



## Financial Information Disclosure and the Reliability of Fair Value Estimations in Published Financial Statements: Evidence from Real Estate Sector in Nigeria

Ameachi Patrick Egbunike<sup>1</sup>, Abiahu Mary-Fidelis Chidoziem<sup>2\*</sup>  
and Sandra Eseoghene Okwuada<sup>2</sup>

<sup>1</sup>Department of Accounting, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.  
<sup>2</sup>Department of Accountancy, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.

### **Authors' contributions**

*This work was carried out in collaboration between all authors. Author AMFC designed the study, wrote the protocol, wrote the manuscript and managed the literature searches. Author SEO performed the statistical analysis and managed the analyses of the study. Author APE supervised the authors AMFC and SEO. All authors read and approved the final manuscript.*

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### **ABSTRACT**

The inadequacy of historical cost measurement has been unable to capture current market information and conditions have given rise to the increased use of fair value measurement. However, there has been a controversy as to whether Fair Value Accounting actually satisfies this need it purports to in respect of necessary conditions and benefits for its usage. The study specifically analyzed the reliability of fair value estimations in financial statement disclosures and the availability of active markets for fair value allocation. The respondents consisted of professional accountants in business and public practice and academics in Anambra State. The study was anchored upon the efficient market hypothesis and the agency theory. Disproportionate stratified random sampling technique was used to select the sample from each stratum; the study used simple random

\*Corresponding author: E-mail: [f.abiahu@unizik.edu.ng](mailto:f.abiahu@unizik.edu.ng);

sampling giving the study a sample population of 67 respondents from the target population which was believed to be a good representation of real estate market. Primary data were gathered using unstructured questionnaires while the ANOVA test was employed to analyze the information gathered. The result showed that fair value estimates are not reliable to users of financial information. It was also found that there is low availability of active markets for fair value estimation. The paper concludes that companies should adopt a hybrid form of measurement (measurement should entail both fair and historical values) and provide all necessary information needed to understand the allocation of fair value in the notes to the accounts to improve the reliability of financial information disclosed in published financial statements.

*Keywords: Accounting information; fair value; information disclosure.*

## 1. INTRODUCTION

The International Accounting Standards Board (the IASB) in its conceptual framework document: *Framework for the Preparation and Presentation of Financial Statements*, stated that 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 decisions about providing resources to the entity (Institute of Chartered Accountants of Nigeria (ICAN), 2014) [1]. This objective has continually instigated brainstorming for better approaches to conveying accounting information, and improves decision-making. Standards have been set, adopted, expunged and replaced in the bid to achieve this objective. Riauhi-Belkaoui [2] observed that the American Accounting Association (AAA) in 1966 recommended that relevance, verifiability, freedom from bias, and quantifying ability be bedrocks for accounting information measurement and dissemination. Penman [3] stated that a fundamental conceptual issue [facing accounting standard setters] is the extent to which the standards should move away from traditional cost based accounting to marking assets and liabilities to market, euphemistically referred to as 'fair value' accounting. Nissim and Penman [4] also led credence to this statement, stating that the adoption of fair value accounting is arguably the most important and controversial issue facing regulators and accounting standard setters today. According to Osioma, Okoye and Ijeoma [5] fair values reflect the most current and complete expectation and estimation of the value of assets or obligations, including the amounts, timing, and riskiness of the future cash flows attributable to assets or obligations.

There is without doubt, considerable momentum to move toward fair value methodologies, but there are also significant questions about the practical and useful application of that approach

to both internal and external users. IFRS 13 (Fair Value Measurement) explains that a fair value measurement requires an entity to determine the following:

1. The particular asset or liability being measure.
2. For a non-financial asset, the highest and best use of the asset and whether the asset is used in combination with other assets or on a stand-alone basis;
3. The market in which an orderly transaction would take place for the asset or liability.
4. The appropriate valuation technique to use when measuring fair value. The valuation technique used should maximize the use of relevant observable inputs and minimize unobservable inputs. Those inputs should also be consistent with the inputs a market participant would use when pricing the asset or liability [1].

### 1.1 Statement of Problem

Fair value ensures that assets and liabilities are measured by their market value, or estimated market value when market value is not observable. In this regard, fair value that provides timely updates of firm financial position satisfies the information needs of decision makers as long as it is reliably measured. However, fair value also has its pitfalls. Estimates based on these judgments will likely be difficult to verify since they suffer from low reliability due to the possibility of measurement errors in financial instrument, valuation based on managerial discretion and occurrence of estimations errors in values measured on Fair Value basis was high. Thus, it could be possible that fair values are not necessarily the currently realizable values of financial transaction items; rather they represent hypothetical values that reflect transaction prices even if current conditions do not support such transaction [6].

