European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.6, No.8, 2014

Effects of IFRS Adoption on Inventory Valuation and Financial Reporting In Nigeria

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Abstract:
The IFRS has streamlined the basis for valuing inventory against that which was hitherto posited by the Statement of Accounting Standards (SAS) or the US GAAP. These methods have far reaching implications for the value of inventory firms would report in their financial statements. This paper has examined those methods adopted by the International Financial Reporting Standards (IFRS) and there would be implication on financial reporting in Nigeria. The study was conceptual and empirical with most data sourced from the relevant text book and the internet. A survey was also carried out to know the level of awareness of this adoption and level of compliance. The study revealed that though some companies has adopted the use of FIFO method but a good number are still using the LIFO method which was proscribed by IFRS. The study recommends that firms should adopt the use of FIFO and Weighted Average Methods as prescribed by IASB and the others permitted by IFRS. This will make their financials comparable under the IFRS while firms should embark on intensive training of their accounting staff to get them to becoming IFRS compliant.
Key words: Inventory, Valuation, Financial Reporting, IASB, IFRS

1.0 Introduction:

1.1 **Background of the study:** Stock as it was referred to in GAAP which Nigeria had used as a basis for its financial reporting before the adoption of IFRS by the FEC of Nigeria in 2010 can be said to be the life wire of any business. Infact to run out of stock or inventory is a first sign of illiquidity or distress of any organisation. To this effect, the very recent adoption of IFRS in financial reporting has ushered in a number of modifications or changes in the basis in which inventory is valued for the purposes of stock valuation. The modification has even gone to the extent of changing the name from 'stocks' to ' inventory'. Other modification outright ban of some methods hitherto used under the GAAP while some were modified to accommodate the views of the IASB which is the body issuing IFRS.

The US GAAP in which Nigeria subscribed to initially has some of the basis for valuation of inventory to include FIFO- First in First Out; LIFO- Last In First Out, Simple Average Price; Weighted Average; Periodic Simple Average; Periodic Weighted Average; Base Stock ;Standard Price and so on.

However, the IASB through IAS 2 streamlined the method of inventory valuation to basically include FIFO- First in First Out; Weighted Average Method; Net realisable value. Other valuation method permitted by IFRS stated in IAS 2 include Retail method; Gross Profit Method; Fair value; standard cost method; Net Realizable Value. The rest of this paper will x-ray these methods and their perceived impact on financial reporting in Nigeria.

Statement of the Problem

Over the years, financial reporting and indeed inventory has been valued in Nigeria based on the GAAP and precisely the Statement of Accounting Standard(SAS 4). However, the pronouncement of the Federal Executive Council of Nigeria in which a Road Map for the adoption of IFRS has presumed that most corporate entities have keyed into IFRS. This presumed that all the financial reports variables including the inventory values will be IFRS compliant and that is the essence of this paper.

Objectives of the study

The broad objective of this study is to examine the effect of IFRS adoption on inventory valuation and financial reporting in Nigeria. Other specific objectives of this report are to:

1. Determine the various inventory valuation methods as prescribed by the IASB;
2. Determine the effect of the IFRS inventory valuation methods on inventory values reported;
3. Identify the disclosure requirement of IAS 2 on the various methods;
4. Identify some of the benefits of the new development to financial reporting in Nigeria.

Research Questions:

The following research questions will guide this study:
1. What are the various inventory valuation methods that are prescribed by the IASB?
2. What are the effects of the on the inventory valuation methods on inventory values reported?
3. What are the disclosure requirements of IAS 2 on the various methods
4. What are the benefits of the development to financial reporting in Nigeria?

REVIEW OF RELATED LITERATURE

INVENTORY VALUATION: THEORITICAL PERSPECTIVE

According to Onyekwelu(2011) inventory constitutes of those goods of any organisation which have been produced as finished goods waiting to be sold or in the semi finished state or still as unprocessed that is as a raw material. She notes that inventory means those goods in its line of production that are still in the hands of the organisation waiting to be exchanged for a value. Inventory are held basically for resale. Business inventory are made up of any of following classes:

a. **Finished goods:** These are goods that have been fully processed and is ready for sales.
b. **Semi -Finished Goods or Work –in- Progress** : These are goods which have received some levels of processing but are still waiting further processing before they could be ready for either sale.
c. **Raw Materials** : These are goods which have not been processed at all. They are to be used for production.

Companies that engage in production only, their inventory constitutes of the Raw Materials, Work-in-Progress and Finished Goods while those that engage buying and selling of finished goods, the finished goods constitutes their inventory.

