



Lead City University, Ibadan
Knowledge for Self Reliance

20TH

**INAUGURAL
LECTURE**

Delivered by

**Prof. Joshua Adewale
ADEJUWON**

Professor of Accounting and Management
Lead City University, Ibadan

Topic

**Enhancing Budgeting and Budgetary Control
Systems for Public Sector Effectiveness
in Nigeria: A Strategic Adoption of
Artificial Intelligence**



Thursday, 3rd April, 2025



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Control Systems for Public Sector
Effectiveness in Nigeria: A Strategic
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20th Inaugural Lecture**

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Preamble

The Chancellor,
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The Head and Members of the Department of Management &
Accounting,
All other Heads of Departments,
Faculty and Staff of the Faculty of Management and Social
Sciences,
Students, Faculty of Social and Management Sciences,
All other Faculty Staff and Students of Lead City University,
Ibadan,
The President of the Institute of Chartered Accountants of Nigeria
(ICAN),

The President of the Chartered Institute of Bankers of Nigeria (CIBN),
The President of Nigeria Institute of Management (Chartered) (NIM),
The President, Association of Forensic Accounting Researchers (AFAR),
The President, Association of Management and Social Sciences Researchers of Nigeria (AMSSRN),
Friends of Lead City University, Ibadan
All Special Guests,
Members of my Family, and
Gentlemen of the Press.

Mr. Vice Chancellor sir, it is a great pleasure to be part of this esteemed tradition. The concept of an inaugural lecture dates back to Lord Acton, who delivered the first recorded inaugural lecture on 11th June, 1895, as the Regius Professor of Modern History at University of Cambridge (Richard J. Evans).

In Nigeria, the inaugural lecture tradition began at the University Ibadan in 1956. Earlier this year, the University of Ibadan held its 576th inaugural lecture. At Lead City University, this tradition commenced in 2012, and nineteen distinguish professors have delivered inaugural lectures in the University as at 31st December, 2024. (Appendix 1)

I respectfully acknowledge these distinguish professors who have paved the way for me and whose contributions have enriched the academic tradition at Lead City University, Ibadan.

Today, I am honoured to deliver the 20th Inaugural Lecture of this University. This marks the seventh edition from the Faculty of Management & Social Sciences, and the fourth from my department, the Department of Management & Accounting.

Introduction

It is with immense gratitude to God Almighty and great humility before this highly respected audience that I stand before you today to deliver my inaugural lecture on the critical theme; "Enhancing Budgeting and Budgetary Control for Public Sector Effectiveness in Nigeria: A Strategic Adoption of Artificial Intelligence."

The socioeconomic ambitions of governments and the dwindling nature of revenue sources, coupled with the financial/debt crisis across the globe, have continued to raise serious concerns among governments, especially the developing nations. Nigeria, just like other developing countries, has been characterised by a poor financial management system, which have paved the way for the mismanagement of resources and the solidification of corrupt practices within government ministries, departments, and agencies' officials.

The Nigerian public sector, like many developing nations, has long grappled with the persistent challenges of financial mismanagement, and inefficiency. There is an alarming prevalence of financial fraud, public fund diversion, embezzlement, money laundering, ghost worker schemes, over-

invoicing, contract inflation, and other corrupt practices (Appendix 2). According to Transparency International’s Corruption Perception Index (CPI), Nigeria scored 25% in 2023, ranking 145 out of 180 countries, with 44% of public service users reportedly paying a bribe within the previous twelve months.

Nigeria's budget performance in recent years, as reported by the Office of the Accountant General of the Federation, (2024), has been marked by revenue shortfalls, reliance on loans, a high debt-to-GDP ratio and an extremely high debt service-to-revenue ratio. In 2022, the fiscal deficit stood at 5.4% of GDP, improving slightly to 5.1% in 2023. In 2023, general government revenue was 7.6% of GDP, up from the 2022 figure of 6.7%. The public debt-GDP ratio was 46% in 2023 and 51.3% in 2024, but with a staggering debt service-to-revenue ratio of 111% in 2024, up from 97% in 2023. Budgeted revenue has consistently fallen short of budgeted expenditure, resulting in unabated budget deficits, as depicted by the table below:

Table 1: Nigeria's Aggregate Revenue and Expenditure Budget Performance (2020-2024)

Year	Budget Revenue #’Trillion	Budgeted Expenditure Expenditure	Variance #’Trillion	Variance (%)
2020	8.155	10.33	2.175	26.67
2021	12.30	13.08	0.78	6.34
2022	10.78	16.40	5.62	52.13
2023	11.045	21.83	10.79	97.65
2024	18.32	27.50	9.18	50.11

Source: Compilations from OAGF and Budget Office of the Federation (2021-2024)

These issues have had far-reaching implications for our nation's development, hindering service delivery and eroding public trust. Globally, budgeting and budgetary controls are important tools in the national economic planning process. In Nigeria, as in most developing nations, these tools have not been able to meet the expected objectives of planning for and attaining the required national growth and development

It is imperative, therefore, that we explore innovative solutions to address these challenges and optimize the utilization of public resources for the benefit of a greater proportion of Nigerians. In recent years, innovative breakthroughs and technological advancements, particularly in the realm of artificial intelligence (AI), have resulted in unprecedented opportunities to transform governance and public administration globally.

This lecture will delve into the potential of using Artificial Intelligence (AI) to revolutionize budgeting and budgetary control systems (major tools in public financial management) for greater effectiveness in Nigerian public sector. By harnessing the power of AI in budgeting and budgetary control, we can enhance transparency, accountability, and efficiency in public sector financial management, thereby laying the foundation for a more prosperous and equitable Nigeria.

Furthermore, this lecture will explore the intricate relationship between budgeting, budgetary control, and the transformative

potential of Artificial Intelligence (AI) for Public Sector Effectiveness in Nigeria. By looking into the challenges confronting the Nigerian public sector, we will determine how AI can be strategically deployed to enhance efficiency, transparency, and accountability in budgeting and budgetary control. This discourse will encompass a comprehensive analysis of budgeting and budgetary control mechanisms, along with the potential applications of AI in these areas.

Additionally, some real-world case studies will be examined to illustrate the successful and practical implementation of AI-driven solutions and discuss the critical steps needed to successfully and strategically integrate AI into budgeting and budgetary control in the Nigeria's public sector.

Ultimately, this lecture aims to inspire a national conversation on the role of technology in driving public sector reform and to particularly galvanize support for the strategic adoption of AI as a strategic tool for enhancing budgeting and budgetary control systems to facilitate public sector effectiveness and excellence in Nigeria.

The Nigerian Public Sector: Scope, Challenges and Opportunities

The public sector is the aspect of a country entrusted with the responsibility of managing public resources and providing goods and services for the well-being of the citizens (Adekoya, 2023). A country's development depends on the vibrancy, efficiency, and effectiveness of its public sector. Governments implement their policies and programmes through the public sector to provide goods and services that will aid economic growth and development to improve citizens' conditions of living. An effective public sector ensures good public administration, enabling the government to deliver quality public goods and services to the citizens. It also facilitates good governance, which entails transparency, accountability, predictability, economic sustainability, technical and managerial competency, as well as citizens' involvement in public administration.

The Nigerian public sector is made up of the government and its agencies, institutions, and organisations that are responsible for providing public goods and services. It is made up of the Federal Government; thirty-six (36) State Governments; the Federal Capital Territory, (Abuja), seven hundred and seventy-four (774) Local Governments, Ministries, Departments and Agencies (MDAs), Local Council Development Areas (LGDAs), Parastatals and Corporations.

The Nigerian public sector, like many developing nations, has been confronted with a myriad of challenges that have hindered its effectiveness in delivering public goods and services to the citizens.

It is marred with widespread corruption and mismanagement of resources; inefficiency, lack of accountability and transparency, and limited access to information; poor infrastructural facilities in terms of roads, electricity, health; politicisation, leading to favouritism and nepotism; distorted budgeting and poor budgetary control; insecurity, terrorism and kidnapping; mono-dependent economy - relying majorly on oil revenue with its attendant exposure to economic shocks; weak and distorted regulatory environment, allowing for inefficiencies and corruption and, also, human resource challenges, including inadequate training, low morale and brain-drain. It leads to a loss of investor confidence, deterring foreign and domestic investors, and resulting in reduced investment and economic growth.

These challenges reflect significant reduction in government revenue, negatively impacting public sector funding; increased level of poverty, as resources meant for social programs are diverted; damage to international reputation, making it even harder to attract investment and participate in global markets. Public fund mismanagement in Nigeria also results in unemployment and job losses as businesses are forced to close or relocate to other countries with more stable economies. All these result in persistent

issues from the misallocation of resources and, consequently, a decline in public trust.

Despite these challenges, the Nigerian public sector presents significant opportunities for improvement. A burgeoning population, rich natural resources, digitalisation and technology adoption, capacity building and training, implementing effective policy and institutional reforms; adopting public-private partnerships; decentralisation and devolution of power; international cooperation and knowledge sharing; focussing on citizen-centric service delivery, entrepreneurship and a growing economy. All these offer immense potential for national development. To harness these potentials for effective public sector development, it is imperative to adopt innovative strategies that enhance public budgeting and budgetary control systems.

The integration of technology, particularly artificial intelligence, has emerged as a promising avenue for addressing the challenges being faced by the Nigerian public sector. By leveraging AI, the government can optimize resource allocation, improve service delivery, and enhance accountability.

In the following sections, we will delve deeper into the specific challenges confronting budgetary and budgetary control systems in the Nigerian public sector and explore how AI can be harnessed to address these obstacles.

Public Sector Budgeting and Budgetary Control Systems

A budget, according to the Chartered Institute of Management Accountants (CIMA, 2000), is a financial and/or quantitative statement prepared and approved before a defined period to attain a given objective. A budget is normally prepared for one year. It is, therefore, a short-term plan. In all government units, the executive arm prepares the budget and submits it to the legislative arm for review, modifications, and approval. The approved budget serves as the basis for the activities of that government unit during the fiscal period under review.

From the viewpoint of an average person, a government budget, according to Oge & **Adejuwon, 2022**, can be seen as an estimate of the government revenue and expenditure for a certain period. Adeigbe and **Adejuwon (2017)** describes a government budget as a document that outlines authorised appropriations and estimated revenue, serving as a tool for planning, controlling and forecasting the amount to be received and spent during a specified fiscal period. It is also an instrument of economic and monetary policy, used to regulate the economy and determine government activities to satisfy the preferences of the people. It is an authority for government action, used in aiding political decision-making, and to attain greater efficiency in the use of resources.

Diamond (2018) offers a more comprehensive definition, describing a government budget as a thorough document that

defines the economic and non-economic activities that a government wishes to engage in, emphasising goals, objectives and strategies for achievement, which are supported by income and spending estimates. A government budget is an accounting instrument by which officials are held accountable for government actions and inactions. Budgeting involves preparing and approving financial plans or the budget for revenue projections, expenditure allocation and funding priorities. It focuses on planning and allocation of resources. Budgeting deals with overall national financial strategy and policy.

Factors that Make Budgeting Difficult in Nigeria

Budgeting is an essential tool in the planning process of any nation. Countries use annual budgeting systems to plan for growth and development. However, the extent to which the management of Nigeria's yearly budgets has been able to contribute to the nation's development is an issue of concern (Ojomolade, Ugwulali & **Adejuwon**, 2022).

Nomin (2020) also asserts that budgeting is an excellent management tool. The success of a budget depends on how limiting factors are addressed in both sectional and master budgets. Plans are often subjected to modifications. According to Ojo and Aworawo (2014), some practical issues with budget implementation include corruption, which hinders a successful budgeting process (Temitope, 2020). Second, erratic income and

excessive reliance on oil money, result in challenges in revenue generation as a result of fluctuations in global oil prices, (Robinson, Erhayorwe & Andrew, 2014). Third, unstable economic factors that impact budgetary efficiency include the price level, unemployment, and so on. The fourth is a negative view of individuals to the budget. What definition does the budget have among those working in the ministries, departments, and legislative branches? Perhaps a national cake, yearly traditions, a paddling document, or something similar. Unstable government policies from one fiscal year to the next are the fifth point. Sixth, the poor financial situation. Seventh, skilled labour is scarce. Others include a lack of qualified staff, a dearth of data, a failure to effectively monitor the budget's execution, a delay in the ministry's and the legislature's approval of project proposals, and a lack of specialisation or skill on the part of the budget officers charged with carrying out the budget. Furthermore, in **Adejuwon** (2018), many people are said to detest adopting the budgeting process because they said it is a peep into an unknown future, characterised by uncertainties, political instability and changing environmental factors. They even think that the time that would be used in budgeting is a colossal waste that could be better invested in other more important functions. They further challenge the proponents of budgeting that the process is too rigid and limits the threshold of corporate performance advancement.

The Budgetary Control Process

Budgetary control is a comprehensive system of controls, financial or otherwise, designed to ensure that income and expenditure align with the budget, while minimizing wastage. Budgetary control is a positive and integral part of a public sector organisation's planning and appraisal activities to achieve the set objectives. It is a process of comparing actual with planned budgeted activity, resulting in a variance, which could be favourable or adverse. The process then includes feedback and corrective action.

