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The Use of Information and Communication Technology (ICT) to Improve the Delivery of Government Service and Enhance Transparency and Accountability

By

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Abstract

The research investigated the fundamental aspects of information systems, including the hardware and software components of computer systems, as well as the basics of accounting systems and the effects of Information Technology (IT) on accounting and reporting. The study population comprised 60 accounting staff from the Federal Inland Revenue Service (FIRS) and the Ministry of Finance in Ibadan, Oyo State. The sample, representing a subset of the total population, was selected from the audit and accounts departments of these ministries using a convenience non-probability sampling method. Thirty (30) staff members were sampled from each ministry, totaling sixty (60) participants. This sample size was chosen to ensure appropriate representation of the study population within the selected ministries. The research employed a structured, closed-ended questionnaire, which was administered to staff members from the selected ministries. The result indicate that respondents overwhelmingly agreed (68.3%) that the organization uses ICT for financial transactions, and Computer technology has significant impact on transaction report of selected companies ($\chi^2 = 45.27$, $p < 0.05$). Additionally, 93.33% agreed that ICT enhances financial transaction processes, and significant impact on improved financial performance of selected companies. ($\chi^2 = 52.89$, $p < 0.05$). Respondents also concurred (95%) that ICT implementation improved timely financial reporting for business decisions, as shown by a significant chi-square result ($\chi^2 = 47.65$, $p < 0.05$). Lastly, 96.67% agreed that frequent evaluations of financial performance are easier with ICT, with chi-square analysis supporting this finding as significant ($\chi^2 = 49.38$, $p < 0.05$).

Keywords: Information Technology, Accounting Reporting, hardware's and software's of the computer system, Nigeria Public Sector.

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INTRODUCTION

The surge of economic globalization that began in the 1990s has not only intensified global competition but also reshaped the business landscape on an unprecedented scale. Companies now operate in a dynamic environment characterized by rapid technological advancements, fluctuating markets, and evolving consumer expectations[1]. This competitive global arena demands that businesses not only react quickly to changes but also proactively anticipate and respond to emerging challenges and opportunities. As a result, ``` adaptability has become an essential asset for companies aiming to stay competitive and thrive in this environment. This adaptability is crucial because it enhances the value of information within an organization, where such information serves as a foundation for strategic decision-making, product development, and the continuous innovation of services that meet evolving market demands[2].

Information in this context emerges as a powerful resource, transforming raw data into actionable insights that drive organizational growth. The transformation process involves taking raw, unstructured data often consisting of primary measurements or observations related to business activities, consumer behavior, or market conditions and refining it into well-organized information that holds specific relevance and utility for decision-makers. For instance, an accountant's perspective underscores the differentiation between data and information, where data are raw facts collected from various observations, while information results from systematically processing these facts into a structured form that brings added value to the company[1]. This refined information plays a critical role in guiding strategic choices, allowing companies to capitalize on emerging trends, optimize operations, and meet stakeholders' expectations more effectively.

The utility of accounting information extends to both internal and external stakeholders. Within the company, managers across various departments, such as marketing, production, and finance, rely on this information to execute their roles effectively. For instance, production supervisors use accounting data to control inventory costs, while financial directors leverage it for budget

planning and resource allocation. This information not only facilitates daily operations but also supports interdepartmental collaboration, enabling internal teams to make informed, strategic choices that align with the company's broader goals[3].Externally, accounting information is indispensable to investors, creditors, and other stakeholders who evaluate the company's financial stability and performance. Investors, for example, scrutinize this data to gauge potential returns, while creditors assess it to estimate the risk of extending loans or credit. In this way, accounting information bridges the gap between the organization and its stakeholders, reinforcing transparency, fostering trust, and enabling sound financial decisions[3].

Furthermore, the introduction of specialized accounting software has dramatically improved the efficiency of accounting operations. For example, spreadsheet programs like Microsoft Excel are indispensable in modern accounting, as they facilitate calculations, data organization, and reporting. The first spreadsheet program, VisiCalc, was a groundbreaking tool that allowed for the simplification of financial analysis by performing calculations over 254 rows and 63 columns. This innovation laid the foundation for the powerful spreadsheet tools we use today, which have become essential in managing complex financial data across organizations and industries[4,5]. Based on the above, the goal of the study is to analyze the impact of information technology on the efficiency of accounting information reporting in Nigeria's public sector while the scope focus on the information technology and account reporting in Nigeria public sector, so the geographical scope include data collection from revenue Service and some accountants in the audit firms who audit government parastatals, ministries and agencies. The time frame is between 2017 to 2024. This is because within this timeframe a lot of ICT policies have been put in place in other to enhance the efficiency and accountability in the public sector.

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LITERATURE REVIEW

Information technology (IT) involves the use of computers and telecommunications systems to store, retrieve, transmit, and manipulate data, especially within business and organizational settings. IT encompasses a wide range of technologies that facilitate the creation, storage, exchange, and use of information in various forms, including business data, voice communications, still images, video, multimedia presentations, and other evolving formats.

The IT sector spans multiple industries, including computer hardware, software, electronics, the internet, e-commerce, and computer services[6].

