasanna (2012). It means including workers in the decision-making process so they may voice their opinions and thoughts. One way to improve one's communication skills is to be more explicit and consistent when outlining expectations and sharing news about the firm. A sense of community among workers leads to increased participation (Jaupi & Llaci, 2015). Parasuraman et al. (1985) found that service quality can vary due to factors such as poor internal communication and the difficulty in standardising staff performance owing to differences in commitment, engagement, knowledge, and attitude. Changing the way managers and employees interact is central to the concept of internal communication, which aims to boost performance (Jaupi & Llaci, 2015). To stay competitive and not fall behind other banking and fintech organisations, digital communication solutions can help optimise employee performance in the face of rapid digital developments (Forcadell et al., 2020). As a result of moving away from physical and operational costs and towards digital platforms, banks are becoming more efficient and cost-effective (Son et al., 2020). One of the many obstacles that banks must overcome on their path to digitalisation is preserving their credibility in the face of

intense competition from fintech firms (Forcadell et al., 2020). To stay ahead of the competition and meet their ever-changing client expectations, banks must continually develop and enhance their digital products (Mohsin et al., 2022). It is critical to understand how digital technologies affect organisational dynamics and employee performance as they become more prevalent in the banking sector.

Users' perceptions of digital products' usefulness and usability have a significant impact on their adoption and usage, according to the technology acceptance model. Workers' confidence in their own abilities to use technology effectively has a favourable effect on their productivity. According to Tomczak et al. (2023), young workers, especially those who have just graduated from technical colleges, have high levels of digital self-efficacy, which is associated with positive results in the workplace. In addition, as highlighted by Alifya and Mardiana (2022), self-efficacy plays a pivotal role in employees' confidence in their capacity to handle responsibilities, which in turn impacts their performance. Furthermore, self-efficacy in digital contexts, especially operational digital abilities in remote work settings, was highlighted by Tsareva and Omelyanenko (2020).

Among the many industries undergoing revolutionary digital change, banking stands head and shoulders above the rest. The operational dynamics of banks have been profoundly affected by the rapid adoption of digital banking services, which in turn have altered the ways in which clients engage with these organisations. Sugihyanto and Arsjah (2023) found that consumers' behaviour and expectations had changed significantly, with approximately 80% of them preferring digital banking channels over traditional means. As a result, loyalty, dedication, and output from workers are all negatively impacted (Umans et al., 2018). Employees' productivity has increased thanks to digitalisation communication technologies, which have reduced risk and allowed for quicker decision-making (Umans et al., 2018). To counter this, employment features also play a role in shaping workers' dedication to their jobs. Excessive workplace demands have been identified as a source of stress for workers, according to the research. In a similar vein, considering the traits of today's highly digitalised workplaces, the environments in which businesses operate are undergoing fast change. Research on digitalisation in banking has mostly focused on two angles: the strategic and the customer. Managers' strategies and models are also under scrutiny. Customers' actions in relation to products and services are crucial to comprehend (Schmidt et al., 2017). Digital communication tools and staff engagement in commercial banks in Port Harcourt were the focus of this study, which adds to the existing literature.

Conceptual Framework



Source: Research Desk (2025)

Figure 1: Conceptual Framework of the effect of Digital Communication tools and employee engagement of commercial banks in Port Harcourt Rivers

Research Questions

- i. To what extent does employee collaboration relate to innovation of commercial banks Port Harcourt Rivers State?
- ii. To what extent does employee collaboration relate to quality of service delivery of commercial banks Port Harcourt Rivers State?
- iii. How does file sharing relate to innovation of commercial banks Port Harcourt Rivers State?
- iv. How does file sharing relate to quality of service delivery of commercial banks Port Harcourt Rivers State?
- v. What is the relationship between project management on innovation of commercial banks Port Harcourt Rivers State?
- vi. What is the relationship between project management on quality of service delivery of commercial banks Port Harcourt Rivers State?

Research Hypotheses

The following null hypotheses were formulated to guide the study:

H₀₁: Employee collaboration does not have a statistically significant relationship with innovation in commercial banks operating in Port Harcourt, Rivers State.

H₀₂: Employee collaboration is not significantly related to the quality of service delivery in commercial banks operating in Port Harcourt, Rivers State.

H₀₃: File-sharing practices do not show a statistically significant relationship with innovation in commercial banks operating in Port Harcourt, Rivers State.

H₀₄: File-sharing practices are not significantly associated with the quality of service delivery in commercial banks operating in Port Harcourt, Rivers State.

H₀₅: Project management practices do not have a statistically significant relationship with innovation in commercial banks operating in Port Harcourt, Rivers State.

H₀₆: Project management practices are not significantly related to the quality of service delivery in commercial banks operating in Port Harcourt, Rivers State.

LITERATURE REVIEW

Digital Communication Tools

The advent of digital communication tools has altered the nature of most people's work in the 21st century and altered the way the world of employment operates generally. Problems arise in the areas of communication between individuals, management, and the organisation as a whole as a result of technological progress and the corresponding changes and demands (Crane, 2016). To make sure people are prepared to work, the connection procedures are put in place. According to research by Garg, Petwal, Wazid, Singh, Das, and Rodrigues (2022) and Nguyen, Gruber, Marler, Hunsaker, Fuchs, and Hargittai (2022), digital communication and networking technologies have opened up opportunities for organisations to stay in touch with their employees and engage in close, immediate communication through social media platforms. In order to improve communication within the company, several companies have begun to embrace digital communication methods as a proactive tool throughout work experiences (Tiago et al., 2021; Tian et al., 2022). Take digital technologies and social media as an example. They have the potential to revolutionise traditional workplace communication by offering new means of communicating that incorporate diverse viewpoints and practical uses (Venter, 2019).

