

Problems and Prospects of Auditing In a Computerised Accounting System

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Abstract

The use of computers in the processing of financial information by the client affects the general approach of the auditor to his work. the use of computers does not affect the auditor's primary responsibility of reporting on the accounts but the way in which the auditor carries out his substantive and compliance procedures to arrive at his opinion will be considerably different. This work will examine the advantages of computerized auditing and assess the computerized audit procedure in a multinational company (NNPC) and see how they combat fraud and errors, explain planning the audit in a computerised environment, testing the internal controls in a computerised environment, review, testing and approval of new systems, job title and responsibilities, impact on auditors and delimitations.

Keywords: Audit, Accounts, Computerized, Auditor, Environment

INTRODUCTION

Computerized Auditing System: A computer is an electronic device, which works faster than the ordinary human brain. Although a computer has no brain of its own to reason like a human being, it has in-built memories that enable it perform complex mathematical problems as fast as possible, faster than the human brain. The background of computing aids can be traced to China where merchants first made use of ABACUS, while the history of modern day computers is traced to French where Pascal in 1642 invented the First Machine for doing the four fundamental operations of arithmetic in money. This was improved upon and recommended for use in the large volume of astronomical calculations required at that time. Since the first office computer LED machine have increased on speed, reliability and new used in wide range of application without any change in the fundamental principles.

The introduction of computer has made accounting such as auditing easier and quicker to perform. The computer is capable of performing a months transaction of auditing work of an organization in a few hours thus reducing the job of the Auditor. This auditor need to learn about computer programming or at least should be able to follow the transaction trail up to the point where they are keyed into the computer in form of input since there is usually a Loss of Visible Evidence (LOVE) during operation. The Auditor should be able to relate the input to output. It is also advisable for an Auditor to take a course in computer programming in output data in course of his audit trail. The fast developing of technology, paper transactions are fast

disappearing, consequently, source documents are less available.

The introduction and adoption of computer to the Auditor business has led to revolution in data processing methods. They have served as a catalyst to auditing world in the area of efficient, effectiveness, timely and accurate operation of business. From the foregoing, computerized audit as a way of checking the efficiency and accuracy of data procedures present a fascinating study. An audit is an independent or objective examination of the financial statement of an entity and the expression of an opinion. It could be inferred that the primary reason of conducting an audit is to enable the Auditor make a report to the effect that the financial statement as prepared by officers of an establishment gives a true and fair view, otherwise to what extent they disagree with the report. The auditor along side help to ascertain compliance of the organization to operational policies and prescribed standard. This is aimed at increasing the acceptability, dependability and usefulness of financial statement.

Planning the Audit in a Computerized Environment

On planning audit in a computerized system the following factors must be considered:

- a) Auditors need to be involved in computerized systems at a planning, development and implementation stages. Knowledge of the systems gained at these stages will enable the auditor to plan the audit with an understanding of the system.

- b) Timing is more important in computerized environments than in manual environment because of the need of the auditor to be present when data and the files are available, more frequent visits to the client are usually required.
- c) Recording methods may be different. Recent developments including; the use of portable laptops to aid in preparing audit working papers or coupling a client's mainframe computer to a micro computer in the auditor's office enabling auditors to download data files onto their own personal computers.
- d) The allocation of suitably skilled staff to the audit. Thus audit firms now use the computer audit department on some parts of the audit and allowing general audit staff to have some computer experience. The extent to which computer assisted audit techniques can be used. These techniques often require considerable planning in advance.

Testing the Internal Controls in a Computerized Environment

The auditor tests internal controls when he wishes to place reliance on the controls in determining whether the accounting records are reliable. A computerised system may differ from a manual system by having both manual and programmed controls. The manual controls are tested in exactly the same way as in a manual system. The programmed controls are tested in the following ways:

- a) By examination of exception reports and rejection reports. But there is no assurance that the items on the exception reports were the only exceptions or that they actually met the parameters set by management, auditors must seek for ways to test the performance of the programs by auditing through the computer.
- b) Use of CAAT'S - Computer Assisted Audit Technique's Test data is mainly applied in testing computerised information systems.

