

Fair Value Measurement versus Historical Cost Accounting: A Comparative Effect on Firms' Performance in Nigeria

Leonard I. Amaefule^{1*} Emma I. Okoye² Edith O. Kalu³ Stanley U. Nwosu.⁴

1. Department of Accountancy, Imo State University, P.M.B. 2000 Owerri, Imo State, Nigeria.
2. Department of Accountancy, Nnamdi Azikiwe University, Awka, Anambra State Nigeria
3. Department of Accountancy, Alvan Ikoku Federal College of Education, Owerri, Imo State, Nigeria
4. Department of Accountancy, Michael Okpara University of Education, Umudike, Abia State, Nigeria

* E-mail of the corresponding author: E-mail: leo4christ2002@yahoo.com

Abstract

This study comparatively examined the effect of fair value measurement (FVM) and historical cost accounting (HCA) on the performance of quoted firms in Nigeria. Data were sourced from the online published accounts of ten quoted firms for a period of ten years segregated into HCA regime (2007 – 2011) and FVM regime (2012-2016). Descriptive Statistics (Mean) and Inferential Statistics (Paired sample t-test) were employed in the analysis of the data collected with the aid of Statistical Package for the Social Sciences (SPSS) version 21. Findings from the analysis revealed that a positive but insignificant difference exists in the profit after tax of the firms between the FVM and HCA regimes; and that fair value measurement exerts negative but insignificant effect on the earnings per share and return on equity of the firms. The study thus concluded that fair value measurement as it is being practiced and implemented by Nigerian firms, exerts no significant change in firms' performance as was reported under the HCA regime. It therefore recommended, among other things, that the International Accounting Standards should review the current provisions on the fair value practices in the International Financial Reporting Standards to ensure improved operations of firms across national borders.

Key Words: Fair Value Measurement, Historical Cost, performance, Earning per Share, Profit after Tax, Return on Assets

1. Introduction

Accounting practices and financial reporting world over is premised on a cardinal concept known as money measurement. Thus, Baxter (as cited in Egbe, 2014) asserts that money measurements of accounting events and items are essentially a process of valuation. The valuation in accounting measurements in that regard is of the following sense: first, the money standard of measurement is itself unstable though time value of one naira today does not have the same value of one naira yesterday or tomorrow, since the purchasing power of money over goods and services changes. Second, the use of money measurement in accounting implies a choice between one of the several different valuation basis (Egbe, 2014).

Notably, the whole essence of accounting (financial) reports is to convey realistic, timely, accurate and relevant information to the varied groups and stakeholders of an organization. Elfaki and Hammad (2015) in this regard observed that the quality of information concepts of accounting information is based on such characteristics as objectivity, relevance, reliability, neutrality, capability of information for comparison, materiality and full disclosure. In essence, the objective of financial reporting is to provide useful information about the reporting entity to existing and potential investors, lenders and other creditors in making capital-allocation decisions (IASB, 2011).

Until 2012, Nigerian firms reported their financial statements in line the historical cost accounting (HCA) basis. But following the mandate by the Financial Reporting Council of Nigeria (FRCN) for every quoted firms on the floor of the Nigeria Stock Exchange (NSE) to adopt IFRS basis in their financial reporting from January 1, 2012; most Nigerian firms complied as required. It is of interest to this study therefore to evaluate empirically the effect associated with the implementation of the fair value measurement (FVM) (IFRS 13) on Nigeria firms' performances, against the backdrop of the relegated historical cost accounting (HCA) basis.

The previous globally practiced reporting basis of firms' assets and liabilities: the Historical Cost Accounting (HCA), a product of the Generally Accepted Accounting Principle (GAAP) was adjudged grossly inadequate in reporting the performance of firms given the unrealistic nature of the key assumption of that basis which is stability of the monetary value used in generating the accounting data; hence, stating an asset's value with reference to its historical (original) cost. But with the continuous rise in the general price level in the Nigerian

economy, the HCA in reality results to fixed assets values, insufficient provision for depreciation, unrealistic profit, failure to present a fair value of financial position, among other drawbacks. Consequently the following questions were associated with the continuous use of HCA basis: How is the firm affected by the steeply rising cost of assets replacement? How much lower will be the reported profit if the cost of replacing the base stocks needed to remain in business is taken into cognizance? What actual amount of money would be set aside to finance the business higher values of work-in-progress? To what extent can we sensibly rely upon suppliers to share the burden of inflation? To what extent is the erosion of our capital resources mitigated in the longer term by the repayment of loans and over draft in depreciated currency? And; is the real wealth of shareholders reflected in the account?

Notably, these shortcomings obviously necessitated the relegation of this valuation basis (HCA) and the subsequent enthronement of FVM basis in the current global financial reporting standards. However, the FVM has also been criticized for its volatile nature; thus, having the tendency of presenting distorted accounting information. An empirical investigation is thus essential to justify the relevance of the FVM over the relegated HCA.

Al-Sakini and Al-Awawdeh (2015) asserted that although under the HCA basis, assets and liabilities are required to be recorded in the statement of financial position according to their historical values, that is, the acquisition cost at the time of purchase of an asset, thus making the basis appear reliable and verifiable, as it is based on actual and free-of-bias transactions; however, the HCA has been associated with lack of importance in the decision-making process because it does not reflect the current market conditions. Many scholars in accounting literature have argued along this line; for instance Skoda and Bilka (2012), Jennings (cited in Bessong and Charles, 2012), Jaijairam (2013); Egbe (2014), et cetera. There is therefore the eventual erosion of the value of firms' assets and overstatement of their liabilities with HCA basis; leading to bias-prone information. Hence, the two key figures disclosed by firms' financial reports and accounts - profit and net assets values, are clearly affected under the HCA valuation (Bessong & Charles, 2012). Fair value measurement therefore evolved as a remedy to these shortcomings of the HCA. However, critics of FVM have argued that the determination of fair value and its practical recognition in the financial system of an organization involve a great deal of personal bias and follow the measurement basis for varying component; and that a lot of investments with no market price are still based on measures at historical cost. The concern thus is "what then is the essence of abrogating the HCA for FVM"? Could it therefore be empirically established that Nigeria firms perform better in terms of profitability and earnings with the dawn of FVM than with HCA? This study believes that an evaluation of how a shift from HCA basis to FVM changes the key performance figures in the financial statements of Nigerian quoted firms is worthwhile.

