FINANCIAL RATIOS, ECONOMIC VALUE ADDED AND MARKET REACTION: A QUANTITATIVE STUDY ON INDONESIA STOCK EXCHANGE

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ABSTRACT

Reflecting on the phenomenon of stock market movements on the Indonesia Stock Exchange, this study was appointed to examine the effect of the effect of liquidity, solvency, and Economic Value Added (EVA) on market reactions in manufacturing companies listed on the IDX. The research method uses a quantitative approach, and types are categorized in explanatory research. The population in this study is manufacturing companies listed on the Indonesia Stock Exchange in the period 2017-2019. Determination of the sample to be tested in this study using a purposive sampling method and obtained 36 companies. Secondary data were obtained from the Capital Market Information Center (PIPM) the Indonesia Stock Exchange (IDX). The analytical method is Partial Least Square (PLS) with the assistant of SmartPLS 3.0 software. The results of the study showed that all exogenous variables positively and significantly influenced endogenous variable (EVA and Market Reaction). Research findings enrich previous studies on understanding market reactions and their impact on the development of corporate financial strategies in Indonesia.

INTRODUCTION

Rapid changes in all fields today have led to a variety of thought revolutions in the field of science (Mashur et al., 2019). Consequently, new “ways” emerge for businesses to carry out their business activities. In the financial sector, the analysis of financial statements by companies to measure performance generally uses conventional methods, namely financial ratio analysis. In practice, although it has quite a number of functions and uses for the
company in making decisions, does not mean that the financial ratios made have guaranteed 100% of the actual financial condition and position (Kasmir, 2013). In general, the concept of an efficient market related to market reactions is indicated by changes in stock prices that occur in the capital market that exceeds normal prices, resulting in abnormal returns, so returns can show investors’ reactions with the information provided (Zulfa, 2013). Along with the different characteristics of a bank from other corporate sectors, investors must always analyze shares in banking companies that have gone public.

Investors have the main objective in investing is to get a profit or in terms of investment is usually called a return. (Hutagalung and Ratnawati, 2013). Performing a company performance analysis is an interesting thing because in performance analysis it can provide information and representations of financial performance for a certain period. One type of alternative measurement of financial performance is the concept of Economic Value Added (O’Byren 2001). Economic Value Added calculates economic profit not accounting profit. Clarifying its relationship to investor wealth, a final condition that requires value-based indicators is maximizing excess stock returns (O’Byren, 2001). Companies that implement EVA can produce information about stock returns that are more real, because companies can determine whether their stock returns can cover the capital costs incurred by the company (Issabella, 2013). Economic Value Added is a measure of the company’s financial performance by calculating the difference between return from the firm’s capital at the cost of capital (O’Byren and Young, 2001). The calculation of EVA is not included in the company’s financial ratios such as ROA, CAR, and so on, however, data related to the calculation of EVA is presented in the company’s balance sheet and profit and loss financial statements.

However, the use of financial ratio analysis has the main disadvantage of not paying attention to the risks faced by the company by ignoring the existence of capital costs. To overcome the weaknesses of financial ratio analysis, the concept of measuring financial performance is based on valueadded, namely Economic Value Added (EVA) and Market Value Added (MVA). (Brigham and Daves, 2014) argued these two value-added methods can be used as a better reference for capital owners to consider whether the company will provide profits or losses on invested capital. Positive EVA conditions reflect higher returns than capital costs. Positive EVA shows management’s ability to create an increase in the value of a company’s wealth/capital owners and vice versa.