Internal controls over computer processing include both manual procedures and procedures built into the computer programs. These controls can be divided into:

- a) General controls
- b) Application controls

GENERAL CONTROLS

These are controls, which relate to the environment within which computer-based accounting systems are developed, maintained and operated aimed at providing reasonable assurance that the overall objectives of internal controls are achieved. These controls could either be manual or programmed. The objectives of general controls are to ensure proper development and

implementation of applications and the integrity of program and data files and of computer operations. General controls will be considered under the headings of:

- i) Systems development controls
- ii) Organizational controls.
- iii) Access controls
- iv) Other controls

Systems development controls

These relate to:

a) Review, testing and approval of new systems

The basic principles of these controls are that : Systems design should include representatives of user department, accounting department and internal audit. Each proposed system should have written specifications that are approved by management and user department. Systems testing should involve both user and computer department. The computer manager, the user department, dbase administrator and the appropriate level of management should give final approval to the new system before it is placed under operation and offer reviewing the completeness of documentation and results of testing.

b) Program Changes

Similar requirement apply to changes as well as to new systems although the level of testing and authorisation will vary with the magnitude of changes. It is particularly important that the documentation be brought up to date. A common cause of control breakdown is the unsuspecting reliance of new staff on out of date documents.

c) Documentation Procedures

Adequate documentation is important to both the auditor and management.

For management documentation provides a basis for: Reviewing the system, prior to authorization. Implementing smooth personal changes and avoiding the problem that key employees might take with them all the knowledge on how the system works.

Reviewing Existing Systems and Programmes

For the auditor documentation is necessary for preliminary evaluation of the system and its control

i) Parallel running

Before switching to the new system, the whole system should be tested by running it parallel with the existing system. Parallel running refers to running the new and old system along each other for a specified period of time say month. This is important because; It provides the users with the opportunity to familiarise themselves with the new system while still having the old system available to compare. Provides for an opportunity for the programmers to sort out any problems with the new system.

ii) Organisational controls

These relate to: -

Segregation of functions.

Policies and procedures relating to control functions.

i) Segregation of functions

The principal segregation in a centralised system is between the user and computer departments. Those who process the data should have no responsibilities for initiating or altering the data. The following segregation's are important: The computer department manager should report to an executive who is not regularly involved for authorising transactions for computer processing.

Computer staff should not correct errors in input data.

Computer staff should not initiate transactions or have custody of resulting assets. Within the computer department there should be segregation of duties along the Following lines.

Job title and responsibilities

i) The computer department manager responsibility exercises overall control over running of the department.

ii) Systems analyst responsibility: Monitors existing systems, designs new systems and prepare specifications for programmers.

ii) Programmer: Responsibility: Develops, debugs and documents programs.

iii) Computer operator: Operates the computer in accordance with operating instructions.

iv) Data entry operator: Keys input data into the computer.

v) Librarian: Maintains custody of systems documentation and off line programs and files.

vi) Data control group: This co-ordinates activities between the computer department and the user department and monitor and control input and output.

vii) Database administrator: Designs the contents and organisation of the dbase and access to the dbase.

Policies and Procedures relating to control functions

A particular worry is that the operation of program controls could be interfered with during the running of the system by someone with necessary skills. For these reasons:

i) Programmers and systems analysts should not be allowed to operate the computer except for testing purposes.

ii) Operators duties should be rotated so that the same operator is not responsible for the same procedure.

For similar reasons, the computers operating system should be set up and keep a record of programs and

files operated on. This record should be checked regularly by the computer department manager and the internal audit. There should also be procedures ensuring the completeness and validity of all input and output. In a centralised system, the data control group may be established for this function

Access control

Computer systems are often dependent on accuracy and validity of data held on file Access controls to the computer hardware, software and data files are therefore vital. Access controls are both physical and programmed. Physical controls apply to both hardware and data files stored in form of magnetic disks or diskettes. Example of access controls. Only authorised personnel should be permitted access to the computer which should be in a secure room. This may not be possible with single microcomputers or even terminals. Control over computers located in the user department should be improved by making sure that vital data or programs are not left running when the computer is left unattended.

Passwords should be issued to all staff, whether for access to mainframe or single microcomputers. This is supported by requirement that each user can only log into the computer by keying-in their passwords, the computer then knows the identity of the user and it is programmed so as to only accept instructions only from authorised users. System of passwords makes it possible for each user to have limited access to files and that access may further be designated as Read Only or Read and Write. In this way employees are given access to information contained in files only. Computers should also be programmed to record names of all those accessing the computer for purpose of adding, altering or deleting data. Passwords should be changed regularly and access to password data held in the computer should be subject to stringent controls.

