Does the Company's Scale, Fixed Asset Intensity and Operating Cash Flow Affect Asset Revaluation?

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Abstract

Fixed assets that are measured using cost may have lost their relevance because they do not reflect the real situation. This study aims to analyze the factors that influence the company to revaluate its fixed assets. The sample of this study consisted of 426 manufacturing companies listed on the Indonesia Stock Exchange in the 2015-2018 timeframe. The research sample was selected by purposive sampling. Technical analysis of the study used logistic regression. The results of this study found that only fixed asset intensity and operating cash flow affect the revaluation of fixed assets and the scale of the company does not affect the decision of the revaluation of fixed assets. The implication of the results of the study shows that large-scale companies do not always revaluate fixed assets because they can cause taxes on revaluations that must be borne by the company. In addition, the practical implications also show that the Indonesian government must increase the number of licensed appraisers to compensate for the increasing number of companies adopting revaluation models.

1. Introduction

Fixed assets are an important component of a company's operations. Fixed assets can generate profits if the company can allocate it appropriately. Therefore choosing the right accounting method is needed to ensure that the financial statements are prepared following applicable standards. The accounting method for the measurement of fixed assets is set out in PSAK No. 16 Revision 2011. Flexible fixed asset accounting standards allow management to choose one method of measuring fixed assets, a cost model, or a revaluation model. Fixed assets that are measured using fair value must be recorded at the amount of revaluation, that
is, the fair value at the revaluation date less accumulated depreciation and accumulated impairment that occur after the revaluation date. Fair value is the price of output when selling assets in fair transactions or orderly transactions (IASB, 2011). The choice to revaluate fixed assets depends on company management policy (Esen & Perek, 2016). Therefore, it is very interesting to study the factors that influence a company's decision to revaluate assets (Gaeremynck & Veugelers, 1999).

Landsman (2007) states that the disclosure of fair value is more informative for investors, but the level of information content depends on the reliability of fair value. This opinion is supported by Danbolt & Rees (2008) that the use of fair value accounting will produce more relevant values than historical costs. Aboody, Barth, & Kaznik (1999) argue that disclosure of fair value will reveal information content about the value of assets. This argument is consistent with Muller, Riedl, & Sellhorn (2011), who made observations on investment properties of companies in Europe and found that the mandatory requirement to use fair value for long-lived tangible assets would reduce information asymmetry. The decrease in information asymmetry is reflected in the decrease in bid-ask spreads for companies that decide to move from historical costs to fair value.

In connection with the revaluation model, managers will prefer the fair value for the measurement of their fixed assets. Fair value is more useful and relevant for users of financial statements (Barlev, Fried, Haddad, & Livnant, 2007). Accounting figures will result in better financing and/or investment decisions. This argument is confirmed by Evans, Hodder, & Hopkins (2014) who concluded that the unrealized gain and loss component of fair value has a predictive ability to estimate future income and cash flow.

If the fair value exceeds the carrying value of an asset, the entity will conduct an upward revaluation. This increase in carrying value is recognized in other comprehensive income and accumulated in the equity section of the revaluation surplus (IASB, 2013). However, if the increase occurs after the previous revaluation decrease (downward revaluation), this increase is recognized as profit in the income statement as far as offsetting the previous revaluation decrease (IASB, 2013). In the case of a downward revaluation, where the fair value of an asset is less than the carrying amount, the decrease is recognized in the income statement. However, if the decline occurs after a previous upward revaluation, this decrease is recorded as a loss in other comprehensive income to the extent that it offsets the increase in the previous revaluation (IASB, 2013).

One of the motives of the company to revaluate assets is to improve future performance. Aboody et al. (1999) concluded that revaluation in the UK had a positive effect on the company's performance in the future. Jaggi & Tsui (2001) also found that upward asset revaluation by companies in Hong Kong was significantly related to the company's future performance. Companies in New Zealand regularly revaluate company assets by independent valuers. However, some companies do not recognize the current value of excess assets in the financial statements but prefer to disclose the value of fixed assets in the notes to the account (Seng & Su, 2010).

