

## INFORMATION AND COMMUNICATION TECHNOLOGY AND FINANCIAL ADMINISTRATION OF FEDERAL TERTIARY INSTITUTIONS IN ANAMBRA STATE

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### ABSTRACT

This study examines the role of information and communication technology in financial administration of federal tertiary institutions in Anambra state. The objectives include to evaluate how the automation of revenue collection through TSA has improved revenue collection in tertiary institution, to determine how Information Communication Technology has enhanced efficiency in financial administration in tertiary institutions and to evaluate how integrated personnel payroll information system has improve Pay Roll system management in tertiary institutions in Nigeria. The study employed descriptive survey design; questionnaire was used to collect data. Primary sources were used and data was analyzed using weighted mean and percentages while simple Z-test analysis was used to analyze the hypotheses. The study used the Technology Acceptance Model (TAM) and Diffusion of Innovation (DIO) Theory as its theoretical frame work. The findings of the study revealed that automation of revenue collection through treasury single account has to a certain extent improved revenue collection in federal tertiary institutions in Anambra State, also that Information Communication Technology has enhanced efficiency in financial administration in federal tertiary institutions in Anambra State and finally, IPPIS has improved Pay Roll system management in federal tertiary institutions in Anambra State. We recommend that for the treasury single account (TSA) policy to be more effective, the Fiscal Transparency Bill needs to be put in place, it is time to ensure proper implantation and maintenance of information and communication technology in financial administration and also there is need to develop more security measures to ensure authentic and secure client and server communication and lastly, the study recommend full implementation of all the derivatives of IPPIS in all sectors and advocates the expansion of the identity management in the country and call for digitalization of every citizen.

**KEYWORDS:** Education, Information Communication Technology, Federation, Administration

### 1. INTRODUCTION

The Information and Communication Technology (ICT) has ushered in a new dimension in the management of information. The need for educational administrators in Nigeria tertiary institutions to acquire electronic literacy skills cannot be ignored, every modern administrator ought to acquire knowledge and skill in information technology, and to use internet to browse and obtain or circulate information that will enhance organizational productivity and efficiency in their jurisdiction (Osakede, O., Ijimakinwa, Arijeniwa, Adesanya and Ojo, 2017). The impact of ICT has become a key factor in many studies in understanding how new technologies, might be a catalyst and a driving force in management of institutions including its finances for better result. It has the potential to accelerate, enrich and deepen skills in teaching, learning and administration. It can help to ease financial administration; encourage financial accountability, transparency and reduction of fraud.

Financial administration means planning, organising, directing and controlling the financial activities such as procurement and utilization of funds of the Institution. In other words, financial administration is the management of the finances of a business/organization in order to achieve financial objectives. The primary purpose of financial management is to do with procurement, allocation and control of financial resources of a concern (Ishola, 2008). In general terms, it means applying general management principles to catalysing and sustaining the financial resources of the Institution. It is important to note that recently, ICT has been deplored in the financial administration of tertiary institutions and this has helped in great measure. These critical dimensions underscore coordinated financial management functions, continuous finance/accounting resource development, circumspect cash flow digitalization, concerted zero tolerance for financial absurdities/irregularities and consistent sensitization for investment optimization (Agundu, 2016).

Furthermore, one of the recent breakthroughs in use of ICT in revenue collection in Nigeria tertiary institution is the introduction and implementation of Treasury Single Account, On Sunday, August 9, 2015 President Muhammadu Buhari directed all the Ministries, Departments and Agencies (MDAs) to close all their accounts domiciled in the commercial banks and transfer them to the federation account and gave September 15, 2015 as deadline for total compliance (The Guardian, (2015). The Independent Revenue e-Collection Scheme is implemented under Treasury Single Account (TSA) initiative, which requires that government revenue collection, is put into a single account for proper cash management. An improved efficiency and effectiveness of public spending not only helps maintain the fiscal discipline requested by them but also is instrumental in promoting the structural reform agenda of emerging economics. It alleviates budget constraints as it allows achieving the same results at lower levels of spending or increases value for money by achieving better outcomes at the same level of spending.

### 1.1 Statement of the problem

It is common that audit reports in Nigeria at all level, reveals flagrant disregard to rules and procedures, overthrow of financial discipline, accountability, probity and transparency, which the treasuries were set-up to establish and protect (Taril, Myatafadi, & Kibikiwa, 2016). Before the introduction of TSA, successive governments have continued to operate multiple accounts for the collection and spending of government revenue in flagrant disregard to the provision of the Section 80(1) of the 1999 Constitution as amended which requires that all government revenues be remitted into a single account. This practice has been a veritable avenue for misappropriation, mismanagement, fund leakages and embezzlement of public funds, which increase the cost of governance. These abuses/breaches range from over payment to existing staff salaries and allowances to dead or retired staff, poor management of students payment and so many other revenue leakages. These are clear manifestations of the collapse of financial management system which are most times not automated.

The introduction of Integrated Payroll Personnel Information System (IPPIS) was commendable but has not been generally applied across federal workers specially in tertiary institutions, though the scheme has made some progress through the uncovering of sharp practices such as ghost workers syndrome, multiple salaries pay point and other practices which have gulped billions of naira from the economy in the past years. However, the implementation of IPPIS has been incomplete and slow in terms of spread in all organizations and payment item. Many federal workers are yet to be rolled into IPPIS making the progress slow. However, it is in view of the aforementioned inherent challenges of financial leakages in the revenue generation, remittance, and absence of transparency, revenue loss as well as mismanagement by revenue-generating institutions that the researchers undertake to evaluate the role ICT has played and still playing in administration of government fund in federal tertiary institutions in Anambra State.

### 1.2 Objectives of the study

- To evaluate how the automation of revenue collection through TSA has improved revenue collection in tertiary institution.
- To determine how Information Communication Technology has enhanced efficiency in financial administration in tertiary institutions.
- To evaluate how integrated personnel payroll information system (IPPIS) has improve Pay Roll system management in tertiary institutions in Nigeria.

### **1.3 Hypotheses**

The following hypotheses were formulated for the study:

- **Ho:** Automation of revenue collection through TSA has not improved revenue collection in tertiary institution.
- **Ho:** Information Communication Technology has not enhanced efficiency in financial administration in tertiary institution.
- **Ho:** Integrated Personnel Payment Information System (IPPIS) has not improved pay roll system management in tertiary institutions in Nigeria.

## **2. LITERATURE REVIEW**

### **2.1 Conceptual framework**

#### **2.1.1 Information and Communication Technology (ICT)**

Various explicit and implicit definitions of information and Communication Technology exist in literature. These definitions vary around the common language definition; with variation depending on individual Scholar's interest. The European Union state the Information and Communication Technology (ICT) is a term currently used to denote a wide range of services, applications and technologies, using various types of equipment and software, often running over telecoms networks. ICT include well known telecom services such as telephone, mobile telephone and fax. Telecom services used together with computer hardware and software form the basis for a range of other services, including e-mail, the transfer of files from one computer to another, and, in particular, the Internet, which potentially allows all computers to be connected, thereby giving access to sources of knowledge and information stored on computers worldwide.