However, what may constitute raw materials for a particular organisation may be regarded as finished goods for another. For instance, rice grains constitute finished goods for a company like Dangote Nig. Plc. On the other hand, the same rice grain forms the raw materials for fast food centres like Mr. Biggs or Shoprite.

Epistein and Jermakowicz(2010) notes that a major objectives of accounting for inventories are the matching of appropriate costs against revenues in order to arrive at the proper determination of periodic income and that the accurate representation of inventories on hand as assets of the reporting entity at the end of the reporting period.

Factors that affect the choice of inventory valuation method adopted by organisations

Onyekwelu, (2011) posits that the need to present a true and fair view of the value of stock to be reported in the financial statement could be adjudged the most important consideration while choosing a method for inventory valuation. However, other reasons that may be considered while choosing a method includes:

(1) Convenience: An organisation may choose a given method inventory valuation because it has considered it to be convenient to it. Here, the type of goods which the organisation deals in is important. Ordinarily an organisation that deals in perishable goods will choose First- in- First Out as this will help it dispose the goods before the spoil and waste away.

(2) Impact on Taxation: Most organisations will all things being equal choose that method of valuation which will enable them to understate their profit for tax purposes. Again, this will depend on the choice allowed by the relevant tax authority.

(3)Custom: The method that may be used may be as prescribed for a particular trade or industry.

(4)Capacity To Borrow Money Or Sell The Business At The Highest Possible Price:

Those who intend to sell their business may prefer that stock valuation method that will enable the business profit to be very high. This is because the higher the profit the higher the value placed on the business.

(5)**Remuneration Purposes:** Managers whose remunerations is based on the profit reported will likely prefer methods that will enable profit to be very high. On the other hand, the the owner of the business who is paying salaries may resort to using a method that could report less profits to enable him pay less salaries.

(6) Lack of Information: Organisations which do not keep proper records about their stock may not use certain methods like FIFO. The company may therefore resort to using LIFO or the Simple Average method. Proper accounts should be maintained for stock as this will check the incidence of stock loss, rate of deteriation and outright theft.

(7) Advice of the Auditors: Auditors are those who examine the financial statements presented by organisation to enable him vouch for truthfulness or fairness of the information presented thereby. Some auditors may prefer one type of stock valuation to another and thereby advice the client accordingly.

(8) **Ignorance:** Those charged with the responsibility of preparing the stock valuation may not know that there are other methods available.

INVENTORY VALUATION METHODS AS PRESCRIBED BY IFRS

The International Accounting Standard Board in IAS 2 streamlined the method of stock valuation to basically two namely:

- First in First Out(FIFO)
- Weighted Average Method;

Other basis of valuation methods that are permitted by IFRS as stated in IAS 2 includes Net realisable value, Retail method; Gross Profit Method; Fair value; standard Cost method; Net Realizable Value.

1. First in First Out(FIFO): The FIFO method assumes that the first goods purchased will be the first goods to be used or sold regardless of the actual physical flow. Epistein and Jermakowicz(2010) argue that the strength of the cost flow assumption lies in the inventory amount reported in the statement of financial position. They further notes that the earliest goods purchased are the first ones removed from the inventory account while the remaining balance is composed of items acquired closer to the period end and more recent costs.

Merits of First in First Out(FIFO): Onyekwelu(2011) attributes the following as merits of FIFO:

1. It is simple to operate, easy to understand and devoid of much mathematical complexities.
2. This method is preferred when there is a reduction of prices.
3. The FIFO method yields result similar to those obtained under current cost accounting in the statement of accounting position and helps in achieving the goal of reporting assets at amounts approximating current values.
4. It does not lead to obsolesce of inventory because inventories are issued in the sequence they are purchased thereby forestalling spoilage and very convenient for valuing perishable goods.
6. No room for unrealized profit / losses hence materials are issued at the exact price they were purchased.
7. The FIFO method is unique as it provides the same results under either periodic or perpetual system which is not achievable under any other method.

<u>Demerits of First in First Out</u>

1. One of the key demerits of FIFO is that it does not necessarily reflect the most accurate or decision-relevant income figure when viewed from the perspective of underlying economic performance as older historical costs are being matched against current revenues
2. During material price rise, the issue price does not reflect the market price and hence the charge charged to production is low because the cost of replacing the materials convened will be higher than the price of issue.
3. In the case of profit fluctuating from period to period, for example, in the period of rising prices, products costs are understated and profits over stated and in periods of falling prices of product cost are overstated and profit understated.

