The Roles of Capital Intensity in Moderating Managerial Ownership and Investment Opportunity Set (IOS) on Accounting Conservatism

Zahrotus Sholikhah *1 and Niswah Baroroh 2

1,2 Accounting Department, Faculty of Economics, Universitas Negeri Semarang, Indonesia

INTRODUCTION

Financial statement is a report that reflects corporate performance in a certain period. Wahyudin & Khaﬁd (2013) defined financial statements as the output of the financial accounting activity process. The presentation of financial statement is a form of management responsibility to investors which contains company resources management. The presentation of qualified financial reports is one of which is influenced by conservatism considerations (Zeghal & Lahmar, 2018).

Accounting conservatism according to Marzuki & Wahab (2018) is a precautionary principle in financial reporting, which is the recognition and measurement of assets and profits by companies without a doubt, but losses and debts which may arise are recognized immediately. Savitri (2016) revealed three important reasons for applying the principles of conservatism. First, companies are considered necessary to have a pessimistic attitude to reduce the tendency to exaggerate in financial reporting so that it can coexist with the excessive optimism of managers and owners. Second, the presentation of overly high earnings and valuation is more dangerous for the company and the owners compared to the presentation which is too low, due to the greater risk of lawsuits as a result of the less qualified reporting. Third, accountants are better able to obtain a lot of information than being able to communicate information to investors and creditors (Savitri, 2016).

Tista & Suryanawa, (2017), Saputri (2013), and Sumiari & Wirama (2016) examined conservatism as measured by the market to book ratio. The value of the market to book ratio of more than 1 indicates that the company applies conservative accounting principles since the ratio describes understated assets and overstated liabilities. This also can be seen from the recorded book value which is lower than the market value (Savitri, 2016). The results of these studies indicate that on the manufacturing companies in Indonesia, the application of accounting conservatism is still low. The finding of Tista & Suryanawa (2017) details the average accounting conservatism of 0.0635. Saputri (2013) produced an average accounting conservatism of 0.2238 while Sumiari & Wirama (2016) obtained a value of 0.2238 for the average accounting conservatism.

The phenomena that indicate the lack of accounting conservatism application in the companies is that...
the companies manipulate financial statements and the presentation of less conservative financial statements. Frequently, a case related to this is fraud by management through overstated presentation. One of them is the case at PT Kimia Farma which had an overstated net profit, IDR 99.56 billion in journals worth IDR 132 billion (www.tempo.co, 2014). Another case occurred at the Toshiba Corporation which increased its profit to 151.8 billion yen or around 16 trillion rupiah in 2014 (www.kompas.com, 2015). The occurrence of various cases of financial statement manipulation proves the lack of the application of the accounting conservatism principle, making it easy for companies to write down overstated earnings.

Alkurd et al. (2017) have examined the effect of managerial ownership on accounting conservatism. The finding indicates that accounting conservatism is positively influenced by managerial ownership. The result is supported by research conducted by Dwitayanti & Fahlefi (2015); Pratanda & Kursmitarno (2014); Al-Sraheen et al. (2014); Septian & Anna (2014); and Dewi & Suryanawa (2014). On the other hand, Sinambela & Almilia (2018) and Yuliarti & Yanto (2017) proved the absence of the effect of managerial ownership on accounting conservatism. Meanwhile, research conducted by Mohammed et al. (2017), Sugito & Fachhurozie (2018), and Lafond & Roychowdhury (2008) indicate a negative effect.

Research on the effect of the investment opportunity set on accounting conservatism is conducted by Karami et al.(2014). The result of this study confirms the significant effect in a positive direction between investment opportunity set and accounting conservatism. This study is in accordance with the research of Andreas et al. (2017) and Murwanisari & Rachmawati (2017). However, research conducted by Sugito & Fachhurozie (2018), Rahau et al. (2018), and Dwiayanti & Fahlefi (2015) show a different result that is the absence of effect on accounting conservatism.

This study aims to find out the effect of managerial ownership and investment opportunity set (IOS) on accounting conservatism with capital intensity as a moderator on the manufacturing companies for the 2016-2018 period. The novelty of this research is the presence of capital intensity as a moderating variable. Alfi & Sabeni (2013) argued that capital-intensive firms have greater political costs and are more likely to minimize profits. Capital intensity is chosen as a moderating variable because according to Alfi & Sabeni, (2013) one of the indicators of the political cost hypothesis is capital intensity. This is due to the use of increased assets in product sales concluded that the company is large. The government focuses more on big companies. Then, on capital-intensive companies, reporting conservatively is done to erase large political costs (Nasr & Ntim, 2018).