Applications of digital communication tools aid in securing additional places, which may aid in decision-making and allow for the exploration of alternative viewpoints (Ponti, 2011). These days, in order to stay afloat and compete with more established rivals, businesses have had to adapt to drastically altered competitive landscapes (Alzubi, 2022). Managing the communication and interrelationships with the numerous primary stakeholders for sustainability is essential for higher education institutions to fulfil their organisational objectives within their day-to-day routines and operations. Furthermore, in order to acquire a significant impact and support this function for sustainable organisational operations, the management of the institution is prompted by modern competition to contemplate new management styles of communication with stakeholders.

Dimensions of Digital Communication

Collaboration

Management in which supervisors and subordinates work together to reach a consensus is known as "collaborative management" (Crane, 2016). When uncertainty surrounds a change, people mostly behave based on their perceptions of reality, hence this definition is correct. Collaboration study variables can be defined with the use of a conceptual model. Using employee feedback to improve decision-making and boost buy-in is one way to boost employee satisfaction.

Among the many recognised approaches to boosting employee happiness, Rubin's (2009) model stands out for its three primary components:

When it comes to increasing productivity in the workplace, organisational collaboration strategies are crucial. Staff members are encouraged to contribute their knowledge, skills, and resources by creating an environment that values collaboration and open dialogue. Awan et al. (2018) used cultural intelligence as a moderator to examine the effects of contract governance on collaboration. The present authors argue that corporations with strong cultural intelligence may benefit more from contract governance. In a supply chain, cultural intelligence is crucial for managing relationships across cultures and is vital in creating and carrying out effective collaborations. The export sector could benefit from using cultural intelligence as a tool to better handle cross-cultural differences and foster more fruitful collaboration. As a general rule, working with a partner who is also socially responsible will improve your social performance.

File Sharing

Nowadays, exchanging files is among the most popular things people do when they're online. Networks facilitate file sharing by letting users upload, distribute, and retrieve files. The fact that the original owner keeps their copy of a downloaded file makes file sharing in these networks essentially non-rivalrous. The result is a very cheap cost of sharing. Since more people mean a larger variety of files, there are also network externalities. File sharing, especially of copyrighted music recordings, exploded in popularity thanks to these characteristics. In 2003, the most popular network (FastTrack/KaZaA) had over three million members sharing over half a billion files, whereas very few people participated in file sharing before 1999 (the foundation year of the now-defunct Napster).

The number of music files downloaded each week exceeds one billion. People are also more active when it comes to sharing files. The number of Americans who have downloaded music exceeds sixty million (Ipsos-Reid, 2002b). The demographic that shares files is quite young. Only one-fifth of those between the ages of 35 and 44 have downloaded files, even though half of all Americans under the age of 18 are heavy users (Edison Media Research, 2003). The number of people who download files online has nearly quadrupled among adults in the United States during the year 2000, according to the Pew Internet Project (2000 and 2003). People from almost every country in the globe

participate in file sharing because distance is mostly unimportant.

Project Management

Business goals and the economic growth of developing nations can both be advanced through the use of project management, a novel approach to management. Project management is the process of establishing clear objectives, creating a workable plan to achieve those objectives, and overseeing the allocation of resources in a coordinated and effective manner. This is particularly true in developing nations where development partners provide financial assistance for projects like infrastructure, event planning, and product development. A project is a series of distinct, interrelated tasks with a common objective that, when started and finished on time, stay under budget, and adhere to all relevant specifications. In contrast, a series of regular activities or daily operations is designed to be an ongoing process with no predetermined endpoint.

The unique investment of resources to accomplish specific goals, such as the production of goods or services, to generate profit, or to offer a community service, is what defines a project. Other general attributes of projects include purpose, life cycle, uniqueness, interdependencies, and conflict. An immutable transformation with a beginning, middle, and end point is known as a project. One defining feature of projects is the indispensable role of the project manager. The project manager plays a pivotal role in project management, however the quality of the project team under their leadership determines the manager's effectiveness. Therefore, to suggest that the project manager is the only factor determining a project's success or failure would be an understatement.

Employee Engagement

According to Fleetwood and Hesketh (2010), the field of human resource management is just beginning to explore the idea of employee engagement. The phrase "employee engagement" was first used in scholarly literature by Kahn (1990) to describe the ways in which workers physically, emotionally, and cognitively express themselves while working. Several researchers have offered various meanings of this concept. According to Harter et al. (2002) and other researchers, employee engagement is associated with a sense of involvement, commitment, and job satisfaction. According to Schaufeli et al. (2002), the amount of commitment, energy, and focus that individual has while working is a measure of their engagement. When workers are enthusiastic about and invested in their job, they are considered to be "engaged" (Harter et al., 2002). Employee engagement is defined as "a desirable condition; having positive impacts on organisational efficacy and connotes involvement, commitment, passion, enthusiasm,

focused effort and energy" (Jaupi & Llaci, 2015), but there are certain variations in the exact wording.