Although the literature provides evidence of previous attempts to study the impact of fair value measurement on firms' performance both locally and abroad; however, there is the indication that most of the existing studies, particularly in Nigeria, were sectorally-based (that is, covered mainly the banking and manufacturing sub-sectors only). This study adjudged (at least from the review carried out) that only a minimal attempt seem to have been made to study the effect the FVM of Nigeria firms across the sectors of the economy. On the other hand, most available empirical studies carried out both locally and abroad show conflicting result. For instance, while Bessong and Charles (2012); Akwu (2014); among others found that both HCA and FVM show significant impact on firms profitability indicating no difference among the two valuation bases, Ijeoma (2014) found that fair value measurement is associated with more value relevance than HCA; Akpaka (2015) however found that pre-IFRS (HCA-based) financial information is clearly value relevant while post-IFRS (FVM-based) financial information has weak value relevance. These eloquently suggest an inconclusive research in this subject area.

It is in the light of the above highlights that this study is undertaken to evaluate the difference in the performance proxies of Nigerian firms (e.g. profit after tax, earning per share and return on equity) between the HCA and FVM regimes.

Consequently, the following null hypotheses are formulated:

- H₀₁:** There is no significant difference in the PAT of the selected firms between the HCA and FVM bases regime.
- H₀₂:** There is no significant difference in the EPS of selected firms listed on the NSE between the HCA and FVM regimes
- H₀₃:** The ROE of selected firms in Nigeria measured under the HCA-basis does not significantly differ from the FVM-based ROE.

2 Literature Review

2.1 The Concept of Fair Value Measurement

Fair value, according to the International Financial Reporting Standards (2011) (as cited in Amanamah and Owusu, 2016) is the amount for which an asset could be exchanged, a liability settled, or an equity instrument granted it could be exchanged between knowledgeable, willing parties in an arm's length transaction. Chambers (cited in Ashford, 2011) views fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between participants at the measurement dates. Jarolim and Oppinger (2012) define fair value as the amount which could be transferred in a fictitious transaction between knowledgeable, willing parties under normal market conditions (arm's length transaction). Therefore, the fair value constitutes a hypothetical market price under idealized market environment. Thus, fair value accounting revolves around recording changes in market values. This results in the recognition of unrealized gains and losses. Unrealized gains and losses will only have an impact on cash flow if sold on the balance sheet date. Fair value is sometimes referred to as "exit values", however, when fair value is not available due to lack of an actual transaction, it is logical to use information from an active market.

Liu (2010) posits that there are two alternatives for fair value in an imperfect market environment, including bid price and selling price. The former refers to the amount of money paid for a particular property on a measurement date while the latter refers to the amount of money received by selling assets on a measurement date (Liu, 2010).

Grant (2008) in Bessong and Charles (2012) observed that "the Accounting Standard Codification 820 (FASB, 2006) prescribes a framework for performing fair value measurements using three-tiered hierarchy of inputs). **Level 1 inputs** are observable inputs based upon quoted market prices for identical assets and liabilities in active markets. **Level 2 inputs** are quoted price from sources other than level 1 which are observable either directly or indirectly, such as an interest rate swap which utilizes observable data points like the yield on treasury bonds. Level 1 and level 2 inputs are considered mark-to-market methods. **Level 3 inputs** are unobservable assumptions, such as an entity's internal valuation model, that incorporates management assumptions that cannot be corroborated with observable market data. Thus, the use of level 3 inputs is sometimes referred to as "mark-to-model" accounting and it is used when observable inputs are not available (FASB 2006 in Bessong & Charles, 2012).

2.2 The Concept of Historical cost Accounting (HCA)

Amanamah and Owusu (2016) opine that historical cost measures an asset at the cost of acquiring; as such, it provides a reliable basis for measurement, however, the problem, according to them, is that as price changes subsequent to acquisition, the relevance of historical cost declines if the objective of measurement is to reflect the current economic benefit represented by the asset. Bessong and Charles (2012) assert that using this method, profit is ascertained by drawing comparison between sales revenue and the original cost of the asset sold. To determine income in this regard, accountants assumed that a business is better off whenever it recovers more than the original sum of money invested in any given asset.

Jajairam (2013) observed that under historical cost accounting, the initial price paid by the company during the purchase of the asset or incurrence of the liability is the one that matters. The price reflected on the balance sheet either is the purchase price or at a value reduced by obsolescence, depreciation or depletion. For a financial asset, the price on the balance sheet does not change until the security is liquidated. Selling price is stated at current price while the cost of assets used in generating the sales are stated at historical cost, that is, "acquisition cost". This results in overstated profit leading to overpayment of tax and dividend. Depreciation is charged based on the acquisition cost of the assets irrespective of the current replacement cost of such assets. The effect of this is overstated profit and understated value of assets which will make replacement difficult. For Ene, Chilarez and Dindire (2014), one shortcoming of the historical cost accounting approach is that in times of inflation, especially when price variations are very high, presenting the assets and the liabilities at historical costs, leads to distortions of the information presented in the financial statements, namely: in the balance sheet, assets are under-evaluated, resulting to understatement of the net situation; and in the profit or loss account, there is a distortion of the results due to the cost of stocks; undervaluation of the expenses regarding the depreciation as a result of the undervaluation of property; financial overstatement due to the gain on debt, over-evaluation of the result determined by the understated expenses and thus increase the tax on profits. These result to factious presentation of accounting data and gradual erosion of the firm's capital.

Egbe (2014) also notes that, "it is readily apparent that financial statements prepared in accordance with the historical cost concept are always defective to the extent that: they fail to reflect the impact of changing price

level; assets are disclosed in the balance sheet at unrealistic values; and the profit and loss account does not bear proper charges, particularly for depreciation and cost of materials consumed.

Skoda and Bilka (2012) advance the following reasons for the preference of fair value measurement over historical cost accounting: reflection of the economic reality of the entity of a business; reflection the economic income, where market prices are taken into account; its application is in accordance with the concept of capital maintenance; its application is more appropriate for decision-making, financial analysis and a better basis for the predictions of the results of the business and cash flow. On his part, Kochiyama (2011) observes that fair value accounting is becoming increasingly important in accounting standards, driven by the convergence toward or adoption of International Financial Reporting Standards (IFRS) all over the world; and that regulators suggest that fair values lead to improved financial reporting, because fair value numbers are more timely and reliable, and thus facilitate a decision mechanism.