One problem that has arisen in Indonesia related to the use of fair value accounting is the revaluation of fixed assets. IFAS 16 allows companies to value their fixed assets using
the revaluation model. In Indonesia, only a few companies are willing to use the revaluation model (Zakaria, Edwards, Holts, & Ramachadran, 2014). The low level of revaluation of companies in Indonesia is mainly due to the 10% tax that is imposed for each amount of Indonesian Rupiah (IDR) on the amount of revaluation upwards, thus blocking the intention to adopt a revaluation model, especially for companies with cash flow problems (Zakaria et al., 2014).

The emergence of information asymmetry will influence management's decision to revaluate the company's fixed assets (Brown, Izan, & Loh, 1992). These factors include previous revaluations, fixed asset intensity, growth options, takeover offers and bonus issues. Revaluation of assets allows managers to signal important information to investors to resolve information asymmetry problems (Brown et al., 1992).

However, several other factors that motivate managers to choose revaluation of fixed assets such as debt contract factors such as leverage, political factors such as company size, information asymmetry about the intensity of fixed assets, revaluation policies carried out the previous year, signaling, share ownership, company exports, and acquisitions (Nailufaroh, 2019). A similar opinion was expressed by Strong & Meyer (1987); Brown et al. (1992); Francis, Hanna, & Vincent (1996); Cotter, Stokes, & Wyatt (1998); dan Holgate & Ghosh (2000) who revealed that the company's decision to revaluate its fixed assets can be partly explained by management incentives relating to commercial or political influence. The study also found that to reduce contract costs, political costs, and information asymmetry, using upward revaluation. Seng & Su (2010) also states that the revaluation of company assets in New Zealand is motivated by contract costs, asymmetric information, or other opportunistic incentives. While the motivation of Hong Kong managers to revaluate assets to show the fair value of assets and motivation to avoid violating debt agreements. This revaluation was chosen to increase loan capacity (Jaggi & Tsui, 2001).

Revaluation also affects contract costs and politics in companies in Australia (Brown et al., 1992; Whittred & Chan, 1992) so companies in Australia tend to reassess fixed assets (Brown et al., 1992). Gaeremynck & Veugelers (1999) dan Jaggi & Tsui (2001) also state that revaluation of tangible fixed assets can be a credible signal, but not the amount of revaluation as a signaling tool. Thus revaluation of fixed assets can reduce information asymmetry, or be used to signal information to investors (Brown et al., 1992).

The scale of the company is a political indicator. The bigger the company, the more the political spotlight. Large-scale companies will prefer accounting methods that can reduce profits by choosing the revaluation method in recording their fixed assets (Ramadhan & Sherlita, 2015). The research of Seng & Su (2010) and Nailufaroh (2019) found that company size had a significant positive effect on the action of asset revaluation. However Firmansyah & Sherlita (2012) obtained the opposite results.

Research related to fixed asset intensity by Brown et al. (1992), Latifa & Haridhi (2016), and Jannah & Diantimala (2018) found significant positive results on asset revaluation. If fixed assets are sold, companies with high fixed asset intensity will use the method of recording and recognizing fixed assets that show their true value. However, Aziz & Yuyetta (2017) research shows the opposite result. Companies that will recognize an
increase in the value of assets will choose the revaluation method instead of only disclosing the increase in assets in the notes to the financial statements (Seng & Su, 2010). This condition is carried out if management has high confidence in the realization of the increase in assets through increasing future cash inflows. Lin & Peasnell (2000) also found no evidence of a positive relationship between the intensity of fixed assets and the possibility of revaluation. This condition was not explained further in the study.

The policy to revaluate fixed assets is also influenced by the decrease in operating cash flow. A decrease in operating cash flow can cause lenders to worry about company liquidity. Therefore the company will carry out revaluation as a signal of a higher asset value to convince lenders of the company’s ability to pay debts. Aziz & Yuyetta (2017) research found that operating cash flow has a significant positive effect on revaluation of fixed assets. However Ramadhan & Sherlita (2015) states that the decrease in operating cash flow does not affect the revaluation of fixed assets because creditors do not only focus on operating cash flow, but also overall cash flow.

