

**A COMPARATIVE ANALYSIS OF THE IMPACT OF INVENTORY VALUATION  
METHODS ON FINANCIAL REPORT STATEMENT IN SOME MANUFACTURING  
COMPANIES IN ENUGU STATE**

**BY**

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***ACC/2007/376***

**DEPARTMENT OF ACCOUNTANCY  
FACULTY OF MANAGEMENT AND SOCIAL SCIENCE  
CARITAS UNIVERSITY  
AMORJI-NIKE, ENUGU STATE**

**AUGUST, 2012**

**TITLE PAGE**

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**A PROJECT SUBMITTED TO THE DEPARTMENT OF ACCOUNTANCY  
FACULTY OF MANAGEMENT AND SOCIAL SCIENCE  
CARITAS UNIVERSITY  
AMORJI-NIKE, ENUGU STATE**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
AWARD OF BACHELOR OF SCIENCE (B.Sc.) DEGREE IN  
ACCOUNTANCY**

**AUGUST, 2012.**

**APPROVAL PAGE**

This is to certify that this project work titled “A comparative analysis of the impact of inventory valuation methods on financial report statement in some manufacturing companies in Enugu state”. Was written by ACCEPTANCE .O. MORGAN with registration number ACC/2007/376 of the department of Accountancy, Caritas University Amorji-Nike, Enugu State. In partial fulfillment of the requirement for the award of a B.Sc. degree in Accountancy.

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**DEDICATION**

This project work is dedicated to God Almighty for His immeasurable love and faithfulness all through the course of this work and my academic pursuit.

## ACKNOWLEDGEMENT

When kindness cannot be returned, it should be appreciated. A number of people have helped to make this project research and writing a successful one. So their kind deeds ought to be appreciated.

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## ABSTRACT

This research work was conducted on with special reference to the impact inventoryvaluation methods has on financial report statements of manufacturing companies. For a longtime now the Accounting profession has not been able to come up with any particular technique or method to be used uniformly in valuing inventory. This research work examined if the method used was as a result ofthe prevailing economic circumstances. A survey research design was adopted for the study; data collected weregotten from both the primary and secondary sources. An infinite population of over 3000 was used and a finite population of 220. Three hypotheses were tested at 5 percent level of significance. Tables and percentages were employed to answer the questionnaires while the statistical regression coefficient analysis and Z- test were used to test the hypotheses. It was found amongst others that the prevailing economic parameter influences the decision of choice of inventory valuation method used. The Accounting professional bodies should try as much as possible to adopt a particular method of inventory valuation and the weighted average method was recommended as a method that can withstand any economic challenges

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## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 BACKGROUND OF THE STUDY

Inventory valuation allows companies to provide a monetary value for items that make up their inventory (stock).

Inventories are usually the largest current asset of a business and are as important as funds (cash). It is a form of fund tied up in assets (current assets). It's proper or accurate measurement or valuation cannot be overlooked as it forms a greater percentage of an enterprise's current assets in particular and a total asset in general. For manufacturing companies, inventories usually represent approximately 20 to 60 percent (%) of their assets. If inventory is not properly valued, it may result that expenses and revenue may as well not be properly matched and a company could make poor business decisions that will affect the company's profit. It is essential the way assets are valued because it could be attributable to the numerous benefits which an organization stands to gain by keeping an accurately valued stock that meet shareholders needs, demands for financial information and also the relevant specification of a particular organization. However, it will be a waste of time if the record accuracy is poor.

Inventory in manufacturing company or concern comprises of the following components:

- Raw materials inventory
- Work- in- progress (semi- finished goods) inventory
- Finished goods inventory

These components show the relationship between production and sales, and it enables an organization to offer better service to its customers at a reasonable price.

However, the technique or method used in the valuation of inventories varies and the values placed on inventories vary in time with the prevailing economic parameters (inflation, deflation or static economy) and it can also be influenced by the management policy of the organization. For instance, if the objective of an enterprise is that of profit maximization, it may result to the use of a particular method so as to disclose lower profit, thereby using excess fund at its disposal to expand its operations. This type of organization may discard other methods of valuing inventories in favour of the method that suit it objectives.

According to Nwoha (2006:69), no area of accounting has produced wider difference in practice than the computation of amount at which inventories (stocks) and work-in-progress as stated in financial account.

Inventory valuation method used by an enterprise is determined by a number of reasons. These include inflation, differences in quantity discounts, frequent changes in prices of commodity, buying from different suppliers and also the nature of items or product. For instance a company that deals on perishable goods, let's say a grocery store, prefers an inventory valuation method that recognizes the out flow of goods that were first in stock. This arises as a result of the perish ability of the items treated and the high turnover rate could also be accounted for this choice of method FIFO (first-in, first-out). The level of the three component of the inventory stated earlier differs among organizations depending on the nature and volume of operation undertaken. Manufacturing companies have a high level of raw material inventory and semi-finished goods inventory as it is found in the grocery stores. Considering the large sums of money tied up in inventory as earlier stated, Horngren and Foster (2004:756) pointed out that it is pertinent to have an "information model" as a result of the obvious fact that if stock matters (receipts, issues and controls) are not properly handled, it would go a long way to jeopardize the financial status (liquidity) as well as the profitability position of the firm. Hence, this research work is a step in the right direction to address and highlight the role of account professional towards the achievement of choosing and adopting appropriate inventory valuation methods for each group of industry.

## 1.2 STATEMENT OF THE PROBLEMS

For a long time now the accounting profession has not been able to come up with any particular techniques to be used uniformly in valuing inventories. Various accounting bodies strongly recommend one method or the other. As each method used has its effect on profits and closing inventory figures. This paves way to differing tax assessments and brings about a situation whereby some organizations are over assessed (overtaxed) while others are under assessed. This also bedevils the comparability of one firm's performance with that of another though they may be in the same line of business when an investor is attempting to invest his capital in a firm.

However, each body or organization purports being consistent with the use of certain valuation methods yet some companies adopt the method which gives them advantage over any other recommended method or method accepted by the Board of Internal Revenue, or Federal Board of Inland Revenue for tax assessment purposes. The method adopted by the companies enables them to pay less tax to the government. The problem in achieving a statutory consensus compliance method in the administration of inventory valuation by Nigerian manufacturing industry has persisted. An appropriate forum of diverse accounting professional bodies is required to reach a consensus on the issues of choosing and adopting appropriate inventory valuation methods for each group of industry. Hence, this

research work is a step in the right direction to address the role of accounting professional towards the achievement of the objective.

### **1.3 OBJECTIVES OF THE STUDY**

The aim of this research work includes the following:

1. To determine whether inventory valuation methods have any impact on the assessable income tax of Nigerian manufacturing company.
2. To ascertain whether the prevailing economic parameters influences the inventory valuation method used by Nigerian manufacturing company.
3. To determine whether variances in inventory valuation methods affect financial reporting positions of Nigerian manufacturing company.
4. To provide an acceptable basis for valuing inventory on hand.
5. To evaluate certain limiting factors faced by accountants in inventory valuation.
6. To make recommendations based on findings.

### **1.4 RESEARCH QUESTIONS**

The following questions are formulated for the purpose of this study;

1. Does an inventory valuation method have any impact on the assessable income tax of Nigerian manufacturing company?

2. What influence does the prevailing economic parameter have on the inventory valuation method used by Nigerian manufacturing company?
3. To what extent does the variance in inventory valuation method affect financial reporting positions of Nigerian manufacturing companies?

## 1.5 HYPOTHESES

The following hypotheses are formulated to help achieve the purpose of the study:

### HYPOTHESIS ONE

**H<sub>0</sub>**: inventory valuation methods do not have any impact on the assessable income tax of Nigerian manufacturing companies.

**H<sub>1</sub>**: inventory valuation methods have an impact on the assessable income tax of Nigerian manufacturing companies.

### HYPOTHESIS TWO

**H<sub>0</sub>**: the prevailing economic parameters do not influence the inventory valuation methods used by Nigerian manufacturing companies.

**H<sub>1</sub>**: The prevailing economic parameter influences the inventory valuation methods used by Nigerian manufacturing companies.

### **HYPOTHESIS THREE**

**H<sub>0</sub>**: the variance in inventory valuation methods does not affect financial reporting positions of Nigerian manufacturing companies.

**H<sub>1</sub>**: the variances in inventory valuation methods affect financial reporting positions of Nigerian manufacturing companies.

### **1.6SIGNIFICANCE OF THE STUDY**

The proper valuation of stock (inventory) cannot be over looked. This research work is significant in the following ways:

1. It will determine if inventory valuation methods play any significant role in ensuring the firms accountability.
2. It will determine the role of account department of a firm's inventory valuation.
3. It will x-ray what true and fair means with regard to inventory valuation.
4. It will determine the causes of misrepresentation of true and fair view of financial statement of firms and usher useful suggestions to stop the practice.
5. It will offer useful suggestions towards making the store manager more efficient in preparing or advancing adequate data that will lend credibility to a true and fair view of a firms operation and financial statement.



6. It shall serve as an aid to companies that want to change their methods but are unable to identify the impact of the different methods on their financial statements under prevailing economic situation.
7. It will be meaningful to other researchers and business for it will serve as reference material and the recommendation will be very useful for organizations that have problems in their application of inventory valuation methods.

### **1.7SCOPE OF THE STUDY**

This research work will be limited to the use of questionnaire and oral interview where appropriate and to a review of related literature (relevant books, journals, etc.) that would provide adequate and lasting solution to the problem of inventory valuation. Data collection will be restricted to three manufacturing companies which are Emenite limited, Innoson industrial and technical company limited and Alo aluminum manufacturing company all in Enugu state.

Furthermore, the study is equally limited to the study of the impact of the different methods on inventory valuation on company's financial statement with particular reference to its effect on:

- Tax assessable profits on companies.
- Amount of tax payable by firms under the different methods,

- The cost of goods sold value reported under the methods,
- Closing stock values reported under these methods,
- The decision of the potential and actual investors in the companies based on available divisible profits.

