LAUTECH Journal of Accounting, Finance and Contemporary Management Research (JAFACOMAR); Volume 1, Issue 2; 2024.

Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises

BAMIGBOYE Omololu Adex*[1]
Department of Accounting,
Faculty of Management Sciences,
Osun State University, Osogbo, Nigeria.
omololu.bamigboye@uniosun.edu.ng

OLATUNJI Ibrahim Gbenga*[2]
Accounting and Finance,
Faculty of Humanities, Management and Social Sciences,
Kings University, Odeomu Nigeria.
Ig.olatunji@kingsuniversity.edu.ng

SALIMON Akeem Isola*[3]
Department of Accounting,
Faculty of Management Sciences,
Osun State University, Osogbo, Nigeria.
akeem2excel@gmail.com

ADENLE Oluwatimileyin Esther*[4]
Department of Accounting,
Faculty of Management Sciences,
Osun State University, Osogbo, Nigeria.
oluwatimileyin.adenle@uniosun.edu.ng

Abstract

This study examined the impact of Information and Communication Technology (ICT) on financial management in Nigerian Small and Medium Enterprises (SMEs). The objective was to understand the link between ICT usage and its effectiveness in managing finances within SMEs in Nigeria. Secondary data were analyzed using thematic analysis. Six key themes emerged: enhanced efficiency and automation, improved decision-making, increased transparency and accountability, infrastructure and cyber threats, human resource capacity and the digital divide, and data management challenges. The study concluded that ICT can significantly improve financial management by boosting efficiency, decision-making, and transparency. Recommendations include addressing infrastructure, cyber security, human resource capacity, and data integration challenges to help Nigerian SMEs fully leverage ICT for effective financial management.

Keywords: Information and Communication Technology, Financial Management, Small and Medium Enterprises, Businesses.

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

Introduction

In the current corporate landscape, characterised by constant change, the information and communications technology business have a crucial role in fostering innovation and enhancing efficiency in several sectors. In the field of financial management, the integration of information and communication technology (ICT) has significantly transformed the conventional procedures. As a result, the opportunities to make processes more efficient, enhance decision-making abilities, and optimise the use of resources have considerably expanded beyond what was previously conceivable (Nabatova & Malchevska, 2020).

The introduction of information and communications technology (ICT) has facilitated the connection of geographically dispersed workstations in enterprises, enabling more efficient corporate processes through the usage of digital networks (Prikhno et. al., 2021). By combining high-speed devices with high-speed communication networks that transmit multimedia information, information and communications technology has greatly helped to overcome limitations of time, distance, and space. This has made it easier and more efficient to conduct various business activities on different levels (Kumar & Vu, 2014).

Alnaqabi and Nobanee (2021) posits that ICT mechanism focuses on the collection, storage, manipulation, and transmission of information and other data including financial data using electronic methods. By using the phrase "communication technology," we are specifically referring to the collection of hardware and software components that can make connections with different hardware components and transmit information between different physical locations. The implementation of information and communication technology not only reduces costs of doing businesses and enhances efficiency of outputs, but also enhances the performance of organisations worldwide (Spanos et al., 2002).

The administration of a company's finances is an essential responsibility for every organisation since it has a significant influence on the results of the company and, in the end, ultimately determines whether the firm is successful or otherwise. The primary objectives of financial management include acquiring funds for the day-to-day operations of the company desirably, to determine the optimal structure and allocation of these resources, to make decisions regarding investments, and, ultimately, to analyse, forecast, plan, and manage all business activities to guarantee the financial stability or success of the company (Alnaqabi & Nobanee 2021).

The financial landscape has undergone a transformation due to the influence of the internet of things, big data mining, and artificial intelligence. This change has been facilitated by the introduction of new and creative ideas. These technologies have enabled organisations to obtain vast amounts of data and utilise advanced analytical tools that were previously inaccessible to them (Baldigara et al., 2012). ICT encompasses many technologies aimed at automating routine as well as day-to-day operations, streamlining the exchange of financial information, and enabling prompt collaboration among essential stakeholders. The scope of these technologies encompasses a wide spectrum, spanning from basic accounting software to robust tools for data analysis (Agyei, 2014).

The growth and survival of an organisation are intimately linked to its ability to effectively manage its financial resources. This technique encompasses various procedures, such as budgeting, forecasting, risk management, and performance evaluation. Financial managers can enhance operational efficiency, automate repetitive procedures, and improve the accuracy and timeliness of financial reporting by leveraging the tools and systems enabled by ICT (Paramasivan & Subramanian, 2005). For this reason, the implementation of information technology is absolutely necessary in order to enhance the decision-making process in the financial industry. To achieve competitiveness and success in the market, to increase profitability and efficiency, to immediately address external issues, and to deftly adapt to the needs of the modern period, this is done with the objective of attaining these goals (Jiang 2020). However, ICT application in financial management does not come without issues in Nigeria, this issue include inadequate skill tech skills, poor infrastructure faciliites, data security and regulatory compliance.