This study was motivated to reexamine the effect of company scale, fixed asset intensity, and operating cash flow on the decision to revaluate fixed assets. The benefits of revaluation of fixed assets can be realized in the following year and the most important revaluation motivation is to disclose the fair value of fixed assets to users of financial statements (Azmi, 2018). This study uses a positive accounting theory approach that managers, investors, and regulators or politicians will try to maximize their welfare by comparing costs and benefits to alternative accounting procedures to maximize their utility. Management also needs to consider the effect of accounting numbers reported due to tax regulations, political costs, management compensation, production cost information, and restrictions on loan agreements (Belkaoui, 2012). Thus, managers are free to set different accounting policies with the aim of minimizing contract costs and maximizing company value (Watts & Zimmerman, 1990).

2. Literature Review
2.1. The Effect of Company Scale on the Revaluation of Fixed Asset

Total assets is one measurement to determine firm size. Previous research shows that price control by the government is more focused on large companies because they are considered to have greater freedom from regulations and tend to take on the role of price leader (Lin & Peasnell, 2000). Trade unions also pay more attention to large companies and demand higher salaries (Brown et al., 1992). Therefore companies tend to avoid reporting high profits to avoid adverse political impacts (Standish & Ung, 1982). Upward revaluation of assets can be an effective way to reduce earnings reports by increasing depreciation costs on an increase in asset revaluation to reduce political pressure from governments or unions faced by large companies (Lin & Peasnell, 2000). Thus, there is a positive relationship between company size and revaluation decisions.

Management tends to choose revaluation of fixed assets to realize the political cost hypothesis when faced with an opportunist situation in choosing the method of measuring fixed assets, namely whether the cost model or the revaluation model (Seng & Su, 2010).
Large-scale companies are more likely to reassess their assets to reduce political costs (Seng & Su, 2010). This shows that asset revaluation at large scale companies is considered to be more reliable. Based on the description, the research hypothesis is as follows:

H1: The larger the scale of the company, the greater the decision to revaluate its fixed assets.

2.2. The Effect of Fixed Asset Intensity on the Revaluation of Fixed Asset

Problems related to the intensity of fixed assets are confirmed through research by Latifa & Haridhi (2016). Revaluations are noteworthy because fixed assets make up the largest portion of total assets which will increase the value of the company and the asset base through increasing the company's loan capacity. In addition, the intensity of fixed assets can also describe the cash expectations that can be received if the fixed assets are sold so that companies with high fixed asset intensity tend to prioritize the method of recording and recognizing fixed assets that reflect the true value of assets.

Revaluation of assets is relatively expensive, large investments in assets allow revaluations to be made on an economical scale so that they are more cost-effective (Brown et al., 1992; Whittred & Chan, 1992). Revaluation is more useful because fixed assets have a large proportion of total assets, so that it will increase the value of the company so that it has a greater potential to increase the asset base (Lin & Peasnell, 2000). Based on the description, the research hypothesis is as follows:

H2: The greater the fixed asset intensity, the greater the decision to revaluate fixed assets.

2.3. The Effect of Operating Cash Flow on the Revaluation of Fixed Asset

Operating cash flow reflects the amount of cash flow originating from a company's operating activities. The main indicator for determining whether an entity's operations can generate cash flow to repay loans is the amount of cash flow from such operating activities. If there is a decrease in operating cash flow, it can affect creditors in providing loans. The revaluation of fixed assets, allows a higher increase in assets in the financial statements so that the company will further convince creditors that the company is able to pay debts. When a company chooses the fixed assets revaluation method, the company can indirectly improve or increase its operating cash flow.