Information and Communication Technology is also known as the hardware, software, processes and people working together when storing, processing, transferring and using data to communicate information and ideas; both at site and across large geographical areas with the intention of reaching a single goal. It is also seen as the convergence of information technology, telecommunications and data networking technologies into a single technology (Aniete, 2011). ICT is also a simple phrase used to describe a range of technologies for gathering, storing, retrieving, processing, analyzing and transmitting information and also as a fusion of computers and communications equipment (Adekanye, 2006). Put differently, ICT is seen as an umbrella term that includes any communication device or application, encompassing: radio, television cellular phones, computer and network hardware and software, satellite systems and so on as well as the various services and applications associated with them, such as videoconferencing and distance learning. The term (ICT) covers any product or device that will store, retrieve, manipulate, transmit or receive information electronically in a digital form.

The general vision of New Public Management claims that the use of information and Communication Technology (ICT) will enhance efficiency, policy effectiveness and democratic values (Bonina and Cordella, cited in Adeyemo, 2010). Information and communication applications include video conferencing, teleporting, distance learning, management information systems and stock taking. Technologies can be said to include a broad array of issues ranging from "old" technology such as radio and TV to "new" ones such a cellular mobile communications; while networks may be comprised of copper or fiber optics cable, wireless or cellular mobile links, and satellite links. Equipment include telephone handsets, computers, and network elements such as basic stations for wireless service; while software programmed are the lifeblood of all these components, the set of instructions being everything from operating system to the internet.

In management, ICT is often categorized into two broad types of product which are the traditional computer-based technologies (things you can typically do on a personal computer or using computer at home or at work); and the more recent, and fast-growing range of digital communication technologies (which allow people and organizations to communication and share information digitally). Due to the new wave in the telecommunication industry electronic mail (e-mail) has brought a change in the way communication is being done in organization settings in the modern time. Users of e-mail have the opportunity to quickly form, edit and store messages. Information can be signed and transmitted to many people with a simple click of a mouse.

Other aspects of management communications include developing corporate communication strategies, designing internal and external communication directives and managing the flow of information including online communication. New technology forces constant innovation on the part of communications managers (Durowoju, 2010). Advances in telecommunication technology in the last two decades have led to the development of certain computer networks that allows access to a vast amount of information and services (Glowniak, cited in Durowoju, Onuka and Ajisegiri, 2013). Of the many computer networks that have been developed, the most prominent and widespread is the internet, a global network of networks that enables computers of all kinds to directly and transparently communicate throughout the world. The Internet Society (2002) has described 'global network of networks' as the 'information Super-highway' because it constitutes a shared global resources of knowledge and means of collaboration and co-operation in diverse communities.

Internet according to Coiera (cited in Durowoju, Onuka and Ajisegiri, 2013), is an open and unregulated community of people who communicate freely across an international electronic computer network. It is simply the linking together of individual computers in a network (Mckenzie, cited in Durowoju, Onuka and Ajisegiri, 2013). On the part of Farotimi(2001), the internet is a powerful tool used for searching, retrieving and disseminating information across the globe. In other words, internet has become one of the most significant channels of communication of our time. The internet in recent times has become even more commercialized, and it is increasingly being used by all sectors of society, as against its initial conferment to the military and the academics. Hence, it is not an understatement to say that internet has made information more accessible to people the world over

## **2.2 Factors militating against the use of ICT in public sector organizations in Nigeria**

E-government deals with issues relating to how the state makes use of information and communication technology (ICT) in order to provide better services, often in partnership with the private sector and Civil Society Organizations. E-regulation deals with issues that relate to how the state makes the use of ICT to better regulate and provide public services (price, quality, accessibility). E-democracy deal with issues that relate to how the state makes use of ICT to improve its rule-making function, that is involving the various societal actors in its decision-making process. Hence e-governance has been described by the UN e-government survey, (2004, 2005, and 2008) as the public sector use of the innovative ICT to deliver to all citizens improved services, reliable information and greater knowledge in order to facilitate access to the governing process and encourage deeper citizen participation, it is an unequivocal commitment by decision- makers to strengthening the partnership between the private citizen and the public sector.

Although electronics governance or the use of ICT provides ample opportunities towards improving public services delivery, there are some factors which strongly hinder its functional operations. The following factors, as identified by scholars, could be responsible. Lack of Funding: in addition to the foregoing, Okiy (2010) identified inadequate funding as a major obstacle to the acquisition and application of information technology facilities in the public sector in Nigeria, Omaji (2010) also asserted that the infrastructural challenges invariably give rise to high cost of ICT services and have make Nigeria to continue to rank low in global ICT affordability ranking. In a country such as Nigeria where the leadership both in the public and private sectors is predominantly not ICT savvy, budgetary constraints will compound the cost issue.

## **2.3 Problems militating the application ICT in Nigeria**

### **2.3.1 *Epileptic supply of electricity***

The general low supply of electricity in most parts of Nigeria has also been identified as another major setback. It is pertinent to note that till date. The Nigerian government has been unable to provide even the much promised 6,600 megawatts of electricity generation in Nigeria. Even the much touted 6,000 megawatts cannot guarantee a 24-hour uninterrupted power supply for all Nigerians. With this poor level of electricity supply in Nigeria, the populace is under pressure to provide electricity for most of their activities through the use of electric generators. Generally, this is rather inadequate and very expensive.

### **2.3.2 *Lukewarm attitude of the Nigeria government***

The lukewarm attitude of the Nigerian government to the provision of ICT infrastructure and facilities at the level comparable to international standards has been generally lamented by Okiy, (2010). Some important steps

required to be taken by government in this regard are not only the formulation but also the visible implementation of an ICT policy for the nation. For in the opinion of the United Nations Economic Commission for Africa, (2001). ICT policies and strategies are essential tools to define Africa's response to the challenges of globalization and to nurture the emergence of an African information society. This is especially important, given the rapidly growing international focus on ICT and development. Be that as it may. "policy implementation remains one of the key issues in many developing countries in Nigeria particularly given the fact that while many countries have a national ICT policy in place very little progress has been achieved in most cases in policy implementation. A reluctance to share information has resulted in policies that deny access to information and the creation of "empty" government ministries websites with information of little value (Kamar and Ongo'ndo, in Adeyemo, 2007).

### **2.3.3 Lack of ICT competence in public servants**

It cannot be over emphasized that public servants need to brace up to the new challenges of ICT competencies so that they can render more effective services to their clients in this electronic environment. Okorie and Ekere in Okiy (2010) asserts that if information professionals do not keep abreast of the changing technologies, they will be unable to manage the different types of information resources and cope with the ever-growing information needs of the public in this electronic age. Bureaucracy, it must be agreed, has been credible in developing a system of work that is never personalized, its slow nature in reacting to issues does serve as a major disadvantage, leaving loopholes for corrupt practices and laziness (Korpela in Nwogbaga, 2009). Nigeria's experience with government bureaucracy, proves that a gap exists between government and citizen, whereby creating a situation wherer, transparency and trust is lacking. Queuing for hours and days to collect a government form or getting a business done is still noticeable.

### **2.3.4 Criminality**

The internet was designed to ease the process of governance and administration. However, the convenience associated with it is now being exploited to serve criminal purposes. Cybercrime is a concept used to describe all illegal online transactions ranging from Advance Free Fraud (2-419/yahoo yahoo), e-mail scams, hacking, distribution of hostile software (viruses and worms), denial of service attacks, theft of data, extortion and impersonation, etc. although, cybercrimes are numerous, Sonka in Nwogbaga (2009) classified them into spam, fraud, obscene, or offensive contents, harassment, drug trafficking and cyber terrorism. Spam refer to unsolicited bulk e-mail for commercial purposes, fraud, on the other hand, means any dishonest misrepresentation of facts intended to induce another to do or refrain from doing thing which causes loss. In this context, the fraud will result in obtaining a benefit by altering computer input in an unauthorized way. Cyber fraud requires little technical expertise and is a common form of theft by employees who alter the data before entry or entering false data or by entering unauthorized instruction or using unauthorized process to alter, destroy. Suppress or steal output in order to conceal illegal transactions. Cyber fraud is difficult to detect and requires real programming skills. Other forms of cyber fraud include bank fraud, identity theft, extortion, and theft of classified information by electronic means (Sonka in Nwogbaga, 2009).

