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A Review of Property, Plant and Equipment Asset Revaluation Decision Making in Indonesia: Development of a Conceptual Model

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Abstract

Various motives underpinning the revaluation of fixed assets and the effects of using either a cost or revaluation model are investigated. This study serves as the basis for the design of a revaluation guidance framework aimed at those who produce and use financial statements. The framework underpins the asset revaluation decision task and its potential consequences for stakeholders. A diverse range of extant literature (relating to revaluation of publicly listed companies' fixed assets in the Indonesian Stock Exchange) is synthesized to develop the conceptual model. The model embraces seven motive factors (M_n) and two revaluation effects factors (E_n) to highlight the advantages and disadvantages of financial aspects that should be considered before deciding to revalue. The effect factors can impact business outcomes and so are designed to feedback into the revaluation decision. The study focuses on Indonesia, which has unique characteristics relating to its accounting atmosphere and economic conditions. This may limit generalizability of the findings, but since the Indonesian Financial Accounting Statement (IFASS) 16 was adopted from International Accounting Standard (IAS) Statement No. 16, the model may hold broader international relevance. This research may assist financial practitioners when making asset revaluation decisions, while the innovative conceptual model developed will be of use to academic peers researching within related subject domains.

***Keywords**:* Accounting, asset revaluation decision, cost or revaluation model

1. Introduction

The comparability of financial statements among businesses is necessary for performance analysis and benchmarking. However, inherent differences among financial statements presented can resultantly complicate this

process. Differences may result from a country's national accounting standards, its legal system, societal and accounting values, business culture, and development stage of its capital market (Alexander *et al.*, 2009; Nobes and Parker, 2010). Resultant international pressures on multinational enterprises (MNEs) to improve financial comparability have arisen from major stakeholders, such as investors, governments, trade unions, bankers, lenders, accountants and auditors (Radebaugh *et al.*, 2006). International harmonization in MNE financial reporting would therefore, enhance and complement compatibility, of accounting practices.

Regarding public company financial statements, the International Accounting Standards Board (IASB) has held responsible since 2001 for developing, promoting, and facilitating a set of globally accepted International Financial Reporting Standards (IFRS) (IFRS, 2013). Currently, the IFRS has been adopted by approximately 120 nations for the purpose of financial reporting, which illustrates their acceptance as a definitive reference in that respect (IFRS, 2011; IFRS, 2012). The IFRS provides various benefits for companies, including:

1. Improving comparability of financial statements;

2. Enhancing the quality and transparency of financial reporting (which goes some way to facilitate cross-border investment); and

3. Help lowering the costs of capital (Epstein, 2009; IFRS, 2011).

In line with the international accounting convergence program, The Indonesian Financial Accounting Standards Board (*Dewan Standar Akuntansi Keuangan*) (IFASB) has also striven for standards' convergence (IIA, 2008). The present study focuses on one IFASB standard only, that which deals with fixed assets. This, The Indonesian Financial Accounting Standard Statement (*Pernyataan Standar Akuntansi Keuangan*) (IFASS) No. 16: Fixed Assets, was released in 2007 (IIA, 2007) and began to be implemented in 2008. Prior to 2008, IFASB prohibited the use of anything other than a cost model for valuing fixed assets, but this latest standard allows companies to apply either a cost, or a revaluation model for such purpose. Revaluation model measures fixed asset using the fair market value. Within the realm of international financial accounting, this study combines informal method and literature synthesis to offer a cogent representation of the revaluation decision-making conundrum and by extension, provide a

framework for deciding the optimum asset revaluation decision using the new IFASS 16. The research culminates in the development of a conceptual model of the motives (M_n) and effects (E_n) of asset(s) revaluation decisions, for publicly listed companies in Indonesia. This model assists financial managers in deciding which revaluation method to adopt and underpin an effective asset revaluation decision making process. In doing this, the model also helps achieve: i) fair 'value information' for stakeholders; ii) reduction of information asymmetry; iii) minimization of opportunistic behavior; and iv) more accurate investment decision making. The study, therefore investigates a new aspect of fixed asset valuation (that is, in line with global accounting standards' convergence) and supports financial decision makers.