Employee engagement is a key factor in modern firms' success since it increases performance, creativity, and productivity (Schaufeli & Salanova, 2007). There is a clear correlation between engaged employees and successful companies, according to research by Harter et al. (2002). This is explained by Markos and Sridevi (2010), who state that operational and net profit margins can grow with increasing levels of participation. According to Markos and Sridevi (2010), when employees are engaged, it benefits the organisation as well. People experience a sense of accomplishment when they know their work is making a difference to the company's performance (Andrew & Sofian, 2012). Having a dedicated and enthusiastic staff is not enough for a successful business; companies also need to concentrate on keeping their employees engaged and motivated. Efforts made by the organisation to make workers feel valued and invested play a significant role in this. Nonetheless, there is a difference between commitment and engagement. According to Robinson et al. (2004), organisations should aim for commitment as the initial step in their efforts towards employees, and engagement as the subsequent step.

Measures of Employee Engagement

Innovation

The creation and implementation of novel ideas, goods, services, or processes with the aim of raising efficiency values and productivity is what Innovation-Wikipedia (2023) calls innovation. The introduction of novel concepts and approaches into established business practices is a simple definition of innovation. In their study, Dyer et al. (2021) analyse what makes an inventor successful. Associating, enquiring, watching, networking, and experimenting are five abilities that innovative people display. These abilities are highlighted as critical in driving game-changing breakthroughs across a number of sectors by the authors' extensive research and case studies.

Applying lean startup concepts to stimulate creativity within established organisations is emphasised by Furr and Dyer (2021). In order to minimise risk and maximise learning, they have laid out a methodical approach to innovation that involves quickly testing and iterating concepts in the market. Organisations may find and pursue innovation possibilities with high potential with the help of the authors' practical framework, which is based on methods including customer discovery, fast prototyping, and continuous experimentation. Nevertheless, there are still several unanswered questions and problems with the existing literature and empirical research regarding the best ways to foster and sustain innovation over the long run, as

well as how to quantify and evaluate the influence of innovation on organisational success (Manly et al. 2021).

Quality Service Delivery

Service quality was described by Parasuraman et al. (1985) as the extent to which consumers' expectations and perceptions of certain critical aspects of the service differ, and how this difference influences their future purchase behaviour. Perceived service quality is a worldwide judgement or attitude linked to the superiority of a service. From the perspective of the consumer, quality involves fitness for use and meeting their satisfaction (Zeithaml & Bitner, 2000; 2003). The SERVQUAL (Parasuraman et al., 1988) technique has formed the basis of most service quality research. Service quality is a key factor influencing a company's ability to compete, and the SERVQUAL model proposes a way to quantify it by finding the discrepancies between customers' expectations and the service's actual performance (Singh, 2013). Since there is no guarantee that the present exceptional service will likewise be appropriate for the future, banks should continuously raise the bar on service quality.

Technology Acceptance Model

Davis (1986) first proposed this model to explain the mentality that drives the desire to use technical expertise (Monyoncho, 2015). Both the Perceived Ease of Use (PEOU) and the Perceived Usefulness (PU) of newly introduced technical advancements impact consumers' decisions, according to TAM, which focusses on perceptions rather than actual system usage (Lule, Omwansa & Waema, 2012). People are more likely to utilise a new technology if they believe it will help them in the short and long term, which is known as the perceived utility of the user's (PEOU) opinion of the system. According to Mojtaheh, Nunes, and Peng (2011), PU is the degree to which an individual believes a system will improve performance both in the short and long term.

According to the TAM, the perception of the system by each user is the driving force behind their behavioural intention to utilise the system. New technology's reception is proportional to its usefulness and ease of use, according to the notion (Lim & Ting, 2012). Customers' intentions shape their perceptions of the system, which in turn affects the technology's acceptability and functionality, according to TAM (Mojtaheh, Nunes & Peng, 2011). According to the theory, people's perceptions of the advancement have a significant role in shaping their attitudes, which in turn influence how they use the system (Lim & Ting, 2012).

Individuals' perspectives on a system are also investigated using TAM (Lule, Omwansa & Waema, 2012). Clients' reasons for approving or disapproving of an improvement or data framework are explained and portrayed in the TAM,

which provides details. When trying to predict which people and organisations are most likely to get a certain innovation, TAM is a crucial predictive tool (Mojtaheh, Nunes & Peng, 2011). According to Lim and Ting (2012), there are differences in consumer behaviours, particularly when it comes to the use of associated digital financial services. To better understand these variances, TAM can be utilised to explain digital financial services.

Empirical Review

Researchers Chege, Wang, and Suntu (2020) looked examined how different IT innovation tactics affected the success of Kenyan businesses. A total of 240 SMEs, or small and medium-sized businesses, were surveyed. Structure equation modelling and descriptive statistics were employed for the analysis. According to studies, new technological developments boost company profits. In contrast to commercial banks, the participating SMEs were more likely to experience an impact of IT innovation on organisational performance that was distinct.

Ombati (2020) looked at how oil marketing companies in Kenya fared after implementing a strategic response. We utilised a descriptive survey research design and a stratified sampling strategy to reach our target audience of 248 management level personnel. The survey included 124 individuals at the management level as a sample. The main data was gathered using both quantitative and qualitative questionnaires. Oil marketing businesses' performance is positively affected by the deployment of information technology, according to the study. Correlation analysis was employed in the study.

The effect of mobile money on the efficiency of Uganda's banking system was investigated by Mawejije and Lakuma (2019). The study design employed was descriptive. Secondary data was sourced from the Bank of Uganda and the Uganda Bureau of Statistics and spanned a 90-month period, from March 2009 to August 2016. Results were obtained from the data analysis by employing structural vector automation regression and vector error correlation.