Cyber terrorism, on the other hand, is the use of the internet facilities by known and unknown persons or organizations to perpetrate disruption attacks against information systems for the primary purpose of creating alarm and panic (Thomas, in Nwogbaga, 2009). It is a premeditated use of disruptive activities, or the threat thereof, against computers and networks with the intention to cause harm and intimidate any person in furtherance of such objectives. In all, Nigeria shares 5.7% and the third position in cybercrime globally after the U.S and the U.K respectively (Hobson in Heeks, 2006). Another concern in e-governance or the use of ICT in service delivery is the inequality of access to and the use of the internet as well as computer illiteracy. E-governance is only benefiting some educated and privileged few. Sigh and Sahu in Heeks (2006) noted that the benefits of the present models of e-governance are not available fairly to the majority of the population of most countries particularly the elderly citizens and the rural masses etc.

Present projects are focusing solely on the internet and computers for web-based delivery of services which are available mainly to the upper-strata of the society. Hence, it is argued that a decisive factor in the success of e-governance is ensuring that the affected are adequately educated to access the ICT facilities. In other words, access need to be ensured as regards both infrastructure and understanding how to use the internet. Most people who use the internet in Nigeria are most frequently the youth and for the most parts are executive or middle

class, few salaried workers and some privileged students. Others cannot access the internet either due to high costs or inadequate level of computer literacy.

**Inadequate Regulation and Legal Control:** The legal system in Nigeria is still battling with how to evolve frameworks that can adequately regulate online administration. The development of e-governance demands reflections on the legal framework of online administration. This is because existing laws are deficient to cover criminal tendencies arising from the application of ICT in administration. This legal framework needs to be geared towards governing the news relationship among governments, businesses and individuals. Internet crime can be committed from any location and the criminals can select any location with the most lenient laws. As a result, the forensic investigator cannot assume that alleged criminal activity is really a crime because the activity may be considered a mere nuisance in the cyber criminal's locale. The implication is that a client or corporation cannot prosecute the offender (Smith, in Adewoye et.al, 2011). Today, businesses in Nigeria are under threats due to cybercrimes. Without basic institution and understanding of the cyber laws along with the Internet security skills, it is difficult for the investigator to advise clients about the legal rights, the nature of a system attack, or e-crime operation.

### ***2.3.5 Factors that can enhance the use of ICT in federal tertiary institutions in Anambra state***

Some scholars have come out with the following solution as panacea to some of the factors militating against the use of ICT on service delivery in the public service organization in Nigeria. The government of Nigeria should be committed to positioning Nigeria among the top information-rich economies of the world. This can be done through providing the right environment that will attract more investment into the ICT sector. Certain key technology areas such as wireless system, optic fiber transmission system and internet/broadband have been identified for particular attention. Digital wireless and mobile communications system will help Nigeria leapfrog into the circle of the world's top ten countries recording highest mobile subscriber growth. Again are the needs for training and re-training of public servants in the efficient use of communication gadgets for improving service delivery and also the knowledge of ICT competencies required for them to effectively deliver service to the public.

Okoye (2010) identified the followings as solutions to the problem of the use of ICT: Government at both the federal and state levels in Nigeria must develop a more pro-active and progressive-attitude to the implementation of the national policy for information infrastructure and Facilities, schools in Nigeria should incorporate ICT competency training into their curriculum. The school library would be required to have viable ICT laboratories to ensure appropriate hands-on ICT training for the students. The lecturers would require being effectively ICT literate to be able to impart the appropriate ICT know-how to the students of librarianship:

The problem of epileptic power supply and poor telecommunication infrastructure should be doggedly addressed by the Nigerian government by injecting the necessary funds and technical expertise. Public institutions in Nigeria will need to be effectively involved in inter-connectivity to facilitate resource sharing. They should work at forming consortium which will eventually progress towards their active involvement in the globalization of their services. The efforts of the National Universities Commission of Nigeria in this direction should be intensified.

### ***2.3.6 Integrated Payroll and Personnel Information System***

The FGN has since 2007 commence the implementation of computerised payroll management system called Integrated Payroll and Personnel Information System (IPPIS). According to Onukogu (2010) IPPIS is a wholly Nigeria solution, that was deployed by Messers. System Specs Consortium in November, 2006, and after capturing the employees data biodata and biometric across the 36 states and Abuja. With this solution, employees had been collecting salaries through their bank accounts as at 23rd of every month begins with 7 pilot MDA's including the Federal Ministry of Education in the tertiary institution in domicile. Prior to the launch of the IPPIS, the discrepancy between the personnel and pay rolls in the 7 pilot MDAs was estimated at about 20%. The deployment of IPPIS, using biometric data to reconstruct the personnel and pay roll records resulted in the use of the payroll module and payroll processing time, reduction/elimination of ghost workers (i.e identification of 25,000 ghost workers), improved personnel cost budgeting, automated third party transfers, and consequent average savings of about 116m for the 7 pilot MDAs (Document of the World Bank, 2014; OAGF, 2011; OSGF, 2014). Since the introduction IPPIS, it has eliminate 46,000 ghost workers and saved N119 billion as a result of partial implementation (OAGF, 2014' OSGF, 2014).

Onukogu (2010) stated some few advantages of IPPIS as: reduces stress and paperwork in the performance of payroll and personnel duties; to eliminate ghost work; to check fraud, as all transaction are traceable via passwords of schedule officers; to generate and retrieve accurate data at the touch of a button, which will in turn reduce bulky files, as all details can be retrieved on a page; to emulate best practice in human resources management, as obtained in advance countries. The challenges of IPPIS are: fire brigade approach adopted since inception (Onukogu 2010).

### ***2.3.6.1 Challenges of IPPIS implementation***

As noted by Mede (2016), obvious challenges marred the effectiveness of IPPIS implementation till date. However, some of these challenges were either as a results of the nation under-development in terms of technological infrastructure and expertise or simply the unwillingness of the authority to fully carry out the implementation. Some of the challenges enumerated by Idris, Adaja and Audu (2015) and Mede (2016) are: Lack of sufficient skills transfer to government personnel which prolong consultants stay on the project, poor state of supporting infrastructure such as low internet penetration, technological barrier, problem associated with transfer of pay point due to the posting of employees from IPPIS MDA to non IPPIS MDA, resistance from stake holders which have prolonged implementation, etc. In addition, this paper posits that government lack of will and commitment to the accelerated implementation of this project is a major challenge.

### ***2.3.6.2 Prospects of IPPIS implementation***

Although implementation of IPPIS, a part of activities to turn the manual governance into e-governance has some challenges, the future poses both some difficulties and some vitality for governance administration in Nigeria. As noted by Asogwa (2013) digitalizing government operation would enable Nigerians at all level to render efficiencies in the public sector, ensure higher productivity and economic growth, foster national competitiveness and lead to the attainment of the vision 20-2020. Thus, this study articulates some of the prospect of IPPIS in Nigeria.