Research on the effect of EVA on stock returns according to (Lehn and Makhija, 1996) shows that of the 5 indicator measures in relation to stock returns, EVA has a strong correlation. (Mardiah, Sugiaro and Siagian, 2006) gave results that in 2005 EVA had a significant positive effect on stock returns. Research conducted by (Taufik, 2007) concluded that EVA on stock returns has a positive effect. (Alexander and Destriana, 2013) with the variable EVA, has a significant positive effect on stock returns. Meanwhile, according to Harjono Sunardi, 2010 shows that EVA does not have a positive and insignificant effect on stock returns. These results have been observed by several previous researchers including (Zafiris and Baildon, 1999) who prove that the company has been able to create economic added value for investors and tends to increase. Whereas study researchers (Xin’e et al. 2015) proves that the effect on market reaction and the level of significance is leading to a positive direction. The research conducted by (Nainggolan and Rocky, 2016) examines the influence of market reactions and significant levels and can lead to a positive direction. The rapid
development of capital market activities will bring big changes to the demands of information quality. In an efficient capital market all new information is quickly and completely reflected in the price of the security. The market is said to be efficient in the form of half as strong if the market price of the formed shares now reflects historical information plus all the information that has been published. A market is said to be half-strong efficient when information is absorbed or responded quickly by the market. Efficient markets in the form of a strong half can be tested through event studies. Referring to the explanation stated above, it is important to study in order to provide solutions to improve the ratio of EVA and market reaction to manufacturing companies listing on the IDX. Based on the explication of the phenomenon and prior research statement above, this paper is interested in measuring the effect of liquidity and solvability on EVA and market reaction.

The financial condition of a company can be analyzed one of them by calculating financial ratios in accordance with the theory referenced. (Gitman, 2012) suggests that financial ratios are values derived from two or more numbers taken from the books of a business or organization. The results of the calculation of financial ratios can be interpreted, compared estimates must lead to important economic relationships, where in the analysis only compare between items or components one with another that has a relationship for later intended to show changes in financial conditions a company (Masdar, 2008). Financial ratio analysis is also an alternative to test whether the financial information produced by financial accounting is useful for classifying or predicting stock returns in the capital market. Financial ratio analysis can provide information about changes in the financial condition of the company concerned, can identify the company's strengths and weaknesses in the financial sector and can be used as an early warning system against a decline in the company's financial condition which results in not providing certainty about the company's going concern. especially for companies that go public.

The calculation of liquidity ratios provides quite a number of objectives and benefits for various parties interested in the company. Liquidity problems are related to the company's ability to meet its financial obligations that must be met immediately. Corporate liquidity demonstrates the ability to pay short-term financial obligations on time. Company liquidity is shown by the size of current assets, which are assets that are easy to be converted into cash which includes cash, securities, and inventory. According to (Kasmir, 2013) the liquidity ratio is the inability of companies to pay their obligations, especially short-term (which is due).

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According to (Kasmir, 2013) the Solvability or leverage ratio is: "the ratio used to measure the extent to which a company's assets are financed with debt. This means how much debt burden borne by the company compared to its assets. In a broad sense it is said that the Solvability ratio is used to measure the company's ability to pay all of its obligations, both short-term and long-term if the company is liquidated (liquidated). The solvability or leverage
ratio also explains the use of assets or funds for which the use must cover or pay a fixed expense. Solvability shows the proportion of the use of debt to finance its investment.

Some of the purposes of calculating solvability are as follows, namely analyzing the status of the company and its ability to fulfill its obligations to third parties. Knowing the status of the company by looking at the balance between the amount of capital and fixed assets owned. Find out how much rupiah from your own capital that will be used as collateral for long-term debt payments. To see the extent of the influence of debt borne by the company on the management of existing assets. Furthermore, how many assets or assets owned by the company can reflect the operating conditions of the company. The more assets it has, the higher the company's ability to pay off its debts. Conversely, a small amount of assets will make it difficult for the company to pay off the debts it bears. The solvency ratio is usually needed when the company is about to close down to ensure that it can pay off its debts or not.

EVA is a method of evaluating a company's financial performance based on value added. The EVA method was first developed by Stewart & Stern, a financial analyst from the company (Stern Stewart & Co. in 1993). According to (Young & O’byrne, 2010) "EVA is an effective communication tool, both for value creation that can be reached by line managers ultimately encouraging company performance and dealing with the capital market ". EVA helps management in setting internal company goals so that the goals are guided by long-term rather than short-term implications. In the case of EVA investments, it provides guidelines for project acceptance decisions, and in this case evaluates the routine performance of management, EVA helps achieve high-value activities. With the existence of EVA management can ensure that a business unit adds shareholder value, while investors can use EVA to find out which shares will increase its value. But now there are only a few managers and investors who use EVA, even though anyone who uses EVA will have a competitive advantage.