Accounting Standards for Property, Plant and Equipment

Accounting standards provide various choices for companies in preparing financial statements with respect to matters such as fixed asset valuation methods, fixed asset methods of depreciation, and inventory valuation. Alternative accounting methods can yield different meanings, interpretations or consequences. When two business enterprises in the same industry and economic conditions apply different accounting policies, an unsound economic decision may arise which brings into question the reliability of financial statements.

Tangible assets (including property, plant and equipment) are expected to have a life cycle exceeding one year and because of their contribution to the generation of future business income, are depreciated over their economic useful life for accounting purposes (IASB, 2005). Previous studies have investigated domination of the cost method over the fair/market value method in fixed asset valuation (Christensen and Nikolaev, 2009; Diehl, 2009). However, Hermann *et al.,* (2006) argued that a fair value/market value approach for valuing tangible assets is superior to a historical cost valuation based on qualitative aspects of accounting information. The fair value/market value method is also capable of serving relevant financial information for future prediction of companies' financial statements to stakeholders. In this context, market value is defined as the estimated amount for which property should exchange on the date of valuation; between buyer and seller; in an arm's-length transaction after proper marketing; wherein the parties each acted knowledgeably, prudently and without compulsion (IVSC, 2007).

Alternatively, the historical cost approach is more aligned to the aspect of faithful representation which in turn has three characteristics, namely: i) that it should be complete; ii) neutral; and iii) free from error (FASB, 2010). Christensen and Nikolaev (2009) illustrated that for non-financial asset valuations undertaken by companies domiciled in the UK and Germany, the historical cost method was widely practiced. Meanwhile, Diehl (2009) found that in 2008 only 11 per cent of companies listed in the *Financial Times and the London Stock Exchange* (FTSE) applied the fair value method and only three per cent of these, were in the UK and Germany (Christensen and Nikolaev, 2009). Reasons for this are myriad, including greater expenses incurred than expected benefits in applying the fair value method and questions of its relevancy to certain sectors such as real estate and finance.

The revised IFASS No. 16: Fixed Assets became mandatory for Indonesian companies as of 1st January 2008 (IIA, 2007). It was adopted from International Accounting Standard (IAS) No. 16: Property, Plant and Equipment used in business operations (IASB, 2005). IFASS No. 16 allows companies to adopt either a cost or a revaluation model to record a company's fixed assets on transactions following the acquisition; though a cost model must be applied to record the asset's purchase. When using the revaluation model, companies must provide relevant information of its property, plant and equipment value to the users of financial statements using a fair market value. Consequently, they need to perform an annual review of their fixed asset. Alternatively, companies may select the cost model which measures the assets at carrying amount/book value. Under this method, the amount is recorded at original cost, minus amounts reduced over time in accordance with accumulated depreciation and impairment losses. The cost model is usually applied if carrying amount/book value of assets is not significantly different from market value (Christensen and Nikolaev, 2009; Diehl 2009).

Motives for and Effects of Asset Revaluation

The decision of whether or not to revalue an asset has previously been studied and it was found that this is related to the motives for, and the effects of, a revaluation (Barlev, 2007). Thereto, several factors have been proffered as motives underpinning companies' revaluation decisions and these include: improving borrowing capacity; obtaining additional liquid funds; and dissuading hostile takeover bids (Brown *et al.*, 1992; Whittred and Chan, 1992; Jaggi and Tsui, 2001). Other motives include reducing debt by

contracting costs, avoiding the seizure of a company's collateral and increasing future loan capacity (Cotter and Zimmer, 1995; Cotter, 1999; Choi *et al.,* 2009). Motivation also relates to the importance of the information provided by the asset revaluation decision which includes: information to meet value-relevant criteria (such as feedback value, predictive value and timeliness), and the establishment of true and fair financial statements (Cahan *et al.,* 2000; Deaconu *et al.*, 2010). Moreover, revaluation can also (or be used to help) provide a signal to investors about a company's future performance, status, growth opportunities and liquidity (Standish and Ung, 1982; Gaermnynck and Veugelers, 1999).

