

Effect of Fair Value Accounting on Asset Valuation in Public Limited Companies (A Study of Petroleum Companies in Nigeria)

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ABSTRACT

The study aims at assessing fair value accounting method with a view of determining its effect on historical cost method of asset valuation in public limited companies. Five petroleum companies were purposively selected from a population of twelve petroleum companies listed on the Nigeria Stock Exchange. Descriptive research design was adopted using secondary method of data collection. Data on price level changes (Price Index) of the assets of the companies under review were obtained from Bureau of Statistics as published by the Central Bank of Nigeria while data on Historical values were obtained from the published annual financial statements of the companies and fair values were determined using the price index. T-test statistical tool was used in determining and analysis whether there is significant difference in assets valued under fair value as against historical cost method. Findings show that there is significant difference between assets valued at fair value and historical cost method. Findings also show that price level changes was the principal factor responsible for the difference in asset valuation and that financial statements prepared under these methods produced different information for the users. The implication of the findings is that financial statements prepared under historical cost method understate the value of the assets as against fair value method. Consequently, the true value of such a company cannot be easily determined. Another implication is that, the financial report based on historical cost method of asset valuation may be misleading to the users of accounting information. Based on the above premise, it is recommended that professional accounting bodies should continue to address the issue of measurement with a view of providing a unified method of asset valuation. Furthermore, awareness programme should be organized by the accounting bodies on fair value and the need to depart from historical cost during inflationary period.

Keywords: Fair value accounting, Historical cost accounting, Price level changes

INTRODUCTION

Price change is relevant to company accounts in different number of ways. The phenomenon which gives rise to increase in general price level makes the information on most financial reports different from what the producer had in mind. The basic purpose of financial reporting is to provide information about an economic entity to the users in an economy such as Nigeria. According to Ahmed and Schaefer,(2012), users of accounting information can be classified into two namely: the internal and external users.

- a.) The internal users which include the management who uses it as a guide for decision making to aid better performance. The stewardship of management is measured based on their performance as rendered in the financial statements and
- b.) The external users: these are the investors, creditors, shareholders, employees and government. All are interested in the operation of any business organisation. They can

only measure performance by a true and fair view of financial statements which is almost impossible because of the effect of different methods of asset valuation. Most accounts were prepared according to Historical convention, which means items are recorded in the accounts at their historical costs. Similarly, the costs of goods sold are recorded at historical cost while the selling price is stated at current prices. This results in overstated profit leading to overpayment of tax. According to Deegan, (2012), depreciation charges based on historical cost may never provide enough funds to replace worn out fixed assets. The effect of this is overstated profit and understated value of assets which will make replacement of assets difficult. The distortion of this historical cost convention on financial information on the long run, affects the operation of the business. In other to overcome this problem and be able to remain in the business,(Casorbona et al,2012) stated that it might be obliged to either reduce the operation capacity as fixed assets worn out are not replaced or borrow funds to afford assets replacement programme at a price which might be exorbitant.

In these circumstances, operating profit will be reflected in the financial statements but loss of operating capacity within the company would be apparent. In a stable economy, prices are not expected to change in a short-run; as a result records on historical cost provide objective true and fair view of a business. In the present dispensation when the entire world has found herself in a continued menace of price changes, historical cost accounting has become unrealistic. Historical cost accounting tends to overstates operational profit in the sense that, if a company is to distribute all of its reported profit after tax as dividend to shareholders, it would be left with inadequate funds for the business to sustain operations at the same level as before at best not without borrowing or issuing new shares to raise capital. On the other hand, where profit after tax is very high due to undervaluation of stock and undervaluation of fixed assets, there is every tendency for employees to demand for higher wages. In the same vein, high profit declaration, of cause attracts high tax, so also the shareholders of such a company will expect high dividends. In effect, investors, speculators and indeed all users of financial information are misguided by the financial reports rendered in such situations. The performance of such entity cannot be determined with ease. The value of their stock in the capital market may not be realistic and for organizations seeking quotation, the Stock Exchange and Security and Exchange Commission will find it difficult to ascertain their real value.(Chamber Blueprint,2013). Hence the use of fair value accounting method as an alternative to assets valuation is called for.

