Full Length Research Paper

The Quality of Fair Value Measurements for Non-Financial Assets

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IAS 16 Property, Plant and Equipment outlines the accounting treatment for most types of property, plant and equipment, which is initially measured at its cost, subsequently measured either using a cost or revaluation model. There is a big disagreement on the quality of fair value measurements for non-financial assets, especially, level three of valuation. This study aimed to test the Jordanian auditors’ perception on the quality of fair value to measure Property, Plant and Equipment. In doing so, 265 Questionnaires were sent to Jordanian external auditors, only 163 questionnaires are returned yielded 61.5% responses rate. Results show that Jordanian auditors prefer fair value accounting for Property, Plant and Equipment to historical cost in providing useful information.

Keywords: Fair Value Measurement, Non-Financial Assets, Jordan

INTRODUCTION

After IASB issued the standards that require companies to use fair value accounting to estimate items in financial statement, the debate about the advantages and disadvantages of using fair value to estimate items in financial statements is still going on. For example, IAS 39 Requires financial instrument to be estimated under fair value, which is easy to find fair prices since the fair prices are available in active market (As required by level one), but the problem in such estimation lies in the IAS 16 when Property, Plant and Equipment are required to be estimated under fair value where there is no active or similar items traded fairly in active market. In such cases, the company has to use external appraisals to determine the fair prices for revaluated items.

IAS 16 Property, Plant and Equipment outlines the accounting treatment for most types of property, plant and equipment, which are initially measured at its cost, subsequently measured either using a cost or revaluation model. An item of property, plant and equipment should initially be recorded at cost. Cost includes all costs necessary to bring the asset to working condition for its intended use. This would include not only its original purchase price but also costs of site preparation, delivery and handling, installation, related professional fees for architects and engineers, and the estimated cost of dismantling and removing the asset and restoring. If an asset is acquired in exchange for another asset (whether similar or dissimilar in nature), the cost will be measured at the fair value unless (a) the exchange transaction lacks commercial substance or (b) the fair value of neither the asset received nor the asset given up is reliably measurable. If the acquired item is not measured at fair
value, its cost is measured at the carrying amount of the asset given up. Under the revaluation model, revaluations should be carried out regularly, so that the carrying amount of an asset does not differ materially from its fair value at the balance sheet date. If an item is revalued, the entire class of assets to which that asset belongs should be revalued. Revalued assets are depreciated in the same way as under the cost model. If a revaluation results in an increase in value, it should be credited to other comprehensive income and accumulated in equity under the heading “revaluation surplus” unless it represents the reversal of a revaluation decrease of the same asset previously recognized as an expense, in which case it should be recognized in profit or loss. A decrease arising as a result of a revaluation should be recognized as an expense to the extent that it exceeds any amount previously credited to the revaluation surplus relating to the same asset. When a revalued asset is disposed of, any revaluation surplus may be transferred directly to retained earnings, or it may be left in equity under the heading revaluation surplus. The transfer to retained earnings should not be made through profit or loss. (IASplus, 2015)

Christensen and Nikolaev (2012) argued that the choice between fair value and historical cost accounting is the subject of long-standing controversy among accounting academics and regulators. They studied the choice of fair value versus historical cost accounting for property, plant and equipment in a setting where market forces rather than regulators determine the outcome. They revealed that fair value accounting is used when reliable fair value estimates are available at a low cost and when they convey information about operating performance. They claimed that their findings indicate that despite its conceptual merits, fair value is unlikely to become the primary valuation method for illiquid non-financial assets on a voluntary basis.

McDonough and Shakespeare (2015) argued that selecting an appropriate measurement basis for financial reporting is a fundamental and contentious accounting policy issue. They added while many argue that fair value is the most relevant measurement basis for financial reporting, other observers express concerns about the reliability (or “faithful representation”), and thus the usefulness, of fair value measurements. In light of their discussion of Bhat and Ryan’s study, they argue that future research should aim to extend understanding of the fair value estimation process and the factors that explain variation in the reliability of fair values as well as the channels through which investors learn about fair value measurement reliability.