This research effort is set out with the primary objective of exploring the impact of information and communication technology (ICT) on effective financial management. The motivation for this study was as a result of dearth literature on how ICT affect financial management in Nigeria, however, previous researchers have worked on how ICT affect the firm performance or profitability (Okeke, 2024; Akinboade 2020; Enomate & Audu 2022; Okonkwo et al, 2015; Muhammad et al, 2018; and Adekunle & Rafiu 2014), hence, this study will focus on financial

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

management. The scope of the study is limited to Nigerian Small and Medium Enterprises with a focus on how the application of ICT has impacted the management of financial activities of SMEs in Nigeria. The study aimed at exploring and enhancing comprehension of the sophisticated link between the utilisation of technology and its effectiveness on financial management with focus on Nigerian SMEs.

Literature Review

Information and Communication Technology (ICT)

It is a common practice in academic writing to use the phrases "information technology" and "information and communication technology" interchangeably at times. Information and communication technologies encompass all areas of information technology and telecommunications, including the processing of audio and video, the transfer of information, and the broadcasting of media (Roztockia, 2015). The term "Information and Communication Technology," which is abbreviated as "ICT," is a word that incorporates a wide range of computer-based technologies that facilitate communication. These technologies also include the electronic management, modification, and transportation of data.

According to Ashrafi and Weistroffer (2008), the aforementioned examples serve as demonstrations of a number of different technologies. These technologies include, but are not limited to, desktop computers, laptops, mobile devices, wired or wireless networking, corporate productivity apps, data storage and security, network security, and other associated protocols. He posits that information and communication technology has the potential to enhance, coordinate, and monitor the activities of a large number of enterprises, while also increasing the utilisation of financial management.

When considered as a whole, information and communication technology is typically viewed as a reliable instrument that can be utilised to construct a solid foundation for an efficient system of internal control over financial reporting. This is particularly true when the technology is taken into consideration in its whole. Both the hardware and software components that are responsible for facilitating the connection of several hardware components are included in the scope of the field of communication technology. Information can be transmitted from one

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

physical location to another thanks to this connection, which makes it possible to do so (San-Jose, et al, 2009).

Information and communications technology has been able to successfully overcome limitations imposed by time, distance, and location. This has been accomplished through the utilisation of high-speed devices and communication networks. Commercial procedures have seen substantial improvements in terms of both their convenience and their efficiency as a result of this innovation. In accordance with the description that was presented by Imalingat (2015), communication technology is made up of both hardware and software components. These components work together to enable the flow of data across a wide variety of hardware components and across a variety of physical locations for various purposes.

Concept of Financial Management

In the context of the modern economy that is founded on money, finance is one of the fundamental foundations upon which all of the many types of economic activities are built. When it comes to the overall health of any corporate organisation, the managing of financial activities in an effective manner is of the biggest importance (Akinrinade, 2020). The process of managing the money or finances of a company unit in order to meet the goal of the organisation in a manner that is both cost-effective and efficient is one definition of financial management. This definition is based on the assertion that financial management is the process. The management of an organization's finances is an essential function since it is accountable for the supervision of all of the company's financial assets and for the formulation of decisions that are particularly significant from a financial point of view (Agwu, et al, 2014).

The planning of an business entity's financial budget, the control and implementation of financial strategies that demonstrate how to effectively use the company's financial resources in accordance with planning and budgeting, and the achievement of the organization's financial goals in order to maximise shareholder wealth are the primary responsibilities of financial managers, as stated by Juneja (2015). Financial managers are responsible for all of these things, after calculating the quantity of capital that is required by the organisation, the responsibility of making critical decisions regarding the forms and fractions of various sources of financial resources is handed to the financial management of the business (Cebisova, 2011).

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

The primary purpose of finance managers is to reduce the amount of money spent on capital expenditures while simultaneously augmenting the value of the company's shareholders. When it comes to increasing the earnings of the firm, the financial management of the organisation will have a variety of different options accessible to them to choose from (Agwu, et al, 2014). In contrast, they will only take advantage of chances that are actually profitable and will have the impact of boosting the organization's earnings while concurrently cutting its expenses. In other words, they will only take advantage of opportunities that are truly profitable. As a consequence of this, the wealth of the stockholders will ultimately increase as a natural consequence (Aldalayeen, et al. 2013).