The basic principle of FIFO application is illustrated in Table 1 below:

Date	**Units available**	**Units sold/Issued (in bags)**	**Actual Unit cost ₦**	**Actual total cost ₦**
Opening inventory	80	-	350	28,000
03/05/05	35	-	380	13,300
08/05/05	48	-	400	19,200
10/05/05	-	60	-	----
15/05/05	-	20	-	-----
22/05/05	22	-	410	9,020
24/05/05	42	-	420	17,640
30/05/05 **TOTAL**	- **227**	50 **130**	-	------ **87,160**

To determine the cost of goods sold and the ending inventory balance. the following computation is necessary:

	Units (bags)	Unit cost ₦	Total cost ₦
Cost of goods sold:	60	350	21,000
	20	350	7,000
	80		**28,000**
Closing inventory	35	380	13,300
	48	400	19,200
	22	410	9,020
	42	420	17,640
			59,160

The workings above shows that the total units in the goods sold and ending inventory as well as the sum of their total cost is equal to cost of goods available for sale and their respective total cost.

(2) **The Weighted Average Cost:** Inventory valuation under the revised IAS 2 involves averaging. Here the cost of goods available for sale (opening inventory plus net purchases) is divided by the units available for sale to obtain a weighted average unit cost. Closing inventory and cost of goods sold are priced at the average cost and the ending inventory and cost of goods sold are then valued/priced at the average cost determined.

The basic principle of weighted average cost application is illustrated in Table 2 below:

Date	Units on hand	Units sold	Actual Unit cost	Actual Total cost
Opening inventory	80	-	₦ 350	₦ 28,000
03/05/05	35	-	380	13,300
08/05/05	48	-	400	19,200
10/05/05	-	60	-	----
15/05/05	-	20	-	----
22/05/05	22	-	410	9,020
24/05/05	42	-	420	17,640
30/05/05 **TOTAL**	- **227**	50 **130**	-	---- **87,160**

Note: The weighted average cost = Actual Total Cost divided by the units available.

Thus: ₦87, 160/227 = **₦383.96 per bag**

Therefore the closing inventory is 227 bags @ ₦383.96/ bag= **₦87, 158.92**

Cost of goods sold 130 bags @ ₦383.96/ bag = **₦49, 914.80**

When the weighted -average assumption is applied to a perpetual inventory system, the average cost is recomputed after each sale , this method is known as moving average. Sales are computed at the most recent average.

Illustration to demonstrate the moving average:

Date	Units on hand	Purchases (₦)	Sales(₦)	Total cost(₦)	Inventory Unit Cost (₦)
Opening inventory	80	-	350	-	28,000
Sales	130	-	380		13,300
08/05/05	48	-	400		19,200
10/05/05	-	60	-		----
15/05/05	-	20	-		-----
22/05/05	22	-	410		9,020
24/05/05	42	-	420		17,640
30/05/05 **TOTAL**	- **227**	50 **130**	-		------ **87,160**

NET REALIZABLE VALUE : According to IAS 2-

Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

The utility of an item it notes that inventory is limited to the amount to be realized from its ultimate sale; where the items recorded cost exceeds this amount.

IFRS require that a loss be recognized for the difference. This underscores the fact that:

1. First, assets (current assets such as inventory) should not be reported at amounts that exceed net realizable value
2. That any decline in a period should be reported in that period's results of operation in order to achieve proper matching with current period's revenues. If the inventory is carried forward at an amount in excess of net realizable value, the loss would be recognized on the ultimate sale in subsequent period.
3. IAS 2 states that estimates of net realizable value should be applied on an item -by-item basis or principle. That is Item by item comparison of cost to net realized less unrealized gains on some items offset the unrealized losses on other items thereby reducing the net loss to be recognized.