Corporate liquidity will be the concern of debtholders if there is a decrease in cash flow from operating activities. Research conducted in Australia by Cotter & Zimmer (1995) argues that an upward revaluation will signify a higher value of the company's collateral assets so that it can help convince debtholders about the company's ability to repay the debt through the potential to realize company assets at higher market values. Therefore, upward revaluation can restore the company's loan capacity. Cotter & Zimmer (1995) proposed that companies with declining cash flows tend to reassess their assets in the current year. However, the results of the study Cotter (1999) did not find a significant relationship between these variables with the decision to reassess. Cotter (1999) explains that these conditions are caused by changes in institutional arrangements in Australia. The close
relationship between the company and the banker makes it unnecessary to use expensive revaluations to reduce the cost of debt contracts. This is expected because companies with declining operating cash flow conditions will make an asset revaluation decision upwards. Based on the description, the research hypothesis is as follows:

**H3**: The greater the operating cash flow, the greater the decision to revaluate fixed assets

### 3. Method

The object of research is manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2015-2018. The research sample was selected using a purposive sampling method with the following criteria: (1) companies that disclose accounting methods in measuring fixed assets and, (2) have complete data in research. Total research observations were 426 companies and hypothesis testing was performed with logistic regression, as presented in Eq.(1).

\[
REV = \alpha + \beta_1 \text{SIZE} + \beta_2 \text{FAI} + \beta_3 \text{AKO} + \epsilon
\]

**Notes:**
- \(REV\): Revaluation of Fixed Asset
- \(\alpha\): Constanta
- \(\beta_1-\beta_4\): Regression coefficient
- \(\text{SIZE}\): Firm Size
- \(\text{FAI}\): Fixed asset intensity
- \(\text{AKO}\): Operating Cash Flow
- \(\epsilon\): residual error

### 4. Result and Discussion

#### 4.1. Statistical Test Results

Descriptive statistics of the research variables are presented in Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm size</td>
<td>426</td>
<td>18.87</td>
<td>35.29</td>
<td>28.1690</td>
<td>1.78980</td>
</tr>
<tr>
<td>Fixed asset intensity</td>
<td>426</td>
<td>0.04</td>
<td>1.00</td>
<td>0.4902</td>
<td>0.19388</td>
</tr>
<tr>
<td>Cash flow operation</td>
<td>426</td>
<td>1.31</td>
<td>3.20</td>
<td>2.3183</td>
<td>0.51251</td>
</tr>
</tbody>
</table>

The number of companies that revalued fixed assets (1) was 162 companies or 38.01% and those who did not do a fixed asset revaluation model (0) were 264 companies or 61.97%. Companies tend to be difficult to change the choice of accounting methods used, where most have already used the cost method in recognition of their fixed assets (Lin & Peasnell, 2000). Overall, the average value of firm size is quite high. Likewise, the overall average value of fixed asset intensity has a sufficient average value. This condition is also true for the overall average value of operating cash flows. Furthermore, the results of testing the regression coefficients with logistic regression are presented in Table 2.
Referring to Table 2, the logistic regression model is presented in Eq. (2):

\[ REV = -1.163 + 0.217\text{SIZE} + 1.972\text{FAI} + 1.985\text{AKO} + \epsilon \]  

Equation (2) shows the firm size coefficient of 0.217 with a significance level of 0.241 > 0.05. These results indicate that firm size does not affect the decision to revaluate fixed assets. Thus H1 is not supported. While the fixed asset intensity coefficient is 1.972 with a significance level of 0.035 < 0.05. This shows that fixed asset intensity influences the decision to revaluate fixed assets so that H2 is supported. The coefficient of operating cash flow is 1.985 with a significance level of 0.044 < 0.05. Operating cash flow affects the decision to revaluate fixed assets, thus concluding that H3 is supported. Goodness of Fit model results are presented in Table 3.