EVA is a measure of company performance that can stand alone without the need for other measures either in the form of comparisons using similar companies or analyzing trends. The results of the calculation of EVA encourage the allocation of company funds for investment with low capital costs. Meanwhile, according to (Utama and Cready, 1997), the benefits of EVA are: (1) EVA can be used as an assessment of the company’s financial performance because the performance appraisal is focused on value creation (2) EVA will cause companies to pay more attention to capital structure policies.

EVA can be used to identify activities or projects that provide higher returns than their capital costs. Apart from the benefits described above, EVA is a very important measurement because it can be used as a signal for financial distress to occur in a company (Salmi & Virtanen, 2001). If a company cannot get a profit above the required return, then the EVA will be negative, and this is a warning of the occurrence of Financial Distress for the company. The use of EVA encourages managers to think and act like shareholders, namely maximizing the rate of return and minimizing the cost of capital so that firm value can be increased.

According to (Tandelilin, 2010) classifies the forms of efficient markets into three categories, namely the weak form efficient market, the semi-strong efficient market, and the strong form efficient market. The market is said to be efficient in the form of half as strong if the market price of the formed shares now reflects historical information plus all the information that has been published. Indicators of market reaction in this study are changes in stock prices, stock trading reactions, bid ask spread, and market capitalization. This research
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was conducted to see the market reaction to the announcement of earnings of companies doing income smoothing by looking at changes in stock prices. Overreaction occurs when unexpected announcements (expected or unexpected) affect the price (increase or decrease) more than the actual value. The reaction of investors in responding to this information must refer to the fundamental conditions of the company. If the company's fundamentals are shown with high value, then this is good news and the market reaction will be high (large). Conversely, if the company's fundamentals are shown with low value, then this is bad news (bad news) and the market reaction will be low (small).

The positive market reaction to buyback announcements, and the fact that like dividends, companies pay cash, makes it easier to see why many theorists are willing to buy back too. For example, we can seamlessly apply (Miller and Rock, 1985) or (Bhattacharya, 1979) signaling models to repurchases. With a shaving investment fee, the company pays cash for signal quality (Miller and Rock) or the need for expensive external financing (Bhattacharya). The free cash flow model can also work as easily with buybacks as it does with dividends. Models based on relative taxation such as (John and Williams, 1985) or (Allen, Bernardo and Welch, 2000) or studies that assume that dividends are a signaling device better do not assume (or imply) that buybacks and dividends are perfect.

The overall positive service reaction to market health is straightforward, as an unacceptable increase in price can lead to inflation or result in a larger decline in prices if the firm does not meet expectations. A reaction that prevents events such as a run or sell high at a later date. When a stock experiences a downward price reaction, it is often due to negative news. Negative news causes individuals to sell stocks. Negative news can be in the form of poor earnings reports, bad corporate governance, economic and political uncertainty, as well as unforeseen and unfortunate events that will cause selling pressure and a decline in share prices. On the other hand, positive news will usually lead individuals to buy stocks. Positive news might be in the form of good earnings reports, improved governance, new products, and acquisitions, as well as overall economic and political indicators, stemming from buying pressure and rising share prices. For example, a hurricane that causes landings can cause a supply of utility supplies. Meanwhile, depending on the severity of the storm, insurance stocks could also be hit by the news.

The conceptual framework in this study is a picture of the effect of each observed variable, namely Solvability ratios, liquidity ratios, EVA (Economic Value Added) and market reactions. According to Subramanyam and (Wild, 2010), liquidity is referring to the availability of company resources to meet short-term cash needs. Liquidity that is often measured using a current ratio shows the company's ability to fund its operations and pay off short-term obligations. According to (Fahmi, 2011) the current ratio or can also be called Current Ratio (CR) is a measure commonly used for short-term solutions. Solvability Ratio is a company's ability to pay all its debts, both short-term debt and long-term debt. Solvability is measured by the ratio between total assets and total debt. Adding debt increases company risk but at the same time also increases the rate of return expected (Natsir, 2015).