Budgetary control is a system of accounting in which costs and revenues are analysed by areas of personal responsibilities so that the performance of the budget holders can be monitored and appraised in financial terms (**Adejuwon, 2018**). It forms part of the overall system of responsibility accounting within an organisation. It also exemplifies “Management by Exception,” where attention is directed to the few items that are not progressing according to plan (Adeniji 2013). The primary aim of budgetary control is to provide a formal mechanism for monitoring the progress of the organisation as a whole and that of its parts.

Budgetary control involves the establishment of overall and departmental objectives to provide direction for the budget. It includes preparation of the budget by the various budget centres which, in government, include ministries, departments and agencies, evaluating the performance of the budget to ensure it

aligns with the government objectives. Budgetary control emphasises monitoring and managing expenditures, tracking and regulating actual spending against budgeted amounts, and ensuring financial discipline, efficiency and accountability. It is a continuous process that is aimed at ensuring that expenditures align with the budget. The feedback mechanism ensures that corrective actions are taken whenever necessary (**Adejuwon, 2018**).

Importance of Budgeting and Budgetary Control

A government budget serves four main purposes. These are: (a) It serves as an economic and financial document. It highlights government policies, which are designed to promote economic growth, full employment and enhance the quality of life of the citizenry. Oge and **Adejuwon (2022a)** opined that allocating funds from capital budget for infrastructural development would increase the availability of fundamental public goods for the populace; (b) It is a useful guide for the allocation of available resources; (c) Through the legislature, the executive arm uses the budget as a means of accountability for the fund earlier entrusted and the newly approved appropriations; and (d) It serves as a request by the executive arm of government to the legislature for the collection and disbursement of funds.

The government primarily uses the traditional, incremental, or line-item budgeting approach to allocate funds for the following

year. In the early years, Nigeria's budgeting system was characterized by line-item budgeting, focusing on allocating resources to specific line items or expenses, and incremental budgeting, based on the previous year's budget, with adjustments made for inflation, economic growth, or other factors.

This approach identifies expenditures, and itemizes proposed disbursements under various heads and sub-heads of ministries and extra-ministerial departments. The expenditure side of the budget is made up of personnel emoluments, other charges and capital or developmental items. This budgeting method involves using last year's figure as a base and adding a percentage to it to arrive at this year's budget. The percentage added is based essentially on three factors, namely: (a) The trend of economic events; (b) Inflation; and (c) The available funds.

Since gaining independence in 1960, Nigeria has retained this old British colonial system of budgeting. The budgeting system's content, structure and approach have not changed for decades, even though some white-washing approaches have been introduced in the form of reforms.

These traditional budgeting methods have advantages and limitations:

Advantages of line-item/incremental budgeting method include: (a) It is simple to understand and operate (b) It suits the country's level of low development where there is paucity of data (c) It is

cheaper to produce (d) It encourages the continuity of projects (e) The method ensures that budget is translated in monetary language and relates to the relevant activities/operations (f) Allocations into heads and sub-heads facilitate the monitoring of performance.

The drawbacks, however, include: (a) The method allows past errors to be carried forward. It is, therefore, not efficient in its operations (b) Detailed scrutiny is not contained in the budget. The budget preparation is consequently not well researched (c) It fails to clarify the cost of alternative methods of achieving programmed objectives (d) It results in continual growth of the budget totals leading to inflation, as opposed to serious economic needs (e) It fails to fund new programmes of high priority on a sufficiently reasonable scale (f) The method does not spell out the relationship between capital and recurrent expenditure. Also, it leads to inefficient allocation of resources, lack of transparency and accountability and insufficient consideration for long-term goals and strategic priorities.

Modern Budgeting Reforms

In an attempt to address these challenges, Nigeria has introduced several reforms, including:

Zero-based budgeting, which requires justification for every expense rather than relying on the previous budget; performance-based budgeting, which ties funding to specific performance metrics and outcomes; and participatory budgeting, which

involves citizens and stakeholders in the budgeting process to ensure greater transparency and accountability. These reforms aim to enhance the efficiency, effectiveness, and credibility of Nigeria's budgeting system. However, despite these efforts, the country still faces challenges in budgetary planning, implementation and control, which hinder the effectiveness of budgeting and budgetary control systems in the public sector.

Challenges in Budgeting and Budgetary Control Process in Nigeria

Government budgeting and budgetary control in Nigeria face a myriad of problems, including, but not limited to:

Manual Processes: Traditional budgeting methods rely heavily on manual processes, making them susceptible to errors, inconsistencies, and manipulation.

Inadequate Revenue Collection: The country struggles with collecting direct taxes due to inefficiency and corruption among tax officials.

Ineffective Budget Implementation: Despite various budgets designed to address economic issues, when budgets are not fully implemented, surplus funds may arise, creating opportunities for fraudulent diversion of funds, as well as unfinished or poorly executed projects. The objectives of the budget are therefore often

not achieved, leading to increased unemployment and low standard of living. In a study carried out by Ojomolade, Ugwulali and **Adejuwon (2022)**, it was found out that the health and education sectors in Nigeria negatively impact economic development, indicating that they are not contributing effectively to the economic development. This reveals that these sectors may not have been properly budgeted for, or the budgets had not been effectively implemented, to sufficiently enhance human capital development and promote technological advancement as a key driver of national development.

Lack of Capacity for Planning and Budgeting: Due to a lack of adequate data and a poor information system, budget objectives are often unclear or not well-defined.

Frequent Policy Changes: Frequent changes in fiscal and economic policies destabilize the economy and the budgeting process. Nigeria has a very poor inflation and exchange rate control mechanism, resulting from policy inconsistencies and reversals.

Corruption: Corruption among government officials affects budget implementation and revenue collection. Embezzlement, misappropriation, diversion of funds, and a lack of accountability and transparency all hinder effective budget implementation.

Inadequate Funding: Insufficient funds hinder the effective implementation of budgets. This results from Nigeria's overdependence on the oil sector, with its unstable production quotas and pricing system. Underfunding leads to inadequate allocation of resources to critical sectors of the economy. For instance, Adeigbe and **Adejuwon (2017)** found out that the Federal Government of Nigeria had been grossly underfunding the education sector, allocating an average of merely 8% of the Federal budget to the sector, contrary to the world standard of 26% as recommended by the United Nations Educational Scientific and Cultural Organisation (UNESCO, 1990)

Inaccurate Revenue Projections, and Poor Resource Allocation: Inaccurate and inefficient allocation of resources affects the achievement of budget objectives, especially when non-essential projects are prioritised over critical needs.

Inadequate Budget Oversight of the Executive and Legislatures: This leads to inadequate budget monitoring and a lack of effective assessment of budget evaluation and performance.

Politicisation of the Budgeting Process: Budgetary allocations are often skewed in favour of political considerations rather than national economic and social needs.

Weak Institutional Capacity: Limited skills, resources, and infrastructure hinder budget performance, particularly in an era of rapid technological advancement.

Ineffective Government Auditing Systems: This can result in a lack of financial transparency, leading to difficulty in tracking and monitoring budget execution, leading to inadequate budgeting and allocation of resources. Ineffective government auditing leads to ineffective government oversight of government spending enabling corruption, waste and abuse of resources. Government funds are diverted and used for non-essential and unauthorised purposes. It makes it difficult to detect fraud, corruption and other financial irregularities.

Weak Budgeting and Budgetary Control Institutions: This can lead to inaccurate budgeting through lack of transparency, resulting in ineffective budget oversight, lack of clear budget objectives, inadequate data leading to inaccurate and unrealistic budget projections. It can also lead to duplication of efforts, waste, abuse and erosion of public trust in the entire government financial system.

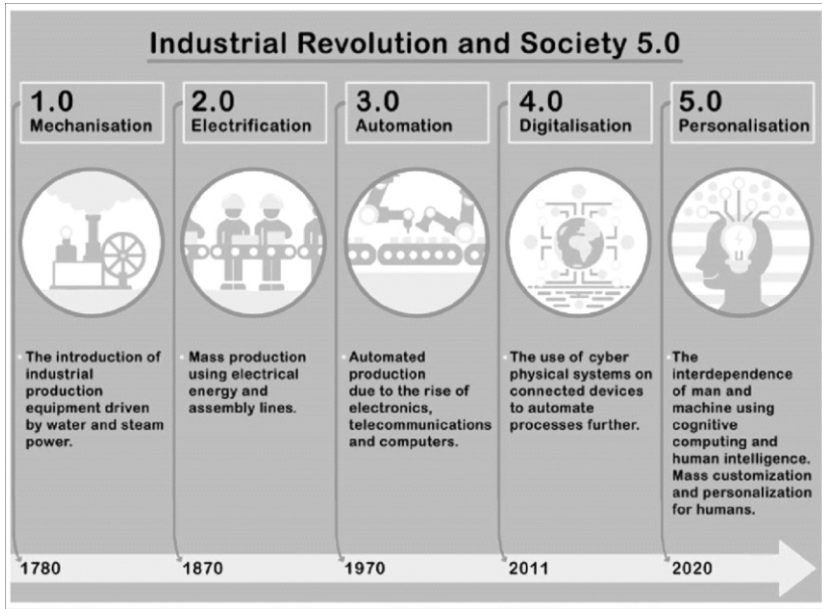
Activities of CABALS in Government. In Nigeria, the influence of cabals within the government poses a significant challenge to democratic principles, transparency, and accountability, thus affecting the operation of a sound budgetary control system.

Poor Public Debt Management: The higher the proportion of debt servicing provisions in the budget, the less will be the amount that will be available for meeting other budgetary provisions. The rising cost of funding the ever-rising public debt in Nigeria makes the attainment of budgetary objectives almost practically impossible.

These challenges highlight the urgent need for reforms in Nigeria's budgeting system. Leveraging technological advancements, including Artificial Intelligence (AI), can enhance resource allocation, improve revenue collection, and strengthen budget implementation.

Technology, the Industrial Revolutions and Artificial Intelligence

Humankind has long been striving to improve its living conditions through the development of tools, instruments, transportation and communication systems, all to make our lives easier, more productive and more fun and relaxed. Thanks to human research and technology (Adejuwon, Adewumi & Adejuwon, 2023). Thus, there have been five main industrial revolutions to date, with a potential sixth one emerging. Features of each are as follows:



Source: <https://www.animalia-life.club/qa/pictures-industrial-revolution-inventionstimeline>

First Industrial Revolution (1750-1850): This period was characterised by the transition of manual labour to machine-based manufacturing, the use of steam power and mechanisation, and the transformation of textiles, iron and coal mining industries.

Second Industrial Revolution (1850-1915): The main features of this period were mass production and assembly lines; the introduction of electricity, telegraph and digital telephoning; emergence of steel, chemicals and automotive industries.

Third Industrial Revolution (1970-2000): The major development of this era include the rise of automation, the digital revolution involving computers, internet, and the transformation of electronics, software, and telecommunications. It also marked the beginning of globalisation and e-commerce.

Fourth Industrial Revolution (2010-present): The following surfaced during this period: Cyber-physical systems involving integration of physical, digital and biological systems, Artificial Intelligence (AI), Internet of Things (IoT) and Robotics; Data-driven decision-making, blockchain and 3D printing. AI which is a principal subject matter of today's lecture, belongs to, and is a key driver of the Fourth Industrial Revolution (4IR), transforming industries, governments and societies.

The Fifth Industrial Revolution: This phase focuses on the adoption of sustainable and renewable energy resources, emphasizes environmental and social impact. It highlights human-AI collaboration and augmented intelligence while advocating for the ethical use of technology that benefits all of humanity. It involved collaborative robots (cobots). It is a new phase of industrialisation where humans work alongside advanced technology and AI-powered robots.

The Concept of the sixth industrial revolution: This is purely a future concept expected to bring significant changes to various industries, including manufacturing, healthcare, transportation, finance, and education. Smart machines that can sense, learn adapt and act will feature. It will be capable of performing tasks that were previously exclusive to humans, including decision-making, problem solving and even creativity. It would further involve emerging technologies such as quantum computing, biotechnology and nanotechnology.

The Concept of Artificial Intelligence

The rapid advancements in technology, particularly Artificial Intelligence (AI), have significantly reshaped various industries, management, governance, and public administration (Adejuwon & Unuesiri 2024). Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think, learn and perform tasks that typically require human intelligence. It encompasses a broad range of techniques and approaches aimed at enabling machines to exhibit cognitive functions such as problem-solving, reasoning, learning from experience and understanding natural language (Buchanan 2005). AI systems are designed to process large amounts of data, identify patterns and insights, and make recommendations or take actions based on this information.

AI applications can be applied to a wide range of industries and functions, including healthcare, finance, retail, transportation, and manufacturing. In healthcare, for example, AI can be used to diagnose diseases, develop personalised treatment plans, and monitor patient health. In finance, AI can be used to analyse financial data, detect fraudulent activity, and provide investment recommendations.

