

Impact of ICT Tools on Audit Process of Corporate Organizations in Nigeria

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Abstract

The dynamism in the global business environment has introduced a dramatic change in the Nigerian business environment. Corporate organisations have therefore increased their need for new ways to succeed and survive. Corporate organisations deployed various ICT tools in order to address the problems pose by disparate applications within functional areas and to achieve competitive advantages, as a result, auditors have been force to introduce and utilize various computer-based tools to assist their work. This study assesses, from an exploratory grounded theory approach and theoretical perspective, the impact Information and Communication Technology tools are currently having on Audit process as a whole. This includes audit task from the external auditors and the corporation they work for from the point of view of coordination, control, authority and structure. The focus is to identify whether changes exist when auditing an ICT-deployed environment compared to a traditional non ICT corporation and if such changes are beneficial to the auditors. The finding indicates that ICT tool is rapidly reshaping auditors role and output as well as audit organization structure which in turn, tremendously affect the audit process and procedures. The result further confirms that increase in control risk in auditing is eminent with the deployment of ICT tools. While the auditors appreciate the potentials of ICT tools functionalities in terms of efficient access to information, timely audit trail, improved audit quality and efficiency, the problem of data integrity is of utmost concern.

Keywords: ICT tools, Audit process, ICT environment, ICT Corporation

INTRODUCTION

The competitive pressure unleashed by the process of globalization, deregulation, privatization, merger and acquisition has introduced a dramatic change in the business environment. This has increased the need for companies to search for a new and better ways to survive and succeed (Spathis & Constantinides, 2004). One of the most important implementation of competitive strategy today is the “Business Process Re-engineering (BPE) most often simply called re-engineering. Re-engineering is a fundamental rethinking and radical redesign of business processes to achieve dramatic improvement in cost, quality, speed and services (O’Brien, 2004). It combines a strategy of promoting business innovation with the strategy of making major improvement to business processes so that a company can become a much stronger and more successful competitor in the market place. Innovative information and communication technology (ICT) offers the required tools that will aid the re-engineering process and enable corporations to respond effectively and efficiently to the dynamic nature of the business environment (Nicolou, 1999). ICT tools provides a cross-functional infrastructural system that serves as a framework to integrate and automate many of the business processes that must be accomplished within the operations, production, logistics, distribution, Accounting, Finance and Human resource function of the business (ICAN study pack; 2004). ICT tools provided the basis for corporate business re-engineering, automation and integration of production, accounting, finance, distribution, logistics and human resources in the business process.

Information and Communication Technology tools have the potentials to facilitate both vertical and horizontal integration of business processes across a corporation through a system driven by synchronized suite of software modules that support the basic internal business processes of a corporation (Hunton, J, Wright. A and Wright. S, 2004). Thus, if the relevant ICT tools are deployed and successfully implemented, it can enable corporations to better manage supply chain, perform business re-engineering processes and reorganize their accounting processes along with different other functions (Herberman and scheer, 2004). ICT tools solution providers such as Microsoft, SAP, Oracle etc. do refer to themselves as e-

business providers. The reason according to O'Brien (2004) is that ICT tools are the technological backbone and forerunner of the e-business concept- a corporation-wide transaction framework with link into sales order processing, inventory management and control, production and distribution planning, accounting and Finance. In addition, ICT is becoming a necessary tool for corporations to remain competitive in this dynamic business environment rather than constituting a new strategic move. Its potentialities of combining information islands in different parts of a corporation will enable a corporation to have an integrated real-time view of its core business processes, track business resources (such as cash, raw materials, production capacity, etc.), and the status of commitment made by the corporation (such as customer order, employee payroll, etc.) no matter which department (production, purchasing, sales, accounting, finance, etc.) has entered the date into the system. The expectation is that it will provide real-time information on business processes. This expectation is engendered by the need for managers to have up-to-date information for decision making.

However, the changes in business processes that usually accompanied the deployment and implementation of ICT tools bring about changes in the internal control and separation of duties (Hunton et'al, 2004). Corporations such as Coca-Cola, Guinness, Nigeria Breweries, Nestle, etc., all experienced changes in their business processes at the introduction of major ICT tools. No doubt, corporations may need to make essential changes for the successful deployment and implementation of relevant ICT tools. Such changes brought about by deployment and implementation of relevant ICT tools affects the ways auditors perform their duties (Helms, 1999). In other words, ICT tools deployment and implementation influences business processes by providing real-time information for decision making. To inspire confidence in, and ensure validity of this real-time information, there is the need to align the mechanism of assurance with the prevailing changes. Traditionally, this assurance comes in the form of AUDIT. Again, Wright.S and Wright A.M (2004) observed that auditors are faced with the daunting task of auditing in such an ICT environment where internal control systems seem compromised. Accordingly, they noted that ICT tools deployment and implementation in many corporations has led to increased audit related risk due to automated interdependencies among business processes and integrated relational database. Hence, as technology knowledge persisted, Auditors may need to expand their technological knowledge and skills in order to perform effectively and efficiently in audit functions. ICT tools enable corporations to significantly increase the volume and complexities of transactions processes which concurrently complicates the audit process. According to a survey done by Bagranoff and Vendrzyk (2000), many auditors are of the opinion that academic accounting and MIS or ICT department (as the case may be) needed to merge to be able to produce the ideal job candidate that can successfully face the current challenges. While this seems to be an ideal suggestion, there is need to juxtapose the relevant ICT tools and the audit process, ascertain and appraise the impact it has on audit process in order to make headway.