The quality of numbers that revaluated under fair value accounting is a bone of contention between academic, legislators and standards-setters. For example many researchers such as Topping (2002) who criticized using fair value accounting as he claim it to be responsible for the demise of some large companies such as Enron.

Laux and Leuz (2010) state that fair value played a major role in the severity of the financial crisis during 2008. They claim that fair value accounting estimated some assets at zero or fire-sales, which caused some companies to fail. Also, Chevis (2009) maintains that the only way to prevent another financial crisis is to be released from fair value accounting. Power (2008) adds that the standards-setters and other related parties need more time before re-evaluating whether fair value accounting should be used more widely. He states that the current credit crisis during 2008 highlights the obstacles of using fair value accounting to measure financial statements.

However, researchers such as Herrmann, Saudagar, and Thomas, (2005), and Landsman (2006) argue otherwise by saying that the benefits of applying fair value accounting exceed the disadvantages it possesses. Barth (1994) found that historical cost accounting provides no significant explanatory power incremental to fair values. She adds that fair value accounting was found to have less measurement error than historical costs. Magnan (2009) defends fair value accounting by saying that there is no absolute evidence about the role of fair value accounting during the 2008 financial crisis. He argues that there is no reason to suppose that fair value had contributed to the financial crisis. He adds that fair value accounting is relevant to the financial statement users, but other qualities need to be reviewed by the standard-setters and regulators.

IASB adopted the Framework for the Preparation and Presentation of Financial Statements issued by IASC Board in 2001. Recently the qualitative characteristics of accounting information were approved by IFRS in 2010 (IFRS, 2008). The framework aims to assess the quality of financial statements in terms of providing useful information to financial statements’ users. Hermann et al. (2005) found that fair value improves the qualitative characteristics in terms of providing useful information to the users of financial statements. They added that fair value accounting is better than historical cost accounting in terms of enhancing the qualitative characteristics of accounting information. Similarly, Tan (2005) concluded that users and preparers of financial statements in Australia and Singapore tend to have similar perceptions that the fair value accounting possesses the qualitative characteristics of accounting information. On the other hand, Hann, Heflin, and Subramanayam (2007) found no informational benefits in adopting fair value accounting. Due to this mixed results, this study explores these relationships in Jordanian environment to expand the literature on this issue.

Qualitative Characteristics of Accounting Information

IFRS (2008) defined the qualitative characteristics as the attributes that make financial reporting information useful.
The qualitative characteristics are complementary concepts that each contribute to the usefulness of financial reporting information. Financial reporting information may have varying degrees of usefulness to different capital providers” (p. 12).

**Fundamental Qualities**

Fundamental qualities are relevance and faithful representation. Information is relevant if it is capable of making a difference in the decisions made by users in their capacity as capital providers. Information is capable of making a difference if it has predictive value and confirmatory (IFRS, 2008, p. 35). Information has predictive value if it has value as an input to predictive processes used by capital providers to form their own expectations about the future. FASB defines predictive value as “the quality of information that helps users to increase the likelihood of correctly forecasting the outcome of past or present events” (FASB, 2006a, p. 21). IFRS adds that information has confirmatory value if it confirms or changes past (or present) expectations based on previous evaluations. IFRS (2008) remarks that predictive and confirmatory are interrelated, whereas information that has predictive value usually also has confirmatory value.

Financial information that faithfully represents an economic phenomenon depicts the economic substance of the underlying transaction, event or circumstances, which is not always the same as its legal form. Faithful representation is attained when the depiction of an economic phenomenon is complete, neutral, and free from material error (IFRS, 2008, p. 36). According to FASB, representational faithfulness is a “correspondence or agreement between a measure or description and the phenomenon that it purports to represent” (FASB, 2006a, p. 23).

IFRS (2008) states that complete characteristics can be achieved if the financial report includes all necessary information for faithful representation of the economic phenomena that it purports to represent. An omission can cause information to be false or misleading and thus not helpful to users of financial reports. The other sub-characteristic of faithful representation is neutrality, defined by IFRS (2008) as the absence of bias intended to attain a predetermined result or to induce a particular behavior.