## **1.8LIMITATIONS OF THE STUDY**

In carrying out this research project, the researcher encounters problems which may be attributed to;

1. Unreliable or irrelevant information obtained from oral interviews. This was based on the degree of the respondent's truthfulness in answering the questions asked during the oral interview. Some respondent thought the research was to expose their company and thus were unwilling to give adequate and relevant information.
2. As a result of time the researcher was restricted to just the LIFO (Last-In, First-Out), FIFO (First-In, First-Out) and the WAM (Weighted Average method) of inventory valuation.
3. The researcher encountered the problem of not getting back all the questionnaires administered to respondents for responses.

## **1.9 DEFINITION OF TERMS**

### **A. INVENTORY**

This is also known as stock. These are assets held for sale in the ordinary course of business, in the process of production for such sale; or in the form of materials or supplies to be consumed in the production process or in rendering of services.

### **B. FINANCIAL STATEMENTS**

These are statements produced at the end of accounting periods, such as income statement, cash flow and statement of financial position. They are reports which summarize the financial position. They are reports which summarize the financial position and operating results of a business.

### **C. CONSISTENCY IN INVENTORY VALUATION**

This is an accounting standard which demands for the use of the same method of inventory pricing (valuation) from year to year, with full disclosure of the effect of any change in method to enhance the comparability of financial statements presented in the annual report.

### **D. MANUFACTURING COMPANIES**

These are establishments that combine men, materials and machinery in an effective manner with the aim of producing goods for human consumption and also to make profit for the on going of the business.

**E. BUFFER STOCK**

It is an additional inventory held in excess of that needed to meet normal demand and which leads to avoidance of stock out. It could also be referred to as safety stock.

**F. WORK- IN- PROGRESS**

This is part of a manufacturer's inventory that is in the production process and has not yet been completed and transferred to the finished goods inventory.

**G. STOCK OUT**

This refers to when the stores department of a manufacturing company, or a store runs out of a type of stock before the next order arrives.

**H. ASSESSABLE INCOME**

This is the amount of income (after charging expenses against the gross income) from each source in the year immediately preceding the year of assessment.

## REFERENCES

- Omolehinwa, E. O (2011). *Coping with Cost Accounting* (2<sup>nd</sup> Edition) Pumark Nigeria Ltd.
- Adeniyi, A.A(2009). *Cost Accounting; A managerial approach*. El –Toda ventures ltd.
- Horngren, E.T(1982). *Cost Accounting. A managerial emphasis* (5<sup>th</sup> Edition) London: Prentice hall.
- Lucy, T (1984). *Costing; An instructional manual*, Eastheigh Hants: D. P publications
- Nweze, A. U (2004). *Quantitative approach to management accounting* (3<sup>rd</sup> Edition) Enugu: Computer edge publishers.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

#### 2.1 HISTORICAL PERSPECTIVE

Inventory problems are as old as history itself; but it was the turn of the 17<sup>th</sup> century that attempts were made to employ analytical techniques in studying these problems.

The initial impetus for the use of mathematical methods in inventory analysis seems to have been supplied by the simultaneous growth of manufacturing industries and the various branches of engineering, especially industrial engineering. The real need for analysis was first recognized in industries that had a combination of production scheduling problems.

It was not until after world war 11 that the management sciences and operation research emerged and detailed attention was focused on the stochastic nature of inventory problems. However, it is fascinating to observe that economists were not the first to take active interest in inventory problems even though inventory plays a cardinal role in the study of dynamic economic behavior. The possible reason advanced for this lack of interest is probably inherent in the fact that economists were concentrating their attention mainly on static equilibrium models. In recent times some economist and mathematicians have taken keen

interest in inventory models. They have not been particularly concerned with immediate practical application. Instead they have been interested in the models because of their mathematical properties and economic interpretations.

## **2.2 THE PROBLEM OF INVENTORY MANAGEMENT**

The method to be used in inventory valuation has been the perennial problem that is prevalent with all organizations. Organizations maintain and keep adequate inventory for a number of reasons. Fundamentally, it may be economically impossible or unsound to have goods manufactured or supplied in a given system precisely at the time the demand for it occurs.

Without inventory, customers will have to wait until the orders were met from a source external to the client firm or such orders may be delayed until production has been undertaken. In most cases, customers do not wait for this delay in production or supply and what happens is that the customers look for alternative source of supply which means the loss of that customer either temporarily or permanently and the loss of the profit on the sale with its spill over effect.

In some cases, organizations may deem it necessary to hold a good number of inventories when it is absolutely certain there is a likely possibility of an upward

shift in material input or supply prices. The organization on the other hand may keep lower inventories when it anticipate a decrease in material or supply prices.

It is pertinent to indicate that in retail concerns, inventories are maintained in order to have various goods on display but still attract potential customers. There is this ascertainment that varieties of goods on display to customers help to boost sales and profit. In practice, raw materials are purchased in large quantities in order to reduce cost associated with purchasing to obtain a favorable price, minimize handling and transportation cost. Inventory is of enormous economic benefits to organizations. However, the valuation of inventory has been a common problem in most organization.

According to Doug Brinlee (2006:379) he said that a successful business relies on many factors, one of which is a reliable inventory management system. Inventory management problems can interfere with a company profits and customer service. They can cost a business more money and lead to an excess of inventory over stock that is difficult to move. Most of these problems are usually due to poor inventory processes and out of date system. They are a number of problems that can cause havoc with inventory management. Some happen more frequently than others. Here are some of the more common problems with inventory system:



- Unqualified employees in charge of inventory.
- Using a measure of performance for their business that is too narrow.
- Unrealistic business plan for a business for the future.
- Not identifying shortage ahead of time.
- Too much “distressed stock” in inventory
- Items in stock getting misplaced
- Not keeping up with the rising price of raw materials, etc

### **2.3 INVENTORY VALUATION**

In an attempt to examine what inventory valuation is all about, it is proper to begin with what inventory is:

The term “inventory” may call to mind the bottles on a liquor store shelf or a lot full of cars awaiting sale. Those are both inventory, but the definition is broader. Simply put, for accounting purposes anything that will be ultimately sold and whether it is a raw material or finished good is considered inventory.

According to Frank Wood and Alan Sangster (2008:743) inventory are goods in which the business normally deals that are held with intention of resale. They may be finished goods, partly finished goods or raw materials awaiting conversion into finished goods which will then be sold.

According to international financial reporting standard (IFRS), inventories are assets

- Held for sales in the ordinary course of business,
- In the process of production for such sale; or
- In the form of materials or supplies to be consumed in the production process or in the rendering of services. Inventories encompass goods purchased and held for resale including, for example, merchandise purchased by retailer and held for resale, or land and other property held for resale. Inventories also encompass finished goods produced, or work in progress being produced, by the entity and include materials and supplies awaiting use in the production process. In the case of the service provider, inventories include the cost of service, as described in international accounting standard (IAS) 2 paragraphs 19, for which the entity has not yet recognized the related revenue.

The sale of merchandise (finished product) is the primary source of revenue for most business enterprise.

According to Walter (2009:67) inventory consist of goods held for resale of consumers, partially completed goods in production, materials and supplies used in production. Inventory items are acquired and sold continuously in merchandising

business or acquired, placed in production, converted into finished product and sold in a manufacturing business.

According to the Farlex financial dictionary (2012) , inventory valuation in accounting is any way to estimate and report how much a company's inventory is worth. It is pertinent to note therefore that accounting valuation is not the same as market valuation, but it consists of a selection of accounting principles appropriate to a particular asset and their application, production cannot flow smoothly without having inventories- raw materials, work in progress, finished goods and supplies.

David L. Scott (2007:105) also looked at inventory valuation as the cost assigned to inventory for the purpose of establishing its current value. Inventory valuation is determined according to the basis by which a firm assumes inventory units are sold. If the first unit acquired are assumed to be the first unit sold (FIFO), costs of the last unit purchased are used for valuing inventory remaining in stock. Conversely, if the last unit acquired are assumed to be the first unit sold (LIFO) the cost of the first unit purchased are used for valuing the inventory remaining in stock.

The two most significant functions in accounting for inventory according to Walter et al (2009:78) consist of determining the quantity of goods to be included in inventory and determining the appropriate cost of inventory on hand. The first

function involves stock taking while the second refers to the valuation of inventory.

The primary basis of accounting for inventory is cost which by definition is the price or consideration given to acquire an asset. In inventory valuation, cost refers to the sum of the applicable expenditures and charges directly incurred in bringing an article to its existing condition or location.

Depending on the character and composition of the inventory, the rule of “cost or market, whichever is lower” may properly be applied either directly to each item or to the total of the inventory. The method should be that which most clearly reflects periodic income. In practice however, the physical flow of goods frequently do not correspond to the chosen method by the accountant to record the flow of assets. A situation where the flow of inventory seldom arises except in the case of specific identification method in inventory costing. Hence, it was asserted by Walter et al[2010: 112 ]that the assumed flow of cost to be used in assigning cost to inventory and goods sold need not conform with the physical flow of good. The question of which physical units of identical goods that were sold and which remain in inventory is not of any particular importance in the accounting of income determination.

The frequent movement of physical items into and out of inventory and its corresponding changes in units cost complicates the accounting for inventory and cost of goods sold. At the end of a financial year, the accountant apportions the total cost between the between the current operating period and the future; the later are placed in an asset account .Inventory is subject to physical deterioration and damage, decline in value due to changing market conditions. it therefore requires careful control if needed goods are to be on hand in good condition when they are require, and if excessive stocks are to be avoided.

Walter et al[2010:85]further stated that is “the major objective of objective of accounting for inventories is the proper determination of income through the process of matching appropriate costs against revenues. The major objective in selecting a method should be to choose the one which under normal circumstances reflects periodic income and cost.