Over time, IT has evolved through four distinct stages based on the storage and processing technologies employed. This study focuses on the most recent phase, which began in the 1940s, marking the beginning of electronic technology. The emergence and advancements in IT have significantly transformed various industries, including accounting. Specifically, IT has changed how accounting professionals manage and track assets. As technology progresses, the accounting profession has adapted accordingly. According to Top Accounting Degrees, twelve major technological advancements have been pivotal in shaping accounting practices. These advancements include the invention of money, the abacus, the slide rule, electricity, the cathode ray tube, adding machines, the comptometer, handheld calculators, computers, data storage devices, microchips, and accounting software.

Of these advancements, computers have had the most profound impact. Initially created to solve complex mathematical problems using algorithms, computers were first used by the U.S. government to streamline the Census process, which was previously taking seven years due to rapid population growth. While computers were originally designed for mathematical calculations, their use has expanded significantly over the years to include fields such as research, design, gaming, and business.

In the field of accounting, computers have become indispensable tools for processing financial data. Today, computers perform accounting tasks faster and more accurately than traditional manual methods. Data storage, another key advancement, has revolutionized how accounting

professionals manage information. Before the advent of modern technology, data was stored on clay tablets and paper. Today, however, information is stored digitally on memory devices such as flash drives, floppy disks, and cloud storage, making it easier to transfer and back up data. The widespread adoption of computers in the workplace has also led to the development of accounting software designed to automate routine tasks, further enhancing the efficiency and accuracy of accounting processes. These software programs have also made it easier for individuals to manage their personal finances, similar to the way professional accountants perform their duties.

THE INFLUENCE OF INFORMATION TECHNOLOGY ON ACCOUNTING

Computers, servers, the Internet, and wireless and personal digital devices have radically transformed how businesses operate. The integration of software applications into business operations has streamlined traditional processes and improved overall productivity. Accounting has been significantly impacted by the proliferation of information technology (IT). With the advent of accounting software, traditional paper ledgers and accounting books have been replaced, allowing for greater efficiency in financial management. These software systems come in various forms, including specialized applications and customizable generic programs tailored to the unique needs of businesses. The choice of accounting software is often determined by the size of the company and the number of users who will interact with the system. Large corporations typically implement enterprise resource planning (ERP) systems, which offer a comprehensive suite of functions, while smaller businesses may opt for standalone accounting software packages designed to handle essential accounting tasks.

IT has transformed the role of accounting departments, reducing the time required for accountants to prepare and present financial information. The traditional manual systems of accounting have been replaced with digital solutions that offer rapid processing of data, enabling timely reporting to management and other stakeholders. Information technology has not only reduced lead times but also enhanced the overall efficiency, accuracy, and accessibility of financial data[7].

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COMPUTERIZED ACCOUNTING SYSTEMS

One of the most profound impacts of IT on accounting has been the development of computerized accounting systems. These systems allow businesses to track and record financial transactions more efficiently than traditional paper ledgers. Computerized systems quickly convert individual transactions into financial reports, making it easier for businesses to analyze their financial performance. Many accounting software packages can be customized for specific industries or company needs, helping businesses generate tailored financial reports that inform management decisions.

The advantages of computerized accounting systems are manifold and can be broken down into several key benefits:

A. Increased Functionality

The functionality of accounting departments has been significantly enhanced through the adoption of computerized accounting systems. These systems allow for faster and more accurate reporting, which is crucial for management decision-making. Real-time access to financial data enables businesses to prepare a wide array of financial reports, such as cash flow statements, departmental profit and loss reports, and market share analyses. With these reports, management can make informed decisions that directly impact the company's operational efficiency and profitability.

B. Improved Accuracy

Computerized accounting systems are equipped with internal checks and balances that help ensure that all transactions are recorded accurately. Most systems automatically verify that debits and credits are balanced during the posting process, preventing discrepancies that could affect the accuracy of financial records. Additionally, access control measures within these systems limit adjustments to qualified personnel, further ensuring the accuracy and integrity of financial data.

C. Faster Processing

The ability to process large volumes of financial data quickly is one of the primary advantages of computerized accounting systems. Automated transaction processing has reduced the time

required to complete accounting tasks, such as closing monthly or yearly financial periods. In the past, these tasks were time-consuming and required substantial manual effort, but with computerized systems, accountants can close periods more swiftly and with fewer errors. This improvement in speed contributes to cost control and allows businesses to focus on other areas of operation, improving overall company efficiency.

D. Better External Reporting

The use of computerized accounting systems has also enhanced the quality of external financial reporting. Businesses now have the ability to generate more detailed and accurate reports for external stakeholders, including investors and regulatory agencies. These reports are vital for attracting potential investors, who rely on clear, concise, and accurate financial data to assess the financial health of the company. Such transparency can lead to increased investor confidence and more favorable market conditions for the company.

E. Software Tools in the Accounting Process

The role of software tools in modern accounting is indispensable. Accountants now need to be proficient in using a wide array of software programs to increase their efficiency and effectiveness in performing accounting tasks. Basic accounting software typically includes features for inputting, processing, and outputting financial data. These systems can be categorized as low-end or high-end software, depending on the complexity and scale of the business. Smaller businesses may use low-end software, which integrates all necessary accounting functions into one platform, while larger organizations may require high-end software with more advanced features.