Adhitya and Sembel (2020) looked at how large Indonesian banks' stock and financial performance changed when they started using mobile banking technologies. The data was retrieved from a secondary source by seven banks in Indonesia and subsequently subjected to statistical testing and analysis utilising the F-test, T-test, and regression method. Capital adequacy ratio (CAR) and loan-to-debt ratio (LDR) performance can be enhanced by the implementation of new technologies, according to the results.

Studying how digital change has affected consumer experience and loyalty in Cameroon's retail industry was the goal of Njanja, Tadewos, and Amdissa (2018). In order

to determine how digital transformation activities affected consumer happiness and loyalty, the researchers used data gathered from 300 structured surveys given to customers of different retail stores in Cameroon. Personalised online purchasing is only one example of how retail organisations are embracing digital transformation tactics, according to the research. In order to stay ahead of the competition and provide a better shopping experience for their customers, the authors of the study suggested that Cameroonian retailers keep pouring money into digital technologies.

The impact of digital transformation methods, particularly the use of mobile payment systems, on financial performance in Cameroon's retail business was investigated by Fokam and Tafese (2019). A quantitative examination was carried out by the researchers utilising financial data spanning five years from thirty retail enterprises in Cameroon. Revenue, profitability, and customer happiness were evaluated in relation to the integration of mobile payment methods. According to the study's findings, retail businesses saw considerable gains in financial performance after adopting mobile payment systems, including more sales and lower transaction costs. In order to boost financial success, the authors advised Cameroonian retailers to keep investing in mobile payment technologies and to increase consumer acceptance of these tools.

In their 2020 study, Ngueutsa and Aguele investigated how digital transformation affected supply chain performance and inventory management in the retail sector of Cameroon. Using a quantitative technique, the study surveyed fifty different retail organisations to compile their data. The research looked at how supply chain efficiency was affected by the use of digital tools and technologies in inventory management. Stockouts were less common, demand forecasts were more accurate, and supply chain performance was higher for retail companies that used digital transformation tactics for inventory management, according to the report.

The impact of digital transformation methods, especially the use of e-commerce platforms, on the growth and competitiveness of Cameroon's small and medium-sized merchants was studied by Nchifor and Okere (2021). Researchers in Cameroon surveyed 20 small and medium-sized enterprise (SME) merchants and used case studies and interviews to draw qualitative conclusions. According to the study's findings, small and medium-sized enterprises (SMEs) were able to significantly boost their income and market share after implementing e-commerce solutions, which allowed them to effectively compete with bigger retail competitors and reach a wider audience online.

Banking sector innovation was investigated by Beck, Chen, Lin, and Song (2012) in relation to (i) real sector growth, (ii) real sector volatility, and (iii) bank fragility. Industries

that relied more on innovation and external funding had faster growth rates, and a greater association between a country's growth potential, capital, and GDP per capita growth was observed in countries with more financial innovation. However, they did find that financial innovation was linked to more idiosyncratic bank fragility, more volatile bank profits, and higher bank losses during the last crisis, as well as more growth volatility in industries that rely on innovation and external finance.

According to research by Chava et al. (2013), emerging private companies' innovative activity was hindered by the rise of local bank market strength following intrastate deregulation. Deregulation of intrastate banking led to a marked decline in both the rate and likelihood of innovation. Mugane (2015) looked at how financial innovations affected the bottom lines of Kenyan commercial banks. The research found a negative and statistically significant correlation between product innovation and the bottom lines of commercial banks.

Product innovation is dominant in both Europe and the US, although innovation declines after 2005, according to Arnaboldi and Rossignoli's (2015) study of the factors influencing financial innovation in listed commercial banks in the US and Europe from 2005 to 2008. Banks aren't only cutting back on innovation in certain areas, they're also not engaging in innovation overall. More efficient and less concentrated banking systems allow larger banks to enjoy a dominant position, which encourages innovation.

The return on equity of commercial banks in Nigeria has been positively affected by financial innovations, according to Abaenewe et al. (2013). They settled on online banking since it tracks more consumer transactions, which means more transaction fees and more money in the bank's coffers. Electronic banking has many advantages, as pointed out by Rotchanakitumnuai and Speece (2003). Customers and investors alike can use it to do a variety of things, including seeing account balances, transferring funds, paying bills, collecting receivables, and, in the long run, reducing transaction costs and increasing account control.

Just because commercial banks started offering online and mobile banking doesn't mean they'll start making more money, as Nader (2011) shown. Over the course of a decade, this study aimed to determine the profitability of Saudi banks. For each component of financial innovations, the research found conflicting outcomes. Commercial banks in Saudi Arabia saw an uptick in profits when customers started using mobile banking and ATMs. Contrary to popular belief, the availability of these services was not always indicative of increased profitability. Accordingly, the research suggests that new financial innovations might or might not result in better financial situations. Finding out how financial innovations have

affected the bottom lines and ROIs of Kenya's commercial banks is the immediate goal of this research.

The purpose of the study by Nyangosi and Aora (2011) was to investigate the relationship between IT and the efficiency of Kenyan banks. The study's population consisted of all commercial banks in Kenya, and it used a descriptive research methodology. According to the research, the majority of banks have already implemented online and mobile banking. The research showed that banks' performance improved when customers used ATMs and mobile banking, which led to better service overall. Information technology is a significant advancement in the banking sectors, according to the study. Though this study shows that financial innovations boost customer satisfaction, it doesn't say whether they improve performance. According to Scholnick (2006), big commercial banks see an increase in transactions and business as a result of ATM use, while small banks do not. Importantly, the bank's revenue can go up if transaction expenses are charged more frequently as the number of transactions with the bank goes more. But there are certain online banking services that don't cost anything at all.