### ***2.3.6.3 Serves as platform for future scientific overhead budgeting***

Knowing the accurate number of personnel in the payroll list will enable the government to accurately budget for personnel cost in the overhead budget. While it helps to re-direct resources to area of needs, it also serve as a base for government to scientifically increase future budgeting allocation based on the projected number of jobs it intend to create and thus giving citizen a responsive, accountable and thoughtful government.

### ***2.3.6.4 Future statistics and database reference***

A full implementation of IPPIS will ensure that statistics of government employees are readily available. Adoption of some form of identify management by the private sectors will enable national government know and able to give full detail of the working force in the country and thus identity management will serve as a database for future statistical study and reference. The ratio of unemployed person could easily be determined when compared with eligible work force.

### ***2.3.6.5 Synchronized employment data base***

Expanding the identity management system in the country and synchronizing them would act as database to the government. We argue that all persons should be registered within his local government of residence, displaying his employment status with other basic information that will help government make decision on such individual in the future. This could form pool of data base for government to draw on in the future should the need for employment arise.

### ***2.3.6.6 Reduction of cost of governance and recruitment***

Centrally synchronized data base of unemployed persons in the society saves future cost of governance. Government in the event of any social welfare programme or job creation could draw from the pool of data available and invite qualified person based on records for interview.

### **2.3.7 Treasury single account**

Treasury Single Account (TSA) is one of the financial policies implemented by the federal government of Nigeria to consolidate all the revenue from all the ministries, departments, and agencies (MDAs) in the country by way of deposit into Commercial banks traceable into a single account at the Central Bank of the country. The policy was introduced to reduce the proliferation of bank accounts operated by MDAs and also to promote transparency and accountability among all organs of the government Tayo (2015), said that TSA is “the Federal Government independent Revenue e-collection initiative that will automate Revenue Collections of Ministries, Departments, and Agencies (MDAs) directly into the Federal Government Consolidated Revenue Fund (CFR) account at the CBN through the Remita e collection platform and other electronic payment channels”.

The adoption of TSA will involve retail banking which commercial banks can perform. It includes: collection of taxes/levies and disbursements of funds as well as payment of salaries to civil servants. As a public accounting system, the primary aim of TSA is to ensure accountability of government revenue, enhance transparency and avoid misapplication of public funds. It is to ensure that transparency on unspent budgetary allocations is carried forward automatically to another year. To Eze (2015), treasury single account is a process and tool for effective management of government’s finances, banking and cash position. In accordance with the name, it pools and unifies all government accounts through a single treasury account. Eze (2015) argued that, the consolidation into a TSA paves way for the timely capture and payment of all due revenues into government coffers without the intermediation of multiple banking arrangements. This prevents revenue leakages in terms of revenue loss and mismanagement by operators of all revenue-generating agencies. Chukwu (2015) described treasury single account (TSA) as a network of subsidiary accounts all linked to a main account such that transactions are effected in the subsidiary accounts but closing balances on these subsidiary accounts are transferred to the main account at the end of each business day. With the implementation of the Treasury Single Account, Ministries, Agencies and Departments (MDAs) will maintain their individual accounts with the commercial banks, but daily funding of their disbursements are made from the central or main account, which is resident with the Central Bank, just as their closing balances at the end of day are transferred to the main account.

According to Chukwu, (2015), prior to the implementation of the TSA, government was incurring finance cost on debit balances in some MDA’s accounts while it was earning close to nothing on the credit balances of other MDAs. With the TSA, the net balances on all the MDA accounts will now reside with the Central Bank; hence, the government will avoid incurring interest costs when it has positive net position. In a similar vein, Yusuf & Chiejina (2015) see treasury Single Account as a unified structure of government bank account enabling consolidation and optimal utilization of government cash resources. It is a bank account or a set of linked bank accounts through which the government transacts all its receipts and payments and gets a consolidated view of its cash position at any given time. A TSA therefore is considered a prerequisite for modern cash management and is an effective tool for the ministry of finance/treasury to establish oversight and centralized control over government’s cash resources. For Khan and Pessoa (2010), Treasure Single Account can be defined as a unified structure of government bank accounts enabling consolidation and optimum utilization of government cash resources. It separates transaction- level control from overall cash management. In other words, a TSA is a bank account or a set of linked bank accounts through which the government transacts all its receipts and payments and gets a consolidated view of its cash position at the end of each day. This banking arrangement for government transactions is based on the principle of fungibility of all cash irrespective of its end use. In a nutshell, a Treasury Single Account is a public accounting system under which all government revenue, receipts and income and collected into one single account, usually maintained by the country’s Central Bank and all payments done through this account as well. The purpose is primarily to ensure accountability of government revenue, enhance transparency and avoid misapplication of public funds.

Section 80 (1) of the 1999 Constitution as amended states that "all revenue or other money raised or received by the Federation (not being revenue or other money payable under this Constitution or any Act of the National Assembly into any other public fund of the Federation established for a specific purpose) shall be paid into and form one Consolidated Revenue Fund of the Federation". Successive governments have continued to operate multiple accounts for the collection and spending of revenue, thereby disregarding the provision of the constitution which require the remittance of all the revenue into a single account. It was not until 2012 that government ran a pilot scheme for a single account using 217 ministries, department and agencies as a test case. The exercise saved

Nigeria about N500 billion in frivolous spending. The success of the pilot motivated the government to implement fully TSA, leading to the directives to banks to provide the technology platform that will help to accommodate the TSA. The Central Bank opened a Consolidated Revenue Account to receive all government revenue and effect payments through this account. All Ministries, Departments, and Agencies are expected to remit money collected in to this account through the individual commercial banks who act as collection agents. Although, commercial banks will continue to maintain revenue collection accounts for Ministries, Departments, and Agencies but all monies collected by these banks will have to be remitted to the Consolidated Revenue Accounts with the CBN at the end of each banking day. In other words, Ministries, Departments, and Agencies accounts with money deposit banks must have nil balance at the end of every working day by a complete remittance to the Treasury Single Account, of all revenues collected. The implication is that banks will no longer have access to the float provided by the accounts they maintained for the Ministries, Departments, and Agencies.

According to IMF (2010), full-fledged TSA shares three essential features:

- First, the government banking arrangement should be unified, to enable the Ministry of Finance (MoF) (or treasury) to have an oversight responsibility for, over government cash flows in and out of these bank accounts.
- Second, no other government agency operates bank accounts outside the treasury single account arrangement.
- Third, the consolidation of resources should be comprehensive, and encompass all funds both budgetary and extra-budgetary.

Therefore, the TSA is a payment system in which all revenues due to the government are paid 88 into a unified account domiciled with the CBN. Its objective is to ensure fiscal discipline and transparent management of the nations finances (CBN, 2015).

### **2.3.8 Financial administration**

In brief term, administration is the organizational process that includes strategic planning, setting objectives, managing resources, deploying the human and financial assets needed to achieve objectives, and measuring results. Administration also includes recording and storing facts (Hissom-Dauherty, 2009) while finance according to Campbell (2004) is a discipline concerned with determining value and making decisions. The finance function allocates resources, including the acquiring, investing and managing of resources.

Financial administration means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. It means applying general administrative principles to financial resources of the enterprise. Financial management refers to the managerial activities which deal with planning, controlling, organizing the financial resources of an organization: that is, the management of the finances of a business in order to achieve the financial objectives of the business (Donnell & Keontz, 2004). According to Ezra (2008), the function of financial management is to review and control decisions to commit and recommit funds to a new or ongoing uses. Financial management is that activity of management which is concerned with the planning, procuring and controlling of the firm's financial resources (Deepika & Rani, 2014). For Oche (2009), financial management deals with the source of funds, their efficient used and maximization of costs or losses for greater profitability of the business and in ministerial department, post primary institutions for enhanced welfare of students and staff. What the above definitions mean thus far is that financial management is all about decision making within the use of available funds.

