

THE EMERGING ROLES OF ACCOUNTANTS AND AUDITORS: THE IMPERATIVES OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) SKILLS.

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Abstract

This paper examines how information technology could aid accountants and auditors in the performances of their responsibilities. In doing this, the roles of accountants and auditors as well as the benefits of applying information technology (IT) in the duties of accountants were discussed. The various IT tools relevant for the actualization of the functions of accountants and auditors, as well as the challenges encountered in the IT implementation, were also discussed. The paper amongst others recommends that IT is inevitable and consequently should be embraced by all accountants. It further recommends that professional bodies should make IT skills acquisition mandatory as part of requirement for the award of professional certificate. It also recommends that accountants and auditors should continuously undertake trainings in IT in order to update their skills.

Key Words: *Information Communication Technology (ICT), Accountants, Computers.*

Introduction

In recent times the roles of accountants have expanded from mere record keeping to the provision of sophisticated information required for decision making. Moreover, the complexities in the manner business is run these days, the nature of competition as well as the associated risks in business undertakings have mounted pressure on providers of information to shift their bars. Consequently, in order to cope with the unending challenges of providing these information, the deployment of information technology becomes inevitable. Furthermore, the advent of information technology has brought about changes in the way people think, act and do business. In the same vein it has also brought monumental changes in the way accountants and auditors perform their duties. For instance in the past, accounting work was done manually with large volume of paper work and movement of files from one location to another. However, in recent times the bookkeeping aspect of accounting function is fast disappearing and being replaced with a more sophisticated information technology. At the same time manual analysis of financial reports is being replaced with robust software that can do the analysis with speed and thereby reduce the time in which the report is produced. Thus in the words of Anderson (1990), 'the up-to-date technology and its associated methods and techniques reduce the time information takes to flow to the various parts of an organisation, and so enable the business to conduct its activities in a more efficient manner and retain its competitiveness'. According to Taiwo (2016), it is necessary to acknowledge that computerized systems have improved the functionality of accounting departments. By so doing has increased the timeliness of accounting information which enable accountants to prepare reports and operations analysis which give a clear picture of current operations, useful to the management. Records are kept and tracked more effectively with the use of computer system.

In an organisation there are two stakeholders, the providers of funds (capital) on one hand and the managers of the funds on the other. The managers usually maintain records of activities and at the end of the period provide reports to the providers of the fund. In view of the fact that there may be problem of confidence on the records and information provided by the Accountants to the owners, a third party (auditors) who is independent of others is brought in. The auditor plays a very important role in authenticating the financial information provided by the accountant. It is the Auditors' opinion that will persuade the users of financial information to rely on it for any decision.

Arising from the challenges and complexities involved in processing financial information, the deployment of relevant information technology cannot be overemphasized. Thus the methods, strategies and skills

adopted in the information generation, storage and retrieval imposes on the accountant the necessity to be up-to-date in order to function effectively. Hence accountants are mandatorily required to acquaint themselves with basic IT skills in order to be useful in the global market where everybody seems to be crazy about information technology. On the other hand, the auditors (who are accountants) must also have sound understanding of IT in order to be able to perform their statutory responsibilities.

Objectives of the study

This paper is written to underscore the importance of information technology (IT) in the services rendered by accountants and auditors; and at the same time stimulate the interest of accountants in the acquisition of relevant skills in information technology in order to remain relevant in their professional functions. In summary, this paper is aimed at achieving the following objectives:

- a) To sensitize the accountants/auditors on the need to understand the importance of information technology in enhancing operations,
- b) To discuss how the performances of accountants can be enhanced through the use of IT.
- c) To discuss how the knowledge of IT can enhance the operations of auditors.
- d) To stimulate the interest of accountants in understanding the basic rudiments of IT.
- e) To make recommendations on how to improve the use of IT by accountants in their work environments.
- f) To evaluate the impact of current operating environment on the work of accountants.

Statement of the Problem

The burden of acquisition of IT skills imposed on accountants and auditors has generated widespread interest from practitioners and researchers. This is in view of the fact that accountants play important roles of presenting financial information which is adjudged to be free of errors or biases. Consequently, there is the problem of whether accountants and auditors have actually understood the importance of acquiring IT skills as a panacea to the unending challenge of adapting to global standard of best practice in the accounting profession. Thus this research is an ex-post facto research that seeks to explore the benefits of acquiring IT skills as part of qualification to function effectively as accountants and auditors.