2.3 The Concept of Firms' Performance

Performance measurement according to Neely, et al (cited in Al-Matari, Al-Swidi and Fadzil, 2014) refers to the process of measuring the action's efficiency and effectiveness. Organizational performance can be defined as the actual results generated by an organization as measured against the organization's stated goals and objectives (Wikipedia, 2012). It can be seen as an indicator to measure the effectiveness of an organization in running its daily operations. This will determine whether organizations are able to survive in the market or not. Niresh and Velnampy (2014) opine that firm performance can be measured in different ways and by applying various methods; and the commonly used method for financial analysis is the use of profitability ratios as key measures of firms' overall efficiency and performance.

Richard, Devinney, Yip and Johnson (2009) note that organizational/firm's performance encompasses three specific areas which comprises of financial performance, shareholders return and market performance. In line with this, this study used three proxies for firms' performance namely; profit after tax, earnings per share and return on equity which represent the three mentioned areas of performance – financial performance, shareholders return and market performance respectively.

2.4 Empirical Review

Nigerian Studies

Bessong and Charles (2012) critically examined the effects of fair value accounting and historical cost accounting on the reported profits. The secondary data collected were presented and analyzed using ordinary least square. Findings from the analysis revealed that both historical cost and fair-value accounting have significant effect on reported profit. It revealed no difference in the effect of tax (as a proxy for FVM and HCA) on firms' profit during each of the two regimes.

Okafor and Ogiedu (2012) evaluated the perception issues relating to fair value accounting in Nigeria. Questionnaire survey of a sample of financial auditors was employed and data collected there-from were analyzed using the Z Score. The study found that financial statements prepared under fair value accounting are more relevant than those prepared under historical cost accounting and that auditors' knowledge about fair value accounting is low in Nigeria. The study also finds that fair value accounting poses greater technical challenges for auditors than historical cost accounting and that fair value accounting is not appropriate in the Nigeria environment.

On her part, Ijeoma (2013) assessed the impact of fair value measurement on financial instrument of firms in Nigeria. Data collection was carried out through field survey method involving the use of questionnaire administered to 188 samples. The method of data analysis was the Kruskal-Wallis rank sum test statistic. From the result of the analysis, it was observed that the implementation of Fair Value measurements gives sufficient precision in assessing firm's financial position and earning potential. Also observed was that the possibility of measurement errors in financial instrument measured on Fair Value basis was high. The study thus concluded that Fair value is the best reflection of the expected future cash flow as it predicts the ability of the entity to take advantage of opportunities or to react to adverse situations.

Egbe (2014) evaluated the effect of historical cost accounting on the reported profit of a company with a key focus on evaluating the current cost accounting as an alternative reporting method. The study while adopting an ex post facto research design drew a sample of ten (10) out of forty-eight (48) manufacturing companies in Nigeria. The study employed a regression analysis in analyzing the data collected while the Pearson Product Moment Correlation Coefficient and Chi-Square were employed to test the hypotheses of the study at 5% level of significance; SPSS 17.0 statistical software was used in running the analysis. The results of the study

discovered that there is a positive significant relationship between historical cost method and the reported profits of companies in Nigeria while current cost methods does not significantly affects the overstated profits made by these companies.

In a study titled “A Model for Implementation of Fair Value Accounting in Corporate Financial Reporting”, Osisioma, Okoye and Ijeoma (2014) set out to determine the best model that fits the estimation of share value in the Nigerian market during the pre meltdown and post meltdown period. They utilized secondary data collected from journals and published annual financial statement of certified banks or clean banks (according to the CBN Classification) for a period of five years (2005-2009). The statistical tools employed include curve fit analysis, regression analysis, correlation analysis and line graph analysis. The result of the analysis showed that the best fitted model for pre meltdown, post meltdown and general meltdown periods was the cubic regression model. They ascertained that cash flow was able to explain better variability in the measure of share value for the pre meltdown period with a coefficient of determination value of 19.1% followed by the general meltdown period with a coefficient of determination value of 7.1%. The analysis also revealed that the extent of relationship between the share value and cash flow for the pre meltdown, post meltdown and the general meltdown periods was obtained as 43.7%, 18.4% and 26.6% respectively.

Ijeoma (2014) studied the contribution of fair value accounting on corporate financial reporting in Nigeria. The study utilized primary data sourced through field survey method involving the use of questionnaire administered to 562 samples. The method of data analysis was the Kruskal-Wallis rank sum test statistic. From the result of the analysis, the study found that the implementation of fair Value Accounting provides more useful Information to Investors than historical cost reporting. Also, it was equally found that the full fair value of financial instruments fulfils the aim of performance reporting.

Akwu (2014) carried out an examination of Fair Value Measurement in the determination of profitability of listed manufacturing firms in Nigeria. The study sought majorly to ascertain the influence of depreciation on profitability of the manufacturing firms in Nigeria using fair value measurement and historical cost convention; examine the effect of inventory on reported profit of manufacturing firms in Nigeria under fair value measurement and historical cost convention; and determine the relationship between volume of tax and reported profit of manufacturing firms in Nigeria using fair value measurement and historical cost convention. Ex-post facto research design was adopted for this study. The study covered five IFRS compliant companies; simple least square regression technique, correlation coefficient, and t-statistic were analytical tools used with the aid of Econometric Views (E-Views) statistical software. Findings from the analysis show that depreciation has positive and significant impact on profitability using fair value measurement and historical cost convention. Inventory has positive and significant effect on profitability under fair value measurement and historical cost convention. A positive and significant relationship exists between taxation and profitability using fair value and historical cost convention. The study thus concluded that depreciation, cost of sales and Taxation has significant and positive impact, effect and relationship respectively on what is reported as profit under historical cost convention and under fair value measurement; indicating that fair value measurement can serve as a replacement to historical cost convention. As such, fair value should be encouraged.