Commonly used ICT Application in Financial Management of SMEs

a. **MS Excel:** professionals in various fields such as banking, economics, management, and accounting regularly use MS Excel in organisations to perform their own calculations. Tables and graphical objects created with MS Excel can be easily transferred to any other software within the MS Office suite, hence streamlining the process of working with the analytical results. This encompasses activities such as generating reports, sharing files, or extracting certain segments of the data (Tkachenko, et al, 2019).
b. **M.E.Doc** is a software programme specifically created for the purpose of managing electronic documents. Users can utilise this feature to manage a wide range of papers, including reports, agreements, tax invoices, actions, bills, and other comparable items (Chong & Nizam, 2017).
c. **Google Sheets, Google Apps Script, and Google Analytics** are software programmes offered by Google. These software are internet-based and are specifically designed for performing financial analysis. Furthermore, they are accessible to users without any charge. Google Sheets is a spreadsheet programme that incorporates sophisticated financial analysis capabilities and artificial intelligence technology. Users can do precise calculations and predict the most favourable options for problem-solving.
d. **FlyDoc** is a sophisticated software tool created to expedite the efficient exchange of digital documents.

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

e. **The "1C Accounting"** programme provides automated accounting and tax accounting solutions for businesses across all industries. The programme enables the management of routine activities, inventory tracking, warehouse management, monitoring of trade operations, accounting for indirect costs, and management of VAT (Chong & Nizam, 2017; Tkachenko, et al, 2019).

Role of ICT on Management of SMEs Finances

In order to properly execute the multiple tasks that are carried out by the business, one of the way to do so is to make use of ICT. It is necessary to make a number of decisions regarding these activities, and those decisions must be based on the data that is relevant to the circumstance. In order to provide a concise summary of the vast amount of information that a company owns, it is necessary to make use of sophisticated computerised technology (Attom, 2012). The widespread utilisation of accounting software and spreadsheet programmes, such as MS Excel, in financial accounting procedures. These tools optimise the process of managing, analysing, and reporting financial data, making them essential resources for organisations in need of efficient and precise financial management solutions (Karl, 2000).

Adesola (2013) posits that ICT provides numerous benefits to businesses, including increased efficiency, enhanced productivity, faster communication, and electronic storage and record-keeping. Given the widespread use of ICT, it has become essential for organisations to incorporate it into all aspects of their operations in order to effectively and efficiently handle tasks. Technology is a crucial tool for managing businesses of all types, as it enables accurate and efficient storage of information.

According to Aldalayeen et al. (2013), the financial management ability of industrial enterprises is affected by the use of ICT. He demonstrate the statistically significant influence of IT characteristics on financial performance, including networking capabilities, databases, and complementing systems. The authors also suggested that industrial businesses concentrate on IT solutions that can offer them a competitive edge.

IT and financial management have converged to revolutionise how businesses handle their finances. ICT automates financial procedures, including simple bookkeeping and complex

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

financial analysis. Sophisticated software processes data instantly, boosting financial transactions, reporting, and analytical speed and accuracy. This automation improves workflows and reduces human errors, increasing productivity and cost savings for companies (Binuyo & Aregbesola, 2014).

ICT also enhances financial decision-making. Analytics and business intelligence solutions can give companies useful insights from vast amounts of financial data. These insights enable financial managers to make better judgements, spot patterns, and accurately predict market movements. ICT also allows scenario planning and forecasting, allowing companies to assess the likely outcomes of different tactics and make proactive changes to fulfil financial goals (Attom, 2012; Aldalayeen et al., 2013).

It is noteworthy to state that ICT improves financial management transparency, accountability, and compliance. Cloud-based solutions and digital platforms enable secure financial data access, stakeholder cooperation, and data accuracy and reliability (Agwu, et al, 2014). Strong security, audit trails, and controls in ICT help businesses meet legal and industry standards. Transparency boosts stakeholder confidence and decreases fraud, error, and non-compliance risks, safeguarding the organization's finances and reputation.

Shortcomings of ICT in Financial Management of SMEs

Many countries, including Nigeria, are experiencing an increasing prevalence of cybercrime, which poses a threat to organisations through breaching of confidential data, malware assaults, and financial fraud. Implementing ICT systems creates additional vulnerabilities for cybercriminals to exploit, necessitating the implementation of strong security measures and the training of staff. Insufficient allocation of funds for cybersecurity and a lack of knowledge about cyber dangers might leave organisations vulnerable (Adeniran, 2009).