Literature Review

Conceptual Framework

Overview of the roles of Accountants

Accountants are those that have been adequately trained in the science of accounting. They possess a degree in accounting. When they possess professional certificate, they are described as professional accountants. Generally, accountants play very important roles in managing the financial information of organizations. Accountants' roles cut across all sections of organizations. This is in view of the fact that every activity of any section narrows down to money which must be accounted for. To this extent, the impact of accountants is felt by every unit in the organisation. Accountants help to ensure that organisations are run efficiently, public records are kept accurately, and taxes paid and on time. They analyze and communicate financial information for various entities such as companies, individual clients, and governments. Apart from the different functions mentioned above, accountants perform the following roles in organisations:

- a) Maintenance of adequate records relating to economic activities of an organisation.
- b) Analyses and presentation of financial information in line with statutory requirements.
- c) Provision of information for decision making
- d) Managing the financial assets of organisations.
- e) They enhance the implementation of all financial policies of organisations.

The information provided by accountants is useful in the following areas:

- a. To present to potential investors and creditors in making rational investment and credit decisions.
- b. To help investors and creditors assess the enterprise prospects of obtaining net cashflows through its earnings and financial activities.
- c. To identify economic resources of an enterprise which are:

- I. Sources of prospective cashflow to the enterprise.
 - II. Its obligations to transfer economic resources to others, which are causes of prospective cash outflows from the enterprise.
 - III. Its earnings which are the financial results of its operations and other acts.
 - IV. Conditions that affect the enterprise.
- d. It is also useful for:
- I. Judgement of management's performance.
 - II. Forecasts
 - III. Social accountability.
 - IV. Degree of attainment of organizational goals in non-profit organizations.

Accountants can be classified into two:

- a. **Public Accountants:** Public accountants perform broad functions such as auditing, tax, consulting for clients, which may be governments, nonprofit organizations or individuals. This group of accountants may specialize in areas such as advising companies on the tax advantages and disadvantages of certain business decisions and preparing individual income tax returns. They also consult in areas such as design of accounting and data processing systems, selection of controls to safeguard assets, etc.
- b. **Government Accountants:** Government accountants work in public sector, maintaining and examining the records of government agencies. They also audit private businesses and individuals whose activities are subject to government regulation and taxation. They ensure that revenues are received and expenditures are made in accordance with laws and regulations. Those employed by government work in Office of Accountant General, Auditor General, Ministry of Finance, Inland Revenue Service, etc.

Moreover accountants' roles can also be seen from the areas of specialization. Thus, we have:

- a) **Financial Accountants:** They are concerned with the recording of activities that have taken place in the past. These records are used to report activities through preparation of financial statements such as Profit and Loss accounts, Balance sheet, cashflow, value added statement, etc. The purpose here is to enable users know the state of affairs of the enterprise over the last one year.
- b) **Management Accountants:** Their responsibilities include budgeting, performance evaluation, cost management and asset management. Usually management accountants are part of the executive teams involved in strategic planning or development of new products. The information generated by management accountants are used by management for planning, decision making, controls and performance evaluation.

The Roles of Auditors in Organisations

Auditors are outside accountants engaged by the board of an organization to review the financial statement prepared by organizations' staff. The auditors' main duties are to judge the accuracy of financial statement and report back to the board. To do this, auditors usually examine some typical transactions and review internal controls, accounting procedures and financial reporting systems. Auditors are on the whole very knowledgeable with every aspect of auditing and they in turn issue a report known as auditors report.

Auditors help management to manage corporate affairs providing guidance on various issues ranging from financial accuracy to internal controls to regulatory compliance.

- a. **Internal Controls:** In corporate setting, top management generally keep a close eye on departmental heads. Senior executives establish policies and procedures calling on auditors to provide guidance on the effectiveness and adequacy of internal controls. Internal controls help a firm prevent losses that may result from fraud, theft and operating errors. Effective controls remedy internal problems properly. Adequate policies clearly indicate to employees how to make decision and report problems.

