COMPUTER TECHNOLOGY: AN INNOVATIVE TOOL IN STOCK AUDITING, A STUDY OF NIGERIA ENGINEERING WORKS

Obulord F. Okiridu

Department Of Accounting Education, School Of Business Education, Federal College Of Education (Technical), P.M.B 11, Omoku, Rivers State, Nigeria

Abstract

The control and auditing of stock in any organisation especially a manufacturing outfit such as Nigeria Engineering Works Limited is very vital, and demand management attention. Auditing could be done manually or electronically through the use of a computer. The study was carried out in four major departments of the company, namely Production, Marketing, Data processing and Internal audit. The study was guided by four research questions and a null/alternate hypothesis to ascertain whether the stock control measures in Nigeria Engineering Works Limited are inadequate and in conflict with specifications. The population and the sample size for the study were 80 and 50 staffers respectively. The data gotten was analysed with the use of mean and chi-square statistical tool tested at 95% alpha level. The study revealed that Nigeria Engineering Works limited adopted the manual process of auditing as they have their inventory records on bin cards or ledger; this helps the internal audit to conduct their physical perpetual counts. The accountants considered the system tedious and labourious as they opt for innovation. With this method, stock control is affected by the means of computer records kept by the Data processing and Internal audit department in respect of the material stocked. The study also revealed that the company is yet to have central purchasing department, computerized stock management is new and the auditors are not experienced in the exercise, which made the raw material control policies and internal control measure weak. For the fact that the researcher centred the study on Nigeria Engineering Works without comparing her operations with other manufacturing companies, would be grossly unfair to castigate the company because, irrespective of the researchers recommendations of the adoption and usage of Computer Assisted Audit Tools and Techniques (CAATTs), central purchasing department, material requirement planning (MRP), off premises copies of programme and data etc, the company already had a plan of introducing a sophisticated stock model and central computer with linked intelligent terminal for the control of their stock.

Keywords: Computer Assisted Audit Tools & Techniques (CAATTs), Stock, Audit, and Stock Audit

1. INTRODUCTION

Manufacturers has witnessed a range of technological evolution, because business in the world today is dynamic and complex, so also is the tasks and problems associated with it. Management requires information for proper planning and effective control in the industry and the information are needed in detail and more accurate than ever. The effective control of stock or inventory involves both operational and audit control. Sharma (2010) opined that stock audit is the confirmation of accuracy, value, quantity existence and ownership of stock. These are dependent upon the development of efficient, effective planning and control techniques and the adequate implementation of organisational policies, systems and procedures, these will also help to minimise the total costs relative to stock decisions and related functions, such as production scheduling, purchase, customer service requirement. Joshi (2010) considers stock audit as the physical verification of the inventory. However at time it may also include valuation of the inventory, and that the important thing to remember in a stock audit is the purpose for which the audit is being conducted. Different audits may have different approach to them which would depend on the intention. For instance, somewhere it may be to ensure that there is no pilferage or to ensure that they are properly stored.
Raveendranath (2010) sees stock audit as a term which is generally used in manufacturing industries where raw material purchased is converted into finished goods. It is important from the perspective of having vigil over the quantity and quality of raw materials remaining in stores as more than 70% of product cost involves material cost. So, to monitor the purchase, store and issue of materials, a stock audit is done. Bramball (2010) postulated that stock audit is one of the most tried and tested methods of ensuring that the book value and actual condition value of company’s physical assets match. With businesses becoming multi-location and vendors, dealers, partners becoming a key to the business process, company assets like stock, physical equipment and machinery and even people are located in different premises and a good control mechanism is a must for the smooth running of the business. In the process of achieving this, a system more than the manual process which is labourious and time wasting is the answer. That system which is more than the manual process is the computer and for the accountant to function effectively in the world of business, he must be computer literate. A computer is an electronic machine that takes in data through the input devices, process it automatically and transfer the end result through the output devices according to human instructions.