According to (Hardiningsih, 2010), Economic Value Added helps management in setting internal company goals so that the goals are guided by long-term rather than short-term implications. In an efficient capital market all new information is quickly and completely reflected in the price of securities (Tandelilin, 2010). Earning respond or market reaction can be
interpreted as a reaction caused by the market (investors) based on information received. This research was conducted to see the market reaction to the announcement of earnings of companies doing income smoothing by looking at changes in stock prices. Overreaction that occurs when unexpected announcements (expected or unexpected) affect the price (increase or decrease) exceeds the actual value.

Based on the variables observed according to the theory used and the support of several previous studies, standing the researcher position refers to the research of (Zafiris and Baildon, 1999), (Xin’e et al., 2015), (Nainggolan and Rocky, 2016) with the results of research that prove that the financial performance of the period showed a good condition because EVA economy has a positive positive value every year. Referring to the flow of argumentation and conceptual framework of the study, the hypotheses proposed in this study are as follows: (H1) Liquidity ratios has an influence on Economic Value Added, (H2) Liquidity ratios has an influence on Market Reaction, (H3) Solvability ratios has an influence on Economic Value Added, (H4) Solvability ratios has an influence on Market Reaction and (H5) Economic Value Added has an influence on Market Reaction

RESEARCH METHODS

This research is research exploratory that is trying to find relationships that are relatively new, and explanatory research that is conducted by explaining the symptoms caused by an object of research (Bougie and Sekaran, 2017). Secondary research data was obtained from Manufacturing Companies listed on the Indonesia Stock Exchange (IDX) through the Makassar branch of the Capital Market Information Center (PIPM). In addition, researchers also conducted internet access, namely through the sites www.idx.co.id and www.bi.go.id. During the 3-month research period, data analysis was then carried out over the span of the year 2017-2019. The population used in this research is a manufacturing company listed on the Stock Exchange in the period of 2017 to 2019, as many as 151 companies. From this population the researchers determined the sample using purposive sampling using predetermined criteria so that the number of samples was determined by 36 companies.

The main analysis method in this study was carried out using the method Partial Least Square (PLS). In the data analysis technique using SmartPLS there are three criteria to assess the outer model, namely Convergent Validity, Discriminant Validity and Composite Reliability (Ashoer et al., 2019). Convergent validity of the measurement model with reflexive indicators is assessed based on the correlation between item scores/component scores estimated with PLS Software. Individual reflexive measures are said to be high if they correlate more than 0.70 with the measured variable. Structural model in PLS evaluated using R² for the dependent variable and the value of the coefficient path for the independent variable which is then assessed in significance based on the t-statistic value of each path. To assess the significance of the predicted model in testing structural models, it can be seen from the t-statistic value between the independent variable and the dependent variable in the table Path Coefficient on output SmartPLS (Hair et al., 2017).

RESULT AND DISCUSSION

PLS-SEM analysis includes the structural model (inner model), which states that the estimated value for the path coefficient in the structural model measurement is used to
determine the significance of the relationships between latent variables. Hypothesis testing is undergone by perform the bootstrapping process with the assistant smartPLS 3.0 computer software program. The relationship between the influence of exogenous variables and endogenous variables is produced to confirm significance effect. This test was conducted to determine the strength of the influence of exogenous variables on endogenous variables, both directly and indirectly. Testing the level of significance seen based on probability < level of significance (alpha (α = 5%)). Result of bootstrapping can be seen in Figure 1.

![Figure 1. Full PLS Model](SmartPLS Output, 2020)

**Table 1. Hypothesis Test Result**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>EVA Tstat.</th>
<th>P values</th>
<th>Coefficient</th>
<th>Market Reaction Tstat.</th>
<th>P values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td>0.410</td>
<td>2.424</td>
<td>0.010 *</td>
<td>0.210</td>
<td>2.470</td>
<td>0.013 *</td>
</tr>
<tr>
<td>Solvability</td>
<td>0.339</td>
<td>2.303</td>
<td>0.016 *</td>
<td>0.320</td>
<td>1.991</td>
<td>0.047 *</td>
</tr>
<tr>
<td>EVA</td>
<td></td>
<td></td>
<td></td>
<td>0.500</td>
<td>4.275</td>
<td>**</td>
</tr>
</tbody>
</table>

Note: * Sig. <0.05; ** Sig <0.001

*Source: SmartPLS Output, 2020*

Based on the hypothesis test, it is known that the two exogenous variables directly positively and significantly affect each endogenous variable, namely EVA and Market Reaction. The liquidity variable gives the biggest impact in influencing EVA with a coefficient of 0.410 (T stat. = 2.424; p value = 0.010), whereas in endogenous variables the market reaction, EVA variable is the dominant predictor with a coefficient of 0.500 (T stat. 4.275; p value 0.000). Thus, all hypotheses tested in this study were agreed to and supported previous research.