F. Income Tax

Tax laws are frequently changing, making manual tax preparation more complex and time-consuming. Accounting software now includes tax preparation modules that automate tax calculations based on current tax regulations, making tax compliance faster and more accurate. The software can perform complex calculations that would otherwise require considerable time and effort from accountants. This automation reduces the risk of errors and ensures that

businesses comply with tax laws in a timely manner.

G. Audit

The auditing process has also been greatly improved by IT. Manual auditing was traditionally a lengthy and cumbersome process, but with the advent of audit software, auditors can now complete tasks more efficiently. For example, trial balance software allows auditors to enter the working trial balance, manage adjusting entries, and automatically generate the adjusted trial balance. This reduces human error and speeds up the auditing process, ensuring that financial statements are accurate and compliant with regulations.

H. Word Processing

Word processing software plays an essential role in the accounting profession, assisting accountants in the preparation of reports, financial statements, invoices, and other business documents. This software enables accountants to create and edit textual data more efficiently than manual processes, ensuring that documents are prepared quickly and accurately.

I. Graphics Software

Graphics software allows accountants to generate visual representations of financial data, such as charts and graphs. These visual aids can enhance the clarity of financial reports and make it easier for stakeholders to understand complex financial information. Graphical representations are especially useful for senior management and investors, who often rely on visual data summaries to make quick decisions.

J. Image Processing

The rise of document imaging systems has revolutionized how businesses manage their paper documents. Instead of storing physical copies of documents, companies can now scan them into digital formats for easy storage and retrieval. Document imaging significantly reduces the cost and time associated with maintaining physical files. Accountants can scan and organize receipts, contracts, and other important documents electronically, which not only saves physical space but also makes document sharing more efficient[8].

K. Electronic Data Interchange (EDI)

EDI technology enables businesses to exchange data and documents electronically, facilitating smoother transactions between companies. For example, purchase orders and invoices can be exchanged in digital formats, eliminating the need for paper-based communication. This reduces administrative costs and improves the speed and accuracy of business transactions.

L. Electronic Funds Transfer (EFT)

EFT systems have streamlined financial transactions by allowing businesses to send and receive payments electronically. Instead of writing physical checks or dealing with manual cash transactions, companies can use EFT to transfer funds between accounts in real time. When a business makes a payment or receives funds from a customer, the transaction is automatically processed and updated in the accounting system, reducing manual data entry and increasing efficiency.

The implementation of these IT systems has fundamentally changed how businesses manage their accounting functions. By automating key processes such as data entry, reporting, tax preparation, and auditing, businesses can now operate more efficiently, reduce errors, and make better-informed decisions. These systems also improve the overall cost-effectiveness of accounting operations by reducing the need for manual labor and minimizing human errors[9].

RELEVANCY OF COMPUTERIZED ACCOUNTING SYSTEMS

Organizations, whether private or public, profit-making or non-profit, large or small scale, utilize Computerized Accounting Systems (CAS) to support decision-making, and the accounting system varies based on the information required. In the past, accountants prepared the necessary information manually, which had several drawbacks. However, with the advent of Computerized Accounting Systems, accountants now have access to systems that offer various advantages, such as cost efficiency, improved system maintenance, greater productivity, convenience, and better payment tracking[10].

INFORMATION MANAGEMENT

There are numerous accounting information tools that assist accountants in simplifying tasks and providing high-quality information. Today, companies increasingly depend on the effective management and use of information to gauge their success or failure. Consequently, banks require robust Computerized Accounting Systems to efficiently manage information, thereby providing a competitive edge. An accounting system is a set of interrelated subsystems that collect, process, store, transform, and distribute information for planning, decision-making, and control. A prime example of this is the banking sector, where information technology-related products such as internet banking, electronic payments, secure investments, and information exchange have allowed banks to offer a wider range of services with fewer employees. Indeed, with computerized banking systems, more services can be delivered to customers within a short time, highlighting the importance of embracing Computerized Accounting Systems for their accuracy and speed[11].

Although the concept of quality in accounting systems is not new in Nigerian banks, its proper articulation and implementation remain a challenge. Despite the availability of accounting software, the banking industry often struggles to meet user demands, as they may not be able to provide timely and accurate information. The application of different accounting software can significantly influence the behavior of users of financial statements. Improper or untimely implementation of these software applications by accountants or auditors can negatively affect the behavior of users and the economy. Banks can use Computerized Accounting Systems in various ways and for several purposes; for example, deposits, account debits, and credits can be automatically processed[12].

Accounting information technology and management information systems (MIS), such as CAS, assist administrators in making financial reports and informed decisions. Furthermore, Computerized Accounting Systems enable secure inter-bank and international money transfers, facilitated by systems like the Society for Worldwide Interbank Financial Telecommunication

(SWIFT). However, one central issue for retail banks remains capturing and organizing account data from their many branches. Large retail banks manage thousands of branches, each performing a variety of account transactions, including cash deposits, withdrawals, transfers, cheques, and standing orders. Although many transactions still require signature verification, the primary function of computerized accounting systems in banking is to manage a comprehensive database of account information and facilitate money transfers. In the past, customers had to visit the branch where they opened their account to withdraw money. They would fill out forms, sign them, and present identification for verification. The advent of online systems allows customers to check balances, make deposits, withdraw funds, and transfer money at any branch of the bank. The introduction of Automated Teller Machines (ATMs) further increased convenience, enabling customers to perform typical banking transactions, such as cash withdrawals, account transfers, and bill payments, 24 hours a day[13].