The study was carried out in Nigeria Engineering Works Limited, with its head office situated at NO 49 Trans Amadi Industrial Layout of Port Harcourt; with branches at Enugu, Abuja, Ibadan, Ilorin, Lagos, Zaria, Maiduguri, Kano and Kaduna. The company is a manufacturing outfit that partakes on the production and marketing of electrical appliances, ceiling fans, air conditioners, refrigerators, feeder pillars, transformers etc. They are known with the following brand names ‘newclime’, ‘newplan’, ‘new electrical’ and ‘norsteel’. The company being a going concern depends on adequate management of its stock that is stock of raw material, stock of work in progress, stock of factory supplies and stock of finished goods. Nigeria Engineering Works has a lot of departments, such as Transformer, Appliances, Sheet metal, Marketing, Accounts, Tool Room, Data processing, Internal audit, Production and Foreign exchange. For the purpose of this study, the researcher limited himself to four (4) departments namely Data processing, Internal audit, Marketing and Production only.

Organisations, Companies and Industries of today uses computer to keep records of their stock. Computer works according to stored instructions, otherwise known as ‘programmes’. Therefore the audit function could be accomplished or carried out manually or through the use of computer neither of these procedures is bad or better but the primary aim is the same while the technique differs.

2. STATEMENT OF THE PROBLEM

Computer audit is relatively new in Nigeria environment and our auditors are used to manual procedures, with little or no training in computer audit. Due to the complexity of computer, raw material as regards production and its financial involvement has become important that sound framework should be introduced on how computer stock can be handled effectively to achieve the organizational goal. Pranjal (2010) opined that the industries of today now use computer to handle their accounting data for example stock control. Stock constitutes the largest proportion of current assets in an industry. Auditors are increasingly aware of the fraud committed by computer operators, thus the study focus on the challenges posed by the Electronic data processing (EDP) as it relates to stock management.

3. PURPOSE OF THE STUDY

The study focused on the challenges posed by the use of electronic data as it relates to stock control. Specifically, the study investigated the financial and accounting requirements, as per compliance with the various statutory regulations as stipulated by Statement of Accounting Standard (SAS4) and Statement of Standard of Accounting Practice (SSAP9), and also to ascertain whether stock control measure in NEW are adequate and in compliance with specifications.
4. RESEARCH QUESTIONS
The following research questions were answered to guide the study
1. To what extent are you satisfied with your company’s policy on stock management?
2. To what extent does your company employ stock/ledger stock control measure/valuation?
3. To what extent does your company have co-ordination of stock control with other functions on computer?
4. To what extent does your company have inventory personnel familiar with production planning and control procedure on computer?

5. HYPOTHESES
Based on the above a null and alternate hypothesis was formulated thus;
Ho: Stock control measures in Nigeria Engineering Works, Port Harcourt are inadequate and in conflict with specifications.
Ha: Stock control measures in Nigeria Engineering Works, Port Harcourt are adequate and in compliance with specifications.

6. CONCEPTUAL FRAMEWORK
When we talk of stock in a manufacturing industry, we are referring to the stock of raw material, stock of work-in-progress, stock of factory supplies and stock of finished goods. Stock as a working capital call for more effort and time for its management, to ensure that stock of raw materials is not built up unnecessarily and various production lines does not suffer from shortage of raw materials. The market is not an exception as adequate management will ensure that the customers do not suffer from shortage of finished goods or that the finished goods are not in excess supply. Stanga(2008) sees stock as goods that are held for resale in the ordinary course of business, as well as goods that are in production or that will soon be used in production. A prudent business is one which uses minimum balance of stock to maximise sales. In large manufacturing companies, where stocks and components parts are being made up of different items, and the tasks of maintaining stock is usually difficult. Manmohan (2009) summarized the various purposes expected to be achieve through stock audit as follows:
1. To ensure proper preservation/storage and handling of stock.
2. To identify whether there exist any obsolete stock and if yes whether it has been segregated and written off.
3. To ascertain whether physical stock tally with the stock statement submitted to management etc.