According to Pearson (2011), new markets in the sector are exploited as a result of financial advances. So far, research on the impact of financial innovations on commercial banks' bottom lines has been scant, but it's safe to assume that these developments ultimately benefit both the targeted institution and the industry as a whole. De Young et al. (2007) compared community banks in the United States that offered online banking services to those that solely had physical locations in order to determine the impact of e-banking on profitability. Banks' bottom lines improved with e-banking, according to the report. Shirley and Sushanta (2006) carried out a study that examined the effects of IT on the banking business. The overarching goal of the research was to determine how IT impacts the bottom lines of commercial banks. A total of 68 US banks were the intended subjects of the 20-year data collection project. Results showed that a rise in profits could be in the horizon as a result of cost reductions brought about by incorporating IT into service delivery. But the study also discovered that banks' earnings would drop if the network effect was too low, so profitability was dependent on it. Therefore, the impact of technological advancement on the study's findings is inconclusive.

METHODOLOGY

This study employs a quantitative approach for its design. The thinking behind this strategy is that a high-level comprehension of the study may be derived from the quantitative data and the analysis that follows. According to Moses's (2014) research, correlational studies are

quantitative in character and use two or more variables to establish a relationship. Measurement and/or determination of the variables' nature and degree can also be accomplished through correlation study. The researcher wished to apply a deductive approach, test hypotheses formed within the framework of this study, and establish associations between closely related variables, therefore they opted for a confirmatory correlation research design. It is possible to make a hypothesis regarding an anticipated link in correlation studies. It is possible to utilise one variable to forecast the other if there is a correlation between them.

Population of the Study

In statistics, a population is defined as "the set of all things from which a representative sample is taken" (Singh, 2007). According to Ary et al. (2006), the population consists of all the individuals, events, or things that have been thoroughly described. A researcher's target population consists of all the individuals, entities, or phenomena that are of interest to the study (Sekaran and Bougie, 2016). The people who work for the twenty-four deposit money banks in Port Harcourt are the ones who will be studied. So, 3,318 people working for commercial banks in their regional offices made up the study's population. See table below for source: www.businesslist.com.ng.

Sampling Procedure and Size Determination

The study sample comprised employees drawn from selected quick service restaurants. The sample size for the study was determined using the Taro Yamane formula, which provides a mathematical basis for calculating representative sample sizes.

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = Sample Size Sought
N = Population (3,318)
e = Level of Significance (5%)

The sample size sought (n) is:

$$n = \frac{3,318}{1 + 3,318(0.05)^2}$$

$$n = \frac{3,318}{1 + 8.295}$$

$$n = \frac{3,318}{9.295}$$

$$n = 357$$

Methods of Data Collection

One copy of the questionnaire will be distributed to staff members at various branches of deposit money banks in Port Harcourt by the researcher and three qualified research assistants. The survey was made available to the participants for a duration of two weeks. Five questions made up the profiling variables: age, gender, education level, job category, and duration of service. The recommendation from Sekaran and Bougie (2014) was to ask for personal information either at the beginning or the conclusion of the survey instrument, thus that is where it was placed in the questionnaire. The second part of the survey asks about HRM practices to what degree.

Instrument for Data Collection

In this study, a structured questionnaire is used to gather data. Data was collected via a questionnaire. A and B are the two main parts of the instrument. Section A requests respondents' demographic details, whereas Section B includes twenty-five (25) elements. Items in the questionnaire will be rated on a five-point scale in these instruments, with 5 points for Very High Extent (VHE), 4 points for High Extent (HE), 3 points for Moderate Extent (ME), 2 points for Very Low Extent (VLE), and 1 point for Low Extent (VLE).

Validity of the Instrument

The supervisor will be provided with the draft questionnaire in order to ensure its content correctness. The final questionnaire will be enhanced based on his input. One lecturer from the Department of Office and Information Management will validate the data collecting instrument by looking it over and making any necessary revisions. This person will act as the researcher's supervisor. For the sake of both presentational and substantive legitimacy, the three experts offered appropriate revisions and recommendations. The instrument was modified based on their thoughts.

Reliability of the Instrument

Based on the results of the pilot study, we will conduct a reliability test using statistical analysis to find the reliability coefficient and the consistency of the instrument in each

questionnaire item. Based on the reliability coefficient falling between 0.5 and 1, as stated by Spiegel and Stevens (1999), the collected questionnaire was deemed reliable after analysis using Pearson product moment correlation (PPMC).

Data Analysis of the Study

In the beginning, we screened and cleaned the data to make sure it was accurate and reliable. This study provides a detailed description of the respondents' demographics and organisational profiles and places an emphasis on the response rate. The necessary computations will be processed by coding the questionnaires and entering them into SPSS 23.0. The study's principal method for analysing construct validation was the confirmatory factor analysis. Tabulated reports, distribution and trend charts and plots, descriptive statistics, and advanced statistical analyses may all be created using data imported into SPSS from any kind of file. The sample profile will be described using the frequency distribution. The data is then graphically displayed after being organised into a frequency distribution. In statistics, graphs serve to visually convey facts to the audience. Data shown graphically is easier to understand than numerical data presented in tables or frequency distributions. The Spearman Rank Correlation Coefficient will be used to test the hypotheses. Using the results of the Spearman Rank Correlation analysis, we can see how the two variables, the dependent and independent ones, are related in this research. The decision rule at a 5% level of significance is as follows: 1) The null hypothesis is accepted if $p > 0.05$, and rejected if $p < 0.05$.