The results showed that liquidity had a positive and significant effect on EVA and Market Reaction in manufacturing companies listed on the Indonesia Stock Exchange. This means that increasing liquidity tends to increase the value of the company and the company's stock price. This finding is consistent with the study of (Xin et.al, 2015). Liquidity is an
indicator of the availability of company resources to meet short-term cash needs, when the company's short-term obligations have matured, the company can immediately fulfill its obligations due to the availability of sufficient current assets. The availability of sufficient company cash can increase the added value of the company's economy. In addition, the company's ability to meet its obligations that are due soon will certainly increase market confidence, especially to investors. Market confidence in the company is what causes a positive market reaction.

The results show that Solvability directly has an effect on EVA and market reaction on manufacturing companies listed on the Indonesia Stock Exchange. This finding is in line with the studies of (Xin et.al, 2015) and (Nainggolan and Rocky, 2016). Solvability is an indicator to measure the comparison of funds provided by company owners with funds coming from corporate creditors, the higher this ratio, the greater the risk of the company, but the possibility of profits derived by the company will also be even greater. The availability of large capital costs alone will certainly reduce the added value of the company, because one indicator of corporate welfare can be created with an increase in capital costs. From the results of this study it also appears that the company's operations whose capital is sourced from foreign capital is greater than its own capital does not cause an effect on market reaction. This does not cause a positive response for potential investors, because they argue that the company has a dependency on debt.

The results showed that EVA directly had a positive and significant effect on the Market Reaction of manufacturing companies listed on the Indonesia Stock Exchange. This means that increasing EVA can increase market reaction. This finding is consistent with the study of (Zafiris and Baildon, 1999) and (Xin et.al, 2015). Manufacture companies were able to create positive EVA in 2017-2019, means that these companies succeeded in creating added value, so that they were able to meet the expectations of investors. This is because these companies are able to use the provided capital efficiently so that they can create added value for this capital. EVA is one method to measure a company's economic profit by looking at how the company is able to meet operating costs and capital costs. The results showed that the market reacted positively to the manufacturing companies studied. Investors assume that the company is able to manage its resources in improving the welfare of the company and the results will certainly add value to the company. Activities or projects that provide a positive present value of the total EVA indicate the value of the project is well taken, and vice versa. Assessment of financial performance by applying the EVA model causes management attention according to the interests of shareholders. With EVA, managers will act like shareholders, namely choosing investments that can maximize the rate of return and minimize the level of capital costs so that company value can be maximized.

CONCLUSION

The results of the study showed that all exogenous variables positively and significantly influenced each endogenous variable, namely EVA and Market Reaction. The liquidity variable gives the biggest impact in influencing EVA, while in endogenous variables the market reaction, EVA variable is the dominant predictor. Thus, all hypotheses tested in this study were agreed to and supported previous research.
In the calculation of solvability with the indicators Debt to Total Assets Ratio and Debt to Equity Ratio shows that the company studied uses capital from creditors is greater than its own capital so that the value of both ratios is very large, although in terms of profitability increases but does not have added value economically for companies and less influence on market reactions, therefore based on the results of research using this analysis tool the results will be better if the object of the company under study is a company whose value of capital use is greater than the capital of creditors.

In terms of measuring Market Reaction, this study only uses Changes in Stock Prices as an indicator, while there are several measurement methods for calculating Market Reactions, one of which is the calculation of Bid-Ask Spread. This calculation looks at the difference between the lowest selling offer price and the highest buying offer price on the trading day, if it is associated with EVA then this analysis tool can certainly be a comparison and indicator to see the ups and downs of the company's added value through the value of the share price offer. This certainly can reflect how the company's value from the perspective of investors, therefore for the next researcher can enter the calculation Bid-Ask Spread as one indicator of Market Reaction.

REFERENCE