### **2.3.9 Role of ICT in financial administration**

Financial administration is concerned with raising financial resources and their effective utilization towards achieving the organizational goals. Financial administration includes adoption of general management principles for implementation. The fallowing may be said as the related aspects of financial administration rising of funds, using of these funds profitably, planning of future activities, controlling of present implementations and future developments with the help of financial accounting, cost accounting, budgeting and statistics.

Information and Communication Technology is a network of networks. It is not a single network but a global interconnect network providing free exchange information. It implies the most pragmatic use of information

technology as a medium of universal communication. It has brought unprecedented change in society. Spanning the entire globe, the net has redefined the methods of communication, work, study, education, interaction entertainment, health, trade and commerce. The versatile facilities and opportunities provided by the ICT led to the development of electronic commerce. This became possible when the information and communication technology transformed from the ordinal system providing static web pages into two-way system such as E-Commerce, E-Banking and Corporate Internet Banking (CIB). Developments in the field of Information and communication technology (ICT) have made inroads in almost all sectors. The impact of technology adoption particularly in the banking sector has changed the face of the industry. Banking sector is the backbone of any economy and a healthy denotes a strong and resilient banking sector. ICT strongly supported growth inclusiveness of the banking sector, thus facilitating an inclusive economic growth. ICT not only improved the efficiency of the banking by strengthening the back and administrative process and also front end operations thus bringing down the transactions costs for customers which has been the major focus of the ICT for financial Management (Mudasir, Firdoos & Syed, 2015).

Today banks have centralized operations, more and more banks and branches are moving to core banking solutions, network based computing and are using ICT for customer relationship management (CRM). ICT fills the business environment, strengthen the success of Modern Corporation, provide governance with a well-ordered infrastructure and connect value to the process of the learning, in the activity and management of modern organizations (Gaddamsetty, 2013). ICT provides an extensive perspective on the nature of technology, and the impact of information and communication technologies on the enterprise and on society. ICT in financial administration presume one of the modules. The growth and development of ICT in this area has led to massive applications. This study tries and examines how ICT tools and applications are used with respect to financial administration in tertiary institution.

The usage of ICT contributed significantly to the workers performance. Due to increase in the technology usage in the banking industry and other financial sector, workers performance increases day-by-day. And ICT has become an indispensable part of modern day financial management.

According to (Adesola, 2013), major opportunities offered by Technological developments are:

- Reducing cost per transactions.
- Broadened and easier access to target customers.
- More efficient system and techniques for dealing with information on customers (CRM).
- Possibility of diversifying into new business.
- More efficient tools for controlling internal processes efficiency.

The first goal is to shift highly standardized low value-added labour intensive activities towards computerized applications capable of reducing the unite price of transactions. According to Mudasir, Firdoos & Syed, 2015 study in different countries has demonstration significant cost structure differences for communications and transaction channels, with increasingly innovative ICT and e-business channels significantly reducing operational costs. For example, if the cost of transactions carried out at the counter is valued at a unit cost of one, this vale halved with phone banking, quartered with home banking, and reduced to sixth with internet banking. This difference in cost structure through the remote channels allows aggressive pricing and forms a winning strategy for gaining market share of customers who prepared to change banks for more competitive products.

The benefit of developing other communication channels to achieve cost reduction is only achievable when the transactions have the high volume. The cost of the single transactions is certainly lower with remote banking compared to traditional banking; however the setup of the virtual bank requires high initial investment that either have to be subsidized from current activities or require separate financing.

### **3. METHODOLOGY**

This chapter systematically covers the process of identifying the research design; area of study; sources of data; population of study; sample size; sampling technique; methods of data collection; validity of the research instrument; reliability of the research instrument; and method of data presentation and analysis.

### 3.1 Research Design

Survey research method was adopted for the study. The data for the study was gathered from both primary and secondary sources. The population of the study constitute the university community which deals directly with university finances; including the students, university academic and non-academic staff). These segments were carefully selected bearing in mind the problem of study and with a view to ensure that the population is most relevant to the problem being investigated. According to the data gathered from Academic Planning unit, Personnel, Records and Statistics departments at both institutions, the population of staff at Nnamdi Azikiwe University, Awka stand at 3,728 while the students are 28,812. On the other hand, the staff population at the Federal Polytechnic, Oko is 1,967 and the students are 28,010 in number. While federal college of education umunze is 8,268. The total population of staff is 5,695 while the students are approximately 70,785.

The study’s population of 62,517 was too large; hence the statistical tool of Taro Yamane (1964) was used to obtain the sample size. Yamane’s statistical formula for sample size determination is as follows:

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

Where n = Sample size  
 N = Population size  
 e = Margin of error  
 1 = Remain constant.

With an error limit of 0.05 and the population size of 62,517 the sample size will thus be calculated as follows:

$$n = \frac{70,785}{1 + (70,785) \times (0.05^2)} = \frac{70,785}{1 + (70,785)} = \frac{70,785}{177.96} = 397.4570$$

The sample size used for the study was 400.

Having determined the sample size, the researcher proceeded by sharing the obtained data among the various institutions selected. Based on this, the Rangan Kamaisan proportional allocation or distribution method was adopted to allocate the questionnaire to the institutions. This was to ensure that none of the institutions under survey is cheated.

The formula is given thus:

$$ns = \frac{Np \times n}{N}$$

ns = Sample size allocated to each unit

Np = Population size of each unit

n = Total sample size

N = Total population size

Therefore, the sample allocation to each unit is determined as follows

<b>1. NAU</b>	<b><u>32,540 X 400</u></b>	
	<b>70,785</b>	<b>=183</b>
<b>2. FPO</b>	<b><u>29,977 X 400</u></b>	
	<b>70,785</b>	<b>= 169</b>
<b>3. FCET</b>	<b><u>8,268 X 400</u></b>	
	<b>70,785</b>	<b>= 48</b>
		<b>400</b>

The Simple random Sampling techniques will be used to determine and select from the population those that will participate in the study. Based on the analysis above, Purposive sampling technique will be used to select those that will participate in the interview sessions.

**Table1: Reliability Test of Research Instrument**

<b>Correlations</b>			Pre-test	Post-test
Spearman's rho	Pre-test	Correlation Coefficient	1.000	.969**
		Sig. (2-tailed)	.	.000
		N	40	40
	Post-test	Correlation Coefficient	.969**	1.000
		Sig. (2-tailed)	.000	.
		N	40	40

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

Data generated from primary sources was analyzed using descriptive statistics such as tables, weighted mean and simple percentage. The questionnaire instrument, which was structured using the Likert five-point response scale, will be ranked as follows;

SA – Strongly Agreed = 5,                      A – Agreed = 4,  
 U – Undecided = 3,                              D – Disagree = 2,  
 SD – Strongly Disagreed = 1

**Decision Rule:** A mean score of less than 3.0 will be considered disagreed, while a mean score of more than 3.0 will be considered as agreed.

The hypothesis were tested using the Z-test statistical tool was used. The formula for Z-test statistics is given below;

$$Z = \sqrt{\frac{PQ}{nPQ}}$$

Where, P = Proportion of the positive responses (Strongly Agree and Agree)  
 Q = Proportion of the negative responses (Undecided, Disagree and Strongly Disagree)  
 n = Sample size.