AI is powered by advanced algorithms and machine learning techniques that enable the system to learn from data and improve its performance over time. This means that AI systems can adapt to new situations and environments, making them more versatile and effective than traditional rule-based systems. One conceptual definition of AI is “the study of agents that perceive their environment, reason about it, and act in it to achieve goals and learn from experience” (Russell & Norvig, 2010). This definition appropriately captures the fundamental components of AI, including perception, reasoning, action, and learning, emphasising that an AI system can exhibit intelligent behaviour across various domains, including the public sector.

AI relies on information and/or data to study, deduce and reach decisions on any issue since it has no feelings. It works better when data are gathered from a set that is secure, reliable and credible. AI is the science and engineering of making intelligent machines,

especially intelligent computer programs. It is about making a computer or turning a computer into a robot, or a set of programming codes designed to make computers think and behave intelligently like humans. AI involves developing intelligent computer software and systems to mimic humans by studying how humans think, how they learn and their mental ability in solving problems. In other words, AI is creating Intelligent Quotients (IQ), and Emotional Quotient (EQ) in computers (Kelleher & Brendan, 2010).

Some examples of AI-driven technologies include:

1. **Natural Language Processing (NLP):** NLP is a subfield of AI that focuses on enabling computers to understand human language. NLP algorithms can be used to analyse text data, identify sentiment, and generate responses to questions. NLP is defined as the technological capability that enables the interpretation, generation, and manipulation of human language by software, particularly focusing on its application to improve operational efficiency (Adejuwon & Unuesiri, 2024).
2. **Computer Vision:** Computer Vision is another subfield of AI that enables computers to interpret visual information. Computer Vision algorithms can be used to analyse images and videos, identify objects and patterns, and make recommendations or take actions based on this information.

3. **Robotics:** Robotics is the field of AI that focuses on developing robotic systems that can perform tasks autonomously. Robotic systems can be used in manufacturing, healthcare, government and industries to improve efficiency and safety. Robotics is defined as the application of automated, programmable machines that perform tasks that would typically require human intervention, evaluated through their impact on operational efficiency and customer interaction quality (Adejuwon & Unuesiri, 2024).

4. **Machine Learning (ML):** Machine Learning is a subset of Artificial Intelligence (AI) that focuses on developing algorithms and statistical models that enable computers to learn from and make predictions or decisions based on data, without being explicitly programmed for specific tasks. ML algorithms iteratively learn patterns and relationships from data, improving their performance over time through experience. Machine Learning is “*A computer program that learns from experience E with respect to some class of tasks T and performance measure, if its performance at tasks in T , as measured by P , improves with experience E .*” (Mitchell, T., 2024). This definition aptly captures the essence of machine learning by highlighting its core components: experience (data), tasks (objectives or goals, and performance measures (evaluation criteria). It emphasises the iterative process through which ML systems enhance their performance on specific tasks by learning from data.

5. **Deep Learning (DL):** This is a subset of Machine Learning (ML) that uses neural networks with multiple layers to learn with complex representation of data. It is inspired by the human brain structure. It learns the representation of data, identifies patterns and relationships and makes predictions and decisions. It is applicable in image recognition and classification, Natural Language Processing, Speech Recognition, Time series forecasting and autonomous vehicles. AI attempts to emulate how the human brain works. Through what is called Artificial Neural Networks (ANN). ANNs follow the working of biological neurons in the human brain. The ANN system is constructed using a vast number of simpler processors that are interconnected.

Biological neurons can be viewed as device for carrying either an input or output signal, which can carry vast amounts of data due to their interconnections. ANNs have multiple applications and can be used to compute the most probable outcome based on pattern recognition. It can classify data without predetermined classifiers, based on their characteristics and learn to cluster the data for further use in ML (Chowdhary, 2020). The ability of ANNs to analyse data that are derived from several interdependent variables makes them a powerful tool (Hakinmpoor, 2011)

6. **Cognitive Computing (CC):** Cognitive Computing is an AI paradigm that mimics human cognition, making them more intelligent, interactive with humans and adaptable to new situations, therefore enabling computers to understand natural language, learn from experience, reason and make decisions. Among other areas, CC is very useful in financial forecasting and risk analysis, hence its usefulness in budgeting and budgetary control.

7. **Expert Systems:** Artificial Intelligence (AI) Expert System represents a major evolution in digital intelligence, working with advanced computational technology that is designed to emulate the decision-making capabilities of human experts (Unuesiri & **Adejuwon**, 2024). An Expert System (ES) is a type of artificial intelligence (AI) technology that utilises a knowledge base and reasoning algorithms to simulate the decision-making abilities of human experts in a specific domain. They leverage stored knowledge, rules, and inference engines to assist in making informed decisions quickly and effectively (Liebowitz, 1998). By applying logical reasoning and inference techniques, expert systems can analyse input data, draw conclusions and provide recommendations (Jajal, 2019).

In addition to the above, AI systems have capabilities for (a) knowledge representation, being able to store and organise

information and knowledge in a way that AI system can understand; (b) reasoning and problem solving, by being able to draw inferences, make decisions and solve complex problems; (c) planning and scheduling tasks, actions and resources and (d) its ability to design principles for intuitive interactions between humans and the AI system.

Overall, AI, with its advanced technologies as exemplified above, has the potential to revolutionise government establishments generally and the government budgeting/budgetary control system in particular, by enabling more accurate and efficient decision-making, improving productivity and safety, and enhancing the overall user experience.

AI has been found useful in healthcare with AI-assisted diagnostics, personalised medicine and health data analysis. It has been found very useful in transportation, with autonomous vehicles and smart traffic management. AI-enhanced learning platforms and personalised education are reshaping our education system. Even in cyber security, AI-powered threat detection and automatic incidence response systems come in handy. All these are made possible by the gains from AI, which include but are not limited to better efficiency, improved management decision-making ability, enhanced citizen participation and experience in public sector management, increased time savings and reduced bureaucratic tendencies, all resulting in economic growth and

development. The potential of AI in enhancing budgeting and budgetary control systems for Nigerian public sector effectiveness cannot therefore be an exception.

However, there are also concerns about the potential impact of AI on employment and privacy, which will need to be addressed as the technology continues to evolve.

Strategic Adoption of Artificial Intelligence (AI) in the Nigerian Public Sector

The successful integration of AI into the Nigerian public sector requires a strategic approach that addresses various challenges and leverages opportunities. Several key considerations are essential for effective implementation:

- i. **Data Infrastructure:** Building a robust data infrastructure is fundamental for AI applications. This involves data collection, cleaning, storage, and security measures.
- ii. **Human Capital Development:** Investing in training and capacity building is crucial to developing a skilled workforce capable of understanding, developing, and deploying AI solutions.
- iii. **Ethical Considerations:** Implementing AI systems requires careful consideration of ethical implications, including bias, privacy, and accountability.
- iv. **Pilot Projects:** Conducting pilot projects can help identify potential challenges, refine AI models, and build organizational capacity.

- v. **Public-Private Partnerships:** Collaborating with the private sector can accelerate AI adoption by leveraging its expertise and resources.
- vi. **Policy and Regulatory Framework:** Establishing a supportive policy and regulatory environment is essential to fostering AI innovation and adoption.

By addressing these challenges and capitalizing on these opportunities, the Nigerian public sector can embark on a transformative journey towards a more efficient, effective, and accountable future.

Using AI to Address Budgeting and Budgetary Control Issues in Nigeria

Budgeting Problems	AI Rescue Approach
1 Inadequate Revenue Collection	<p>i) Improved Tax Compliance: AI can help identify tax evaders and non-compliant individuals, reducing revenue leakages. AI-powered systems can analyse large datasets to detect anomalies and patterns, enabling more effective tax enforcement. Estonia government introduced the e-tax board in 2000, allowing citizens to file tax returns online, thus reducing tax-filing errors and enhancing tax compliance. Also, tax payers can pay taxes online, reducing tax delays and thus increasing revenue collection. If Nigeria adopts a similar approach, it could significantly reduce inadequate revenue collection caused by tax evasion</p> <p>ii) Enhanced Revenue Forecasting: AI algorithms can analyse historical data, economic trends, and other relevant factors to provide accurate revenue forecasts. This enables the government to make informed budgeting decisions and optimize revenue collection strategies to optimise revenue collection.</p>

iii) **Automated Tax Processes:** AI can automate manual tax processes, such as tax filing, payment, and refund processing. This reduce would reduce the risk of human error, increase efficiency, and improves taxpayer experience.

iv) **Data-Driven Decision Making:** AI provides insights from large datasets, enabling policymakers to make data-driven decisions. This helps identify areas of improvement, optimize revenue collection strategies, and allocate resources more effectively.

v) **AI-Powered Chatbots:** AI-powered chatbots can facilitate taxpayer engagement, provide personalized support, and help resolve tax-related queries. This improves the taxpayer experience, reduces the workload of tax authorities, and increases tax compliance. (Adejuwon A. Olasunkanmi (2023 a&b)

2 Ineffective
Budgetary
Planning and
Implementation

Budget Planning and Preparation

i. **Predictive Analytics:** AI can analyse historical data, economic trends, and other factors to provide accurate budget forecasts.

ii) **Budget Optimization:** AI can help optimize budget allocation by identifying areas of inefficiency and suggesting alternative scenarios.

iii) **Automated Budgeting:** AI can automate budget preparation, reducing manual errors and increasing efficiency.

Budget Monitoring and Control

iv) **Real-time Monitoring:** AI can monitor budget execution in real-time, enabling prompt detection of deviations and anomalies.

v) **Anomaly Detection:** AI can identify unusual patterns and transactions, helping to prevent corruption and mismanagement.

vi) **Automated Alerts:** AI can trigger alerts and notifications when budget variances exceed predetermined thresholds.

Budget Analysis and Reporting

vii) **Data Visualization:** AI can create interactive dashboards and visualizations, making it easier to understand complex budget data.

viii) **Automated Reporting:** AI can generate detailed budget reports, reducing manual effort and increasing transparency.

ix) **Performance Metrics:** AI can help establish and track key performance indicators (KPIs) for budget implementation.

	<p>Stakeholder Engagement and Collaboration:</p> <p>x) Citizen Engagement Platforms: AI-powered platforms can facilitate citizen participation in budget planning and monitoring.</p> <p>xi) Collaborative Budgeting: AI can enable collaborative budgeting between government agencies, reducing silos and improving coordination. (Adejuwon of Uniesiri (2024a))</p>
<p>3 Lack of Capacity for Planning and Budgeting</p>	<p>Planning</p> <p>i) Predictive Analytics: AI can analyse historical data, economic trends, and other factors to provide accurate forecasts and predictions.</p> <p>ii) Scenario Planning: AI can help create multiple scenarios, enabling planners to anticipate and prepare for different outcomes.</p> <p>iii) Automated Reporting: AI can generate detailed reports, reducing manual effort and increasing transparency.</p> <p>Budgeting</p> <p>iv) Budget Optimization: AI can help optimize budget allocation by identifying areas of inefficiency and suggesting alternative scenarios.</p> <p>v) Zero-Based Budgeting: AI can facilitate zero-based budgeting by analysing costs, identifying areas for reduction, and allocating resources more efficiently.</p>

	<p>vi) Automated Budgeting: AI can automate budget preparation, reducing manual errors and increasing efficiency.</p> <p>Capacity Building</p> <p>vii) AI-Powered Training: AI can facilitate training and capacity-building programs for planners and budgeting officials.</p> <p>viii) Knowledge Management: AI can help create knowledge management systems, enabling officials to access and share best practices, and lessons learned.</p> <p>ix) Mentorship Programs: AI can facilitate mentorship programs, connecting experienced planners and budgeting officials with less experienced colleagues. (Adeigbe & Adejuwon 2017, Adejuwon 2018)</p>
<p>4 Frequent Policy Changes</p>	<p>AI can reduce the frequency of policy changes, promote stability, and foster a more predictable business environment in the following ways:</p> <p>i) Predictive Analytics: AI can analyse historical data and trends to predict potential policy changes, enabling policymakers to prepare and adapt accordingly.</p> <p>ii) Policy Impact Assessment: AI can help assess the potential impact of policy changes on various stakeholders, enabling more informed decision-making.</p>

	<p>iii) Automated Policy Tracking: AI-powered systems can track policy changes in real-time, enabling policymakers and stakeholders to stay up-to-date and respond promptly.</p> <p>iv) Stakeholder Engagement: AI-powered platforms can facilitate stakeholder engagement and participation in the policymaking process, ensuring that diverse perspectives are considered.</p> <p>v) Evidence-Based Policymaking: AI can help analyse large datasets to provide insights that inform evidence-based policymaking, reducing the likelihood of frequent policy changes.</p>
<p>5 Corruption</p>	<p>Corruption has become endemic in Nigeria. It must be tackled headlong. AI can be a powerful tool in addressing corruption in Nigeria. It can strengthen the anti-corruption efforts, promote transparency and accountability, and foster a culture of integrity in the following ways:</p> <p>Detection and Prevention</p> <p>i) Predictive Analytics: AI can analyse large datasets to identify patterns and anomalies indicative of corrupt activities.</p> <p>ii) Machine Learning: AI-powered systems can learn from data and improve detection accuracy over time.</p>

iii) **Anomaly Detection:** AI can identify unusual transactions, payments, or activities that may indicate corruption.