Auditors and users of financial statements, including credit portfolio managers, will need to place greater emphasis on understanding how assets and liabilities are measured and how reliable these valuations are when making decisions based on them.

The major objective of fair value measurement is for firms to estimate qualitatively and determine operating prices based on current information and conditions. To meet this objective, firms need to fully incorporate current information about future cash flows and current risk-adjusted discount rates into their fair value measurements. However, the reliability of the fair value measurement depends on the availability of an active market. For developed countries, fair value accounting is considered as a good measure to disclose more reliable financial information in published financial statements. However, in developing countries like Nigeria, there is large uncertainty on how reliable fair value measurement is. Some proponents also argue that fair values for assets or liabilities reflect current market conditions and hence provide timely information, thereby increasing transparency and encouraging prompt corrective actions. But the controversy rests on whether Fair Value Accounting is indeed helpful in providing transparency in information disclosed in financial statements and whether it leads to undesirable actions on the part of firms. Inasmuch as investors want fair value information to better determine the true value of their investment, they also wish to see the historical cost information that provide a measure of cash flows and aids forecasting of financial performance and position. On the basis of the discussion above, the following two hypotheses were formulated:

**H<sub>01</sub>:** There is no significant difference in opinion on the reliability of fair value estimates disclosed in financial statements to users of accounting information.

**H<sub>02</sub>:** There is no significant difference in opinion on the limited availability of active markets for the allocation of fair value on financial instruments.

## 2. LITERATURE REVIEW

Under the fair value standards, fair value is based on the exit price (the price that would be received to sell an asset or paid to transfer a liability), not the transaction price or entry

price (the price that was paid for the asset or that was received to assume the liability) (Pricewaterhousecoopers (PWC) 2015) [7]. Conceptually, entry and exit prices are different. The exit price concept is based on current expectations about the sale or transfer price from the perspective of market participants. In accordance with the fair value standards, a fair value measurement should reflect all of the assumptions that market participants would use in pricing an asset or liability [7]. A hierarchy of fair value methodologies is listed in the IFRS and U.S. GAAP frameworks that start with observable prices in active markets referred to as Level 1 (The Market Approach or Mark to Cost Approach), Level 2 using prices for similar instruments in active or not active markets or valuation models using observable inputs (the Income Approach or Mark to Market Approach), and moving to a mark-to-model methodology with unobservable inputs and model assumptions (Level 3) [5].

For fair value measurements using level 3 approach, entities need a reconciliation from the beginning balances to the ending balances, disclosing separately changes during the period attributable to the following:

- a. Total gains or losses for the period recognised in profit or loss, and a description of where they are presented in the income statement and other comprehensive income.
- b. Purchases, sales, issues and settlements (each type of movement disclosed separately); and
- c. Transfers into or out of Level 3 (such as transfers attributable to changes in the observability of market data) and the reasons for those transfers. In addition, the entity shall state that fact and disclose the effect of those changes. The entity shall disclose how the effect of a change to a reasonably possible alternative assumption was calculated [5].

The issue of reliability with fair values rises from the measurement uncertainty. The fair value estimates, especially for Level 3 assets, are heavily reliant on valuation estimation models and assumptions, which may result in unintentional and intentional bias. As valuation moves from market prices to mark-to-model valuation, FVA poses reliability challenges to which markets, particularly under distress, are sensitive.

Reliability and relevance go hand in hand. Relevance ensures that information is useful in the decision making and has a supporting (predictive or confirmatory) role in economic decisions. Relevance is influenced by the materiality of information, which serves as a kind of threshold from the perspective of usefulness of information. Information relating to a company is considered useful if its omission or misstatement could influence the decisions of users with respect to that entity [8].

The concept of fair value is incomplete without the presence of an active market. This is evident in definitions that stem around market participants and orderly transactions. The fair value standards define a principal market as the market with the greatest volume and level of activity for the asset or liability. It further defines an active market as one in which transactions for the asset or liability being measured takes place with sufficient frequency and volume to provide pricing information on an ongoing basis. According to Ijeoma [9] an active market is a market in which securities as a whole are trading at a high volume. An active market is made up of market participants- buyers and sellers in the market, who are independent of each other, knowledgeable, and willing and able to enter into a transaction for the asset or liability.