- a) Level of significance is 0.05
- b) Critical value: At 0.05 level of significance, the score takes value between -1.96 to 1.96 (see normal distribution table)
- c) Decision Rule: If the computed 'Z' value is between -1.96 to 1.96 of our critical value, we reject the null hypothesis otherwise the null hypothesis will not be rejected.
- d) Computation of the 'Z' value

**4. DATA ANALYSIS**

**Table 1: Automation of revenue collection through Treasury Single Account**

S/N	Items	FX	Mean (x)	Remark
1	The TSA has instilled the consciousness of financial probity on the staff of tertiary institutions	1530	4.02	Agreed
2	All the university funds are duly accounted for by virtue of the implementation of the TSA	1102	2.9	Disagreed
3	TSA has encourage openness financial transaction among the university staff	1640	4.3	Agreed
4	There is better accountability system in tertiary institutions University since the implementation of TSA	1590	4.2	Agreed
5	TSA has eliminated the loopholes where university funds are embezzled by corrupt staff	1000	2.6	Disagreed
6	All the revenue accruing to the federal government are adequately collected and remitted through the aid of TSA	1145	3.6	Agreed
7	TSA ensures efficient control and monitoring of funds allocated to various government agencies	910	2.39	Disagreed
8	TSA has allowed the government to monitor the financial activities of the institutions from one single platform	1410	3.7	Agreed
9	Online and in real time, as transactions could be done from anywhere in the world.	1790	4.7	Agreed
10	TSA has restore cautious handling of government funds in federal institutions	1390	3.66	Agreed
Grand Mean				

Source: Field Survey, 2019.

Data from table 1 shows that four out of the six listed items under the extent automation of revenue collection through TSA has improved revenue collection in tertiary institution showed a mean score of 3.0 and above. Hence the respondents agreed that, during the period under review that TSA has instilled the consciousness of financial probity on the staff of tertiary institutions, encourage openness financial transaction among the university staff, brought better accountability system in tertiary institutions, allow the government to monitor the financial activities of the institutions from one single platform, allow online and in real time, as transactions could be done from anywhere in the world and lastly, TSA has restored cautious in handling of government funds in federal institutions. On the contrary, three items in table 2 have mean scores below 3.0. This revealed that not all the university funds are duly accounted for by virtue of the implementation of the TSA, also that TSA has not eliminated the loopholes where university funds are embezzled by corrupt staff and finally, TSA have not ensured efficient control and monitoring of funds allocated to various government agencies.

**Table 2: Information Communication Technology and Financial Administration**

S/N	Items	FX	Mean(x)	Remark
11	ICT allows complete and timely information on government cash resources	1440	3.79	Agreed
12.	ICT ensures efficient control and monitoring of funds allocated to various government agencies	1010	.2.2	disagreed
13.	ICT reduces the number of banks accounts results in lower administrative cost for the government in maintaining this accounts	1510	3.9	Agreed
14	TSA minimizes transaction cost during budget execution and control the delay in the remittance of government revenue	1480	3.8	Agreed
15	ICT allows complete supervision of all cash resources including a real-time basis if electronic banking is in place	1850	4.8	Agreed
16	Moving of government funds can be better tracked through ICT	1780	4.6	Agreed
17	ICT helps government official to perform their functions easier and faster	1580	4.1	Agreed
18	Extension filling and paper work has reduced through the use of technology	910	2.4	Disagreed
19	Use of ICT in public finance help curb misappropriation and mismanagement of government funds	1450	3.8	Agreed
20	Use of ICT exposes government funds to risks of hacking and cyber insecurity	1640	4.3	Agreed
Grand Mean				

*Source: Field Survey, 2019.*

Data from table 4.2.2 shows that nine out of the ten listed items on whether Information Communication Technology has enhanced efficiency in financial administration in tertiary institution showed a mean score above 3.0. This revealed that, ICT allows complete and timely information on government cash resources, reduces the number of banks accounts which results in lower administrative cost for the government in maintaining this accounts, minimizes transaction cost during budget execution and control the delay in the remittance of government revenue, ICT allows complete supervision of all cash resources including a real-time basis if electronic banking is in place, better tracking of the movement of government funds, helps government official to perform their functions easier and faster, help curb misappropriation and mismanagement of government funds but also exposes government funds to risks of hacking and cyber insecurity. On the contrary, two items in table 4.2 have mean scores below 3.0. This revealed that extension filling and paper work has not reduced through the use of technology and Information and Communication Technology has not ensured efficient control and monitoring of funds allocated to various government agencies. This result revealed that ICT have been deployed well in the area of expenditure of government funds in the tertiary institutions.

**Table 3: Integrated personnel payroll system (IPPIS) and Pay Roll system management**

S/N	Items	FX	Mean (x)	Remark
21	The quality of government payroll administration has improved through IPPIS	1390	3.6	Agreed
22	Corruption and mismanagement in staff salary and allowances has not be fully checked by IPPIS	1530	4.2	Agreed
23	There are still traces of ghost workers under federal government pay roll	1010	2.66	Disagreed
24	TSA 2The human resource module, which is meant to manage staff recruitment, posting, promotion, training, discipline and disengagement are yet to be fully developed for use by government	1020	2.68	Disagreed
25	TSA There is a weak network security that impacted on IPPIS roll out	1550	4.1	Agreed
26	IPPIS has improve staff salary management through ICT	1490	3.9	Agreed
27	Grand Mean	1590	4.2	Agreed

Source: Field Survey, 2019.

Data from table 3 which to find out if Integrated Personnel Payment system (IPPIS) has improved Pay Roll system management in tertiary institutions in Nigeria shows that all the five listed items showed a mean score above 3.0. This revealed that strategies adopted by IPPIS has reduced cost of governance in Nigeria, improved the quality of government payroll administration, also that human resource module of IPPIS, which is meant to manage staff recruitment, posting, promotion, training, discipline and disengagement are yet to be fully developed for use by government. More so, there is a weak network security that impacted on IPPIS roll out and lastly, IPPIS has improved staff salary management through ICT. On the contrary, two items in table 4.2.3 have mean scores below 3.0. This revealed that there are still traces of ghost workers under federal government pay roll and Corruption and mismanagement in staff salary and allowances has not be fully checked by IPPIS

#### 4.1 Test of Hypothesis One

**Hi:** Automation of revenue collection through TSA has not improved revenue collection in tertiary institution.

This hypothesis was tested using the responses of respondents in tables 3 above. The result of the analysis is presented in table 3 below. The hypothesis sought to know whether or not automation of revenue collection through TSA has improved revenue collection in tertiary institution. This hypothesis will be tested with all the items in table 4.

**Table 4: Test of Hypothesis One**

Variables	Frequency	Percentage (%)
Strongly Agree	1070	25.9%
Agree	1085	26.3%
Undecided	625	15.2%
Disagree	793	19.2%
Strongly Disagree	551	13.4%
Total	4,124	100%

Source: Field survey, 2019

Using 'Z'- test statistics,

$$e) 'Z' = \frac{PQ}{\sqrt{nQP}}$$

Where, P = proportion of the positive responses  
(Strongly agree and agree)

Q = proportion of the negative responses

(Undecided, disagree and strong disagree)

n = sample size

- f) Level of significance is 0.05
- g) Critical value: At 0.05 level of significance, the score takes value between -1.96 to 1.96 (see normal distribution table)
- h) Decision Rule: If the computed 'Z' value is between -1.96 to 1.96 of our critical value, we reject the null hypothesis otherwise the null hypothesis will not be rejected.
- i) Computation of the 'Z' value

From the table above, P = (2,155) 52.2%, Q = (1,969) 47.8% and n = 380

$$Z = \frac{0.522 \times 0.478}{\sqrt{(380 \times 0.522 \times 0.478)}} = \mathbf{0.026}$$

a) Statistical Decision: since our computed 'Z' value of 0.026 fall between -1.96 to 1.96 of our critical value, we reject the null hypothesis.