1.2 Statement of Problem

The usefulness of accounting information about an enterprise increases greatly if it can be compared with similar information about other enterprises and with similar information about the same enterprise for same period or some other point in time (Financial Accounting Standard Board, 2013).Comparability addresses comparing information among different entities in the same industry while consistency addresses comparing information over time for the same entity. Different firms may use different accounting principles making comparison among firms, even within industries difficult.

There are five consequences of historical cost accounting convention which because of rise in price reduces the reliability of the information given in company's financial report.

These consequences relate to: first, value of asset. According to Ahmed, (2010),the reported value of assets in the Statement of Financial Position(Balance Sheet) are unrealistic. This involves value of fixed assets and cost of materials which create the following problems: inadequate provision for replacement of assets which may lead to liquidity problem during the period of replacement, makes judgement of the performance of the company unreliable because the prosperity of the enterprise can be measured through

appropriate ratios which will be misrepresented in the information available, in case of acquisition, the real value of the firm is bound to be overstated because the valuation made in the final accounts is grossly understated and some fixed assets with a long life can become seriously undervalued in the Statement of Financial Position(Balance Sheet).Second, the cost of sales will be understated in the sense that historical cost fails to provide for the replacement of items sold. Third, the need for more working capital to finance understated stock and the real value of debtors decreases overtime. Ahmed (2010).

Finally, declaration of unreliable profit. Ahmed and Schaefer, (2012), regarded drastic erosion of capital ought to be set aside for the replacement of capital assets at the end of their useful life and depreciation value set aside on historical cost bases which can no longer replace the assets as earlier proposed before the rate was determined.

Fair value on the other hand, according to Nwadiolor, (2011), is a new concept; it is acceptable but not required to restate the value of properties, plant and equipment to fair value. Fair value is the amount for which an asset could be exchanged or a liability settled between knowledgeable, willing parties at an arm length transaction. This assumes that it represents market value in a sufficiently robust market. Where no market exists, the fair value would need to be conceptually estimated.

Fair value does not ease the comparability problem and likely exacerbates it. It also has a significant impact on consistency. When the market financial assets decline precipitously and the valuation inputs change overnight, it is impossible for the information to be consistent. It seems to result in a situation where comparability and consistency are more compromised than in the historical model.

The International Standard Accounting Board's (IASB) position on fair value was published in International Financial Reporting Standard 13-Fair value measurement, which was premised on the following concepts.

- (i) **Active Market:** That is a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on ongoing basis.
- (ii) **Exit Price:** The price that would be received to sell an asset or paid to transfer a liability.
- (iii) **Highest and Best Use:** The use of a non-financial asset by market participants that would maximise the value of the asset or the group of assets and liabilities within which the asset would be used.
- (iv) **Most Advantageous Market:** the market that maximises the amount that would be received to sell the asset or minimises the amount that would be paid to transfer the liability after taking into account transaction cost and transport costs.
- (v) **Principal Market:** the market with the greatest volume and level of activity for the asset or liability.(Deloitte,2013)

In spite of IASB's position and other users of accounting information such as Auditors, Financial Analysis, Government Agent(Tax Expect),Finance Institutions and others on fair value as a tool for financial reporting, the question remains. ***Will the use of fair value produce different result from historical cost method?***

In view of the above question, that the researcher intends to determine the effect of fair value method on historical cost method of assets valuation in financial statements of Public Limited Companies in Nigeria with a view of ascertaining whether there is significant difference in the application of fair value accounting over historical cost accounting method on asset valuation in public limited companies in Nigeria.

Objective of the Study

The general objective of this study is to assess the fair value accounting method so as to determine its impact on asset valuation in public limited companies in Nigeria.

The specific objectives are:

1. To ascertain whether the value obtained by the application of fair value accounting in valuation of Plant and Machinery is significantly different from the value when historical cost is used, with a view to ensuring the authenticity of Financial Statements.
2. To determine whether the value obtained by the application of fair value accounting in the valuation of inventory is significantly different from the value when the historical cost method is used, with a view to ensuring the authenticity of Financial Statements.
3. To assess whether there is significant difference in the valuation of Freehold Property by the use of fair value accounting method as against the historical cost method. with a view to ensuring the authenticity of Financial Statements.