6.1 Classification of stocks
Stocks have been classified into four different categories namely: raw materials, semi-finished goods/work-in-progress, factory supplies and finished goods.
Raw materials: Raw materials are anything purchased for use in a product in which no direct labour has been expended. The only component in its cost is the purchase price including incoming transport.
Semi finished goods / Work-in-progress: Stanga(2009) is of the view that materials withdrawn from raw materials stock is normally charged to a job order and automatically becomes part of work in progress stock. It remains in work-in-progress or semi-finished stock until it becomes part of finished goods and the job order is closed out. It is sometimes economical to process large numbers of parts or assemblies and to hold them in stock for future use. When the processing is completed the items are listed as semi-finished stock.
From the accounting point of view, work-in-progress and semi-finished stock are similar. They both have raw materials, labour and a percentage overhead on material and large charge on them. Therefore, work-in-progress/semi-finished stocks are seen as goods that are partially completed or completed to be incorporated to another product in production, for example car air conditioners, car radio etc.

Factory supplies: Stanga (2009) defined factory supplies as goods that can be traced only indirectly to units of the firm’s product; an example is the manufacturing of a desk and the supply of glue. Generally, it is not practical to trace glue to specific desk. The cost of factory supplies used is an element of overhead that is commonly called ‘indirect materials’.

Finished goods: Bramball (2010) opined that when a job is completed and the item accepted by the inspection and test department, the item is sent to finished goods inventory; and recorded in inventory card similar to raw material cards. It is then that finished goods can be seen as completed products kept for resale. The essence of recording in inventory cards is to help maintain control until the item is being shipped to the marketing department for resale. For proper stock control to take place, auditing of various kinds of stock is the only solution.

6.2 Stock taking

Okezie (2005) opined that auditing is an independent examination and expression of opinion on the financial statements of an enterprise by an appointed auditor in pursuance of that appointment and in compliance with any relevant statutory obligation. The auditor in performing his duty needs to adhere strictly to the audit procedure and standard. Audit procedure refers to the method and techniques used by the auditor in the conduct of the examination, while audit standard is the measure of quality of performance of the procedure used by the auditor and the objectives to be maintain by the use of the procedure undertaken. There are three characteristics of stock taking that is stock base on record, year-end count and third party stock.

Stock base on record
1. adequate record and proper stock record must be kept and up to date
2. all levels of stock and stages should be checked physically at least once a year and being compared with records on the book.
3. In case of discrepancies or differences corrections should be made and the cause of differences should be investigated and identified.

Stock base on year end count
1. There should be adequate planning to enable the work be carried out carefully, systematically and properly. Meanwhile early issuance of stocking instructions is necessary, bearing in mind to have feedback from staff.
2. Stock taking should be divided into components or divisions to enhance adequate control.
3. There should be proper instructions for counting, weighing, measuring and checking
4. Defective, obsolete, damaged materials should be identified.

Stock base on third party
1. Properties belonging to the third party client should be identified
2. Identification of stock, that are of high value items
3. Stock movement should be controlled during the count
4. Nomination of people responsible for each area of the count.
6.3 **Stock level identification**

Watna and Turney (2009) is of the view that to audit effectively, firstly one would have identified the stock level, the cost and expenses as it relates to volume of business carried out. If production and delivery of products are constant, there would be no need for keeping stock, unless as an increase against price changes. Stock should be kept a low level if the raw material is very expensive to procure and store, on the other hand, if stock is cheap to procure and store such materials would require the same degree of control.

**Maximum stock level**

This is the level beyond which it is not economical to allow stock to exceed. If the estimated usage figures are correct, the level of stock should never exceed this figure, otherwise overstocking will occur with its associated problems.

**Re-order level**

This is the level in which the company decides to re-order stock, when to order, and how to order. When to order is associated with initiating action to obtain additional material. How to order is associated with forecast which anticipated deviations between the forecasted and actual usage.

**Minimum stock level**

This is being referred to as a ‘buffer’. The stock level is maintained in order to reduce or eliminate stock out cost. It is the lowest level below which stock would not be allowed to fall. The control here involves comparing the actual stock level with predetermined buffer, and it requires monitoring the actual stock level.