Concerning accounting conservatism, agency theory deals with the existence of a conflict of interest, where there are differences in interests between shareholders and management. Shareholders or owners try to avoid overly large political costs so that they want the profits to appear small, while in order for the manager's performance to look good, management expects that profits will seem large.

Positive accounting theory asserts that companies can issue certain policies, while still paying attention to the situation and conditions of the company, in order to generate added-value for shareholders. Positive accounting theory describes management behaviour in financial reporting and its relationships with investors, regulators, and creditors (Watts & Zimmerman, 1990). This theory has three hypotheses that reflect the relationship between management and company shareholders, consisting of bonus plan hypothesis, political cost hypothesis, and debt covenant hypothesis. This policy is able to minimize the imposition of political costs so that the principles of accounting conservatism can be fully applied.

Managerial ownership is defined as shares owned by company management. Agency theory in the relationship of managerial ownership with accounting conservatism is to resolve agency conflicts between shareholders and managers, the share ownership by management is needed (Jensen & Meckling, 1976). The framework of agency theory defines that the emergence of a conflict of interest differences between owners and managers is caused by manager behaviour who tend to be opportunistic and self-interest.

This study assumes a large amount of managerial ownership makes management present conservative earnings. This happens since managers feel they own the company so that the company's orientation is not only on the amount of profit achieved but also on the sustainability of the company in the future. The number of shares owned by managers will increase managers' motivation to increase the value of the company's shares. This will drive managers to use conservative accounting. This hypothesis is consistent with the research results of Alkurd et al.(2017); Shamki et al.(2017); Dwiayanti & Fahlefi (2015); Pratanda & Kursmitarno (2014); Septian & Anna (2014); and Dewi & Suryanawa (2014).

H₁: Managerial ownership has a significant positive effect on accounting conservatism

Investment opportunity set (IOS) is defined as a choice of future investment opportunities that have an impact on the growth of company assets. IOS describes the costs incurred by management in order to get a greater amount of returns. In agency theory, agency conflicts between managers and shareholders can be reduced by investment opportunity set through investment decisions taken by management. Savitri (2016) described solving agency problems between managers and shareholders as one of the roles of managers which is determined by managers' variation in the IOS determination constantly. Variations in investment decisions taken by management may reflect the company value which will indirectly affect the company's stock price.

Companies with good investment opportunities will be supported by an increase in share prices. The increase in share prices occurs due to a positive market reaction to the company's growth which is the main focus of investors and the public. This share price will inc-
increase the value of IOS thus enlarging the market to book ratio which is a proxy for accounting conservatism. The greater the IOS value, the larger the market to book ratio. This hypothesis is supported by research conducted by Alkurdi et al. (2017); Murwaningsari & Rachmawati (2017) and Andreas et al. (2017) which mention positively, the investment opportunity set affects accounting conservatism.

H$_2$: Investment opportunity set has a significant positive effect on accounting conservatism

Capital intensity indication represents the amount of capital needed to create company profits. The relationship between managerial ownership and accounting conservatism based on agency theory is the existence of share ownership by management can solve agency problems between managers and shareholders. The bigger the shares owned by management, the greater the manager’s motivation to increase the value of the company’s shares. This will encourage managers to use conservative accounting.

The high level of capital intensity owned by the company has made the management of the funds more complex. Priambodo & Purwanto (2015) explained that higher political costs are assumed to be owned by capital-intensive companies. Managers as managers as well as shareholders will tend to be careful in taking action in order to maximize their returns. One of the manager’s actions to maximize returns is through reducing political costs by applying a conservative accounting method, through shifting profits from the current to the future period. Therefore, capital intensity is able to influence managerial ownership on accounting management in company reporting.

H$_3$: Capital intensity significantly moderates the effect of managerial ownership on accounting conservatism

Capital intensity indicates how efficient the use of company assets is in generating profit. Based on agency theory, the investment opportunity set is able to minimize agency conflicts between managers and shareholders through investment decision-making by management. Savitri (2016) stated that the role of managers in dealing with agency problems is influenced by manager variations in setting IOS. The greater the value of the IOS, the greater the market to book ratio, which is a proxy for accounting conservatism. An increase in share prices followed by an increase in the value of IOS and market to book ratio triggered by a positive reaction from the market in response to the company’s growth.