Research Questions

1. To what extent does the value of Plant and Machinery differ when valued with fair value accounting method as against when valued with Historical cost accounting method?
2. How different is the value of inventory when valued with fair value accounting method as against when valued with Historical Cost Accounting method?
3. How different is the value of Freehold Property when valued with fair value accounting method as against when valued under Historical Cost Accounting method?

1.5 Research Hypotheses

- Ho:** There is no significant difference in the value of Plant and Machinery obtained through fair value and at Historical cost accounting method.
- Ho:** There is no significant different in the value of inventory obtained when valued by fair value and at Historical cost accounting method.
- Ho:** There is no significant different in the value obtained with valuation of Freehold Property when fair value and historical cost method are used.

1.6 Significance of the study

It intends to be of immense benefit to the following classes:

- i. Researchers in the area of inflation accounting could use it as part of materials for his work.
- ii. Government, employers, shareholders, Professional Accountants, auditors and Students of Accounting will find this research useful as, it will go a long way in solving some problems encountered by this group of people in the inflationary era.
- iii. Management decision will be more meaningful, if the perspective upon which Financial Statements are prepared reflects current value or market fair value without which all well tailored decision may not yield a fruitful result.
- iv. Employees will understand better, the reported profit and how it reflects the correct price level. This will serve as a guide before agitation for higher wages.

Scope of the Study

In other to achieve the objective of the study, public companies in Nigeria are covered in this study and sample was drawn from petroleum companies located in Lagos.

Review of related literature

Conceptual Framework

1 Fair Value Accounting (FVA)

This is an approach to financial reporting whereby profits are measured by comparing revenue with the current replacement cost of the assets consumed in the earning process. The logic of this approach lies in the concept of the going concern. It recognizes in the income statement, the cost which a going concern actually has to pay to replace its expiring assets (Meigset *al.*, 2012). They went on to say that the profit figure resulting from FVA closely parallels the maximum amount which a business can distribute to its owners and still be able to maintain the present size and scale of its operations. Glautier and Underdown (2013), in sharing the same view with Meigs (2012) stated that FVA is concerned with the value of net asset to the business and combines replacement cost, realizable value and present value that should be attached to such assets. They went further to state that FVA is a modification of historical cost profit to arrive at the surplus after allowing for the impact of price changes on the funds needed to continue the existing business and to maintain its operating capacity, whether financed by share capital or borrowing. Meigs (2012), stated that FVA represents departure from the historical cost concept. Furthermore, he stated that, the term "fair value" usually refers to the current replacement cost of assets and in current cost income statement, expenses are stated at the estimated cost to replace the specific asset sold or used up. Thus, fair value accounting involves estimates of current market value rather than adjustment to historical cost for changes in the general price level.

Supporting the position of Meigs, Hendriken (2012), states that FVA is a method of accounting that reflects prices that would need to be paid for an asset or its uses at the Statement of financial position date or the date of the use or sale, if the assets were already owned. He stated further that, for inventories, fair value is the current acquisition price of the merchandize. For plant, equipment, and other property, the best measure of fair value is the use of asset prices of similar conditions and of the same age as the assets owned. The International Standard Accounting Board's (IASB) position on fair value was published in International Financial Reporting Standard 13-Fair value measurement, which was premised on the following concepts.

- (i) **Active Market:** That is a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on ongoing basis.
- (ii) **Exit Price:** The price that would be received to sell an asset or paid to transfer a liability.
- (iii) **Highest and Best Use:** The use of a non-financial asset by market participants that would maximise the value of the asset or the group of assets and liabilities within which the asset would be used.
- (iv) **Most Advantageous Market:** the market that maximises the amount that would be received to sell the asset or minimises the amount that would be paid to transfer the liability after taking into account transaction cost and transport costs.
- (v) **Principal Market:** the market with the greatest volume and level of activity for the asset or liability. (Deloitte, 2013)

Fair value accounting is therefore, a valuation concept which combines the concepts of replacement cost at realizable value in determining whether selling price should be used for the purpose of establishing the value of an asset to the business. In further discussions on valuation based on FVA in a competitive market with many buyers and sellers, the price of an asset in this market may reasonably be taken to reflect the current value of asset, if it is in expectation of other firms. Where there is no market for used assets, the FVA concept recommends the approximation of the fair value of an identical new item

purchased in current established market less accumulated depreciation for the period, equal to the age of the asset in use (Hendriksen, 2012). Thus, FVA tends to reflect cost and value to a more realistic figure, relevant for decisions during the period of price level changes.