ANALYSIS AND DISCUSSION OF FINDINGS

Response Rate

Only 297 out of 357 people surveyed from Port Harcourt's commercial banks actually filled out the survey. The combined response rate of 83.2% was more than enough to ensure that the results were representative of the population. A 60% response rate is sufficient to allow data analysis, according to Bell (2005). The proportion of responses that were considered to be helpful are displayed in Table 1.

Table 1 Response Rate

	Frequency	Percent (%)
Responded	297	83.2
Non-respondents	60	16.8
Total	357	100

Table 2: Respondents by Gender

Gender	Frequency	Percent (%)
Male	155	52.2
Female	142	47.8
Total	297	100

Respondents were asked to indicate their gender. The results showed that 52.2% of the participants were male, while 47.8% were female, indicating a relatively balanced gender representation despite a slight predominance of male respondents.

Table 3: Respondents Highest Level of Education

Category	Frequency	Percent (%)
BSc/HND	174	58.6
Master's Level	123	41.4
Total	297	100

Respondents were requested to state their highest educational qualification, as presented in Table 3. The results indicate that 58.6% of the participants held a bachelor's degree, while 41.4% had attained a master's degree, demonstrating that all respondents possessed university-level education.

Table 4: Effect of Collaboration on Employee Engagement

Collaboration	Mean	Std Dev.
Organizational collaboration approaches play a pivotal role in enhancing employee efficiency	3.86	0.225
By fostering a culture of teamwork and open communication	3.99	0.135
Collaboration requires mutual respect and communication among the employees	4.45	0.415
Team members need to perceive each other as collaborators, not as competitors	3.97	0.169
The most influential factors that impede the increase of collaboration	4.42	0.333
Each step of the decision-making process in an organization must be clear and concise.	4.36	0.178
lack of collaboration in the workforce harms organizations in two primary areas	3.91	0.211
Average	4.13	0.24

As presented in Table 4, the majority of respondents agreed that collaboration within banks influences employee engagement. Specifically, collaboration was found to enhance employee engagement, with a mean score of 4.13. This finding is consistent with empirical evidence suggesting that when collaboration is embedded as a routine work practice, organizations are better positioned to improve productivity, service quality, and overall performance (Bakken, 2018). Effective teamwork enables employees to contribute meaningfully toward organizational objectives by fostering an environment that supports shared responsibility and mutual contribution. Moreover, cohesive teams are increasingly essential for organizations seeking to adapt to expanding operational demands and evolving strategic priorities.

Table 5: Effect of file sharing on Employee Engagement

File Sharing	Mean	Std Dev.
File sharing has become one of the most common online activities	3.71	0.241
File sharing occurs in networks which allow individuals to share	4.29	0.346
there are more file shared in the banks	4.01	0.445
File sharing is heavily skewed to young employees in the banking sector	4.22	0.177
Because physical distance is largely irrelevant in file sharing	4.49	0.341
There are unauthorized file sharing by employees	4.03	0.211
The holders of mobile phones share different kind of files through the medium of wireless technology	4.37	0.216
Average	4.16	0.28

As shown in Table 5, the majority of respondents agreed that file-sharing practices within banks influence employee engagement. Specifically, file sharing was found to enhance employee engagement, as reflected by a mean score of 4.16. Evidence from earlier studies suggests that file-sharing activities tend to be more prevalent among younger employees. For instance, research indicates that while a large proportion of individuals under the age of eighteen engage in file downloading—many of whom are frequent users—participation rates are considerably lower among individuals aged 35–44 (Edison Media Research, 2003). Furthermore, the number of adult file sharers in the United States has increased substantially since 2000 (Pew Internet Project, 2000; 2003). Given that file-sharing technologies are not constrained by physical distance, participation spans across diverse geographical locations, enabling individuals from different parts of the world to engage in shared digital work practices.

Table 6: Effect of project management on Employee Engagement

Project Management	Mean	Std Dev.
Project management has obtained popularity as a unique management project is a sequence of unique, complex, and connected activities	3.87	0.220
Project management can be contrasted from a routine set of activities	4.26	0.149
Projects are also characterized by general attributes such as the purpose	4.37	0.015
Project is an irreversible change with a life cycle	4.22	0.167
While the project manager is central to the process of project management	3.96	0.322
To ensure the success of projects, the project manager must have the requisite knowledge	4.41	0.218
Average	4.16	0.118

As indicated in Table 6, the majority of respondents agreed that project management practices within banks influence employee engagement. The findings further show that project management enhances employee engagement, as reflected by a mean score of 4.18. According to Pinkerton (2003), project management integrates the skills and competencies of individuals by coordinating their efforts toward the achievement of project objectives, thereby improving the likelihood of project success. Effective project management also places strong emphasis on quality, which remains a critical criterion for evaluating project outcomes and organizational performance.

Table 7: Effect of innovation on Employee Engagement

Innovation	Mean	Std Dev.
innovation is the process of creating and applying new concepts	3.78	0.103
The main characteristics and behaviors of successful innovators is to engage employees	4.39	0.217
Innovation influence reduction of operational	4.11	0.145
innovation hence good employee engagement	4.24	0.264
Increase employee engagement as innovation increases in banks	4.51	0.338
Innovation reduces operational costs and hence better engagement for the bank	4.06	0.233
To achieve increase employee engagement, we need innovation	4.22	0.177
Average	4.19	0.2

Table 7 shows that the majority of respondents believed that innovation in the banking industry affected employee engagement. The key traits and actions of effective innovators, according to Dyer et al. (2021). Associating, enquiring, watching, networking, and experimenting are five abilities that innovative people display. These abilities are highlighted as critical in driving game-changing breakthroughs across a number of sectors by the authors' extensive research and case studies. Applying lean startup concepts to stimulate creativity within established organisations is emphasised by Furr and Dyer (2021). In order to minimise risk and maximise learning, they have laid out a methodical approach to innovation that involves quickly testing and iterating concepts in the market. Organisations may find and pursue innovation possibilities with high potential with the help of the authors' practical framework, which is based on methods including customer discovery, fast prototyping, and continuous experimentation.