THE RELATIONSHIP BETWEEN COMPUTERIZED ACCOUNTING SYSTEMS AND PERFORMANCE OF ORGANIZATIONS.

The introduction of computerized accounting systems has revolutionized access to financial services, allowing individuals to manage transactions from virtually anywhere. This has significantly boosted productivity in sectors such as banking, as well as in large organizations, including universities, government institutions, and corporations. For instance, universities, which handle large numbers of students, use computerized accounting systems to track payments efficiently. The traditional manual paperwork, which was costly in terms of labor, has been replaced by systems that require fewer staff members. These systems also provide real-time data, which improves decision-making and financial management.

In the banking sector, a variety of new services, known as electronic banking, have emerged as a result of accounting technology. These systems link balance reporting tools with treasury management systems and payment systems, facilitating more efficient operations. Common services offered by electronic banking systems include:

1. Cross-border and cross-currency bank account reporting and cash management.

2. Online access to banking services such as payments, currency dealing, trade finance, and account reconciliation.

Due to the specific needs of the banking sector, computerized accounting systems must include features that enhance liquidity management. These systems can alert bank head offices if a branch is offline, ensuring efficient liquidity management to maximize profit and comply with regulations. As Tam suggested, treasury managers need consolidated daily data on customer deposits, loans, and other fund placements to make informed decisions about reserve requirements and market activities[14].

Types of Computerized Accounting Systems

An accounting system is an integral part of an organization's information infrastructure, collecting and processing financial data. Traditionally, these systems provided financial information to external stakeholders like investors, creditors, and tax agencies, as well as internal management. In banking, the role of accounting systems is the same: to provide financial and non-financial information to external parties.

The input-process-output (IPO) model illustrates how accounting systems function, with information flowing through a series of tasks based on defined rules and decision points. Flow charts and process diagrams are often used to represent these workflows. Various types of information technology, including spreadsheets and relational databases like Microsoft Access, are used in accounting systems. While spreadsheets are useful for simple data manipulation, relational databases enable more complex data queries and analysis[15].

General Ledger Systems

General ledger systems are crucial for maintaining strong internal controls, often organized into modules that restrict access to employees based on their job responsibilities. This helps to prevent fraud. An example of a software package for managing general ledgers is Peachtree First Accounting. As Nickels noted, computerization simplifies financial reporting, enabling managers and employees to access reports when needed, which has led to increased reliance on information technology in the banking industry[16].

Information Technology in Accounting

Information technology (IT) encompasses a broad range of tools, including computers, microelectronics, and communication systems, which allow for the efficient execution of complex tasks. In the context of accounting, IT has facilitated the development of more flexible and adaptable systems, revolutionizing how financial data is processed and managed. However, many professionals in developing countries, like Uganda, have been slow to embrace these technologies, hindering their ability to compete globally in an increasingly digital economy. Laudon emphasized that technology, including computers and networks, has become a cornerstone of modern business, providing organizations with a competitive edge and improving staff productivity[17].

The Role of ICT in Small and Medium Enterprises (SMEs)

For SMEs to fully benefit from computerized accounting systems, they must have access to necessary infrastructure, such as reliable electricity, internet connectivity, and telecommunications systems. In countries like Tanzania, where ICT infrastructure is inadequate, SMEs often struggle to adopt these systems. Additionally, user perception plays a critical role in the adoption process. If employees perceive the system as complex, they may resist its use, as highlighted by Long & MacGregor, who pointed out that a lack of skills among the workforce can hinder ICT adoption[18].

Perceived Benefits of ICT

The primary motivation for adopting new technologies, including computerized accounting systems, is the perceived benefits they offer. Studies have shown that ICT adoption can lead to improved efficiency, reduced costs, and enhanced productivity. Organizations that embrace ICT benefit from faster and cheaper communication, better relationships with customers and suppliers, and more effective marketing strategies. However, the high initial costs of adopting such systems, including the expenses for equipment, installation, and training, can slow down adoption rates. Ernst and Young observed that higher adoption costs slow the pace of technological innovation, and two independent studies found a direct correlation between the

cost of adoption and the likelihood of technology uptake[19].

Reliability and Relevance of Information

For financial information to be valuable, it must meet certain quality standards: reliability, relevance, and comparability. Reliable information is accurate, verifiable, and free from bias. It should also be relevant to users, enabling them to make informed decisions. Comparability allows users to analyze financial data over time to identify trends and assess an organization's performance[20.]

THE ACCOUNTING PROFESSION AND ICT

The Role of ICT in the Accounting Profession

The accounting profession has evolved considerably with the advancement of Information and Communication Technology (ICT). Today, accountants use sophisticated technologies, such as Management Information Systems (MIS), to facilitate decision-making and strategic planning. These systems provide crucial insights, streamlining tasks like financial reporting and analysis. Integrating ICT into accounting education is essential to prepare future accountants to effectively manage these technologies.