In his view, Osisioma(2011)was of opinion that financial statement are prepared on modified historical cost basis with a growing emphasis on Fair value. He further strengths that when an entity's financial currency is hyper inflationary, its financial statement should be adjusted to state all items in the measuring wants currency at the reporting date.

In general, the advantages of FVA system are that, it overcomes the defect of historical cost system in that, being a current value system accounting, its aim is to represent as far as possible, the commercial reality of the situation to which it refers. Ahmed, (2012), in specific terms stated the advantages of FVA as:

- i. Fair values are matched with current revenue for depreciation and calculated on the value to the business of the assets concerned. In majority of cases, such value is the net current replacement cost, and cost of sales is calculated on actual or assumed date-of-sale cost prices,
- ii. The Statement of Financial Position shows assets at their value to the business.
- iii. As a result of i and ii, users of accounting information have available more realistic information on cost, profit or loss, asset value and the return on capital and on assets.
- iv. The system identifies profits or losses arising from business operations separately from those arising from price level changes and.
- v. Current basic figures lead to better quality long term and short term decisions.

Hendriksen, (2012) in expressing the advantages of FVA stated that:

1. FVA represents the amount the firm would pay currently to obtain the asset or its services, therefore representing the best measure of the value of the input being matched against current revenue for predictive purposes.
2. FVA permits the identification of holding gains and losses, thereby reflecting the result of assets value and management decisions.
3. FVA represents the value of assets to the firm, if the firm is continuing to acquire such assets, and if value has not been added by the enterprise to the assets.
4. The summation of assets expressed in current terms is more meaningful than the addition of historical cost incurred at different times and
5. It permits the reporting of current operating profit useful in predicting future cash flow.

The fair value accounting, although very promising, is not without a hitch. Certain aspects of FVA principle give grounds for doubts as to whether the lofty advantages expected of it are in reality, achievable. The Consultative committee of the accountancy bodies in the United Kingdom and Ireland (CCAB, 2012) found the Sandi lands reports unacceptable on the grounds that the FVA did not take account of all aspects in inflation. The CCAB puts its case in the following terms; the aspects of inflation which the FVA does not- deal with at all or does not deal adequately with are: the decrease in value of monetary assets, the decrease in value of obligation represented by monetary liabilities, the whole effect of inflation on the value of the proprietor's interest in the company or other organization concerned, irrespective of whether that interest is represented by non-monetary or monetary assets, the description of the incremental difference between an asset's original cost and its value to the business as a "holding gain" is potentially misleading as the whole or part of the gain will be the result not of a real gain in wealth, but of a decrease in the value of money and the problem of making valid comparisons over a period of time when the unit of measurement is unstable.

Abu (2013) stated that current cost or value approach seeks to value all assets and inputs consumed in the process of generating income on the basis of their "current" value at the time of consumption or realization. The expected net result is the figure of net income which is stripped of any windfall element (holding gain) and thus reflect the pure earnings capacity of the firm and also, of a net asset figure which reflects as closely as possible, the current valuation of the firm's component assets, he argued that FVA is not simply an inflation accounting technique but rather a technique for obtaining accounting data that reflect current values. Although FVA seeks to make accounting information more up to date and relevant for business decisions, certain practical difficulties still tend to hinder the achievement of ideal results. He added that, the most critical problem, which is created by FVA, is the increased difficulty in achieving the determining net realization cost (NRC), net realization value (NRV), and the expected value (EV) in respect of each asset. FVA is based on values, which are as a result of estimates, and there is the difficulty in determining the accurate contribution made by each asset to an income, which results from joint use.