Investigation and Prosecution

iv) **Digital Forensics:** AI can analyse digital evidence, such as emails, documents, and financial records, to help investigators build cases.

iii) **Entity Resolution:** AI can help identify and connect individuals, companies, and other entities involved in corrupt activities.

iv) **Predictive Modelling:** AI can forecast the likelihood of corruption in specific areas, enabling targeted investigations.

Capacity Building and Training

viii) **AI-Powered Training:** AI can facilitate training programs for anti-corruption agencies, law enforcement, and other stakeholders, enhancing their capacity to investigate and prosecute corruption.

ix) **Knowledge Management:** AI can help create knowledge management systems, providing stakeholders with access to best practices, lessons learned, and other resources.

<p>6 Inadequate Project Funding</p>	<p>AI can be a valuable tool in addressing Nigeria's inadequate government project funding in the following ways:</p> <p>Predictive Analytics</p> <p>i) Project Funding Forecasts: AI can analyse historical data and trends to provide accurate forecasts of project funding needs.</p> <p>ii) Risk Assessment: AI can assess risks associated with project funding, enabling proactive mitigation strategies.</p> <p>iii) Optimization Models: AI can develop optimization models to allocate limited funds to projects, maximizing impact and returns. (Ojomolade, Ogwulali & Adejuwon, 2022)</p> <p>Data-Driven Decision Making</p> <p>iv) Project Prioritization: AI can help prioritize projects based on data-driven criteria, such as economic impact, social benefits, and feasibility.</p> <p>v) Funding Allocation: AI can optimize funding allocation to projects, ensuring that resources are allocated efficiently and effectively.</p> <p>vi) Real-Time Monitoring: AI can monitor project funding in real-time, enabling swift detection of deviations and anomalies. (Oge & Adejuwon, 2022)</p>
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<p>7 Inaccurate revenue projection, poor resource allocation</p>	<p>AI can improve the accuracy of revenue projections, enabling more effective budgeting, planning, and decision-making in Nigeria.</p> <p>Predictive Analytics</p> <p>i) Time Series Analysis: AI can analyse historical revenue data to identify patterns and trends, enabling more accurate predictions.</p> <p>ii) Machine Learning: AI-powered machine learning algorithms can learn from data and improve prediction accuracy over time.</p> <p>iii) Regression Analysis: AI can analyse the relationship between revenue and various economic indicators, enabling more accurate projections.</p> <p>Data-Driven Insights</p> <p>iv) Data Integration: AI can integrate data from various sources, including economic indicators, tax revenues, and external factors like global market trends.</p> <p>v) Data Visualization: AI-powered data visualization tools can provide interactive and dynamic dashboards, enabling policymakers to easily understand complex revenue data.</p> <p>vi) Anomaly Detection: AI can detect unusual patterns or anomalies in revenue data, enabling policymakers to investigate and address potential issues.</p>
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Automated Forecasting

vii) **Automated Forecasting Models:** AI can develop and update forecasting models automatically, reducing manual errors and increasing efficiency.

viii) **Real-Time Forecasting:** AI can provide real-time forecasting, enabling policymakers to respond promptly to changes in revenue trends.

ix) **Scenario Planning:** AI can generate multiple scenarios, enabling policymakers to anticipate and prepare for different revenue outcomes.

Capacity Building

x) **AI-Powered Training:** AI can facilitate training programs for policymakers, public servants, and other stakeholders, enhancing their capacity to develop accurate revenue projections.

xi) **Knowledge Management:** AI can help create knowledge management systems, providing stakeholders with access to best practices, lessons learned, and other resources.

xii) **Collaboration Platforms:** AI-powered collaboration platforms can facilitate communication and coordination among stakeholders, ensuring effective revenue projection and planning.

<p>8 Inadequate budget oversight function on the parts of executive and legislature</p>	<p>Monitoring and Oversight</p> <p>i) Predictive Analytics: AI can analyse data to predict potential risks and anomalies, enabling proactive oversight.</p> <p>ii) Automated Monitoring: AI-powered systems can continuously monitor government activities, detecting irregularities and alerting authorities.</p> <p>iii) Real-time Reporting: AI can generate real-time reports on government activities, enabling timely oversight and intervention.</p> <p>Risk Detection and Prevention</p> <p>iv) Machine Learning: AI-powered machine learning algorithms can identify patterns and anomalies in government data, detecting potential risks and corruption.</p> <p>v) Anomaly Detection: AI can detect unusual transactions, payments, or activities, enabling swift investigation and prevention.</p> <p>vi) Risk Assessment: AI can assess risks associated with government activities, enabling proactive mitigation strategies.</p>
<p>9 Politicisation of the budgeting process</p>	<p>AI can be a valuable tool in addressing Nigeria's politicization of the budgeting process.</p> <p>Data-Driven Decision Making</p> <p>i) Predictive Analytics: AI can analyse historical data and trends to provide objective, data-driven insights for budgeting decisions.</p>

ii) **Automated Budgeting:** AI can automate budget preparation, reducing the influence of politics and personal interests.

iii) **Evidence-Based Policymaking:** AI can provide policymakers with data-driven evidence to support budgeting decisions, reducing the reliance on political considerations.

Transparency and Accountability

Reducing Human Bias

vii) **Machine Learning:** AI-powered machine learning algorithms can reduce human bias in budgeting decisions by analysing data objectively.

viii) **Automated Allocation:** AI can automate budget allocation, reducing the influence of personal interests and politics.

ix) **Randomized Allocation:** AI can facilitate randomized allocation of budget resources, ensuring fairness and equity.

10 Weak
institutional
capacity

Process Automation

i) **Workflow Automation:** AI can automate manual processes, reducing the workload of institutions and enabling them to focus on high-priority tasks.

ii) **Document Management:** AI-powered document management systems can help

institutions manage and track documents, reducing paperwork and increasing efficiency.

iii) **Automated Reporting:** AI can generate reports, enabling institutions to track progress, identify areas for improvement, and make data-driven decisions.

Data-Driven Decision Making

iv) **Predictive Analytics:** AI can analyse data to predict potential challenges and opportunities, enabling institutions to make proactive decisions.

v) **Data Visualization:** AI-powered data visualization tools can help institutions understand complex data, enabling them to make informed decisions.

vi) **Evidence-Based Policymaking:** AI can provide policymakers with data-driven evidence to support decision-making, reducing the influence of personal biases and interests.

11 Ineffective
Government
Auditing
Systems

AI can be a valuable tool in addressing Nigeria's ineffective government auditing systems by:

Auditing and Financial Analysis

i) **Predictive Analytics:** AI can analyse financial data to predict potential risks and anomalies, enabling proactive auditing.

ii) **Automated Auditing:** AI-powered systems can automate auditing processes, reducing manual errors and increasing efficiency.

	<p>iii) Financial Statement Analysis: AI can analyse financial statements to identify potential misstatements or irregularities.</p> <p>Risk Detection and Prevention</p> <p>iv) Machine Learning: AI-powered machine learning algorithms can identify patterns and anomalies in financial data, detecting potential risks and corruption.</p> <p>v) Anomaly Detection: AI can detect unusual transactions, payments, or activities, enabling swift investigation and prevention.</p> <p>vi) Risk Assessment: AI can assess risks associated with government activities, enabling proactive mitigation strategies. (Adejuwon of Akinola, 2022 a&b)</p>
<p>12 Weak Budgeting and Budgetary Control Institutions</p>	<p>AI can be a valuable tool in addressing Nigeria's weak budgeting and budgetary control system in the following ways:</p> <p>Budget Preparation and Planning</p> <p>i) Predictive Analytics: AI can analyse historical data and trends to provide accurate forecasts and predictions for budgeting.</p> <p>ii) Automated Budgeting: AI can automate budget preparation, reducing manual errors and increasing efficiency.</p>

iii) **Scenario Planning:** AI can help create multiple scenarios, enabling policymakers to anticipate and prepare for different budgeting outcomes.

Budget Execution and Monitoring

iv) **Real-Time Monitoring:** AI can monitor budget execution in real-time, enabling prompt detection of deviations and anomalies.

v) **Anomaly Detection:** AI can detect unusual transactions, payments, or activities, enabling swift investigation and corrective action.

vi) **Automated Reporting:** AI can generate detailed reports on budget execution, enabling policymakers to track progress and make data-driven decisions.

Budgetary Control and Compliance

vii) **Machine Learning:** AI-powered machine learning algorithms can identify patterns and anomalies in budget data, detecting potential compliance issues.

viii) **Automated Auditing:** AI can automate auditing processes, reducing manual errors and increasing efficiency.

ix) **Compliance Monitoring:** AI can monitor budgetary compliance in real-time, enabling

	prompt detection of non-compliance and corrective action.
13 Problem of Cabals	The influence of cabals within the government poses a significant challenge to democratic principles, transparency, and accountability, thus affecting the operation of a sound budgetary control system. To address this issue and promote sustainable reforms, leveraging the capabilities of artificial intelligence (AI) and cybersecurity is essential. By harnessing these technologies, government entities can enhance their ability to detect anomalies, forecast risks, strengthen cybersecurity measures, and ensure the integrity of governance processes. Through the strategic utilization of AI and cybersecurity tools, Nigerian authorities have the opportunity to combat cabals effectively, uphold democratic values, and foster a culture of accountability and transparency within the government. Productively, AI and cybersecurity play crucial roles in achieving sustainable reforms and ridding of cabals in government.
14 Transparency, Accountability and Integrity	Here are some ways in which these technologies can contribute to transparency, accountability, and integrity in governance:

i. Detection of Anomalies: AI can be utilized to analyse large volumes of data and identify patterns or anomalies that may indicate corruption, collusion, or other illicit activities associated with cabals. By using machine learning algorithms, AI can flag suspicious transactions, irregular behavior, or potential conflicts of interest for further investigation.

ii. Predictive Analytics: AI can also be employed to forecast and predict potential instances of corruption or abuse of power by analysing historical data and trends. By leveraging predictive analytics, government agencies can proactively address risks and vulnerabilities associated with cabals before they escalate into larger problems.

iii. Cybersecurity Measures: Strengthening cybersecurity measures is essential for protecting government systems and data from external threats, including cyberattacks aimed at undermining reform efforts or perpetuating corrupt practices. Implementing robust cybersecurity protocols, encryption techniques, and monitoring systems can help safeguard sensitive information and prevent unauthorized access.

iv. Blockchain Technology: Blockchain technology offers a secure and transparent way to record transactions and enforce accountability in government operations. By utilizing blockchain for digital record-keeping and authentication, government entities can enhance transparency, traceability, and integrity in their processes, thereby reducing the opportunities for cabals to manipulate or exploit the system.

v. Digital Identity Verification: Implementing AI-driven solutions for digital identity verification can enhance the authenticity and integrity of government transactions, reducing the risk of identity fraud or impersonation by cabals seeking to gain undue influence. By adopting biometric verification, facial recognition, or other advanced authentication methods, government agencies can ensure the legitimacy of individuals accessing sensitive information or services.

vi. Ethical AI Governance: It is essential to establish clear guidelines and ethical standards for the use of AI in governance to prevent bias, discrimination, or misuse of data that could perpetuate corrupt practices. Developing frameworks for responsible AI governance, data

protection, and algorithmic transparency can help ensure that AI technologies are deployed ethically and in alignment with democratic values.

vii) Open Data Platforms: AI can help create and manage open data platforms, providing citizens with access to information on government spending, contracts, and other activities.

viii) Chatbots and Virtual Assistants: AI-powered chatbots can provide citizens with information on government services, policies, and procedures, reducing the need for personal interactions that can lead to corruption.

ix) Social Media Monitoring: AI can monitor social media platforms for corruption-related discussions, enabling authorities to respond promptly and address concerns.

15 Public Debt

Actions for improved revenue generation and more judicious use of public debt to curb loopholes for corruption. (Oguntola & Adejuwon 2018. Oge & Adejuwon 2022 b)

Case Studies and Best Practices

To illustrate the potential of AI in transforming budgeting and budgetary control for greater effectiveness in the Nigerian public sector, it is essential to examine successful case studies from around the world. Countries such as Estonia, Singapore, South Korea, Canada, Sweden, New Zealand, Australia, and the United States have made significant strides in leveraging AI for budgeting and budgetary control. Nigeria can adapt this experience to maximise AI's potential in enhancing public sector budgeting and financial management.

Estonia and digital solutions to enhance tax administration and revenue generation

Estonia, a Baltic country, has leveraged e-governance to enhance tax compliance and revenue generation. In 2000, the country established the E-Tax Board, which facilitates the online filing of tax returns digital identification system for citizens to access and use e-services, the country auto-populates tax returns with data from employers, banks and other sources to reduce taxpayer burden, increase accuracy and compliance. Estonia's system calculates taxes in real-time, enabling taxpayers to see their tax obligations immediately to facilitate payment.

Businesses in Estonia can issue and manage digital invoices, thus reducing errors and increasing tax compliance. Tax evasion is minimised because the government uses tax data analytics to

identify tax fraud and optimise tax collection. Also, Estonia uses e-customs system to streamline customs declaration and payment processes, thus reducing fraud, clearance time and consequently increasing revenue. In Estonia, you can file your tax returns via your mobile devices using an m-Tax system.