The computer has no way of knowing whether the user is the authorised user of a particular password. Hence users should be issued with machine readable evidence e.g. magnetic stripped cards. For access then the user will have to use the card and the password.

Access to computers is usually via telephone lines. Computers should be programmed with telephone numbers of such users. On receiving a call, the computer should be required to call back on the authorised number and not receive calls directly. Programs and data files which need not be on-line should be stored in a secure location with a computer department librarian. Systems programs and documentation should be locked away with limited access.

Other controls

They include controls over:

- i) Unauthorised use of computers.
- ii) Back-up facilities in the event of breakdown.
There should be adequate back up procedures e.g. maintaining duplicate programs and information at different locations, protection against natural disasters such as situating computer rooms in rooms protected against floods. There should be maximum possible physical security where computers are installed. Important files should always be stored in duplicate. Standby procedures should be put in place in the event of computer breakdown.
- iii) File retention procedures e.g. retaining copies of essential data on separate.

APPLICATION CONTROLS

The objectives of application controls which may be manual or programmed are to ensure the completeness and accuracy of the accounting records and the validity of the entries made therein resulting from both manual and programmed processing. These relate to the transactions and standing data pertaining to each computer based accounting system and are therefore specific to each such application. With the increasing sophistication of computer operating systems it is becoming more common for controls to be programmed as part of each application. Application controls are generally divided into:

- i) Input controls.
- ii) Processing controls.
- iii) Output controls.
- iv) Controls over master files and standing data.

Input controls

Most errors in computer accounting systems can be traced to faulty input. Controls over the completeness and validity of all input are therefore vital. Some controls affect both completeness and validity and therefore will be considered separately. These include controls over data conversion, controls over rejections and the correction and the reprocessing of the rejections, batch controls and computer edit controls.

Completeness

These controls ensure that all transactions are recorded. That all sales for example are recorded in the cash register or all purchase invoices are posted to the accounting records. They are particularly important over the recording of revenue and receipt of assets.

Validity

Controls over validity ensure that only actual transactions that have been properly authorised are recorded. These controls are most important over the

recording of liabilities such as wages, creditors etc. As in a manual system, control is established by the written authorisation on input documents such as the departmental managers signature on employees time cards. It is important that there is adequate separation of duties such that those who initiate a transaction or who have access to cash, cheques or goods as a result of the transaction being entered should not have the responsibility for entering the transaction. As with completeness, the computer can be programmed to assist in this control in which case some of the requirements above can be relaxed for example the computer can initiate purchases when stock levels reach a pre-determined re-order level. It can then validate the payment by matching the invoice with the order and goods-inward notes. Access controls as discussed earlier play an important role in validity in that the computer is programmed to accept input only from authorised users. The computer can also be programmed to verify authority limits as well.

Data Conversion

There must be controls to ensure that all data on source documents is properly entered into the computer. In the early days, when entry was by punched card, each card was verified as punched by a second machine operator. But now that most data is entered using a keyboard or a terminal other controls are more common.

The most common input controls are edit controls. Examples of edit controls include;

Table: 1 Type Of Edit Control

Type of edit control	Description of control	Objective
Missing field check	Checks that all essential data fields are present and are of the right length	Ensures accuracy of the processed data. Transactions cannot be properly processed if necessary data is missing
Valid character check	Checks that data fields appear to be of the right type eg all alphabetic, all numerical or mixed.	Ensures correctness of input data
Limit/reasonableness checks	Checks that data falls within predetermined reasonability limits e.g. hours worked do not exceed a certain limit, maybe 8 hours a day.	Ensures accuracy and validity of input data
Master file checks	Checks that all codes match those on master files e.g. employee's number matches an employee number on the personnel file.	Ensures that data is processed against the correct master file.
Check digit	Applies an arithmetic operation to the code number and compares the result to the check digit	To ensure accuracy of data by checking keystroke errors.
Document count	Agrees the number of input records in a batch with the total on the batch control form	Ensures that all documents are input

Controls over master files and standing data

These are aimed at ensuring completeness, accuracy and authorisation of amendments to master files and standing data files. These controls are similar to controls over input. E.g. controls to prevent the deletion of any account, which contains a current running balance. Once standing data has been written onto a master file, it is important that there are adequate controls to ensure that the data remains unaltered until an authorised change is made.