The determination of the reporting entity's principal market is made from the perspective of the reporting entity; the availability of pricing inputs is not part of that assessment. For example, if the reporting entity is a retail customer and does not have access to the wholesale market, the reporting entity's principal market is the retail market and quoted prices in the wholesale market will not qualify as fair value for that reporting entity (Pwc, 2015) [7].

## 2.1 The Efficient Market Hypothesis

In simple terms, the efficient markets hypothesis states that a market in which prices fully reflect all available information is regarded as efficient [9]. The market price is believed to reflect available information based on the "information aggregation hypothesis" which says that the market price aggregates in an efficient and unbiased manner the expectations of investors in the market concerning the cash flow patterns of the assets and liabilities appearing on a firm's financial statements [10].

Previous studies on fair value measurement have had conflicting results. Dietrich, Harris and

Muller [11] examined the reliability of mandatory fair value estimates for U.K. investment property by using a sample of firms in the U.K. investment property industry from 1988 to 1996. They found that fair value estimates of investment properties are less-biased and present more-accurate measures of selling price than respective historical costs.

Trabelsi, Hamza and Chila [12] using the sample of companies listed in European Stock markets, examined the impact of IFRS on accounting quality through value relevance of earnings and found that accounting information quality improved by increased association of earnings and firm's market value. Okafor and Ogiedu [13] found that IFRS adoption which supports fair valuation, will add to financial reporting complexities. Ijeoma [14] assessed the impact of fair value measurement on financial instrument of firms in Nigeria using primary data from questionnaires analysed with 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. Also observed was that the possibility of measurement errors in financial instrument measured on Fair Value basis was high. The study 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. Nulla [15] assessed the impact of IFRS on quality of information for large Canadian banks, using quantitative methods. It was found that the quality of reporting improves witnessed by increased value relevance of earnings, increase in persistence and predictability in earnings and cash flows, decreased income smoothing, but decrease in accounting valuation usefulness.

## 3. METHODOLOGY

The study adopted the descriptive survey research design. A total of 67 respondents were judgmentally selected comprising senior management and practicing accountants in the Real Estate market in Anambra and Enugu States of Nigeria respectively. The respondents were selected using disproportionate stratified random sampling technique. This was used because respondents were randomly picked among senior managers and accountants without taking cognizance of their relative proportions. Primary data were obtained from responses of sample respondents from structured

Table 1. Summaries of responses

Question	SA	A	D	SD	UN	Total
<b>Section B</b>						
1	3 5%	50 81%	9 14%	- 0%	- 0%	62 100%
2	13 21%	29 46%	14 23%	6 10%	- 0%	62 100%
3	6 10%	33 53%	10 16%	13 21%	- 0%	62 100%
4	3 5%	28 45%	31 50%	- 0%	- 0%	62 100%
5	6 10%	33 53%	10 16%	13 21%	- 0%	62 100%
6	6 10%	39 63%	17 27%	- 0%	- 0%	62 100%
7	6 10%	33 53%	23 37%	- 0%	- 0%	62 100%
<b>Section C</b>						
8	13 21%	48 77%	1 2%	- 0%	- 0%	62 100%
9	7 11%	33 53%	22 36%	- 0%	- 0%	62 100%
10	- 0%	13 21%	27 44%	12 19%	10 16%	62 100%
11	22 36%	12 19%	11 18%	17 27%	- 0%	62 100%
12	22 36%	12 19%	11 18%	17 27%	- 0%	62 100%
13	3 5%	3 5%	20 32%	31 50%	5 8%	62 100%
14	- 0%	7 11%	10 16%	40 65%	5 8%	62 100%

Source: Field survey 2017

questionnaires. In drafting the questionnaires, extant literature was consulted to determine the appropriateness of statements for the study. A five-point likert-scaled questionnaire was used for the participants. The scale was based on the level of agreement of respondents to statements in the instrument. The questionnaire elicited responses regarding the demographic characteristics of respondents and issues of fair value. Responses from questionnaires were analyzed using the one way Analysis of Variance (ANOVA) test.

#### 4. DISCUSSION AND INTERPRETATION OF RESULT

The responses from the groups were subjected to the One-way ANOVA statistics on SPSS Version 23. As indicated in Table 2, the analysis of variance resulted in an F-value of 2.053 and P-value of 0.137 which is less than 0.05.