- b. *Financial Review:* The review of a company's accounting processes is usually the job of external auditors. These reviews sift through financial reports across the corporate landscape focusing on performance metrics in significant business units or segments. Auditors check corporate accounting data summaries to ensure completeness and compliance with generally accepted accounting practices.
- c. *Regulatory Monitoring:* Auditors help organizations save money by identifying illegal activities and other instances of regulatory nonconformity. Performing systematic in-depth review of corporate controls helps auditors ensure that a company does not come under a regulatory scrutiny.
- d. *Report Findings:* After analyzing documents and interviewing employees, auditors create detailed reports and discuss their findings with management and executives. Any red flags or issues in these reports need to be addressed by the proper agencies. Based on this information, an auditor makes recommendations to management on how to reduce waste and improve balance sheet. These findings generally allow organizations to improve their financial operations and activities.

There are mainly two classes of auditors:

- a) **The External Auditors:** These are independent auditors that are called from outside the organization to assess and evaluate financial statements of their clients to ascertain whether the information provided in the financial report reflect the actual transactions that took place. They are mostly employed for a period of one year and can be renewed at the end of every year.
- b) **Internal Auditors:** These are the employees hired by the organization to assess and evaluate the internal controls required by the company. They report directly to top management or Board of Directors.

In summary, internal auditors perform the following functions:

- a) Provide comfort to management that operations are well-managed, efficient and within the bounds of applicable laws, regulations and policies.
- b) Identify weaknesses in business practices and management systems and recommend improvements.
- c) Identify opportunities to reduce expenditures, increase revenues and better protect government's assets.
- d) Ensure that financial assets and information are safeguarded;
- e) Ensure that information available is accurate and reliable;
- f) Verify that resources are employed efficiently and economically;
- g) Ensure continuity of operations.

Concept of Information Communication Technology (ICT)

According to Anderson (1990), information technology covers the harnessing of electronic technology for the information needs at all levels. It embraces all aspects electronic technology such as microcomputers for the processing and storage of information, application of electronic spreadsheets and business modelling programs as well as word processing. In summary information technology is concerned with the use computers and other electronic devices to generate, process and store data as well as communication of such data to the intended users. World Bank (2002) as cited in Adejola (2011) defines information communication technology as the set of activities that facilitate the capturing, storage, processing, transmission and display of information by electronic means. Lucey (1995) defines information technology as the acquisition, processing, storage, and dissemination of vocal, pictorial, textual, and numeric information by micro-electronics based combination of computing and telecommunications. Arising from the introduction of information technology, the role of bookkeepers has largely disappeared. Consequently, accountants are now concerned with preparation of financial data for input into the computers and analyzing the printed results such as the payrolls, stock reports, cost summaries, budget reports and a host of other activities. Information technology is synonymous to computers. Olufuye (2009) defines computer as an electronic device that accepts information (in the form of digitalized data) and manipulates it for result

(output) based on a program or sequence of instructions on how the data is to be processed. Gupta (2008) as cited in Amanamah, Morrison & Asiedu (2016) defines computer as a programmable machine that responds to a specific set of instructions in a well-defined manner and can execute a re-recorded list of instructions.

According to Adejola (2011), information technology comprises of the hardware, software and human ware. It is the entirety of the computer applications. Information Communication Technology (ICT) is seen as a term which generally covers the harnessing of electronic technology for the information needs of business at all levels. It also embraces the use of interactive 'viewdata' database systems. This has been so termed because once information has been accessed and displayed on the screen, one can be able to book hotel accommodation or order products in a supermarket by means of keypad. This allows interchange of information between different parts of an organization whilst sharing central resources such as database (Anderson, 1990).

The key aspects of application of information technology in the accounting and audit activities are:

Financial modelling using spreadsheets:

Anderson (1990), defines a spreadsheet as an electronic analysis sheet for solving many different types of problem by computer. A spreadsheet greatly assists the work of accountants by providing a speedy method of obtaining solutions to particular types of problem. Spreadsheet are widely used for developing financial models relating to:

- a) Marginal costing and breakeven analysis;
- b) Analysis of profit and loss account and balance sheet for computing financial ratios;
- c) Unit cost computations;
- d) Analysis of periodic financial results such as proportion of sales and profit for each product;
- e) Monthly profit projections based on specified growth rates and cost levels; and
- f) Cashflow computations for investment analysis based on net present value for choosing alternative investments.