Foreign Studies

Dickinson and Liedtke (2004) carried out a survey on the impact of a fair value financial reporting system on Insurance companies. A sample of forty (40) leading international insurance and reinsurance companies was drawn; descriptive statistics of bar chart and histogram was adopted in analyzing the raw data collected. The study concluded, based on the finding of the analysis, that the introduction of a full fair reporting system would significantly change the business strategies, corporate policies and systems overtime in a way that most companies consider would reduce their competitiveness; there is a high degree of agreement that the higher volatility of reported earnings would increase the cost of capital of insurers and that it would be more difficult to provide earnings forecasts or forward-looking information to the investment community; a majority of companies studied perceive that the disclosure of fair values of insurance liabilities, if they could be measured credibly, would be unlikely to increase the transparency of financial statement to users.

Kazmouz (2010) examined the effect of applying fair Value on the financial statements of UK leading companies. Data for periods covering 1990 to 2009 were collected on some selected accounting figures from 20 UK companies. The data were segregated between the periods before fair value application (1990 – 2004) and after fair value application (2005 – 2009). Comparative analysis using simple average (mean) of the data between the two periods was conducted; thereafter the t-statistics was adopted to establish the significance of the prediction and whether the use of fair value has significant effect on any of the 5 variables. Findings from the

study indicated that property, plant and equipment, net income and return on equity, depreciation and amortization except the intangible assets showed significance results.

Schijndel (2010) investigated whether fair value accounting introduced pro-cyclicality in financial statements of financial institutions in Europe, before and during the current financial crisis. The study was necessitated based on considerable criticism that fair value accounting would have aggravated the financial crisis, because it would increase volatility of earnings and balance sheets, and led to undervaluation of assets below their 'fundamental value', amplifying negative growth in inactive markets, thus introducing pro-cyclicality into the financial statements. The author empirically investigated pro-cyclicality of net income and equity at 55 European financial institutions using two developed models that isolate the impact of unrealized fair value gains and losses on net-income and equity. The result of the analysis led to the conclusion that fair value accounting has introduced pro-cyclicality into the financial statements of financial institutions.

Zhuo (2011) evaluated income statement effects of derivative fair value accounting: evidence from bank holding companies. The study used a sample of bank holding companies and employed regression analysis. The study found evidence that the newly recognized earnings component following the adoption of the fair-value-based hedging performance measure (SFAS 133) improves the value and risk relevance of accounting earnings.

Kochiyama (2011) examined the economic consequences of fair value accounting and a change in the distribution rule in Japan. The study employed Lintner's partial adjustment model alongside the multiple regression model in the analysis of data collected from Japanese Commerce Law financials. The results show that the change in the distribution rule influenced companies' dividend policies, especially Japanese firms, as they tend to pay out revaluation profits as allowed by the Company Act.

In a study titled "The Impact of Fair Value Measurements on Income Statement: IFRS 13: An Application Study in Insurance Companies", Ghafeer and Abdul-Rahman (2014) sought to shed some light on this issue by restating some of the financial assets of an insurance company, applying fair value instead of historical-cost-based valuations, and comparing data emerged by using historical costs principle and fair value principle. The authors employed a simple comparison approach to establish the difference between the net income of firms during the periods of fair value and historical cost accounting bases. With the aid of bar charts and percentages, the study find that the numbers on the face of the income statement change considerably and observe that the magnitude of these changes varies between the two policies; the indication being that a change from historical-cost to fair-value accounting could achieve different results.

Alaryan, Haija and Ali (2014) in a study titled "The Relationship between Fair Value Accounting and Presence of Manipulation in Financial Statements", extracted data from 45 Jordan companies' annual reports during a ten-year period (1997- 2006) five years before and after the application of fair value to examine the relationship among the application of fair value accounting and the presence of manipulation in financial statements. Logistic regression and Chi-Square were the two key statistical tool employed in the analysis of the study. Findings from the analysis indicated that the number of firms that manipulated information in the financial statements had increased after applying fair value accounting; implying that fair value application warrants manipulation of accounting figures in the financial statement of firms.

Al-Khadash and Khasawneh (2014) examined the effects of applying fair value accounting under IAS 40 on the volatility of earnings. The study majorly focused on how the addition of unrealized gains and losses in the income statement might affect the incremental explanatory power of earnings. Quantitative data were collected from the Jordanian Shareholding Companies listed on Amman Stock Exchange for the period of 2002-2009. The Ohlson valuation model (1995) and the Theil technique (1971) were utilized. Findings revealed that unrealized gains and losses affect the net income and the results of cross-sectional regression indicate that net income and book values jointly and individually are positively and significantly related to stock prices. The incremental information of net income is greater than that of book values and the addition of unrealized gain in income increases the explanatory power of the model.

Elfaki and Hammand (2015) addressed the impact of fair value accounting on the quality of accounting information. The study's main problem in the following question: What is the effect of the application of fair value accounting on the characteristics of accounting information? Primary data were collected from fired survey and ANOVA statistics through the aid of statistical package for social studies (SPSS) was employed in data analysis and hypothesis testing. The study majorly found that the fair value contribute to provide useful information to users of financial statements and help them in decision-making; that there is a positive relationship between the application of fair value and the appropriateness of accounting information in decision-making; and that there is a positive relationship between the application of fair value and reliability of

accounting information. The implication is that the reliability of users, in addition to the fair value, was able to make a fair comparison, both at the enterprise level for a number of periods or with similar enterprises for the same period.

Al-Sakini and Al-Awawdeh (2015) studied the effect of accounting conservatism and its impacts on the fair value of the corporation: an empirical study on Jordanian Public Joint-stock Industrial Companies. Data were collected from 30 Jordanian corporations for the period covering 2006 – 2013 and analyzed using joint regression. Results showed that the size of the company's assets and profitability are deemed the most important factors which have positive impact on the fair value of the companies while the ratio of debts impact negatively on the fair value of the company. Meanwhile, the ratio of profits distribution (dividend payout) and fixed assets has no effect on the fair value. It thus indicated that it is necessary that the applied principles and rules of fair value accounting should not make to disregard the principle of caution, which is the safety valve against any unexpected reflections on the asset values and revenues. The excessive reliance on the fair value may result to increase the exposure of companies to market risks and sudden movements of prices.

Ahmad and Aladwan (2015) evaluated the effect of fair value accounting on Jordanian investment properties: an empirical study on Jordanian listed real estate companies. A sample of Jordanian firms (consisting of 41 real estate companies) listed in the Amman stock exchange during the 2008–2011 time period was drawn. The statistical tool adopted in the analysis was multiple regression technique. Findings revealed showed that financial performance of Jordanian real estate companies is significantly positively related to investment properties valued at fair values. Furthermore, the book value incremental information content is greater than information content of the net income and the unrealized gain & losses inclusion in owners' equity increases the explanatory power of the firm's market value model of real estate companies. Consequently, the study concluded that fair value accounting measurements for Jordanian real estate companies have been value relevant during all the period of the study.