ICT tools deployment and implementation have a dramatic impact on virtually every phase of the business process- including the Audit process, which in turn increased the potentials for control weakness resulting to financial statement errors, leading to increase audit risk. This could jeopardize the reliability, integrity and objectivity of the auditors' assessment. Hence, Auditors need to adjust to cope with the ever changing trends brought about by the deployment and implementation of the relevant ICT tools. This is necessary because the changes are usually inconsistent with the traditional audit system. Auditors are faced with the situation of relying on internal control processes which are possibly, weakened by this ICT tools. Auditors must therefore, expand their technological know-how and skills, devise more effective and efficient audit approach by taking advantages of technology and design different types of audit test tools to respond to new business processes emanating from the deployment and implementation of this relevant ICT tools. ICT tools pose a serious threat to the economic viability of auditing. Auditors will need to change their mindset and embrace a continuous reporting environment while acquiring and updating the requisite technical skills and knowledge of the subject matter to meet the demands that emanates from the environmental dynamism.

Generally speaking, for real-time data to be assured, and for that assurance to be feasible, audit approaches and tools need to be tightly incorporated within corporation systems. It is therefore pertinent to understand how ICT tools are affecting auditors work and responsibilities. Although several researchers have advocated the need for auditors to adapt to the changes brought about with ICT evolution, understanding how these changes affect auditors and audit processes is of utmost significance. Furthermore, it is essential to understand how these changes can improve the work of the auditor or otherwise. This means that truly, there is the need to look, analyze and appraise the impact of ICT tools on the audit process of corporations in Nigeria. Quest for increased reliability, integrity, objectivity, independence, efficiency, effectiveness and professionalism in the audit profession by users of financial statement has present enormous challenges to the audit profession. For an auditor to justify his raison d'être, he must rise to the challenges presented by the relevant ICT tools. Objectively therefore, this study intends to examine the impact of deploying and implementing relevant ICT tools in Nigerian corporations, and also to understand how changes in business processes brought about by ICT tools can influence, affect or benefit the audit process.

LITERATURE REVIEW

Conceptual Discussions

Concept of Auditing

The American Accounting Association Committee on Basic Auditing Concepts defined auditing as “a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the result to interested users (ASOBAC 1972:18). Adeniji (2010) defined auditing as “the independent examination of and expression of opinion on the financial statements by an appointed auditor in pursuance of that appointment and in compliance with any relevant statutory obligation. Demand for auditing arose from the need to bridge the asymmetric information gap existing between the provider and the user of accounting information. Accordingly, Adeniji (2010) concluded that the separation of ownership from management and the need to safeguard the interest of the owner who does not participate in the day-to-day decision of the corporation necessitates the emergence of Auditing. It is safe therefore, to conclude that demand for auditing was necessary due to external users' reluctance to rely upon internally generated financial information. With globalization, privatization, deregulation, mergers, acquisition and the increased competition pushing businesses, there is the need to inspire confidence in, and to ensure the validity, integrity, objectivity and reliability of information. Arens et al (2006) further suggested that auditing reduced information risk. They identified four factors that necessitates the demand for auditing and these are; Remoteness of information; Biases and Motive of the providers; Voluminous data and Complex exchange transaction. In recognition of the Nigeria business environment and its peculiarity, the demand for audit could be attributed to; The separation of ownership from management and the need to safeguard the interest of the owners who do not participate in the day-to-day decision of the entity by management.. Secondly is the CAMA 2004 (as Amended) provides that every company shall, at each annual general meeting, appoint an Auditor or Auditors to audit the financial statement of the company; and Providing credibility on report and account prepared by directors.

Auditing helped minimize bias by acting as a monitor of the financial information reported by management. According to Hermanson R, Loeb S, Saad J and Strawse R (1976), auditing does not alter the primary communication process between subject matter and the users of financial statement; it added a secondary communication process between auditors and users.

There is a significance difference between the Accounting process by which financial statements are prepared and the process of auditing these statements. Cosserat (2014) observed that accounting process involves identifying, measuring, recording, classifying, and summarizing events and transactions that affect the corporation. The outcome of this process is the preparation and distribution of financial statements in accordance with accounting standards and regulatory requirements. Conversely, the audit of financial statements involves obtaining evaluating evidence on management financial statement

assertions. Thus, rather than creating new information, auditing adds credibility to the financial statements prepared by a corporations.

Audit process in a Corporation

According to Arens et'al (2006), An audit process refers to a well define methodology for organizing an audit to ensure that the evidence gathered is both sufficient and competent, and that all appropriate audit objectives are both specified and met. Audit process thus implies all the stages involved in auditing a corporation. The audit processes are usually summarized into several stages depending on the author. For instance, Adeniji (2010) summarized audit process into twelve stages. Damagum (2010) acknowledge four stages in audit process. Arens et'al (2006) noted that while every audit project is unique, the audit process is similar for almost all engagements. To this end, they summarized the audit process into four phases.

Plan and Design of Audit Approach

In order to conduct an audit effectively and efficiently, the work needs to be properly planned and controlled. For statutory audit, the scope is clearly defined in the companies act as expanded by standards of current best practices. A letter of engagement will be submitted or confirmed before the start of any audit. Other important aspect of audit plan and approaches includes Team mobilization, Client information gathering, risk assessment, and audit program preparation. The objective here is to accomplish a comprehensive plan and approach.