Motives have been found to affect companies' future financial performances in terms of operating income and cash flows from operation (Aboody *et al.,* 1999; Jaggi and Tsui, 2001; Barlev *et al.,* 2007) and stock/share prices, returns and movements (Emanuel 1989; Easton *et al.,* 1993; Barth and Clinch, 1998; Cahan *et al.* 2000). By revaluing an asset, companies can impress upon creditors and shareholders' their ability to manage financial difficulties and improve future financial performances (Aboody *et al.,* 1999; Jaggi and Tsui, 2001).

Lin and Peasnell (2000a) found three potential advantages of revaluing assets: i) to reduce the risk of violating a covenant by strengthening asset values in a company's balance sheet; ii) to provide credible signals for future prospectors; and iii) to reduce the accounting rate of return as a bargaining position to unions and government or other statutory regulators. Henderson and Goodwin (1992) meanwhile, suggested assets revaluation could be used to: i) show a more realistic profit; ii) provide more meaningful balance sheet data; and iii) create a reserve. Henderson and Goodwin (1992) suggested revaluation could 'reduce' future profit due to higher depreciation expense, to lower the return on asset (ROA) and return on equity (ROE) ratios. In contrast, several disadvantages of the revaluation decision relate to costs and financial consequences. Costs include appraisal fees, an increase in audit fees/record keeping costs, and opportunity costs such as time spent administering the process (Brown, *et al.,* 1992; Lin and Peasnell, 2000b; Choi *et al.,* 2009).

These complex interrelationships between revaluation decisions, motives, effects and possible impacts on the business and its environment, underline the justification of this study and its ambition of helping implement revaluation decisions more effectively and efficiently.

2. Methodology

The conceptual model was developed from a careful synthesis of related knowledge. Fink (2010) defined this process as a systematic, explicit and reproducible method for identifying, evaluating and synthesizing the existing body of completed and recorded work produced by researchers, scholars and practitioners. Undertaking this iterative series of research actions helped frame the problem; identify gaps in knowledge; develop an analytic framework to understand previous findings; and consider additional (decisional) variables requisite for a robust model (Murray, 2006; Bryman, 2008; Creswell, 2009).

Previous researchers conducted literature reviews on asset revaluation in their early stage of knowledge development to share ideas and court constructive feedback. Some examples include: Henderson and Goodwin (1992) who undertook a review to assess the costs-benefits aspect of asset revaluation; Collins (1994) who searched for the ideal mechanism in revaluation of fixed assets in order to tackle high inflation in France; and Easton and Eddey (1997) who investigated the relevance of financial information for investors in determining share prices and its compliance with accounting standards for non-current asset valuation in Australia. Meanwhile, Mintz (2009) offered a review of the role of asset valuations in a company that is designing a restructuring programme.

The internet plays an important role in the search for knowledge and facilitating access to many sources of literature and data in a time-efficient manner (including library catalogues, newspaper archives, electronic texts, and indexes of periodical literature) (Coombes, 2001; Hewson *et al*., 2003; Blaxter *et al.* 2006; Bryman, 2008). In searching electronic full text articles, this study employed the ProQuest-ABI/INFORM (2012), Emerald (2012), Swetswise (2012), JSTOR (2012), and Science Direct (2012) database/web access portals. These yielded the most reputable (i.e. peer reviewed) and up-to-date subject knowledge. Each search utilized different criteria (word, phrase, journal title, author name) relevant to the topic (Combes, 2001; Bakerand Foy, 2008) so as to identify contemporary literature in leading accounting journals, as defined by journal rating scores (for instance, see ABCD, 2010 and ABS, 2010).