Table 3. Goodness of fit model

<table>
<thead>
<tr>
<th>Goodness of Fit Models Result</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hosmer &amp; Lemeshow</td>
<td></td>
</tr>
<tr>
<td>- Significance</td>
<td>0.831</td>
</tr>
<tr>
<td>- Chi-Square Value</td>
<td>18.532</td>
</tr>
<tr>
<td>Omnibus</td>
<td></td>
</tr>
<tr>
<td>- Significance</td>
<td>0.004</td>
</tr>
<tr>
<td>- Chi-Square Value</td>
<td>28.226</td>
</tr>
<tr>
<td>Nagelker R Square</td>
<td>0.381</td>
</tr>
<tr>
<td>Cox &amp; Snell R Square</td>
<td>0.272</td>
</tr>
</tbody>
</table>

Table 3 shows the results of the Hosmer and Lemeshow test with a chi-square value of 18.532 with a probability of 0.831 (0.831 > 0.050) so that H0 is rejected or the model is sufficient to explain the research data. The omnibus test results above the chi-square value of 28.226 with a significance value of 0.004. The calculated chi-square value is greater than the value of the chi-square table (28.226 > 9.894) with a significance value of 0.004 < 0.05. These results indicate H0 is rejected or all independent variables can simultaneously predict the dependent variable.

Cox & Snell R Square value and Nagelkerke R Square value are used to determine the ability of independent variables in explaining the dependent variable. Based on the Nagelkerke R Square test results presented in Table 3, a value of 0.381 is obtained. This shows that the independent variable can explain the dependent variable by 38.1%, while 61.9% is the independent variable that is explained outside the predetermined model. Asset revaluation policies can be explained by firm size, fixed asset intensity, and operating cash flow by only 38.1%. This condition shows the research has a relatively low-quality model because the ability to explain is still limited.
Based on Table 4, the number of samples that did not re evaluate assets was 264 + 0 = 264 companies. The total number of assets that did not revalue assets was 264. The number of samples that revalued assets was 162 + 0 = 162 companies. The number of companies that revalued assets was 162 companies. The logistic regression interpretation shows an overall percentage value of 75.1%, which means that the accuracy of this research model is 75.1%.

<table>
<thead>
<tr>
<th>Table 4. Classification Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>RevaluasiAT</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Overall Percentage</td>
</tr>
<tr>
<td>a. The cut value is .500</td>
</tr>
</tbody>
</table>

4.2. Discussion

The scale of the company does not affect the revaluation of fixed assets. This finding shows that a small company is not likely to revaluate its fixed assets. The Political Cost Hypothesis states that large sales value generated by large-scale companies will be more likely to use the preferred accounting method to reduce profits. A small profit can reduce political costs as a result of the emergence of depreciation costs from the revaluation of assets, thereby reducing the attention of consumers, the media, the government, and regulators. However, the results of this study do not sufficiently prove that the decision on the revaluation of fixed assets is not determined from the scale of the company that is proxied by total sales. Management will report earnings as they are to be public large sales will generate high profits showing good performance. As a consequence the company is ready to pay more tax and is ready to be monitored by a third party. Management thinks that under these conditions, the revaluation policy has no benefit because it does not correspond to reality. When revaluation of fixed assets is carried out, it will reduce profits through an increase in depreciation costs, but comprehensive income will increase due to the excess of the revaluation of fixed assets. The revaluation tax rate in Indonesia of 10% is imposed on companies that conduct asset revaluation. This condition is not in line with the company's expectation that an asset revaluation policy is carried out to reduce political costs, but in the end it causes the revaluation tax consequences that the company must bear. The results of this study support the findings of Ramadan & Sherlita (2015) and Firmansyah & Sherlita (2012) which states that company size does not affect the revaluation of fixed assets.

Fixed asset intensity has a significant positive effect on the revaluation of fixed assets. The findings of this study indicate that the policy to revaluate assets is also determined by the ownership of a large proportion of fixed assets. Companies with high fixed asset intensity will tend to prefer the method of recording and recognizing fixed assets that better reflect the true value of assets. This is done because most of the fixed assets are used in operations so it is expected that in the future it will increase profits.