Internal Control System

The Institute of Chartered Accountant in England and Wales (ICAEW) has defined internal control as not only internal checks and internal audit, but all systems of control, financial and otherwise, established by the management of a corporation in order to safeguard its assets and promote operational efficiency. Damagum (2008) defined internal control system as any mechanism that the management of a corporation puts in place to ensure adequate protection of the corporation's assets against illegal use, theft and other fraudulent abuses. Again, according to the international standard on auditing (ISA400), the term "internal control system means all the policies and procedures (internal controls) adopted by the management of an entity to assist in achieving managements objective of ensuring, as far as practicable, the orderly and efficient conduct of business, including adherence to management policies, the safeguarding of assets, the prevention and detection of fraud and error, the accuracy and completeness of accounting records, and the timely preparation of reliable financial information". Internal control system is one of the most widely accepted concepts in the theory and practice of auditing. It is often regarded as a process effected by management and other personnel, design to provide reasonable assurance regarding the corporations objectives in the following aspect; Effectiveness and efficiency of operations; Reliability of financial reporting and ;Compliance with applicable laws and regulations.

A closer look at the definition of internal control system reveals that it is not fundamentally different from management control, which has an essential component of control such as planning, organizing, staffing and directing (Boynton W D and JohnsonR.W 2006). Reviewing and evaluating the adequacy and effectiveness of a corporations internal control system and the quality of performance in carrying out assigned responsibilities is a representative of several primary core activities of audit work. In addition, Arens et'al (2006) suggested that auditors must assess the control risk by considering both the design and operation of controls to evaluate whether they will be effective in meeting transaction related objective. The auditor's review of internal control is done to determine whether such controls are capable of reducing to a minimum the possibilities of error and defalcation, and whether the prescribed controls are currently operating effectively. Auditors must therefore, ascertain that internal control measures are kept in operation. Adeniji (2010) observed that internal control system extend beyond those matters which relates directly to the functions of accounting systems and comprises those in the control environment and

control procedures. Summarily, to successfully study and evaluate the internal control system, the auditor would need to do the following:

- i. Undertake a preliminary review of the system (Obtain a general understanding of the flow of transactions and assess the control environment);
- ii. Complete the system review (obtain a detailed understanding of the prescribed general and application controls and document);
- iii. Conduct compliance test; and
- iv. Evaluate the result

Test of Control

One of the requirements of an external auditor is to test the effectiveness of the internal controls in order to assess the control risk. Consequently, the auditor must always test the extent to which established procedures and controls are functioning as intended. These test are usually referred to as test of controls and they determine the extent to which the auditor can rely on the internal control system. Yang and Guan (2004) defined test of control as the procedures directed toward either the effectiveness of the design or operation of a control. Auditors use test of control work to determine whether the internal control system generates reliable and accurate data and may therefore be relied upon. The scope of the test should be sufficiently thorough to allow the auditor draw conclusion as to whether controls have operated effectively and in a consistent manner. The auditor will almost certainly refer to the internal control evaluation questionnaire (ICQ) completed for each component part of the system to select the controls to be tested and provide information as to their strength and importance (Adeniji, 2010). Internal control questionnaire highlights the objectives of internal controls that interest auditors, while the audit tests on control are designed to show whether these objectives have been achieved.

Substantive Test

Substantive test consist of test of details and analytical procedures and are auditing procedures intended to verify the correctness of transaction amounts. These tests certify the transaction accuracy. Substantive test leads to a decision on the acceptability of client's representation; a client's book value is either acceptable or unacceptable depending on whether it falls inside or outside a chosen confidence interval. The essential in substantive test is to provide audit evidence in relation to the completeness, accuracy and validity of information contained in the accounting records or in the financial statement. Substantive test is considered as a very fundamental part of system (ICT) based audit, the extent of substantive testing is dependent on the result of test of controls, because the extent of substantive test depends on the assessed level of control risk

Analytical Procedure

This is an approach used to ensure that overall account balances and other data in the financial statement are stated reasonably. Usually, auditors develop expectations of each account balance and set an acceptable threshold. In addition, they compare these threshold with the actual value. Usually, a significant difference in the value will lead to detailed examination of supporting documents, extending analytical procedures and performing a comprehensive substantive test.

Detailed Test of Transaction

The objective of the detailed test of transaction also known as substantive testing of transactions is to determine whether the reveal financial statement is as a result of genuine and bonafide transaction (Adeniji, 2010). The auditors use tests of transaction to evaluate whether erroneous or irregular processing of a transaction has led to a material misstatement of financial statement (ICAN study pack-MIS, 2020). Typical test of transactions include tracing journal entries to their source documents, and

testing computational accuracy. From an operational perspective, auditors use test of transactions to evaluate whether transactions or events have been handled effectively and efficiently. Auditors make professional judgement regarding the extent of test which can vary from a sample size to all transaction depending on the level of assurance the auditor wishes to obtain.