The main features of a computerised information system which requires the implementation of adequate alternative controls, which could pose additional challenges to the auditor include:

a) Consistency

If properly programmed computer will process transactions consistently accurately and likewise if there is a programming error this will affect all transactions processed. The auditor must test the system to ensure that it is processing transaction correctly.

b) Concentration of function and controls

Due to the use of computers few people are involved in the processing of financial information. This results in weak internal controls and in particular poor segregation of duties. Certain data processing personnel maybe in a position to alter programs or data while stored or during processing. Many control procedures that would be performed by separate individuals in a manual system may be concentrated under one person in CIS.

Programs and data are held together increasing the potential for unauthorized access and alteration. Computer information systems are designed to limit paper work. This results in less visible evidence. Data may be entered directly into the computer system without supporting documents e.g. in some online systems a sales transaction may be initiated through the computer without a sales order being raised, the amount is then directly charged to the customer's account without a physical invoice being raised.

c) Lack of visible transaction trail/ loss of audit trail.

An audit trail refers to the ability to trace transactions through the system by examining source documents, books of accounts and the financial statements. This is possible in a manual system where various stages of a transaction are evidenced by physical documents are maintained in magnetic files which are overwritten over time. This results in loss of visible audit trail.

d) Lack of visible output In some CIS systems the results of transaction processing are not printed out, only the summary data maybe printed. This data can only be accessed through the machine.

e) Ease of access of data and computer programs

Where there are no proper controls over access to computers at remote terminals there is increased danger for unauthorized access to and alteration of data and programs. This could result in fraud or manipulation of accounting records. Programmed control in CIS environment controls are programmed together with data processing instructions. E.g. protection of data against unauthorized access maybe by way of passwords or computer programs containing limit checks. A single input to the accounting system may automatically update all records associated with the transaction e.g. when a credit sale is made on line the system will credit the sales account, reduce the stock levels and debit the debtors account simultaneously. Thus an erroneous entry in a system creates errors in the various affected ledgers. Data and programmes are usually stored in portable magnetic disks and tapes, which are vulnerable to theft, loss, and intentional and accidental destruction. Systems generated transactions many systems are capable of generating transactions automatically without manual intervention e.g. calculation of interest on customers' accounts maybe done and charged to income automatically. This lack of authorization and documentation can result in significant misstatement or errors in financial statements.

IMPACT ON AUDITORS

- It will consider computerized auditing system, records auditing system, records and accurate way of applying computer in keeping records in Akintola Williams Deloitte Abuja.
- The decision makers will also immensely from the appropriate information would be available for decision making and planning.
- The researcher will also find the significance of the project in their quest for knowledge and also as a useful contribution to their field of study.

DELIMITATIONS

In the past, auditing of public and private organization have been carried out by the conversational method making it time consuming and problems encountered led to the development of computerized audit, thus helping to overcome the shortcomings of the conventional method. The computerized auditing system however, created its own problems which hinders the Auditor from discharging his responsibilities. The research will try to address these problems. The research may not provide absolute solution for these problems but will try to reduce some likely errors which may be created or affect the Auditor during audit work in a computerized environment. The delimiting factors affecting the full coverage of this are:

a) Data collection for research is not easy

b) Other problems include financial handicap because research work demand more funds than one could afford.

c) Lack of relevant books on the topic and other periodical materials.

d) Time constraint

Nevertheless, much will be done on the work despite these constraints.

CONCLUSION

This work focused on the problems and prospects of auditing in a computerized accounting system in respect to global manufacturing companies. This discover flaws that exist in auditing work in a computerized accounting environment and explore the techniques for computerized auditing for a global market. The methods of data collection used were the primary and secondary sources. Simple percentage used to analyze the research questions such as Senior Auditors 40%, Middle class Auditors 40% and Management 20%. The computerized auditing is however not totally lost because since it aids the auditor to discover and advise claims on areas where profitable investment can be made and areas where problems are likely to arise. The computer aim of auditing firm should be made to produce a computer system manual to enable the auditor develop a relevant audit computerized system.

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