Table 8: Effect of Service Quality on Employee Engagement

Service Quality	Mean	Std Dev.
service quality has been built around the SERVQUAL	4.30	0.189
The SERVQUAL model suggests that service quality can be measured by identifying the gaps between customers' expectation and perceptions	4.39	0.218
Service quality is important aspect that affects the competitiveness of business	4.41	0.002
Banks should increase the quality of service constantly since there is no assurance that the current outstanding service is also suitable for future	4.46	0.014
banks should "develop new strategy" to satisfy their customer and should provide quality service	3.96	0.317
Quality evaluations derive from the service process	4.02	0.247
service quality these are technical quality and functional quality	4.06	0.328
service quality is a critical motivating force to drive the bank up in the high technology ladder	4.09	0.247
Average	4.81	0.23

The majority of respondents believed that the delivery of high-quality services by the bank affected employee engagement, as indicated in Table 8. There was an increase in employee engagement (mean=4.81) as a result of project management. A rebranding effort by banks should centre on service quality because of the many benefits it brings to businesses. These include standing out from the competition, which boosts sales and market share; opening doors to cross-selling opportunities; strengthening customer relations, which improves the corporate image; and a decrease in employee and customer turnover rates thanks to improved communication, reliability, responsiveness, and credibility (Newman, 2001). Customers in Nigeria are unhappy with the service they receive from their banks, says Woldie (2003). This highlights the importance of studying client satisfaction and behaviour in relation to commercial banks in Nigeria.

Test of hypotheses

H₀₁: There is no significant relationship between employee collaboration and innovation of commercial banks Port Harcourt Rivers State.

Particular	Result	Remark
R	0.572	57.2% correlation coefficient
P-value	0.000	Accept alternate hypothesis
P-value**	0.048	Accept null hypothesis

Source: SPSS (22.0)

Key note

P* 0.01 Significant accept alternate hypothesis

P 0.05 not significant** accept null hypothesis

Decision

With a p-value of 0.000 at 1% significance level, which is lower than the critical p-value of 0.05, the alternative hypothesis is accepted and the null hypothesis is rejected. Since the calculated p-value of 0.048 is larger than the critical p-value of 0.05 at the 5% level of significance, the researcher chooses to accept the null hypothesis—that there is a significant relationship between employee collaboration and innovation of commercial banks in Port Harcourt, Rivers State—and reject the alternative hypothesis.

H₀₂: There is no significant relationship between employee collaboration and quality of service delivery of commercial banks Port Harcourt Rivers State

Particular	Result	Remark
R	0.567	56.7% correlation coefficient.
P-value*	0.000	Accept alternate hypothesis
P-value**	0.003	Accept alternate hypothesis

Source: SPSS (22.0)

Key note

P* 0.01 **significant** **accept alternate hypothesis**

P 0.05** **Significant** **accept alternate hypothesis**

Decision

At both the 1% and 5% levels of significance, the computed p-value of 0.000 is lower than the critical value of 0.05. Consequently, the null hypothesis is rejected and the alternative hypothesis is accepted. This result indicates a statistically significant relationship between employee collaboration and quality of service delivery in commercial banks operating in Port Harcourt, Rivers State.

H₀₃: There is no significant relationship between file sharing and innovation of commercial banks Port Harcourt Rivers State

Particular	Result	Remark
R	0.698	69.8% correlation coefficient.
P-value*	0.000	Accept alternate hypothesis
P-value**	0.000	Accept alternate hypothesis

Source: SPSS (22.0)

Key note

P* 0.01 **significant** **accept alternate hypothesis**

P* 0.05 **Significant** **accept alternate hypothesis**

Decision

At both the 1% and 5% levels of significance, the computed p-value of 0.000 is lower than the critical value of 0.05. Accordingly, the null hypothesis is rejected and the alternative hypothesis is accepted, indicating a statistically significant relationship between file sharing and innovation in commercial banks operating in Port Harcourt, Rivers State.

H₀₄: There is no significant relationship between file sharing and quality of service delivery of commercial banks Port Harcourt Rivers State

Particular	Result	Remark
R	0.741	74.1% correlation coefficient.
P-value*	0.000	Accept alternate hypothesis
P-value**	0.000	Accept alternate hypothesis

Source: SPSS (22.0)

Key note

P* 0.01 **significant** **accept alternate hypothesis**

P* 0.05 **Significant** **accept alternate hypothesis**

Decision

At both the 1% and 5% levels of significance, the computed p-value of 0.000 is below the threshold value of 0.05. Consequently, the null hypothesis is rejected in favor of the alternative hypothesis, indicating a statistically significant relationship between file sharing and quality of service delivery in commercial banks operating in Port Harcourt, Rivers State.