REVIEW OF EMPIRICAL LITERATURE

Several studies have examined the impact of ICT on accounting functions. One study focused on how IT influences the completion of accounting tasks, analyzing the effect of IT-related organizational changes on the management accounting function. Using six qualitative case studies, the research explored how IT enhances accountants' ability to solve accounting tasks. Findings suggest that IT contributes to the decentralization of accounting roles, with the adoption of advanced management accounting techniques heavily reliant on IT infrastructure. Moreover, the study found that the benefits of IT in accounting only become apparent after prolonged implementation.

Another study assessed the effects of ICT on the productivity of public sector secretaries in Bayelsa State, Nigeria. Both primary and secondary data were collected, with primary data obtained through a structured questionnaire distributed to ninety-five secretaries. The data was

analyzed using econometric models, specifically multiple regression and diagnostic tests, with the reliability confirmed by Cronbach's alpha model. The study found a significant positive relationship between the use of computers, telecommunications, and video technology and the productivity of public sector secretaries. This study suggested that ICT adoption correlates with enhanced workforce skills, with firms using high levels of ICT also employing more knowledge workers, as well as integrating organizational innovations in efficiency and human resources practices. A simple random sampling technique resulted in a sample size of 143, derived through the Yaro Yamen model[21].

Research has also investigated ICT's impact on professional practices within Nigeria's construction industry. A survey of 180 professionals including architects, engineers, and quantity surveyors from southwestern Nigeria was conducted, yielding 107 completed questionnaires with a response rate of 59.4%. The results indicated that ICT positively impacts professional practices by simplifying tasks, facilitating decision-making, and reducing operational costs. Moreover, it was found to enhance communication, leading to improved decision-making, time savings, and cost reductions.

In a study examining the role of ICT in Barbados's accounting profession, data was gathered through a quantitative survey to evaluate the extent of ICT use in accounting. The cross-sectional design of the study indicated that while the adoption of advanced ICT techniques was limited, the primary uses of ICT included letter writing, email communication, data entry, bank reconciliation, financial statement production, and working paper preparation40. The content analysis revealed both positive and negative perceptions of ICT, indicating varying impacts on productivity and efficiency.

Further research explored the impact of ICT on internal auditors within Nigerian financial institutions. Data was collected through 510 semi-structured questionnaires distributed to internal control staff, with 218 valid responses supplemented by 23 interviews with executives from top financial institutions[22].

QUALITY OF ACCOUNTING INFORMATION

Quality refers to the capacity of a product or service to meet or exceed customer expectations, aligning required specifications with those utilized by a company. In accounting, information quality stems from the strength of the accounting information system, producing high-quality data that supports planning, control, and organizational operations. Reliable accounting information helps users make informed decisions, enhancing managerial understanding of organizational changes and enabling prompt and accurate responses.

High-quality information must be accurate, reliable, current, complete, and well-formatted. Hall identifies its characteristics as relevance, timeliness, accuracy, completeness, and summarization. Information quality can be divided into three dimensions: (1) Time, including timeliness, currency, frequency, and duration; (2) Content, encompassing accuracy, relevance, completeness, conciseness, scope, and performance; and (3) Form, which includes clarity, detail, organization, presentation, and media[23].

QUALITY OF THE ACCOUNTING INFORMATION SYSTEM

A system consists of interrelated components working together to achieve a common goal. An information system integrates people, hardware, software, data, and networks to support decision-making and control within an organization. Accounting Information Systems (AIS) specifically manage financial data, transforming it into actionable information for both internal and external users.

An AIS comprises interconnected activities, documents, and technologies that gather, process, and disseminate information across organizational departments. This computer-based system converts accounting data into meaningful information[43]. The system's quality is defined by adaptability, availability, reliability, response time, and usability, measured by factors like ease of use, system accuracy, flexibility, and customization. A successful AIS features reliability, usability, adaptability, trustworthiness, and maintainability, along with user satisfaction and regular use[24].

ICT, encompassing tools and applications accessible through computers, plays a crucial role in developing modern information systems. An effective information system is flexible,

user-friendly, and sophisticated, facilitating efficient work processes and enhancing organizational productivity. A flexible system is easy to learn, equipped with necessary features, and allows for adaptable modifications. Sophistication in a system includes the application of advanced technology, integration, user-friendliness, comprehensive documentation, rapid online responses, and minimal delay between data input and output. The successful implementation of an AIS is characterized by its regular use, user satisfaction, and the system's contribution to resolving daily tasks[25].

