THE IMPACT OF INFORMATION TECHNOLOGY ON ORGANISATIONAL SUCCESS IN AN EMERGING ECONOMY - THE NIGERIA BANKING INDUSTRY PERSPECTIVE

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Abstract

There has been an increase in the adoption and utilization rate of information technology by organizations and businesses in the last two decades, most especially in developing countries. The use of information technology by many organizations in different parts of the world is due to the huge benefits inherent in its utilization and the positive effect that its usage could have on organizations to enhance business performance. There are limited studies available in Nigeria regarding the impact of information technology on the banking industry focusing on some selected banks and not the whole banking industry. However, this study examines the impact of information technology on organizational success in an emerging economy with a special focus on the Nigerian banking industry.

The quantitative research method that this research adopts ensures adequate sample representation because it covers different banks in the banking industry across two major states and the federal capital territory. Also, bank customers in other sectors that are familiar with banking operations participated in the survey. Thus, this study investigates the types of technologies that banks use and their effect on operational processes. It also determines the benefits of information technology on banks as it relates to the Nigerian business environment. Therefore, the research objectives will be fulfilled by answering the research questions that revolve around the impact of information technology in the Nigerian banking industry: vis-à-vis its adoption, utilization, and processes.

The research will also be presenting and testing three hypotheses specifically: internet application and organizational success; technological devices and organizational success; and special industry software and organizational success. The data to be generated from the survey will be used to answer the research questions. These questions seek to know if there can be seamless operational processes without the use of information technology and relevant technological devices in the Nigerian banking industry. Furthermore, to know if poor infrastructure and decadence in the Nigerian system negatively impact on the adoption and utilization of internet applications. Also, to know if information technology usage can improve firm productivity. The data will also be used to test hypotheses to generate empirical evidence on the impact of information technology in the Nigerian banking sector.

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List of Abbreviations

ANOVA	Analysis of Variance
ATM	Automatic Teller Machines transactions
CAC	Corporate Affairs Commission
CBN	Central Bank of Nigeria
CIT	Consumer information technology
CRR	Cash Reserve Ratio
CSR	Corporate Social Responsibility
EFINA	Enhancing Financial Innovation and Access
FDI	Foreign Direct Investment
GDP	Gross Domestic Products
GSM	Global System for Mobile
IBAN	Bank Account Number
ICT	Information Communication Technology ICT
INA	Internet Applications
INT	Information Technology
ISP	Internet Service Provider
IT	Information Technology
OPEC	Organization of the Petroleum Exporting Countries
OSEE	Organizational Success in an Emerging Economy
PIN	Personal Identification Number
POS	Point of Sales Transactions
SIS	Special Industry Software

SMEs	Small and Medium Scale Enterprises
SMS	Short Message Service
SPSS	Statistical Package for Social Scientists
SWIFT	Worldwide Interbank Financial Telecommunication
TAM	Technology Acceptance Model
TD	Technological Devices
UBA	United Bank for Africa
UNESCO	United Nations Educational, Scientific and Cultural Organization
USSD	Unstructured Supplementary Service Data
WWW	World Wide Web

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In the past few decades, there has been a tremendous change in the way organizations across the globe carry out their operational functions due to different innovations and advancements in information technology (IT) and its deployment. The developing countries have shown greater interest in acquiring different technologies to foster sustainable growth needed to attain desired economic development (Ukpabio et al., 2016). Organizations in these locations have realized the need to emulate other successful firms in developed economies by adopting relevant IT and technological tools (Ejiaku, 2014). This is done in an attempt to remain relevant in their area of operations. It is also done to compete effectively in their local business environment, enhance their capability to transact businesses with other organizations in different parts of the globe, as well as accomplish organizational goals (Gilaninia et al., 2011).

1.2 Problem Statement

Information technology has no doubt been benefiting many organizations in the developed countries who have adopted and used different IT tools to carry out diverse operational tasks. The immense benefits derived from IT usage cannot be unconnected with the fact that these countries have a functional working system. This system provides a conducive business environment, good infrastructure, and a relatively stabilized political space that encourages IT adoption and utilizing such technology effectively (Neirotti and Paolucci, 2011). However, it seems that most firms in developing countries have not been able to fully enjoy the tremendous benefits inherent in IT utilization, like their counterparts in developed countries. The reason for this is not far-fetched – most developing countries still battle with different socio-economic and political problems, which usually prevents organizations in such locations from fully attaining their potential. Although there have been many publications and studies on the effect of IT on businesses, most especially in the developed economies. However, the impacts of IT on businesses and organizations on the economies have not been extensively researched.

The available studies on developing countries are minimal compared to the studies conducted on the developed economies. This is also applicable to the banking industry, which this study focuses on. The Nigerian banking industry has experienced a tremendous transformation over the years. Its impact on the nation's economy has been substantial despite the challenges being faced in the Nigerian business environment as a developing country. The Central Bank of Nigeria's responsibility is to control and oversee all banking operations of the different banks in the country. The Central Bank also ensures that its policies are geared towards protecting depositors' funds and promote customers' trust (Olokoyo et al., 2016). Therefore, the few research work on the effect of IT as it relates to the banking industry mostly focuses on a particular bank or some few banks selected for survey purposes and not the totality of the banking industry.

1.3 Research Objectives and Rationale

This study will be researching the banking industry as a whole and accommodating their customers who use these banks as well as the technologies they use to participate in the survey. This should provide an encompassing view of the subject matter. Hence, the rationale and objectives of this study are:

i) To investigate the effect that information technology has had on banking operations in Nigeria. The researcher would confirm the type of technology banks utilize, and the impact that adopted technologies has had on their processes and if it has led to improved performance in their organizations.

ii) To determine the benefits and capabilities inherent in the use of IT and how it is being applied in the Nigeria banking industry. This would enable the researcher to have in-depth knowledge on the utilization of IT and technological tools in the Nigerian banking industry.

iii) To examine why organizations in developed countries tend to have a seamless adoption and utilization rate of IT and experience more benefits than the developing countries' banking sector. These benefits include but are not limited to robust infrastructure to support adopted technologies, access to new and

sophisticated technologies. Also, developed technologies are relatively affordable to most organizations in the developed countries as against the Nigerian banking sector, where most technologies utilized are imported.

1.4 Research Questions

Given the above-stated research objectives, it is pertinent to answer the following research questions in this study to arrive at an empirically informed conclusion.

i) Can there be a seamless operational process in the banking industry without the utilization of information technology and relevant technological devices in an emerging economy such as Nigeria?

ii) Does poor infrastructure and general decadence in the Nigerian system negatively impact the adoption and utilization of internet applications in the Nigerian banking industry?

iii) Can information technology utilization improve firm productivity in the Nigerian banking industry?

1.5 Research Hypotheses

1. H_0: Internet applications have no significant relationship with organizational success in the Nigerian banking industry

i) H_0: Technological devices have no significant relationship with organizational success in the Nigerian banking industry

ii) H_0: Special industry software has no significant relationship with organizational success in the Nigerian banking industry

1.6 Outline

Chapter 2 focuses on the review of the literature on information technology and banking by diverse authors. The researcher's perspective was given regarding IT definition as it relates to the research topic; the relationship between IT and business as well as global access using IT was also reviewed. In addition, the Nigerian business environment, the role of the Central Bank of Nigeria in the Nigerian banking industry, IT, and banking in Nigeria and banking technological tools were also discussed.

Chapter 3 describes the research technique and method adopted for this research. The research design, sampling strategy, research instrument, data collection method, measurement procedure, data analysis procedure, as well as identification and presentation of the limitations and constraints in the chosen research technique are presented. Descriptive statistics will be used to analyse data, hypotheses will be tested using simple regression model and analysis of variance will be used to test the significance level of the model.

Chapter 4 presents the data analysis and interpretation for this research as a result of the research technique adopted in chapter 3. This includes a brief overview of the research scope and the technique adopted. Validity and reliability test conducted on the research instrument was presented, research questions are re-stated, analysed, and answered, hypotheses are re-stated, analysis, and interpretation of research findings are also discussed.

Chapter 5 is the concluding chapter which summarises the research objectives as well as the methodology adopted in conducting the study. It also briefly re-state the research outcome and presents the contribution to research theory, managerial implications of the research, limitation of the research, and recommendations for further research in the future based on the results generated from the study.

CHAPTER TWO

2.0 LITERATURE REVIEW

Before the introduction of information technology (IT), organizations and businesses alike carried out their operational activities using the conventional system. This system could be described as tedious, cumbersome, and inefficient. However, the arrival and subsequent adoption of information technology by different organizations have positively revolutionized business functions and processes (Chae et al., 2018; Didia and Nwokah, 2015). It has also given individuals, businesses, and organizations an array of innovative tools to make operational tasks simple and efficient. According to Builes (2015), information technology has contributed to organizational growth over the last thirty years, and its significance in recent times cannot be overemphasized. It has aided the advancement of organizational processes in developed countries and promotes the growth of developing economies (Builes, 2015).

Information technology has evolved over the years to completely change firm's operational processes (Olusola and Oluwaseun, 2013). Different sectors and organizations in emerging economies such as Banking, Oil and Gas, and Telecommunications are some of those with the highest adopting rate (Sadorsky, 2012). According to Onu et al. (2015), organizations in the modern-day economy will improve their operational processes and optimize their performance when they adopt and utilize information technology. This will lead to them accomplishing their set goals. In the same light, it is believed that organizations with better information technology capabilities tend to capitalize on this strength to manage information efficiently. It also helps in advancing their market analysis tendencies, responding better to market dynamics, and gaining competitive advantage (Wu et al., 2017).

Information Communication Technology (ICT) has increased exponentially in African countries over the last couple of decades (Bankole et al., 2015). This growth brought about conventional communications services in Africa due to the huge investments in mobile and other technological infrastructure. They include acquiring and launching satellites in orbits, laying fibre optic cables, installation of telecommunication masts, etc. (Bankole et al., 2015). Therefore, it is important to probe into "*The Impact of Information Technology on Organizational Success in an Emerging Economy"* like Nigeria while paying special attention to the banking industry because of the crucial role they play in the management of financial assets in the economy.

2.1 Information Technology

Information technology offers organizations invaluable capabilities in terms of computer hardware, software applications, telecommunications network, and other technological infrastructure. This is for collecting, storing, processing, and transmitting information to optimize individuals' and firms' effectiveness (Attaran, 2003; Tan et al. 2009; Wadhwa et al., 2015). Although there has not been a universally recognized and accepted definition of information technology (Onn and Sorooshian, 2013). However, different researchers have given diverse definitions of information technology, depending on the type of studies being conducted (Choo, 2013). The important key concept relating to IT definition with different studies is computer software, hardware solutions, and computer applications which assist in the collection, processing and disseminating information in all desired form (Sarosa and Zowghi, 2003). According to UNESCO (2007):

> Information and communications technology (ICT) refer to forms of technology used to transmit, process, store, create, display, share or exchange information through electronic means. This broad definition of ICT includes such technologies as radio, television, video, DVD, telephone (both fixed-line and mobile phones), satellite systems, and computer and network hardware and software, as well as the equipment and services associated with these technologies, such as videoconferencing, e-mail and blogs.
>
> UNESCO (2007)

This form of technology is particularly important because its usage cuts across various strata of society, businesses, and organizations.

ICT has been argued to positively impact organizational performance when utilized appropriately (Tarute and Gatautis, 2014). For example, before the advent of ICT, banks had to rely on conducting their activities manually using the conventional method of gathering, storing, and transmitting information. However, ICT has allowed them to conduct businesses electronically, which enables faster and efficient information creation, collection, storing, and dissemination. Hence, organizations and people in different countries across the globe have been utilizing ICT. This is due to the significant role it plays in enhancing communication and information sharing in their day-to-day activities through mobile devices and other communication gadgets. The use of mobile devices and other communication gadgets is especially prevalent in developed countries (Khuntia et al., 2018). Although, these countries have also encountered some difficulty during new ICT implementation, such as infrastructural

issues, equitable distribution of hardware technologies, and sometimes misinformation among the populace regarding certain technology. One of such misinformation is the erroneous belief by some people linking 5G technology to deadly radiation as well as the raging Corona Virus Covid-19 despite the fact there is no scientific proof to back up such notion (Keach, 2020; Lee, 2020).

2.2 Theoretical Background

Numerous studies have investigated the impact of information technology on organizational processes and business functions globally - most especially in developed countries. However, there are a limited number of studies concerning the effect of information technology on Nigeria's business processes, most especially in the banking sector. Hence, this study will be investigating the effect of information technology on business processes in the Nigerians banking industry to ascertain how beneficial the adoption of IT has been to the organizations in the sector. This is especially important because, even though Nigeria is a country with the largest population in Africa, large numbers of this population are still unbanked (Global Data, 2019).

2.3 Information Technology and Business

Information technology is believed to enhance economic growth and sustain developmental capabilities when properly utilized (Morimura and Sakagawa, 2018; Prasad and Heales, 2010). Although, there are different degrees of IT usage with its corresponding effect, depending on the organization that is utilizing it and the industry in which such an organization operates (Chae et al., 2018). The effect of the use of IT by any organization that has adopted it, irrespective of the industry or sectors such organizations belongs to result in a similar outcome (Prasad and Heales, 2010). This effect usually leads to optimization of firms' performance, operational costs minimization, increased revenue, and maximization of profit (Prasad and Heales, 2010; Howell et al., 2018; Chae et al., 2018).

Different firms have documented several successes as a result of utilizing relevant technologies or technological tools to perform workplace tasks. IT is believed to be beneficial across numerous areas that can be used by individuals and organizations (Malaquias, 2016). Optimization of staff performance and enhancement of a firm's productivity are some of the

successes that has been recorded from the use of IT (Chirani and Tirgar, 2013). Managers are able to coordinate organizational activities better with the aid of relevant technological tools (Neirotti and Paolucci, 2011).

Organizational innovative capabilities are also enhanced due to access to global information and better collaboration with experts (Cardona et al., 2013). Access to quality information and the sharing of information becomes more seamless. This assists organizations in making better and informed business decisions (Afshan et al., 2018). Internal and external companies' communications become easier because of the availability of different communication devices (Tarute and Gatautis, 2013) enhancing performance. Decision-makers can come up with an efficient business-level strategy (Drnevich and Croson, 2013) that addresses the issues around a firm's competitiveness to enable it to gain competitive advantage. Improved financial and business performance were recorded when relevant technologies are deployed in carrying out firms' operational processes (Dewan and Ren, 2011; Morimura and Sakagawa, 2018).

IT has also been used as a tool to promote impartiality in healthcare delivery with a special focus on behavioural interventions enabled by consumer information technology (CIT) (Bakken et al., 2019). The available works of literature and research by different authors, as stated by Bakken et al. (2019), where 125 CIT of such work were reviewed was recorded. This reviewed research work concentrated on the healthcare and wellbeing of disadvantaged populations. Therefore, recommendations were made about using CIT to integrate apparatus for behavioural change, connecting health and social media compliance. This ensured the sustenance of user commitment with CIT-enabled intervention to be able to overcome any inherent obstacles. It is also to provide the needed support as well as allow the population to access behavioural interventions that deal with discrepancies concerning the health of the target population (Bakken et al., 2019).