Another critical hinderance is that Nigeria has substantial challenges due to an unstable electricity supply and restricted internet connectivity. Regular power outages cause disruptions to financial processes and impair system functionality (Afolayan & Olatunbosun, 2014). Similarly, the high expenses associated with internet usage and the limited capacity for data transmission hinder the ability to obtain real-time information and utilise cloud-based

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

solutions. Rural organisations are particularly impacted by this digital divide, which in turn exacerbates the challenges of achieving financial inclusion (World Bank, 2022).

A proficient workforce is necessary for successful financial management utilising ICT. A considerable proportion of the Nigerian labour force may possess insufficient digital literacy and technical proficiency required to effectively run and maintain intricate ICT systems. To address this skills gap, it is necessary to implement focused training programmes and provide continuous assistance to employees in order to help them adjust to changing technologies (Adegboye & Adeyemi, 2013).

Ajayi and Oyedele (2016) argued that the use of digital data requires strong measures to guarantee its correctness, comprehensiveness, and security. Data input errors that are made manually, practices of data governance that are not appropriate, and mechanisms for backing up data that are not sufficient can all put financial reporting and decision-making at risk. Companies must develop explicit data management rules and procedures to reduce these risks. By addressing these difficulties, Nigerian organisations can fully harness the potential of ICT to achieve successful financial management.

Ekanem and Ekanem (2018) argue that the process of combining new ICT solutions with pre-existing legacy systems in organisations can be intricate and expensive. The procedure might be further complicated by incompatible data formats, old infrastructure, and staff opposition to change. For successful implementation, it is essential to have a clearly defined integration strategy and an efficient change in financial management process.

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

Conceptual Framework

The conceptual framework adopted for the study is diagrammatically represented below:

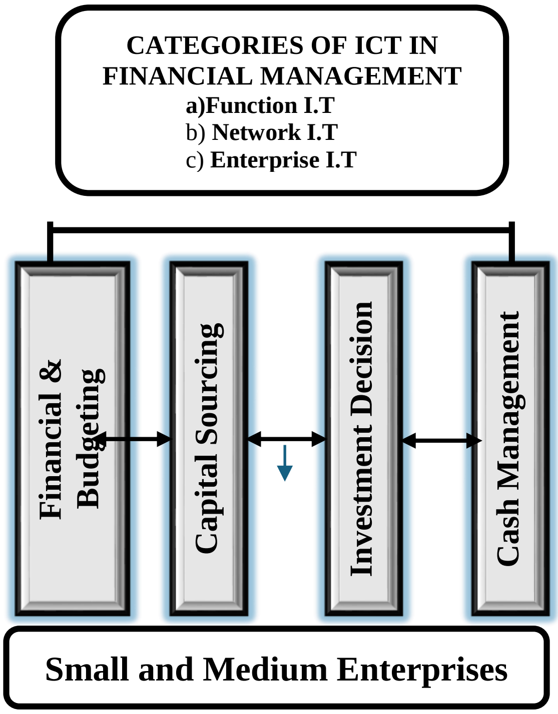

Fig. 1.0: Conceptual Framework

Source: Authors' Construct (2024)

The diagram above illustrates some impact of information technology on effective financial management in SMEs focusing on the categories of ICT and the main components of the financial management process. The specific details are provided below:

Categories of ICT

a) **Function I.T**

This refers to technologies that make it easier to perform singular tasks. They enhance the efficiency of such tasks. These technologies are mostly used by accountants, which is most relevant to this study and other professionals such as design engineers and doctors. The most common forms of Function IT are Word processors and spread sheets (Tkachenko, et al, 2019).

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

b) **Network I.T**

This refers to technologies that provide media for people to communicate. It is similar to communication technology. Network technologies allow for users to interact as they want without limitations. They include emails, instant messaging and blogs (Chong & Nizam, 2017).

c) **Enterprise I.T**

These are technologies adopted by organizations to manage interactions among employees or with business partners. They are purchased and implemented by the organizations. They constitute of applications that specialise in business processes and enhance business communications (Chong & Nizam, 2017; Tkachenko, et al, 2019).

Components of The Financial Management Process

a. **Finances Forecasting:** The process of projecting financial data is essential to the operations of SMEs. With the help of ICT SMEs can foresee and select the activities that will be most beneficial to do to improve the profitability and prosperity of the firm. It is the responsibility of the financial management to determine the amount of funds that are necessary for the acquisition of fixed assets as well as the amount that is mandatory for working capital. By utilising planning and budgeting technologies, financial managers can optimise their work processes and make work more efficient. Financial managers can create forecasts about the anticipated profit or loss of a firm by using the component of time, predicted income, costs, and spending (Paramasivan & Subramanian, 2005).
b. **Capital Sourcing:** With the aid of information technology, obtaining financial resources could be simplified. For instance, the management may decide to allow the public to invest in equities through an online platform. They had the option to obtain loans from multiple financial institutions. Credit scores and credit ratings of organisations are readily available to creditors, lenders, insurance companies, and enterprises over the internet, providing ceaseless access to this information. Electronic access is provided for credit scores and ratings (Kirmani, et al, 2015).