#### **2.4 INVENTORY VALUATION METHODS.**

There are many methods of methods of valuing inventory. Generally, the objective of inventory valuation techniques are to provide an acceptable basis for valuing inventory on hand, to assist in the accurate determination of product cost and to ascertain the cost of materials issued to production on a consistent and realistic basis. All methods of inventory valuation are based on cost principle no

matter which method is deemed as applicable to a forms situation. In selecting an inventory costing model, cost is matched with revenue and on ideal choice is the method most clearly reflects periodic income.

In costing, raw materials usage is conventionally defined as the opening stock of raw materials  $[M_1]$  plus purchase during the period  $[M_2]$  less closing stocks of raw materials  $[M_3]$ . Thus raw materials usage  $[RMU]$  is:  $RMU = M_1 + M_2 - M_3$

This is however referred to as inventory difference method. Nevertheless, the above equation incorporated leakage of materials through losses and damages cause distortions in performance evaluation and comparison.

There exists a diversity of views on the methods adopted in among financial accountant and cost accountants. The financial accountants cost accountants adopts methods such as

- ❖ Average price method.
- ❖ Cost price method.
  - First-in-first out [FIFO].
  - Last –in-first out [LIFO].
- ❖ Market price [Replacement price].
- ❖ Base stock.
- ❖ Next-in-first-out.

- ❖ Latest purchase price.
- ❖ Highest-in, First out.
- ❖ Specific identification.

According to Peter Asukwo[1990:90] “There is always a discrepancy between the stocks figure in the cost account and the one in the financial account” .However we shall adopt the cost accountants techniques in the course of this story.

#### **2.4.1 AVERAGE PRICE.**

Under the average method we have:

1. Simple average price.
2. Moving average price.
3. Weighted average price.

#### **2.4.1 SIMPLE AVERAGE PRICE.**

This is defined by CIMA as “A price which is calculated by dividing the total of the materials in the stock from which the material to be priced could be drawn, by the number of prices used in total” It is an average price of the costs in stock irrespective of the quantities involved. The lot which is exhausted is excluded in computing the average price. Materials are not therefore changed out at actual cost, so a profit or loss may be incurred merely by adopting this price.

This method pays no regard to relative quantities held at each price; therefore just a few [little] can be said in favour of it. This method should only be used when prices do not fluctuate very much and the stock value is very small.

Despite the fact that simple average price is easy to compute, it is misleading and can give very false issue and valuation figures.

#### **2.4.2           WEIGHTED AVERAGE PRICE.**

According to CIMA “This is the price which is calculated by dividing the total cost of material to be priced by the total quantity of materials in that stock”.

This is the most often used average price method which assumes that every batch taken from the store room consists of uniform quantities from each supply in stock at the time of issue. The method determines the unit price by dividing the total cost of materials in stock by the total quantity of materials outstanding.

This method uses a weighted average cost per inventory unit in assigning cost to units sold and to inventory. A weighted average cost of goods available for sale is recalculated at the time of each purchase. Notice that the most current average cost is used to calculate the cost of each sale. Weighted average will produce different results under a perpetual other than a periodic inventory system.



Larson and Miller [1992:402] stated that weighted average price is an inventory pricing system in which the unit prices of the of the beginning and of each purchase are weighted by number of units in the beginning inventory and each purchase .The total of these amounts is then divided by the total number of the ending inventory of the units that were sold.

The benefits according to the use of this method include:

1. Simplicity in operation.
2. It does not lead to unrealized profits or losses.
3. According to Asukwo [1990:108]. “This method was recommended by international accounting standard[IAS 2]and the statement of accounting standard [SAS4] for the determination of historical cost of inventories.
4. The benefit of minimizing the effects of rapid price fluctuation, thereby showing the remaining stock at cost price.

### **2.4.3 MOVING AVERAGE.**

This is a modified form of the weighted average method or technique. It is employed in a perpetual inventory record system in order to compute the unit price at which materials could be issued, this method divides the total cost of material of a particular class by the number of unit on hand to arrive at the price. Under the method, the average unit cost is recomputed each time stock or purchase of new

materials is received subsequently, any issue is then made at the unit cost until another receipt of stock necessitates the computation of a unit cost.

Moving average is a cost flow assumption used in perpetual inventory system, new weighted average is computed each time goods are purchased. This method is more cumbersome to operate than other average costing methods due to the fact that it demands accurate track records of costs and quantities each time stock is received.

#### **2.4.4 COST PRICE**

They include

1. First-in-First out[FIFO].
2. Last-in-First out [LIFO]

##### **2.4.4.1. FIRST IN FIRST OUT [FIFO]**

In this method stocks are issued in strict chronological order. That is the oldest materials are issued first and are issued at the rate at which they were received.

In other words materials in the store are issued according to their order of receipts into the store. Where there are opening stocks, they are treated as if there

were issued first then the unit from the first purchase issued next. This method is not suitable in times of rising prices and inflation.

This is because issue price of materials to production will be low while the cost of replacement of materials will be high. This will in turn charge a lower cost of goods sold to income statement.

This method follows the principle that items in the beginning inventory or materials purchased first are presumed to be charged to production first, therefore the items from the earliest purchase are issued next and so on. Thus all items left in the closing stock are deemed to have come from the most recent purchase, whereas those issued to production are from the earliest purchase.

Eyisi (2003:24) stated that this method is based on the based on the assumption that the oldest purchased goods are sold or issued out first and that most recently purchased goods are the closing stock balance. First-in-First- Out (FIFO) methods assigns to the issued [transferred] out stocks from the stores.

Hence the closing stock is measured by the costs of the units most recently acquired. The advantage of this method is that, it is assumed that cost of materials issued out in time of deflation reflects the previous stocks (material) acquired at a lower price.

According to the Farlex Financial dictionary (2012), First-in, First-out (FIFO) method is an accounting procedure for identifying the order in which items are used or sold. With FIFO, the oldest remaining items are assumed to have been sold first. During a period of inflation this tends to keep cost low for accounting purposes. It results in higher reported profits and a greater tax liability, however.

This method is most suitable in valuing agricultural products which are perishable and subject to a fairly speedy deterioration as time elapses. Also, it maybe used by Grocery stores which deals on items with high level of perishability. Also, this method checks material obsolescence, avoidable waste and deterioration. The method ensures that materials issued are at cost and therefore avoids unrealized profit or losses which may arise from a random issue of materials. And it is also a representative of current prices and thereby avoiding the use of outdated prices in valuing closing stock.

This method is an actual cost system and it is acceptable to SAS 4. This method is also accepted by the Board of Inland Revenue for tax assessment purposes in the word of Eyisi ( 2003:25) the disadvantage is that higher tax is paid as higher profit is been measured due to lesser cost at initial stage of purchase; which is issued out. This method is acceptable to inland revenue and is recommended by SSAP 9.

#### **2.4.4.2 LAST – IN – FIRST – OUT (LIFO )**

This is a method of inventory valuation based on the assumption that the goods purchased most recently (the last in) are sold or used first (the first out). The remaining items are assumed to have been purchased at successively earlier periods. In this method, value of the inventory at the end of an accounting period is based on the value of items purchased earliest. During periods of high inflation rate, the last in first out (LIFO) method yields lower value of the ending inventory, higher cost of goods sold, a lower gross profit (hence lower taxable income) than that yielded by the application of the first in first out (FIFO) method. During prolonged inflationary periods, however LIFO method can seriously understate the value of inventory because the cost of replacing it would be much higher than the value shown in account.

This method is also referred to as first in last out (FILO) which is defined as a method of inventory valuation based on the assumption that goods are sold or used in the opposite chronological order in which they are bought. Hence, the cost of goods purchased first is the cost of goods sold last. To visualize this, it may be easier to consider inventory to be a stack of plates. The first plate added (first in) will stay at the bottom of the stack as long as new plates are added on top. In times of rising prices the FILO method records the sale of the most recent items first. FILO is the same as the last in first out (LIFO) accounting method.

Consequently, the unit cost of beginning inventory and the earliest purchases are incorporated in the ending inventory figure. Hence, ending cost is measured at the oldest cost whereas the production cost is measured at the newest unit cost.

Larson and Miller (1992:424) noted that one argument for the use of LIFO is based on the fact that a going concern must replace the inventory items in sales. When goods are sold, replacement is purchased. According to this point of view, a correct matching of cost with revenue requires matching replacement cost with sales that make the replacement necessary. Although the cost of the most recent purchase is not quite the same as replacement cost, they are close approximations of replacement costs. Because LIFO assigns the most recent purchase costs to the income statement, LIFO (compared to FIFO and weighted average) comes closest to matching replacement cost with revenues. The LIFO method is suitable in terms of rising prices because materials issued are priced at the price of the latest available consignment in the store which is closely related to the current price level whereas the FIFO method is useful when prices of materials are falling.

Eyisi, S A (2003:25) stated that this method is the opposite of FIFO. In this method, stocks issued out are priced last in purchased goods. The assumption here is that the issued out material is assumed to be last in purchased (received) goods. As the result of the above, the closing stock units are valued at the oldest unit goods available. This method is useful during the time of inflation; as materials acquired

previously or which are valued at the current price of recently purchased goods. ie. at a lesser price assumed to be valued at the most recent price of purchased of goods. Under this method cost are matched with income and product cost is based on current prices and as such could be said to be more realistic.

**The Advantages of LIFO includes the following;**

- It ensures that issues are close to current economic value stock.
- Valuation of stock balance is usually very conservative.
- Materials are issued at cost price and therefore, no profit or loss will result by using this method.

**This method also have Disadvantage and they include:**

- Since the goods are issued out based on the current stocks received, the oldest materials are left in stock and this exposes them to the risk of loss through pilferage ,obsolescence, deterioration and spoilage.
- It makes comparison between two jobs or contracts difficult when the materials issued in the two jobs were valued using different methods.
- It is administratively cumbersome because it requires the recording system to keep track of batches.

### 2.4.3 MARKET PRICE (REPLACEMENT PRICE)

This is the system of pricing all material issues at the market price at the time of issue. This method is also referred to as replacement price. While this may be desirable for specific purpose, it is very difficult in practice to obtain current cost for each item in stock and where revised price list are available, the risk of revaluing the entire stock each time a change takes place enormous. Hence, the method is most suitable for business that take large quantities of materials in advance of requirements in order to obtain cheap prices; the benefit of which will not be passed to the customer.