IT was reported to be playing a crucial role in the Brazilian healthcare sector, most especially in terms of using IT to combat any serious ailment and improvement of citizens' wellbeing and development (Malaquias et al., 2017). It is important to point out that most research work available focused their studies on conventional businesses. Although the research conducted on the health sector in a developing economy is crucial because of the apparent poor healthcare delivery that is prevalent in most of these locations. However, robust

healthcare delivery assisted using relevant technologies in the developing countries will improve the health and wellbeing of their citizens. In the same light, improved healthcare and wellbeing of the people would encourage them to embrace relevant technological tools that will be beneficial to their businesses and lead them to prosperity.

Research conducted by Karmal et al. (2020) in determining the factors shaping the approval of telemedicine services. This gives professionals in the healthcare sector to keep track of telemedicine services. Also, to provide diagnosis and provide medical care to relevant recipients at locations far from where the medical professionals are located using telecommunication technologies. The investigation focused on the rural Pakistan population with a theoretical framework, which is the Technology Acceptance Model (TAM). The study adopted a quantitative face-to-face survey method comparable with the method Bakken et al. (2019) adopted in their research, both types of research were focused on the healthcare sector. The findings revealed that telemedicine is potentially promising to serve Pakistan's depreciating healthcare system and integrate its current traditional healthcare system. It also provides important information to the government and healthcare professionals to better understand the benefits and risks inherent in large-scale application of telemedicine services (Karmal et al., 2020).

Thus, the use of IT to advance a good healthcare system and promote people's access to good medical care will not only improve the wellbeing of their citizens but will also lead to an increase in employees' productivity at the workplace (Pekuri et al., 2011). This will subsequently translate to a good standard of living. Therefore, the benefits of IT usage in the health sector cannot be overstated as it is mirrored in the socio-economic and welfare development of people (Malaquias et al., 2017) who work with a different organization to fulfil its objectives.

The huge resources being invested in information technology by different organizations most especially those in developed countries, prove the substantial positive impact that IT has on organization productivity (Cardona et al., 2013). Maden and Savage (1998) as cited in Toader et al. 2018, stated that there exists a positive relationship between investment in telecommunication infrastructure and economic growth. This claim was based on the results of their study, which used the data from 27 countries in the Central and Eastern parts between the periods of 1990 to 1995.

It is crucial to consider the type of technological tools being adopted by these countries and used in their organization's operational process before and after the relevant technology was adopted and utilized. This is to ascertain the degree of productivity achieved by the organization. Challenges are being experienced in Nigeria in terms of information technology adoption, deployment, implementation as well as the lack of good infrastructure needed to support the effective utilization of information technology. However, despite these challenges, Onu et al. (2015) argued in the findings of their research that there is a strong connection between the use of information technology, managerial style, and employees performance which increases the company's total manufacturing output (Onu et al., 2015). Besides, Ollo-Lopez and Aramendia-Muneta (2012) stated that information communication technology absorption oftentimes contributes to organizations having a long-lasting development as ICT has a direct favourable impact on firm productivity.

2.4 Global Access through IT

Organizations across the globe need relevant and timely information to make informed decisions, adapt to market trends and optimize their capabilities to access affordable products and services (Golgeci and Arslan, 2014; Khuntia, 2019). IT has been identified to enhance firms' access to information and shape their approach in embracing effective strategies to improve their processes and activities. This improvement usually leads to increase in organizational competitiveness (Militino et al., 2016; Crittendena et al., 2019). Organizations, especially in emerging economies, need IT to improve communications among relevant stakeholders, clients, investors; simplify internal operational processes, and increase the potential for growth (Malaquias et al. (2016).

According to Asongu and Odhiambo (2020), information communication technology harmonizes the impact of foreign direct investment (FDI) in developing economies. Their investigation on how ICT attunes the effect of foreign direct investment (FDI) in 25 Sub-Saharan countries during the period from 1980 to 2014. The outcome of their research revealed that internet and mobile phone diffusion immensely adjust FDI to the extent of activating comprehensive favourable net effects on the country's researched Gross Domestic Products (GDP) growth, real GDP as well as per capita GDP (Asongu and Odhiambo, 2020).

ICT has been assisting governments – most especially those in the developing countries – in automating their processes and has contributed to the improved transparency in government activities. ICT can also assist Small and Medium Scale Enterprises (SMEs) - which constitute the majority of the developing countries' businesses – to improve their access to a better business model. It can also enhance their efficiency so they could achieve organizational goals (Ricky-Okine, et al., 2014).

Furthermore, it was shown that ICT is extremely valuable in developing countries' economies, as it assists in advancing their production capability (Hong, 2016). It also helps expose and connect in-country organizations to their global counterparts with their robust processes and developed value chains (Afolabi, 2015); Asongu and Odhiambo, 2020). This would, in turn, lead to improved operational transparency, upsurge in gaining competitive advantage, reduction in poverty level, and efficient management of the public and private sectors (Sassi and Goaied, 2013). Also, ICT will enhance economic prosperity and attainment of desired economic growth and development (Boamah, 2017; Dunne and Masiyandima, 2017; Fanta and Makina, 2017).

The rate of IT penetration into the developing countries and resultant adoption and utilization by different organizations and people in both public and private sectors has been significant (Bahrini and Qaffas, 2019). This cannot be unconnected to the impact IT has had on people and firms in the developed economies which are reflecting in their robust operational systems. These include but not limited to - advanced productivity, improved quality of life, state of the art infrastructural development, and prosperity that their counterparts in the developing economies yearn to replicate in their countries. However, it has not always been easy for most of the developing countries to attain the same level of progress in terms of annexing the benefits inherent in IT to solve contemporary problems in their system, unlike in developed countries. The slow pace of progress and expansion in the developing countries despite the utilization of different technology and technological tools could be traced to lack of good leadership, corruption, nepotism, and bad governance (Nageri et al., 2013). For example, most political office holders and their aspiring counterparts are of the view that public service should be an avenue to amass wealth which is meant for the people as against using the commonwealth to improve the lives of the citizens. This is the reason for the

widespread electoral rigging, ballot box snatching by political thugs, killings, and all manners of atrocities being perpetrated by politicians in the quest to grab or hold on to power to the detriment of national growth and development.

This has continued to hinder the progress of these countries towards the attainment of political and economic liberation that will push their countries in the part of prosperity and desired development.

2.5 Nigeria Business Environment

Nigeria is a country in West Africa with a current population of about 200 million people who were colonized by the British for many years like most countries in the region and got her independence in 1960 to become a republic. The country is endowed with many natural resources (Njoku and Kalu, 2015). However, the government has concentrated on crude oil exploration and production. Thus, crude oil exploration and production have been the mainstay of Nigeria's economy generating substantial revenues for the country over the years.

The country, through its economic team under different administrations has tried to develop a different economic strategy to transform the nation by introducing reform initiatives that would rescue it out of the economic predicament. This is to ensure that the capabilities and vitality of its people are identified and used for their benefits appropriately. It will also ensure that its natural resources are judiciously managed to have a strong and diversified economy, which will bring about sustainable growth and development for her citizens (Mbajiorgu, 2015; Inegbenebor et al., 2018).

Interestingly, the economic transformation strategy launched in 2010 was tagged “Vision 2020” which objective was to ensure the advancement of the national productivity to be among the top 20 countries in the world by the year 2020 (Mbajiorgu, 2015). However, this project has been nothing but a sham as the country, in 2020, is still battling with different socio-economic problems. The problems like poor infrastructure, wide range systemic corruption, and hostile government policies on micro and macro-economic matters among others still bedevilled the country. These types of problems will always mitigate against any meaningful growth and development in any society. Inegbenebor et al. (2018) are of the view that most of the economic strategies designed by the government failed because there was no adequate provision for the adoption or improvement of IT.

Hence, information technology will go a long way in assisting the country to solve most of the socio-economic problems if adopted and applied appropriately (Njoku and Kalu, 2015). This notion is supported by the work of Malaquias et al. (2017) regarding the use of IT to tackle serious ailment in the Brazilian healthcare sector, as seen above. However, it is crucial to state that despite the apparent hostile business environment, some businesses still manage to thrive and succeed. These are mostly firms in the Oil and Gas sector, Telecommunication, Entertainment, and Banking, which are mostly domiciled in the private sectors. Thus, the focal point of this study will be on the banking industry. This is because, the financial system of any economy will continue to play crucial roles in redistribution of income. It also helps in create wealth and serves as a stimulant for economic growth and development when properly monitored and managed (Olokoyo et al., 2016).

2.6 Information Technology and Banking

The purview of banking expanded on the capacity, scope as well as in operation because the government liberalized the licensing processes of banks in the mid-1980s which resulted in the escalation on the level of competition among the banks (Oluduro, 2015).

Moreover, the impact of globalization and integration capability of twenty-first-century organizations further exposed the banks to a more fierce level of rivalry among its competitors in the industry. Therefore, it became important for the banks to jettison the traditional banking system and embrace IT. It also made them invests in other communication networks to automate their processes for effective service delivery which will meet or surpass their customer's expectations (Obalum and Okocha, 2018).

Nigeria has been identified as one of the seven developing countries which accommodate over half of the world's 1.7 billion adults who are unbanked (Demirgüç-Kunt et al., 2018). Thus, it is believed that getting out the huge population living in abject poverty by the government should be of utmost priority. This could be done through investment in infrastructural projects such as building of good road network, rails, electricity, water, schools, hospitals, etc. This will go a long leading the country towards the part of progress and development. Improvement in the lives of the majority of the people living below the poverty line will increase their disposable income. Thus, these set of people will be financially

included through the use of technology such as mobile money which its usage has remained extremely low among the population (Iliasov and Mirzoyants, 2014).

Therefore, investment in IT and its utilization by banks will assist them in carrying out and simplifying their operational activities and increase their revenue generation potentials. It will also enhance their profit maximization capabilities when they embrace financial inclusion (Bisht and Mishra, 2016; Adegbite and Machethe, 2019) and get a sizeable segment of the unbanked population financially included.

Although, Nikoloski (2014) argued that IT could impact the rate of entry of new banks into the industry. This is because established banks could afford to invest heavily in new technologies which will enable them to enjoy economy of scale and reduce entry tendencies of potential competitors (Nikoloski, 2014).

2.7 Electronic Banking Revolution in Nigeria

Electronic banking entails using different technological tools or electronic devices to carry out business transactions relating to banking (Oluwagbemi et al., 2011). The use of electronic channels to receive information as well as the presentation of banking products and services to its customers, has been on the increase since the advent of the World Wide Web (WWW) in the late 1990s (Auta, 2010). The rate of IT adoption and utilization by different firms and banks alike have considerably increased over the last couple of decades due to a high level of awareness (Howell et al., 2018) among relevant stakeholders. Thus, the bank was allowed to present their products or services to their clients via different electronic channels using the relevant technological platform. Some of these technology platforms are internet banking, electronic fund transfer, mobile banking, point of sales transactions, online payments, provision of customer services, and supports (Karjaluoto et al., 2002; Orji, Ogbuabor and Anthony-Orji, 2018).

Orji, Ogbuabor and Anthony-Orji (2018) appraised the effect that various innovations regarding electronic banking such as point of sales transactions (POS), Automatic Teller Machines transactions (ATM), and mobile banking transactions on Nigerian banks. The result their study generated confirmed that electronic banking, which the researched banks adopted and been utilizing, has a positive effect on return on assets. This established the fact

that electronic banking is an intrinsic part of the profitability strategies of the researched banks. They also stated that point of sales (POS) transactions, Automatic Teller Machines (ATM) transactions, and mobile banking transactions have a significantly positive impact on the performance of latest generation banks in Nigeria when they are put side by side with other electronic banking indexes (Orji, Ogbuabor and Anthony-Orji, 2018).

In the same light, Wenner et al. (2018) believed that electronic payment systems such as bank wire transfers, debit cards and credit cards, electronic fund transfers are crucial in their operations. Furthermore, mobile payments systems that involve mobile phone technologies and the internet are beneficial to both the banks and its customers. These benefits are in terms of timely access to banking services, increased efficiency, and transaction security (Wenner at al., 2018). Some parts of many developing countries are still classified as countries with inadequate access to conventional banking services (McNutt, Spencer, and Willis, 2014). However, there has been an impressive increment in the telecommunication network infrastructure and mobile phone utilization in these locations signifying a good market penetration potential for the banks (Wenner et al., 2018).

2.8 Banking Technological Tools

2.8.1 On-Line Internet Banking

Information technology assistance enables banking activities or transactions to be carried out electronically. Activities such as bills payment, fund transfer, customer service functions, loan applications, etc. It is believed that on-line internet banking is beneficial to both the bank and its customers. Because it is cost-effective, it enhances transparency and better customer access to their banking information.

According to Auta (2010), who investigated the effect of e-banking on Nigeria's economy and examined the major factors responsible for e-banking in this location, stated that e-banking had provided numerous benefits to Nigerian banks as well as their customers. Convenience and flexibility of transactions are some of the advantages customers revealed that they enjoy from utilizing e-banking while it was recommended that better infrastructure should be provided to increase the adoption rate of this technology. Internet banking has also enhanced transparency in government transactions because of its capability in generating digital trail.

2.8.2 Mobile Banking

This form of electronic banking entails using a Global System for Mobile Communication (GSM) phones to be the basic electronic gadget. Mobile banking seems to be more popular in developing countries such as Nigeria most especially in the locations where telecommunications networks are available. Customers could use any type of mobile phone to make mobile banking transactions through different codes that are peculiar with diverse banking products or services. There has been tremendous improvement in the financial inclusion drive of many banks in the country because of the GSM system via Unstructured Supplementary Service Data (USSD). Hence, any of their customers could use this technological tool to perform relevant banking transactions as long as their mobile phones support Short Message Service (SMS) (Oluwagbemi, Abah, Achimugu, 2011).

2.8.3 Automated Teller Machine (ATM)

ATM is a specialized device that is controlled by a computer system for cash dispensing as well as other related banking services that are being introduced from time to time. Bank customers need to have a Personal Identification Number (PIN) as their password for them to be able to use this gadget. The KPMG research in 2013, as cited in Orji et al. (2013) revealed that there were 11,700 ATMs in Nigeria with 26 million issued ATM cards. Thus, it was recorded that there has been an increase in the volume and value of ATMs transactions, which usually results in an enhanced payment system and improved banking performance (Orji et al., 2013).

ATM is especially attractive to most of the bank customers in developing economies like Nigeria. This is because the system is cash-based, and ATM affords them an opportunity to collect cash from the machines at any time of the day as against the traditional banking system that always comes with time constraints. The availability of cash through ATMs has significantly enhanced the circulation of money in the economy to carry out day-to-day transactions between people and businesses which will translate improved government revenue through various taxes.