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

c. **Investment Decision:** The evaluation of investments is simplified by the solutions provided by information technology, which also make it feasible for financial managers to compute the rate of return that is attributed to each investment proposal (Paramasivan & Subramanian, 2005). Additionally, it is feasible to automatically anticipate the potential income that an investment can give over a specific period because of the nature of the investment. The information shown here will prove to be of great assistance when it comes to deciding whether to accept the investment proposal (Kirmani, et al, 2015).

d. **Management of Cash:** The current cash balance can be viewed instantly by a financial manager with a click. This helps with handling of available cash and bank funds. Examine the organization's financial reports to see these things (Alnaqabi & Nobanee 2021). Additionally, an individual's online unofficial bank statement can show funds in the bank immediately. According to cash management principles, a corporation must speed up cash collection and delay cash disbursement. Offering cash discounts on early accounts receivable payments and online billings are great ways to speed up cash collection (Jiang 2020).

Empirical Review

In their 2020 empirical study, Nabatova and Malchevska claim that analytical automation greatly improves financial management performance. Organisations can improve financial outcomes by automating analytical procedures to eliminate errors, manual intervention, and data analysis consistency. Analytical automation frees staff from onerous and repetitive work, allowing them to focus on strategic and value-added tasks. This move boosts employee satisfaction and productivity and streamlines financial outcomes management to new heights. The study also shows that analytical automation promotes data-driven decision-making in organisations, giving stakeholders timely and meaningful information to make smart business decisions. Thus, Nabatova and Malchevska's empirical findings demonstrate analytical automation's revolutionary impact on financial management and SMEs financial performance.

According to Attom (2012), ICT helps to integrate financial processes through modern accounting software, creating an inclusive environment. This integration makes thorough financial reports easy, influencing investors' decisions. Organisations can clearly display their

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

financial performance using information and communication technology (ICT) to build investor trust and attract necessary financial investments. These reports' availability and accuracy allow investors to make well-informed decisions and invest in promising businesses. In today's economy, ICT drives change, financial openness, and investor confidence.

The study conducted by Aldalayeen et al. (2013) revealed insights into the intricate correlation between technology usage and the financial success of businesses. Based on their research, the inclusion of technology in strategic business frameworks may not lead to an immediate significant enhancement in financial performance. However, integrating technology into these frameworks can greatly enhance the overall efficiency and effectiveness of operational processes. Technology serves as an enabler, allowing for improvements in organisational performance when combined synergistically with strategy initiatives like vertical disintegration and diversification.

Clarke, et al (2009) found a major trend in medium-sized businesses financial management. The study found that 70% of these businesses use ICT for financial and accounting reporting. This shows that businesses are realising the transformative power of ICT to improve financial management. These companies can automate repetitive accounting tasks, improve financial data analysis, and simplify financial reporting by using ICT tools and systems. ICT's widespread use emphasizes its importance in improving operational efficiency and effectiveness, which improves decision-making and performance.

Based on the foregoing it can be seen that by integrating state-of-the-art technologies, financial managers gain the capacity to surpass the conventional limitations that have been set. As a result, they can extract significant knowledge from vast amounts of data, automate repetitive tasks, and enhance the efficiency and efficacy of financial operations. Information and communications technology facilitates real-time collaboration and communication, allowing stakeholders to make informed decisions promptly and adjust swiftly to changing market conditions. Companies can enhance their competitiveness, resilience, and sustainable growth in the present digital economy by implementing information and communications technology (ICT) solutions.

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

Theoretical Framework

Diffusion of Innovation Theory

According to Rogers (1983), the activities of potential adopters when it comes to decreasing doubt regarding new technological findings have an effect on the dissemination of technology. Despite the fact that innovations frequently give customers with new ways to tackle day-to-day difficulties, adoption is restricted due to the lack of assurance regarding the superiority of these new techniques in comparison to those that came before them. People who are interested in adoption frequently inquire about additional information from their coworkers (Brancheau & Wetherbe, 1990).

Taylor & Todd (1955) state that the innovation diffusion hypothesis is comprised of three essential components. Innovation, user characteristics, adopter dispersion over time, diffusion networks, innovativeness and adopter categories, and the individual adoption process are some of the factors that fall under this category.