Accounting software:

Business Dictionary defines software as an organized information in the form of operating systems, utilities, programs, and applications that enable computers work. It consists of system software which controls the basic functions of a computer and are usually preinstalled with the machine. The second category is the application software which handles multitude of common and specialized tasks a user wants to perform. For instance, apart the Microsoft packages there are a host of software developed for applications in accounting environment such as sage, Peachtree, QuickBooks and so on. Accounting functions can be operated effortlessly using any of the above packages. The only requirement is the knowledge of the package.

Networking

This is the interconnection of computers. The availability of network in an accounting environment allows the flow of information from desk to another. For instance, vouchers, ledgers are electronically transmitted from table to table without being carried physically. Reports are also distributed through networks.

Database

A database consists of records containing details of a particular person, employee, account, product or stock item, collectively referred to as file. Database is important in that it allows files to be created for each tasks and analysis and retrieval is made possible. This tool enables accountants to create appropriate database for its activities.

Importance of ICT to Accountants and Auditors.

From the discussions so far, it is evident that the roles of accountants and auditors are very enormous. The tasks performed by these professionals are too complex to be handled manually particularly in a changing environment where information management continually impose challenges on a daily basis. To this extent,

having a thorough understanding of ICT is of absolute necessity. According to Lucey (1995), computers are good at rapid and accurate calculations, manipulations, storage and retrieval of information. The up-to-date technology and its associated methods and techniques reduce the time information takes to flow to the various parts of an organization and so enable the business to conduct its activities in a more efficient manner and retain its effectiveness. Technology is rapidly changing the nature of the work of most accountants and auditors. With the aid of special software packages, accountants summarize transactions in the standard formats of financial records and organize data in special formats employed in financial analysis. These accounting packages greatly reduce the tedious work associated with data management and recordkeeping. Thus Amanamah, Morrison & Asiedu (2016), states that computerized accounting system automate the accounting process, enhancing productivity and cutting down expenses. The computerized accounting system has replaced manual-based accounting in virtually all businesses and organisations, providing accountants, managers and stakeholders, access to vital accounting information at the touch of the button. Computers enable accountants and auditors to be more mobile and to use their clients' computer to extract information from databases and the internet. As a result, a growing number of accountants and auditors with extensive computer skills specialize in correcting problems with software or developing software to meet unique data management and analytical needs. According to Amiri & Amiri (2014), presently, accountants are potentially able to create added values for economic units. Computers represented a more efficient way to keep documents and books, leading to faster access of accountants to financial for reporting purposes. According to Surya (2012), the implementation of an IT improves information flow, reduce costs, establish linkage with suppliers and reduce response time to customer needs.

Special Areas of Challenge

The responsibilities of Accountants include generating, processing, storage and retrieval of economic data. This requires the use of computers in order to be able to carry on these activities and produce timely and accurate reports. Hence accountants should acquaint themselves with basic computer knowledge, which will facilitate the achievement of the objectives.

The following areas are considered as the flash points that require specific knowledge of computer before one is able to function effectively:

- a. *Storage and Retrieval of Data:* This involves entering basic financial data into system and also retrieval of such data at any time it is required. The data can be manipulated to achieve the desired purpose. This can be done using either Microsoft Excel or Word. To this extent, the accountant/auditor should have basic knowledge of micro soft word and excel.
- b. *Accounting Packages:* Various accounting packages have been developed to help accountants facilitate the processing of accounting information. Some of the packages include Peachtree, QuickBooks, Lawson, Sun, Safe, etc. These packages are capable of processing accounting data, generate necessary reports and store such data. Such reports include Profit and Loss Account, Balance Sheet, Cashflow, Value Added Statement, Fixed Asset Register, payroll, stocks, sales, and so on.

The key factor in each of the packages is that of the availability of chart of accounts. Chart of accounts is a list containing the all items of income, expenses, assets and liabilities. Chart of accounts of is a guide to the storage and retrieval of accounting data. Every software has arrangement that allows entry of items. The report section indicates the types of reports that can be generated from time to time at a click of a button. In view of these enormous benefits, it is inevitable that accountants should acquaint themselves on the use of any of these packages.

- c. *E-Payments:* The accountants face challenges involving the electronic payment system known as e-payment. The e-payment since being introduced in Nigeria has enjoyed tremendous acceptability. Hence all operators are daily trying to see how they can operate within the system. Are accountants exempted from the trend?