**Administrative Decision:** The automation of revenue collection through treasury single account has improved revenue collection in tertiary institution.

**Hypotheses Two**

**Hi:** Information Communication Technology has not enhanced efficiency in financial administration in tertiary institution.

The hypothesis sought to know whether or not Information Communication Technology has enhanced efficiency in financial administration in tertiary institution.

**Table 5: This hypothesis will be tested with items in table 2**

Variables	Frequency	Percentage (%)
Strongly Agree	1045	25.3%
Agree	935	22.7%
Undecided	840	20.4%
Disagree	775	18.8%
Strongly Disagree	529	12.8%
Total	4,124	100%

Source: Field Source, 2019

Using 'Z'- test statistics,

j) 'Z' =  $\frac{PQ}{\sqrt{nQP}}$

Where, P = proportion of the positive responses  
(Strongly agree and agree)

Q = proportion of the negative responses  
(Undecided, disagree and strong disagree)

n = sample size

- k) Level of significance is 0.05
- l) Critical value: At 0.05 level of significance, the score takes value between -1.96 to 1.96 (see normal distribution table)
- m) Decision Rule: If the computed 'Z' value is between -1.96 to 1.96 of our critical value, we reject the null hypothesis otherwise the null hypothesis will not be rejected.
- n) Computation of the 'Z' value

From the table above, P = (1980) 48%, Q = (2144) 52% and n = 380

$$Z = \frac{0.48 \times 0.52}{\sqrt{(380 \times 0.48 \times 0.52)}} = \mathbf{0.025}$$

b) Statistical Decision: since our computed 'Z' value of 0.025 fall between -1.96 to 1.96 of our critical value, we reject the null hypothesis.

**Administrative Decision:** Since we reject the null hypothesis, we therefore conclude that Information Communication Technology has enhanced efficiency in financial administration in tertiary institution.

**Hypotheses Three**

**Ho:** **Hi:** Integrated Personnel Payment Information System (IPPIS) has not improved Pay Roll system management in tertiary institutions in Nigeria.

The hypothesis sought to know whether or not Integrated Personnel Payment Information System (IPPIS) has improved Pay Roll system management in tertiary institutions in Nigeria.

**Table 6: This hypothesis will be tested with items table 3**

Variables	Frequency	Percentage (%)
Strongly Agree	690	23.2%
Agree	700	23.7%
Undecided	580	19.5%
Disagree	590	19.9%
Strongly Disagree	410	13.8%
Total	2970	100%

Source: Field survey, 2019

Using ‘Z’- test statistics,

$$o) \quad 'Z' = \frac{PQ}{\sqrt{nQP}}$$

Where, P = proportion of the positive responses  
(Strongly agree and agree)

Q = proportion of the negative responses  
(Undecided, disagree and strong disagree)

n = sample size

p) Level of significance is 0.05

q) Critical value: At 0.05 level of significance, the score takes value between -1.96 to 1.96 (see normal distribution table)

r) Decision Rule: If the computed ‘Z’ value is between -1.96 to 1.96 of our critical value, we reject the null hypothesis otherwise the null hypothesis will not be rejected.

s) Computation of the ‘Z’ value

From the table above, P = (1390) 46.9%, Q = (1580) 53.1% and n = 380

$$Z = \frac{0.469 \times 0.531}{\sqrt{(380 \times 0.469 \times 0.531)}} = \mathbf{0.026}$$

c) Statistical Decision: since our computed ‘Z’ value of 0.026 fall between -1.96 to 1.96 of our critical value, we reject the null hypothesis.

**Administrative Decision:** Since we reject the null hypothesis, we therefore conclude that Integrated Personnel Payment Information System (IPPIS) has improved Pay Roll system management in tertiary institutions in Anambra State.

**5. SUMMARY OF FINDINGS**

The summary of the findings of the study are that;

- i. Automation of revenue collection through treasury single account has to a certain extent improved revenue collection in federal tertiary institutions in Anambra State.
- ii. Information Communication Technology has enhanced efficiency in financial administration in federal tertiary institutions in Anambra State.
- iii. Integrated Personnel Payment Information System (IPPIS) has improved Pay Roll system management in federal tertiary institutions in Anambra State.

## 5.1 Conclusion

Based on the findings, the study has demonstrated that automation of revenue collection through TSA policy has gone a long way in blocking the identified financial leakages in revenue generation and promotes some level of transparency, corruption reduction and accountability in the public financial system. It has equally paved way for the timely payment and capturing of all revenues going into the government treasury, without the intermediation of multiple banking arrangements.

On the part of ICT and financial administration, application of ICT in Financial management in tertiary institutions has also accounted a lot more success and efficiency in performing various operations related to different activities to commit a financial transaction. So far as the efficiency and effectiveness of ICT is concerned, it has notably produced better throughputs which are acceptable and reliable.

Finally, on Integrated Personnel Payment Information System and Pay Roll system management in tertiary institutions, the study delivered a strong argument that IPPIS with other identity management system in the country will constitute valuables pool of data for government planning and forecasting. Although the implementation of IPPIS is marred with problems including the unwillingness of constituted people to fully implement the project due to its ability to stamp out payroll fraud and corruption, we however, agree that the benefits cannot be overemphasized. The study outlined that much has been gained especially in the area of saving cost to the economy and if the project is fully implemented, Nigeria stands to gain more in the future.

## 5.2 Recommendations

Based on the findings, these recommendations were made;

- i. For the treasury single account (TSA) policy to be more effective the Fiscal Transparency Bill needs to be put in place, which if enacted will open up the financial activities of government in a way that there will be no more hiding place for those who divert or loot government money. With that, budgeting process and implementation, including contract awards, should be in the open for Nigerians to see both how revenues are generated and how public money is spent by those in government, and why.
- ii. Now it is the time to go beyond board and ensure proper implantation and maintenance of information and communication technology in financial administration and also there is need to develops more security measures to ensure authentic and secure client and server communication.
- iii. This study recommends full implementation of all the derivatives of IPPIS in all sectors and advocates the expansion of the identity management in the country and call for digitalization of every citizen to be domiciled in the local government for ease of social welfare programme or employment need as the case may be. In this regard, the study calls upon all stakeholders to engage in critical thinking and planning to enable the attainment of goals and objectives especially in the area of identifying citizens in the society.