Detailed Test of Balances

Auditors conduct tests of balances to obtain sufficient evidence for making final judgement on the extent of losses that occur when the control procedures fails to safeguard assets, maintain data integrity and achieve system effectiveness and efficiency. Test of balances is the most expensive test in the audit process (ICAN study pack-MIS, 2020). Detailed test of balances is also aimed at confirming the genuine ownership, valuation, existence, pledging and internal control adequacies of items revealed in the financial statement. The test also seeks to ascertain the level of compliance of the revealed financial statement to relevant regulations and legislations (Damagum, 2008)

Post Balance sheet Event and Off Balance sheet Engagement

According to Damagum (2008), in addition to the proper verification and audit of all items contained in the financial statement of their clients, it is equally necessary for auditors to consider those elements referred to as part of balance sheet events as well as off balance sheet engagements. The reason for such considerations is; to afford auditors the opportunity to determine whether current financial statements would require adjustment in the light of information concerning post balance sheet events and off balance sheet engagements. Also the need to assess all possible impact of such events on future operations of the corporation currently audited and; to provide opportunity towards obtaining further information to enable auditors express the most appropriate opinions on the state of affairs of their clients.

Audit Report

This is the final stage of the audit engagement process. The result of the steps mentioned earlier are assessed, summarized and reported. Usually, each member of the audit team report his/her work to the senior auditor (Adeniji, 2010). Consequently, the auditor in charge shall perform the final review to ensure that audit task is diligently performed and sufficient evidence gathered. Based on the accumulation of audit evidences and findings, the auditor can issue an opinion which can be qualified or not unqualified (A H Milichamp, 2004). The audit report expresses the auditors' opinion on the true and fair view of the financial statement results from the evidence examined. Auditors usually arrange a clearance meeting with the client when the audit report is ready. Audit report is also made mandatory by section 359 of CAMA 2004 Cap C20 (as amended) which requires auditors to state explicitly the position of their opinion.

Concept of Information and Communication Technology (ICT)

The term "Information and Communication Technology" means the use of modern technologies to manage and treat the vast amount of data on the political, economic, scientific and social life. And the meaning of the information is the facts resulting from the processing of data. Hence, there is a difference between information and data. The Information is data has been processed and give its owner the opportunity to take the right decision at the right time. Thus, the information society is a society that deals with information continuously, sophisticated and effectively. ICT possesses a cross-functional system that serves as a framework to integrate and automate many business processes that must be accomplished within the operations, production, logistics, distribution, accounting, finance and human resources functions (ICAN study pack (MIS) 2006). According to O'Brien (2004), ICT serves as a cross functional backbone that integrates and automates many internal business processes and information system with vital operations of a corporation. When we talk about information then we mean talking about information technology. The term of Technology mean is the computer and related communications equipment and computer software enable to deal in an independent framework or networking with other devices. The information technology is the use of modern technology tools and one of them by the

computer in data collection and processing. Here Informatics mean that there are three basic elements: physical entity like a computer of and related equipment and devices, and software that run on computer operation and do different tasks, and of knowledge resources (Conference at Al-Najah University in Palestine)

ICT and the Audit process of Corporations in Nigeria

Audit firms tend to advanced auditing methodology by integrating information and communication technologies (ICT) (Manson, McCartney, & Sherer, 2001). However, the omnipresence of the ICT in audit firms and utilization of computer-assisted audit tools and techniques (CAATs) has generated a broad range of consequences on the carriers of a profession as well to the profession as such. Over the past decades, two research streams were segregated in connection with roles and impacts that ICT brought to audit profession and auditors as carriers of the profession. On the one hand, literature indicated that audit firms tend to turn to the ICT in order to increase work efficiency and quality of the audit reports, which they use as a tool to yield bigger profits while shortening the engagement time and servicing more clients in a unit of time (Abdolmohammadi & Usoff, 2001; Banker, Chang, & Kao, 2002; Janvrin, Bierstaker, & Lowe, 2008, Elliot, Kielich, & Marwick, 1985). Additionally, literature shows that socially designed technology provides a wide range of audit tools that may support almost any audit task that span from data extraction to data analysis (Pedrosa & Costa, 2012), which contributes to productivity and disburdening auditors, but also reducing the level of auditors' responsibilities. The second group of studies revealed that utilization of auditing tools during audit engagement might moderate the structure and sequence of auditing procedures. Thus, ICT-based audit tools have potential to facilitate auditors' thoughts (Pieptea & Anderson, 1987) through which the ICT tools generates a list of tasks that keeps auditor's focus to those that are estimated to be essential for a particular engagement (Abdolmohammadi & Usoff, 2001). Glover, Prawitt & Spilker (1997) argued that ICT tools relax the need for professional assistance for newcomers as tools enable relatively inexperienced auditors to approach tasks mechanistically.

However, besides the simplification, literature stressed that technology may affect auditor's judgment and impact the quality of final reasoning (Bonner, 1999; Bell et al., 2002) as auditor's judgment may be moderated by technologically predetermined procedures, which consequently may constrain appearance of multiple opinions (O'Leary & Watkins, 1989) and discourage professional discussions. All these have raised an additional concern about the consequences that utilization of ICT tools in auditing had on generating professional judgment since profit incentives, efficiency and effectiveness gains, and cost reductions, notably affected auditors' judgmental and decision-making skills (Adler, 1987). In the overall, literature emphasized that integration of the ICT-based audit tools both enhances auditor's performance by increasing productivity and efficiency of their work, but also may propel the issue of deskilling professionals, as according to Swinney (1999) auditors that use ICT tend to over-rely on technologically generated output. However, a comparative study by Brazel, Agoglia & Hatfield (2004) showed that even though ICT tools increases efficiency, auditors that manually conducted audit engagement tend to feel more accountable to their correspondents in relation with delivered opinion, which proves that judgment is merely a cognitive process, and may create the feeling of importance. This extends Pentland's (1993) argument that auditor judgment, besides of cognitive, is also a result of an emotional resource when a feeling of comfort gives an additional input to the auditor while constructing the opinion. This implies that professional judgment is comprised of both cognitive and emotional parts, which both are personal. In relation to this, I assert that due to technology, the possibility of experiencing comfort becomes significantly diminished as technologies and audit tools are becoming more reliable carriers of the audit profession