- d. *Office Correspondences:* Most office correspondences are done through the network or terminals. Here correspondences flow through Microsoft office or Internet to the recipient. Hence one needs to have the basic computer skills in order to function in the office.
- e. *Internet Banking:* This method involves transacting banking activities through the Internet. Payment can be made, account balances checked and statements printed online real time. This will reduce the burden of transacting business manually. Accountants can also be involved in all these.

To the Auditors

The basic computer skills are not only a matter of necessity but a must if an Auditor must be able to function in that capacity. The modern day businesses, activities, operations or functions are performed through computer systems. Hence to conduct audit of a computer environment, the auditor requires advance knowledge of IT packages applicable to the auditing functions. The auditors are by implications expected to have higher competence and skills than ordinary accountants. This is the only way auditors can make meaning in their work. There are many auditing packages that auditors should acquaint themselves with. The commonest of the all is Computer Assisted Audit Techniques.

A computer assisted audit techniques (CAATs) is a precise and systematic review that uses technology to isolate relevant data and eliminate repetitive work or inefficiencies that can occur under a traditional and manual audit. Using data directly helps to prevent the introduction of errors commonly associated with entering data and makes evaluation of the result easier for everyone involved. Using professionals trained in CAATs minimizes demand on the IT department and gives the Auditor true independence in data analysis.

Computer Assisted Audit Techniques including computer tools, collectively referred to as CAATs may be used in performing various auditing procedures, including the followings:

- a. Tests of detailed transactions and balances, for example, the use of audit software for recalculating interest or extraction of invoices over a certain value from computer records.
- b. Analytical procedures, for example, identifying inconsistencies or significant fluctuations.
- c. Tests of general controls, for example, testing the set-up or configuration of the operating system or access procedures to the program libraries or by using code comparison software to check that the version of the program in use is the version approved by management.
- d. Sampling programs to extract data for audit testing;
- e. Tests of application controls, for example, testing the functioning of a programmed control; and
- f. Repeating calculations performed by the accounting system.

CAATs are computer programs and data which the Auditor uses as part of the audit procedures to process data of audit significance contained in an entity's information system. The data may be transaction data, on which the Auditor wishes to perform tests of controls or substantive procedures, or they may be other types of data. For example, details of the application of some general controls may be kept in the form of text or other files by the use of CAATs to review those files to gain evidence of the existence and operation of those controls.

Challenges of IT Skills Acquisition by Accountants

The acquisition and installation of information technology infrastructure is a very cost intensive project. As a consequence, it is not always feasible to automate operations where profit is not sufficient to pay for the cost. This accounts for why financial institutions with expected high profits are able to acquire and install the facilities. Information technology (IT) is not very good at qualitative work where genuine judgements is required. This implies that no matter how beneficial IT could be to organisations it cannot replace the humans in terms of judgements. Another important but often overlooked challenge of IT is the government policy. This is important in that where the policy does not favour certain activities, there is nothing anybody can do. Thus limitations accountants encounter by accountants in the application of IT in their work depends to a reasonable extent on the operating environment.

Policy Issues and Recommendations

There is no contradiction to say that accountants cannot function effectively without information technology (IT). In the modern age there could be no accounting without computers. Consequently the need for accountants and auditors to acquaint themselves with the basic computer skills cannot be overemphasized. However, in order to achieve this novel goal, the accountants must be adequately motivated. This can be achieved by creating a conducive environment for creativity and innovation as well as provision of enough facilities such as computers, laptops, internet facilities and accessories. Constant and regular training of accountants should be conducted from time to time. There should be proper automation of functions or activities. Government offices should respond to need of the time by automating their activities. This will challenge the accountants working in government to strive to acquire IT skills. The professional bodies such as Institute of Chartered Accountants of Nigeria (ICAN), Association of National Accountants of Nigeria (ANAN) should consider the acquisition of skills in information technology as an important requirements for the award of professional certificate. This also goes for higher institutions to consider IT skills as part of requirement for award of degrees in accounting.

The cost of acquiring information technology facilities is too prohibitive for individuals who may want to acquire the knowledge on their own. Consequently, government and others should assist interested accountants to provide scholarship for such trainings.

There is need for continuous training of accountants and auditors in order to update their existing skills with current global best practices. This is premised on the fact that globalization is bringing about different challenges which requires new skills to address.

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