The presence of high capital intensity indicates that the company is a capital-intensive company. Capital-intensive companies have the potential to increase company profits (Arabloo, 2017). High profits lead the companies to greater political costs. Companies that have high future investment opportunities tend to minimize profits in order to minimize political costs. Therefore, companies that have investment opportunities in the future supported by high capital intensity will apply the principle of accounting conservatism more to minimize profits related to political costs.

H$_4$: Capital intensity significantly moderates the effect of the investment opportunity set on accounting conservatism

**RESEARCH METHODS**

The manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2018 periods with a total of 184 companies were the population in this study. A purposive sampling technique was used to select the sample and 16 companies were obtained. A limit value of 2.5 was used to detect data outliers. If the z-score of the variable was more than 2.5 and less than -2.5 then the unit of analysis data was declared outlier. The sample selection criteria are presented in table 1.

Accounting conservatism was the dependent variable in this research. The independent variables were managerial ownership and investment opportunity set, and capital intensity as a moderating variable. The operational definition and measurement of each variable are described in table 2.

The research data collection used the documentation method. The data in the form of annual reports for the period 2016-2018 originated from the IDX website and the websites of each company. Descriptive statistical analysis and inferential statistical analysis techniques were used in hypothesis testing which began with the classical assumption test. The hypothesis was tested through moderation regression analysis, namely the absolute difference value test with a significance level of 5%. In the absolute difference value test, the data values on the independent and moderating variables were converted into z-score values.
RESULTS AND DISCUSSIONS

Descriptive statistics can be seen from the maximum, minimum, mean, and standard deviation values. CONSERV has a maximum value of 12.865684, a minimum of 1.047326, a mean of 3.152904, and a standard deviation of 2.08386. KEPMEN has a maximum value of 0.777822, a minimum of 0.000004, a mean of 0.138043, and a standard deviation of 0.178509. IOS has a maximum value of 0.138495, a minimum of 0.000004, a mean of 0.777822, and a standard deviation of 0.20.

The five interval classes for the distribution of the results of the descriptive statistical analysis consist of very low, low, medium, high, and very high. Based on the classes, the highest percentage of CONSERV is 69.23%, or very low. The highest percentage of KEPMEN is 69.23% in the very low category. The highest percentage of IOS is in the low category by 53.84%. The highest percentage of CONSERV is 30.77% in the medium category. The highest percentage of KEPMEN is 69.23%, or very low. The highest percentage of IOS is in the low category by 53.84%.

The feasibility of the regression equation model is examined using the classical assumption test. One-sample Kolmogorov-Smirnov is used to test for normality. The Asymp.Sig. value is 0.20, or greater than 0.05 so that the data is normally distributed. The multicollinearity test produces a tolerance value> 0.10 and a VIF value <10 on all independent variables so that there is no multicollinearity. There is no heteroscedasticity problem in the heteroscedasticity test conducted through the Park test since each independent variable has a significance level above 5% or 0.05. The result of the autocorrelation test with the Run Test results in the conclusion that there is no autocorrelation as the Asymp.Sig. Value> 0.05 is 0.513.

The adjusted R² value on the coefficient of determination is 0.283 which means the KEPMEN, IOS, and IM variables are able to define variations in accounting conservatism by 28.3% while the remaining 71.7% is defined by other variables outside the model. Based on the hypothesis testing, regression equation 1 is compiled and the results of hypothesis testing are presented in table 3.

Table 3. Hypothesis Test Results

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Regression Coefficient</th>
<th>Sig.</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H₁: Managerial ownership affects accounting conservatism positively and significantly</td>
<td>3.215</td>
<td>0.190</td>
<td>Rejected</td>
</tr>
<tr>
<td>2</td>
<td>H₂: Investment opportunity set (IOS) has a significant positive effect on accounting conservatism.</td>
<td>38.143</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>H₃: Capital intensity significantly moderates the effect of managerial ownership on accounting conservatism.</td>
<td>-0.248</td>
<td>0.687</td>
<td>Rejected</td>
</tr>
<tr>
<td>4</td>
<td>H₄: Capital intensity significantly moderates the effect of investment opportunity set (IOS) on accounting conservatism.</td>
<td>-0.945</td>
<td>0.222</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Source: secondary data processed, 2020
The Effect of the Investment Opportunity Set (IOS) on Accounting Conservatism

The research results confirm that the investment opportunity set has a significant positive relationship to accounting conservatism. The results of this study according to agency theory states that the investment opportunity set is able to minimize agency problems between managers and shareholders through investment decisions determined by management. Variations in investment decisions taken by management reflect the value of the company that has an indirect impact on the company’s stock price.