The innovation aspects of IDT are preferred by the vast majority of people. After analysing a number of earlier research on the diffusion of innovations, Rogers (1983) identified five major innovation qualities that consistently influence the uptake of technology.

a. Firstly, the concept of relative advantage pertains to the degree to which an invention is perceived as an enhancement compared to the current options.
b. Compatibility is the second component, and it pertains to the extent to which an invention is seen to be consistent with the routines and habits of potential users.
c. Thirdly, complexity refers to the degree to which an innovation is perceived as challenging to use.
d. Observability is the fourth component, which pertains to the degree to which other individuals may witness the results of an innovation.
e. Lastly, there is the notion of triability, which refers to the degree to which an innovation can be sufficiently assessed prior to its implementation.

This study anchored on the Innovation Diffusion Theory to ascertain the impact of information and communication technology (ICT) adoption on the effective financial management of

SMEs. Accordingly, the adoption of information and communication technology serves as a compelling manifestation of robust theoretical support for innovation. The adoption of information and communication technology is strongly related to the perceived benefit of financial management, as argued. More precisely, the study aims to analyse this particular component. In order to expedite the dissemination of technology, the presence of information is unequivocally essential. The notion is beneficial as it enables individuals to understand the crucial elements of how business utilise information and communication technologies.

Methodology

Due to the extensive scope of the subject, a Qualitative secondary data analysis method was utilised. This entails employing preexisting study and studies to acquire discernment into the phenomenon (Merriam, 2020). The data will be basically analysed using thematic analysis (Braun & Clarke, 2006). This qualitative methodology enables the identification, analysis, and interpretation of recurring themes present in the gathered secondary sources, including academic journals, industry reports, and white papers (Omotosho, 2010).

Through the systematic classification of data and identification of these topics, we acquired a more profound comprehension of the obstacles and possibilities linked to the adoption of ICT for financial management. This methodology utilises the pre-existing knowledge on the subject while also being cost-effective and time-efficient. The findings will offer significant insights for organisations contemplating the implementation of ICT solutions and propose areas for more investigation.

Result and Discussion of Findings

Result revealed that Information and Communication Technology (ICT) improves financial operations of SMEs by automating repetitive tasks like bookkeeping and complex financial analysis as supported by (Binuyo & Aregbesola, 2014). Accounting software and spreadsheets improve the structure, analysis, and display of data (Karl, 2000). Automation enables staff to dedicate more time to strategic tasks, boosts productivity, and reduces expenses (Nabatova & Malchevska, 2020).

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

Information and Communication Technology (ICT) improves decision-making by providing financial managers with data analytics and business intelligence tools of SMEs. These tools allow them to extract important insights from large financial databases (Attom, 2012). These insights enable educated decision-making, pattern recognition, and accurate market predictions (Aldalayeen et al., 2013). In addition, Information and Communication Technology (ICT) allows companies to participate in scenario planning and forecasting, enabling them to assess potential outcomes and make proactive modifications to their strategy (Attom, 2012). Further Cloud-based solutions and digital platforms enhance the clarity and responsibility of financial data by offering secure access, promoting collaboration among stakeholders, and guaranteeing the accuracy of data (Agwu et al., 2014). Robust information and communication technology (ICT) security measures, along with comprehensive audit trails and controls, ensure strict compliance with legal and industry standards. This fosters assurance among stakeholders and diminishes the probability of fraudulent activities (Agwu et al., 2014). Analysis revealed the relationship between Human Resource Capacity and Digital Divide as supported by literature. Adegboye and Adeyemi (2013), a significant section of the Nigerian workforce may not possess the basic digital literacy and technical skills required to efficiently operate and maintain complex ICT systems. Specialised training programmes and ongoing support are crucial for bridging the skills gap (Adegboye & Adeyemi, 2013). Rural organisations are disproportionately affected by the digital divide, which worsens the difficulties they encounter in attaining financial inclusion (World Bank, 2022). Analysis revealed that Organisations encounter substantial difficulties in handling and incorporating data **which** necessitating robust protocols to ensure the accuracy, comprehensiveness, and security of the data as supported by (Ajayi & Oyedele, 2016). The presence of errors in manually inputting data, inadequate techniques for managing data, and insufficient procedures for backing up data could potentially jeopardise financial reporting (Ajayi & Oyedele, 2016). Integrating new ICT solutions into existing legacy systems can be complex and expensive because of incompatible data formats, outdated infrastructure, and resistance from personnel to accept change (Ekanem & Ekanem, 2018). A well-defined integration strategy and good change management are crucial for the successful implementation of a project (Ekanem & Ekanem, 2018).