To log the literature for subsequent analysis, Bryman's (2008) one-way model was observed. This comprises several steps, including reading and note recommended sources; follow up with relevant keywords through

additional searches of electronic databases, examine abstracts and check regularly for new publications.

Figure 1 conceptually models the revaluation decision cycle ('interaction') using four principal components: i) 'Motives' for revaluation (designated M_n); ii) 'Effects' of revaluation (E_n); iii) 'Business Outcomes' related to revaluation (B_o); and iv) potential 'Business Impacts' (B_I). M_n comprisesseven sub-motives; and E_n two sub-effects that in turn each comprise two lower-level sub-effects (E_{ny}). The cycle concludes with two superlative and semantically differential decision making criteria, namely: advantages versus disadvantages; and the final, 'revalue or not' decision.

A Conceptual Model of Asset Revaluation Decision Making

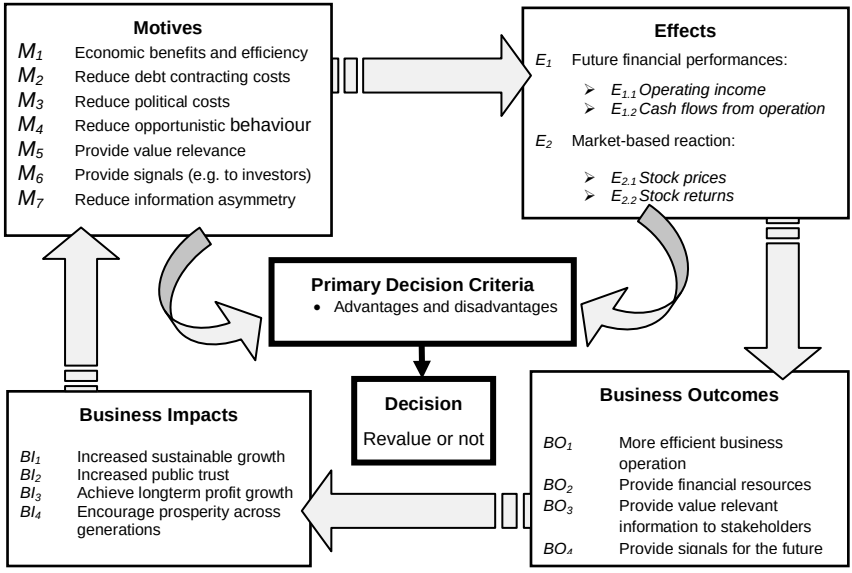

Figure 1. Conceptual model

Motives for and the effects of asset revaluation all – via interaction – link to the primary decision criteria of whether to revalue or not. Whatever the decision, but particularly if this *is* to revalue, it can affect future business outcomes and impacts. The Figure demonstrates that as the decision cycle

progresses, business impacts in its last phase will stimulate the motives for future asset revaluation. Figure 1 may be cross-referenced with the following discussion which describes the model under the headings of motives, effects, outcomes, impacts, and primary decision criteria/final decision making.

Motives for Asset Revaluation (M_n)

M_1. Economic Benefits and Efficiency

Previous studies have shown that these are the most common drivers behind the decision to revalue. Factors that can motivate management in this way include: to issue a bonus; raise new debts using additional collateral; and help dissuade hostile takeover bids (Brown *et al.*, 1992; Whittred and Chan, 1992; Easton *et al.*, 1993; Cotter and Zimmer 1995; Lin and Peasnell 2000a; Jaggi and Tsui, 2001). Other economic motives proffered by Piera (2007), Barlev *et al.* (2007), Seng (2010) and Iatridis and Kilirgiotis (2012) are to provide opportunity to pursue bank loan(s) and underpin a longer-term investment strategy for growth.