H₀₅: There is no significant relationship between project management and innovation of commercial banks Port Harcourt Rivers State

Particular	Result	Remark
R	0.805	80.5% correlation coefficient.
P-value*	0.000	Accept alternate hypothesis
P-value**	0.000	Accept alternate hypothesis

Source: SPSS (22.0)

Key note

P* 0.01 **significant** **accept alternate hypothesis**

P* 0.05 **Significant** **accept alternate hypothesis**

Decision

At both the 1% and 5% levels of significance, the computed p-value of 0.000 is lower than the critical value of 0.05. Accordingly, the null hypothesis is rejected and the alternative hypothesis is accepted, indicating a statistically significant relationship between project management and innovation in commercial banks operating in Port Harcourt, Rivers State.

H₀₆: There is no significant relationship between project management and quality of service delivery of commercial banks Port Harcourt Rivers State

Particular	Result	Remark
R	0.340	80.5% correlation coefficient.
P-value*	0.294	Accept alternate hypothesis
P-value**	0.294	Accept alternate hypothesis

Source: SPSS (22.0)

Key note

P* 0.01 **significant** **reject alternate hypothesis**

P* 0.05 **Significant** **reject alternate hypothesis**

Decision

At both the 1% and 5% levels of significance, the computed p-value of 0.294 exceeds the critical value of 0.05. Consequently, the null hypothesis is not rejected, indicating that there is no statistically significant relationship between project management and quality of service delivery in commercial banks operating in Port Harcourt, Rivers State.

Discussion of Findings

The study's average scores on four dimensions—collaboration (4.13), file sharing (4.16), project management (4.18), innovation (4.19), and service delivery (4.18). This suggests that banks should rebrand themselves to focus on service quality, which has many benefits for businesses. These include standing out from the competition through increased sales and market shares, fostering better relationships with customers (which boosts the company's image), and retaining both employees and customers (thanks to reliable, responsive, and credible communication) (Newman, 2001). Employee collaboration and creativity at commercial banks in Port Harcourt, Rivers State, were shown to have a substantial association, according to the study. There is a strong correlation between employee collaboration and the quality of service delivery at commercial banks in Port Harcourt, Rivers State. Similarly, there is a significant correlation between file sharing and innovation at these banks. Moving on to project management, there is a significant correlation between project management and innovation at these banks. However, there is no significant correlation between

project management and service delivery quality at these banks. According to the study's predictions, the factors have a positive and statistically significant association.

The empirical evidence is backed by studies such as Ngoasong and Kalafatis (2016), which found that retail firms in Cameroon are investing in digital infrastructure, improving their digital marketing, and expanding their online presence to fully take advantage of digital transformation in the highly competitive retail industry. Chege, Wang and Suntu (2020) found that small and medium-sized enterprises (SMEs) were more likely to have a different impact of IT innovation on organisational performance compared to commercial banks. Mbiydzenyuy and Esono (2017) found that digital transformation strategies, especially the use of data analytics and advanced inventory management systems, greatly improved supply chain efficiency, leading to lower operational costs and improved organisational performance. Ombati (2020) found that According to the research, which relied on correlation analysis, there are a number of claims made in the following studies: Mawejije and Lakuma (2019) that mobile money has a marginally beneficial effect on monetary aggregates, the customer price index, private sector credit, and overall economic activity; Adhitya and Sembel (2020) that new technology adoption can improve capital adequacy ratio (CAR) and loan to debt ratio performance (LDR); Njanja, Tadewos, and Amdissa (2018) that retail firms are embracing digital transformation strategies, such as personalised online shopping; Fokam

and Tafese (2019) that retail companies that adopted mobile payment solutions saw significant improvements in financial performance, with increased sales and reduced transaction costs; and Ngueutsa and Aguele (2020) that retains

CONCLUSION AND RECOMMENDATIONS

Conclusion

Using primary data collected from questionnaires given to commercial bank workers in Rivers State, this study investigated the connection between digital communication and employee engagement. The study yielded average scores of 4.13 for collaboration, 4.16 for file sharing, 4.18 for project management, 4.19 for innovation, and 4.18 for service delivery. This suggests that banks should rebrand themselves as companies that prioritise service quality. The benefits of this approach are numerous: it helps businesses stand out from the competition, which boosts sales and market shares; it opens doors to cross-selling opportunities; it improves customer relations, which boosts the company's image; and reliability, responsiveness, credibility, and communication lead to satisfied and retained customers and employees. Additionally, the tested hypotheses indicate a positive and significant correlation between digital communication and employee engagement in the corporate communication process.

Employee collaboration and creativity at commercial banks in Port Harcourt, Rivers State, are positively and significantly correlated, according to the study's findings. Employee collaboration has a strong correlation with the quality of service delivery at commercial banks in Port Harcourt, Rivers State. On the other hand, file sharing has a significant correlation with innovation at these banks. When it comes to project management, there is a significant correlation with innovation at commercial banks in Port Harcourt, Rivers State. However, when it comes to quality of service delivery, project management does not show any significant correlation.

Recommendations

- I. Commercial banks should invest in advanced digital and supply chain-related technologies and provide continuous training for employees to ensure effective utilization of these tools, with the aim of enhancing employee engagement, improving customer experience, and strengthening brand loyalty in an increasingly competitive market.
- II. Commercial banks are encouraged to sustain and expand investments in digital communication technologies while promoting their adoption among both employees and customers, as effective digital communication has the potential to enhance employee engagement, support private sector credit growth, improve customer value perception, and stimulate overall economic activity.
- III. Commercial banks should leverage digital technologies to improve inventory control and streamline supply chain operations, while also encouraging customers to adopt e-commerce platforms in order to enhance operational efficiency, market competitiveness, and long-term organizational sustainability.

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