On the whole, the concept of capital maintenance is more relevant to the operations of a business than the general purchase power concepts. Therefore, if a choice has to be made between FVA and the current purchasing power accounting, FVA should be adopted (Glautier & Under down 2012).

2 Historical Cost Accounting(HCA)

Historical Cost Convention is the conventional valuation concept whose resources are valued in accordance with the cost of acquisition by the enterprise (Glautier and Underdown, 2013). Assets are recorded at their original cost at the time of purchase. This convention is highly preferred for the historical cost method over current cost.

The Conservatism Convention assumes that accountants are pessimistic in measuring revenues and expenses. Revenues are not recorded until they were virtually certain but expenses were recorded as soon as they become remote. If accountants had to choose for measurements of cost of assets and liabilities, they would have chosen the lowest for assets and highest for liabilities mostly for historical cost method. The historical cost method is well preferred over current cost method because a historical record is concerned at providing a faithful record of transaction of an entity rather to providing a valuation of the firm at a given period of time (Godfrey et al,2012). While historical cost method may give some indication to shareholders of the stewardship of management in the management of costs and money capital under the control, the records give no indication of the real worth of the entity as a going concern except to the extent that operating profit is a predictive device(Budge and Hendriksen,2013).

Theoretical Framework

The choice of whether to switch to fair value method is interestingly an important decision where all perspectives have to be equally evaluated in considering the transaction from an existing to a new method of asset valuation. History has proved that the historical cost principles have worked absolutely fine all while. This now poses us a question as to why consideration and speculation to switch to a new method of financial asset valuation?. What theories and what basis should drive the motivation to choose a varying method of financial asset valuation and what could be ideally considered being the opportune time for the switch in choice of model?.

Measurement of asset is the core issue of relevance in financial accounting and reporting today. In order to decide which method of valuation one must choose, it is imperative that

there must be a sound understanding of the fair value and historical cost accounting method of valuation for assets.

In the light of above concepts, the research work was premised on Chambers Theory of Continuously Contemporary Accounting.

According to Chambers, the theory views people's need in terms of information. He makes an assumption about the objective of accounting is to guide future actions. He prescribed that all assets should be measured at net market value and that such information is more useful for informed decision making than information based on historical cost which could be misleading. Furthermore, in his Blueprint paper published in 2011 where he wrote: 'It is therefore corollary of the assumption of rational management that there should be an information providing system, such as a basis for decision and as a basis for reviewing the consequences of decision'. It was suggested that accounting information should be relevant, verifiable, free from bias and quantifiable. The choice of accounting methods depends on factors such as reliability, relevance, timeliness and comparability.

2.3 Empirical Review

There has been much discussion about fair value accounting. Disclosing assets at their fair value as opposed to their historical cost is preferred by some but opposed by others. The use of fair value accounting has been around for decades primarily for financial assets. In recent years, both the Financial Accounting Standards Board (FASB) and the International Accounting Standard Board (IASB) have moved towards more extensive use of fair value accounting.

According to Godfrey et al (2010) the use of historical cost for valuation of non-monetary assets has come from several sources, these include the 1940 book by Patron and Littleton: *An Introduction to Corporate Accounting Standards*. The book provides many of the theoretical arguments for the accounting. Historical cost is generally defined as the amount at which the asset or liability was originally obtained. Where the historical cost expected to be different from the final value when the item is no longer on the Statement of Financial Position, some amortization or depreciation of the value is expected. These values are generally more reliably determinable, but less relevant than fair value.

Casorbona et al (2012) define fair value as the amount which an asset could be exchange or a liability settled between knowledgeable, willing parties in an arm's length transaction. This assumes that it represents market value in a sufficiently robust and efficient market. Where no market exists, the fair value would need to be conceptually estimated.