## REFERENCES

- Adebayo (2015, October, 2<sup>nd</sup>). Implication of Treasury Single Account on Nigeria economy: *News verge, Nigeria*: p23
- Adegite, E. O. (2010). "Accounting, Accountability and National Development", *Nigerian Accountant*, 43(1): 56-64.
- Adesola M.A, Moradeyo O.A & Oyeniya K.O (2013). Impact of ICT on Nigeria banks operations: A Study of United Banks for Africa (UBA) Plc, *International Journal of Business and Management Invention*, 2(9): 7-12.
- Agwu, M., Atuma, O., Aigbiremolen, O., & Iyoha, F. (2014). The impact of information Communication Technology in the Strategic Management of Financial Institution. *International Review of Management and Business Research*. 2(3): 1588-1602
- Akanbi, D. (2015). Perspectives on treasury single (TSA) policy in Nigeria. Retrieved from <http://dx.doi.org/10.2139/ssrn.2708051>
- Akpan, A. (2007). The Sciences, Education and Sustainable Development: In Etuk, U. (Ed.) *University Education and Sustainable Development* Lagos: Minder International, 143-155
- Aniete, U. (2011), "The Evolution of Information and Communication Technology in Nigeria", Uyo: Lexicon Publishers.

- Arikpo, I., Osofisan, A., & Usoro, A. (2009), "Bridging the Digital Divide: The Nigeria Journey So Far", *International Journal of Global Business*. 2(1): 181-204.
- Asika, N. (2006), *Research Methodology in the Behavioural Science*, Lagos: Longman Nigeria Plc.
- Association of African Universities (2001). ICTs: Building Capacity in African Universities Programme of Activities 2001-2004, Retrieved from <mailto:20infoaau.org>
- Babbie, E & Mouton, J. (2001). *The Practice of Social Research*, Cape Town: Oxford University Press.
- Bashir, M. (2016). Effects of Treasury Single Account on Public Finance Management in Nigeria: *Research Journal of Finance and Accounting*. 7(6): 164-170
- Bellamy, C. & Taylor, J. (1996). New information and communication technologies and institutional change: *International Journal of Public Sector Management*. 9(4): 37-49.
- Bello, A. & Aliyu, I. (2014). The role of information communication technology (ict) in combating corrupt business activities in Nigeria: *Journal of Business and Management*. 16(7): 7-14
- Campbell, R.F. (2004). *Introduction of Education Administration*. London: Allyn and Bacon Inc.
- Deepak, P. (2018). Role of ICT on Universities Administrative Services and Management *International Research Journal of Engineering and Technology*: 5 (11) 266-271
- Deepika, M.R. (2014). Managing business finance. *International Research Journal of Management Science & Technology*, 5. Retrieved from <https://www.IRJMS.com>.
- Derek, J. Laura, H. S. & Stephen, T. (2005). *Human Resource Management*. 6th ed. Prentice Hall, Mateu Cromo, Artes
- Donnell, I., & Keontz, H. (2004). *Essentials of management*. New York: McGraw-Hill Book Coy
- Durowoju, E., Onuka, A., & Ajisegire, R. (2013). "Challenges and prospects of ICTs in Management Communication in Nigeria " *World Essays Journal* 1(2): 40-45.
- Edosa, E. (1994). *Nigeria Government and Administration: A Brief Outline*, Benin-City: Morgan George Publishers.
- Eme O.I., Chukwurah D.C., and Emmanuel N.I. (2015) An Analysis of Pros and Cons Treasury Single Account Policy in Nigeria. *Arabian Journal of Business Management Review*, 5(4): 20-39
- Eme, O., Iheanacho, E. & Chukwurah, C. (2015). An analysis of pros and cons of the treasury single account policy in Nigeria: *Arabian Journal of Business and Management Review* 5(4): 20-39.
- Emetarom, U. (2001). Computer-Based MIS and the 21<sup>st</sup> Century University Administration in Nigeria. In Ogunu, M. & Nwadiani, M. (Eds.) *Current Issues in Educational Management in Nigeria*, Benin City: NAEAP Publications.
- Enakirerhi, L.I & Temile, S.O. (2017) Integrated Personnel Payment Information System In Nigeria: Challenges, Benefits and Prospects; *International Journal of Social Science and Economic Research* 2(5) 3490-3497
- Eneanya, A. (2009). *Public Administration in Nigeria: Principle, Techniques and Application* Lagos: Concept Publication.
- Ezra, S. (2008). *The theory of financial management*. New York: Columbia University Press
- Gadamsetty S.A. (2013). Understanding financial inclusion in India and role of ICT in ICT, *International Journal of Innovative Research and Development*, 2(12): 198-201.
- Heeks, R. (2006). *"Implementation and Management E-Government"*. London: Sage Publications.
- Idris, H., Adaja, J., & Audu, J., (2015). Integrated personnel payroll and information system panacea for ghost workers syndrome in Nigerian public service: *International Journal of Public Administration and Management Research*: 2, (5) 54-66
- Ifinedo, P. (2006). "Acceptance and learning technologies (WLT) among university students in a Baltic country." *The Journal of Information Systems in Developing Countries*. 23(6): 1-20.
- Igbekoyi and Agbaje (2017). An Assessment Of The Implication Of Treasury Single Account Adoption On Public Sector Accountability And Transparency; *European Journal of Accounting Auditing and Finance Research Vol.5, No.8, 33-49*
- Mudasir, M. K., Wani, F.A. & Saif, S.M. (2015) Impact of ICT on Effective Financial Management: *International Journal of Information Science and System*, 4(1): 1-14
- Mutalib, Y.O., Bulkachuwa, A.G., Urame E.I., & Emmanuel, O.C. (2015). The impact of treasury single account on ministries, department and agencies (MDA'S) accounting information and accountability: A Conceptual Review. *Proceedings of the Academic Conference of Sub-Sahara Africa Academic Research Publications on New Direction and Uncommon Changes* 2(4), 1-14

- Ogbonna G. & Ojeagburu, F (2015). The impact of government integrated financial management information system (GIFMIS) on economic development of Nigeria *West African journal of business and management sciences*: 4 (1) 54-66
- Onukogu, V.O. (2010). *The Essentials of Promotion Interviews Question and Answer on Public Sector Accounting, Public Service Rules and Current Affairs. Pool Office of the Accountant General of the Federaton*. Garki, Abuja: White house Digital Press
- Osakede, O., Ijimakinwa, S., Arijeniwa, W., Adesanya, O. and Ojo, D. (2017) The Impact of E-Administration on Service Delivery in Adekunle Ajasin University Akungba-Akoko, (AAUA) Ondo State, Nigeria: *Management Studies and Economic Systems*, 3 (3), 173-182.
- Sorrentino, M. & Virili, F. (2003). "Socio-technical Perspective on e-Government Initiatives", in R. Traunmueller (ed.) *Electronic Government, International Conference EGOV 2003*, Prague, Springer-Verlag, Berlin.
- Sorrentino, M. (2004). *The Implementation of ICT in Public Sector Organizations: Analyzing Selection Criteria for E-Government Projects*. 17<sup>th</sup> Bled E-Commerce Conference: E-Global, Bled, Slovenia, June 21-23.
- Tari, A., Myatafadi, P., & Kibikiwa, G. (2016). "Treasury Single Account (TSA) Policy in Nigeria: Reviving Jonathan's 'Dead' Policy Directives." *Online Journal of Social Science Research*. 5(1): 6-12
- The Guardian (2015). *Treasury Single Account: Giving Life to Jonathan's Dead" Policy Directive*. Published on August 16, 2015.
- World Bank (2005): *International Records Management Trust Partnership*. Retrieved from [www.google.com](http://www.google.com).
- World Bank. (2014). *Implementation Completion and Results Report (Ida-40110), on a Credit in the amount of Sdr 93.4 Million (Us\$140 Million Equivalent) to the Federal Republic of Nigeria for an Economic Reform and Governance Project*
- Yusuf, I. A., & Chiejina, N. (2015). *Anti-Graft War: One Economy, One Account*. The Nation, August 16, pp 9-10 &71