Neutral information is free from bias so that it faithfully represents the economic phenomenon that it purports to represent. IFRS (2008) states that faithful representation does not imply total freedom from error because an economic phenomenon is measured under condition of uncertainty. But IFRS postulates that an estimate must be based on the appropriate inputs which reflect the best available information. It further asserts that a minimum level of accuracy is necessary for an estimate to possess faithful representation characteristic.

**Enhancing Qualities**

Enhancing qualities (i.e. comparability, verifiability, timeliness, understandability) are explained below. Comparability can be defined as the quality of information that enables users to identify similarities in and differences between two sets of economic phenomena. Users must be able to compare the financial statements of a company through time in order to identify trends in its financial statements and compare different companies to evaluate their relative financial position, performance and changes in financial position (IASB, 2005, FASB, 1980). IFRS considers comparability to include consistency: “comparability is the goal; consistency is a means to an end that helps achieve that goal” (IFRS, 2008, p. 39). On the other hand, consistency is defined as conformity from period to period with unchanged policies and procedures (FASB, 1980). Davis (2007) states that the hierarchy of fair value makes consistency and comparability clearer than historical cost does.

Verifiability is a quality of information that helps assure users that information faithfully represents the economic phenomena that it purports to represent. Verifiability implies that different knowledgeable and independent observers could reach general consensus, although not necessarily complete agreement” IFRS (2008) (p. 39). FASB defines verifiability as "the ability through consensus among measurers to ensure that information represents what it purports to represent” (FASB, 2006b, p. 22).

IFRS (2008) defines timeliness as having information available to decision makers before it loses its capacity to influence decisions (p. 40). Understandability is a quality of information that enables users to comprehend its meaning. Understandability is enhanced when information is classified, characterized, and presented clearly and concisely. Comparability can also enhance understandability (IFRS, 2008, p. 40).

**METHODOLOGY**

The population of this study consisted of 546 certified public accountants in Jordan (JACPA, 2015). According to Sekaran (2013), the sample of a 550-population should be 265 subjects to be representative for generalizability. Thus only 265 questionnaires were delivered only 163 were returned. Five of these questionnaires were excluded because they were invalid since some of them were incomplete or all answers were marked as "agree" for example.

Before testing the hypotheses, there is a need to
perform factor analysis to reduce the variables to smaller number factors (Tabachnick & Fidell, 2007). Before performing the factor analysis, the assumptions of normality, homoscedasticity, and linearity were checked (Hair, Black, Babin, Anderson, & Latham, 2010). In line with that, this study used Kaiser Meyer Olkin (KMO) measure of sampling adequacy, which indicates the intercorrelation among the variables and the validity of the variables to enter factor analysis. Bartlett's test of sphericity is needed to test the intercorrelation among the items. For this test, the significance level of less than 0.05 is required to perform the factor analysis.

This study has used qualitative characteristics to measure the quality of fair value. The questionnaire contains seven sections, first section about fair value measurements for non-financial assets and the other sixth section are about qualitative characteristics (i.e. Relevance, Faithfull Representation, Comparability, Verifiability, Timeless, and Understandability).

### Hypotheses of the Study

H1: Using fair value to measure non-financial assets provide more relevant information
H2: Using fair value to measure non-financial assets provides faithfully represented information.
H3: Using fair value to measure non-financial assets provides comparable information.
H4: Using fair value to measure non-financial assets provides verifiable information.
H5: Using fair value to measure non-financial assets provides timely information.
H6: Using fair value to measure non-financial assets provides understandable information.

### RESULTS

This section presents the findings of the relationship between the independent variable (fair value quality) and the dependent variables (relevance, faithful representation, comparability, verifiability, timeliness, and understandability); this study used simple regression to test the hypotheses.

#### First Hypothesis

The result of simple regression shows that the r value is 0.489 (F = 211.324, Sig. < 0.000), as shown in Table 1.1. This means that using fair value measurement is significantly and positively related to the relevance of financial statements. Table 1.1 below shows that fair value accounting predicts significantly the dependent variable (relevance), in which for one unit increase in the independent variable (fair value accounting), the dependent variable (relevance) will increase by 0.489 (t = 4.974, p = .000). Based on this result, the first hypothesis is supported.