Amanamah and Owusu (2016) studied on the Perception on Fair Value Measurement in Ghana: taking evidence from Account Personnel. Primary data collected in the study through questionnaire administration were analyzed using descriptive statistics with the help of SPSS software. Findings from the analysis indicated that 72% of Ghanaian account personnel approved fair value over historical cost because it provides useful and accurate information for economic decision making. Though, many respondents were of the view that measuring methods available were not accurate, of which 60% claim that majority of the assets do not have an active market making it difficult to accurately determine their fair value; 52% of the sample assert there is lack of skilled and qualified valuers while 60% said there is no strong regulatory body to carry out the valuation and manage the measurement methods. 47% of the respondents indicated that Ghanaian stock markets are young and not efficient; therefore, the study holds that the cost of shares in most listed companies might not represent the true and fair value of the company's shares in the Ghanaian stock market.

Zhuang and Luo (2015) studied whether there exists natural relationship between fair value and corporate external market. Employing regression analysis in the analyzing the data collected from firms listed on the China's stock market from 2007 to 2011, the studied found that the higher the degree of competition in the industry is, the more fair value information relevance is. Also, there are evidences representing that fair value information often presents negative correlation with the stock price.

Alkababji (2016) carried out an exploratory study designed to investigate the extent of compliance with the requirements fair value measurement disclosures in the annual reports of the 48 corporate firms that were listed on the Palestine Exchange (PEX) in 2014, by firstly sketching a guide of best practices and examining the relationship between the disclosure requirements for fair value measurement and the variables which may determine. The study developed and utilized a disclosure score called unweighted fair value disclosure index (FVDI) to measure the extent of disclosure made by companies in corporate annual reports, and then using a statistical program to run the Correlations test, and Analysis of variance test. This study reports significant differences in levels of disclosures on fair value measurements, as measured by the mean values of the fair value disclosure index in Palestine. The findings show that, there is correlation between the disclosure requirements for fair value measurement and the explanatory variables (the size of the firm, auditor's type), also there are differences in the level of disclosure requirements for fair value measurement of the firms due to the kind of economic sector.

3. Methodology

This study employed ex-post facto research design. Ex-post facto design is appropriate in any after-the-fact

research in which case an investigation or evaluation is carried out using already existing data (information) from the past event. This study utilized data from the published accounts and annual reports of the selected firms. According to the Nigeria Stock Exchange reports, a total of eleven (11) sectors operate on the stock exchange namely; Agriculture, Conglomerates, Construction/Real Estate, Consumer Goods, Financial Services, Healthcare, ICT, Industrial Goods, Natural Resources, Oil & Gas and Services sectors. One (1) firm was selected from each of the sectors except the financial sector which was not included in the study, resulting to total sample size of 10 firms. The selection was made based on the following criteria: any firm with the highest stock price in each of the sectors having its financial (annual) reports denominated in the local currency (NGN) and assessable on-line for the period of the study (2007 – 2016). Consequently, the following firms were selected: Okomu Oil Plc (Agric sector), UAC Plc (Conglomerate), Julius Berger Plc (Construction/Real Estate), Nestle Nig. Plc (Consumer Goods), Glaxosmithkline Plc (Healthcare), Computer Warehouse Group Plc (ICT), Dangote Cement Plc (Industrial Goods), Multiverse Plc (Natural Resources), Fort Oil (Oil & Gas) and Nigerian Aviation Holding Company (NAHCO) plc (Service Sector). Data were collected on the selected performance variables of the firms including Profit after Tax (PAT), Earning per Share (EPS) and Return on Equity (ROE) for the period of 10 years segregated into HCA regime (2007-2011) and FVM regime (2012-2016).

Descriptive statistics (precisely, Mean) was employed in describing the nature of the difference in the performance variables between the two regimes (FVM & HCA) while inferential statistics (paired sample t-test) was adopted in determining the significance of the difference between the two regimes. Test statistics is conducted at 5% level of significance in which case the null hypothesis adopted if (Sig-value < 0.05), otherwise the alternative hypothesis (HA) is accepted. The analyses were conducted with the aid of Statistical Package for the Social Sciences (SPSS) version 21.

4. Results and Interpretation

Data collected for this study are presented in Appendix ‘A’ while the data used in conducting the analysis of the study are presented in Appendix ‘B’. The result of the analysis is presented on table 1 as follows:

Table 1: Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	PATFVM - PATHCA	18217192	50944810	16110164	-18226530	54660914	1.131	9	.287
Pair 2	EPSFVM - EPSHCA	-176.270	853.8318	270.0053	-787.0645	434.52449	-.653	9	.530
Pair 3	ROEFVM - ROEHCA	-.07758	.24805	.07844	-.25502	.09987	-.989	9	.349

Source: SPSS Version 21 statistical result, 2018.

From the result of the analysis as presented on table 1, the mean of **pair 1** (the difference between PAT under FVM and HCA regimes) is 18217192. This shows a positive difference in the profit after tax (PAT) of the two regimes, indicating that the implementation of fair value measurement (FVM) has positive influence on the PAT of the selected firms. However, the significance result for **pair 1** indicates that there exists no significant difference in the PAT of the two regimes (i.e. Sig-value > 0.05). Therefore the null hypothesis (H0)₁ of this study which states that there is no significant difference in the PAT of the selected firms between the HCA and FVM regimes stands accepted and the associating null hypothesis abandoned.

On the other hand, the mean of **pair 2** (the difference between EPS under FVM and HCA regimes) is -176.26. This shows a negative difference in the earnings per share (EPS) of the two regimes, indicating that the implementation of fair value measurement (FVM) exerts negative effect on the EPS of the selected firms. The significance result in respect of the **pair 2** however indicates a case of no significant difference in the EPS of the two regimes with significance result at 0.53 (i.e. Sig-value > 0.05). Also, the null hypothesis (H0)₂ of this study which states that there is no significant difference in the EPS of the selected firms between the HCA and FVM regimes is adopted to be true while the associating null hypothesis is rejected.