2.8.4 Special Industry Software

Banking software is a specialized software that is used in the banking industry to manage their different products. This includes customer relationship management, International Bank

Account Number (IBAN) accounts management, product management, accounting plan administration, data exchange integrations among others. One of the Nigerian indigenous banks – United Bank for Africa (UBA) with branches across Nigeria and other 17 countries in Africa utilizes one of the software called CLIREC. This software, according to their management supports their operations in terms of bringing timely, dependable, and accurate reconciliation of their account system (Adepetun, 2015).

The effect of computerized banking monitoring systems on the performance of the Nigerian banking industry using Zenith Bank Plc – one of Nigeria's biggest banks was investigated by Olusanya, Adelowo, and Sufian (2014. They used a survey questionnaire and tested their hypotheses using spearman's rank correlation coefficient. The outcome of their study revealed that the unavailability of security on their automated system affects their internet service significantly. Thus, inasmuch as there are numerous benefits of IT and its utilization in the banking industry, it is important to point out that this also comes with its challenges most especially as it relates to developing economies such as Nigeria's business environment.

2.9 Challenges of using Information Technology in Nigeria Banks

Information technology utilization has no doubt been assisting organizations in carrying out operational tasks effectively. However, the banking industry in Nigeria faces some challenges regarding the use of IT and some of these problems or challenges are peculiar to the Nigerian system. Igwe (2010) believes that because of the political and economic crookedness and high rate of poverty that is endemic in the Nigerian system, some of the citizens exploit the internet to penetrate different manners of financial fraud. This negatively affects the banking industry. Some of those challenges and problems include but not limited to:

- attacks from fraudsters and other malefactors tampering with the technological tools or equipment being used by the banks to gain illegal access to either banks' systems or their customers' accounts and steal their money;
- poor service from the internet service provider (ISP) – which powers the bank inter-network connections and activities that always affect their productivity each time there is an occurrence of internet downtime;

- inimical government policies which could range from the increase in Cash Reserve Ratio (CRR), increase in tax, poor public infrastructure, and corrupt practices among government officials that oversee and regulate banking activities in the country.

The innovative technological discovery does not only enhance banking operational activities but has transformed the Nigerian banking industry from their conventional crude system of operating to a much more versatile system with the help of modern-day IT tools. This has resulted in the creation of new products and improved outstanding service delivery (Hu et al., 2016). Thus, IT has revolutionized the business process and has created many opportunities in developing economies (Howell et al., 2018). Organizations in the public and private sectors, most especially the banking industry have continued to adopt and utilize different technological tools and IT applications for effective and efficient operational processes.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter outlines the overall methodology used in carrying out this research. It encompasses the research design, target population, sampling design, and techniques. Also, data collection and data analysis methods that the researcher utilized in investigating the impact of information technology on organizational success in an emerging economy with a special focus on the banking industry.

3.1 Philosophical Positioning

The philosophical positioning for this research is based on a positivist epistemological perspective. This philosophical position aligns with the fact that there exists facts or reality that could be discovered through deductive reasoning, experimentation, and hypothesis testing (Aliyu et al., 2014). Most researchers who conducted studies on the impact of information technology in the banking industry also adopted a positivist epistemological approach that is argued to give the best method for human and social behavior investigation (Easterby-Smith et al., 2012). Thus, the adopted epistemological perspective ensures that deeper knowledge is sought regarding the effect of IT on organizational success in the Nigerian banking industry through gathering the views from different relevant respondents in the industry.

The epistemological perspective of some authors was based on the constructionist position where both quantitative and quantitative approach was adopted in the collection of research data (Easterby-Smith et al., 2012). Hence, this study adopts a quantitative research method, and different respondents in the banking industries were sampled to participate in the survey to provide answers to questionnaire items. The research method adopted enables the researcher to target relatively larger samples for the purpose of completing the survey questionnaire and getting back their responses within a short time. It also affords the researcher to have different views from the chosen respondents based on their knowledge in their respective organizations. Thus, the collected data are analysed and interpreted objectively, which strengthens the validity of research findings. Therefore, more realistic facts

would emerge after proper analysis of survey data and empirical evidence that will contribute to extant knowledge will be generated.

3.2 Research Design

The research design for this study, which is survey, requires a methodological approach that entails gathering primary data from identified relevant respondents, after proper analysis, to answer the research questions and test hypotheses. This is to be able to make an informed decision about the impact of information technology on organizational success in a growing economy such as Nigeria. A quantitative research technique was adopted using a pragmatic ideology (Jones, 2000; Easterby-Smith et al., 2012) which seeks to focus on unique human experiences and how inseparable it could be on their beliefs and actions (Kaushil and Walsh, 2019). The reason for using a quantitative approach is that this research technique tends to be more reliable and has a high level of acceptability because of its ability to enable the researcher to administer questionnaires to quite a large number of identified samples.

Available theories and research published work regarding the effect of information technology on organizations in both developed and developing countries were reviewed. Quite a number of reviewed literature utilized quantitative research techniques to collect relevant data for their research. For example, Malaquias et al. (2017) and Karmal et al. (2020) used quantitative research method in their studies that focus on the healthcare sector in Brazil and Pakistan, respectively. Hence, the quantitative research method adopted for this study is particularly important because it affords the researcher to collect needed data from diverse respondents. These respondents are not only in the banking sector but also in other industries that also utilize the same technologies that banks use in carrying out their activities which have been extended to them to make their transactions with the bank they use seamlessly. Furthermore, this technique gives the researcher the flexibility and conveniences of reaching out to the respondents from the chosen sample in their different locations through the use of online web survey and got back their responses within a relatively short time.

3.3 Sampling Strategy

This research adopts a convenience non-probability sampling method research (Easterby-Smith et al., 2012; (Dul and Hak, 2008), and selected 200 organizations were chosen as samples from the banking industry and their customers in other sectors. These organizations are in Abuja, Lagos, and, Port Harcourt and their business profiles are given in Appendix 2, Table 7 below. The reason for choosing these three locations is because they are major urban centres where most organizations, and their head offices, are located so the researcher will be able to access the required samples chosen to participate in the survey. Also, secondary data from a private database management firm was used to acquire the target company and the respective respondents who will participate in the survey after subscribing to their service. One person per company was expected to participate in the survey, and respondents' representation was confirmed by the data generated from the survey portal. By this, the IP addresses of each respective respondent are indicated and as such, no two respondents share the same IP address. Moreover, all respondents are expected to be knowledgeable about information technology and technological tools most especially as it relates to the banking industry.

It is important to state that those in the banking industry receive more attention when the link to the survey questionnaire was sent out to have more responses from that sector since this research focuses more on the banking sector while not neglecting other industries in Nigeria. This is because it is mandatory for all registered company with Corporate Affairs Commission (CAC) to have a company account with a bank where all its financial transactions will pass through for proper monitoring, accountability, and transparency.

3.4 Research Instrument

The questionnaire, a copy of which is in Appendix 1 that includes comprehensive information, as well as, instructions and twenty questions, is the research instrument used for this study. The questionnaire is structured in a way that presents questions in sequence. It standardizes the research instruments and ensures that every respondent in the sample answer the same questions.

Aside from the respondents' demographic information that was requested in the questionnaire, the questions mainly focused on the effect of information technology,

technological devices usage, internet applications and special industry software on the respondents' organizational processes. This includes their impact on new product development, transparency, accountability, communication and information sharing, productivity, operational cost reduction, detection or prevention of fraud and organizational performance. The questions are structured to show the extent to which IT and other technological tools affect the respondents' operational processes through the use of five points Likert scale. The inclusion of every research question keyword in the questionnaire enabled the respondents to answer the research questions adequately.

3.5 Data Collection

Two-hundred different organizations from the banking industry and other sectors were chosen as the sample out about 250 targeted firms identified as the population in the chosen location. Since the primary purpose of this study is to investigate the effect of information technology on organizational success in Nigeria while concentrating on the banking sector. And also because of the crucial role they play in the economy, the researcher is of the opinion that the outcome of the study will be more generalizable (Shadish et al. 2002) if respondent from other sectors that utilize banking too are included in the sample.

A pilot study was conducted before the proper collection of research data, and five professionals in the banking industry, were sent the survey questionnaire web link to complete. Piloting of the research instrument was necessary for different important reasons such as: to help to clarify the wording of the instrument to avoid misinterpretations; avoid research bias; detect ambiguous questions and pick out in advance any problems in the methods of research.

Although the researcher encouraged those in the senior position in the selected organizations to complete the survey, it was also advised that other staff that might not necessarily be in the elevated position could also complete the questionnaire. The data generated from the respondents who complete the online questionnaire was used to test the hypotheses as well as answer the research questions (Easterby-Smith et al., 2012). Hypotheses were tested using the regression analysis method (Gogtay, Deshpande and, Thatte, 2017). This is to investigate the relationship between the dependent and independent variables stated in the hypotheses and how they interact with each other (Verma et al., 2015).

3.6 Measurement Procedure

The purpose of conducting this research is to investigate the impact of information technology on organizational success in an emerging economy such as Nigeria while focusing specifically on the Banking industry. To this end, questionnaires were designed to accommodate relevant questions that will provide adequate responses to the research questions, test hypotheses and ultimately ensure that the research objectives are fulfilled. Hence, 5 points Likert scale was utilized to show the level by which the respondents who completed the questionnaire agree or disagree with each statement in the questionnaires which are "strongly agree, agree, neutral, disagree and strongly disagree". The use of Likert Scale allows survey participants to respond in varying degrees of agreement and makes questions easy to answer by the respondents. Also, it enhances easy data computation and analysis.

3.7 Reliability and Validity

The reliability of this study entails knowing if the findings of the research will remain the same should it be repeated using the same methodology (Joppe, 2000; Golafshani, 2003). According to Golafshani (2003), it is important to measure the consistency of the instrument used in research to determine its reliability. Thus, to provide a reliable finding, the researcher ensured that the questionnaire was designed after due consultations with study experts. Cronbanch's Alpha was used to analyse the reliability of the utilised Likert Scale to ascertain the instrument consistency. This is to ensure the questionnaire items are suitable to sufficiently answer the researcher questions, test hypotheses, and generally fulfil the stated research objectives. The researcher also ensured that those in the banking industry with extensive IT experience were made to participate in the survey to guard against the negative effect regarding the information from wrong or inexperienced respondents.

The validity, on the other hand, deals with the scientific results of the research as regards its accuracy and truthfulness. Sampled respondents are knowledgeable in information technology, the use of technological tools, internet applications and are also in the banking industry. Furthermore, adequate samples were collected to answer the questions. Pilot study was conducted for the wording of the questions and proper clarification with experts in the

banking industry. The pilot study's responses on the research instrument enabled the researcher to amend the pre-stated questions appropriately (Joppe, 2000; Golafshani, 2003).

3.8 Data Analysis

Data collected through online web-survey (Google Form) was downloaded into Microsoft excel application and saved on the researcher's computer system and on the external storage device for backup. Data were then analysed using IBM Statistical Package for Social Scientists (SPSS) (Connolly, 2007) to generate different analysis required to answer the research questions and test hypotheses. This involves, but not limited to, frequency distribution, presentation of various graphs and tables.

In order to test the hypotheses, the researcher specified a model to critically assess the impact of information technology on organizational success in an emerging economy. Dependent variable Y which is Organizational Success in an Emerging Economy (OSEE) based on a selected value of the independent variable X which is Information Technology. The value of a and b in the regression equation are referred to as regression coefficients (Y=a+bX). The functional relationship is expressed in the following models:

$Y = f(X)$

$X = x_1, x_2, x_3$

Y= Organizational Success in an Emerging Economy (OSEE) – Dependent variable

X= Information Technology (INT) – Independent Variable

x_1 = Internet Applications (INA)

x_2 = Technological Devices (TD)

x_3 = Special Industry Software (SIS)

Model specification;

Model 1;

$OSEE = f(INA)$

$OSEE = \alpha o + \beta_0 INA + \alpha o$

Model 2;

$OSEE = f(TD)$

$OSEE = \alpha o + \beta_0 TD + \alpha o$

Model 3;

$OSEE = f(SIS)$

$OSEE = \alpha o + \beta_0 SIS + \alpha o$

Model 4;

$OSEE = f(INA, TD, SIS)$

$OSEE = \alpha o + \beta_1 INA + \beta_2 TD + \beta_3 SIS + \alpha o$

Where

αo – 2 are the intercepts

$\beta_0 – \beta_3$ are the coefficients

3.8.1 Apriori Expectation

This research work expected that there would be a positive relationship between information technology and organizational success in an emerging economy. There has been evidence from previous studies conducted by various researchers that there is a positive relationship between IT and organizational successes. Thus, an apriori expectation in this study is $B1 > 0$, $\beta 2 > 0$, $\beta 3 > 0$. This implies that the set of explanatory variables are expected to have a positive relationship with organizational success in an emerging economy.

3.8.2 Test of Significance

Analysis of variance (ANOVA) will be used to test the model's significance at a 95% confidence interval. This is a crucial procedure for testing the difference among various groups of data for homogeneity. It solves the difficulty that arises with t-test when examining the significance of the difference amongst more than two samples at the same time. The t-test compares the actual difference between two or more means in relation to the variation in the data.

3.9 Ethical Considerations

The researcher follows the guideline issued by the International Statistics Institute (1986), cited by Jones (2000) by ensuring that honesty and objectivity are strictly adhered to when interpreting and presenting the research findings. Data collected in the course of the research were only used for this study. Thus, downloaded generated data were saved on the researcher computer system that is passworded and only accessible by the researcher. In addition, an extra effort was taken when gathered data were to be exported and coded to ensure that data were accurately processed to guide against exaggerating the research results.

Moreover, the first page of the survey questionnaire which is the instruction and information page clearly shows that the respondents' responses will be treated as being from an anonymous source and with great confidentiality. Also, it was stated that that responses from the respondents will solely be used for academic purposes and that respondents have the freedom to withdraw from taking part in the survey should they wish so.

3.10 Limitation and Constraint

One of the merits of the quantitative research method adopted is its propensity to be more generally accepted most especially when larger population size is selected and sampled (Kothari, 2007). However, the researcher restricted the sampled respondents to three major locations in Nigeria, which are Lagos, Abuja, and Port-Harcourt. This is because of the relatively short time frame required for the research to be conducted and submitted. In as much as the locations selected for the survey are still relevant and because of their urban nature, it is believed that spreading the sample size across all the 36 states in the country would have greatly increased the generalizability of the research findings. Funding would have been a major constraint too, if the samples were chosen across all the states in the country. The researcher would have paid more to the database management company from where the contacts of various respondents' company were extracted from.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis of data collected from the survey and findings as set out in the research methodology. This research investigates the impact of information technology on organizational success in an emerging economy with a special focus on the Nigerian banking industry. The gathered data was from the questionnaire, which is the research instrument, and it was designed in line with the objectives of the study. A total of 200 sampled respondents were sent the survey questionnaire web link, and one hundred and fifty-four (154), which represents 77% responses were returned and analysed. Similarly, forty-six (46) questionnaires representing 23% were not completed. Hence, the number of completed and used shows a significant increase of 2% over the assumed minimum of 75% of the questionnaire envisaged to be completed.