#### Second Hypothesis

Table 1.1 exhibits the results of the simple regression between faithful representation and fair value accounting and shows that the r value is 0.544 (F = 142.211, Sig. < 0.000). This means that fair value has a positive and significant relationship to faithful representation. The table also shows that for each unit increase in the fair value there is an expected increase in the dependent variable by .544 (t = 12.123, p = 0.000), suggesting that fair value predicts significantly the dependent variable. Hence, the second hypothesis is supported.

#### Third Hypothesis

Table 1.1 below shows that the r value is 0.297 (F = 71.154, Sig. < 0.000). This means that fair value accounting has a positive and significant relationship to comparability of financial statements. The table also shows that for each unit increase in the fair value there is an expected increase in comparability of financial statements by .297 (t = 10.431, p < 0.000), suggesting that fair value predicts significantly the dependent variable. Hence, the third hypothesis is also supported.

#### Fourth Hypothesis

The result of simple regression between fair value accounting and verifiability is demonstrated in Table 1.1. It shows that the r value is 0.125 (F =57.087, Sig. = 0.001). This means that this relationship is significant and positive. This means that there is a positive significant relationship between fair value accounting and verifiability of financial statements (t = 5.641, p < 0.000), Hence, the fourth hypothesis is supported.

#### Fifth Hypothesis

Table 1.1 presents the results of simple regression between timeliness and fair value accounting. It shows that the r value is 0.309 (F = 88.997, Sig. = 0.010). This means that there is a positive relationship between fair value accounting and timeliness of financial statements. This implies that for each unit increase in the fair value accounting there is an expected increase in timeliness of financial statements by 0.309 (t = 12.319, p < 0.000), suggesting that fair value enhances significantly timeliness of financial statements. Hence, the fifth hypothesis is supported.
Table 1.1. Simple Regression Summary

<table>
<thead>
<tr>
<th>Fair value with relevance.</th>
<th>N</th>
<th>t</th>
<th>p value</th>
<th>R</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>163</td>
<td>4.974</td>
<td>0.000*</td>
<td>.489</td>
<td>211.324</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fair value with faithful representation.</th>
<th>N</th>
<th>t</th>
<th>p value</th>
<th>R</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>163</td>
<td>12.123</td>
<td>0.000*</td>
<td>.549</td>
<td>142.211</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fair value with comparability.</th>
<th>N</th>
<th>t</th>
<th>p value</th>
<th>R</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>163</td>
<td>10.431</td>
<td>0.000*</td>
<td>.297</td>
<td>71.154</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fair value with verifiability.</th>
<th>N</th>
<th>t</th>
<th>p value</th>
<th>R</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>163</td>
<td>5.641</td>
<td>0.000*</td>
<td>.125</td>
<td>57.087</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Fair value with timeliness.</th>
<th>N</th>
<th>t</th>
<th>p value</th>
<th>R</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>163</td>
<td>12.319</td>
<td>0.000*</td>
<td>.309</td>
<td>88.997</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fair value with understandability.</th>
<th>N</th>
<th>t</th>
<th>p value</th>
<th>R</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>163</td>
<td>9.757</td>
<td>0.000*</td>
<td>.261</td>
<td>67.988</td>
</tr>
</tbody>
</table>

* Significant at 0.01; ** Significant at 0.05; ***Significant at 0.10

Sixth Hypothesis

Table 1.1 below shows the result of simple regression between fair value accounting and understandability of financial statements. The table shows that the r value is 0.261 (F = 67.988, p < 0.000). This means that fair value has a positive and significant relationship to understandability of financial statements. The table also shows that for each unit increase in the fair value there is an expected increase in understandability of financial statements by .261 (t = 9.757, p < 0.00), suggesting that fair value predicts significantly the dependent variable. Hence, the sixth hypothesis is also supported.

RESULTS DISCUSSION

This study found that Jordanian auditors perceived that fair value accounting would improve the relevance of financial information. This implies that fair value accounting can present quality information by providing high predictive value and high feedback information. By doing so, the outputs of fair value accounting can provide information that helps users of the financial statements to predict the effect of past, present, and future events.