Singapore's adoption of AI to enhance Budgeting and Budgetary Control

Singapore has successfully used AI to streamline budgeting processes by automating routine tasks, reducing manual effort and freeing up resources for strategic planning and decision making.

Singapore has also successfully integrated AI predictive analytics to enhance budgeting, budgetary control and financial forecasting processes. AI-driven predictive models enhance forecast accuracy to enable better resource allocation in the budgeting process. This is in addition to its ability and uses in analysing large data sets to identify trends and patterns for informed budgeting decisions. This facility also helps to identify potential risks, to facilitate effective contingency plans. Its ability to give early warning signals help to detect potential budget variances and consequently facilitate proactive corrective actions.

AI allows for optimal resource allocation by identifying areas of resource inefficiency to proactively adjust resources accordingly. Also, by providing data-driven insights, AI enhances better

budgeting and budgetary control decisions, as well as promoting transparency and accountability.

How USA Has Used AI in Detecting and Preventing Fraud in Government Agencies

The USA has used AI to detect and prevent fraud in various government agencies. Thus, in the Department of Health and Human Services (HHS), predictive analytics have been used to identify high-risk claims and consequently prevent healthcare fraud. Similarly, the Internal Revenue Service (IRS) utilises machine learning to detect tax fraud and identify high-risk returns. The Department of Defence (DoD) uses data mining technique to detect fraud and waste in contracting and procurement, while the Social Security Administration (SSA), Department of Homeland Securities (DHS) and the General Services Administration (GSA) use AI-powered chatbots to detect and prevent fraud in disability claims, financial transactions and government procurement. The Government Accountability Office (GAO) uses AI-powered auditing to detect fraud and waste in government programs.

At the Department of Justice (DOJ), Natural Language Processing (NLP) is used to analyse text data and detect fraud in government programmes. Likewise, Graph Analytics is used to detect and prevent money laundering and fraud in the Treasury Department's Financial Crimes Enforcement Network (FinCEN).

With these case studies, valuable lessons can be learned about the challenges and opportunities associated with AI implementation. It is crucial to adapt these best practices to the specific context of enhancing effectiveness in budgeting and budgetary control in the Nigerian public sector.

My Contributions to Research and Scholarship

Mr. Vice Chancellor Sir, permit me to now share with this noble audience some of my research efforts, as published in various reputable, peer-reviewed, national and international publications

Budgeting, and Budgetary Control

The growing complexity and the attendant unavoidable need for decentralisation of responsibilities and authority in a growing modern business enterprise have emphasised the need for better planning and control techniques. This necessitated my interest in researching the use of sound budgeting and budgetary control techniques in ensuring sustainable development both in private and public enterprises. Thus, in 2018, I conducted a study on *Budgeting and Budgetary Control for Sustainable Entrepreneurial Development in Nigeria* (Adejuwon 2018). The findings revealed that while budgeting and budgetary control systems form an essential part of an organisation's planning, coordinating and controlling efforts, many budget holders resist budgeting process because they perceive it is an unnecessary

projection into an uncertain future that is characterised by political instability, environmental changes, and rigidity.

Many entrepreneurial firms manage their cash flows traditionally on a day-by-day basis, making payments and settling bills based on the received cash without any formal planning for operations and cash flow. Even when these businesses grow into maturity and become more stable, the initial culture of informality (reacting, rather than being proactive), crash-and-crisis management style of the entrepreneur still dominate the decision-making process. It was concluded from this research effort that the modern-day business environment is complex, dynamic and very competitive. For sustainable development, therefore, it was recommended that the entrepreneur adopt a good system of budgeting and budgetary control for proper operational planning and control. This would help the business to avoid unnecessary management stress, clumsiness, informality and haphazardness in decision-making to enhance the value-creation process of sustainable entrepreneurial development.

Mr. Vice Chancellor, Sir, after this initial work on budgeting for sustainable entrepreneurial development, I embarked on several research efforts related to government budgeting for human capital development, National budget management and economic development in Nigeria, capital budgeting and infrastructural

development in Nigeria, capital project decisions and socio-economic development in Nigeria, and also public debt management in Nigeria. This aspect of my research efforts informed the first leg of the topic for today's lecture, which is **“Enhancing Budgeting and Budgetary Control for Nigerian Public Sector Effectiveness: A Strategic Adoption of Artificial Intelligence.”**

Government Budgeting for Human Capital Development: A Review of Educational Sector Financing in Nigeria

Human capital development is an indispensable component of the development process. It aims at enhancing the potential of people by expanding the scope of their capabilities and empowerment. This study looked into the extent to which the Nigerian government has, over ten years, from 2007 to 2016 allocated funds to finance quality education in the country as compared to internationally acceptable standards. Using historical approach to collect data and a descriptive method to analyse the secondary data, the study revealed that the Nigerian government was grossly underfunding the education sector, allocating an average of a mere 8% of the total federal budgets to the sector, contrary to the world standard of 26% as recommended by the United Nations Educational Scientific and Cultural Organisation (UNESCO). Hence the poor performance of the sector. The study recommended that the Nigerian government should urgently

improve the quality of education by:

- a) Substantially increasing the proportion of annual budgets to that sector,
- b) Accelerating and concretising the war against corruption in Nigeria, as well as ensuring necessary transparency and accountability measures in the disbursement and utilisation of recurrent and capital expenditure allocations to the education sector. Ensuring that all identified corruption cases were duly prosecuted, loot effectively recovered and investing a substantial proportion of the recovered fund into the education sector.
- c) Broadening the country's economic base by diversifying away from the erratic and fluctuating monolithic funding of the oil-dependent economy, into agriculture and manufacturing. This was to increase the country's Gross Domestic Product (GDP) and consequently the overall size of the national budget and allocation of funds to the education sector.
- d) Restructuring the governments' education sector to allow for a more effective private sector and non-governmental organisations' participation for increased investment in human capital development.
- e) Cost-sharing of education between the different stakeholders to avoid inadequacy of funding.
- f) Government mobilising external resources through appropriate bilateral and multilateral agreements in ways

that would encourage education development partners into the country.

- g) The Universities legitimately seeking funds for research projects to advance teaching and learning from non-government organisations (Adeigbe & Adejuwon 2017).

National Budget Management and Economic Development in Nigeria

Mr. Vice Chancellor, Sir, using secondary data sourced from the Central Bank of Nigeria Statistical Bulletin 2021, and using co-integration and descriptive statistics for data analysis, this study examined the impact of national budget management on the economic development of Nigeria between 1998 and 2020. It was found that because of inadequate annual budget provisions to sufficiently enhance human capital development and promote technological development as a key to economic development in Nigeria, the education and health sectors of the country do not positively impact economic development during the period under study.

The following recommendations were, therefore, proposed:

- 1) The government should budget appropriately for education, which is fundamental to effective technological and human capital development for economic progress.
- 2) The government should provide a functional health system to sustain good health conditions for the citizens. A healthy

workforce is needed for economic development. A healthy citizenry leads to a healthy nation which facilitates higher performance, improved productivity and overall economic development.

- 3) The government should de-emphasise unnecessary accumulation of public debts to reduce the huge amount being budgeted and spent on national debt servicing. The higher the debt servicing proportion in the national budget, the less will be the proportion of the budget that would be available to take care of other very important areas, education and health inclusive. (Ojomolade, Ugwulali & Adejuwon, 2022).

Public Debt Management in Nigeria: Implications for Sustainable Development

Mr. Vice Chancellor Sir, this research work was carried out to assess the impact of increasing levels of public debt on sustainable national development. It is admitted that public debt is usually incurred to bridge the budgetary gap when total budgeted expenditure exceeds total budgeted revenue/income. Reasonable levels of borrowing are often to enhance sustainable development, especially in developing countries like Nigeria where the resources to finance optimal levels of economic growth and development are in short supply. The effective and efficient management of public debt is however necessary to forestall adverse socio-economic consequences on both the country and its

citizenry. This study covered twelve (12) years (2005-2016) and used the debt to GDP indices, and GDP per capita for this period as a measure of development, in agreement with international standards. The result revealed that though public debt continues to increase, the impact of this was not effectively and positively felt in the national development of Nigeria, which reinforced the categorisation of Nigeria under the lowest of the four human development index (HDI) categories of the United Nations. It was further found out that Nigeria was in position 152 of 168 nations, implying an underdeveloped country with a shorter life expectancy at birth, a very short educational period and a low income per capita. This was despite the increasing GDP.

The paradox in this study is what the debt to GDP ratio of selected countries in the years 2012, 2015 and 2016 showed. While Nigeria had 10.71% (2014), 11.63% (2015) and 14.32% (2016), a comparison with ten (10) emerging market economies then showed that Nigeria's Debt to GDP was the lowest. The highest in the group then was Brazil (68.47%). Within the six economies considered in the then G-7 countries, Canada had the lowest Debt to GDP ratio (85.64%), and Japan had the highest figure of 237.92%. It was however found out that while the emerging and G-7 economies effectively used their debts for infrastructural, capital and other developmental projects, Nigeria's debt profile was characterised by corruption, fraud and filtering away of borrowed funds.

The study considered some recommendations, which include:

- 1). Public debt should be judiciously utilized strictly for capital acquisition and infrastructural development. This is required to attract much-needed foreign direct investments.
- 2) Loopholes that facilitate corruption and the misappropriation of public funds should be blocked.
- 3) The revenue base of the country should be expanded to generate more revenue to reduce the debt service-to-revenue ratio (Oguntola & Adejuwon, 2018).

Capital Budgeting and Infrastructural Development in Nigeria

Mr. Vice Chancellor Sir, I have also extended my research frontiers under budgeting and budgetary control to capital budgeting and infrastructural development in Nigeria.

Mr Vice Chancellor Sir, capital budgeting is the process by which organisations or states determine how to invest their capital in new projects, or expand and improve existing capital projects, with the objective of creating value and increasing the organisations or state's wealth. Thus, the goal of capital budgeting is to invest current funds in projects that can generate future income or benefits for the organisation or government. It, therefore, involves making informed decisions to invest in financially rewarding projects for the long term. When done, capital budgeting decisions can accelerate economic growth and development.

The current study assesses Nigeria's infrastructural development and capital budgeting execution. Pearson correlation analysis was used to assess the link between the variables. A generalised least square regression study revealed that capital budgeting adoption had a favourable and substantial impact on the housing, transportation and technology sectors. The study concluded that allocating funds from the capital budget for infrastructural development would increase the availability of fundamental public goods for the populace. It therefore emphasised that the government should make serious efforts at all levels to establish enough budget allocations for infrastructural developments particularly by creating home-grown strategies to stop infrastructural deficits in education, power and technology. Also, the government should consider developing public-private partnerships (PPP) and encourage more joint venture project developments between multinational corporations and local enterprises for infrastructural development. This would encourage mobilisation of funds from foreign and private participants (Oge & Adejuwon, 2022b).

Accounting and Advancements in Technology

Mr. Vice Chancellor Sir, my research efforts have also contributed immensely to knowledge in the areas of how technology has impacted accounting and management, and how technology, particularly AI, can enhance budgeting and budgetary control for improved effectiveness in the Nigerian public sector. Technology

has become an integral part of our lives, revolutionizing various aspects, particularly accounting, communication, and information technology.

Audit Clients' Characteristics and the Determination of Audit Fees in an Automated Accounting Environment

The first stage of technology development in accounting being the mechanical accounting system, which relied on the use of typewriters, franking machines, photocopiers, and mechanical filing systems, among others. Although this system brought tremendous changes to the accounting system, the operation remained cumbersome as it involved the procurement of huge/big machines which occupied large spaces, and the need to train machine operators with accounting backgrounds. The process was based on paper and pencil/green biro for ticking and recording significant financial transactions. These challenges brought the quest to devise a better system which eventually led to the invention of the electronic accounting system as known today. The arrival of electronics into accounting system brought generational changes into audit practice because manual audits became irrelevant in a completely automated accounting environment. Even though auditing processes and procedures remain the same, the approach changes with the type of accounting system in place.

This study examined some characteristics of clients that should be considered by auditors in the determination of audit fees in an automated accounting system (AAS). The study found that respondents of all three elements of clients' characteristics (auditee size, auditee complexity and auditee profitability) were influential to the determination of audit fees in an automated accounting system. The study therefore recommended that both external auditors and clients should make provisions to accommodate these factors when negotiating audit fees especially when the operations and accounting functions of clients are technologically driven which of course will demand external auditors to embrace computer-assisted audit technologies for the conduct of audit assignment. (Adejuwon and Akinola, 2022).

Effect of Big Data Analytics (BDA) on Audit Evidence

Mr. Vice Chancellor Sir, with the introduction of electronics in accounting systems, traditional audit is no longer adequate. The procedures remain the same, but the difference lies in the adoption of appropriate audit software for the execution of auditing assignments. Modern audit brings new methods for the collection and evaluation of data for compliance and substantive tests. There has been a paradigm shift in accounting and auditing with the emergence of artificial intelligence (AI) as “auditing is particularly suited for applications of data analytics and artificial intelligence because it has become challenging to incorporate the

vast volumes of structured and unstructured data to gain insight regarding financial and non-financial performance of companies” (Kokina and Davenport, 2017, p. 116). “The quantity of data produced by and available to companies, the replacement of paper trails with IT records, cloud storage, integrated reporting and growing stakeholder expectations for immediate information – any one of these alone would affect the auditing process, but Big Data is bringing them all, and more, at the same time” (ACCA, 2015 quoted by Salijeni et al., 2018).