In making comparisons between the two, Toope and Shorridge (2008) refer to an argument of relevance over reliability. They argued that the proponent of fair value accounting believed that historical cost financial statements are not relevant because they do not provide information about current values. Theorists and practitioners against fair value argued that the information provided by fair value financial statements is unreliable because it is not based on arm length transaction. They contend that if information is unreliable it should not be used to make financial decisions. However, they also argued that the proponents of fair value accounting would claim that it is more relevant to decision makers even if it is less reliable. These arguments include that fair value accounting would produce Statement of Financial Positions that are more representative of the company's value. Specifically, unless the values of fixed assets are assumed to remain the same over time, historical cost information is relevant only upon obtaining the asset. A number of studies have been conducted to argue that one method is more appropriate than another.

According to International Accounting Standard Board (IASB)(2012), fair value was viewed from different points. For example, in its statement on Plant, Property and Equipment (PPE) IAS-16, assets are to be initially recognised at cost while subsequent measurement should be based on revaluation model. Revaluation model is its fair value less

subsequent accumulated depreciation and impairment losses. Revaluation model is applicable where there is sufficient regularity.

Also in IAS-2(Inventories), it was stated that inventories should be valued at either weighted average cost or first in, first out. Either of these methods represents fair value.

METHODOLOGY

The research design adopted for the study is descriptive design. Descriptive research seeks to find out the relationship among on-going events and situations. This design is appropriate for this study because the researcher is seeking to establish the impact of fair value accounting method on assets valuation.

The population of this study comprises of 12 Petroleum Companies quoted in Nigerian Stock Exchange (NSE). These companies were considered appropriate population for the study because they are among those companies statutorily required to submit their published financial statements to the Security and Exchange Commission (SEC). Five(5) of the petroleum companies were selected from the studied population of 12 using simple sampling method. The data for the study consist of secondary data only. The data collected were analysed using t-test statistical tool. This choice was informed because the researcher wants to test whether there is statistically significant difference in asset value obtained by historical and fair value methods of assets valuation.

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

Data Presentation. The values for HCA in tables 1 to 3 below were obtained from annual financial statements of Oando Petroleum Plc, while the values in respect of FVA were computed by the researchers, using the prevailing price index. Price Index was obtained through data collected from the Statistic Bulletin published by the Central Bank of Nigeria (CBN).

Table 1: Plant and Machinery

Year	2009	2010	2011	2012	2013	Total	Mean
HCA	2971029	2980729	5157606	28822	32102	11170288	2234058
FVA	3000740	3278802	5621791	29975	27608	39228686	7845737

Source: Researcher's Computation (2014)

Table 1 above shows the historical and fair values of Plant and Machinery at the end of each year under study.

Table 2: Closing Inventories

Year	2009	2010	2011	2012	2013	Total	Mean
HCA	8552972	9552972	10191326	53942	41476	28392688	5678538
FVA	7612145	8597675	9070280	60415	37328	25344253	5068851

Source: Researcher's Computation (2014)

Table 2 above shows the historical and fair values of Inventories at the end of each year under study.

Table 3: Freehold Property

Year	2009	2010	2011	2012	2013	Total	Mean
HCA	7552864	7580153	6470292	539526	519723	22209331	4441866
FVA	7703921	7807558	7313464	566503	462553	24008077	4801615

Source: Researcher's Computation (2014)

Table 3 above shows the historical and fair values of Building at the end of each year under study. Values in each table were used to run the statistical test on the hypothesis.

Data Analysis

Hypothesis 1

Ho: There is no significant difference in the valuation of Plant and Machinery obtained through current cost and conventional cost accounting method. This hypothesis is tested with the data in Table 1 above, using t-test statistic.

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Table 1: Plant and Machinery

Year	2009	2010	2011	2012	2013	Total	Mean
HCA	2971029	2980729	5157606	28822	32102	11170288	2234058
FVA	3000740	3278802	5621791	29975	27608	39228686	7845737

Source: Researcher's Computation (2014)

Table 4: T-test comparison of valuation methods for plant and machinery

	Method of valuation	N	Mean	Std. Dev.	df	t-cal.	t-crit.	Sig.
Value of the Plant and Machinery	Fair Value a/c method	5	2473608.2	2288966.127	8	0.104	2.32	0.920
	Historical cost a/c method	5	2329203.2	2088387.094				

Source: Researchers fieldwork analysis

The t calculated is 0.104 as shown in Table 4. Since the t-calculated is 0.104 and less than t-tabulated at 0.05% level of significant and 8 degree of freedom is 2.3006, it suggests that the Null hypothesis be rejected. That is, there is significant difference in valuation of Plant and Machinery obtained through fair value and historical cost accounting method.