THEORETICAL FRAMEWORK:

Information Technology and Quality of Accounting Information Systems

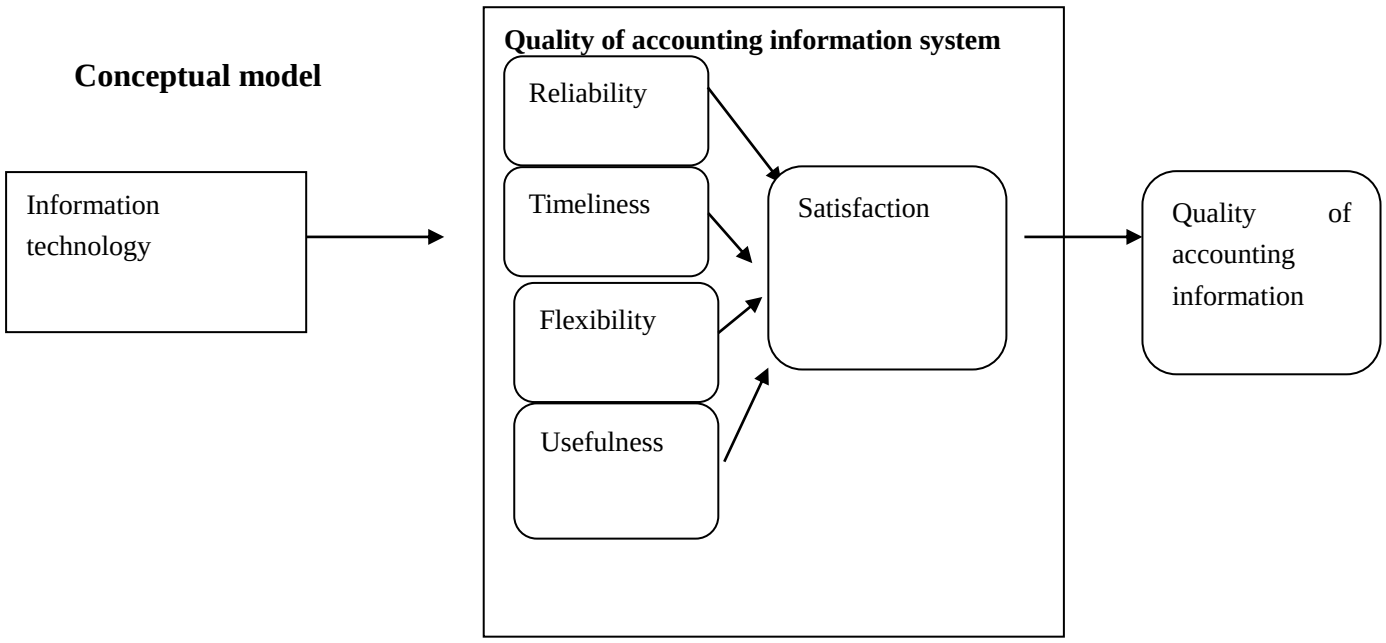
The quality of accounting information systems (AIS) is affected by factors such as information technology, business strategy, and organizational culture. The effective use of information systems requires a solid understanding of the organization, management, and IT. In business, IT serves as a critical tool for companies to locate, store, and modify information. IT supports information systems in fulfilling roles such as (1) business operations support, (2) managerial decision-making support, and (3) strategic competitive advantage. An information system provides data in reports for use by both internal and external stakeholders; this information management capability is essential for organizational decision-making[26].

The performance of an information system is influenced by infrastructure, technology, and IT within organizations. The success in managing IT functions is measured by their effectiveness, efficiency, and economic value. Research highlights the significant impact of IT on the success of AISs, especially within government organizations, where technological factors play a crucial role in supporting AIS application and use. Studies have shown that factors like system facilities, IT staff competencies, system integration, user support, and system structure substantially affect AIS success dimensions, including system quality, information quality, perceived usefulness, and user satisfaction. Among these, technology, staff competency, and system facilities are the most decisive for AIS success, followed by integration.

In the context of small and medium enterprises (SMEs) in Malaysia, the alignment of AIS is associated with several technological factors, such as IT maturity, the accounting and IT knowledge level of the owner/manager, their commitment level, the involvement of government agencies, and the use of public accounting firms. Company size and the presence of IT personnel are also critical factors in AIS alignment[27].

In accounting education, blogs facilitate ongoing discussions between accountants and clients or peers. Blogs enable the presentation, analysis, and collaborative problem-solving of accounting issues. Educational blogs support the development of knowledge, skills, and attitudes that students can apply in both professional and personal contexts. Traditionally, students were required to keep journals or diaries for reflective learning, but online edublogs have expanded this experience, allowing for interactive engagement with peers and external commentators as well.

Conceptual model



Sources: Observation and Empirical Studies

METHODOLOGY

The study adopts a descriptive survey design, which is particularly suitable for gathering information from a large group of individuals within the selected companies to draw inferences about the broader population and evaluate the influence of IT on the accounting sector. The population for this study consists of staff members from the Audit and Accounts departments of two key ministries in Ibadan that are relevant to the research focus: the Federal Inland Revenue Service (FIRS) and the Ministry of Finance in Ibadan, Oyo State. These ministries were selected due to their significant roles in the application of information technology within the accounting profession in Nigeria. The choice of these institutions is grounded in their prominence and influence on accounting practices at the national and regional levels. As such, the research population is expected to provide valuable insights into the impact of information technology on accounting processes in public sector organizations.