This study provided an empirical investigation into the effect of big data analytics on audit evidence in Nigeria using the Southwest Zone as a research setting. The results showed that there was a substantial, significant and positive effect of BDA on control testing ($R^2 = 0.781$). These results provided empirical evidence to support the fact that the application of BDA tools by auditors to interrogate big data would enhance compliance tests and thereby improve audit evidence. The study also showed that there was a substantial, significant and positive effect of BDAs on the sufficiency of audit evidence ($R^2 = 0.858$). Sufficient audit evidence can be obtained in big databases with the application of BDA. In addition, the results showed that the application of BDA in audit evidence has a substantial, significant and positive effect on the relevance and reliability of audit evidence ($R^2 = 0.888$). This means that BDA can enable auditors to obtain relevant and

reliable audit evidence from big data. Finally, the use of BDA to interrogate financial statements was found to have a moderate ($R^2 = 0.528$), but significant and positive influence. This empirical evidence supports various qualitative studies on the effect of big data analytics on audit evidence (Appenbaum, 2016; Yadav, 2020; Salijeni et. al., 2019)

The study recommended that appropriate standards should be developed that would provide for the adoption of BDA tools in auditing-related services, specifying the process and the minimum benchmarks in terms of clear objectives by the usual approach of the existing ISAs. In addition, appropriate in-house training should be organised for those involved in audit engagements by audit firms, while the Nigerian National University Commission, as well as other educational regulatory agencies should make it mandatory for all tertiary institutions to introduce Big Data Analytics into their existing curricula. (Adejuwon and Akinola, 2022).

Technology Integration and Financial Performance of Deposit Money Banks in Nigeria

Mr Vice Chancellor, Sir, during the past few decades, innovations and improvements in the information and communication technology (ICT) industry have played active and crucial roles in reshaping how banks deliver their services to their consumers. Online transfer payment, online financial planning services, and

online lending and borrowing through a peer-to-peer system are just a few examples of the novel technologies made possible by the widespread adoption of ICT in the banking sector. The banking system's ability to provide novel approaches to addressing client concerns is partly attributable to the disruptive power of the integration of financial technology.

The purpose of this research is, therefore, to investigate how the adoption of new technologies affects the financial performance of Nigerian deposit money banks. The impact of financial technology and technological instruments on financial performance was proven to be positive and significant. Financial technology tools and financial technology as a whole were found to be major determinants of the financial success of deposit money banks in Nigeria. Based on the findings of this study, it was recommended that deposit money banks should embark on aggressive campaigns and re-orientation of clients to create awareness for the customers to patronize the facilities especially in the area of use of ATMs, USSD, Internet banking, POS, mobile banking and others because increasing acceptance and use of these financial technology tools will consolidate the gains from investing in them and improve the financial performance. Deposit money banks should ensure cybersecurity as related to Internet and mobile transactions and improve safety measures to protect customer details during and after online transactions. (Osisanwo & Adejuwon, 2023)

Tax Digitalization and Problem of Revenue Collection in Nigeria

Mr Vice Chancellor, Sir, the problem of tax evasion and other issues limiting maximum tax revenue collection in Nigeria is such that contemporary tax practice should encourage tax administrators to embrace Information and Communication Technology (ICT) to revolutionize tax processes and alleviate some of the difficulties associated with manual tax processing in Nigeria. This study examined tax digitalization and the problem of revenue collection in Nigeria.

Based on the findings, the study viewed tax digitalisation as a strategy capable of reducing tax evasion and tax fraud in Nigeria. This would also enable the government to improve the Nigerian Tax Administration System and manoeuvres towards achieving full compliance and low-cost effect. The study, therefore, concluded that if adequate digitalization of tax policies is given the full capacity of operation and qualified and competent IT personnel are employed and equipped, it is enough to eliminate tax evasion and other tax fraud. Based on the above conclusions, the following recommendations were made: 1. Since ICT increases Nigeria's tax revenue drive, tax authorities should embrace ICT in collecting taxes and invest more money into it. To reduce the involvement of humans, this should be achieved by ensuring that the whole tax procedure is computerized, from filing

to receiving a tax clearance certificate. 2. Tax authorities at all levels should collaborate with legislative bodies at various governmental levels to offer technical support in creating strict legislation to prevent tax evasion in the context of a digital economy. 3. The Nigerian government should consider creating tax laws that include e-transaction taxation, tax education, and tax strategies that facilitate e-transaction taxation. Nigeria's economy would benefit from digital transactions in this way. (Adejuwon & Olasunkanmi, 2023)

Value Added Tax Automation and Revenue Generation in Nigeria

Mr. Vice Chancellor Sir, this study examined Valued Added Tax (VAT) and Automation of Revenue Generation in Nigeria. Specifically, it examined the effect of the adoption of a manual VAT system on Revenue Generation, determined the impact of the adoption of VAT automation through the Integrated Tax Administration System process on Revenue Generation, assessed the impact of the adoption of Valued Added Tax automation through Amanda process on Revenue Generation; examined the relationship between adoption of Valued Added Tax automation through TaxPro-max system and Revenue Generation. Establishing an effective and efficient tax system that improves the VAT collection process and encourages taxpayers' compliance is a long-term method to guarantee the Nigerian government a

consistent revenue stream. This is consistent with the fundamental tax principles which promote simplicity of compliance and effectiveness of collection.

Robotics and Natural Language Processing and the financial Performance of Deposit Money Banks (DMBs) in Nigeria

Mr Vice Chancellor, Sir, the integration of Robotics and Natural Language Processing (NLP) within the banking sector, particularly through the advancements in Artificial Intelligence (AI) and Machine Learning (ML), marks a significant evolution in how financial services operate. AI's capability to mimic human cognitive functions has revolutionized multiple industries by enhancing efficiency, accuracy, and customer interaction (Cioffi, 2020; Ononokpono et al., 2023). Robotics, a branch of AI, extends the automation of physical and cognitive tasks, which was previously unimaginable in traditional banking environments. Concurrently, NLP facilitates improved customer service and operational efficiency by enabling machines to understand and interpret human language, making it a critical component in customer-facing applications and backend processing in banks (Aazhvaar, 2019). These technologies streamline operations, reduce errors, and free up human resources for more complex tasks, thus potentially improving the financial health of banks.

This study, therefore, investigated the effect of Robotics and Natural Language Processing (NLP) on the Financial

Performance of Deposit Money Banks in Nigeria. The study analysed secondary data of selected DMBs for the period 2015 - 2023 (9 years). The data were sourced from the Annual Reports of the DMBs, the Central Bank of Nigeria (CBN) Statistical Bulletin and World Development Indicators to establish cause-effect relationships between the variables. The study found out that both Robotics and NLP had impacted positively, though non-significantly on the financial performance of the DMBs in Nigeria. Based on the findings of the study, it was recommended that the management of banks in Nigeria should develop a unified vision and company-wide strategy in implementing Robotics and NLP as important components of AI to enhance their financial performance (Adejuwon & Unuesiri, 2024).

Artificial Intelligence Expert System and the Financial Performance of Deposit Money Banks (DMBs) in Nigeria

Mr. Vice Chancellor Sir, this study investigated the effect of Artificial Intelligence Expert System on the Financial Performance of Deposit Money Banks in Nigeria. The study analysed the secondary data of selected DMBs for the period 2015 -2023 (9 years).

The rapid advancements in technology, particularly Artificial Intelligence (AI), have significantly reshaped various industries, management, governance and public administration. An Expert

System simulates human expertise in problem-solving and decision-making processes.

However, despite the potential benefits, the actual impact of AI on the financial performance of Nigerian DMBs remains under-researched. This gap in knowledge presents an opportunity to explore how AI Expert System adoption can influence the overall performance of these banks and whether the anticipated benefits translate into measurable outcomes.

The study concluded that the deployment of AI Expert Systems impacted positively, though non-significantly, the financial performance of DMBs in Nigeria. It was also observed in the study that AI Expert System development and deployment in the banking sector in Nigeria is still in its early days. Only a small fraction of this futuristic technology has yet been discovered. Based on the findings, it was recommended that there should be strategic and realistic deployment, timeframes, and accuracy in measuring the effectiveness and return on investment of AI on the financial performance of banks (Adejuwon & Unuesiri 2024)

Product Service Innovation and Performance of Small and Medium Sized Enterprises (SMEs) in Ogun State, Nigeria

This research examines the influence of product service innovation on the success of small and medium-sized enterprises (SMEs) in Ogun State, Nigeria. The study addresses a significant

gap in the Nigerian environment by utilising the Resource-Based View and Innovation Diffusion Theory to examine the impact of innovation on SME performance. The findings indicate a robust positive correlation between product service innovation and the performance of SMEs, with the following key indicators: Model 3 of the hierarchical regression produced an R-value of 0.970 and a R-squared of 0.941, signifying that 94.1% of the variance in SME performance can be attributed to innovation strategies, capabilities, and types. Innovation strategies exerted the greatest significant impact ($B = 2.617$, $Beta = 0.831$, $t = 68.510$, $p < 0.001$), succeeded by innovation capabilities ($B = 0.403$, $Beta = 0.164$, $t = 13.126$, $p < 0.001$) and innovation type ($B = 0.197$, $Beta = 0.092$, $t = 12.282$, $p < 0.001$). Small and medium-sized enterprises that implemented effective innovation strategies experienced notable enhancements in their performance indicators. The report advises SMEs to prioritise extensive innovation strategies and consistently enhance their innovation capabilities to maintain growth and market relevance (Adejuwon & Adekunle, 2024).

Digital Tools for Stress Management and Employee Performance in Small and Medium Enterprises (SMEs) in Ibadan, Nigeria

Mr Vice Chancellor Sir, Employee performance is a critical factor in organizational success. However, it is often compromised by stress, which can lead to decreased productivity, increased absenteeism, and higher turnover rates. In this digital age,

organizations are turning to innovative tools for stress management to enhance employee performance. Work-related stress can lead to severe disorders such as depression, musculoskeletal conditions, and coronary artery disease. Digital tools for stress management, such as guided internet-based stress management training (iSMT), have emerged as effective solutions to this problem. These tools offer the flexibility and accessibility that traditional in-person group-based stress management training (gSMT) may lack.

This study delved into the influence of digital tools for stress management on employee performance in Small and Medium Enterprises (SMEs) in Ibadan. Digital tools for stress management include applications for mindfulness and meditation, stress tracking and management platforms, virtual wellness sessions, and mental health resources. These tools enable employees to proactively manage their stress levels, cultivate resilience, and foster a healthier work-life balance.

In essence, the integration of digital tools for stress management into organizational practices not only fosters a healthier and more resilient workforce but also contributes to enhanced employee performance, reduces absenteeism, and lowers turnover rates. As organizations recognize the intrinsic link between employee well-being and organizational success, investing in stress management

initiatives becomes imperative for long-term sustainability and competitiveness in today's dynamic business landscape (Ugbatibi & Adejuwon, 2024).

Other Areas of My Research

Mr. Vice-Chancellor Sir, apart from my contributions to knowledge in the core areas of today's lecture namely budgeting, budgetary control, technology, and strategic Artificial Intelligence adoption - I have also conducted extensive research in other areas of Accounting, Management, and General Research. These are documented in Appendix 3 (Publications).

Analysis of My Contributions to Scholarship

I present below an analysis of my contribution to knowledge to date (Table 2).

Table 2: Table of Publications

Publication Type	Number
Journal Article Publications	74
Chapter Contributions in Edited Books	06
Edited Books	02
Published Book	01
Published Conference Proceedings	01
Total	84

This comprises 52 publications in Accounting and 32 publications in Management. (Appendix 3)

Over the years, I have participated in 28 national and international workshops, seminars, and conferences.

Post-graduate students successfully supervised

In addition to the above, I have successfully supervised 58 post-graduate students, 11 of whom are PhD students (Table 3).

Table 3: Postgraduate Students Successfully Supervised

Area of Specialisation	PhD	MSc	MPhil	MBA	Total
Accounting	8	31	1	.	40
Management	3	07	-	8	18
Total	11	38	1	8	58

Conclusion

The dwindling revenue sources of governments across the globe, particularly in developing nations such as Nigeria, have necessitated the need to look inward and implement essential financial control tools for more efficient and effective management of the public sector. Nigeria relies heavily on revenue from the oil sector, which is characterised by global fluctuations and high-level of corruption among government

ministries, departments, and agencies, leading to reckless financial mismanagement, and inefficiency. These translate into poor ratings from international corruption and transparency agencies.

The budgeting and budgetary control systems provide the basis for reliable financial planning and control process. However, the budgetary and financial management cycles in the Nigerian public sector are characterized by several challenges, including fraud, corruption, and inefficiency. These issues often lead to the misappropriation of funds, undermining public trust and hindering development.