Hypothesis 2

Ho: There is no significant difference between Inventory valued by fair value and historical cost accounting method.

This hypothesis is tested with Table 2, using t-test statistic.

Table 2: Closing Inventories

Year	2009	2010	2011	2012	2013	Total	Mean
HCA	8552972	9552972	10191326	53942	41476	28392688	5678538
FVA	7612145	8597675	9070280	60415	37328	25344253	5068851

Source: Researcher's Computation (2014)

Table 5: T-test comparison of valuation methods for inventory

	Method of valuation	N	Mean	Std. Dev.	df	t-cal.	t-crit.	Sig.
Value of the inventory	Current Cost accounting method	5	5075568.6	4618787.895	8	-0.194	2.32	0.851
	Historical cost	5	5678537.6	5173282.646				

accounting
method

Source: Researchers field work analysis (2014).

The t calculated is 0.194 as shown in Table 5. Since the t -calculated is 0.194 and less than t -tab of 2.3006 at 0.05% level of significant and 8 degree of freedom, it implies that there is significant difference between inventory valued using fair value and historical cost accounting method. Hence Null hypothesis should be rejected.

Hypothesis 3

Ho: There is no significant difference in the valuation of Freehold Property obtained through current cost and historical cost accounting method.

This hypothesis test with data in Table 3 using t -test statistic. The t calculated is 0.194 as shown in Table 5 below.

Table 6: T-test comparison of valuation methods for Freehold Property

	Method of valuation	N	Mean	Std. Dev.	d	t-cal.	t-crit.	Sig.
Value of the Property	Current cost accounting method	5	4770799.8	3889966.055	8	0.152	2.32	0.883
	Historical cost accounting method	5	4411435.8	3564241.740				

Source: Researchers field work analysis (2014).

The t calculated is 0.194 as shown in Table 5 below. Since the t -calculated is 0.152 and less than t -tab of 2.3006 at 0.05% level of significant and 8 degree of freedom, it implies that there is significant difference between the valuations of freehold property obtained using fair value accounting and historical cost accounting method. Therefore, Null hypothesis is rejected.

Measure of effect of Fair value accounting on asset valuation

In order to reflect the effect of fair value accounting on assets valuation, values in the tables below were used.

Fixed Assets

Table 7: Showing the effect of FVA on HCA(Plant and Machinery)

Years	FAIR VALU(FVA)	Historical cost (HCA)	Difference (CCA-HCA)	Percentage change from HCA
	A	B	C = A-B	D= (C/B)*100
2009	3000740.00	2971029.00	29711.00	1.00%
2010	3278802.00	2980729.00	298073.00	10.00%
2011	5621791.00	5157606.00	464185.00	9.00%
2012	29975.00	28822.00	1153.00	4%
2013	436733.00	507830.00	-71097.00	-14.00%

Source :Researcher's Computation (2014)

Table 8:Showing the effect of FVA on HCA(Freehold Premises)

Ye	FAIR VALUE	Histori	Differ	Percen
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ars		cal cost (HCA)	ence (CCA-HCA)	tage change from HCA
		B	C = A-B	D= (C/B)* 100
2009	7703921.00	7552864.00	151057.00	2.00%
2010	7807558.00	6974774.00	832784.00	11.94%
2011	7313464.00	6470292.00	843172.00	13.03%
2012	566503.00	539526.00	26977.00	5.00%
2013	462553.00	519723.00	-57170.00	-11.00%

Researcher’s Computation (2014)

From the tables 7&8 above, the extent of the effect of FVA on Plant and Machinery and Freehold Properties was ascertained. Each effect is explained in column 4, the positive values represent excess of FVA over the HCA, implying that in each year under review profits have been overstated by the corresponding value using HCA. The implication is that variables such as Dividend, Tax and Net Worth of entity have been affected with the corresponding values. While the negative value represent excess of HCA over FVA, an indication of under cast in profit for the year, reduction in dividend and tax liability and impairment of assets. All these effects were not reflected in HCA financial statements.