M_2. Reduce Debt Contracting Costs

Breach of a debt contract could lead to seizure of company assets securing collateral and subsequently limit borrowing capacity (Beneish and Press, 1995). To reduce that risk, a company may revalue their assets regularly while simultaneously assessing the cost-benefits of doing so. Cotter (1999) found that the costs of maintaining regular revaluation (e.g. Appraisal fees and record keeping costs) were greater than the expected benefits in reduction of debt contracting costs, namely, transaction costs, information costs and agency costs. Nevertheless, other motives such as economic benefits (M_1) and generation of value information for stockholders (M_5) may tip the balance in favor of revaluation.

M_3. Reduce Political Costs

In a fiscal context, a political process represents a competition for wealth transfer from companies' taxes to public utilities; through government services and subsidies such as education, health services, public transportation and recreation facilities (Watts and Zimmerman, 1986). This circumstance may cause some companies to reallocate their profit and resources by adopting income-reducing accounting procedures/policies, in

order to avoid paying higher tax as a way to mitigate political costs and/or to yield bargaining power. For instance, to confront government or trade unions respectively (Brown *et al.*, 1992; Seng and Su, 2010).

M_4. Opportunistic Behaviour

IFASS 16 enables chief financial officers (CFOs) to choose an asset valuation method that reflects business characteristics, types of accounts and the usefulness of accounting information to users. Each alternative can yield different consequences – a situation that may encourage CFOs to behave opportunistically for their own and/or the company's interests; rather than to present optimally informative financial statements. Seng and Su (2010) investigated underlying management incentives of the upward fixed asset revaluation behaviour of New Zealand listed companies and discovered evidence of opportunistic behaviour. Similarly, other research has revealed that companies with high levels of debt also behaved opportunistically, to comply with debt covenant restrictions and/or increase asset values as collateral for additional funds (Cotter and Zimmer, 1995; Courtney and Cahan, 2004).

M_5. Provide Value-Relevant Information

Financial reporting provides information about economic resources of an enterprise, the claims to those resources and the effects of transactions, events and circumstances that change those resources/claims. This information serves investors, creditors and others to assess the amounts, timing and uncertainty of prospective net cash inflows to the related enterprise. To be relevant to decision making, information should hold capacity to make a difference in meaning and especially among several options. Thus, relevant financial information must have predictive value and/or confirmatory value (FASB, 2010).

Deaconu *et al.* (2010) studied the relevance of 'fair value' using the developing capital market of Romania for public listed companies during the period 2003-2007. This period witnessed impressive economic growth, during which many companies revalued their tangible assets. They found that the revaluations had value-relevant characteristics able to predict share prices. Other research has shown that true and fair financial statements were a reason for revaluing an asset among 45 per cent of a sample of CFOs in the Australian Stock Exchange (Easton *et al.*, 1993).

M_6. Provide Positive Signals

Asset revaluation can provide positive signals to stakeholders. For instance, anticipated future company performance (Jaggi and Tsui, 2001), company status, growth opportunities and liquidity improvement (Chainirun and Narktabtee, 2009). Signalling theory suggests that firms must provide information to signal users of future events or occurrences, in order to reduce information asymmetry (Morris, 1987). Gaermnynck and Veugelers (1999) found a credible signal resulted for successful firms, as a result of asset revaluation.

M_7. Reduce Information Asymmetry

Information asymmetry caused by an imbalance of proprietary information among parties can allow one party to take advantage of another. Brown *et al.* (1992) and Courtney and Cahan (2004) illustrated that low debt firms conducted *bona-fide* efforts to share information with the public in a way that reduced information asymmetry, while high debt firms tended to expect incentives such as additional funds/loans to solve a liquidity problem.

Effects of Asset Revaluation (E_n)

Having discussed the prime motives, the two principal approaches to predict the effects of asset revaluation are identified as a second element in the cycle; these are:

E_1. Future Operating Performances: Operating Income and Cash Flows

The asset revaluation practice has been investigated to help understand its effects on future financial performance. Aboody *et al.,* (1999) found that upward revaluations were (significantly) positively associated to operating income and cash flows from operations, as proxies of future performance over one, two, and three years subsequent the revaluation. Similarly, upward revaluation is also positively associated with better future operating income and better share prices over similar time horizons. Revaluation provided a good signal to investors and debtors regarding the use of fair value (Jaggi and Tsui, 2001).