Internal control comprises the plan of the organisation and all of the co-ordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed management of managerial policies. Watne and Turney (2009) is of the opinion that the reason for companies to install a system of internal control is to help the organisation to effectively attain their goal. Internal control according to (Senft: 2009) is the whole system of controls, financial and otherwise, established by management in order to carry on the business of the enterprise in orderly and efficient manner, endure adherence to management policies, and safeguard the assets and accuracy of the records.

6.4 **Stock Audit**

Pangcoga (2012) opined that stock or Inventory means the assets: (a) which are held for sale in the ordinary course of business; (b) in the process of production for such sale; or (c) in the form of material or supplies to be consumed in the production of goods or services for sale (As per Accounting Standard 2) These goods are normally stored in the godowns, which are generally located near the factory. Audit is an independent check on the functions of the management, which has some value in the eyes of law and the taxation authority. Audit refers to thorough check of the entire system so that it facilitates prevention and early detection of frauds.

6.5 **Stock & Receivables Audit**

According to (Jake: 2013) stock and receivable audit is one of the most important aspect of the overall exercise of audit of any organization. In stock and receivable audit, auditor ensures himself about the quantity, quality, composition and actual value of the stock & the debtors. The stock audit covers examination such as reasonableness of the valuation of the security, routing, of sales proceeds of hypothecated stocks largely through the borrowers account, maintenance of the prescribed margins, accuracy of the stock statements, reasonableness of composition and age of hypothecated stock and their insurance, quality and age of the receivables etc. The main object of such audit is (a) To verify existence, ownership of stocks and book debts. (b) To ascertain the quality, value of stock and book debts. (c) To exclude items not qualifying for credit. (d) To check insurance coverage and other aspects.
6.6 Need for Stock Audit

Kyiah (2012) asserted that the simple reason for audit and physical verification of the stock and securities is that it acts as a safeguard against occurrence of both, the Internal and External Frauds. The other reasons are listed below: - (1). To find out whether there is a sufficient and suitable environment for preservation of the stock & securities. (2). To find out whether the stocks & securities are safeguarded against theft or misuse by any person at any time. (3). To find out whether the stocks and securities can get degraded.

6.7 Computer Assisted Audit Techniques

Computer-assisted audit techniques (CAATs) or computer-assisted audit tools and techniques (CAATTs) is a growing field within the audit profession. Barclay (2008) asserted that CAATs is the practice of using computers to automate the audit process. CAATs normally includes using basic office productivity software such as spreadsheet, word processors and text editing programs and more advanced software packages involving use statistical analysis and business intelligence tools. But also more dedicated specialized software are available. CAATs have become synonymous with data analytics in the audit process. The traditional method of auditing allows auditors to build conclusions based upon a limited sample of a population, rather than an examination of all available or a large sample of data. The use of small samples may diminish the validity of audit conclusions. Management realizes that they conduct thousands or perhaps millions of transactions a year and the auditor only sampled a handful. The auditor will then state that they conducted the sample based upon generally accepted audit standards (GAAS) and that their sample was statistically valid.

CAATTs, not CAATs, address these problems. Pranjah (2010) is of the view that CAATTs, as it is commonly used, is the practice of analyzing large volumes of data looking for anomalies. A well designed CAATTs audit will not be a sample, but rather a complete review of all transactions. Using CAATTs the auditor will extract every transaction the business unit performed during the period reviewed. Barnard (2010) said that the auditor will then test that data to determine if there are any problems in the data. Another advantage of CAATs is that it allows auditors to test for specific risks. Using traditional audit techniques this risk would be very difficult to test. The auditor would "randomly select" a "statistically valid" sample of claims. They would then check to see if any of those claims were processed after a policy was terminated. In the most general terms, CAATTs can refer to any computer program utilized to improve the audit process. Generally, however, it is used to refer to any data extraction and analysis software. This would include programs such as spreadsheets (e.g. Excel), databases (e.g. Access), statistical analysis (e.g. SAS), business intelligence (e.g. Crystal Reports and Business Objects), etc.

Benefits of audit software include:

- They are independent of the system being audited and will use a read-only copy of the file to avoid any corruption of an organization’s data.
- Many audit-specific routines are used such as sampling.
- Provides documentation of each test performed in the software that can be used as documentation in the auditor’s work papers.