Humanity has progressed through multiple industrial revolutions, from the first to the fifth, with a potential sixth on the horizon—all aimed at making life easier and better. Artificial intelligence is a product of the fourth industrial revolution, which can offer a powerful tool for addressing the challenges of our public sector management generally and by enhancing public sector budgeting, financial control and accountability in particular. By automating routine tasks, improving data analysis, and identifying anomalies, AI-driven technologies can significantly strengthen the budgetary and financial management framework by addressing the problem of government inadequate revenue projection and revenue generation, ineffective budget implementation, corruption,

distorted project funding, politicisation of the budgeting system, weak institutional budgetary control institutions, and ineffective government auditing systems. Most importantly, AI-driven technologies can facilitate transparency, accountability and integrity in governance.

Therefore, the adoption of artificial intelligence presents a transformative opportunity to enhance budgetary and financial control in the Nigerian public sector. By automating routine tasks, improving data analysis, and enabling predictive modelling, AI can significantly improve efficiency, transparency, and accountability in Budgeting and Budgetary Control.

To realize the full potential of AI, a strategic approach is required. This includes investing in data infrastructure, developing human capital, addressing ethical considerations, refining policy and regulatory frameworks, and fostering public-private partnerships to leverage their expertise and resources. Additionally, by learning from successful implementations in other countries and adapting best practices to the Nigerian context, the public sector can move towards a more effective and responsive financial management system.

Policymakers, public servants, and researchers must collaborate to create an enabling environment for AI adoption. By embracing

innovation and harnessing the power of technology, Nigeria can build a stronger, more resilient, and prosperous nation. I urge all stakeholders to seize this opportunity to transform the Nigerian public sector through the strategic adoption of artificial intelligence.

Recommendations

Mr. Vice-Chancellor Sir, to realise the full potential of technological advancements, particularly AI, in enhancing budgeting and budgetary control systems for a more effective public sector in Nigeria, the following policy recommendations are made:

- i. The government should place great premium on creating an enabling environment that enforces transparency, accountability and integrity culture, to pave the way for national values. It is necessary to embrace a culture of high ethical standards even for AI adoption to succeed. There is a need to prevent corrupt practices that can emanate from bias, discrimination or misuse of data. AI-powered system should be used for corruption detection, prevention, investigation and prosecution. Predictive analytics and blockchain technology should be used to enforce accountability in government. Open data platforms, chatbots and virtual assistance should be used to access information on government spending, contracts, services and procedures, reducing the need for personal

interactions that can lead to corruption. Thus the government must show sincere supportive policy and regulatory environment to foster AI innovation and adoption.

- ii. There is a need for an improved revenue generation system. AI can help in this regard by improving tax compliance, automated tax processing, better revenue forecasting, and the use of AI-powered chatbots to facilitate taxpayer engagements. AI should be used to help identify tax evaders and non-compliant individuals as well as reduce revenue leakages. AI-powered systems can analyse large datasets to detect anomalies and patterns, enabling more effective tax enforcement.
- iii. Budget Planning, optimisation, implementation, analysis and reporting can be enhanced by Predictive Analytics, automated budgeting and real-time budget execution and reporting. Also, automated alerts can be useful for notifications when budget variances exceed predetermined thresholds. AI-powered platforms should be used for stakeholder engagements in budget planning and monitoring.
- iv. AI-powered training, mentoring and knowledge sharing can be very useful in human capital-capacity building programs.

- v. Politicisation of the budgeting and budgetary control systems should be reduced by AI predictive analytics and data-driven decision-making.
- vi. The problem of weak institutional capacity should be addressed through workflow automation, AI-powered document management systems should be used to track document and auto-generate reports. There is a need for capacity building for the EFCC, ICPC and the like for effective adoption of AI to streamline their operations for efficiency and effectiveness.
- vii. The issue of ineffective government auditing systems should be addressed through predictive analytics, automated auditing, anomaly detection, and AI-powered risk assessment associated with government activities to enable proactive mitigation strategies.
- viii. There should be better management of the nation's public debt. A situation whereby the debt service to revenue generation ratio is between 97% and 111% is alarming. This means that the nation is borrowing to finance its debt because the total revenue generated is insufficient to repay the debt. No budgeting system can succeed under such a situation. AI powered actions for improved revenue generation through better tax compliance, reduced

revenue leakages and more judicious use of public debt must be adopted to curb loopholes for corruption.

- ix. The influence of cabals in governance should be effectively combated by using AI to uphold democratic values and fostering a culture of accountability and transparency within government. Digital identity identification can be useful in this area to reduce risk of identity and impersonation by cabals.

- x. The government should invest in building a robust data infrastructure that would cover adequate data collection, cleaning, storage and security measures. The government alone may not fund this. It should consider a public-private partnership to collaborate with the private sector to take advantage of its expertise and resources.

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I give all glory to God Almighty for the opportunity to deliver this inaugural lecture today. The journey has been long, tough, and daring, but all glory be to God for making it a reality. Today is, therefore, an unforgettable day of great joy in my life. Thank you, Almighty God.

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To all my lovely children, and all my siblings in the mother, father and extended family sides – too numerous to mention here - I sincerely thank you all. I appreciate your contributions to my success story. God will continue to bless and protect you all the days of your life.

I cannot conclude this speech without giving due honour to my spiritual fathers and mothers, particularly the late Pastor and Prophet, Dr. Joshua Abiona Alaba Apata, (alias Baba Apata), founder of Fountain of Living Water Church of Christ (FLWCC), Ibadan. A father and a man of God in a million. Baba, your legacy remains alive today and it will never perish in Jesus' name.

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Appendix 1

Inaugural lectures delivered at Lead City University as at 31st december, 2024

Inaugural Lecture No.	Date	Inaugural Lecturer	Department	Topic
1	April 26, 2012	Prof. Olufemi Onabajo	Mass Communication & Media Studies	Deploying the Potentials of Broadcasting for Mass Education: Challenges and Prospects
2	November 29, 2012	Prof. Shadrach Oludare Agunbiade	Biochemistry	The Living Body: Repository of Industrial Processes
3	November 7, 2013	Prof. Chibuzo Nnate Nwoke	Politics and International Relations	Rich Land; Poor People: The Political Economy of Mineral Resource Endowment in a Peripheral Capitalist State
4	April 24, 2014	Prof. Felix Onabanjo	Management & Accounting	An Assessment of The Role of Innovation in Entrepreneurship Development: A Lesson for Nigeria
5	October 8, 2015	Prof. J. O. Omole	Biochemistry	That We May Enjoy an Extended Life Expectancy: The Roles of Free Radicals Reactive Oxygen (ROS) and Antioxidants in Aging.

6	September 7, 2016	Prof. Afolakemi Olasumbo Oredein	Educational Management	Good Leadership for National Development: The Inevitable Fraternal Twins and Irresistible Skills as Matters Arising
7	November 22, 2016	Prof. Olusola Abiola Ladokun	Biochemistry	Nutritional Biochemistry: Sequential Professedly Unsequential
8	July 27, 2017	Prof. Kabiru Aderemi Adeyemo	Management & Accounting	Corruption and Money Laundering: An Impediment to Good Governance and Economic Development in Nigeria
9	November 23, 2017	Prof. Doland Odeleye	Education	Biblical Spiritual Parenting and Psychotherapeutic Pedagogic Reengineering: Nigeria's Deliverer
10	November 20, 2018	Prof. Tunji Olaopa	Public Administration	Big Bad Bureaucracy? Reinventing the Bureaucracy as a new Public Service in Nigeria
11	April 19, 2021	Prof. Godwin Emmanuel Oyedokun	Management & Accounting	Growing Our Digital World in Nigeria: Forensic and Tax Accounting Perspective
12	June 9, 2021	Prof. Omolara Ayotunde Campbell	Economics	Investment in Human Capital For Inclusive Growth: Limitata or Illimitata Accensum To Sustainable Development.
13	November 4, 2021	Prof. Lambert Ihebuzor	Mass Communication & Media Studies	Publishing the Unknown Writers in Nigeria: Implications for National

14	May 26, 2022	Prof. Taye Babaleye	Mass Communication & Media Technology	Participatory Agricultural Communication with Rural Farmers: Potentials for Food Self-Sufficiency and Food Security in Nigeria
15	November 17, 2022	Prof. Oliver Ezechi	Public Health	Advancing Women's Health for an HIV-Free Generation: Travails and Triumphs
16	October 19, 2023	Prof. Grace Oloukoi	Environmental Management	Thirsty Cities
17	October 24, 2024	Prof. Rosemary Ajua Audu	Biological Science	Challenges And Prospects of Laboratory Diagnostics in Africa: Disentangling the Puzzle
18	October 31, 2024	Prof. Philius Olatunde Yara	Science Education	Mathematics in the Eyes of a Mathematics Educator: A Paradigm Shift
19	December 12, 2024	Prof. Foluke Oluyemisi Abimbola	Law	A Woman's Right to Be Human: A Paradigm of the Notion of Equality and Non - Discrimination

Appendix 2

Some Suspected High Profile Fraud Diversion/ Misappropriations/ Corruptions Cases in Nigeria (2011-2024)

S/N	Year	Details of Persons Suspected	Amount Involved
1	2011	NNPC Fuel subsidy scam. Billions of dollars meant for fuel subsidies were diverted through fake companies.	Billions of dollars
2	2012	Pension Fund Scam. Funds meant for pensioners were diverted through fraudulent means.	Over \$6 billion
3	2012	Police Pension Scam. Police pension funds were diverted.	\$1.2 billion
4	2015	Arms Deal Scandal. Funds meant for arms procurement to fight Boko Haram were diverted for personal use by government officials.	\$2.1 billion
5	2016	National Assembly Budget Padding Scandal. Funds diverted through inflated contracts and fictitious projects.	N481 billion
6	2017	Ikoyi Apartment Scandal: Funds meant for arms procurement were found in a private apartment.	\$15 million
7	2018	NEMA scandal: Funds meant for disaster relief were diverted.	

8	2019	P & ID Scandal scandal	\$9.6 billion
9	2020	Abuja Light Rail Project Scandal: Funds meant for the project were diverted.	\$Millions
10	2020	NDDC Scandal: Billions of Naira meant for development projects were diverted.	Billions of naira
11	2020	NPA Scandal: Billions of Naira were diverted through fraudulent contracts.	Billions of naira
12	2020	EFCC's Magu Scandal: Money meant for asset recovery were diverted.	Billions of naira
13	2020	COVID-19 Palliatives Scandal: Funds meant for COVID-19 relief were diverted by government officials.	Billions of naira
14	2020	NASS Budget Padding Scandal: Funds diverted through inflated contracts and fictitious contracts in the National Assembly.	Billions of naira
15	2021	Nigerian Customs Scandal: Funds were diverted through fraudulent import duties.	Billions of naira
16	2022	FERMA Scandal: Funds meant for road maintenance were diverted.	Billions of naira
17	2022	NNPC Scandal: Funds were diverted through fraudulent oil deals.	Billions of naira
18	2023	Nigerian Railway Corporation Scandal: Funds meant for railway projects were diverted.	Billions of naira

19	2023	Nigerian Ports Authority (NPA) Scandal: Funds were diverted through fraudulent contracts.	Billions of naira
20	2024	Mambilla hydropower contract to Sunrise Power and Transmission Ltd without proper authorisation by a former Minister.	\$6 billion
21	2024	Diversion of funds from Anambra State security fund account.	#4 billion
22	2024	Mismanagement of public funds in Kwara State by a former governor.	#5.78 billion
23	2024	Criminal breach of trust, conspiracy and conversion of public funds in Taraba State.	Billions of naira
24	2024	Conspiracy and money laundering.	#33.8 billion
25	2024	Minister, daughter and husband charged for abuse of office and awarding contracts to companies with private interest.	#19.4 billion

Sourced by the lecturer, 2025

Some Specific Suspected Cases of Money Laundering in Nigeria (2012-2024)

S/N	Year	Details of suspected persons	Estimated Amount involved
1	2012	Former Delta State Governor, James Ibori	\$250 million
2	2015	Former Petroleum Minister, Allison Madueke	\$20 billion
3	2018	MTN Money Laundering Case	\$8.1 billion
4	2018	Danskey Bank Money Laundering Case	\$2.4 billion
5	2019	Former Pension Reform Task Team Chairman, Abdulrasheed Maina.	\$3 billion
6	2019	Mompha Case against Ibrahim Mustapha	\$5 million
7	2019	Petrol Union and Gas Fraud Case	\$2.5 billion
8	2020	Former Managing Director of Fidelity Bank, Nnamdi Okonkwo	\$153 million
9	2020	Raman Abass (Hushpuppi Fraud Case)	\$1.1 billion
10	2021	Former Head of the Police Intelligence Response Team, Abba Kyari	\$1.1 billion
11	2023	Former CBN Governor Godwin Emefiele	# Billions
12	2024	Money laundering involving a former governor in Kogi State	#110 billion

Sourced by the lecturer from EFCC, ICPC, 2025

Appendix 3

Journal Articles Publications

- 1) “What Determines Dividend Policies of Firms? Evidence of Non-Manufacturing Firms in Nigeria” (Adelegan, Adeyemo, **Adejuwon** & Taiwo). Lead City Journal of the Social Sciences, vol. 2(1) pp6-15, Nov. 2015.
- 2) “Determinants of Dividend Policy of Firms in Nigeria: Evidence From Manufacturing Firms” (Adelegan, Adeyemo, **Adejuwon** & Taiwo). ICAN Journal of Accounting & Finance (IJAF) vol.1 (1) pp 31-42, July 2016.
- 3) “Government Budgeting For Human Capital Development” (Adeigbe & **Adejuwon**). Journal of Capital Development in Behavioural Sciences, vol 5(1) June, 2017 pp 59-72.
- 4) “An Assessment of the Effect of Vision and Mission Process in Strategic Management of Manufacturing Companies. (**Adejuwon**). Journal of Business, Accounting and Finance Management Vol. 8(2) pp13-30 March, 2018.
- 5) “Planning a Social Survey: Major Issues for Consideration by the Researcher.” (Onabajo & **Adejuwon**). International Journal of Management Sciences (IJOMAS), vol.10(1), December, 2017, pp 69-78.