Conclusion and Recommendation

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

It can be concluded that information and communication technology offers a substantial chance to improve financial management of SMEs through increased efficiency, better decision-making, and improved transparency. This is due to its promotion of transparency. This study recommends that to fully enjoy the advantages of ICT in financial management, Nigerian SMEs should tackle issues related to infrastructure constraints, cybersecurity risks, and deficiencies in human resource capabilities. Moreover, enhancing data management techniques and optimising integration processes are crucial for achieving effective ICT implementation and ensuring long-term organisational growth. In summary, for Nigerian SMEs to effectively utilise information and communication technology for successful financial management, they must address the following obstacles: limitations in infrastructure, concerns about cyber security, and limitations in human resource capacity, difficulties in data management, and complexities in integration.

References

Adekunle O. B. & Rafiu A. A. (2014). The impact of information and communication technology 21 (ICT) on commercial bank performance: evidence from South Africa. Problems and Perspectives in Management, 12(3), 59-68.

Adegboye, O. A., & Adeyemi, T. O. (2013). Impact of ICT on human resource management in Nigerian organizations. *Journal of Emerging Trends in Computing and Information Sciences*, 4(5), 636-640.

Adeniran, O. A. (2019). Cybersecurity challenges in Nigeria's financial sector. *"International Journal of Recent Advances in Science and Technology*, 8(2), 3133-3138.

Adesola M. A, Moradeyo O.A, Oyeniyi K.O (2013). Impact of ICT on Nigeria Banks Operations: A Study of United Banks for Africa (UBA) Plc, *International Journal of Business and Management Invention*, 2(9): 7-12.

Afolayan, A. O., & Olatubosun, O. A. (2014). ICT and financial inclusion in Nigeria: An overview of current challenges and policy options. *"Journal of Sustainable Development in Africa"*, 16(2), 91-104.

Agwu, E., Okpara, A., Aigbiremolen, M. O., Iyoha, F. O. (2014). The Impact of Information Communication Technologies in the Strategic Management of Financial Institutions. *International Review of Management and Business Research,* 3 (3), 1588-1602.

Agyei, K. N., (2014). Small Scale Business Practice of Basic Financial Management With Regards to Liquidity. *International Journal of Research In Social Sciences,* 4(5), pp. 77-85.

Ajayi, A. A., & Oyedele, L. O. (2016). Challenges and prospects of data governance in Nigerian organizations. *International Journal of Library and Information Science Studies*, 8(1), 1-10.

Akinboade, A. A. (2020), Impact of ICT Usage on Financial Performance of Quoted Manufacturing Companies in Lagos State, Nigeria, Management, 13(2), 28 – 42.

Akinrinade, A. (2020), Impact of ICT Usage on Financial Performance of Quoted Manufacturing Companies in Lagos State, Nigeria

Aldalayeen, B. O., Alkhatatneh W. R. M. & AL-Sukkar, A. S. (2013). Information Technology and its Impact on the Financial Performance: An Applied Study in Industrial Companies (Mining and Extraction), *European Scientific Journal*, 9, 10, 234-244.

Alnaqabi, A., Nobanee, H. (2021). Main Functions of Financial Management.

Ashrafi, R. & Murtaza, M. (2008). Use and Impact of ICT on SMEs in Oman. *The Electronic Journal Information Systems Evaluation,* 11, 125-138.

Attom, E. B. (2012), The Impact of ICT on Business Growth Strategies of SMEs in the Awutu SenaEast Municipality of Central Region of Ghana. *Asian Journal of Business and ManagementScience*, 3(2), 13-28.

Baldigara, T., Štambuk, A. & Mamula, M.. (2012). *An Insight into the Internet Usage Evolution - A Quantitative Approach.* Lovran, International Federation of Communication Associations, 136-150.

Binuyo A.O. & Aregbesola R. A. (2014). The impact of ICT on Commercial Bank Performance: Evidence from South Africa, *Problems and Perespectives in Management*, 12(3): 59-68.

Branchaeau, J.C. & Wetherbe, J. C. (1990).The adoption of spreadsheet software: testing Innovation Diffusion Theory in the context of end user computing. *Information systems Research, vol 1 no. 2 pp 115-143*

Braun, V., & Clarke, V. (2006). Using thematic analysis in qualitative research. *Qualitative Research in Psychology*, 3(2), 77-101.

Cebisova, K. (2011). Use of Information Technology for Financial Management in Czech Enterprises. *Problems of Management in the 21st century*, 1 (2), 38-45.

Chong, Y., Nizam, I. (2017). The impact of accounting software on business performance. *International Journal of Information System and Engineering,* 6 (1), 1-25.

