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Revaluation Accounting and Decision Usefulness of Accounting Ratios

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Abstract
This study examined the decision usefulness of ratio analysis based on historical cost valuation of assets as enshrined in end of year financial statements. A good ratio with near perfect interpretation brings about feasible investment decisions, corporate solvency and profitability and a track down effect on economic growth. These well-articulated objectives of ratio analysis had been faulted on several occasions due to the faulty measurement and evaluation tools used by preparers of financial statements in reporting economic events. To address this gap, the researchers looked at revaluation accounting in detail, as a substitute to historical cost accounting, so as to ameliorate some of the limitations associated with ratio analyses based on historical cost data. To achieve the objective of this study, data was collected from primary and secondary sources. The primary source was generated from a well-structured self-administered questionnaire sent to 190 respondents drawn from top Bankers, Stock Brokers and Company Managers in Bayelsa, Rivers and Delta States in Nigeria. 172 usable questionnaires were retrieved and analyzed using Spearman rank order correlation coefficient, Mann-Whitney U test and descriptive statistics. The study revealed that there is a significant relationship between the method of asset valuation and the truthfulness of financial statements and decision usefulness of accounting ratios. On the basis of the statistical results, the researchers concluded that to enhance the decision usefulness of ratio analysis, users of financial reports should adjust financial statements to reflect the current value of assets before using them to compute necessary ratios.
Key words: Revaluation accounting, decision usefulness, financial statements, limitations, ratio analysis.

1. Introduction

Accounting as a service activity measures and communicates financial information about economic entities, stating the true financial position of the entity, and its relationship or stewardship to providers of fund, intended to indicate its operating results and sources of evidence of continual survival into the future at a point in time (Osisioma 2001 & Ihendinihu 2006). It is therefore believed that the main objective of financial reporting is to give its users useful and up-to-date relevant information about the financial position of the entity (Osisioma 2001; Appah and Oyadonghan 2011). Describing the relationship between the financial report and the user, Ihendinihu (2009) observed that accounting information contained in accounts of a business entity is required by a variety of users and the needs of these underpin the fundamental objective of accounting and the required mode of reporting (measuring) financial information. This is because, a business entity does not exist in a vacuum, and its operations/activities are carried on in a given economic, social and political environment which necessitates the existence of several stakeholders. Such institutional and individual stakeholders have reasonable right to information about the reporting entity (Kieso and Weygand 1992; McEnroe & Martensi 2001)

The foregoing appropriately underscores the fact that the primary objective of financial statements is to provide relevant and decision useful information to those who needed such information in a manner competent to satisfy their objectives (Appah 2010 & Ajileye 2002), and that such objectives should drive the method of measurement. To achieve the aforementioned purpose, accounting information should always aim at ensuring that users of the information receive a minimum amount of information that is relevant, reliable, timely and truthful to enable them make viable future decisions (ICAN 2010). It is a truism that accounting practice is guided by postulates and policies which provide specific treatments for specific business situations (Ahmed 2002 and SAS 1) but rather unfortunately it also provided alternative treatments for a number of items appearing in the financial statements. This tended to compromise the principle of uniformity, fair representation of items in the financial statements and truthfulness of accounting results as presented.

Taking a look at the user and user objectives of financial reports as presented by Ihendinihu (2009), it shows that a distorted measurement tool and evaluation method will fail to satisfy the basic objectives of user needs. Amongst some of the users of the information contained in financial statements are employees, management,

regulatory agencies, and investors (Popoola 2009). In this category, investors rely on this information gateway to make critical investment decisions (Shamsuddeen 1999). These users objective need-satisfaction principle (Spiceland, Sepe & Tomassini 2001; & Ojuiko 2004) underline the several postulates and concepts of accounting as encapsulated in the history of the accounting practice. The above objectives are not formally presented in the financial statements but can only be actualized with the help of accounting ratios. The information to be disclosed in financial statements for the purpose of guiding informed decision making could be qualitative and quantitative in nature which should be subjected to critical analysis and interpretation by using ratios and other relevant indicators (Foster 2004 & Adebola 2005) for a good understanding of the content of the financial statements. Any item reported in a financial statement has significance. Its inclusion indicates that the item exists at a given time and in a certain quantity. But whether its reported quantity represents an increase over period of years is not known or whether its state at present is the worth for sufficient returns in the future, or whether the item has been properly managed in the past and it still worth further investment to improve its production capacity cannot be ascertained except with the help of ratio analysis (Robert 2005).