Empirical Framework

Several studies have discussed, in particular, the implications and consequences of ICT tools on the audit process of corporations regardless of potential divergences that might be apparent at different professional

ranks. A comparative study by Brazel, Agoglia & Hatfield (2004) showed that even though ICT tools increases efficiency, auditors that manually conducted audit engagement tend to feel more accountable to their correspondents in relation with delivered opinion, which proves that judgment is merely a cognitive process, and may create the feeling of importance. This extends Pentland's (1993) argument that auditor judgment, besides of cognitive, is also a result of an emotional resource when a feeling of comfort gives an additional input to the auditor while constructing the opinion. This implies that professional judgment is comprised of both cognitive and emotional parts, which both are personal. In relation to this, I assert that due to technology, the possibility of experiencing comfort becomes significantly diminished as technologies and audit tools are becoming more reliable carriers of the audit profession. Obrien (2004) found major business value in deploying and implementing ICT tools in corporate organizations. This values according to Obrien include: Quality and Efficiency from ICT tools integration prowess resulting in improving customer service efficiency, production and distribution, Decreased cost due to reduction in transaction processing cost, Decision support as a result of the real-time information and improved enterprise agility as a result of a more flexible organizational structures and managerial responsibilities or work roles, hence, a more agile and adaptive organization workforce that can easily capitalize on opportunities.

Nwankpa (2007) and Ross (1999) relate the life cycle in deploying and implementing ICT tools to the Audit implications of each of the cycle. Accordingly, the summarized ICT deployment and implementation life cycle into three phases - Pre-implementation phase, Implementation phase and post-implementation phase - each with its audit implication. This implications include continuous data auditing in the pre-implementation phase. This involves monitoring, recording, analyzing and reporting database activity on a periodic basis to capture violations or unauthorized access. Information gathering in this phase is through Database transaction log and Database built-in-event notification mechanism. Implementation phase comes it its own audit implications. The major concern is systems security, database security and audit risk due to business process interdependency. Consequently, Auditors need to evaluate systems and business processes to ensure that security and control systems are not compromised which in turn helps to ensure compliance to standards, Systems design and configuration. The post implementation phase audit implication involves the evaluation of control risk associated with multiple users and this call for the utilization of different computer assisted audit tools (CAAT) which in themselves are also ICT tools. Importantly, the auditor is required to adopt an exception reporting approach to assess data that are in some way different and critical. Yang and Guan (2004) study tries to show the effect of information and communication technology on audit profession and standard. In their paper "the evolution of IT auditing and internal control standards in financial statement audits: a case study of the United States" investigates the evolution of IT, auditing and internal control standards in financial statements audit. Their research established that rapid escalation of technology would lead to more pronouncement and guideline to aid auditors in their profession. They established that IT auditing and internal control had a symmetric relationship and that standards were established to be consistent with conducting audit. Thus, as new ICT tools emerge, more standards are pronounced to ensure internal control integrity. This research therefore shows the need for auditors to change their methods and procedures when auditing an ICT implementing environment

O'Brien (2010) introduces an ethical and moral dimension in auditing an ICT tools implementing corporation. That because auditing is essential to accountability, the public expect auditors who conduct their work in accordance with generally accepted auditing standards to follow ethical principles. Management of the Audit organization sets tone for ethical behaviors throughout the organization maintaining an ethical and moral culture, clearly communicating acceptable behavior and expectation from each auditor and creating an environment that reinforces and encourages ethical behavior throughout all the levels of the organisation. According to O'Brien, conducting audit work in accordance with ethical principles is a matter of personal and organizational responsibility. Ethical principles apply in preserving audit independence and quality of work. The integration process typical of ICT tools seems to jeopardize certain standards of ethics such as independence. There is therefore, a huge number of demands that must

be balanced in order to ensure that organization functions efficiently, responsibly and legally. Hence, managers must deal with moral, ethical, professional and legal issues that often conflict with one another as a result of ICT tools implementation. Iacono (2001) yet observed from particular empirical context that audit service is characteristic as teams that conduct particular audit engagement are assembled of members that belong to diverse professional ranks, from junior auditors to audit partners, where the number of those involved in single engagement depends on client's paperwork complexity. Since the extent to what auditors use ICT differs across the ranks, the implications that technologies have on their subjective perception of consequences that ICT have on their work, might be significantly different between them. Despite that previous research provided with some of the critical reflections on the utilization of ICT in auditing on various aspects, the literature has not yet observed how the use of ICT tools influenced differently ranked auditors. Also, studies neglected to inspect whether and how perceptions about ICT differ across various audit levels. To overcome the limitations of previous studies, this empirical framework will serve as a tool that has the capacity to challenge previous streams of literature through the case study that will enable putting incentives for productivity and comfort-related deskilling effects into the foundation of current tensions that are observable in the audit profession. Therefore, study here concentrates on how mechanisms of trust in carriers of the profession, ICT, and humans, mutually challenge one another. According to this, I argue that superiors and subordinates are expected to have dissimilar perceptions of implications of the ICT that could, in auditing context, be ascribed as comfort, which might consequently impact the social interaction between auditors belonging to different professional ranks. In particular, this study focuses on how both subordinated audit staff, which make use of ICT tools, and superiors that hold productivity incentives, but do not utilize it, individually perceive (1) the ICT as regards the advantages and disadvantages of their deployment and implementation on themselves, and (2) the other audit ranks through the functional properties of the ICT tools.