Respondents' demographic profile presented in appendix 2 – Table 7 shows that most of the respondents are from the banking industry. Those who are not directly from the banking industry are conversant with the banking operations vis-à-vis the utilization of relevant technologies and the effect these usually have on their operational processes. In addition, more than half of the respondents hold a senior position in their respective organization and, as such, it believed that they are more knowledgeable about the questionnaire items. Hence, there is representativeness in their distribution regarding the industry under review, as revealed in the same appendix 2, Table 11, where sizeable numbers of the respondents indicated that their organizations utilize various technological tools, software, and applications.

Therefore, validity and reliability of the study, analysis, and provision of answers to the research questions, testing of hypotheses stated in chapter 1, and discussion of results generated from this study will be presented in this chapter. Three research questions and hypotheses are stated in this research to confirm or repudiate them with empirical data generated from the field survey. Techniques utilized in data analysis involved frequency distribution tables that include the use percentages, as indicated in Appendix 2 Tables.

4.2 Data Presentation

4.2.1 Data Validity

The researcher consulted with five professionals in the banking industry and a good representation of the chosen population (Drost, 2011; Angell, 2015) to conduct a pilot study and they were sent the survey questionnaire web link to complete. Piloting of the research instrument was necessary for various reasons, such as to help to clarify the wording of the instrument to avoid misinterpretations and to avoid research bias. Also, to detect ambiguous questions and to pick out any problems in the research methods. The pilot study's feedback pointed out the need to include items like internet applications and special industry software on the questionnaire question. The feedback also resulted in reducing the number of questions in the questionnaire in order not to make it too lengthy and thereby discouraging the prospective respondents as advised by the professionals.

4.2.2 Data Reliability

Before testing hypotheses, a reliability test was conducted on the research instrument utilized in the collection of data to ascertain the quality of the questionnaire items needs (Sing and Jusoh, 2015). To test the reliability of the Likert scale used in this study, reliability analysis was done using Cronbach's Alpha to determine the level of reliability of the research instrument and to measure the items' internal consistency (Tavakol and Dennick, 2011; Drost, 2011). Thus, the test was conducted on the main questions save for the descriptive demographic questions, as shown in Appendix 2. The result of the reliability test is presented in Table 4.1 below.

Table 1

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.878	.899	25

A reliability coefficient of 0.70 i.e. $\alpha \geq 0.7$ is recognized as acceptable in most of the social science research (Sharma, 2016). Hence, Cronbach's Alpha 0.878 as shown in Table 1 and in Appendix 2, Table 11 indicates a high level of internal consistency for the Likert scale used and that the research instrument questions are relevant for data analysis and testing of

hypotheses. This confirms that the instrument used is reliable since the coefficient is greater than 0.7 or 70%.

4.3 Research Questions Analyses

4.3.1 Research Question One

1. *Can there be a seamless operational process in the banking industry without the utilization of information technology and relevant technological devices in an emerging economy such as Nigeria?*

Table 2.1

It would be difficult or impossible to carry out operational tasks in my organization without the use of relevant information technological devices -

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	1	.6	.6	1.3
	Neutral	8	5.2	5.2	6.5
	Agree	27	17.5	17.5	24.0
	Strongly Agree	117	76.0	76.0	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 2.1

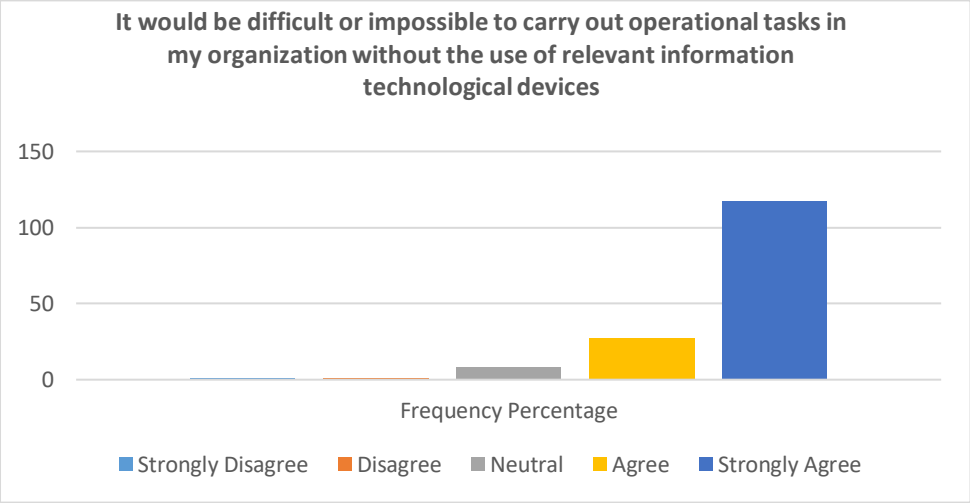


Table 2.1 above and Figure 2.1 revealed that most of the respondents - about 94% of them cumulatively agreed that it would be difficult or almost impossible to carry out any operational tasks in their organization without the use of relevant information technological devices. This is especially instructive as this result indicates that the utilization of relevant

technological tools will enhance seamless operational processes and without relevant IT tools, it would be difficult or impossible to carry out designated tasks. However, it has been disclosed that IT and technological tools have to be complemented with proficient human resources (Coltman et al., 2011; Coltman and Devinney, 2013) for organizations to be able to fully enjoy the huge benefits of IT.

4.3.2 Research Question Two

2. *Do poor infrastructure and general decadence in the Nigerian system has a negative impact on the adoption and utilization of internet applications in the Nigerian banking industry?*

Table 2.2

Poor infrastructure and general decadence in the Nigeria system has a negative impact on the adoption and utilization of internet applications-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	13	8.4	8.6	8.6
	Disagree	12	7.8	7.9	16.4
	Neutral	30	19.5	19.7	36.2
	Agree	32	20.8	21.1	57.2
	Strongly Agree	65	42.2	42.8	100.0
	Missing System	2	1.3		
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Figure 2.2

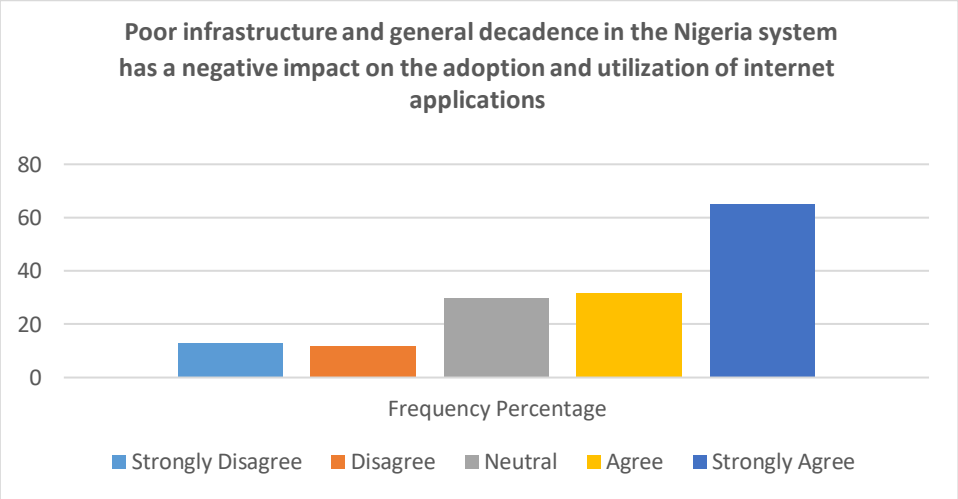


Table 2.2 above and Figure 2.2 shows that quite a sizeable number of the respondents - 63% agreed that poor infrastructure and general decadence in Nigeria system negatively impact

the adoption and utilization of internet applications. Similarly, 19.5% of the respondents could not make up their minds at the time of completing the survey questionnaire while the remaining 16% disagree with the statement. Thus, it is evident that poor infrastructure and general decadence in the Nigerian system negatively affect the adoption and usage of internet applications since the majority of the respondents agreed to that statement.

The above submission confirms the statement of Ejiaku (2014) where he revealed that bad government policies, poor infrastructural development, and shortage of IT professionals are some of the problems that most developing countries face concerning adopting and usage of information technology. He furthered proposed that respective governments in the developing countries should ensure that effective policies are designed which would be geared towards the provision of good infrastructure.

Research Question Three

3. *Can information technology utilization improve firm productivity in the Nigerian banking industry?*

Table 2.3

Information technology special industry software enhances productivity in my organization-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	2	1.3	1.3	1.9
	Neutral	19	12.3	12.3	14.3
	Agree	38	24.7	24.7	39.0
	Strongly Agree	94	61.0	61.0	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 2.3

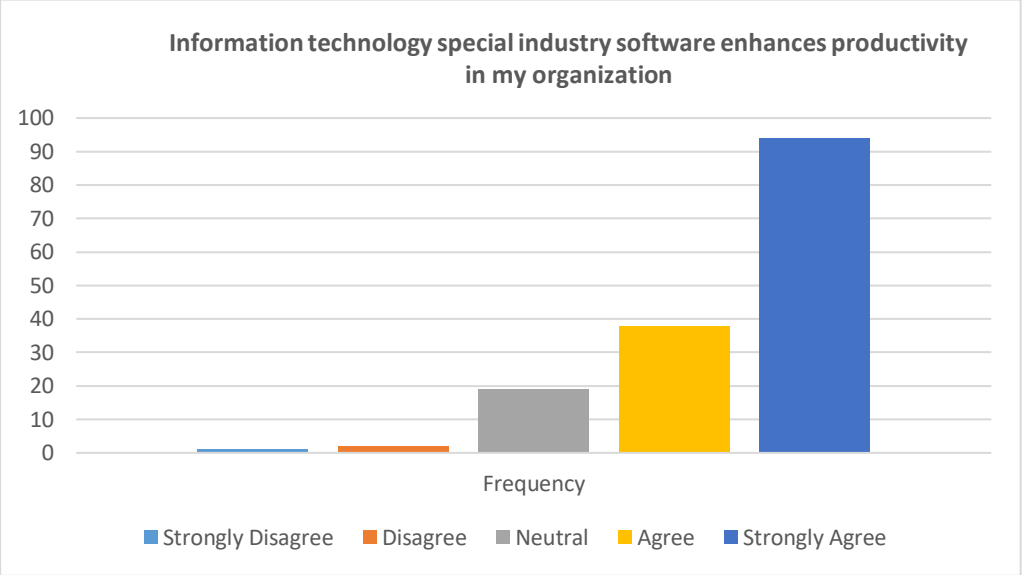


Table 2.3 above and Figure 2.3 shows that about 86% of the respondents agreed that information technology special industry software enhances productivity in their organizations. About 12% of the respondents were neutral regarding the statement while the remaining 2 percent do not agree that IT special industry software increases productivity in their organizations. Thus, majority of the respondents believe that IT special industry software enhances productivity in their firms. The use of IT special industry software has proved to assist management in establishing an effective target monitoring and reporting mechanism which enhances employees' performance and productivity.

4.4 Internet Applications and Organizational Success

The study sets to analyse and show responses regarding the importance of internet applications to their various organizations most especially in the banking industry. The details of these are presented in the descriptive statistics shown by the values of the respective key empirical references below.

Table 3.1

Internet applications help to facilitate customer service activities -

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.7	.7
	Neutral	2	1.3	1.3	2.0
	Agree	28	18.2	18.3	20.3
	Strongly Agree	122	79.2	79.7	100.0
	Missing System	1	.6		
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 3.1

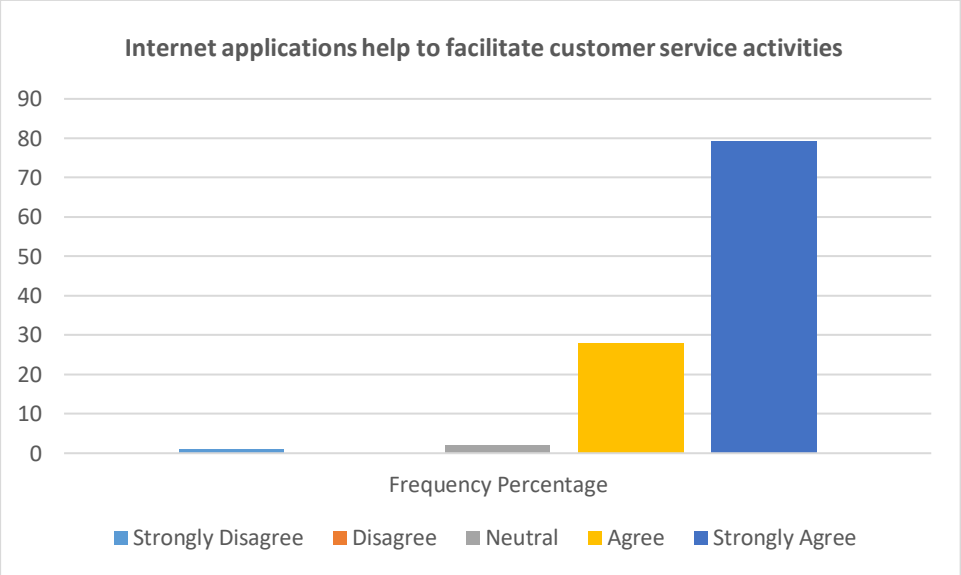


Table 3.1 above and Figure 3.1 shows that majority (97%) of the respondents confirmed that internet application helps in facilitating customers' service activities, about 1.3% gave a contrary response while there was a missing system for the remaining responses. This implies that majority of the respondents in Nigeria banks are of the opinion and confident that internet applications to facilitate customer service activities. The use of internet applications enhances communication among relevant stakeholders. This allows the bank to have a good feedback mechanism regarding their services in order to improve their performance and develop more innovative products and increase service delivery.

Table 3.2

Internet applications usage enhances operational efficiency in my organization -

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	3.2	3.2	3.2
	Disagree	5	3.2	3.2	6.5
	Neutral	29	18.8	18.8	25.3
	Agree	47	30.5	30.5	55.8
	Strongly Agree	68	44.2	44.2	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 3.2

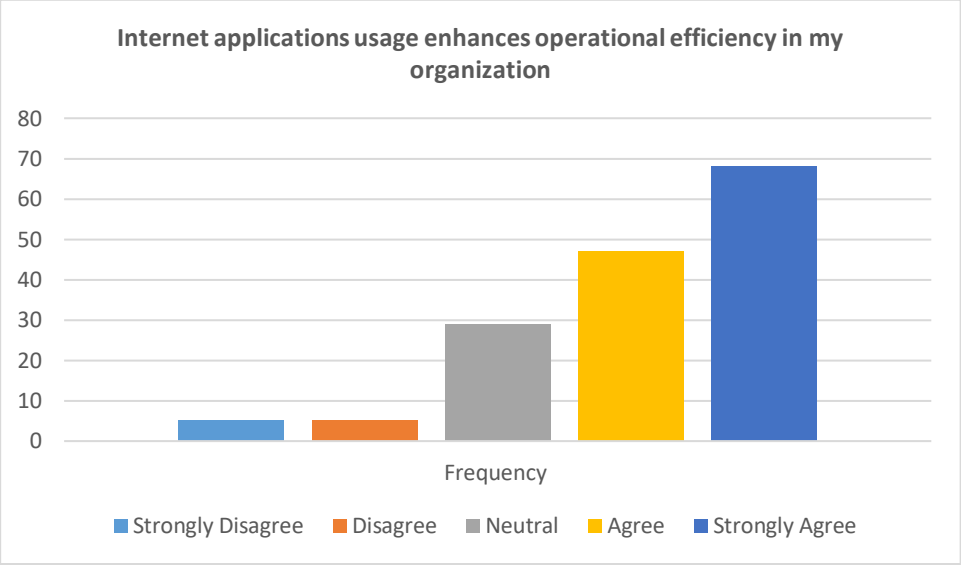


Table 3.2 above and Figure 3.2 shows that a large number of the respondents (75%) agreed that internet applications utilization promotes operational efficiency in the organizations where they work. Although, about 18% of the respondents were undecided whether to agree or disagree with the statement and the remaining 6% disagree with the statement. Hence, a large percentage of the respondents who revealed that internet applications enhances operational efficiency in the banking industry align with the position of Neirotti and Paolucci (2011) who posited that IT positively affects organizational procedures in terms of administrative activities efficiency. For example Appendix 2, Table 11 shows that about 103 respondents who participated in the survey confirmed that their organization has been using the internet to carry out organizational activities. Thus, internet applications assist the management in integrating the activities of an organization's different branches and ensure

efficient coordination of functions among employees in different locations as well as improve management administrative capabilities.