6.8 Types of Audit

Fredrick (2012) outlined that there are four main types of audit namely, private, statutory, management and internal audit. Private audit is that type of audit conducted on the request of the owners of the firm, other than those required by law. Statutory audit is that type of audit conducted because it is mandatory by law. Management audit is that type of audit conducted to review the activities of the management. Internal audit is that type of audit conducted on the affairs of the organisation by an employee of same organisation as a tool of management. Fredrick (2012) sees internal audit as an independent appraisal function within an organisation for the review of systems of control and quality of performance as a service to organisation. It objectively examines, evaluates and
6.9 Auditing Methods In A Computerised Environment

Computerised environment here is only a transformation or a change in the pattern that records are prepared and kept of which the source or original record remains the same without changing in principles. The major objective of the mechanization is for efficiency and increased production. Durham (2008) is of the view that the one of the best ways for the existing IT system to handle stock taking is through GSM Barcoding, which include a mobile phone computer with barcode scanner and stock audit software. So whatever your budget or size of business you keep track of stock accurately. The internal auditor has numerous methods at his disposal namely auditing around the computer, auditing through the computer and auditing with the computer. The method, techniques to be used depends on the skills and knowledge of the auditor.

6.10 Auditing Around The Computer.

In this approach the auditor need not operate the computer himself to get the expected audit evidence; he solely depends on the computer operator for supply of all the required information. The auditor can get the printout for various accounts he wants to examine, through production performance printout stock can be obtained. The details of the various accounts can be examined in the stamen without any loss of the audit trail. This method makes ‘off-the-field’ auditing possible whereby an auditor can go home with the printouts for a careful examination.

6.11 Auditing through the computer

In this approach the computer and its programme are treated as the target of the audit, meaning that the auditor focuses on the computer and its programme and not focusing on computer printouts and files alone. The intent of this method is to perform compliance and carryout test on the computer and its programme, both operating system software and programme software. The auditor obtains most of his information directly from the computer by operating it himself. Through-the-computer approach enables the auditor scan through the screen of visual display unit (VDU) for the audit evidence immediately without depending on the printouts.

6.12 Auditing with the computer

County (2010) informed that in this approach of auditing with the computer that computer and its programme are treated as a tool of the auditor. The intent of the auditor is to perform compliance and substantive tests using the computer and its programmes as if they were assistant accountant. The auditor may use the computer to see account receivable records on magnetic tape. This approach is made possible through the development of specialized software to assist the auditor audit and electronic data processing system. The special purpose software is generally known as computer aided audit technique software (CAATS). This could only be achieved if the equipment and programme is accessible, if the audit trail is available coupled with the auditors competence.

7. METHOD OF DATA ANALYSIS PROCEDURE

Data was collected from 50 respondents drawn from the four departments namely Production, Marketing, Data processing and Internal audit. Four research questions were posed to the various departments examined; Data from the completed research instrument were analyzed with the use of simple percentage and chi-square statistical tools to determine whether the stock control measure in Nigeria Engineering Works Limited are adequate and in compliance with specification.

7.1 Production Department
**Table 1: Research question 1: To what extent are you satisfied with your company’s policy on stock management?**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Tech. Mgr.s</th>
<th>Prod. Mgrs.</th>
<th>Engr(s)</th>
<th>Supv/workers</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High Extent</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>8.33</td>
</tr>
<tr>
<td>(VHE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Extent</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>50.00</td>
</tr>
<tr>
<td>(HE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Extent</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>33.34</td>
</tr>
<tr>
<td>(LE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Low</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>8.33</td>
</tr>
<tr>
<td>Extent (VLE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>12</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 1 above, 58.33% of the respondents are satisfied with the company’s policy on stock management, while 41.67% of the respondents are not satisfied this lapse arose as a result of lack central purchasing department.