- 6) “The Role of Value Chain in Entrepreneurship and Rural Development”. (**Adejuwon & Adeigbe**).Journal of Technology, Entrepreneurship and Rural Development.vol.7(1)June,2018,pp 83-94 .
- 7) Venture Capital and Entrepreneurial Development in Nigeria. (**Adejuwon**) ICAN Chartac Journal vol. 6(1), January,2018, pp 35-38.
- 8) "An Assessment of the Relationship Between Strategic Management and Firm's Competitive Advantage in Manufacturing Companies”. (**Adejuwon**). West African Journal of Business and Management Sciences Vol 7(3) pp 37-53, June 2018 Science/imsubiznessjournals@yahoo.com
- 9) “Public Debt Management in Nigeria: Implications for Sustainable Development” (Oguntola &**Adejuwon**). Imo State University Business & Finance Journal, vol 8(2) pp 213-223 .
- 10) “Management, Cultural Paradox and Cultural Change in Local and Global Management Contexts” (Adeigbe &**Adejuwon**). JABU International Journal of Social & Management Sciences, vol. 6(1), pp 303 – 317, 2018.
- 11) “Strategic Administration & Policy Issues in Human Resources Management” (Adeigbe &**Adejuwon**. African Journal of Management, Social Sciences and Humanities, vol. 7 (2)December 2018.

- 12) An Assessment of the Effect of Strategic Management on Learning/ Innovation Processes of Manufacturing Companies (**Adejuwon**). Sokoto Journal of The Social Sciences, volume 9, Number 1, April 2019, pp153-162.
- 13) An Assessment of the Effect of Strategic Management on the Internal Process Perspectives of Manufacturing Companies (**Adejuwon**). Journal of Management, Skills & Techniques vol. 4(2)_April, 2019 pp 60-74
- 14) Value Creation and Economic Development (**Adejuwon& Adeigbe**) Kwara Journal of Contemporary Research Vol. 5 (1) 2018 pp100-115.
- 15) “Strategic Administration and Human Resources Management in Nigeria and Ghana: A Comparative Analysis” (Adeigbe &**Adejuwon**). African Journal of International Affairs and Development (AJIAD) vol. 22, (1&2), 2018, pp26-46.
- 16) Strategic Management Practices and Effectiveness of Selected Manufacturing Companies in Oyo State, Nigeria.(**Adejuwon**) IJMSBR Vol. 8(12), December, 2019 ISSN 2226-8235 pp. 98-109.
- 17) An Assessment of the Effect of Strategic Management on the Financial Performance of Manufacturing Firms. (**Adejuwon**). Nigerian Journal of Management Sciences (NJMSBSU). Vol. 6(2). March, 2018.
- 18) Essentials of Writing Good Academic Journal Articles. (**Adejuwon**). ICAN Chartac Journal vol. 8(1), January, 2020.

- 19) Organisational Culture and Corporate Performance of Selected Manufacturing Companies in Oyo State, Nigeria. **Adejuwon** & Ojomolade. Journal of Management Skills and Techniques. Volume 5(1) April 2020.
- 20) Environmental Dynamism and Banks' Performance in Nigeria (Ojomolade & **Adejuwon** (LCU Journal of Social Sc.,) 2020.
- 21) Illicit Financial Flows and Economic Growth of Nigeria: An Analytical Perspective. **Adejuwon** & Ojomolade. University of Port Harcourt Journal of Accounting and Business. Volume &(1), December 2020.
- 22) Internal Control System and Financial Performance of Money Deposit Banks In Nigeria. Adejuwon & **Adejuwon** West African Journal of Business and Management Sciences. Volume 9(4) December 2020.
- 23) National Housing Fund Loan Accessibility and the Provision of Affordable Housing in Nigeria. Fashina & **Adejuwon**. ESUT Journal of Accountancy, Vol. 11(2), ISSN. 2251 – 032X, July – December, 2020. Pp 161-174
- 24) Nexus Between Value Added Tax and Economic Growth in Nigeria. **Adejuwon** and Ojo. Afar Multidisciplinary Journal of Management Sciences. ISSN 2786-9571 Print, 2786-958X (On-Line) Vol. 3 (1). June, 2021. Pp 113 - 128
- 25) Cost of Fund as a Determinant of Customer Loan Preference between Federal Mortgage Bank of Nigeria and Primary Mortgage Banks. **Adejuwon** and Fashina.

International Journal of Management Sciences and Business Research, June 2021, ISSN 2226-8235, Vol.10 (6), pp 29-37.

- 26) Forensic Auditing, Internal Control and Ethical Behaviour of Employees in the Banking Industry of Nigeria. **Adejuwon** and Oge. IOSR Journal of Economics and Finance (IOSR-JEF). e-ISSN2321-5933, p-ISSN 2321-5925 Vol. 12(5) Ser. 1, September – October, 2021. Pp 20-28.
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- 33) Working Capital Management and Performance of Selected Quoted Food Beverages Manufacturing Companies in Nigeria. **Adejuwon** & Nurudeen. International Journal of Innovative Finance and Economics Research. ISSN: 2360-896X. www.seahipaj.org Vol. 10(1) Jan.-Mar., 2022 pp 147-15.

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My Other Contributions to the University Community: These are summarised in my profile.

Brief Profile of Professor Adewale Adejuwom

Born in the Afinbiokin ruling house, Esa-Oke, Obokun Local Government Area of Osun State, Nigeria, Professor Joshua Adewale Adejuwon is a Professor of Accounting and Management in the Department of Management and Accounting, Lead City University, Ibadan. He had his primary school education at LEA Primary Schools 1 & 2, Esa-Oke, between 1958 and 1963. He attended St. Joseph's Modern School, Esa-Oke in 1964 before proceeding to Ijebu-Jesa Grammar School for his secondary school between 1965 and 1969 when he had his West African School Certificate (WASC). He worked for three years as a primary school teacher at St. John's Primary School, Oke-Bode, Ilesa, to raise funds for his Higher School Certificate (HSC) at Ilesa Grammar School between 1973 and 1974. After obtaining the HSC in 1974, he had to teach again in Esa-Oke Grammar School during the 1974/75 school year to raise some funds preparatory to his University Education.

While still teaching, he applied to and was admitted into the University of Lagos, for a three-year degree programme in Accounting. Before the end of the 1974/1975 school year, however, he was fortunate to benefit from the Udoji salary award

of 1974, along with arrears paid in 1975. With this award, he was able to fully pay for the first year of his undergraduate program at the University of Lagos (UNILAG). While still in year 1 of the three-year course in UNILAG, in 1975, he applied for and obtained the Federal Government of Nigeria's Loans scheme with which he financed the remaining two years of his University education. He was part of Batch 6 of the NYSC scheme that served in Sokoto State in 1978/79.

Professor Adejuwon's first degree (B.Sc.), therefore, is in Accounting from the University of Lagos (June, 1978). He later obtained a Master of Business Administration (MBA) from the University of Ibadan (1995) and a Doctorate (Ph.D.) in Business Administration from Lead City University, Ibadan (2019). The PhD program was partly financed by Eduserve Consult Ltd, proprietors of Lead City University.

Professor Adejuwon is a Fellow of the Institute of Chartered Accountants of Nigeria (FCA); a full member of the Nigeria Institute of Management (MNIM); a Fellow of the Association of Forensic Accounting Researchers (FAFAR) and a Fellow of the Association of Management and Social Sciences Researchers of Nigeria (FAMSSRN).

Professor Adejuwon was the pioneer Bursar of Lead City University, a Director of Lead City University Microfinance Bank

Limited and a former Head of, the Department of Management and Accounting of Lead City University. During the six-month period as Head of Department, Prof. Adejuwon and his team was able to secure three full accreditation status from NUC for BSc, MSc and PhD programmes in accounting, and also an ICAN full accreditation status for the Department.

He was the pioneer Director of Finance and Administration of the Eduserve Consult Group, overseeing financial and administrative responsibilities for all the operations of the group, including the LAUTECH and Ambrose Alli satellite campus programmes, which later evolved into the present Lead City University. He was the pioneer administrator for College Press (now Lead City University Press), and EDU Communications Ltd. He pioneered preparation of the group's staff conditions of service.

Professor Adejuwon founded the Lead City University Cooperative Society. He is a great leader, an enviable mentor, a trainer and a role model. Many of the staff members with whom he established the finance department years ago still hold key positions and contribute significantly to the institution, even sixteen years after he left the Bursary position. Examples of staff members who transitioned from Eduserve Consult Group to the University in 2005 include Mrs. Veronica Obiageli Owolade (Principal Assistant Registrar, Exams & Records), Mrs. Adepeju Ope Agbelebu (Chief Accountant), Mrs. Folasade Adesoji

(Director, Fees Office), Mrs. Bimpe Dairo (College Press/Lead City International School, Jericho) and the late Mrs. Margret Ovuekero Soile.

Before joining the Eduserve Consult group in November 1998, Professor Adejuwon had acquired many years of experience in accounting, finance, and administration in both the private and public sectors of the Nigerian economy.

These included:

- i. Sokoto State Water Board for NYSC (1978/1979),
- ii. Accountant II at the Nigerian National Supply Company Limited (1979/1980),
- iii. Accountant I at the Oyo State College of Arts and Science, Ile-Ife (1980–1982),
- iv. Senior Internal Auditor at the Investment and Credit Corporation of Oyo State (March - June 1982),
- v. Chief Accountant and later Managing Director of Caxton Press (WA) Ltd, Ibadan (1982 -1995) and
- vi. Group Chief Accountant of Dalamo Nig. Limited, Osogbo (1995 -1999).

He is a highly committed professional and academic with a focus on the development of Accounting and Management courses through teaching, research and community service. Professor Adejuwon has been a university lecturer for more than 22 years,

teaching Accounting, Finance, Taxation, Auditing, and Management courses, as well as supervising undergraduate and post-graduate projects in these areas at both levels. He has participated in several workshops and has presented his research findings at both national and international conferences. His works have been published and are widely circulated in reputable, high-impact national, international journals, as well as University and professional publications. He is also an author.

At the professional level, Professor Adejuwon has held several positions, including

- (a) Chairman, the Research & Technical Committee, Ibadan & District Society of ICAN (2007-2009)
- (b) Chairman, Library Committee, Ibadan & District Society of ICAN (2012 to 2014)
- (c) Chairman, Publications Committee, Ibadan & District Society of ICAN (May 2014 to May 2018)
- (d) Examination Assessor, ICAN (1995-2009)
- (e) Examination Reviewer, ICAN (2010 to 2020)
- (f) Journal Articles Reviewer: African Journal of Business And Economic Research (AJBER)
- (g) Journal Articles Reviewer: Open Journal of Social Sciences (JSS)
- (h) Journal Articles Reviewer, Journal of African Development
- (i) Journal Articles Reviewer, Lead City Journal of the Social Sciences (LCJSS)

- (j) Journal Editorial Advisory Board Member, Association of Forensic Researchers (AFAR).

He was the 2023 Annual Award Winner of the prestigious Chartered Institute of Taxation of Nigeria (CITN), Ibadan and District Society.

His research focuses on Accounting, Finance, Taxation and Management, which are critical to organisational and national sustainable development. His vision is to enhance research capacity generally, continue publishing in top-ranking academic and professional journals, attain legendary status in his field, and achieve self-fulfilment in Accounting and Management. Additionally, he aims to continue mentoring younger academics and professionals, thus aligning his research efforts with societal needs.

Professor Adejuwon is an active member of Esa Oke Club 7-1. He is a former member of the Choir of St. Pauls Anglican Church, Esa Oke, a former Church Warden, St John's Anglican Church, Oke-Bode, Ilesha, a member of the Christian Unity Band (CUB) of St. Pauls Anglican Church, Esa Oke, and an Elder in the Fountain of Living Water Church of Christ, Omitowoju, Ibadan.

Prof. Adejuwon is also a former General Secretary and former Vice Chairman of the Olorunlogbon Landlords Association, Apata, Ibadan. He is a member of Esa Oke Council of Elders.



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