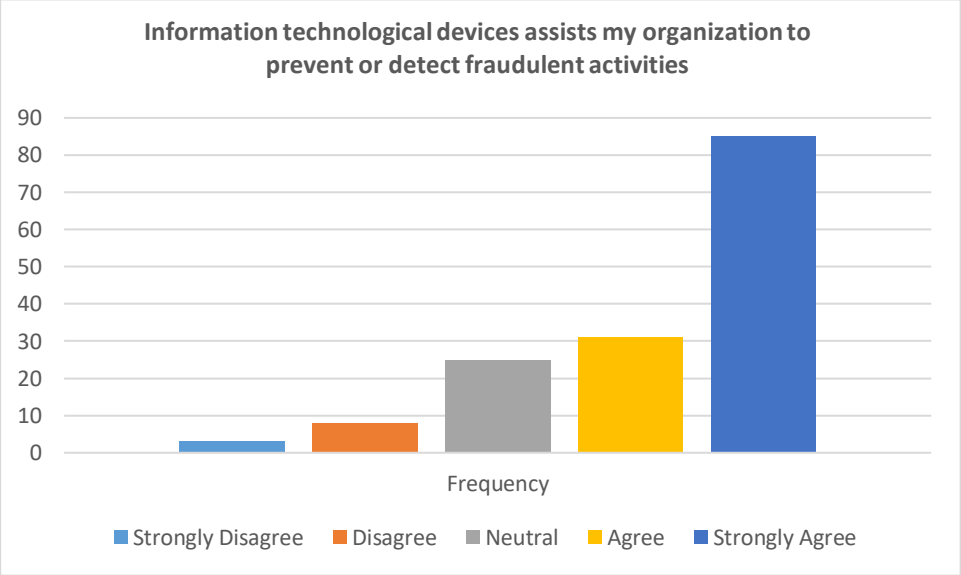
Table 3.3

Information technological devices assists my organization to prevent or detect fraudulent activities-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.9	2.0	2.0
	Disagree	8	5.2	5.3	7.2
	Neutral	25	16.2	16.4	23.7
	Agree	31	20.1	20.4	44.1
	Strongly Agree	85	55.2	55.9	100.0
	Missing System	2	1.3		
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 3.3



The results as reflected in Table 3.3 and Figure 3.3 shows a greater value of 75% of respondents who agreed with the statement. This value is well above the respondents who disagreed which are just 7.2%. Furthermore, the numbers of respondents who agreed and strongly agreed with the statement revealed that the respondents had varied opinion regarding the extent to which technological devices helps organizations in detecting or preventing fraudulent activities. Thus, it can be concluded that the utilization of technological tools helps to a greater extent, in fraud detection and prevention in the banking industry. It has been argued that IT innovation and subsequent adoption and utilization comes with its

challenges – one of such drawbacks is using IT to commit fraud. This has especially been a challenge in Nigeria as it affects different sectors due to the high rate of unemployment and the growing population. Furthermore, weak government policy also mitigate against tackling the problem head-on because of the systemic corruption that is endemic in the country. However, considering all these factors when adopting and implementing relevant technologies will allow organizations to incorporate strategies into their system which would prevent or detect fraudulent activities. For example, when the debit card and the ATM were introduced in early 2000 in Nigeria, a lot of bank customers were defrauded of their hard-earned money because of the loophole in "Interswitch" system – Interswitch was the main debit card company at the time. This is because, one only needs to have the debit card and the CCV number plus the user's PIN to complete any transactions using the card (Olatokun and Igbinedion, 2009). However, with the introduction of Master and Visa card, etc., (Jegede, 2014) transaction verification procedures are more stringent.

4.5 Technological Devices and Organizational Success

The use of various technological devices has had a tremendous influence on organizational processes and has enabled diverse decision-makers to adopt different innovative technological tools. This has revolutionized the way banks carry out their activities worldwide. It has given the banks in the developing country like Nigeria to leverage on the huge benefit inherent in IT tools usages such as enhancement of quality service delivery and optimization of their operational processes. This would enable them to actualize their respective firm objectives. The aim of many organizations is to maximize profit. In pursuing this objective, business owners as well as other stakeholders will adopt strategies that will ensure its processes are attuned to the actualization of the set goals. This could be customers' satisfaction, low employee turnover, and operational cost reduction which would assist them in realizing the set objectives.

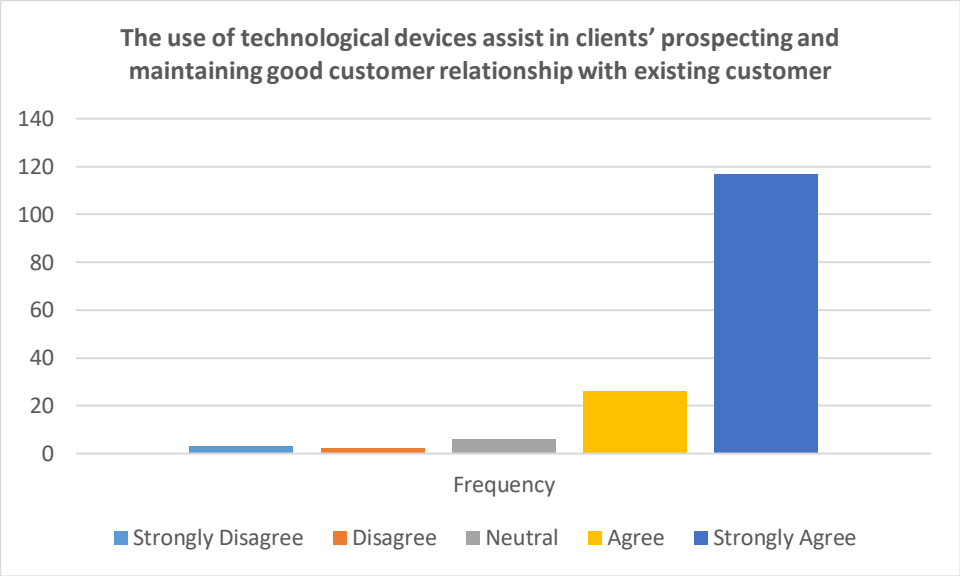
Table 4.1

The use of technological devices assist in clients' prospecting and maintaining good customer relationship with existing customer-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.9	1.9	1.9
	Disagree	2	1.3	1.3	3.2
	Neutral	6	3.9	3.9	7.1
	Agree	26	16.9	16.9	24.0
	Strongly Agree	117	76.0	76.0	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 4.1



It is evident from the results in Table 4.1 and Figure 4.1 that the majority of the respondents 143 (93%) concurs that the use of technological devices assists their organizations in clients' prospecting and maintaining good customer relationships with existing customers. Although, 5 of the respondents (3%) believes otherwise and 6 (4%) were undecided. The fact that majority of the research respondents indicated that the use of technological devices assists their organization regarding clients' prospecting and maintenance of good customer relationships with the existing customers gives credence to the usefulness of technological tools. The usage of these tools enables organizations to carry different organizational tasks which will lead to better performance and successful attainment of set goals. Enhancing Financial Innovation and Access (EFINA) (2018) revealed that about 36.8% of the Nigerian adult population are financially excluded. This translates about 36.6 million adult Nigerians who are unbanked and the majority of these financially excluded population lives in the rural

area with little or no access to banking services (Oluwatayo, 2013). However, the proliferation of mobile technologies has created opportunities for banks and other financial service providers to develop innovative products that would assist in capturing the unbanked population in the rural areas which will increase financial inclusion.

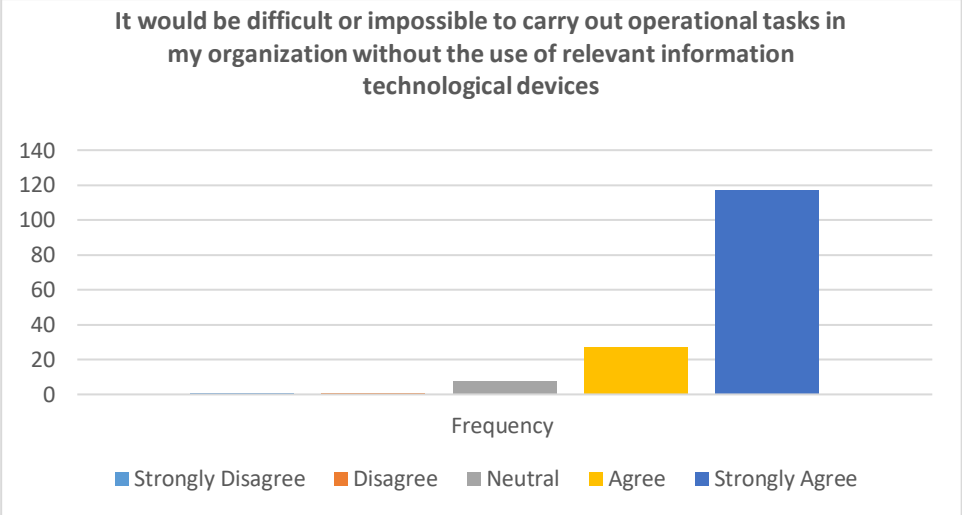
Table 4.2

It would be difficult or impossible to carry out operational tasks in my organization without the use of relevant information technological devices -

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	1	.6	.6	1.3
	Neutral	8	5.2	5.2	6.5
	Agree	27	17.5	17.5	24.0
	Strongly Agree	117	76.0	76.0	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Figure 4.2



The results as reflected in Table 4.2 and Figure 4.2 shows that 94% of the respondents agreed to the statement, 5.2% were neutral while 1% disagreed. Thus, the view of the majority of the respondents, as shown above, is that it would be difficult or outrightly impossible for them to carry out any operational assignments without the use of relevant technological devices. The use of computers and the internet with relevant applications allows banks to transact businesses with its customers and other organizations within their locality in a timely and seamless manner. Furthermore, every bank has a website where people and organizations all over the world could visit to get more insight about their operations and initiate relationship

with the bank when necessary. This capability has also given them the privilege to penetrate into global market. For example, the use of computers and the internet will facilitates the use of Society for Worldwide Interbank Financial Telecommunication (SWIFT) services where transfer and receipt of funds into and from different countries across the globe is made easy.

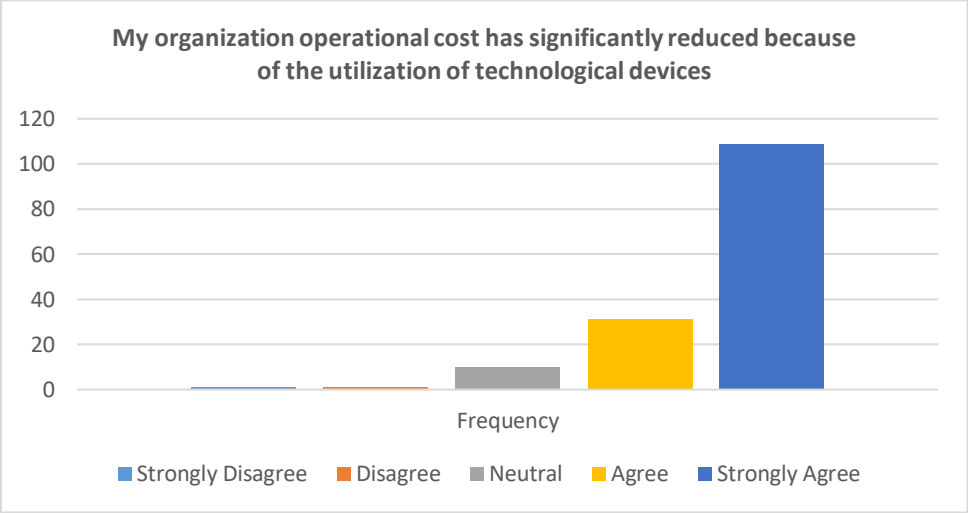
Table 4.3

My organization operational cost has significantly reduced because of the utilization of technological devices-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.7	.7
	Disagree	1	.6	.7	1.3
	Neutral	10	6.5	6.6	7.9
	Agree	31	20.1	20.4	28.8
	Strongly Agree	109	70.8	71.7	100.0
	Missing System	2	1.3		
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 4.3



The results in Table 4.3 and Figure 4.3 shows that almost all the respondents' (91%) agreed that operational cost has reduced in their various organizations as a result of the utilization of relevant technological devices. Although, 6.6% chose to be indifferent about the statement while the remaining 1.4% of the respondents disagreed with the statement. Thus, the fact that lest that only 2% of the entire respondents disagreed with the statement gives credence to the credibility of the usage of technological tools to reduce operational cost and by extension increase profitability.