Finally, the mean of **pair 3** (the difference between ROE under FVM and HCA regimes) is -0.08. It also shows a

negative difference in the return on equity (ROE) of the two regimes, indicating that the implementation of fair value measurement (FVM) negatively affects the ROE of the firms. However, the negative result bears no significant effect of the performance variable (ROE) as indicated in the significance value of 0.35 (i.e. Sig-value > 0.05). Thus, the null hypothesis (H₀) 3 of this study which holds that the ROE of selected firms in Nigeria measured under the HCA-basis does not significantly differ from the FVM-based ROE is upheld to be true.

5. Conclusion and Recommendations

Based on the findings of the analysis, this study concludes that the dawn of fair value measurement as encapsulated in the international financial reporting standards (IFRS) 13 does not automatically translate to improved performance of Nigeria firms. In fact, there is no empirical evidence to justify the enthronement of the ideals of fair value accounting at the expense of historical cost accounting particularly as regards to the profit after tax, earnings per share and return on equity of quoted firms in Nigeria. This study thus holds that fair value measurement as it's being practiced and implemented by Nigerian firms hitherto, exerts no significant change in the firms' performance vis-à-vis the firms' performance under the historical cost accounting regime.

It is therefore recommended that the International Accounting Standards (IASB) should review the current provisions on the fair value practices in the International Financial Reporting Standards (IFRS) to ensure improved operations of firms across national borders. Accountants and financial controllers of firms in Nigeria should ensure that ethical standards are adhered to in ensuring high quality of financial statements figures. Stock valuation methods employed by Nigerian firms may need to be reviewed to ensure realistic values of the inventories reported in the financial statements; there is need to guide against the erosion of owners' capital by way of undervaluation of stock while also ensuring the avoidance of overvaluing of stocks, to guide against fictitious figures. Finally, rather than requiring developing nations to fully adopt the tenets of IFRS cum fair value, developing countries where perfect market conditions are unattainable should be allowed a gradual and step by step adaptation to the global standard; Accountants and financial managers of Nigerian firms should be allowed to gradually understudy the requirements of fair value measurement on the firms' assets and liabilities rather than hurriedly switching over to supposedly IFRS (fair value) standards.

References

- Ahmad, F.B. & Aladwan (2015), "The effect of Fair Value Accounting on Jordanian Investment Properties: An empirical study on Jordanian listed real estate companies", *International Journal of Financial Research*, 6(4), 99 – 113.
- Akpaka, N.C. (2015), "International Financial Reporting Standards (IFRS) adoption and Value Relevance of Financial Information of listed Deposit Money Banks in Nigeria", *M.Sc. Thesis, Ahmadu Bello University, Zaria*.
- Akwu, O.D. (2014), "Examination of Fair Value Measurement in determination of Profitability of listed Manufacturing Firms in Nigeria", *Doctoral Dissertation, University of Nigeria, Enugu Campus*.
- Alaryan, L.A., Haija, A.A.A. & Ali, M.A. (2014), "The relationship between Fair Value Accounting and presence of manipulation in Financial Statements", *International Journal of Accounting and Financial Reporting*, 4(1), 221-237.
- Alkababji, M.W. (2016), "The Extent of Compliance with the Disclosure Requirements for Fair Value Measurement (IFRS-13): A study on the annual reports of Palestinian corporations", *European Journal of Accounting, Auditing and Finance Research*, 4(4), 65 – 88.
- Al-Khadash, H.A. & Khasawney, A.Y. (2004), "The effect of the Fair Value option under IAS 40 on the Volatility of Earnings", *Journal of Applied Finance & Banking*, 4(5), 95-113.
- Al-Matari, E.M., Al-Swidi, A.K. & Fadzil, F.H.B. (2014), "The measurements of Firm Performance's Dimensions", *Asian Journal of Finance & Accounting*, 6(1), 24-49.
- Al-Sakini, S. & Al-Awawdeh, H. (2015), "The effect of Accounting Conservatism and its impacts on the Fair Value of the Corporation: An empirical study on Jordanian Public Joint-Stock Industrial Companies", *International Journal of Business and Social Science* 6(7), 229 – 241.
- Amaefule, L.I. (2015), "Fundamentals of Advanced Financial Accounting and Reporting", Owerri: Shepherd Consult.
- Amanamah, R. & Owusu, E.K. (2016), "Perception on Fair Value Measurement in Ghana: Evidence from Account Personnel", *African Journal of Applied Research (AJAR)*, 2 (2), 22-34.
- Ashford, C.C. (2011), "Fair Value Accounting: Its impacts on Financial Reporting and how it can be enhanced to provide more clarity and reliability of Information for users of Financial Statements", *International Journal of Business and Social Science*, 2(20), 12-19.
- Bessong, P.K. & Charles, E. (2012), "Comparative Analysis of Fair Value and Historical Cost Accounting on reported Profit: A Study of Selected Manufacturing Companies In Nigeria", *Research Journal of Finance and Accounting*, 3(8), 132 – 149.
- Dickinson, G. & Liedtke, P.M. (2004), "Impact of a Fair Value Financial Reporting System on Insurance Companies: A survey", *The Geneva Papers on Risk and Insurance*, 29(3), 540-581.