Inventories

Table 9: Showing the effect of FVA on HCA(inventory)

Years	FAIR VALUE (FVA)	Historical cost (HCA)	Difference (CCA- HCA)	Percentage change from HCA
	A	B	C = A-B	D= (C/B)*100
2009	7612145.00	8552972.00	-940827.00	-11.00%
2010	8597675.00	9552972.00	-955297.00	-10.00%
2011	9070280.00	10191326.00	-1121046.00	-11.00%
2012	60415.00	53942.00	6473.00	12.00%
2013	37328.00	41476.00	-4148.00	-10.00%

Source: Researcher's Computation (2014).

In the same vain, table 9 above show the effect of FVA on inventories. Column 4 shows the difference between the FVA and HCA, which indicates the extent at which Cost of sale in each year(except year 2012) has been overstated. These negative values are referred to as Loss and the positive value is referred to as Unrealised Gain. As a result of over stated Cost of sale, Gross profit is reduced by the corresponding values except in year 2012.

Summary of findings:

In view of the data above, the findings of the study are as follows:

1. There is significant difference between Plant and Machinery valued at historical cost and fair value methods in favour of fair value in Petroleum Companies in Nigeria.
2. There is significant difference between Inventories valued at historical cost and fair value methods in favour of historical cost in Petroleum Companies in Nigeria.
- 3.. There is significant difference between Freehold Property valued at historical cost and fair value methods in favour of fair value in Petroleum Companies in Nigeria.

Discussion of Findings

The findings above show that reported value of Plant and Machinery and Freehold Property using historical cost method will understate the result of the Financial Statements while fair value method reinstates the historical cost of Plant and Machinery and Freehold Property to the current market value. On the other hand, Inventory valued at historical cost shows a higher value than the fair value. This difference in the impact of method of valuation on Plant and Machinery and Freehold Property, and Inventory can adduced to the degree of volatility of individual asset to changes in price level.

As a result, information provided by Financial Statements based on historical cost may be misleading because it fails to consider the effect of changes in price level. Hence, decisions making by the users of accounting information becomes complicated, especially, in terms of asset replacement, as funds set aside as provision for depreciation under historical cost accounting method to meet the current cost of the asset at the time of replacement may not be sufficient, which may result to borrowing additional fund to finance the replacement or close down the affected line of production.

The value of firm as reflected on the financial statements based on historical cost is not reliable. For instance, in the case of merger or purchase of business, negotiation will be based on the current market value of assets acquired. This may call for revaluation.

5.3 RECOMMENDATIONS

In line with the findings and conclusion above, the researchers recommend as follows;

- (a) That the professional accounting bodies should continue to address the issue of measurement with a view of providing solution. Accounting professional bodies such as AASB, FASB and IASB should be specific in their conceptual framework which measurement should be used for different assets and be consistent across all borders. Some business operate on different scale and the required assets which determines their values, Accounting professional bodies should provide conceptual framework for measurement on the basis of scale of operation that is, the small, medium and large scale business.
- (b) Accounting bodies in Nigeria should organize workshops for the accountants and managers of companies to create enough awareness on current cost accounting and the need to depart from the historical cost accounting method during inflationary period. Companies should prepare their financial report using both historical cost and current cost methods simultaneously. This will allow the companies to know the true financial position of their companies before declaring dividend and their benefits.
- (c) Further studies to be carried out on the mixed method model appropriateness, incorporating the view of other stakeholders such as users given our narrow scope of research as well as need to consult a more representative sample of all stakeholders given our small sample size.

5.4 CONCLUSION:

The results and findings reveal that it is appropriate to use both historical and fair value accounting method when preparing a set of financial statements. This conclusion was based on through prudent evaluation of previous researches and thus it is conclusive that there is no ideal method for asset measurement. This conclusion collaborate paragraph 100 of the International Account Standard Board (IASB) Framework that states. "A number of different measurement bases are employed to different degrees and in varying combinations in financial statement. However, there is a lack of guidance in the framework in providing criteria for selecting measurement basis for particular elements of financial statements. (IASB,2012).

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