To put ICT tools adequately into the research context, a case of risk-based audit methodology, named global audit methodology (GAM) that has recently been implemented among audit firms at the global level is introduced. Integration of GAM into the ICT aims at ensuring a consistent approach to all audit engagements, which provides auditors with guidance through the auditing process. This article has been inspired by Sorensen & Sorensen (1974) study on conflicts in bureaucratic organizations that were caused by differences in a rank-based professional aims. For the purpose of this study I distinguish two groups of professional ranks; Superiors (audit managers and partners) and; Subordinates (interns, junior and senior auditors). Through the qualitative, cross-sectional investigation, this study exposes the unfolding of sources of a focal entity to answer the following research question: How and why does the implementation of GAM into ICT impact the relationship between superiors and subordinates in the auditing process? Finally, previous literature has primarily emphasized empirical impact of information and communication technologies from the holistic corporation perspective and that of the auditors irrespective of the theory used (Bierstaker, Burnaby, & Thibodeau, 2001)

Theoretical Discussion

This discussion proposes theoretical standpoint of the study by concentrating on Giddens (1990) conceptualization of modern social order that will further serve as a tool for understanding tensions at the focal social context. Giddens (1990) propounded a theory of institutional analysis of modernity associating the concept of modernity with time period and location of a current. The concept of modernity refers to modes of social life that are no longer driven by manufacturing system since current institutional transformations have moved the system towards the one centrally concerned with information. That information-based system implies that information organize the social order as they moderate interactions between social actors. Marx and Durkheim preceded development of theory of modernity where both saw modern era as troubled, but believed that benefits would outweigh its negative characteristics. But Giddens' (1990) theory had substantially different point of origin located in a term of discontinuity. The term was unrelated to historical materialism - as a transition from one form of social system to another,

but included the following features: pace of change, scope of change and intrinsic nature of modern institutions. For Giddens, modernity is multidimensional on the level of institution. Society (and sociology) is an important but ambiguous concept that carries the central notion of 'boundedness' of a social system that has an objective to solve the problem of social order. According to Giddens, the problem of social order in modern societies directs attention on how social system "bind" time and space. He sees the social order through "distanciation" of space and time, which is a condition based on which these two connect presence and absence, so it is essential to understand how modern institutions are situated in the particular space and time. A term of institution here refers to inter-subjective interactions, form and nature of that relation. The notion of distanciation enabled him to argue that every social interaction at the very encounter has its ordinance in distance. This implies that any present social interaction, in a variety of social contexts, is distantly molded through its institutionalized form, i.e. no encounter is organized at the spot of occurrence but its nature is already specified somewhere before.

Therefore, materialization of social interactions occurs only at the encounter, but the character of it is both enabled and directed outside of that encounter through different forms of standardization. Unlike the traditional approach, in this way conceptualized modernity has capacity to connect local and global up to previously traditionally unthinkable perspectives. The core of this theory of modernity is in two interconnected mechanisms that hold distinctive properties and which could be identified in any context that involves social interaction. Put forward by Antony Giddens (1990) the theory of modernity conjectures the existence of two mechanisms that drive almost any social interaction: disembedding and reembedding. Firstly, disembedding is a mechanism that "lifts out" the locality of social relation and restructures it across an indefinite span of time and space (Giddens, 1990, p. 21). Therefore, social practices are removed from immediacies of context, and their localized experience becomes shaped through impersonal and abstract processes that occur on the other side of the world (Stones, 2012). When interactions do not take place, disembedding mechanisms would not reify but they will still exist, however, only in their abstract forms. An objective of these mechanisms is to explicate a power of modern institutions to shape the nature of interactions at the global extent and secure social order. Disembedding is a necessary condition (Stones, 2012) for spreading two impersonal and abstract mechanisms central to dynamics of modernity, namely: (a) symbolic tokens, and (b) expert systems (Giddens, 1990, p. 22). Both of these mechanisms take a role in coordinating social interactions between distant and the absent others. Symbolic tokens are media of interchange based on which social interactions are regulated. They are spread around in a form of regulations, which apply only to those social actors that materialize particular form of interaction at a particular time. Symbolic tokens have a function to standardize expectations and possible outcomes of social interactions and prohibit unethical actions. On the other hand, expert systems are systems of professional expertise and technical accomplishments that enable purposeful social interaction to occur, such as establishing relations with lawyers, architects etc. (Giddens, 1990, pp. 24–7). Thus, expert systems are capacitated to organize large areas of material and social environment where social interactions occur. Coupled together, both symbolic token and expert system assemble the abstract system.