Table 4.4

Activities of fraudsters and other malefactors negatively affect the utilization of information technological devices in my organization-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.3	1.3	1.3
	Disagree	2	1.3	1.3	2.6
	Neutral	8	5.2	5.2	7.8
	Agree	43	27.9	28.1	35.9
	Strongly Agree	98	63.6	64.1	100.0
	Missing System	1	0.6		
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Figure 4.4

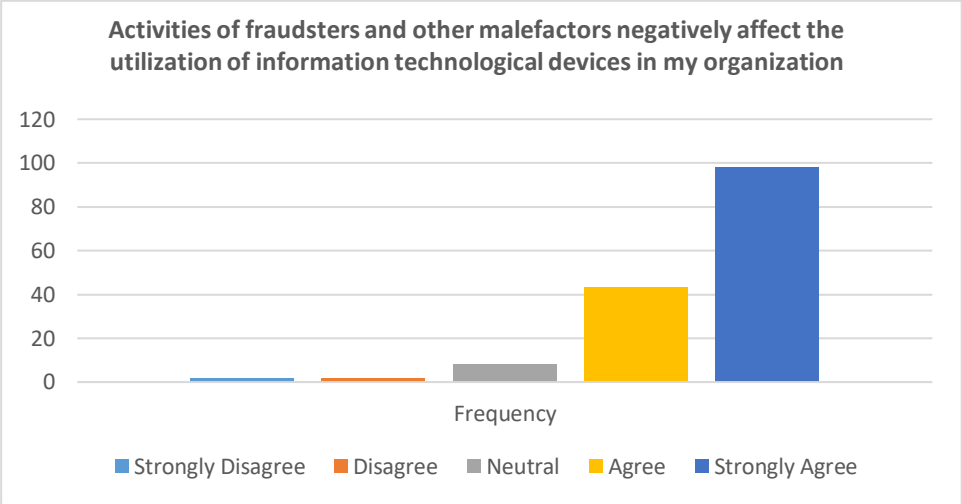


Table 4.4 and Figure 4.4 shows how the activities of fraudsters and other malefactors negatively impact the utilization of technological devices in diverse organizations. The majority of respondents' (91%) opinion aligns with the statement and confirmed that activities of fraudsters and other criminals impact the utilization of relevant technologies in their organizations negatively. Although, 3% of the respondents' did not align with this position as they believed that fraudster's activities do not affect their organization's ability to utilize technological devices while the remaining 5.2% were indifferent about the statement. It is important to point out that although majority of the respondents in Table 3.3 believe that technological devices assist their organizations in preventing or detecting fraudulent activities, the statement in Table 4.4 above reveals that the activities of fraudsters will impact the effective usage of these technological devices.

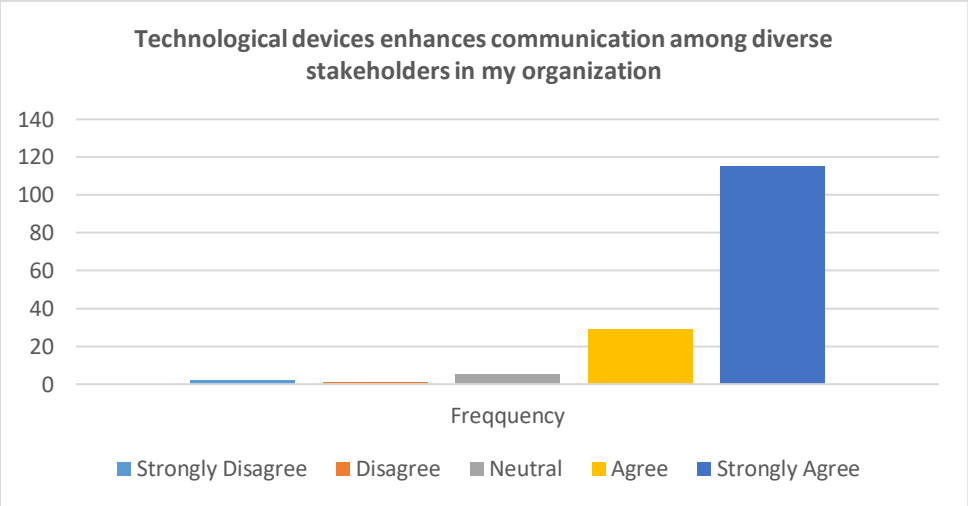
Table 4.5

Technological devices enhances communication among diverse stakeholders in my organization-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.3	1.3	1.3
	Disagree	1	.6	.7	2.0
	Neutral	5	3.2	3.3	5.3
	Agree	29	18.8	19.1	24.4
	Strongly Agree	115	74.7	75.7	100.0
	Missing System	2	1.3	1.3	
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Figure 4.5



The result in Table 4.5 and Figure 4.5 shows that the majority of the respondents (94%) agreed that technological devices enhance communication among diverse stakeholders in their various organizations. Although, 3.2% chose to be indifferent about the statement while the remaining 2% of the respondents disagreed with the statement. The use of technological devices such as mobile telephones, video conferencing technology, and different communication applications on computers has helped banks in connecting their employees, managers, directors, and shareholders together. This enhances collaboration which has brought about flexibility in communication

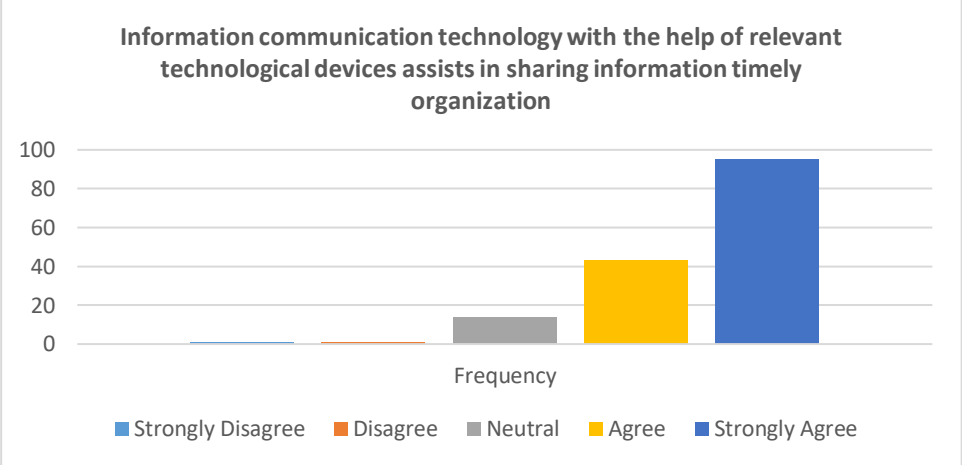
Table 4.6

Information communication technology with the help of relevant technological devices assists in sharing information timely organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	1	.6	.6	1.3
	Neutral	14	9.1	9.1	10.4
	Agree	43	27.9	27.9	38.3
	Strongly Agree	95	61.7	61.7	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Figure 4.6



The result as reflected in Table 4.6 and Figure 4.6 shows that 90% of the respondents agreed to the statement, 9.1% were neutral while 1% disagreed. Thus, the view of the majority of the respondents, as shown above, is that sharing of timely information in their organizations is facilitated by the use of relevant technological devices.

4.6 Information Technology Special Industry Software and Organizational Success

Because information technology most especially as it relates to banking technology has been built and developed upon over the years which includes the basis special industry software that has contributed immensely to the advancement in organizational processes as well as operational cost reduction (Ukpabio, Olaposi, and Siyanbola, 2016). According to Adepetun (2015), special industry software such as CLIREC which one of the banks in Nigeria adopted and this software can harmonize all reconciliation exercises. Besides, the utilization of the software ensures that there are proper control and management of accounts both at the

district managing the account and other departments in different locations. Furthermore, it gives users access to interface with other banking applications to ensure the accuracy and integrity of data (Adepetun, 2015).

Table 5.1

Information technology special industry software enhances better coordination of activities and performance in my organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	1	.6	.6	1.3
	Neutral	18	11.7	11.7	13.0
	Agree	36	23.4	23.4	36.4
	Strongly Agree	98	63.6	63.6	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Figure 5.1

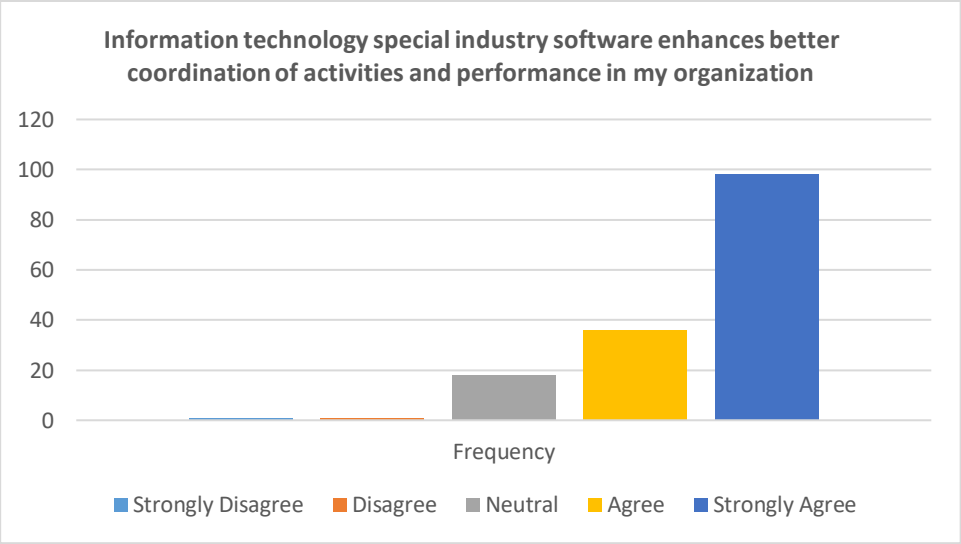


Table 5.1 and Figure 5.1 shows the extent to which information technology special industry software enhances better coordination of activities and performance in the respondents' organizations. In total, 87% of the respondents agreed that special industry software promotes efficient coordination of activities and performance in their organizations. Although, 11.7% of the respondents were not decided about the statement while about 1% of the remaining disagreed with the statement. This implies that indeed information technology special industry software enhances better coordination of activities and performance in the respondent's organizations since the majority of them agreed with the statement. This result is in line with the response stated in Table 2.3 above where majority of the respondents also confirmed that special industry software enhances productivity in their

organizations. Hence, special industry software assists employees in carrying out operational tasks effectively, efficiently and its reliability enhances transaction accuracy which usually leads to organizational productivity.

Table 5.2

Information technology special industry software assists my organization regarding new products development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.3	1.3	1.3
	Disagree	2	1.3	1.3	2.6
	Neutral	19	12.3	12.3	14.9
	Agree	35	22.7	22.7	37.7
	Strongly Agree	96	62.3	62.3	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Figure 5.2

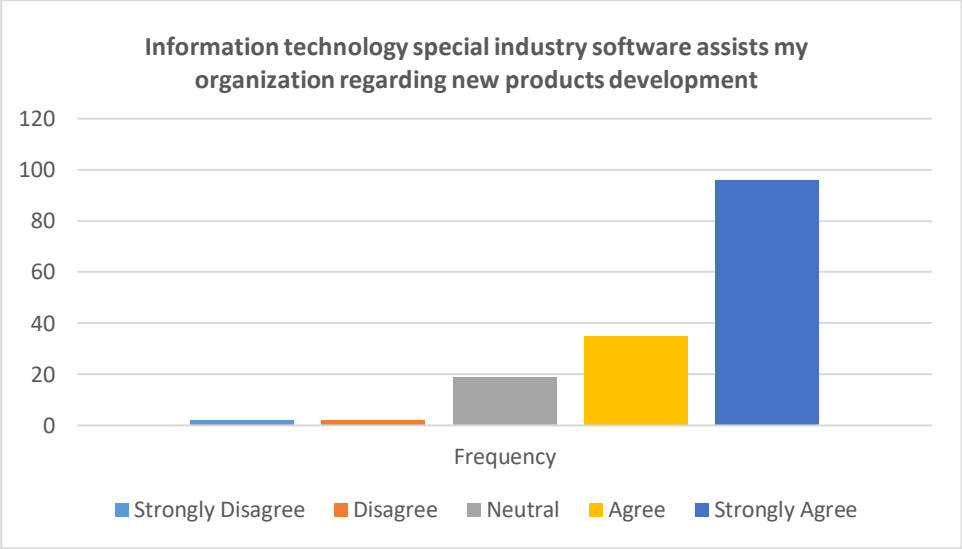


Table 5.2 and Figure 5.2 shows that 84% of the respondents concurred with the statement that information technology special industry software assists their organizations regarding new products development. Although, 2.6% of the respondents' did not agree with the statement as they believed that information technology special industry software do not assist their organizations regarding new product development while the remaining 12.3% were indifferent about the statement.

Table 5.3

Information technology special industry software enhances productivity in my organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	2	1.3	1.3	1.9
	Neutral	19	12.3	12.3	14.3
	Agree	38	24.7	24.7	39.0
	Strongly Agree	94	61.0	61.0	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Figure 5.3

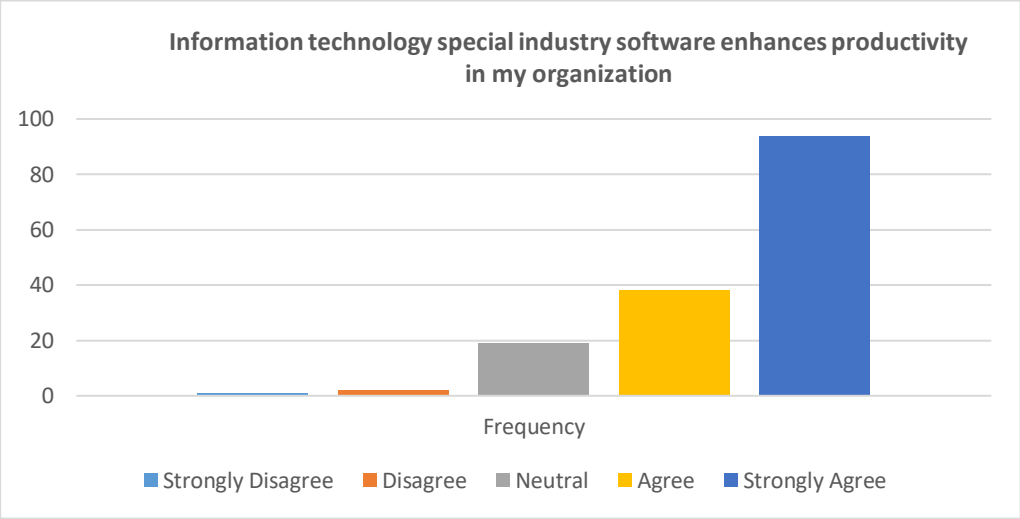


Table 5.3 and Figure 5.3 shows that 86% of the respondents agreed that information technology special industry software enhances productivity in their organizations, about 12% of the respondents were neutral regarding the statement while the remaining 2 percent do not agree that IT special industry software increases productivity in their organizations. Thus, the majority of the respondents believe that IT special industry software enhances productivity in their firms.

4.7 Testing of Hypotheses

Three hypotheses are stated in the course of this research to confirm or repudiate the statements with empirical data gathered via respondents' answers to survey questionnaires. The researcher analysed the data using descriptive statistics and tests were conducted using a regression model to test hypotheses.

Condition for Acceptance or Rejection of Hypothesis:

Accept null hypothesis if the P-Value obtained is greater than 0.05 which is the alpha level of significance specified in SPSS for this analysis. But, if otherwise, then accept the alternate hypothesis.

4.7.1 Statement of Hypothesis One:

H_0: Internet applications has no significant relationship with organizational success in the Nigerian banking industry.