- Egbe, N. (2014), "The effect of Historical Cost Accounting on the reported Profit of a Company: An evaluation of Current Cost Accounting as an alternative reporting method", *Ph.D Doctoral Dissertation, University of Nigeria, Nsukka, Nigeria*. Retrieved from: <http://www.unn.edu.ng/.../EGBE,...>
- Elfaki, A.A.A. & Hammad, S.M.E. (2015), "The impact of the application of Fair Value Accounting on the quality of Accounting Information: An empirical study on a Group of Companies listed on the Khartoum Stock Exchange", *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(1), 148–160.
- Ene, G.S., Chilarez, D. & Dindire, L.M. (2014), "Relevance and Credibility of the Fair Value Measurement during the Crisis", *Procedia Economics and Finance*, 8, 306 – 312.
- Fahnestock, R.T. & Bostwick, E.D. (2011), "An analysis of the Fair Value Controversy", *Journal of Finance and Accountancy*, 8, 1-12.
- Ghafaer, N.M. & Abdul-Rahman, A.A. (2014), "The impact of Fair Value Measurements on Income Statement: IFRS 13 "an application study in Insurance Companies", *Research Journal of Finance and Administration*, 5(16), 120-127.
- Guthrie, T., Petty, R. & Ricceri, F. (2006), "The voluntary reporting of Intellectual Capital: Comparing evidence from Hong Kong and Austria", *Journal of Intellectual Capital*, 7(2), 254-271.
- IASB (2011) International Financial Reporting Standard 13 "Fair Value Measurement", available on-line at: <http://eifrs.ifrs.org>
- Ijeoma, N. B. (2013), "The impact of Fair Value Measurement on Financial Instrument of Firms in Nigeria", *International Journal of Advancements in Research & Technology*, 2(11), 90 – 96.
- Ijeoma, N. B. (2014), "The contribution of Fair Value Accounting on Corporate Financial Reporting in Nigeria", *American Journal of Business, Economics and Management*, 2(1), 1 – 8.
- Ikpefan, O.A. & Akande, A.O. (2012), "International Financial Reporting Standard (IFRS): Benefits, Obstacles and Intrigues for implementation in Nigeria", *Business Intelligence Journal*, 5(2), 299-307.
- Isenmila, P.A. & Adeyemo, K.A. (2013), "Mandatory adoption of international Financial Reporting Standards (IFRS) in Nigeria: The unresolved Institutional Question", *Mediterranean Journal of Social Sciences*, 4(1), 175-184.
- Jajairam, P. (2013), "Fair Value Accounting vs. Historical Cost Accounting", *The Clute Institute: Review of Business Information Systems*, 17(1), 1-6.
- Jarolim, M. & Öppinger, C. (2012), "Fair Value Accounting in times of Financial Crisis", *ACRN Journal of Finance and Risk Perspectives*, 1(1), 67-90.
- Kazmouz, B. (2010), "The effect of applying Fair Value on the Financial Statements of UK Leading Companies", Arab British Academy for Higher Education: Published Dissertation submitted in partial fulfillment of the requirements for the award of Accounting and Finance (MSC)
- Kochiyama, T. (2011), "Economic consequences of Fair Value Accounting and a change in the Distribution Rule", *Published Researched Work, Graduate School of Hitotsubashi University*.
- Liu, Y. (2010), "The study of the application status of Fair Value Accounting in China", *International Journal of Business and Management*, 5(9), 155-158.
- Niresh, J.A. & Velnampy, T. (2014), "Firm Size and Profitability: A study of listed Manufacturing Firms in Sri Lanka", *International Journal of Business and Management*, 9(4), 57-64.
- Okafor, C. & Ogedu, O. (2012), "Perceptions of Fair Value Accounting: Evidence from Nigeria", *JORIND*, 10 (3), 417 – 432.
- Osioma, B.C., Okoye, E.I. & Ijeoma, B.N. (2014), "A model for implementation of Fair Value Accounting in Corporate Financial Reporting", *SOP Transactions on Economic Research*, 1(2), 10 – 34.
- Pacter, P. (2016), "Pocket guide to IFRS Standards: The global reporting Language", London: IFRS Foundation.
- Pfarrer, M.D. (2010), "What is the purpose of the Firm: Shareholder and Stakeholder Theories", *Good Business: Exercising Effective and Ethical Leadership*, 86-93. www.enterpriseethics.org/.../good_business
- Richard, P.J., Devinney, T.M., Yip, G.S. & Johnson, G. (2009), "Measuring Organizational Performance: Towards Methodological Best Practice", *Journal of Management: Sage Publications*, 718 – 803.
- Schijndel, R. V. (2010), "Fair Value Accounting and Pro-Cyclicality", A Master's Thesis submitted the Accounting, Auditing and Control Department, Erasmus University Rotterdam
- Skoda, M. & Bilka, P. (2012), "Fair Value Financial Statements – Advantages and Disadvantages", *Vasile Goldis Arad, Studia Uninersitatis, Economics Series*, Vol. 22
- The Nigerian Stock Exchange (2016, May 10), "This Day Newspapers", p.44
- Umobong, A.A. (2015), "IFRS adoption and Firms Performance: A comparative analysis of Quoted Food and Beverage Manufacturing Firms in Nigeria", *European Journal of Accounting Auditing and Finance Research*, 3(8), 70-83.
- Zhuang, X. & Luo, Y. (2015), "Relevance between the degree of Industrial Competition and Fair Value Information: Study on the listed Companies in China", *Journal of Industrial Engineering and Management*, 8(3), 894 – 908.
- Zhou, H. (2011), "Income Statement effects of derivative Fair Value Accounting: Evidence from Bank Holding Companies", *PhD Dissertation, University of Illinois at Urbana-Champaign*