E_2. Market-Based Reaction: Stock Prices, Stock Returns and Stock Price Movement

Share prices have been found to be positively, significantly associated with

revaluation (Sharpe and Walker, 1975; Cahan *et al.*, 2000; Jaggi and Tsui, 2001). Revalued financial, tangible and intangible assets provided a signal relevant to stock prices, and strong evidence and timely reaction to stock returns (Barth and Clinch, 1998). Additionally, upward revaluations are often favorable signs to stockholders because of upward share price movements and 'unexpected' positive returns at about the time of revaluation announcements (Standish and Ung, 1982).

Business Outcomes (BO_n)

These refer to the short-to-medium term behavioral or systemic effects that a certain action makes a contribution towards and that are designed to achieve the action's impacts. Meanwhile, the impact is a fundamental and durable change in condition and/or environment brought about by the action. Having revalued an asset (the action), this study proffers that several future changes to the business (impacts) may come about as a result; these are:

BO_1. More Efficient Business Operation

Asset revaluation can help a company to practice more efficiently by, for instance, avoiding higher debt contracting costs, renegotiation costs and bankruptcy costs; and by lower risk from avoiding covenant violation (Cotter, 1999; Belkoui, 2004).

BO_2. Provide Financial Resources

Asset revaluation can help companies source finance from additional bank loans and through stock price increase (Standish and Ung, 1982; Easton *et al.*, 1993; Cotter and Zimmer, 1995; Choi *et al.*, 2009; Seng and Su, 2010).

BO_3. Provide Value-relevant Information to Stakeholders

Through applying the fair value concept, fixed asset revaluation provides relevant financial information for stakeholders' decision making (Easton *et al.*, 1993; Deaconu *et al.*, 2010).

BO_4. Provide Future Signals to Investors

Asset revaluation provides positive signals for investors in helping signpost companies' future performances in terms of for instance, operating income, operational cash flows and stock prices (Jaggi and Tsui, 2001; Barlev *et al.* 2007).

Business Impacts (Bi_n)

The former outcomes will yield impacts on the business such as increased sustainable growth; increased public trust; long-term profit generation (and gains); and prosperity down the business generations. In terms of the revaluation cycle, impacts will feed into motives for future asset revaluation decisions (refer Figure 1).

Primary Decision Criteria and Final Decision

Before deciding on whether to revalue (and if so, which valuation model to apply), companies must consider the primary decision criteria. These criteria are effectively the advantages and disadvantages than that should, when reconciled, show that potential benefits exceed potential costs if revaluation is applied. Choosing a revaluation model is suggested if potential advantages gained will be greater than disadvantages; otherwise, a company may apply the cost model.

Model Validation

The conceptual model's validation will be achieved by subdividing the sample of participating companies'data into two dichotomous groupings, namely: of i) main survey sample (75% of all data collated) and hold out-sample data (25% of all data collated). Data within the main survey sample will be used to develop deterministic models which will then be validated using the hold-out sample data - where a second deterministic model will be developed. Both models will then be compared to each other to confirm that variables included are the same and make accurate predictions. Model accuracy (and cross comparison between models) will then be measured using statistics such as the mean percentage error to measure the difference between predicted and actual values. Accuracy within the region of 75-85% would be deemed to be acceptable for both subsets of data.

3. Results and Discussion

IFASS 16 requires a company to choose one method for fixed asset valuation, either: i) a revaluation method and as a consequence, the company should regularly revalue their asset; or ii) a cost method which is based on a

company's carrying amount/book value and does not require revaluation. A revaluation method favors providing meaningful information to stakeholders because the valuation follows market value. Furthermore, during times of inflation, the revaluation method will strengthen a company's asset values. Meanwhile, the cost method helps a company avoid certain expenditure associated with the revaluation such as appraisers and audit fees.