#### **The advantages of this method are**

- The result of good or poor buying is disclosed.
- It keeps costs in line with current prices

Materials are charged to production at the most current and realistic price; such that if there is any fall in price of materials the accompanying loss must be accepted.

#### **Its disadvantages are:**

- 1) A great deal of work is involved in obtaining information and keeping the market price up to date.



- 2) The method departs from cost; consequently, confusing elements are introduced into the cost accounts.
- 3) During inflation, the stock balance may be overstated when prices are falling and large sum has to be written off to reduce it to market value.
- 4) Substantial differences may arise on the store records and dealing with this tends to complicate the casting system unnecessarily.

#### **2.4.4 BASE STOCK**

This method uses the assumption that each establishment maintains a minimum quantity of material in stock such minimum quantity is known as safety, buffer or base and this should be used only when an emergency arises.

According to Eyisi, S.A(2003:27), this method assumes that initial purchased material would provide buffer (i.e base)stock and the store ledger (i.e means buffer material are seen to be existing in the company store)at any point in time.

The base is created out of the first consignment of the materials purchased and, therefore, it is always valued at the cost price of the first batch and is carried forward as fixed asset. The base stock method is not an independent method of pricing issues but works with some other methods, such as LIFO, FIFO, etc. Any quantity over and above the base stock is issued in accordance with the other

method which is used in conjunction with this method. like LIFO method, this method is completely rejected by the SAS 4.

#### **2.4.5 NEXT IN FIRST OUT**

Under the next in, first out, stock is valued at the price estimated for the next purchase. The price is similar to the replacement price unless the next order will not be placed for sometime.

#### **2.4.6 LATEST PURCHASE PRICE**

In this method, the value of closing stock is determined by applying the cost of the latest item purchase to the number of units on hand.

#### **2.4.7 HIGHEST IN, FIRST OUT**

In this method, issues are valued at the highest price paid for a batch until stock of that batch is exhausted and so on. This method is very hectic to administer and in comparison with other methods, it has the effect of overstating production cost and understating ending inventory. It is pertinent to however stress that the method of pricing inventory issues employed by any form will depend on the circumstances of the business and on the nature of the materials involved. A good inventory accounting system enables the provision of relevant inventory data and information to management in determining the

value attributable to inventory at the end of the financial period. Stock valuation when appropriately carried out gives a true and fair view of the value and quantity of stock with respect to the relevant period.

Accountants give useful advice concerning estimates of the amount and the quantity of stock and work in progress during a given period. The major problem in maintaining accurate accounting records or inventory management is the constant fluctuation in prices of materials and labour incorporated in product or inventory costs.

#### **2.4.8 SPECIFIC IDENTIFICATION**

This method is used for non standardized items. Unlike standardized items (items of stock in regular use), these materials do not lose their identity when placed in the stores because each material has unique specifications, for example, electric motors.

In specific identification the buying price (purchase price) of each item is specifically identified so that the actual price of the item is issued to production. This implies that each batch of material supplied retains its unique identity; as a result, it is easy to issue out materials to jobs at actual invoice price. Similarly, it offers a great degree of ease in determination of closing stock figures; as

closing stock is valued by adding the costs of those items remaining on hand during the relevant period.

To effectively operate this method, it is worthwhile to record the batch numbers on the stores requisition card and to keep a running balance of each batch on the stock ledger card. This is accomplished by simply adding the cost price of each unit of stock as identified and recorded whenever an issue is made. This technique might be possible for a firm handling small numbers of items or where each batch of items purchased retains its separate identity even when it is mixed up with other batches. The specific identification method could be applied to an automobile retailer who deals on expensive and sophisticated spare parts, automobiles, etc. however, this method is impracticable and onerous when a manufacturing concern deals on a good number of items and as a result the identity of individual item is lost. This technique is methodical when identical items are involved. Practical consideration makes specific identification inappropriate in most cases.

According to Monwuba (1995:23), the specific identification method is tedious and impracticable where a large number of different items of materials change frequently. However, this method of valuing material issues is useful when materials are purchased for a specific job order.

This method requires a business to identify each unit of merchandise with the unit cost and retain that identification until the inventory is sold. Once a specific inventory item is sold, the cost of the unit is assigned to cost of goods sold. Specific identification requires tedious record keeping and is typically only used for inventory of uniquely identifiable goods that have fairly high per unit cost (example fine jewelry, automobiles, etc). This method allows investors to reduce or offset capital gains by picking a specific lot of securities to be used as basis for sale.

## REFERENCES

Ekwe, M. E (2003).*An Insight into Costing*. Enugu; Two Way Printers Nigeria

Enekwe, C. I (2010).*Basic Fundamentals in Accounting*. Volume Two. Enugu; Providence Press Nig. Limited

Eyisi, S.A (2003).*Cost Accounting Theories and Practice*. Enugu; Ayi- Best Publishers.

Frankwood & Alan Sangster. (2008): *Business Accounting* (11<sup>th</sup> Edition) IFRS Edition. Harlow: Pearson Education Ltd Publication.

Hornigren, C. T & George Foster .(2011). *Cost Accounting*. A Managerial Emphasis (14<sup>th</sup> Edition). London: Prentice Hall.

Karen, W. B (2012).*Managerial Accounting* (3<sup>rd</sup> Edition). London: Prentice Hall

Larson, K. D, etal. (2002). *Fundamental Accounting Principles*. Ryerson: McGraw – Hill.

Lucy, T .(2003).*Management Accounting*. Great Britain: DP Publications.

Monwubba, A. O (1995): *Principles and Practice of Cost Accounting*. Enugu: B-Teks Publishers.

Nwoha, C .(1995).*Advanced Financial Accounting*.Enugu; Valson W. A Press Ltd

Okwo, I. M .(2003). *Cost Accounting*. Enugu; Computer Edge Publishers

Omelehinwa, E. O (2011): *Coping With Cost Accounting* (2<sup>nd</sup> Edition). Pumark  
Publishers, Nigeria.

Peter, C. B et al. (2009). *Introduction to Managerial Accounting*; McGraw- Hill/  
Irwin

Walter, et al .(2009). *Managerial Accounting* (2<sup>nd</sup> Edition). London; Prentice Hall

## **JOURNALS**

*Journal of Academy of Business and Economic* (2010). Volume 10, Source Issue:3;

Int'l Academy of Business and Economics Publications.

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

In this chapter, the issue that would be considered are as follows:

Research design, area of the study, population of the study, sample size and sampling techniques instrument of data collection, validity of instrument , reliability of the instrument, method of data collection and method of data analysis.

#### **3.2 RESEARCH DESIGN**

This research work consists of a survey research design. For the purpose of carrying out a sound analysis and then arriving at a reasonable conclusion, this work entails the collection of data using both the primary and secondary sources of data collection.

##### **3.2.1 PRIMARY SOURCES**

The primary data used for this research work were gotten from the companies used as a case study in this research work and this was done through the use of questionnaire and oral interview.



### **3.2.2 SECONDARY SOURCES**

The secondary data were extracted from textbooks and other related materials which included journals, internet browsing. To assist the researcher to tend credibility to facts, as well as the authenticity of this work the following libraries were used in the course of this research work.

Enugu state library

Caritas university library

Data collected during this work were restricted to experts in the area of my interest and standard textbooks that are internationally recognized and accepted. Citations were made where appropriate.

### **3.3 AREA OF THE STUDY**

The area of study for this research work includes: Emenite limited located at No. 7 old Abakaliki road, Emene; AloAluminum manufacturing company limited, located at Enugu – Abakaliki road, opposite mobile station by port – Harcourt express way, innoson technical and industrial company limited, located at plot 11 Enugu / Abakeliki express way, Emene industrial layout, Enugu north, Enugu, all in Enugu state.

### 3.4 POPULATION OF THE STUDY

The population for this study consisted of 3 selected manufacturing companies which are Innosontech and industrial company limited, Emenite limited, Alo aluminum manufacturing company limited all in Enugu state. The infinite population of this study which consists of all workers of the 3 companies were over 3000. But the population which shall be considered in the course of this work (finite population) is 220 which consist of accountants, directors, managers, and stake holders of the 3 companies put together.

### 3.5 SAMPLE SIZE AND SAMPLING TECHNIQUE

Sample is a small group of element or subject drawn from a definite or specified population.

Sampling involves the process by which the subject or object of the observation is drawn from a large sect and studied in other to make references about the characteristics of the large population. Simple random sampling technique was used to select the participants. This every member of the population had an equal chance of being selected.

The sample sized was statistically determined using “Taro Yamane” formular

$$n = \frac{N}{1 + N(e)^2}$$

Where

n = Sample size

N = Finite population

1 = Constant

e = Level of significance or limit of tolerable error (0.05 or 5%)

From the total population of the study which was 220, the Taro Yamane formula will be used to estimate the size

Formula

$$n = \frac{N}{1 + N(e)^2}$$

Where

n = ?

N = 220

1 = Constant unit

$$e = 0.05$$

$$n = \frac{220}{1+220(0.05)^2}$$

$$n = \frac{220}{1+220(0.0025)}$$

$$n = \frac{220}{1+0.55}$$

$$n = \frac{220}{1.55}$$

$$n = 141.9 \approx 142$$

therefore out of the population of 220, 142 was gotten as a sample size.

Below is a table showing the sample size of the 3 companies.

<b>Companies</b>	<b>Accountant</b>	<b>Directors</b>	<b>Managers</b>	<b>Stakeholder</b>	<b>Marketers</b>	<b>Total</b>
Innoson	12	6	11	7	8	44
Emenite	16	8	15	8	8	55
Alo aluminum	13	6	11	6	7	43
<b>Total</b>	<b>41</b>	<b>20</b>	<b>37</b>	<b>21</b>	<b>23</b>	<b>142</b>

Sourced: survey 2012

### 3.6 INSTRUMENT OF DATA COLLECTION

The instrument used for this research were personal interview and use of questionnaire. Personal interviews had to do with asking questions order to gather required information that is centered on this study. It involved going from one respondent to another.