Clarke, S., Gray, D., Morgan, C., Nelson, C., Paul, L., Shelley, D., & Wainwright-Crooks, S. (2009). ICT for small and medium enterprises. *Service Business,* 2 (4), 271-273.

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

Ekanem, I. I., & Ekanem, N. A. (2018). *"Factors affecting successful ICT implementation in organizations". "International Journal of Research in Management, Society and Technology"*, 7(2), 145-152.

Enomate, B., and Audu I. O., (2022) Effect of Information and Communication Technology on Financial Performance of Listed Non-Financial Firms in Nigeria. Bingham International Journal of Accounting and Finance 2(2), 2735 – 9476

Jiang, X. (2020). Analysis of Information Technology Application in the Financial Management of Enterprises. *Journal of Physics: Conference Series,* 1533 (2), 1-5.

Juneja, P. (2015). *Financial Management - Meaning, Objectives and Functions.* Retrieved from https://www.management study guide.com/financial-management.htm , 29th April 2024.

Karl, K. (2000). *Democratic governance and new technology: Technologically mediated innovations in political practices in Western Europe*. Routledge, ECPR European Politics Series 9.

Kirmani, M., Wani F., & Saif, S. (2015). “Impact of ICT on Effective Financial Management”, *International Journal of Information Science and System*, 4, 1, 1-14.

Kumar, R. R., & Vu, H. T. (2014). Exploring the Nexus Between ICT, Remmittances and Economic Growth- A study of Vietnam. *Journal of South East Asian Economics Vol 31, No. 1*, 104-120.

Muhammad N. H., Binh B., and Muhammad J. A., (2018). Information and Communication Technology (ICT), Corporate Governance, and Firm Performance: An International Study. 2018 Financial Markets and Corporate Government Conference, Melbourne Australia.

Malhotra, P., & Singh, B. S. (2009). The Impact of Internet Banking on Bank Performance and Risk: The Indian Experience. Eurasian Journal of Business and Economics, 2, 43-62.

Merriam, S. B. (2020). *Qualitative research: A guide to design and implementation* (5th ed.). Jossey-Bass.

Nabatova, J., Malachevska, K. (2020). Automation of analysis and forecasting of an enterprise’s financial results. Efektyvna ekonomika, 12.

Okonkwo I. V., Obinozie H. E., Echekoha F. N., (2015). The Effect of Information Communication Technology and Financial Innovation on the Performance on Nigerian Commercial Banks. European Journal of Business and Management. 7(22), 162-171

Okeke, C. (2024): Effect of Information and Communication Technology (ICT) on Financial Performance of Listed Consumer Goods Firms in Nigeria. Published in: *International Journal of Accounting, Finance and Information System* , 4 (2), 200-201.

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135

Omotosho, O. S. Jnr (2010) *The Fundamentals of Effective Marketing Research* (1st ed). Otta: Ade – Oluyinka Commercial Press.

Paramasivan, C. & Subramanian, T. (2005). “Financial Management”, New Age Publishers International Ltd.

Prikhno, I., Kuksa, V., Mihaylov, I. (2021). The Use of Information Technology in Financial Management. SHS Web of Conferences, *EDP Sciences*.

Ramaswamy, R., and Calvasina, E., (2010). Information processing challenges in Financial Supply Chains, *Issues in Information Systems*, 11, 1, 23-28.

Rogers, E.M (1983), *Diffusion of Innovations*, 3rd edition. New York, NY: The Free Press

Roztocki, N., Weistroffer, H. R. (2015). Information and communication technology in transition economics: an assessment of research trends. *Information Technology for Development*, 21 (3), 330-364.

Spanos Y.E, Prastacos (2002), The Relationship Between Information and Communication Technology Adoption and Management, *International Journal of Information and Management*, 39(8): 659-670

Taylor, S. & Todd, P. (1995) (b*).Under standing information technology usage: a test of competing models.* Information Systems Research, June 1995, 6(2), 144-176.

Tkachenko, A. V. Kwilinski, Korystin, O. N. Svyrydiuk, I. (2019). Assessment of information technologies influence on financial security of economy. *Journal of Security and Sustainability*, 8(3), 387-384.

World Bank. (2022). *"Global Findex Database"* [Data set]. Retrieved May 8, 2024, from https://datacatalog.worldbank.org/dataset/global-financial-inclusion-global-findex-database

Citation: BAMIGBOYE Omololu Adex[1], OLATUNJI Ibrahim Gbenga[2], SALIMON Akeem Isola[3], ADENLE Oluwatimileyin Esther[4] (2024). Impact of Information and Communication Technology on Effective Financial Management: Experience from Nigerian Small and Medium Enterprises). 1(2), 116-135