Other methods prescribed by IFRS: IAS 2

1. **Retail Method:** This is a method usually employed by retailer as a method to estimate the cost of their ending inventory. The method can be used under either used with the FIFO or average cost. As with ordinary FIFO or average cost, or the lower of cost net realizable value, rule can be applied to the retail method when either one of these two cost assumption is used. The retailer can take a physical inventory at retail prices or estimates ending retail inventory and then use the cost -to -retail ratio derived under this method to convert the ending inventory at retail to its estimated cost.
2. **Fair value as an inventory costing method:** though inventories are to be carried basically at cost**,** cost may be ascertained by a variety of methods under IAS 2, and when recoverable amounts do not equal cost there is the further need to write down inventory to reflect such impairment. Under defined circumstances, inventories may be carried in inventory are to be reported at fair value, subject to certain limitations. IAS 41, provision Agricultural produce is to be measured at fair value at the point of harvest.
4. Under the IAS 41, all biological assets are to be measured less expected point-of- sale costs at each date of the statement of financial position, unless fair value cannot be measured reliably. Fair value measurement however stops at the moment of harvest. Any change in fair value of biological assets occurring during a reporting period is reported in net profit or loss irrespective of the fact that it is unrealized as at the date of statement of financial position. IAS 41 has the fir value concept however has an exception to this fair value model for biological assets for situations where there is no active market at the time of recognition in the financial statements, and no other reliable measurement method exists.

5. **Standard Costs:** these are predetermined unit cost used by many firms especially manufacturing firms for planning and control purposes. These costs are often incorporated into the accounts and materials, work in process and finished goods inventories.

IAS 2 Disclosure Requirements on inventory

The Standard (IAS 2) has set out some disclosure requirements a firm must make regarding the method of inventory valuation adopted. The following disclosures are imperative:

I**.** The accounting policies adopted in measuring inventory including the costing method employed.
ii. The total carrying amount of inventories and the carrying amount in classifications appropriate to the entity.
iii. The carrying amount of inventory carried at fair value less costs to sell.
iv. The amount of inventories recognized as expense during the period.
v. The amount of any write-down of inventories recognized as an expense in the periods.
vi. The amount of any reversal of any previous write-down that is recognized in profit or loss for the period.
vii. The circumstances or events that led to reversal of a write-down of inventories to net realizable value.
viii. The carrying amount of inventories pledge as security for liabilities.

Epstein and Jermakowicz(2010) notes that information to be provided concerning inventories held in different classifications is somewhat flexible but traditional classifications such s raw materials, work -in-progress , finished goods and supplies should normally be employed.

Financial statements should disclose either the cost of inventories recognized as an expense during the period or the operating costs applicable to revenues, recognized as an expense during the period categorized by their respective natures.

Cost of inventories recognized as expense includes in addition to the costs inventories and attaching to goods sold, the excess overhead costs charged to expense for the period.

Benefits of adopting IFRS in inventory valuation/financial statements.

Obazee(2010) and Zakari (2010) and Azobu(2010) posit some of the benefits of IFRS adoption to include:

(a.) By adopting IFRS in inventory valuation, a business can present its financial statements on a single set of high quality, global accounting standards.

(b).IFRS adoption will result in high quality, transparent and comparable financial statements that are based on modern accounting principles and concepts that are being applied in global markets.

(c). Companies may also benefit by using IFRS if they wish to raise capital abroad.

(d). By adopting IFRS, a business can present its financial statements on the same basis as its foreign competitors, making comparisons easier.

(e). Companies with subsidiaries in countries that require or permit IFRS may be able to use one accounting language company-wide.

(f). Companies also may need to convert to IFRS if they are a subsidiary of a foreign company that must use IFRS, or if they have a foreign investor that must use IFRS.

(g). It will also assist local investors make better investment decisions

3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design: This study adopted both the conceptual and survey esearch approach.

3.2 Population/Sample of the study: The population of this study constitutes all the manufacturing company in Nigeria. However, sample sizes of five companies were selected.

3.3 Sources of Data: The primary data of this study were sourced through questionnaire. Out of the respondents,80 completed and 68 returned the questionnaires representing 85% return rate. Secondary data were sourced from relevant textbooks, scholarly journals and the internet.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary:

This study has reviewed the effect of IFRS adoption on basis for inventory valuation and financial reporting in Nigeria. The study reveals that the International Reporting Standards through the IAS 2 adopted basically the First in First Out and the weighted average method as methods of inventory valuation. It has also permitted other methods like the Net Realizable value, the retail price and standard cost. The FIFO method has The FIFO method provides the same results under either periodic or perpetual system which is not achievable under any other method. The weighted average method values inventory using the averaging method.

Conclusion: The IASB through the IAS 2 approve the FIFO and Weighted Average Method as basics for valuing inventory. The International Financial Reporting Standard also included some disclosures that are necessary for the adoption of any of the methods as these would ensure better information asymmetry of financial reports.

Recommendations:

Following the above study the researcher recommends that corporate business in Nigeria should adopt the IAS 2 in inventory valuation to enable a asymmetry of financial information. Adoption of IAS will also ensure comparability and help in reliability of financial information to various stakeholders.

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