Questionnaires involved presenting some relevant questions in respect to the research work. The questions in the questionnaire were primarily framed and revolved around the three (3) hypotheses that are meant for this research. They were prepared cautiously to ensure that questions will not be misunderstood by the respondents.

### **3.7 VALIDITY OF THE INSTRUMENT**

According to Anyanwu (2000), validity refers to the degree to which a measuring instrument measures what it is designed to measure.

The face validity was carried out by giving questionnaires to supervisor who went through the questions drafted and made appropriate suggestions and corrections that helped meet the validity and this brought the items on the questionnaire to 12 out of the initial 17 that was drafted.

The content validity was also carried out by my supervisor, lecturers and experts in the field to ensure that the research work was in line with what it is actually talking about and this was done by going through the written work before completion and was approved valid.

### **3.8 RELIABILITY OF INSTRUMENT**

This is a test or measure of the extent to which a research instrument will yield the same results under the same conditions, that is the consistency of the work.

For the reliability of the instrument a pilot survey was carried out to test the questionnaires that were distributed on a similar sample from the criteria for the selection of subject met by the subject.

### 3.9 METHOD OF DATA COLLECTION

Questionnaires were administered directly by the researcher by the help of the management to respondents that are staffs of the selected companies. The researcher ensured that there was no double issuance of questionnaires so as to avoid loss of questionnaires. The questionnaires were left with the respondents so as to allow for privacy.

### 3.10 METHOD OF DATA ANALYSIS

In the study of this work, all the questionnaires retrieved were scrutinized and analyzed based on simple percentages. Tables were used where necessary to avoid rough presentation of information (data) and after this, the hypotheses formulated were tested with the “regression co efficient analysis” method and also the Z – test was used.

The regression co –efficient analysis method was adopted for this research because the researcher talked on the “impact of inventory valuation methods has on the financial report statements of manufacturing companies.

The regression co – efficient formular is stated thus:

$$b = \frac{\Sigma X_1 Y_1 - n \overline{xy}}{\Sigma X_1^2 - n \overline{X^2}}$$

$$a = Y - bX$$

Where

b = slope of the line or the gradient

Y = variation of x in regression line

X = a given value

$X_1Y_1$  = The score of the respondent population

$\bar{XY}$  = Mean score of the respondent population

$X^2$  = Variance of score X

$Y^2$  = Variance of score Y

n = Number of respondent

a = relationship of X and Y

To determine the relationship the above formula is used

$$Y = a + b$$

See

$$S_b = \sqrt{\frac{\sum X_1^2 - n \bar{x}^2}{n}}$$

Where See = the standard error of estimate



$$S_e = \sqrt{\frac{\sum Y_1^2 - a\sum Y_1 - b\sum x_1 Y_1}{n - 2}}$$

After  $S_b$  has been calculated, the Z-test table value would be used against the Z calculated value.

Test statistics

$$Z = \frac{b}{S_b}$$

$S_b$

### DECISION RULE

Reject Null Hypothesis if calculated value is greater than table value.

## CHAPTER FOUR

### 4.0 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

In this chapter, efforts shall be geared towards analyzing those questions, the response of which bear or rest directly on the main focus of this study. Most of the data collected were analyzed and presented in a tabular form for easy and clearer understanding of the analysis.

#### 4.1 DATA ANALYSIS

In this study a total number of 142 questionnaires were distributed to respondents which represents 100%, out of which 128 representing 90% were recovered while 14 representing 10% were not recovered. 8 representing 6% of the 128 were invalid and discarded. Therefore the total number of questionnaire presented and analyzed where 120.

**Table 4.1.1**

<b>Questionnaires</b>	<b>Observations</b>	<b>Percentage %</b>
No issued	142	100%
Recovered	128	90%
Un recovered	14	10%
Invalid & Discarded	8	6%
Valid	120	

From the table above it can be seen that only 120 questionnaires recovered were valid therefore the analysis will be done based on this figure.

### QUESTION ONE

Inventory valuation method does not have any impact on the assessable income tax of your company.

**Table 4.1.2**

<b>RESPONDENT</b>	<b>AGREED</b>	<b>DISADREED</b>	<b>TOTAL</b>	<b>%AGREED</b>	<b>%DISAGREED</b>
Accountants	11	20	31	35%	65%
Directors	10	21	31	32%	68%
Managers	6	14	20	30%	70%
Stakeholders	7	13	20	35%	65%
Marketers	6	12	18	33%	67%
<b>TOTAL</b>	<b>40</b>	<b>80</b>	<b>120</b>		

In analyzing the responses of the respondent, in the statement made above, 40 respondents which includes (Accountants, Managers, Directors, Stakeholders and Marketers) agreed with the statement while 80 disagreed.

## QUESTION TWO

Economic parameters (inflation, deflation and static economy) has no effect on the choice of inventory valuation method used in a firm.

**Table 4.1.3**

RESPONDENT	AGREED	DISAGREED	TOTAL	%AGREED	%DISAGREED
Accountants	11	20	31	35%	65%
Directors	7	13	20	35%	65%
Managers	13	18	31	42%	58%
Stakeholders	9	11	20	45%	55%
Marketers	7	11	18	39%	61%
<b>Total</b>	<b>47</b>	<b>73</b>	<b>120</b>		

From the table above 47 respondents agreed to the question asked and 73 respondents disagreed.

### QUESTION THREE

The use of different methods in a firm has no effect on the financial report statement.

**Table 4.1.4**

<b>RESPONDENT</b>	<b>AGREED</b>	<b>DISADREED</b>	<b>TOTAL</b>	<b>%AGREED</b>	<b>%DISAGREED</b>
Accountants	11	20	31	35%	65%
Directors	6	14	20	30%	70%
Managers	13	18	31	42%	58%
Stakeholders	8	12	20	40%	60%
Marketers	7	11	18	39%	61%
<b>TOTAL</b>	<b>45</b>	<b>75</b>	<b>120</b>		

The above table shows that 45 respondents agreed to the question and 75 respondents disagreed.

## QUESTION FOUR

A firm should be inconsistent with the application of inventory valuation methods adopted for comparison of financial statement.

**Table 4.1.5**

RESPONDENT	AGREED	DISADREED	TOTAL	%AGREED	%DISAGREED
Accountants	9	22	31	29%	71%
Directors	7	13	20	35%	65%
Managers	11	20	31	35%	65%
Stakeholders	7	13	20	35%	65%
Marketers	7	11	18	39%	61%
<b>Total</b>	<b>41</b>	<b>79</b>	<b>120</b>		

From the question asked above and responses given by the respondents, the table shows that 41 respondents agreed ton the question while 79 respondents disagreed.

## QUESTION FIVE

Inventory valuation methods play no significant role in ensuring the firms accountability.

**Table 4.1.6**

<b>RESPONDENT</b>	<b>AGREED</b>	<b>DISADREED</b>	<b>TOTAL</b>	<b>%AGREED</b>	<b>%DISAGREED</b>
Accountants	9	22	31	29%	71%
Directors	8	12	20	40%	60%
Managers	11	20	31	35%	65%
Stakeholders	7	13	20	35%	65%
Marketers	5	13	18	28%	72%
<b>Total</b>	<b>40</b>	<b>80</b>	<b>120</b>		

The table above shows that 40 respondents agreed to the questions while 80 respondents disagreed.

## QUESTION SIX

The nature of stork does not affect the method of inventory valuation used in a company

**Table 4.1.7**

<b>RESPONDENT</b>	<b>AGREED</b>	<b>DISADREED</b>	<b>TOTAL</b>	<b>%AGREED</b>	<b>%DISAGREED</b>
Accountants	9	22	31	29%	71%
Directors	7	13	20	35%	65%
Managers	11	20	31	35%	65%
Stakeholders	7	13	20	35%	65%
Marketers	7	11	18	39%	61%
<b>Total</b>	<b>41</b>	<b>79</b>	<b>120</b>		

This table shows that 41 respondent agreed while 79 of the respondents disagreed to the question.



## QUESTION SEVEN

The same valuation method should not be used to issue stock to production and customers respectively.

**Table 4.1.8**

<b>RESPONDENT</b>	<b>AGREED</b>	<b>DISADREED</b>	<b>TOTAL</b>	<b>%AGREED</b>	<b>%DISAGREED</b>
Accountants	11	20	31	35%	65%
Directors	7	13	20	35%	65%
Managers	13	18	31	42%	58%
Stakeholders	9	11	20	45%	55%
Marketers	7	11	18	39%	61%
<b>Total</b>	<b>47</b>	<b>73</b>	<b>120</b>		

The table above shows that 47 respondents agreed to the question asked above while 73 respondents disagreed.

## QUESTION EIGHT

The inventory valuation method used by the company does not make company pay more or less tax.

**Table 4.1.9**

<b>RESPONDENT</b>	<b>AGREED</b>	<b>DISADREED</b>	<b>TOTAL</b>	<b>%AGREED</b>	<b>%DISAGREED</b>
Accountants	7	24	31	35%	77%
Directors	7	13	20	35%	65%
Managers	11	20	31	35%	65%
Stakeholders	7	13	20	35%	65%
Marketers	7	11	18	39%	61%
<b>Total</b>	<b>39</b>	<b>81</b>	<b>120</b>		

From the table illustrated above it is seen that 39 respondents agreed while 81 respondents disagreed.

## QUESTION NINE

What method of inventory valuation does your company use?

The summary of the responses to this question shows that the three companies maintain three different methods of inventory valuation. The responses

shows that Innoson technical and industrial company limited uses the average price method, Emenite limited uses the first – in – first – out method (FIFO) while Alo aluminum uses the last – in – first – out (LIFO) method.

### **QUESTION TEN**

Is there any method(3) you know which is/ are recommended by the relevant tax authority?