Table 6.1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.566[a]	.321	.316	0.444488

a. Predictors: Internet Applications

Table 6.2 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.928	1	13.928	70.373	.000[b]
	Residual	29.489	149	.198		
	Total	43.417	150			

a. Dependent Variable: internet application help to facilitate customer service activities

b. Predictors: Internet

Table 6.3 Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.615	.258		10.118	.000
	Internet	.164	.020	.566	8.389	.000

a. Dependent Variable: Organizational success in the Nigerian banking industry (OSEE)

OSEE = f (INA)

OSEE = $\alpha o + \beta 0 INA + \alpha o$

OSEE = 2.615 + 0.164 INA

Model Testing and Interpretation

Table 6.1 reveals the computed regression analysis to determine specifically which of the information technology variables that significantly relate to organizational success in the emerging economy. Firstly, the model summary indicates that the R^2= 0.321 shows that 32.1% of the variation of dependent variable which is organizational success in an emerging economy is caused by the independent variable namely the internet application while 67.9% cannot be explained by these variables and with only 0.444488 margins of error. This implies that the relationship between organizational success and internet applications is statistically significant; thus, any change in internet application will also affect organizational success in the Nigerian banking industry. Also, the regression coefficient (R) result shows a positive value of 0.566, which also supports the fact that both variables directly influence each other.

The study also conducted an analysis of variance to determine the extent to which the organizational success and internet application relates with each other, and the result showed that P-value obtained (i.e. 0.000) was lower than the 5% level of significance, therefore, according to the decision rule, the null hypothesis will be rejected. Thus, internet application has a significant relationship with organizational success in the Nigerian banking industry. Moreover, the ANOVA regression results indicate the model used is fit and appropriate with F=70.373 and with 0.000 significance, which further means that the result provided in this statistical test is reliable.

The regression result in table 6.3 above shows the result obtained in determining the relationship between internet application and organizational success. The result revealed a positive relationship between internet application and organizational success with r=0.164 tested at 0.05 level of significance, indicating that the result is statistically significant.

This finding that IT- internet applications positively impact organizational success conforms with the research results of different researchers who have investigated this subject. The result of the study carried out by Martinez-Caro and Ciara-Navarro (2010), which sought to find the relationship between capital productivity, internet applications, groupware applications, and shared systems, revealed that the relationship between capital productivity and other stated variables is significant statistically and positive. Moreover, Internet technology has been argued to assist the deprived and the underprivileged in the developing

economy through its capability to reduce the barrier to growth and bring about financial inclusion (Bisht and Mishra, 2016). Similarly, Bahrini and Qaffa's research on the effect of information and communication technology on developing country's economic growth revealed that ICT – most especially internet usage and broadband embracement are the major enabler of economic growth in the Middle East, North Africa region as well as Sub-Saharan Africa countries.

4.7.2 Statement of Hypothesis Two:

H_0: Technological devices have no significant relationship with organizational success in the Nigerian banking industry.

Table 6.4 Model Summary

Model	R	R Square	Adjusted R square	Std Error of the Estimate
1	.761[b]	.579	.577	0.50517

a. Predictors: Technological devices

Table 6.5 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	51.694	1	51.694	202.566	.000[b]
	Residual	37.514	147	.255		
	Total	89.208	148			

a. Dependent Variable: Organizational Success
b. Predictors: Technological Devices

Table 6.6 Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.448	.349		-1.283	.202
	Mobile	.153	.011	.761	14.233	.000

a. Dependent Variable: Organizational success in the Nigerian banking industry (OSEE)

OSEE = f (TD)

OSEE = $\alpha o + \beta 0TD + \alpha o$

OSEE = -0.448 + 0.153TD

Model Testing and Interpretation

Table 6.4 model summary above explains the percentage of the dependent variable (i.e., organizational success in the Nigerian banking industry) that can be determined by the independent variable (i.e., technological devices). According to this model summary, the independent variables account for 57.9% (R Square, 0.579) of the dependent variable, while the remaining 42.1% can be explained by other factors outside the scope of this model, this implies that the relationship between the dependent and independent variables is statistically significant; thus any change in technological devices will also affect organizational success in the Nigerian banking industry. Also, the regression coefficient (R) result shows a positive value of 0.761, which also supports the fact that both variables have a direct influence on each other.

The study also conducted an analysis of variance to determine if the result of the model summary in Table 6.5 above can be relied upon and the result established that P-value obtained (i.e., 0.000) was lower than the alpha level of 5% specified in SPSS for this analysis. Therefore, according to the decision rule, the alternate hypothesis will be accepted while the null hypothesis is rejected. Thus, technological devices have a significant impact on organizational success in the Nigerian banking industry. This position reflects the view of the respondents above where most of them affirms that technological devices assist in carrying out workplace tasks, good customers' management, reduction in operational costs, fraud prevention and reduction and enhances communication. Also, the ANOVA regression result indicates the model used is fit and appropriate with F=202.566 and with 0.000 significance, which further means that the result provided in this statistical test is reliable.

From the regression result in Table 6.6, the coefficient of the independent variable - 0.153 is positive. Hence, there is a positive relationship between technological devices and organizational success in the Nigerian banking industry.

The utilization of diverse technological devices has undoubtedly helped different organizations carry out operational tasks seamlessly. Consequently, this has resulted in firms' enjoying the immense benefits inherent in using IT tools to ultimately accomplish organizational objectives (Gilaninia et al., 2011; Adabaa and Ayoung, 2017). The results of the research conducted by Wenner et al. (2018) where organizations in developing countries were using mobile devices e.g. mobile phones to access the M-payment system which affords

the user to fast, secure and efficient transactions. It was reported that the utilization of this technological device in accessing the M-payment platform was not only successful but it helps in streamlining infrastructure and economic growth in the locations where it was utilized. Hence, this corroborates the results that there exists a positive relationship between technological devices and organizational success.

4.7.3 Statement of Hypothesis Three:

H_o: Special industry software has no significant relationship with organizational success in the Nigerian banking industry.

Table 6.7 Model Summary

Model	R	R Square	Adjusted R square	Std Error of the Estimate
1	.736[c]	.541	.538	0.54616

a. Predictors: Special Industry Software

Table 6.8 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	52.835	1	52.835	177.122	.000[b]
	Residual	44.744	150	.298		
	Total	97.579	151			

a. Dependent Variable: Organizational Success
b. Predictors: Special Industry Software

Table 6.9 Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.023	.335		.069	.945
	Data	.326	.024	.736	13.309	.000

a. Dependent Variable: Organizational success in the Nigerian banking industry (OSEE)

OSEE = f (SIS)

OSEE = $\alpha o + \beta 0SIS + \alpha o$

OSEE = 0.023 + 0.326SIS

Model Testing and Interpretation

Table 6.7 model summary above explains the percentage of the dependent variable (i.e., organizational success in the Nigerian banking industry), that can be determined by the independent variable (i.e., Special Industry Software). According to this Table, the dependent variable accounts for 54.1% (R Square, 0.541) of the independent variable, while the remaining 45.9% can be explained by other factors outside the scope of this model. This implies that special industry software has a significant relationship with organizational success in the Nigerian banking industry. The regression coefficient (R) result also shows a positive value of 0.736, which also lends credence to the fact that special industry software has a significant effect on organizational success in the Nigerian banking industry.

The study also conducted an analysis of variance to determine the extent to which the independent and dependent variable relates with each other, and the result on Table 6.8 showed that P-value obtained (i.e. 0.00) is lower than the 5% level of significance, therefore, according to the decision rule specified above, the alternate hypothesis will be accepted, while the null hypothesis is rejected. Thus, special industry software has a significant impact on organizational success in the Nigerian banking industry. Furthermore, the ANOVA regression result indicates the model used is fit and appropriate with F=177.122 and with 0.000 significance which further corroborates the results provided that the statistical test is reliable.

From the regression result in Table 6.9, the coefficient of independent variable - 0.326 is positive. This means that there is a positive relationship between special industry software and organizational success in the Nigerian banking industry. Furthermore, both the t-statement significant and f-statistical significance stood at 0.000 which is less than 5% level of significance, indicating that the result is statistically significant.

This result also conforms with the findings of several researchers who have conducted studies regarding the subject area. According to Ait et al. (2018), standardized software was introduced to the banking sector to alleviate the issue of inefficiencies which was brought about with proprietary systems. Hence, special industry software in the banking industry is used to harmonize their operational processes, standardized working interfaces, and enhances seamless information sharing (Zaheer and Trkman, 2017) across the banking value chain to bring about the effective process and actualize organizational objectives.

Similarly, it's been revealed by Oluwagbemi et al. (2011) that the deployment IT capabilities in the banking industry such as the specialized software has re-engineered banking operational processes.

4.8 Discussion

It is interesting to note that the results generated from this study show that information technology has been playing a crucial role in assisting organizations in the banking industry to have seamless operational processes that optimize their productivity and success. The findings from this study, where all the null hypotheses were rejected and the alternate hypotheses accepted, as well as the answers to all the stated research questions. The results indicate that IT indeed has a strong positive effect on organizational success in the banking industry. It is important to state that the results generated are based on the perspectives from the employees within Nigerian banking industry and their responses to the various questions. Thus, their views that IT internet applications, technological devices and special industry software have a positive effect on organizational is solely their perspective. The results from this study are especially important because they conform with previous researches that also investigated the effect of IT on organizational processes. This is particularly applicable to those in the developed countries and the few available pieces of research on the developing economies.

The first hypothesis - internet applications have no significant relationship with organizational success in the Nigerian banking industry was rejected. The rejection is because the overall regression model shows a positive significant relationship with organizational success evidenced, by the correlation coefficient r = 0.566 at 0.05 level of significance. Thus, looking at different variables that are synonymous with organizational success like operational performance, productivity, accountability, qualitative service, customer satisfaction, and profitability. Majority of the respondents agreed that the use of internet applications impacts their organizations positively as regards these variables. Comparing the outcome of this tested hypothesis with similar previous studies also confirms that internet technology is essential and prevalent in today's business world (Olusanya, 2014; Salihu et al., 2019). It has enabled optimization of operational processes and tremendously assists firm in realizing their set objectives (Hempell, 2004; Nikoloski, 2012; Daru, 2015). Therefore, the consistency of

this study with various previous researches affirms that there is a positive relationship between internet application usage and organizational success.

The second tested hypothesis is that technological devices have no significant relationship with organizational success in the Nigerian banking industry which is the null hypothesis was rejected. This rejection is hinged on the fact that the independent variables account for 57.9% (R Square, 0.579) of the dependent variable. Regression coefficient (R) result value is positive 0.761, and both the t-statement significance and f-statistical significance stood at 0.000 which is less than 5% level of significance indicating that the result is statistically significant. Thus, the researcher confirms that technological devices have a significant relationship with organizational success in the Nigerian banking industry and the alternate hypothesis is accepted. This hypothesis's result is also in line with different findings by various researchers on previous similar studies. For instance, the study conducted by Ibikunle and James (2012) to ascertain the effect of IT adoption by commercial banks on Nigeria banking industry revealed that the use of IT and relevant technological by these organizations enhances customers' satisfaction. It also boosts operational efficiency, increases firm's competitive advantage, reduces operational cost, and fosters better service delivery (Ibikunle and James, 2012). Similarly, the performance outcome of the potency of green IT investments and application regarding energy preservation, as well as its beneficial effect on the developing economies such as India was investigated by Khuntia et al. (2018). Their study shows that green IT investment has a positive relationship with bigger profit impact, which encourages the employment of green IT drive to ensure better environmental sustainability (Khuntia et al., 2018).

The third null hypothesis, which states that special industry software has no significant relationship with organizational success in the Nigerian banking industry is also rejected because the coefficient of the independent variable (0.326) is positive. This implies that 1 unit increase of IT special industry software will lead to 0.326 increase in the organizational success in the Nigerian banking industry. Therefore, the alternate hypothesis will be accepted, and it is confirmed that special industry software has a significant effect on organization success. The complexities that sometimes come with the general IT adoption necessitates organizations to embrace specialized software (Monczka et al., 2012) that would be developed to suit their processes majorly. According to Ghani at al. (2009), the benefits of IT

adoption are more noticeable when specialized industry solutions are integrated. The findings corroborate the submission of Dandago and Rufai (2014) that investigated IT influence on accounting information production in the Nigerian banking industry. The result of their study revealed that applications of relevant accounting industry software in banks do not only increased their operational efficiency, but it also optimizes their performance, simplify their operational processes, and reduces operational cost.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS, AND CONCLUSION

5.1 Introduction

Information technology has revolutionized the way organizations and businesses carry out their operational activities, most especially in terms of adopting and utilizing different technological tools to perform workplace tasks. There has been a lot of research to show how numerous diverse organizations in the developed countries have been benefitting from this dynamic business enabler (Nair et al., 2009). However, there seem to be not quite many publications relating to the effect of IT on businesses in the developing countries most especially in the western part of African, where many countries are struggling with different socio-economic problems. Hence, this study tries to investigate the impact of information technology on organizational success and focused mainly on the banking sector in Nigeria. Also, it tries to find out if IT benefits as seen in the developed countries can also be enjoyed in Nigeria and to probe, why the same level IT benefits being enjoyed in the developed economies, are not being replicated with firms in the Nigeria banking industry.

This study embraced a quantitative research method and gathered data from 154 respondents from the banking industry and located in Lagos, Abuja, and Port – Harcourt out of the 200 samples chosen to participate in the survey from these locations. Three research questions and three hypotheses were answered and tested respectively in the course of this study. The outcome of this research gives the researcher an invaluable insight into the impact of IT on Nigeria firms' most especially, as it relates to the banking industry and provides empirical evidence regarding the investigated research subject.

5.2 Summary of Findings

This study revealed that information technology has a huge impact on organizational success in the Nigerian banking industry. For instance, in their response to the stated research questions, most of the respondents agreed that there could not be a seamless operational process in their respective organizations without IT and other relevant technological tools. They also agreed that poor infrastructure and general decadence in the Nigerian system negatively affect the organizations which they work with, in adopting and utilizing relevant IT tools such as internet applications. Furthermore, they confirmed that the use of information

technology could advance organizational productivity in the Nigerian banking industry. In the same light, the regression model and analysis of variance used in testing the stated hypotheses revealed that internet applications have a significant relationship with organization success; technological devices usage has a significant relationship with organizational success, and special industry software has a significant relationship with organizational success in the Nigerian banking industry.

Therefore, it could be deduced from these results that there are numerous benefits inherent in the utilization of information technology in assisting in carrying out workplace tasks most especially in the developing economy like Nigeria. The use and proliferation of mobile technology such as mobile phones in rural areas could help in advancing financial inclusion drive of the government. That way, large numbers of the population who are presently unbanked and live in the rural areas could be captured through the use of mobile technology without the banks having to invest so much on physical structures such as office buildings in such location. Thus, the less privileged and the unbanked could have access to different financial products from the bank such as, soft loans, which could help them start new small businesses. It is believed that when such businesses flourishes, loans would be re-paid, and banks will have the opportunity to lend to new customers while maximizing profit in the process. The government on the other hand will receive more taxes, which would be used to develop infrastructures. Therefore, with proper management of funds and accountability, the successes that would be achieved through the use of IT to drive financial inclusion will ultimately lead to economic growth and development.