Unfortunately, these answers which psychologically inform the behaviour of the user could be wrongly provided and are wrongly provided in most instances by the use of a wrong measurement tool (the historical cost concept), leading to poor and regrettable investment decisions on fixed asset by corporate beings and providers of fund etc. (Kieso & Weygandt 1992; & King, Lembke, & Smith 2001)

The historical costing model fails to indicate changes in the value of assets over time; it only provides subjective estimated value of its usage overtime without the substance of what such an asset's value could be in the present market. Fixed assets as economic goods need to be valued on current economic indices rather than mere subjective arithmetical provisions. Since the historical cost model does not indicate the current economic indices, their reported net book value may not correspond with the actual economic value. This limitation distorts the real value of the capital employed as it may be given in financial statements which serves the bases for all ratio analysis. The objective of this current study was to examine analytically how the alternative -the revaluation of fixed asset method- could be used to value assets in the financial statements to eliminate the limitation in ratio analysis and thus enhance the decision usefulness of accounting ratios. This is because, most ratios are based on profit, fixed or current asset and capital employed-variables (Harbert 2005) which are affected by the use of historical cost model.

1.2 Theoretical Frame Work and Literature Review

1.2.1 Historical cost model

Financial accounting standards for fixed assets requires them to be initially recorded at cost but they allow two models for subsequent accounting for fixed Assets, namely the cost model and the revaluation model (SAS 3 & 4, 16; & IAS 38). The cost model allowed fixed assets to be carried at cost less accumulated depreciation and impairment losses. (SAS, No.1). This method according to Kiabel (2011) does not make provision for an upward adjustment to the value of an asset which may occur due to changes in business, civilization or new discovery due to advancement in research. This model recognizes the original monetary value of an economic item which is based on the stable measuring unit axiom (Ahmed 2002). It shows assets and liabilities at their historical cost (Foster 2004) as if there had been no change in value since the date of acquisition,. This treatment is practical and objective in the sense that the data are verifiable. However, the use of this measurement is limited in several ways. First, the economic value of an asset does not necessary correspond to its historical cost. Second any appreciation or depreciation may be subjective and have no relationship to any increase or decrease in the productivity of the assets. Thirdly the historical cost method does not result in comparable real-resource value.

The effect of historical costing on investor's decision making is aptly described in these words of Kiabel (2011), who submitted that "Notwithstanding the arguments in favour of historical cost model, there are certain drawbacks associated with the concept. In period of fluctuating prices adoption of this concept distorts the accounts… accounting information users such as managers, investors etc may require actual information relating to current value of assets. Thus values based upon historical cost may be irrelevant for their purpose. Also relevant information for example, the real value of capital employed in the business is not given under the historical cost concept".

1.2.2 Relevance

To be relevant, information must possess predictive value or feedback value. Relevance is also timeliness. Information is timely when it is available to users early enough or as at when it occurs to allow its use in decision process. Ahmed (2002) describes relevance as the ability of the information to influence managers' decisions by changing or confirming their expectations about the result or consequences of actions or events. In cost and management accounting an information system designed to aid management on decision making sees relevant cost as futuristic in nature and therefore classified historical cost as irrelevant for future decision making. ICAN classified relevant cost to be expected future cash flows and classified historical and depreciation cost as

sunk, past and revocation cost. A cost considered to be relevant in decision making is one which will arise or just rose as a direct consequence of a decision which is also called incremental cost or differential cost, (ICAN 2006 & Horngren 2004). From the above, historical cost is not relevant to enable investors make decision based on ratio analysis (Ahmed 2002 & Kiabel 2011).

1.2.3 Revaluation Accounting

To correct these limitations with the historical costing paradigm, revaluation accounting is much better for reliability and relevance in such instances. In finance, revaluation of fixed assets is a technique required to accurately describe the true value of capital goods of a business (David, Berth & Kasznik 1999). This is distinguished from planned depreciation where the recorded decline in value of an asset is tied to its age. Fixed assets are held by business for the purpose of producing goods or rending services, as opposed to being held for resale in the normal course of business e.g machine and building, so to bring into the books the fair market value of fixed assets, they need to be revalued. This may be helpful in order to decide whether to invest in another business. If a firm wants to sell its assets or a business is to be sold, it is revalued in preparation for such negotiation (Paul 2003; Ihendinihu, 2006 & Deloitte 2012).