Abstract systems require trust in both of its constitutive elements. In particular, trust in a symbolic token is shared and grounded on the abstract capacities of what couples individuals at the encounter. It does not create trust in individuals as a "whole", but only to those "parts" of individuals that share the same values in the abstract mechanism during the interaction. But, expert systems are based on the faith in the professional expertise that is continuously developed. Giddens argues that the nature of the modern interaction is deeply bound with the trust in abstract systems, but particularly in the part of it related to the expert system (Giddens, 1990, p. 83). Giddens (1990) couples the previous mechanism with one of reembedding. He argues that reembedding mechanism is a reappropriation or contextualization of previously distantly specified interaction to its already predetermined form. Therefore, reembedding mechanism (Giddens, 1990, p. 79) pins down all of the elements of the abstract system to the encounter where interaction between social actors becomes materialized, as it suggests the nature and the content of realization. Reembedding mechanism distinguishes two commitments: facework and faceless. Facework

commitment refers to a personalized trust that exists and becomes experienced by social actors when the encounter occurs. Faceless commitment refers to the concerns of development of faith in the abstract system. In order to achieve functional appropriation of disembedding and reembedding mechanisms, Giddens (1990) emphasizes the importance of trust in abstract systems. The level of trust enables social actors to estimate costs and benefits of a particular expert system, the selection and potential utilization of it. This theoretical approach is selected as it enables observing of how trusts in different abstract systems, which are integrated into the same context, challenge social interactions. Concretely, these mechanisms enable analysis of relationships between superiors and subordinates whose interaction has been challenged by prevailing trust in an alternative abstract system that became reembedded in the contextual setting. In particular, the moderating effect of the abstract system at the social encounter is the main mechanism that is in the focus of an empirical setting. The two-dimensional approach that integrates mutually interactive mechanisms is found to be conducive for a proper approach to the issues that try-outs of trust in a modern assembly of social interactions may have on human agency at the professional encounter. I believe that this analytical framework provides an adequate approach to understanding how trust in distantly regulated procedures and technological accomplishments actually produce negotiation of trust in human carriers of the profession at the focal context of auditing, which ultimately influenced relations.

METHODOLOGY

This study adopted an exploratory grounded theory approach as it allows determining the sequence of necessary steps and tasks in the process of conceptualization and identification of relations between concepts in newly established working environment of assurance services – Audit - in audit firms. Corbin and Strauss (1990) argued that qualitative methods could be systematically evaluated only if procedures and canons are made explicit. They have proposed canons of a 'good science' as a procedure that should be followed to help a researcher to develop a well-integrated set of concepts, which will provide the theoretical explanation of social phenomena under study. Since the literature on deployment and implementation of ICT in audit services have already recognized several core concepts that resulted from impacts that ICT made on auditing and auditors (Abdolmohammadi & Usoff, 2001; Banker et al., 2002; Bierstaker et al., 2001; Janvrin et al., 2008), the canons of grounded theory here aim at serving as a tool for extending and as well understanding relations between concepts. Hence, some of the tools utilized is assessment and observation. This helps in objectively, reviewing research work done by other researchers in the field of ICT and Audit. It is a qualitative method that looks in-depth at non-numerical data to explain the impact between ICT tools and Audit process of corporations in Nigeria. The method attempted to analyze the impact of ICT tools on audit process of corporations in relation to:

- i. The effect of ICT tools deployment and implementation on the audit process of corporations in Nigeria.
- ii. The influence of ICT tools on control risk in Auditing.
- iii. Improvement in Audit quality and efficiency due to ICT tools deployment and implementation

Additionally, the above key areas were phenomenologically approached. This approached investigates ICT as a phenomenon or event with auditing as the target variable. Essentially, various arguments in favour and against ICT tools impact in the field of the research were much appreciated. However, it should be noted that within the limited scope of this study, not all areas of impact on the audit process by ICT tools were fully captured and explored, but the method adopted helps in the analysis and explanation of the impact of ICT tools on the audit process of corporations in Nigeria. Note that the reason for adopting this method is because of its flexibility, natural setting, meaningful insight and its ability to generate new ideas.

RESULT AND DISCUSSION

Effect of ICT tools Deployment and Implementation on the Audit process of Corporations in Nigeria

ICT tools deployment and implementation will affect the audit process of corporations in Nigeria by introducing changes in the audit procedures and processes. This is due to the outcome of the following variables after ICT tools deployment and implementation; changes in audit processes and procedures, change in audit approach; information system auditors involvement; audit tools utilize and time spent in understanding business processes. The empirical result revealed that auditors agreed that they experienced changes in traditional audit process and procedures, when auditing an ICT implementing corporations. Furthermore, the assessment indicated that those changes were not as a result of using different auditing tools as the result from the observation and review of empirical evidence on auditing tools difference did not support this view. Thus this finding suggested that the cause of changes did not arise from auditing tools. The findings also discovered that a different approach was inevitable when auditing an ICT Tools implementing corporations. This variation in approach also supports the fact that the ICT tools deployment and implementation thus affects the audit process. Additionally, the level of involvement of IS auditors was measured to determine whether it was considered a necessity in auditing an ICT implementing corporations. As expected, the result presented a clear indication that auditors considered information system auditors as an important member of the audit team in an ICT tools deployed environment. The effect on audit process here is that ICT implementing corporations required more expertise than typically needed in a traditional non-ICT environment.