Choosing the appropriate method may be linked to company accounting policy. Accounting policies applied by one company might represent a mixture of several parties' interests involved in decision making at individual, group and organizational levels, but individuals' motives should be congruent with an organization's to maintain overall organizational effectiveness. In regards to IFASS 16, each of the valuation methods above has their own costs/benefits that will influence preference. Thus, choosing the 'revaluation' method reveals a company's desire to pursue economic benefits, avoid opportunistic behavior and provide value-relevant information.

The decision to revalue or not is a decision that might affect external parties such as investors, creditors and auditors. Financial statements which can reduce information asymmetry by providing true and fair value and a high disclosure of financial information will support investors' interests. The conceptual revaluation model provides a guide for the company in analyzing those motive and effect factors that should be considered, what steps should be taken, and possible future consequences/impacts on internal and external parties.

Unfortunately, accounting standards provide choices in the practices related to, for instance, fixed asset depreciation methods, cash flows statements, reporting methods and fixed asset valuation methods. Each alternative offers consequences and/or management incentives so it is relevant to consider behavioural aspects regarding these kinds of decision. Said revaluation options may have allowed CFOs to behave opportunistically in the past. CFOs are obligated to align with strategic financial guidance to ensure that all necessary policies are met for the benefit of stakeholders, but ironically, while they supervise the compliance of accounting policy they may sometimes be involved in accounting manipulation. Though assets are revalued on professional judgements, it is always at the discretion of management and subjectivity might be involved in determining useful life, timing of asset revaluation, residual value and amount depreciated (Barlev *et*

al. 2007, Naser 1993). 'Window dressing' through asset revaluation can positively influence companies' future financial performance (Aboody *et al.* 1999, Jaggi and Tsui 2001).

This study has theoretical and practical implications. Based on a comprehensive synthesis of extant literature, the model can be used as a theoretical framework for researchers to enrich understanding of the motives and effects of asset revaluation – in particular, for countries like Indonesia whose fixed asset revaluation methods are in transition of change. Practical implications of the study encourage consideration by decision makers of the broader aspects of revaluation decisions relating to asset valuation method; providing maximum and value-relevant information to investors, creditors and financial analysts; and the effects of the decision on predicting future financial performance metrics such as earnings and stock prices.

4. Conclusions and Recommendations

The IFASB has managed accounting standards' convergence, which is in line with IASB's responsibility for adoption of IFRSs. IFASB revised and released IFASS No. 16: Fixed Assets in 2007 and this has been implemented within Indonesia since 2008. This standard offers companies opportunity to apply a cost or a revaluation model to the revaluation of their property, plant and equipment. A revaluation model provides more benefits than the cost model in solving some problems. Namely, avoidance of cash shortages and provide more relevant financial information to stakeholders. It also enables companies to reflect a fair/market value of their fixed assets in the financial statements and therefore, offer relevant financial information to stakeholders, but it incurs higher costs.

This study offers a conceptual model of the asset revaluation decision cycle, designed to help Indonesian companies in deciding which revaluation method is most appropriate. The conceptual model has identified various elements, namely: motives for asset revaluation; the effects of that decision to companies' future performances; possible effects of the decision on business outcomes; and business impacts. Future development of this model will seek to employ more deterministic methods that employ metrics associated with the variables within it, and an algorithmic solution to yield a decisional output.

The main limitations of this study are associated with its geographical focus and cultural factors. Indonesia has its own financial characteristics such as accounting atmosphere and economic conditions. The study may be limited in terms of generalizability therefore, to countries with similar conditions. However, since IFASS 16 was adopted from IAS Statement No. 16, the model will hold some relevance to extant knowledge of efficiency, effectiveness (and the effects of) fixed asset revaluation decisions more globally.

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