7.2 *Marketing Department*

**Table 2: Research question 2: To what extent does your company employ stock/ledger stock control measure/valuation?**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High Extent</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>55</td>
</tr>
<tr>
<td>(VHE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Extent</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>(HE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Extent</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>(LE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Low</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Extent (VLE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that 91% of stock control requirements were accomplished. This is an impressive result. More so, there is still room for improvement in this area hence 100% accomplishment in this area is of the best interest of the company.

7.3 *Data Processing Department*
Table 3: Research question 3: To what extent does your company have co-ordination of stock control with other functions on computer?

<table>
<thead>
<tr>
<th>Particulars</th>
<th>DP. Mgr.s</th>
<th>Prog. Analyst</th>
<th>Comp. operators</th>
<th>Clerks</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High Extent (VHE)</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>72</td>
</tr>
<tr>
<td>High Extent (HE)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Low Extent (LE)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Very Low Extent (VLE)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4 shows that the company achieved 90% of internal control requirement. Considering computer specification the percent is adequate, the impression here is that the company has effective internal control safeguards in sensitive area.

7.4 Internal Audit Department

Table 4: Research question 4: To what extent does your company have inventory personnel familiar with production planning and control procedure on computer?

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Mgr.s</th>
<th>Asst. Mgrs.</th>
<th>Accountants</th>
<th>Clerks</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High Extent (VHE)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>High Extent (HE)</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>44</td>
</tr>
<tr>
<td>Low Extent (LE)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Very Low Extent (VLE)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4 shows that the internal audit department seems to be there for the sake of completeness, since only 63% of the stock control requirement were met; this indicates or proves that internal control in the entire system is not adequate.

Table 5

<table>
<thead>
<tr>
<th>CLUSTER</th>
<th>VHE</th>
<th>HE</th>
<th>LE</th>
<th>VLE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>41</td>
<td>43</td>
<td>30</td>
<td>36</td>
<td>150</td>
</tr>
<tr>
<td>B</td>
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Page 1056
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<td>152</td>
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**Table 7**

<table>
<thead>
<tr>
<th>O</th>
<th>E</th>
<th>((O - fE))</th>
<th>((f_0 - fE)^2)</th>
<th>(\frac{(f_0 - fE)^2}{2})</th>
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<tr>
<td>41</td>
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<td>5.55</td>
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<td>43</td>
<td>35.18</td>
<td>7.82</td>
<td>61.1524</td>
<td>1.7383</td>
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<td>30</td>
<td>37.91</td>
<td>(7.91)</td>
<td>62.5681</td>
<td>1.6504</td>
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</table>
The computed chi-square is 41.53.

8. CONCLUSION

Computer auditing is both similar to and different from the auditing of manual system. The process of auditing with the application of the computer and the process of auditing manually is similar because the auditor performs compliance, substantive and dual purpose tests in all the systems. The conceptual approach with the systems is to first perform compliance test, followed by substantive test, based on the results of the former in practice, the auditor often combines these test into dual-purpose test. For example, attest to ascertain whether a particular processing control is functioning as prescribed in compliance testing. Application controls may also have as its objective the determination of whether the computations leading to a particular account balance have been performed correctly as part of the substantive testing procedures.
The differences between computer auditing and auditing other types of system arise because of additional standard and procedures that apply to the performance of a computer audit. The additional procedures applicable to computer auditing include techniques of

- Auditing around the computer by concentrating on input to the computer and output from it
- Auditing through the computer by specifically testing the operation of the computer programme.
- Auditing with the computer by using it to analyse the content of the files.

Computer does not affect the auditor’s primary responsibility of reporting on the accounts. It may however affect the ways in which he carries out his tests. With no reference to the internal control over computer operations it will not be possible to limit the volume of substantive testing. This is a limitation if not checked, the audit of large volume of transactions will be time consuming and expensive.

The auditor should oblige himself to the evaluation of computer systems to avoid some lapses, e.g. a loss of the audit trail, which means that it will not be possible to trace a transaction from its initiation to conclusion by reference to visual records. However, it no longer possible to treat or regard the computer as a mysterious machine whose operation cannot be fully understood and exploited, rather it has to be used and manipulated by a competent hand or a personnel with expertise knowledge in computer and computer systems.