From the summary gotten from the responses by the respondent it is evident that first – in –first – out method and average cost method are recommended by international accounting standard (IAS) 2 and statement of standard accounting principle (SSAP) 9.

### **QUESTION ELEVEN**

Is there any regulatory body or legislation imposing any identifiable method?

The summary of responses gotten from the respondents shows that there is no body that is imposing any identifiable method of inventory valuation.

## QUESTION TWELVE

What do you recommend generally to help improve and give adequate attention to inventory valuation method is companies?

From the summary of responses gotten from the respondents, it could be said that any inventory valuation used by a firm should not be that which yields more gain to the tax authorities and bring losses to the firm.

A more practical illustration shall be examined below to test the validity of these responses. We shall take on instance, considering the following three manufacturing companies used as case study in this research work.

Innoson technical and industrial company limited, Emenite limited and Alo Aluminum. These three companies are into manufacturing but value their inventories using weighted average method, FIFO and LIFO method respectively.

The following data relate to the operations of each of these companies for the year ended 30<sup>th</sup> June 20x2. It shows consignments of materials received and their issuances to customers as sales.

July 1, 20x2:            inventory at beginning 500 units @ ₦50/unit

July 10, 20x1:        received 6000 units @ ₦55/unit

August 5, 20x1:     received 4000 units @ ₦60/unit

September 12, 20x1: issued to customers 6000 units

October 11, 20x1: received 10000 units @ ₦70/unit

November 8, 20x1: received 9000 units @ ₦75.50/unit

February 2, 20x2: issued 7500 units

March 4, 20x2: received 5000 units @ ₦80/unit

May 24, 20x2: issued to customers 11,500 units

June 10, 20x2: issued to customers 4000 units

Additional information:	₦
Turn over	3,560,000
Depreciation	165,000
Income from other sources	80,000
Admin expenses	100,000
Tax rate	30%

We wish to find out the impact of each method on the financial statement through the closing balance values.

TABLE 4.1.10

**INNOSON TECHNICAL AND INDUSTRIAL COMPANY LIMITED STORES  
LEDGER ACCOUNT USING WEIGTED AVERAGE**

RECEIPTS				ISSUE			BALANCE			
Date	Particular	Quantity	Unit price	Amount	Quantity	Unit price	Amount	Qty	U.P	Amount
			₦	₦		₦	₦		₦	₦
20X1, JULY 1	Beginning inventory							5,000	50	250,000
20x1, July 1o	Receipt	6000	55	330,000				11,000	52.73	580,000
20x1, Aug 5	Receipt	4000	60	240,000				15,000	54.67	820,000
20x1, Sept 12	Issue				6,000	54.67	328,020	9,000	54.66	491,980
20x1, Oct 11	Receipt	10,000	70	700,000				19,000	62.74	1,191,980
20x1, Nov 8	Receipt	9,000	75.5	679,500				28,00	66.84	1,871,480
20x2, Feb 2	Issue				7500	66.84	501,300	20,500	66.84	1,370,180
20x2, March 4	Receipt	5,000	80	400,000				25,500	69.42	1,770,180
20x2, May 24	Issue				11,500	69.42	798,330	14,000	69.42	971,850
20x2 June 6	Issue				4,000	69.42	277,680	10,000	69.42	694,170
	<b>Total</b>	<b>34,000</b>		<b>2,349,500</b>	<b>29,000</b>		<b>1,905,330</b>			

**Value of closing stock = 10,000 units @ ₦69.42 which amount to ₦694,170**

TABLE 4.1.11

## EMENITE LIMITED STORES LEDGER ACCOUNT USING FIFO METHOD

RECEIPTS				ISSUE			BALANCE			
Date	Particular	Quantity	Unit price	Amount	Quantity	Unit price	Amount	Qty	U.P	Amount
			₦	₦		₦	₦		₦	₦
20X1, JULY 1	Beginning inventory							5,000	50	250,000
20x1, July 1o	Receipt	6000	55	330,000				11,000		580,000
20x1, Aug 5	Receipt	4000	60	240,000				15,000		820,000
20x1, Sept 12	Issue				6,000	5000 @ 50 =250,00 1000 @ 55 = 55,000	305,000	9,000		515,000
20x1, Oct 11	Receipt	10,000	70	700,000				19,000		1,215,000
20x1, Nov 8	Receipt	9,000	75.5	679,500				28,000		1,894,500
20x2, Feb 2	Issue				7500	5000 @ 55 = 275,00 2500 @ 60 =150,000	425,000	20,500		1,469,500
20x2, March 4	Receipt	5,000	80	400,000				25,500		1,869,500
20x2, May 24	Issue				11,500	1,500 @ 60 = 90,000 10,000 @ 70 = 700,000	790,000	14,000		1,079,500
20x2 June 6	Issue				4,000	75.50	302,000	10,000		777,500
	Total	34,000		2,349,500	29,000		1,822,000			

Value of closing stock = 5,000 units @ ₦80 and 5,000 @ ₦75.50 = ₦777,500

TABLE 4.1.12

**ALO ALUMINUM MANUFACTURING COMPANY LIMITED STORES LEDGER ACCOUNT  
USING LIFO METHOD**

RECEIPTS				ISSUE			BALANCE			
Date	Particular	Quantity	Unit price	Amount	Quantity	Unit price	Amount	Qty	U.P	Amount
			₱	₱		₱	₱		₱	₱
20X1, JULY 1	Beginning inventory							5,000	50	250,000
20x1, July 1o	Receipt	6000	55	330,000				11,000		580,000
20x1, Aug 5	Receipt	4000	60	240,000				15,000		820,000
20x1, Sept 12	Issue				6,000	4000 @ 60 =240,000 2000 @ 55 = 110,000	350,000	9,000		470,000
20x1, Oct 11	Receipt	10,000	70	700,000				19,000		1,170,000
20x1, Nov 8	Receipt	9,000	75.5	679,500				28,000		1,849,500
20x2, Feb 2	Issue				7500	75.50	566,250	20,500		1,283,250
20x2, March 4	Receipt	5,000	80	400,000				25,500		1,683,250
20x2, May 24	Issue				11,500	5000 @ 80 =400,000 1500 @ 75.50 = 113,250 5000 @ 70 = 350,00	863,250	14,000		820,000
20x2 June 6	Issue				4,000	70	280,000	10,000		540,000
	<b>Total</b>	<b>34,000</b>		<b>2,349,500</b>	<b>29,000</b>		<b>1,959,500</b>			

Value of closing stock = 5,000 units @ ₱50 and 4000 units @ ₱55 and 1000 unit @ ₱70 is equal to ₱540,000



**Table 4.1.13 THE IMPACT OF THE DIFFERENT INVENTORY VALUATION METHODS ON THE FIRMS FINANCIAL REPORT STATEMENT (INCOME STATEMENT). COMPARATIVE INCOME STATEMENT FOR THE YEAR ENDED 30<sup>TH</sup> JUNE 20X2**

PARTICULAR	INNOSON TECH	EMENITE	ALO
	₦	₦	₦
Turn over(sales)	3,560,000	3,560,000	3,560,000
Less: cost of goods sold:			
Opening inventory	250,000	250,000	250,000
Add: purchases	2,349,000	2,349,000	2,349,000
COGAS	2599500	2599500	2599500
Less: closing inventory	(694170)	(777,500)	(540,000)
COGS	1,905,330	1,822,000	2,059,500
Gross profit	1,654,670	1,738,000	1,500,500
Add: other incomes	80,000	80,000	80,000
	1,734,670	1,818,000	1,580,500
Less: expenses			
Depreciation	(165,000)	(165,000)	(165,000)
Admin expenses	(100,000)	(100,000)	(100,000)
Net profit before tax	1,469,670	1,553,000	1,315,500
Less: tax @ 30%	(440,901)	(465,900)	(394,650)
Net profit after tax	1028769	1,087,100	920,850

The analysis done above has shown different values for closing inventory, cost of goods sold, assessable profit (profit before tax) and the taxation of these companies as well as their profit after tax.

Table 4. 1. 14 below will give you a better presentation of the difference gotten from the three companies in a tabular form so as to enable a better comparism.

**TABLE 4. 1. 14**

Comparism of closing stock, cost of goods sold, profit before tax, taxation and profit after tax. Using FIFO, LIFO and Weighted average methods.

COMPANY/ METHOD	CLOSING STOCK	COST OF GOODS SOLD	PROFIT BEFORE TAX	TAXATION	PROFIT AFTER TAX
INNOSON  (WEIGHTED AVERAGE)	₦ 694,170	₦ 1,905,330	₦ 1,469,670	₦ 440,901	₦ 1,028,769
EMENITE  (FIFO)	777,500	1,822,000	1553,000	465,900	1,087,100
ALO  (LIFO)	540,000	2,059,500	1,315,500	394,650	920,850

Taking a closer look it can be seen that the FIFO method shows the highest closing inventory value followed by the weighted average method and lastly the LIFO

method. These will inversely result in the cost of goods sold for FIFO being the lowest, followed by weighted and then LIFO method being the highest. With these values the profit before tax will take the same direction with the closing stock values. That is, with a high cost of goods sold, the LIFO method will report the lowest profit figure before tax whereas the FIFO method which has the lowest cost of goods sold will report the highest profit before tax figure. The weighted average method still maintains the middle profit before tax.

Finally, the company taxation as well as the profit after tax for the companies is highest using FIFO and lowest using LIFO method while the weighted average is still in between both levels.

## **4.2 TESTING OF HYPOTHESES**

To carry out this study successfully, the following three (3) hypothesis formulated in the previous chapter (chapter one) of this research work shall be examined by subjecting them to some statistical test using the regression coefficient analysis. This is to determine the validity or otherwise of the hypothesis

### **HYPOTHESIS ONE**

**H<sub>0</sub>:** Inventory valuation methods do not have any impact on the assessable income tax of Nigerian manufacturing companies.

**H<sub>1</sub>:** Inventory valuation method has an impact on the assessable income tax of Nigerian manufacturing companies.

To test this hypothesis, the researcher used the responses on question one.

The data collected are presented on a table below.