The study population is specific to the staff working in departments directly involved in financial management and accounting activities, making them well-positioned to provide the necessary data on how IT is integrated into their daily operations. The focus on the FIRS and Ministry of Finance ensures the research addresses the challenges and successes of IT application in prominent governmental agencies that play a central role in financial oversight and policy implementation[2].The research instrument used in this study is a closed-ended structured questionnaire, designed specifically to collect data on the impact of information and communication technology (ICT) on the accounting profession, as well as the challenges associated with its implementation. The questionnaire is divided into multiple sections to address the primary research objectives and test the hypotheses outlined in the study.

RESULTS

The data collected for this research are systematically presented in tables, utilizing descriptive statistics to summarize and interpret the findings. These statistics provide an organized and clear representation of the data, helping to reveal patterns, trends, and significant insights. The primary objective of the study was to answer the research problem, which was carefully

defined at the outset of the investigation. By analyzing the data through descriptive methods, the study seeks to address key questions, validate hypotheses, and contribute meaningful conclusions that align with the stated problem and research goals.

Table 1 The organization uses ICT for its financial transaction

	Frequency	Percent	Cumulative percent
Strongly agreed	41	68.33	68.33
Agreed	18	30.00	98.33
Neutral	1	1.67	100
Total	60	100	

According to the data presented in the table above, a significant portion of respondents, 68.33%, strongly agreed that the organization employs Information and Communication Technology (ICT) for its financial transactions. Additionally, 30.00% of respondents agreed with this statement, while a smaller group, 1.67%, expressed uncertainty, indicating they were unsure whether the organization utilizes ICT in its financial operations. Given that the overwhelming majority of respondents (98.33%) either strongly agreed or agreed with the statement, it is reasonable to conclude that the organization indeed incorporates ICT into its financial transaction processes. This suggests that ICT plays a key role in streamlining and managing the organization's financial activities, enhancing efficiency and possibly supporting greater accuracy and security in these operations.

Table 2: The implementation of Information technology has helped to improve financial transaction report of the organization

	Frequency	Percent	Cumulative percent
Strongly agreed	31	51.67	51.67
Agreed	24	40.00	91.67
Neutral	3	5.00	96.67
Disagreed	2	3.33	100
Total	60	100	

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Based on the data presented in the table above, a majority of respondents, 51.67%, strongly agreed that the implementation of Information Technology (IT) has significantly contributed to the improvement of financial transaction reporting within the organization. This indicates a positive reception towards the integration of IT systems in enhancing financial processes. In addition, 40.00% of respondents agreed with the statement, further supporting the view that IT has played a beneficial role in improving the accuracy and efficiency of financial transaction reports. On the other hand, 5.00% of the respondents were unsure or did not have a clear opinion on whether the implementation of IT has led to improvements in financial reporting. This group represents those who may lack sufficient knowledge or experience with the IT systems in place, leading to ambiguity in their responses. Furthermore, a small minority, 3.33%, disagreed with the assertion that IT has helped improve the financial transaction reporting of the organization, suggesting that a few individuals may perceive the IT implementation as ineffective or potentially disruptive to the financial reporting process.

This distribution of responses reflects a generally positive outlook on the impact of Information Technology on the organization's financial transaction reporting, though there remains some uncertainty and disagreement among a small segment of the respondents.

Table 3: The use of Information technology has enhanced the financial transaction process of the organization

	Frequency	Percent	Cumulative percent
Strongly agreed	29	48.33	48.33
Agreed	27	45.00	93.33
Neutral	2	3.33	96.67
Disagreed	2	3.33	100
Total	60	100	

The data presented in the table reveals that a significant majority, 93.33%, of respondents affirm that the integration of computer technology has positively impacted and improved the financial transaction process within the organization. This suggests that the adoption of

technological tools has streamlined, accelerated, or otherwise enhanced financial operations. On the other hand, a small proportion, 3.33%, remain undecided about the effectiveness of technology in improving these processes, while another 3.33% disagree with the notion that information technology has had a positive influence on the organization's financial transactions. Despite the small number of dissenting opinions, the overwhelming consensus points to the conclusion that computer technology has indeed played a crucial role in enhancing the efficiency and effectiveness of the financial transaction process in the organization.

Table 4: Adoption of Information technology has increased the efficiency of account and it staff member in the organization

	Frequency	Percent	Cumulative percent
Strongly agreed	34	56.67	56.67
Agreed	19	31.67	88.34
Neutral	5	8.33	96.67
Disagreed	2	3.33	100
Total	60	100	

The data presented in the table indicates a strong positive response from the participants regarding the impact of computer technology on the efficiency of the accounting department and its staff within the organization. Specifically, 88.34% of respondents agreed that the integration of computer technology has significantly enhanced the performance and operational efficiency of the accounting team. This overwhelming majority suggests that the use of technological tools has had a transformative effect on how the department functions, likely streamlining processes, improving accuracy, and enabling faster completion of tasks.

On the other hand, a small percentage of respondents, 3.33%, disagreed with this statement, implying that they may have observed little to no improvement in efficiency as a result of adopting computer technology. This could be due to various factors, such as inadequate training, challenges with the new system, or specific departmental needs that the technology did not address. Additionally, 8.33% of the respondents remained undecided, which could reflect

uncertainty or insufficient experience with the technology's impact. These individuals may need more time or data to form a definitive opinion on the matter. In conclusion, the majority view is clear: the adoption of computer technology has significantly boosted the efficiency of both the accounting department and its staff. This outcome suggests that investing in technology can lead to more streamlined workflows and better overall performance in organizational settings. However, the small percentage of dissent and indecision warrants attention to ensure that all staff members are fully supported during transitions to new technologies.