In supporting the need for revaluation of fixed assets, Ahmed (2002) and King et al (2001) advanced the under listed reasons in support of its philosophy:

- To show the true rate of return on capital employed (for a true value for ROCE ratio)
- Because provision for depreciation based on historical cost fail to show a fair profit and dividend payment. This will improve several or all profitability and activity ratios.
- To negotiate for a fair value of assets, for acquisition and dissolution of business.
- To show the fair market value of assets to account for a fall or rise in market price (ROCE).
- To get a fair market value of asset in case of leaseback transactions
- To access loan facilities from financial institutions
- To help decrease the leverage ratio of a company; appraise a firms assets for insurance policy and asset protection.

1.2.4 Ratios and historical cost defects

Accounting ratio is identified as a process of evaluating the financial strength and weakness of a firm by properly establishing relationships between the items in the balance sheet statement and those in the profit and loss account or income statement. (Jennings 2001; Adebola 2005; & Salehi et al 2009) observed that ratios provide the means for which various items in the final accounts are related and how they attest to the condition of a firm. Therefore ratio analysis forms the basis for assessing the financial result and performance of a company using accounting figures that make the measure of financial relationship possible. It uses quantitative expressions to arrive at qualitative opinion. Information to be disclosed in financial statements for the purpose of guiding informed decision making could be quantitative and qualitative in nature. Such information (ICAN 2010) should be subjected to critical analysis and interpretation using ratios and other relevant indicators for a good understanding of the contents of the financial statements.

There are numerous accounting ratios that are indicative of the various aspects of a company's financial health. These various ratios serve the basis for decision making either via trend analysis, use of industry average or inter-period comparison. Through these alternatives, decision makers are presumed to have access to informed insight in respect of the operations of the firm in question and its overall state. Ross et al (2001); King et-al (2001); Elegibo, (2004) amongst several others, have pointed out the purpose and usefulness of various ratios and there accompanying limitations. These limitations arise from the historical cost model used in capturing all fixed assets regardless of the changes that might have occurred. For instances, land as an asset keeps appreciating in value but must still be carried in the books at its original cost. In this era of global inflation, without revaluation of such an asset, its net book value is unrealistic. Specific instances include:

a. Return on capital employed:- As a measure of how the capital employed fared during the year. It is an accounting scale for management performance, because it measures the relationship between the net profit and capital employed or total net asset. Where capital employed also include owner's equity and long term loans. However ROCE results are always sported lower than current market rate, making it unrealistic because investors will be scared that conditions of borrowing may not be profitable. This low ROCE rate is in most instances informed by the fact that a company's fixed assets are undervalued in its balance sheet such that the capital employed figure might be unrealistically low, not meeting the merit to motivate informed feasible decision by investors. In addition to that profit by whatever definition is distorted by the arbitrary use of LIFO or FIFO in measuring its actual value in current market price.

b. Assets turnover ratios:- These ratios show the extent to which the assets have been utilized and is used to predict the degree of future profits. Asset turnover ratios are; Sales to total asset ratio, Sales to fixed asset ratio, and Sales to stock ratio. These ratios are asset based in relation to sales. Sales are the totality of income from operating activities by the assets. Assets are qualified as either total net assets, or total net fixed assets or stock at

closing, in either of the definitions of asset they are value at historical cost which are irrelevant with regard to future decision making in management accounting. This defect renders the overall result a negation of the concept of true and fair value in information provided through ratio analysis. Hence, informed decisions cannot be reached by users who depend on them.

c. Solvency or stability ratios:- These ratios assess what percentage of total funds used to finance operations is generated from outside sources, to determine the stability of a company. Rose et-al (2001) said "long- term solvency ratios are intended to address a firm's long- run ability to meet its obligations or more generally its financial leverage." Debenture holders and financial institutions are more concerned with a company's long term financial strength. The ability of the company to meet the interest cost and repayment schedule associated with its long-term obligations (ICAN 2010), while King et al (2001) said long-term solvency ratios help decision makers to evaluate an entity's ability to meet its obligations in a timely manner.

ICAN (2006) posited that these ratios are used to ascertain the long-term financial performance of a company hence the usage of the terms financial leverage or capital structure. They are used to determine the manner in which funds provided by shareholders and debenture holders are mixed up in order to finance the assets of the company and to determine the financial risks and a company's competence to engage debts to the shareholders benefit. All solvency ratios are defined on the basis on Assets, which suffers from the inadequacies of historical cost measurements hence the definition affects the reliability of the result in decision making process by financial information analysts.

d. Investment ratios:- These ratios are of interest to shareholders and providers of long- term loan fund in indicating how financially healthy the company is. The ability of a business to survive depends on its capability to attract additional equity capital when required. Major factors in this assessment of capacity are the relationship between the earning available for ordinary shareholders and the other attributes of the ordinary shares. The main problem in these ratios is that they are all based on profit after tax and dividend or interest. The measurement of profit is distorted by the valuation of cost of goods sold which gives an irrelevant and unrealistic value of profit from operating activities with the notional concept of depreciation written off, and opening/closing stock valuation at gross profit. The significance of this distortion in profit definition informs the redetermination of the concept by the relevant tax authorities and cases of amalgamation and absorption issues leading to revaluation of stock when necessary.