The above finding is in line with the previous studies which found that fair value accounting improves relevance of financial information. For example, Tan (2005) found that users and preparers of financial statements in Singapore and Australia perceived that fair value accounting would enhance the relevance characteristic. Also, Hermann et al. (2005) found that fair value accounting is superior to historical cost in enhancing the relevance of financial statements. Correspondingly, Vinals (2008) demonstrated that fair value accounting provides useful information to users of financial statements as long as this information is reliable and relevant. Fortin (2005) also tested the relevance of fairness value accounting and found that financial instruments estimated under fair value are more relevant from the point of view of investors. However, some researchers, such as, Magnan (2009) argues that although fair value accounting information is relevant, other qualities should be reviewed by standard setters and regulators.

The result of hypothesis two shows that auditors in Jordan perceived a positive relationship between fair value accounting and faithful representation. This means that fair value accounting provides information that is free from bias or personal judgments and provides objective and neutral information. This result is consistent with many previous studies such as Schipper (2005) who concluded that faithful representation characteristics can be obtained without the existence of active markets. Similarly, Hermann et al. (2005) demonstrated that using fair value enhances faithful representation of financial statements more than using historical cost. On the other hand, Bostwick and Fahnestock (2011) found that fair value accounting does not faithfully represent what it purports to represent.

The results of this study show a positive relationship between fair value accounting and comparability of financial statements. This means that the auditors in Jordan perceived that fair value enables users of financial statements to compare financial statements of similar companies and for a company over time. In other words, Jordanian auditors perceived fair value to improve the comparability characteristic of financial information. Such finding seems to be in line with previous findings by Davis (2007), Hermann et al. (2005). In particular, Davis (2007) argued that the hierarchy of fair value has made consistency and comparability concepts clearer than what the historical cost did. Vinals (2008) supported the notion that financial statements estimated using fair value accounting are comparable. Tan (2005) found that standard setters and users of financial statements in Australia and Singapore have similar perception that financial statements estimated under fair value are...
comparable.

The results of this study show a positive significant relationship between fair value accounting and verifiability. This result is against the opinion that fair value accounting suffers from unverifiable estimations. Such opinion is adopted by Anagnostopoulos and Buckland (2005), who state that fair value accounting supporters have abandoned altogether the concept of relevant and verifiable market estimations. Also Hermann et al. (2005) indicate that historical cost is more verifiable than fair value accounting. Similarly, Ramanna and Watts (2007) and Watts (2003) argue that the increased use of unverifiable fair-value estimates in accounting will increase the probability of losses management. In Sri Lanka, Kumarasiri and Fisher (2011) found that auditors perceived fair value accounting to be more challenging than historical cost regarding its verifiability.

The results show a positive significant relationship between fair value accounting and timeliness of financial statements. This means that Jordanian auditors perceived that fair value accounting provides financial statements with relevant information for decision making. This result is in line with the findings of Anagnostopoulos and Buckland (2011), Hanselman (2009), and Hermann et al. (2005). For example, Hanselman (2009), and Hermann et al. (2005) found that timeliness of financial information under fair value accounting is better than historical cost measurement. Anagnostopoulos and Buckland (2011) revealed that timeliness becomes better after the adoption of International Financial Reporting Standards, especially when fair value measurements for financial reporting are used.

Jordanian auditors perceived fair value accounting could enhance understandability of financial statements. This means that fair value accounting provides understandable outputs. This is consistent with the findings of Financial Analyst Institute that indicated that 79% of financial institution managers in the USA perceived fair value accounting to enhance understandability of financial statements (CFA, 2008). Similarly, Kumarasiri and Fisher (2011) found that financial statements based on fair value accounting are more understandable to users than historical cost accounting.

In general, Jordanian auditors perceived that fair value measurements to enhance the financial statements’ qualitative characteristics. As such, they seem to prefer it to historical cost accounting due to the advantages of using fair value. This indicates that the Jordanian auditors perceived the advantages of using fair value accounting and its superiority to historical cost accounting. These findings are in line with international and national standards setters’ effort to estimate financial statements under fair value accounting. This implies that the auditors realized the importance of fair value accounting in providing users of financial statement with useful information about the financial situation of a company.

These results support the JACPA and Amman Stock Exchange to apply IFRS since some governmental departments oppose to evaluate financial statements under fair value.