**Decision rule:** Accept alternate hypothesis if probability value is less than adopted level of significance ( $p/\text{sig} < 0.05$ ). However, alternate hypothesis should be rejected and null hypothesis accepted if probability value is greater than adopted level of significance ( $p/\text{sig} > 0.05$ ).

Following the stipulated rule, we accept the null hypothesis which states that fair value estimates are not reliable to users of accounting information ( $F_{\text{cal}} = 2.053, p = 0.137 > 0.05$ ).

The study found that fair value estimates are not reliable to users of accounting information. Reliability which is a measure of how much the accounting information disclosed in published financial statements represents what it purports to represent. Reliability of financial information disclosed in fair value measurements was not opined by respondents to be to a significant level. This is because prices could be distorted by market inefficiencies, investor irrationality,

**Table 2. ANOVA for hypothesis 1**

	Sum of squares	df	Mean square	F	Sig.
Between groups	1.583	2	.792	2.053	.137
Within groups	22.755	59	.386		
Total	24.339	61			

**Table 3. ANOVA for hypothesis 2**

	Sum of squares	df	Mean square	F	Sig.
Between groups	1.418	2	.709	1.170	.318
Within groups	35.759	59	.606		
Total	37.177	61			

liquidity problems and other issues. Another major reason for this is that fair values are reached based on models and not prices of arm-to-arm length transactions. A given resource owned by two different entities will have the same fair value at any given time based on market prices, but it does not inform users that one entity has probably paid a different price for the same asset. This is in consonance with Choudhary [16], Nwoye, Ekesiobi and Abiahu [17] and Nulla [15]. Trabelsi et al. [12] and Ijeoma [14] however found that financial information measured using IFRS are more useful for firm's valuation.

The data were subjected to the One-way ANOVA statistics on SPSS Version 20 programme. As indicated in Table 3, the analysis of variance resulted in an F-value of 1.170 and P-value of 0.318 which is greater than 0.05.

**Decision rule:** Accept alternate hypothesis if probability value is less than adopted level of significance ( $p/\text{sig} < 0.05$ ). However, alternate hypothesis should be rejected and null hypothesis accepted if probability value is greater than adopted level of significance ( $p/\text{sig} > 0.05$ ).

Following the stipulated rule, we accept the null hypothesis which states that there is no availability of active markets for the allocation of fair value on financial instruments  $F_{\text{cal}} = 1.170$ ,  $p = 0.318 > 0.05$ .

Results showed that active markets were not available for the determination of fair value prices. When fair value is not available due to lack of an actual transaction, it is logical to use information from an active market. An active market is a market in which securities as a whole are trading at a high volume. It should be noted that quoted prices might not represent the best estimate of fair values. Assets and liabilities thus

have their fair values mainly derived from models (level 2 and level 3 measurements) rather than from values inactive markets which are not available. Okafor and Ogiedu [13] also found that most assets and liabilities had no active markets with which fair value is to be based.

## 5. IMPLICATIONS OF FINDINGS

An accounting number is reliable if it represents what it purports to represent. For a financial data to be reliable they ought to be verifiable and neutral. Since fair value is supposed to be inferred from the market price of a given asset, this value can be checked in hindsight from available information about current and past market prices. However, the unavailability of active markets poses a challenge to the verifiability and reliability of allocated fair values, especially in developing countries such as Nigeria. Even when active markets exist, (especially for equity instruments), quoted prices might not be fair due to the inefficiency of the market (information asymmetry present). Historical cost is therefore still useful for stewardship and controls decisions as it upholds objectivity and does not inflate figures.

## 6. CONCLUSION

Contradictory views have however risen over time on how much fair value has achieved the purpose of financial statements and the usefulness of accounting information disclosed in published financial statements. Consensus of opinions collated revealed that users do not find fair values reliable since the model-derived ones are not verifiable and market prices may not reflect all information. 'Active markets' which is one of the key terms in the definition of fair value by IFRS 13 were not found to be available from results of this study for relevant assets and liabilities significantly.

## 7. RECOMMENDATIONS

In line with the findings of the study, the following recommendations were made:

1. Organizations should provide all necessary information needed to understand the allocation of fair value in the notes to the accounts in the financial statements to improve reliability.
2. Fair values should be limited to assets and liabilities for which there are active markets.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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