1.3 Material and methods

Data for the study was generated through self-administered questionnaires. Out of a total 190 questionnaires administered to Management Staff of Banks, Stock Brokers and CEO's of companies in Delta, Bayelsa and Rivers States in the Southern part of Nigeria, 172 were retrieved. The questionnaire had three sections; the first section was related to demographic information about the respondents, the second section was made up of a list of propositions (or six statements) on the relationship between the method of asset valuation and truthfulness of financial statements, while the third had six statements on the relationship between the method of asset evaluation and reliability of accounting ratios. The measurement instrument of the statements was a five point Likert type scale anchored on strongly disagreed (1) to strongly agreed (5). Excel software was used to transform the variables in to a format suitable for analysis, after which the Statistical Package for Social Sciences (SPSS) was used to analyze the data. The results obtained from the rating were analyzed using Spearman rank order correlation coefficient (r) and z test, to test the hypotheses of the study, because the data generated was measured on ordinal scale.

Decision criteria

Reject H_0 at 99% level of confidence (∞-0.01) if the computed value of r_1 is greater than critical value of r_1 otherwise accept H_1 at 95% level of confidence.

1.4 Results

The results obtained from the test of the hypotheses of the study are as follows.

Hypothesis I: There is no significant relationship between the method of asset valuation and the truthfulness of financial statements.

Insert table 1

Table 1 shows the results of Spearman rank order correlation co-efficient on the effect of the method of asset valuation and truthfulness of financial statements. The Spearman correlation on the above relationship is 0.302 with p= 0.000, implying that the method of asset valuation and truthfulness of financial statements is statistically correlated at an acceptable level of significance. The result agrees with Kiabel (2011) conclusion about historical accounting model that it does not fairly portray a truthful financial position of a company in the published financial statements which informed the reason why Ahmed (2002) favored revaluation accounting to historical cost model in asset valuation.

Hypothesis2: There is no significant relationship between the method of asset valuation and the reliability on accounting ratios in decision making.

Insert table 2

Table 2 shows the Spearman rank order correlation coefficient on the effect of the method of asset evaluation and the reliability on accounting ratio in decision making to be 0.296 with p=0.000, implying a statistically significant correlation. This agrees with conclusion provided by Jennings (2004), ICAN (2006) & Popoola (2009), that the primary limitation of ratio analysis is the use of historical (sunk) cost in making future investment or financing decisions. Such methods of valuation do not guarantee the transparency and accountability expected to be inducted into financial statements. The overall result shows that for financial statements to be relevant, reliable, accountable and transparent, and to satisfy primary user objectives, the method of measurement of asset most be based on current relevant indices and not past historical sunk figures which gives only a retrospective view of the position of a firm. This cannot be properly applied to the current dynamic social-economic situation in a globalized and technology driven world economy that believes in real time processing of information for decision making.

1.5 Conclusion and recommendations.

This paper provides a view of contrasts between historical cost model and revaluation model as provided by IAS 16, 36, 38 and SAS 3 and 4, on the valuation of fixed assets. A practical attempt was made to see the specific limitations the use of historical cost model had on several classes of ratio analysis and the defective decisions they may make. To restore investors' confidence on ratio analysis in decision making, it is appropriate to do all that is necessary to adjust the financial statements with revaluation model before using such items of asset.

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Table 1.

Method of asset valuation and truthfulness of financial statements

Statistical	method of valuation	Truthfulness
Spearman rho method valuation	1.00	0.302*
correlation coefficient sig (2tailed)	--	0.00
N	172.0	172.0
Truthful fin statement cor. Coef.	0.302*	1.00
Sig (2tailed)	0.000	----
N	172.0	172.0

*Correlation is significant at the 0.01 level (2tailed), researchers field word 2012

Table 2.

Method of asset valuation and reliability of accounting ratios for decision making

Statistical	method of valuation	reliability
Spearman rho method valuation	1.000	0.296*
Correlation coefficient sig (2tailed)	--	0.000
N	172.0	172.0
Reliability of ratios cor. Coef.	0.296*	1.000
Sig (2tailed)	0.000	----
N	172.0	172.0

*Correlation is significant at the 0.01 level (2tailed) researchers' field word 2012.