Appendix A: Data Collected for the Study

Firm	Variable	Under FVM Regime					Under HCA Regime						
		2016	2015	2014	2013	2012	Average	2011	2010	2009	2008	2007	Average
Okomu Oil	TE (N'000)	17,012,041	12,145,360	9,604,522	9,104,112	10,350,622	11,643,331	8,836,256	5,866,406	4,353,494	4,282,988	3,188,175	5305463.8
	PAT (N'000)	4,962,072	2,726,017	1,454,320	2,085,920	3,416,286	2,928,923	3,923,760	1,629,456	549,524	1,207,460	139,794	1489998.8
	EPS (Kobo)	515	279	139	219	716	374	823	342	115	253	29	312.4
	ROE (Kobo)	0.29	0.22	0.15	0.23	0.33	0.244	0.44	0.28	0.13	0.28	0.04	0.234
UAC Plc	TE (N'000)	46,418,000	44,588,000	44,965,000	42,898,000	37,026,000	43,179,000	35,316,000	29,227,000	37,487,000	41,157,000	0	35796750
	PAT (N'000)	3,751,000	2,983,000	6,532,000	5,582,000	4,111,000	4,591,800	959,000	3,191,000	4,019,000	4,241,000	0	3102500
	EPS (Kobo)	195	155	340	291	257	248	37	199	251	212	0	174.75
	ROE (Kobo)	0.08	0.07	0.15	0.13	0.11	0.108	0.03	0.11	0.11	0.1	0	0.0875
Julius Berger	TE (N'000)	13,145,087	18,658,452	19,566,152	16,310,338	14,521,681	16,440,342	10,092,141	7,617,009	7,722,184	6,563,062	5,610,635	7521006.2
	PAT (N'000)	-3,533,365	2,656,300	6,495,814	4,733,213	7,772,055	3,624,803	4,874,335	2,774,825	3,259,122	2,452,427	1,763,706	3024883
	EPS (Kobo)	-268	201	492	394	648	291	406	231	272	204	588	340.2
	ROE (Kobo)	-0.27	0.14	0.33	0.29	0.54	0.206	0.48	0.36	0.42	0.37	0.31	0.3889701
Nestle	TE (N'000)	30,878,075	38,007,074	35,939,643	40,594,801	34,185,562	35,921,031	23,492,887	14,865,353	10,543,935	9,031,240	6,236,521	12833987.4
	PAT (N'000)	7,924,968	23,736,777	22,235,640	22,258,279	21,137,275	19,458,588	16,808,764	12,602,109	9,783,578	8,331,599	5,441,899	10593589.8
	EPS (Kobo)	1000	2667	2808	2805	2995	2,455	2,121	1908	1481	1261	879	1530
	ROE (Kobo)	0.26	0.62	0.62	0.55	0.62	0.534	0.72	0.85	0.93	0.92	0.87	0.85851714
Glaxosmith	TE (N'000)	16,853,678	12,994,477	12,766,228	12,183,007	10,502,627	13,060,003	8,890,658	7,385,195	5,772,938	5,451,459	4,601,951	6420440.2
	PAT (N'000)	2,378,145	864,413	1,830,533	2,915,897	2,754,862	2,148,770	2,664,431	2,326,485	1,578,144	1,277,441	836,876	1736675.4
	EPS (Kobo)	199	96	193	305	295	218	279	243	165	122	75	176.8
	ROE (Kobo)	0.14	0.07	0.14	0.24	0.26	0.17	0.3	0.32	0.27	0.23	0.18	0.26037049
CWG Plc	TE (N'000)	3,342,057	3,312,213	5,254,685	5,275,047	3,298,486	4,096,498	1,793,515	1,644,548	1,596,144	1,223,303	0	1564379
	PAT (N'000)	32,087	-1,876,099	176,233	632,099	444,064	-118,323	308,967	233,665	372,835	-187,754	0	181928.25
	EPS (Kobo)	1	-74	7	25	22	-4	145	12	19	-9	0	41.75
	ROE (Kobo)	0.01	-0.57	0.03	0.12	0.13	-0.056	0.17	0.14	0.23	-0.15	0	0.0975
Dangote Cem.	TE (N'000)	981,367,000	748,479,000	638,542,000	571,563,000	412,141,000	670,418,400	297,053,675	211,509,215	142,112,234	72,512,218	58,070,985	156251665
	PAT (N'000)	368,205,000	213,171,000	185,814,000	210,263,000	146,016,000	224,693,800	125,478,962	106,605,409	47,251,326	17,960,110	11,622,109	61783583.2
	EPS (Kobo)	2161	1251	1090	1234	857	1,319	810	680	9500	3600	2300	3378
	ROE (Kobo)	0.38	0.28	0.29	0.37	0.35	0.334	0.42	0.5	0.33	0.25	0.20	0.34002725
Multiverse	TE (N'000)	603,257	1,289,021	1,599,717	2,152,124	3,766,560	1,882,136	3,735,701	3,698,912	3,698,427	3,614,500	201,990	2989906
	PAT (N'000)	-584,118	-444,513	-552,408	-549,327	30,648	-419,944	36,155	43,104	93,809	86,993	68,941	65800.4
	EPS (Kobo)	-1371	-1043	-1296	-1289	72	-985	85	101	220	600	159	233
	ROE (Kobo)	-0.97	-0.34	-0.35	-0.26	0.01	-0.382	0.01	0.01	0.03	0.02	0.34	0.0822618
Fort Oil	TE (N'000)	11,874,732	13,022,127	12,071,141	12,339,671	6,847,544	11,231,043	9,402,675	25,022,537	32,653,157	6,852,321	7,367,951	16259728.2
	PAT (N'000)	3,235,829	4,794,578	2,638,913	4,583,232	654,461	3,181,403	-15,619,862	-2,743,865	-9,484,616	3,005,887	2,161,530	-4136185.2
	EPS (Kobo)	248	439	242	425	61	283	-1446	-254	-878	635	723	-244
	ROE (Kobo)	0.27	0.37	0.22	0.37	0.1	0.266	-1.66	-0.11	-0.29	0.73	0.29	-0.20732616
HAHCO	TE (N'000)	7,065,628	6,807,803	6,456,696	6,130,364	5,651,160	6,422,330	5,181,000	4,993,000	4,677,000	4,217,000	0	3813600
	PAT (N'000)	582,669	646,419	769,000	1,010,000	709,680	743,554	865,673	1,177,504	1,247,334	802,910	0	818684.2
	EPS (Kobo)	36	40	52	68	48	49	70	96	101	82	0	69.8
	ROE (Kobo)	0.08	0.09	0.12	0.16	0.13	0.116	0.17	0.24	0.27	0.19	0	0.174

Source: Online Published Annual Reports of the Firms for the various Years [Key: TE = Total Equity; PAT = Profit after Tax; EPS = Earnings per Share; ROE = Return on Equity] ROE Computed with Ms-Excel 2007

Appendix B: Processed Data used for Analysis

Firm	PAT (N'000)		EPS (Kobo)		ROE (Kobo)	
	(Averages Figures)		(Averages Figures)		(Averages Figures)	
	FVM Regime	HCA Regime	FVM Regime	HCA Regime	FVM Regime	HCA Regime
Okomu Oil	2,928,923	1489998.8	374	312.4	0.244	0.234
UAC Plc	4,591,800	3102500	248	174.75	0.108	0.0875
Julius Berger	3,624,803	3024883	293	340.2	0.206	0.3889
Nestle	19,458,588	10593589.8	2,455	1530	0.534	0.8585
Glaxosmithkline	2,148,770	1736675.4	218	176.8	0.17	0.2604
CWG Plc	-118,323	181928.25	-4	41.75	-0.056	0.0975
Dangote Cement	224,693,800	61783583.2	1,319	3,378	0.334	0.3400
Multiverse	-419,944	65800.4	-985	233	-0.382	0.0822618
Fort Oil	3,181,403	-4136185.2	283	-244	0.266	-0.2073
HAHCO	743,554	818684.2	49	69.8	0.116	0.174

Source: Deductions from Appendix A.