**Table 4.2.1**

<b>RESPONDENTS</b>	<b>X<sub>I</sub></b>	<b>Y<sub>I</sub></b>	<b>X<sub>I</sub><sup>2</sup></b>	<b>Y<sub>I</sub><sup>2</sup></b>	<b>X<sub>I</sub>Y<sub>I</sub></b>
ACCOUNTANTS	11	20	121	400	220
MANAGERS	10	21	100	441	210
DIRECTORS	6	14	36	196	84
STAKEHOLDERS	7	13	49	169	91
MARKETERS	6	12	36	144	72
<b>TOTAL</b>	$\sum xi = 40$	$\sum yi = 80$	$\sum xi^2 = 342$	$\sum yi^2 = 1350$	$\sum xiyi = 677$

$$\bar{X} = \frac{40}{5} = 8$$

$$\bar{Y} = \frac{80}{5} = 16$$

Formular:

$$b = \frac{\sum X_1 Y_1 - n \bar{X}_1 \bar{Y}_1}{\sum X_1^2 - n \bar{X}_1^2}$$

$$a = \bar{Y} - b \bar{X}$$

$$b = \frac{677 - 5(8)(16)}{342 - 5(8)^2}$$

$$b = \frac{677 - 640}{342 - 5(64)}$$

$$b = \frac{677 - 640}{342 - 320}$$

$$b = \frac{37}{22}$$

$$b = 1.68$$

$$a = 16 - 1.68(8)$$

$$a = 16 - 13.44$$

$$a = 2.56$$

$$Y = a + b$$

$$Y = 2.56 + 1.68$$

$$Y = 4.24$$

Testing the significance of b

$$S_b = \frac{\text{See}}{\sqrt{\sum x_1^2 - n \bar{x}^2}}$$

Where See = the standard error of estimate

$$\text{See} = \sqrt{\frac{\sum Y_1^2 - a \sum Y_1 - b \sum x_1 Y_1}{n - 2}}$$

To get  $S_b$  we have to get out see (standard error of estimate)

$$\text{See} = \sqrt{\frac{1350 - 2.56(80) - 1.68(677)}{5 - 2}}$$

$$\text{See} = \sqrt{\frac{1350 - 204.8 - 1137.36}{3}}$$

$$\text{See} = \sqrt{\frac{7.84}{3}}$$

$$S e e = \sqrt{2.613}$$

$$S e e = 1.617$$

$$S_b = \frac{1.617}{\sqrt{342 - 5(8)^2}}$$

$$S_b = \frac{1.617}{\sqrt{342 - 5(64)}}$$

$$S_b = \frac{1.617}{\sqrt{342 - 320}}$$

$$S_b = \frac{1.617}{\sqrt{22}}$$

$$S_b = \frac{1.617}{\sqrt{22}}$$

$$4.69$$

$$S_b = 0.35$$

$$\therefore Z \text{ test} = \frac{b}{S_b}$$

$$= \frac{1.68}{0.35}$$

$$= 4.8$$

Critical value of Z table as 3 degree of 5% level of significance is 0.9989

### **DECISION RULE:**

Calculated value = 4.8

Table value = 0.9989

0.9989 < 4.8. therefore we reject the null hypothesis (Ho). This means that inventory valuation methods has an impact on the assessable income tax of Nigeria manufacturing companies.

### **HYPOTHESIS TWO**

**H<sub>02</sub>:** The prevailing Economic parameters does not influence the inventory valuation methods used by Nigeria manufacturing companies.



**H<sub>12</sub>:** The prevailing Economic parameters influences the inventory valuation methods used by Nigeria manufacturing companies.

To test this hypothesis, the researcher used the responses on question two. The data collected are presented on the table below

**Table 4.2.1**

RESPONDENTS	X <sub>I</sub>	Y <sub>I</sub>	X <sub>I</sub> <sup>2</sup>	Y <sub>I</sub> <sup>2</sup>	X <sub>I</sub> Y <sub>I</sub>
ACCOUNTANTS	11	20	121	400	220
MANAGERS	7	13	49	169	91
DIRECTORS	13	18	169	324	234
STAKEHOLDERS	9	11	81	121	99
MARKETERS	7	11	49	121	77
TOTAL	$\sum xi = 47$	$\sum yi = 73$	$\sum xi^2 = 469$	$\sum yi^2 = 1135$	$\sum xiyi = 721$

$$\bar{X} = \frac{47}{5} = 9.4$$

$$\bar{Y} = \frac{73}{5} = 14.6$$

Formular:

$$b = \frac{\sum X_1 Y_1 - n \bar{X}_1 \bar{Y}_1}{\sum X_1^2 - n \bar{X}_1^2}$$

$$a = \bar{Y} - b \bar{X}$$

$$b = \frac{721 - 5(9.4)(14.6)}{469 - 5(9.4)^2}$$

$$b = \frac{721 - 686.20}{469 - 5(88.36)}$$

$$b = \frac{721 - 686.20}{469 - 441.8}$$

$$b = \frac{34.8}{27.2}$$

$$b = 1.28$$

$$a = 14.6 - 1.28(9.4)$$

$$a = 14.6 - 12.03$$

$$a = 2.57$$

$$Y = a + b$$

$$Y = 2.57 + 1.28$$

$$Y = 3.85$$

Testing the significance of b

$$S_b = \frac{\text{See}}{\sqrt{\sum x_1^2 - n \bar{x}^2}}$$

Where See = the standard error of estimate

$$\text{See} = \sqrt{\frac{\sum Y_1^2 - a \sum Y_1 - b \sum x_1 Y_1}{n - 2}}$$

To get  $S_b$  we have to get out see (standard error of estimate)

$$\text{See} = \sqrt{\frac{1135 - 2.57(73) - 1.28(721)}{5 - 2}}$$

$$\text{See} = \sqrt{\frac{1135 - 187.61 - 922.88}{3}}$$

$$\text{See} = \sqrt{\frac{24.51}{3}}$$

$$\text{See} = \sqrt{8.17}$$

$$S_{e e} = 2.86$$

$$S_b = \frac{2.86}{\sqrt{469 - 5(9.4)^2}}$$

$$S_b = \frac{2.86}{\sqrt{469 - 5(88.63)}}$$

$$S_b = \frac{2.86}{\sqrt{469 - 441.8}}$$

$$S_b = \frac{2.86}{\sqrt{22.2}}$$

$$S_b = \frac{2.86}{5.22}$$

$$S_b = 0.55$$

$$\therefore Z \text{ test} = \frac{b}{S_b}$$

$$= \frac{1.28}{0.55}$$

$$= 2.33$$

Critical value of Z table as 3 degree of 5% level of significance is 0.9989

### **DECISION RULE:**

Calculated value = 2.33

Table value = 0.9989

0.9989 < 2.33 therefore we reject the null hypothesis (Ho). This means that the prevailing economic parameters influences the inventory valuation methods used by Nigeria manufacturing companies.

### **HYPOTHESIS THREE**

**H<sub>03</sub>:** The variances in inventory valuation methods dose not affect financial reporting positions of Nigerian manufacturing companies.

**H<sub>13</sub>:** The variances in inventory valuation methods affects financial reporting positions of Nigerian manufacturing companies.

The researcher used the responses in question three to test is hypothesis. Presented below is the data collected:

**Table 4.2.3**

<b>RESPONDENTS</b>	<b>X<sub>I</sub></b>	<b>Y<sub>I</sub></b>	<b>X<sub>I</sub><sup>2</sup></b>	<b>Y<sub>I</sub><sup>2</sup></b>	<b>X<sub>I</sub>Y<sub>I</sub></b>
ACCOUNTANTS	11	20	121	400	220
MANAGERS	6	14	36	196	84
DIRECTORS	13	18	169	324	234
STAKEHOLDERS	8	12	64	144	96
MARKETERS	7	11	49	121	77
<b>TOTAL</b>	$\sum xi = 45$	$\sum yi = 75$	$\sum xi^2 = 439$	$\sum yi^2 = 1185$	$\sum xiyi = 711$

$$\bar{X} = \frac{45}{5} = 9$$

$$\bar{Y} = \frac{75}{5} = 15$$

Formular:

$$b = \frac{\sum X_1 Y_1 - n \bar{X}_1 \bar{Y}_1}{\sum X_1^2 - n \bar{X}_1^2}$$

$$a = \bar{Y} - b \bar{X}$$

$$b = \frac{711 - 5(9)(15)}{439 - 5(9)^2}$$

$$b = \frac{711 - 675}{439 - 5(81)}$$

$$b = \frac{711 - 675}{439 - 405}$$

$$b = \frac{36}{34}$$

$$b = 1.06$$

$$a = 15 - 1.06(9)$$

$$a = 15 - 9.54$$

$$a = 5.46$$

$$Y = a + b$$

$$Y = 5.46 + 1.06$$

$$Y = 6.52$$

Testing the significance of b

$$S_b = \frac{\text{See}}{\sqrt{\sum x_1^2 - n \bar{x}^2}}$$

Where See = the standard error of estimate

$$\text{See} = \sqrt{\frac{\sum Y_1^2 - a \sum Y_1 - b \sum x_1 Y_1}{n - 2}}$$

To get  $S_b$  we have to get out see (standard error of estimate)

$$\text{See} = \sqrt{\frac{1185 - 5.46(75) - 1.06(711)}{5 - 2}}$$

$$\text{See} = \sqrt{\frac{1185 - 409.5 - 753.66}{3}}$$

$$\text{See} = \sqrt{\frac{21.84}{3}}$$

$$\text{See} = \sqrt{7.28}$$



$$S_{e e} = 2.7$$

$$S_b = \frac{2.7}{\sqrt{439 - 5(9)^2}}$$

$$S_b = \frac{2.7}{\sqrt{439 - 5(81)}}$$

$$S_b = \frac{2.7}{\sqrt{439 - 405}}$$

$$S_b = \frac{2.7}{\sqrt{34}}$$

$$S_b = \frac{2.7}{5.83}$$

$$S_b = 0.46$$

$$\therefore Z \text{ test} = \frac{b}{S_b}$$

$$= \frac{1.06}{0.46}$$
$$= 2.30$$

Critical value of Z table as 3 degree of 5% level of significance is 0.9989

**DECISION RULE:**

Calculated value = 2.30

Table value = 0.9989

0.9989 < 2.30 therefore we reject the null hypothesis (Ho). This means that the variances in Inventory valuation methods affect financial reporting positions of Nigeria manufacturing companies.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

#### 5.1 SUMMARY OF FINDINGS

From the outcome of the analysis and interpretation as they relate to the questions in the questionnaire for this study and also as they relate to the testing of hypothesis, the following findings were made and summarized as follows:

1. The responses received to research questions one, five and eight established the fact that inventory valuation methods has an impact on the financial statement. From the responses given by the respondents it was gotten that it has a high significance.
2. It was also discovered from the responses to question nine in the questionnaire that firms are allowed to choose their own method of inventory valuation as far as such methods will be consistent and does not conflict with the provision of any known Nigerian or international legislation in accounting, or conflict with stock valuation generally accepted for the purposes.
3. The researcher also discovered that the Last-In-First-Out method is more suitable in inflationary market conditions. This is due to the fact that the higher costs of recent purchases are charged to operations thus reducing the profit figure reported.