Companies with good investment opportunities will be supported by an increase in share prices. The increase in share prices is caused by a positive reaction from the market in response to the company’s growth which is the main focus of investors and the public. Stock prices increase the values of IOS and increase the market to book ratio. Thus, the greater the value of IOS, the greater the market to book ratio as a proxy for accounting conservatism. This hypothesis is consistent with research conducted by Alkurdi et al. (2017); Li, He et al. (2017); Murwaningsari & Rachmawati (2017) and Andreas et al. (2017).

The Effect of Managerial Ownership on Accounting Conservatism Moderated by Capital Intensity

The testing results prove that capital intensity does not moderate the relationship between managerial ownership and accounting conservatism. This finding contradicts agency theory that the greater the shares owned by management can strengthen the manager’s motivation to increase the value of company shares. Managers will work not only to think about the bonuses they get but since they feel they own the company, they will try to think more about the sustainability of the company in the future. The presence of the absence of capital intensity is unable to influence the level of managerial roles in increasing the application of accounting conservatism principles in companies. The presence or the absence of fixed capital intensity will make managerial parties want the results of their performance to be considered good by shareholders so that managers get more bonuses assuming there is a bonus plan agreement.

PT BAJA as one of the sample companies is able to support the research results which is managerial shares owned were 0.777822 and capital intensity was 0.776849 in 2017. The company had accounting conservatism which was in the very low category of 1.674261. Then, PT SSTM in 2017, the managerial shares owned were 0.389050 and capital intensity was 1.761396. However, the existence of large capital intensity still makes this company less applying the principles of accounting conservatism without being affected by capital intensity. In this company, the level of accounting conservatism is in the very low category of 2.094199.

The Effect of the Investment Opportunity Set on Accounting Conservatism Moderated by Capital Intensity

The research results show that capital intensity is not able to moderate the relationship between investment opportunity set and accounting conservatism. This finding is in contrast to agency theory which reveals that managers play a role in setting investment opportunity sets constantly including in dealing with agency conflicts between managers and shareholders. This means that the level of the investment opportunity set in increasing the use of accounting conservatism principles in companies is not influenced by the presence or absence of capital intensity. The presence or absence of fixed capital intensity will make the investment opportunity set positively affect accounting conservatism. Besides having opportunities or chances to develop in the future, the companies with good investment opportunities can raise stock prices which can reflect the company’s value. One of the company’s goals is to increase company value.

One of the sample companies PT ULTJ is able to support the research results where it had IOS of 0.056865 and capital intensity of 0.060730 in 2017. The company has accounting conservatism which is in the very low category of 3.344093. Then, PT AMIN had IOS of 0.133391 and capital intensity of 1.464694 in 2017. However, the existence of large capital intensity still makes this company less applying the principles of accounting conservatism without being affected by capital intensity. The accounting conservatism of this company is 2.324386 so it is still in the very low category.

CONCLUSIONS

This study examines the effect of managerial ownership and the investment opportunity set on accounting conservatism with moderation in the form of capital intensity. The results prove that the high investment opportunity set can increase the market to book ratio as a proxy for accounting conservatism because it can
contribute to positive reactions on stock prices, which have an impact on increasing company value. Then, it is found that there is no significant effect between managerial ownership and accounting conservatism. Furthermore, capital intensity does not significantly moderate the effect of managerial ownership and investment opportunity set on accounting conservatism.

Based on this research, the companies are expected to increase the effectiveness of the investment opportunity set. The high IOS in a company can increase the application of accounting conservatism principles. Then, investors are expected to be careful in making investment decisions in order to avoid excessive costs or burdens. Regulators are expected to be able to provide clear rules in order to increase accounting conservatism. Suggestions for further researchers are to try to use other proxies to increase accounting conservatism because of the low effect value contributed by the independent research variables, for example, the use of Earning/Accrual Measure. Conservatism will encourage sustainable accruals in the company so that an increase in the application of the principles of corporate accounting conservatism will be more appropriate if researchers use Earning/Accrual Measure.

REFERENCES