Influence of ICT tools on Control Risk in Auditing

Based on the empirical and theoretical review, assessment and observation, Auditors will experience increased control risk after ICT tools are deployed and implemented. The variable used to measure the level of control risk were time spent in assessing control risk, time spent in test of controls, decreased in substantive testing and interrelated problems. On the time spent in assessing control risk, the findings indicated that auditors spend more time in assessing control risk in an ICT tools implementing corporation compared to non ICT or traditional corporations. This can be interpreted that auditors believed that control could be potentially compromised in an ICT implementing corporation and as such commit more time to ensure reliability. Again, auditors agreed that they spent more time in test of control in an ICT implementing corporation compared to a traditional environment. This finding confirms that control was of enormous concern for auditors in an ICT implementing corporation audit. Furthermore, the findings revealed that auditors conducted less substantive testing in an ICT implementing corporations. This could be partly because ICT tools offered an integrated solution to company's business processes and thereby limiting the need for rigorous substantive testing in such an environment. This finding is considered very significant in this study because it also collaborated the findings in 4.1 (above). Additionally, the finding also observed that auditors were very concerned about a problem in one business process leading to a problem in a related business process. The theoretical and empirical review and assessment suggested that auditors overwhelmingly expressed this issue as eminent when auditing an ICT implementing corporation. From this findings, it can be interpreted that auditor perceived an increase in control risk when auditing in an ICT tools implementing environment.

Improvement in Audit Quality and Efficiency due to ICT tools Deployment and Implementation

ICT tools implementation has brought about some quality and efficiency to bear on the audit process. The variables used to determine this qualities were the involvement of information system auditors, time spent by auditors to trace audit trail, time spent to assess and retrieve information and the functionalities of an ICT system as a whole. Based on the empirical result, it was deduced that it was necessary for an information system auditor to be part of the implementation team when a corporation wants to deploy and implement ICT tools. Auditors believe that including an IS auditor was vital in solving some of the

control and integrity concerns that they face when auditing such a corporation. This is with a view of improving the quality and efficiency of the audit exercise, surprisingly, despite the real time information provided by the ICT tools; the theoretical and empirical. Review and assessment indicated that an auditor does not spend less time to trace audit trails in an ICT tools deployed corporation. This was unexpected because it was assume that ICT tools with its real-time capabilities would have provided auditors with less time consuming audit trails. However, it can be argued that since the earlier findings in 4.1 indicated that more time was spent by auditors to understand the business process in an ICT implementing corporation, therefore, it may be that such time was lost in understanding the system and business processes rather than in tracing the audit trail. Consequently, this finding did not provide any support as regards, improvement to audit quality and efficiency. Again, the findings with regards to time spent in assessing and retrieving information in an ICT environment was also surprising as one would assume that information retrieval in an ICT environment will be on a real time basis, this finding was also consistent with previous result on the time spent to trace audit trail. On functionalities that can enhance auditing and audit processes, the findings revealed that such functionalities abound in ICT tools. This observation was important because it demonstrated that although ICT tools implementing corporation audit did not provide less time in audit trail and information retrieval, however, ICT tools could improve and enhance auditing and audit process. Juxtaposing this finding with previous findings, it clearly revealed that the improvement brought about by this real time information is not in the form of less time audit trails or assessing and retrieving information.

CONCLUSION AND RECOMMENDATIONS

It is important to note that the role of an auditor in assuring accountability cannot be overemphasized. The auditor remains a catalyst as far as the reliability of financial statement is concerned. The auditor is therefore a pillar of accountability and must strive to maintain his relevance regardless of the changes brought about by business process integration via ICT tools deployment and implementation. Based on the objectives of this study which is to appreciate the impact of ICT tools on audit process of corporations in Nigeria, the following conclusions were arrived at based on the result from the discussion and findings which utilizes both theoretical and empirical results. The deployment and implementation of ICT tools in corporations will affect the audit process and procedures. This is because of the significant changes experience by auditors when auditing such environment. These changes were in the areas of audit approach, audit tools, audit team composition and timing. Also, there is an increase in control risk after ICT tools deployment and implementation. This is an indication that the ICT tools deployment and implementation brought about concern for auditors in the areas of access controls. Auditors consider control procedures to be vulnerable after ICT tools deployment and implementation and as such spend much time and resource to ensure that control processes were not compromised. Similarly, not all anticipated benefit and improvement in audit quality and efficiency were generated in an ICT environment audit, although ICT tools provides a real time information flow, it did not imply that auditor would spend less time in audit trail and information retrieval. However, the Auditors noted that ICT tools had inbuilt functionalities that can enhance or improve audit quality and efficiency but that such functionalities were not in the areas of audit trail or information retrieval.

Since the auditor is saddle with the task and responsibility of investigating and examine the “True and fair” view of a financial statement, He must be proactive and not reactive in devising measures to counter the negative changes that might emanate from business process integration typical of the ICT tools. It is in this light that the researcher proposes the following recommendation are being put forward:

- i. Auditor indicated that it was very essential in an ICT environment audit to have an information system auditor as part of the audit team. This means that there is the need for auditor to be technologically equipped in order to handle future challenges as more corporations deployed and implement ICT tools.

- ii. Since there is an increase in control risk vulnerability with the deployment and implementation of ICT tools, information system auditor must play active role in the implementation phase of a corporation to ensure that controls systems are not compromised.
- iii. Auditors need to have the technological expertise to achieve efficient utilization of the ICT tools function in an audit engagement. This requirement should be enforceable through legislation and/or regulations.
- iv. There is the need for a methodological framework for dealing with complex problem of evaluating an ICT implementation project. This requirement could be in the form of improved built- in audit embedded modules (AEM) in the ICT system software.
- v. Today state of the art continuous assurance include data base replication or mass extraction routines to a data warehouse for additional analysis, while the method had been proved to be beneficial, it should be much more efficient for auditors to follow a “client-server” model for data acquisition and analysis, while the ICT system embeddedwith audit tools that can be assessable and configurable by the auditor, to allow automated data extraction.

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