4. The researcher discovered that the weighted average price method has a hybrid effect in charging material cost of stock to operations. The FIFO on the other hand overstates profit figure during periods of inflationary market trends thereby resulting in high taxes. It therefore does not adequately incorporate the prevailing market condition and hence profit reported under FIFO method cannot be relied upon by investors in arriving at a viable investment decision.

5. The researcher also discovered that the weighted average price method leads to unrealized profit or loss as they are charged to production at an average cost but the FIFO and LIFO methods charge cost of inventories at actual cost and does not give rise to unrealized profit or loss in periods of inflation or depressed market situation.

6. We also discovered that the prevailing market situation plays a lot of role or impact on the value of ending stock. If an economy is experiencing an inflationary market situation, the different methods will result in ending stock having different values. Also if it is in a depressed economy, the opposite of what is observed under FIFO will be seen under LIFO. This variation in closing stock values will affect the profit before tax, tax paid to government and amount of profit available for shareholder (profit after tax)

## 5.2 RECOMMENDATIONS

There are several factors that make the application of a particular method of inventory valuation impossible, and the need for consistency in a particular method in order to enhance comparism of achievement attained in a period with that of the previous periods.

Therefore the SAS 4 issued by the NASB seeks to bridge the gap that subsists in the use of diverse inventory valuation methods by setting a standard for the valuation and presentation of items of stock in the context of historical cost conventions. This Nigeria accounting standard board (NASB) however selects some method to be used in evaluating inventory and those selected methods are applicable under certain situations.

As noted earlier, the FIFO method is good for tax purposes during inflationary periods while the LIFO method is good for tax purposes for tax purposes during periods of falling prices.

Nevertheless, the average price method which is a midway between LIFO, FIFO and the standard price method could be more realistic in face of modern economic trends. The average method will also have the benefit of acting as an equalizer between factor inputs costs and factor outputs value so that tax authority do not exploit the business unnecessarily. Therefore, there would be a balance

between the benefits accruing to the tax authority and the owners of a firm without either of the party being better or worst off at the expense of the other.

Another justification for recommending the weighted average method is on the ground that the method tends to smoothen price fluctuations, thus making input cost of products appear realistic.

As a result of the fact that the use of diverse method of inventory valuation and reporting gives rise to wide disparity in the financial results of a companies operations, it is recommended that financial statement disclose in the notes to the accounts the method applied, and any change from the previous method used. This recommendation is in accordance with SAS 1 and SAS 4.

We finally recommended the use of the weighted average method of valuing inventory. The reason being that, it does not give rise to any unrealized profit and it will enhance uniformity in presentation of a true and fair view of the statement of affairs and to highlight the hybrid effect of other methods such as standard price, LIFO and FIFO methods.

The accountancy professional bodies and accounting regulatory authorities are hereby called upon to examine critically the issue of using the average price method as the acceptable stock valuation model.

### 5.3 CONCLUSION

This research work was directed towards a comparative analysis or review of the different inventory valuation methods and their impact on the financial statements. The findings amongst other things reveal that factor such as custom of the firm, auditor's advice to client, taxation, convenience, nature of stock, lack of relevant information, etc might influence the decision regarding the choice of a method.

This decision will vary depending on the opinion or attitude of those who are responsible for valuing inventory in a company or enterprise.

It is pertinent to assert that pending the general acceptance and adoption of the researcher's recommendation by the Nigerian Accounting Standard Board and other Accounting Professional Standard making bodies, that any method of valuation could be applied. The reason being that there is no one universally accepted method of inventory valuation yet.

Furthermore, the over-riding consideration in a choice of method in all circumstances is the need to give a "true and fair view" of a state of affairs of an entity. It is therefore very important for organizations to be consistent in the application of a specific method from time to time unless changes in circumstances have prevented such consistency; however where there is a change from a

particular method to another, the disclosure of such change of method is of paramount importance.

Finally, the Accounting professional bodies should put the recommendation of making weighted average method of inventory valuation a recommended method for manufacturing companies into consideration in an attempt to evolve an acceptable and more realistic method of valuing inventories.



**BIBLIOGRAPHY**

- Adeniyi, A. A. (2009). *Cost Accounting; A managerial Approach*. El- Toda Ventures Ltd.
- Anyibo, C. I. (1999). *Cost and Marginal Accounting*. Enugu; Hugolex Publication.
- Ekwe, M. E. (2003). *An Insight into Costing*. Enugu; Two Way Printers Nigeria.
- Enekwe, C. I. (2010). *Basic Fundamentals in Accounting*. Volume Two. Enugu; Providence Press Nig. Limited
- Eyisi, S.A. (2003). *Cost Accounting Theories and Practice*. Enugu; Ayi- Best Publishers.
- Frankwood & Alan Sangster. (2008). *Business Accounting* (11<sup>th</sup> Edition) IFRS Edition. Harlow : Pearson Education Ltd Publication.
- Horngren, C. T & George Foster. (2011). *Cost Accounting; A Managerial Emphasis* (14<sup>th</sup> Edition). London: Prentice Hall.
- Karen, W. B. (2012). *Managerial Accounting* (3<sup>rd</sup> Edition). London: Prentice Hall
- Larson, K. D, et al. (2002). *Fundamental Accounting Principles*. Ryerson: McGraw – Hill.

Lucy, T (2003).*Management Accounting*. Great Britain: DP Publications.

Monwubba, A. O. (1995).*Principles and Practice of Cost Accounting*. Enugu : B-Teks Publishers

Nweze, A. U (2004).*Quantitative Approach to Management Accounting* (3<sup>rd</sup> Edition). Enugu: Computer Edge Publishers.

Nwoha,C .(1995).*Advanced Financial Accounting*.Enugu; Valson W. A Press Ltd

Okwo, I. M (2003).*Cost Accounting*. Enugu; Computer Edge Publishers

Omelehinwa, E. O .(2011).*Coping With Cost Accounting* (2<sup>nd</sup> Edition).Pumark Publishers, Nigeria.

Peter, C. B et al. (2009):*Introduction to Managerial Accounting*: McGraw- Hill/ Irwin

Walter, et al (2009).*Managerial Accounting* (2<sup>nd</sup> Edition). London ; Prentice Hall

## **JOURNALS**

*Journal of Academy of Business and Economic* (2010). Volume 10, Source Issue:3;  
Int'l Academy of Business and Economics Publications.

**APPENDIX A**

DEPARTMENT OF ACCOUNTANCY  
CARITAS UNIVERSITY  
AMORJI- NIKE  
P. M. B 01784  
EMENE  
ENUGU STATE

Dear Respondent,

I am an undergraduate student of the above named institution. I am undertaking a research on the topic “Inventory valuation methods in manufacturing companies. A comparative analysis of the impact on financial report statement”. A case study of some manufacturing companies in Enugu State. The research work is for the partial fulfillment of the award of Bachelor of Science (B. Sc.).

Please be assured of your anonymity as the information provided by you will be treated in the strictest confidence.

I shall be very grateful if you give answers to the attached questionnaire to the best of your knowledge. Thanks for your co-operation.

Yours faithfully,

MORGAN, ACCEPTANCE OKON

**APPENDIX B****INSTRUCTION:**

Please indicate your answer by ticking ( ) in the appropriate box, chosen option or short sentences where necessary.

**SECTION A: PERSONAL INFORMATION****SEX**FEMALE MALE **AGE**20 – 30 31 – 40 41 – 50 50 – ABOVE **EDUCATIONAL STATUS**SSCE OND B. Sc. OTHERS **POSITION HELD**ACCOUNTANT MANAGER DIRECTOR MARKETERS STAKEHOLDER

## SECTION B

1. Inventory valuation method does not have any impact on the assessable income tax of your company

AGREED

DISAGREED

2. Economic parameters (inflation, deflation and static economy) has no effect on the choice of inventory valuation method used in a firm

AGREED

DISAGREED

3. The use of different methods of inventory in a firm has no effect on the financial report statement

AGREED

DISAGREED

4. A firm should be inconsistent with the application of inventory valuation method adopted for computation of financial statement

AGREED

DISAGREED

5. Inventory valuation methods plays no significant role in ensuring the firms accountability

AGREED

DISAGREED

6. The nature of stock does not affect the method of inventory valuation used in a company

AGREED

DISAGREED

7. The same valuation method should not be used to issue stock to production and customers respectively

AGREED

DISAGREED

8. The inventory valuation method used by the company does not pay more or less on tax

AGREED

DISAGREED

9. What method of inventory valuation does your company use?

10. Is there any method(s) you know which is/are recommended by the relevant tax authority?

11. Is there any regulatory body or legislation imposing any identifiable method?

12. What do you recommend generally to help improve and give adequate attention to inventory valuation method in companies?