More importantly, this study's findings agree with other previous studies regarding the impact of IT on businesses and organizations and how it affects organizations and their processes positively. This study has been able to improve on the research conducted by Olusanya et al. (2014), where they investigated the impact of computerized banking monitoring systems in the Nigerian banking industry. The study used Zenith bank Nigeria Plc. – a commercial bank as a case study, and the respondents who participated in the survey were only the staff of this bank. The study concluded and recommended that extensive research on the technology or computer monitoring software to be adopted should be done before using such technology (Olusanya et al., 2014). Their research is similar to this study in

highlighting how computerized banking monitors information positively affects the banking industry. Also, their result shows that computerized monitoring system banking helped the bank researched detect fraudulent transactions made by some customers. While Olusanya et al. (2014) limited its work on computerized banking monitoring systems; this research has been able to look into how different technological tools, devices, software, and other applications affect banking operations and their general impact on the banking industry.

Furthermore, it revealed that many organizations in the banking industry, and their numerous customers, have been utilizing different technological tools that they agreed has helped simplify their processes. Thus, given the enabling environment and better infrastructure, it is surmised that organizations in developing countries such as Nigeria can also fully enjoy the benefits of IT like their counterparts in developed countries. These benefits include but are not limited to the opportunity improvement on the government's financial inclusion drive and the bank through the use of mobile telephones.

This would give numerous previously unbanked population and those in the rural areas the opportunity to access financial services with the help of their mobile devices. Another visible benefit is the increase in the use of online banking where the bank's customers could transact any financial business at any time of the day. The flexibility and convenience in transacting financial businesses have helped people and organizations conduct businesses more transparently and efficiently leading to better performance.

5.3 Contribution to Research Theory

This study has been able to contribute to knowledge in the area of investigating and generating empirical results on the impact of IT on organization success in a developing economy. The research broadened its scope by including bank customers that are conversant with banking operations and uses relevant technological tools that are being used in the banking industry. This approach did not only exhibit the perception of bank customers who are also playing a crucial role and contributes immensely to the sustenance of banking operations but also corroborates the views or claims of other respondents who are direct bank staff. It is believed that the objective of this study has been addressed by the research outcome, which confirms the fact that IT usage presents substantial benefits to Nigerian

organizations in the banking industry. However, it is surmised that these organizations are not completely enjoying the benefits inherent in IT utilization, like their colleagues in developed countries. Although the sample used for this study is relatively small when the whole of the Nigerian population is taken into consideration. Nevertheless, the data from Enhancing Financial Innovation and Access (EFINA) (2018) shows that about 36.6 million of Nigerian adult populations are still unbanked. This points to the fact that huge chunk of the population could still benefit if banks improve on IT utilization to capture the financially excluded. This could be done by using mobile telephone devices to access population in the rural areas, which will, improve their access to financial services and encourage entrepreneurship. Therefore, this study has contributed to the available work of research with empirical evidence generated from the first-hand stakeholders that shown the role IT plays in organizations' operational processes. Also, it revealed IT general effect on firm success and actualization of corporate goals.

5.4 Managerial Implications

This outcome of this research has revealed the effect of IT utilization on organizational success. Thus, this should have considerable implications for managers as well as other organizational management teams. For example, the research questions one, which sought to detect if organizations could carry out workplace tasks without the use of relevant technology or technological tools from the respondents that participated in the survey. Most of these respondents confirmed that it would be difficult or outrightly impossible to carry out any operational activities without the use of necessary IT devices. Hence, management, not only in the banking industry but in other sectors should take cognizance of the immense benefits inherent in IT usage. They should identify those technologies that will enhance operational performance in their organization while judiciously invest in it to actualize firm's objectives. Management should also invest in manpower training of their employees who will be using these technologies to ensure effective and efficient processes that will lead to better performance and productivity.

5.5 Recommendations

The substantial benefits to be derived from IT utilization by any organization cannot be overemphasized whether the organizations are in developed or developing countries, as revealed by different previous studies, and equally confirmed in this research. Thus, it is recommended that firms – most especially those in the banking industry, which this research focused on - should endeavour to acquire and use relevant technologies and technological devices in their operational processes. This is to ensure seamless operational activities among diverse stakeholders and customers, as well as to optimize their performance to be able to achieve desired organizational success. It is also recommended that firms could look into addressing the issue of poor infrastructure by making government in the area where they operate to be more accountable to the populace. Firms should also assist in the provision of relevant infrastructures lacking in this area in the form of corporate social responsibility (CSR), which will reduce the infrastructural deficit that is mitigating against effective IT adoption and utilization.

The government in the developing economy like Nigeria, on the other hand, should ensure they holistically address the menace of different socio-economic and political problems. Some of these problems are dilapidated infrastructure, unfavourable government policies to business, nepotism, and general decadence in the system to name a few. It is believed that when these problems are nipped in the bud or at least reduced to the barest minimum, adoption, and utilization of IT by diverse organizations will become easier and pronounced. This will lead to enhancement of the ease of doing business initiative and organizations would be ushered into the better operational process and optimize their capabilities.

5.6 Limitations

Although, this study has significantly contributed to knowledge in the area of information technology and its devices concerning organizational success in the banking industry, it is important to point out that there are few limitations encountered in this study. One of such limitations is that the chosen sample size was limited to two major states and the federal capital territory in Nigeria which are Lagos, Abuja, and Port-Harcourt. In as much as these locations are major urban centres which host a lot of organizations in the banking industry and the sample generated from these locations are statistical valid to make generalization

inference. However, drawing samples from all the 36 states in the country would have substantially increased the generalizability of the research results to include organizations that are not in the urban centres.

The second constraint experienced by the researcher is not being able to use a much bigger sample size from the identified population because of the short duration within which the study was to be completed. The use of larger sample size in quantitative research enables the generalizability of the research findings to be more acceptable.

5.7 Further Research

This study has established the positive effect that information technology has on organizational success in the Nigerian banking industry. Most of the respondents' who participated in the survey agreed that IT has a positive effect on their operational processes. This study mainly focused on the banking industry to determine the impact IT has on their success in the developing economy. However, further research which could include other organizations in the whole of the Nigerian financial services sector such as finance companies, mortgage institutions, the insurance company, and forex bureaux de change. This could widen the research scope and broaden the researcher's perspective. This might also give different players in the financial sector an in-depth insight into the role IT plays in their respective operations and add to extant knowledge.

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Appendix 1

Questionnaire

The Impact of Information Technology on Organizational Success in an Emerging Economy – The Nigeria Banking Industry Perspective.

General Instruction and Information

This survey is being carried out by Elizabeth Echiejile, a post-graduate student at National College of Ireland (NCI)

This research will investigate the impact of Information Technology on organizational success in an emerging economy from the Nigeria perspective. This study will enable the researcher to verify the usefulness of Information Technology on activities and processes in Nigeria firms, most especially in the banking sector.

Apart from this introduction page, this survey consists of 3 pages of about 20 questions which will take about 5 – 8 minutes of your time.

Kindly answer all questions as there is no right or wrong answer

Your responses will be kept anonymous and will be treated with utmost confidentiality. The data gathered from the survey will only be used for statistical analysis and academic purposes.

For any questions or concerns please contact the researcher:
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National College of Ireland
Phone: +353 858721847
Email: x18145485@student.ncirl.ie

Supervisor: Robert MacDonald
Email: Robert.macdonald@ncirl.ie

Thank you for your anticipated corporation and assistance.

1. Indicate the category of industry your organization belongs to

- ◯ Banking
- ◯ Telecommunication
- ◯ Manufacturing
- ◯ Hospitality
- ◯ Agricultural
- ◯ Healthcare
- ◯ Oil and Gas
- ◯ Construction/Real Estate
- ◯ Entertainment

2. Indicate the staff strength of your organization

- ◯ 1 - 20
- ◯ 21 – 50
- ◯ 51 – 100
- ◯ 101 – 200
- ◯ 201 – 500
- ◯ 501 – 1000
- ◯ 1000 and above

3. Please indicate your present job position/title

- ○ CEO
- ○ Director
- ○ Manager
- ○ Supervisor
- ○ Others

4. Please indicate your department in the company

- ○ Administrative
- ○ Finance
- ○ Marketing/Sales
- ○ Human Resources
- ○ Information Technology
- ○ Supply Chain
- ○ QA/QC
- ○ Services

5. My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate:

- [ ] Special Industry Software
- [ ] Electronic Data Interchange (EDI)
- [ ] Internet
- [ ] Internet Banking
- [ ] Automatic Teller Machine (ATM)
- [ ] Unstructured Supplementary Service Data (USSD)
- [ ] Society for Worldwide Interbank Financial Telecommunication (SWIFT)
- [ ] Social Media
- [ ] E-mail
- [ ] E-commerce
- [ ] E-procurement
- [ ] Video conferencing
- [ ] Cloud Computing

6. The use of technological devices assist in clients' prospecting and maintaining good customer relationship with existing customer

	1	2	3	4	5	
Stongly disagree	○	○	○	○	○	Strongly agree

7. Internet applications helps to facilitate customer service activities

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

8. Information technology special industry software assists my organization regarding new products development

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Stongly agree

9. It would be difficult or impossible to carry out operational tasks in my organization without the use of relevant information technological devices

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

10. Internet applications usage enhances operational efficiency in my organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

11. My organization operational cost has significantly reduced because of the utilization of technological devices

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

12. Information technology special industry software enhances productivity in my organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

13. Information technological devices assists my organization to prevent or detect fraudulent activities

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

14. Poor infrastructure and general decadence in the Nigeria system has a negative impact on the adoption and utilization of internet applications

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

15. Activities of fraudsters and other malefactors negatively affect the utilization of information technological devices in my organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

16. Information technology special industry software enhances better coordination of activities and performance in my organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

17.Technological devices enhances communication among diverse stakeholders in my organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

18. Information communication technology with the help of relevant technological devices assists in sharing information timely organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

19. Information technology special industry software enhances transparency in my organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

20. Information technology special industry software enhances accountability in my organization

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Submit

Appendix 2

Demographic Characteristics of Respondents

This section presents the demographic characteristics of the respondents to the questionnaire. This is presented in form of frequency distribution tables.

Table 7

Please indicate the category of industry that your organization belongs to

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Banking	53	34.42	34.42	34.42
	Telecommunication	19	12.34	12.34	46.76
	Manufacturing	15	9.74	9.74	56.50
	Hospitality	13	8.44	8.44	64.94
	Agricultural	4	2.60	2.60	67.54
	Healthcare	15	9.74	9.74	77.28
	Oil and Gas	16	10.39	10.39	87.67
	Construction/Real Estate	12	7.79	7.79	95.46
	Entertainment	3	1.95	1.95	97.41
	Missing System	4	2.60	2.60	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Table 8

Please indicate your organization's staff strength

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Between 1-20	30	19.48	19.48	19.48
	Between 21-50	17	11.04	11.04	30.52
	Between 51-100	19	12.34	12.34	42.86
	Between 101-200	14	9.09	9.09	51.59
	Between 201-500	16	10.39	10.39	62.34
	Between 501-1000	24	15.58	15.58	77.92
	1000 and above	33	21.43	21.43	99.35
	Missing System	1	0.65	0.65	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Table 9

Please indicate your present job position/title

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CEO	8	5.19	5.19	5.19
	Director	3	1.95	1.95	7.14
	Manager	26	16.88	16.88	24.02
	Supervisor	41	26.62	26.62	50.64
	Others	75	48.70	48.70	90.34
	Missing System	1	0.65	0.65	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020.

Table 10

Please indicate your department in the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Administrative	29	18.83	18.83	18.83
	Finance	12	7.79	7.79	26.62
	Marketing /Sales	25	16.23	16.23	42.85
	Human Resources	7	4.55	4.55	47.4
	Information Technology	20	12.99	12.99	60.39
	Supply Chain	11	7.14	7.14	67.43
	QA/QC	7	4.55	4.55	72.08
	Services	42	27.27	27.27	99.08
	Missing System	1	0.65	0.65	100.0
	Total	154	100.0	100.0	

Source: Field Survey, 2020

Table 11

My organization has been utilizing one or more of the below technological tools, software or application

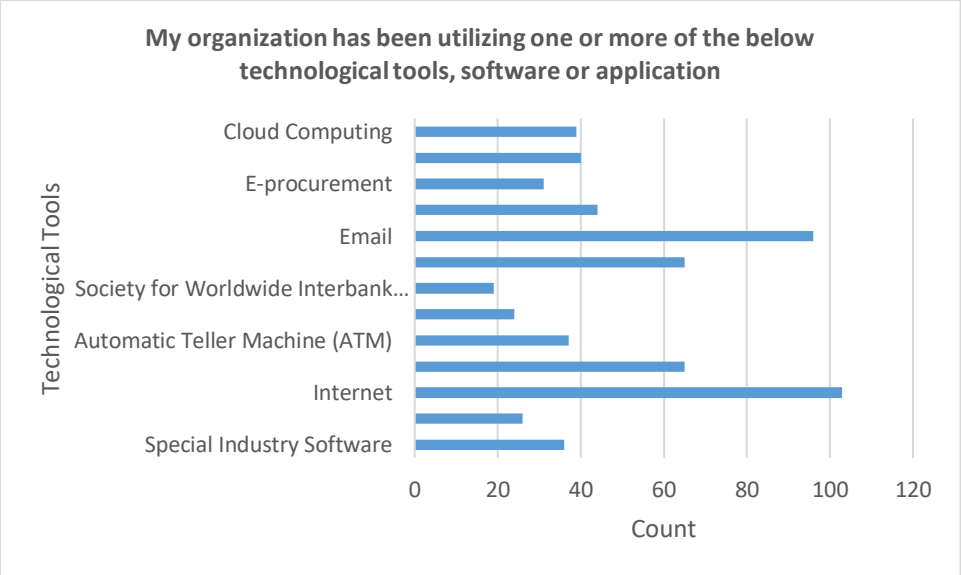
Technological Tools		Count	Table N %
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Special Industry Software			
	Special Industry Software	36	23.7%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Electronic Data Interchange (EDI)			
	Electronic Data Interchange (EDI)	26	17.1%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Internet			
	Internet	103	67.8%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Internet Banking			
	Internet Banking	65	42.8%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Automatic Teller Machine (ATM)			
	Automatic Teller Machine (ATM)	37	24.3%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Unstructured Supplementary Service Data (USSD)			
	Unstructured Supplementary Service Data (USSD)	24	15.8%

My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Society for Worldwide Interbank Financial Telecommunication (SWIFT)	Society for Worldwide Interbank Financial Telecommunication (SWIFT)	19	12.5%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Social Media			
	Social Media	65	42.8%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Email			
	Email	96	63.2%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: E-commerce			
	E-commerce	44	28.9%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: E-procurement			
	E-procurement	31	20.4%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Video conferencing			
	Video conferencing	40	26.3%
My organization has been utilizing one or more of the below technological tool, software or application – please select as appropriate: Cloud Computing			
	Cloud Computing	39	25.7%

Source: Field Survey, 2020

Table 11 above shows the level of usage of different technological tools, software or application by different respondents.

Figure 6



Reliability

Table 11

Case Processing Summary

		N	%
Cases	Valid	145	94.2
	Excluded[a]	9	5.8
	Total	154	100.0

a. Listwise deletion based on all variables in the procedure.