Fixed assets are guarantees for a company. When the proportion of fixed assets is lower than the total assets, management will conduct an asset revaluation in the hope that
the assets will have a greater collateral value and increase loan capacity. These conditions indicate that revaluation is feasible because it has great potential in increasing the asset base so that it will increase the value of the company. This is in line with the opinion of Tay (2009) that asset revaluation can reduce reporting profitability through an increase in depreciation value and through an increase in the asset base used to measure return on equity. This finding supports Watts & Zimmerman (1986) who explain the reasons for certain accounting practices and predicts the role of accounting and related information in the economic decisions of individuals, companies, and other parties. These findings are consistent with the results of Barac & Sodan (2011) and Tay (2009) research which states that the actual information about the amount of cash that can be received from asset sales, increasing the company's loan capacity and reducing loan costs can be done through an asset revaluation policy. This finding is in line with Lin & Peasnell (2000); Latifa & Haridhi (2016); Tay (2009); and Fioni, Darmayanti, & Rifa (2019) which stated that fixed asset intensity had a significant positive effect on the revaluation of fixed assets.

Operating cash flows affect asset revaluation. This condition can convince creditors that the company is able to pay debts because the asset revaluation policy will increase the value of assets which can ultimately increase its operating cash flow. This will also improve overall cash flow conditions (Seng & Su, 2010). The relationship of cash flows to the action of asset revaluation concludes that there is a positive effect on the revaluation of fixed assets that will increase the company's operating income in the future (Aboody et al., 1999; Jaggi & Tsui, 2001). This finding is in line with Cotter & Zimmer (1995); Latifa & Haridhi (2016); Aziz & Yuyetta (2017); and Jaggi & Tsui (2001) that operating cash flow has a significant positive effect on asset revaluation policies. But the negative direction was found by Azmi (2018) and Jannah & Diantimala (2018).

Apart from differences with the business and cultural environment, this finding shows that the motivation of management in Indonesia to revaluate assets remains consistent with the actions taken by managers in Indonesia, Hong Kong, Australia, and the United Kingdom. This finding shows that investors consider revaluation to have value relevance and can be used for investment decisions because asset revaluation actions can reduce information asymmetry between investors and company management.

5. Conclusion

Management's policy of revaluing assets is one way to improve company performance. The results show that the benefits of revaluation of fixed assets can be realized in the following year and the motivation for revaluation is to reveal the fair value of fixed assets. The results of the study concluded that the scale of the company has no effect on the revaluation of fixed assets, but fixed asset intensity and operating cash flow have a significant positive effect on revaluation of fixed assets. The implication of the results of the study shows that large-scale companies do not always lead to a policy of revaluation of fixed assets because it can cause taxes on revaluation that must be borne by the company. The results of this study also provide new insights into the adoption of IFRS in the context of developing countries, especially related to fixed assets. The practical
implications of this study indicate that the Indonesian government must realize that as more companies adopt a revaluation model, it is balanced by increasing the number of licensed appraisers. Revaluation needs special consideration because assets have the largest proportion that can boost a company's value by increasing the company's loan capacity. The choice of revaluation of fixed assets will increase the value of assets, so the company can indirectly improve or increase its operating cash flow.

The ability of research to explain models is still low. For this reason, concrete steps are needed to perfect future research results, for example by adding other variables such as company growth. Next it is necessary to use a sample of different company sectors so that it can be compared with the manufacturing sector. Comparative studies also need to be conducted on the effect of market performance responses on companies that do and do not revaluate assets. The number of companies adopting the revaluation model will increase gradually from year to year, thus further research can use panel data regression analysis to obtain more accurate parameter inference in the model. Further research also needs to develop the impact of revaluation of fixed assets on the market value of the stock and incorporate taxes on revaluation to the top to see the negative effects of the company's future performance, specifically operating cash flow. Furthermore, researchers also need to develop research objects in countries in the Asian region to see investor responses to global markets and management's motives for revaluing assets with characteristics of company ownership that are controlled by several families (family businesses).

Authors’ Declaration

Authors’ contributions and responsibilities

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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