From the result gotten, it is obvious that stock control measures in Nigeria Engineering Works Limited are inadequate and in conflict with specification. The result of this research was interpreted as purely an academic exercise for two main reasons. Firstly the researcher studied auditing as a single course which does make him an auditor, but for the reason that the researcher is not an auditor per se does not invalidate the result of the study. Secondly, for the fact that the researcher centred the study on Nigeria Engineering Works without comparing her operations with other manufacturing companies, would be grossly unfair to castigate the company because the company will in a short period have a sophisticated stock model with the introduction of a central computer with linked intelligent terminal for the control of their stock. Nigeria Engineering Works has inventory records on bin cards or ledger; this helps the internal audit to conduct their physical perpetual counts. With this method, stock control is affected by the means of computer records kept by the Data processing and internal audit department in respect of the material stocked.

9. RECOMMENDATIONS

Stock of raw material, work in progress, semi-finished goods and finished goods are of great importance, it’s auditing and control is of major concern to the management, hence the achievement of company’s goals hinges solely on it. The problems associated with stock can be liken to double edged sword, in the sense that if there are excessive investment on them, it might lead to the reduction of company’s cash flow, pilferage and obsolescence. On the alternative its shortages may lead to under production, which will later affect the targeted profit of the company. We recommend as follows:

1. That the company should maintain a central purchasing department, have at least two or three personnel of the internal audit being trained in the use of Electronic Data Processing

2. The company should as a matter of urgency introduce Material Requirement Planning (MRP). This is probably the hottest thing going on today in manufacturing sector and it is a comprehensive system of manufacturing control. It helps the manager to plan his total production strategy, track inventory, anticipate raw material shortages, and adjust production immediately.

3. Facility is an essential aspect of internal control. It is important to focus primarily on the facility and control, with provision for back-up equipment in case the existing equipment becomes inoperable for any extended time. Meanwhile these areas should be avoided in locating computer facility. Basements particularly with widow, rooms easily accessible through windows, close proximity to streets and rooms adjacent to boilers, generators and heat-treating facilities.
4. To improve computer security, the organisation needs the following:
   - Off premise copies of programmes and data
   - Fire-resistant storage facilities such as special data safes or vaults
   - Quick return of source documents to users
   - Careful housekeeping, taking cognisance of the fact that dirt is one of the worst enemies of a computer.

5. In the organisation there should be a well-defined authority, separation of duties, meaningful chart of accounts, control reports, review of established policies, and competent personnel.

6. Operations should be adequately supervised, scheduled and controlled if the output therefore is to be timely accurate. More so, there should be a mandatory use of passwords or other means to assure that the sending party is properly identified during transmission period.

7. Have a sound stock policy so that it will help to order right quantity, order at right time, order through right source, order at right price and order right quality.

10. REFERENCES


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The study was carried out in the Production, Marketing, Data processing and Internal audit departments of the company and was guided by four research questions with null/alternate hypothesis to ascertain whether the stock control measures in Nigeria Engineering Works Limited are inadequate and in conflict with specifications. The population and the sample size for the study were 80 and 50 staffers respectively. The data was analysed with the use of mean and chi-square statistical tool tested at 95% alpha level. The study revealed that Nigeria Engineering Works limited adopted the manual process this helps the internal audit to conduct their physical perpetual counts.

The accountants considered the system tedious and labourious as they opt for innovation. With this method, stock control is affected by the means of computer records kept by the Data processing and Internal audit department in respect of the material stocked. The study also revealed that the company is yet to have central purchasing department, computerized stock management is new and the auditors are not experienced in the exercise, which made the raw material control policies and internal control measure weak. For the fact that the researcher centred the study on Nigeria Engineering Works without comparing her operations with other manufacturing companies, would be grossly unfair to castigate the company because, irrespective of the researchers recommendations of the adoption and usage of Computer Assisted Audit Tools and Techniques (CAATTs), central purchasing department, material requirement planning (MRP), off premises copies of programme and data etc, the company already had a plan of introducing a sophisticated stock model and central computer with linked intelligent terminal for the control of their stock.