Table 5: There is audit trail for all financial transaction performed in the organization

	Frequency	Percent	Cumulative percent
Strongly agreed	39	65.00	65.00
Agreed	15	25.00	90.00
Neutral	4	6.67	96.67
Disagreed	2	3.33	100
Total	60	100	

As indicated in the table above, a significant majority of respondents, specifically 90.00%, affirm that there is a clear and accessible audit trail for every financial transaction carried out within the organization. This suggests a high level of transparency and accountability in the financial processes. On the other hand, a small portion of respondents, 6.67%, remain neutral or undecided on the matter, possibly indicating either a lack of familiarity with the auditing process or uncertainty about the extent to which it applies to all financial transactions. Furthermore, 3.33% of respondents strongly disagree, suggesting that a minor group of individuals may either question the effectiveness or completeness of the audit trail system. Nevertheless, the overwhelming consensus supports the presence of an audit trail for all financial transactions within the organization, which is essential for ensuring financial integrity, regulatory compliance, and accountability in the organization’s operations.

SUMMARY OF MAJOR FINDINGS

This study explores the impact of information technology on the accounting profession in Nigeria, with a focus on two selected organizations: the Federal Inland Revenue Service and the Ministry of Finance in Oyo State. The findings from the data analysis, which are aligned with the objectives set out in the study, are as follows:

(a) The application of information technology significantly affects the financial transaction reporting process within the selected companies, as indicated by the empirical results obtained during the study. This suggests that the automation of accounting processes through computer technology leads to more accurate and efficient reporting, reducing human error and improving the timeliness of financial reports.

(b) Based on the analysis, 95% of respondents agreed that the integration of information technology has had a profound and positive impact on the financial performance of these organizations. This finding highlights the crucial role that technology plays in streamlining financial operations, improving decision-making processes, and driving overall performance within these organizations.

(c) The study also reveals that there are significant challenges associated with the adoption of information technology in the accounting profession in Nigeria, particularly within the selected companies. These challenges may include resistance to change, high costs of implementation, lack of adequate technical support, and insufficient training for accounting personnel. Despite these hurdles, the overall benefits of information technology outweigh the difficulties, as it enhances the capacity for data management and accuracy in financial reporting.

(d) The analysis further demonstrates that 90% of the respondents believe information technology is critical to the training and development of accountants in Nigeria. This finding is consistent with the chi-square statistical results, which confirm that technological skills are essential for accountants to remain competitive and effective in their roles. The

use of computer technology in accounting training enhances the skills of accountants and prepares them for modern challenges in financial management.

CONCLUSION

The results of this study clearly indicate that information technology plays an essential role in the accounting profession in Nigeria. It is indispensable for the efficient management and reporting of financial transactions, which is crucial for the survival and competitiveness of organizations. The integration of information technology allows companies to improve the accuracy and efficiency of their financial reporting, helping to optimize financial performance. While the implementation of computer systems in accounting faces certain challenges such as the need for technical infrastructure, skilled personnel, and overcoming resistance to change the benefits far outweigh these obstacles. Organizations should continue to work towards improving their IT systems and addressing the barriers to full integration. Furthermore, information technology is a fundamental component of accountant training, as demonstrated by the chi-square test, and its importance in building the technical competencies required for today's financial landscape cannot be overstated. With information technology in place, companies can process and analyze larger volumes of data more quickly and accurately, reduce errors, and store financial information for long periods. This also facilitates the easy retrieval of past financial data, enabling companies to make better-informed decisions and review their historical financial performance more efficiently.

RECOMMENDATIONS

The findings of this study underscore the critical role of information technology in the continued growth and success of the accounting profession in the 21st century. The integration of information technology is not merely a luxury but a necessity for accounting

professionals to keep pace with modern trends and enhance the overall performance of their organizations. Based on these results, the following recommendations are made:

- Companies should prioritize the training and development of their workforce, especially in areas related to information technology and software used in accounting. This can be achieved through ongoing professional development programs and technical workshops designed to equip accountants with the latest tools and skills.
- Organizations should encourage collaboration between accountants and IT professionals to design and implement more advanced computer systems tailored to the unique needs of the accounting profession. By working together, these professionals can create new programs and applications that streamline accounting processes, reduce manual workloads, and improve financial reporting accuracy.
- Given the importance of information technology in accounting, the Nigerian government and regulatory bodies should consider providing incentives for organizations that invest in advanced accounting systems and promote the digitalization of financial services. This could include tax breaks or grants for companies that adopt cutting-edge financial technologies.
- Finally, companies should allocate sufficient resources to maintain and upgrade their information technology infrastructure, ensuring that systems are continuously updated to meet evolving technological demands and compliance requirements. Regular audits of IT systems and accounting software should be conducted to identify and address potential vulnerabilities or inefficiencies.

By implementing these recommendations, organizations can ensure that they are equipped to handle the complexities of modern financial management and continue to thrive in an increasingly digital business environment.

ENDNOTES

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