Analysis of Liquidity, Activity, Leverage, Financial Performance and Company Value in Food and Beverage Companies Listed on the Indonesia Stock Exchange

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Abstract - This research is an explanatory study, namely, discussing the effect of liquidity, activity, and leverage on company performance and the value of food and beverage companies listed on the Indonesia Stock Exchange. The population in this study were all food and beverage companies listed on the IDX; data was taken in time series for 3 years, 2015, 2016, and 2017. The analysis was used to test the hypothesis in this study with multivariate analysis. The results prove that liquidity as measured by CAR, CHR, QAR has a positive and significant effect on financial performance as measured by PBV, PER, and Tobin's q. While activities measured by PAT, PMK, PTA, and leverage measured by DAR and DER did not significantly influence financial performance and firm value.

Keywords - Liquidity, Activity, Leverage, Company Performance and Company Value.

I. INTRODUCTION

Positive investment developments will have an impact on the Indonesia Stock Exchange as a means of meeting supply and demand. The stock exchange is closely related to the buyers and sellers of registered shares. With the opening of the free market in Asean resulting in the emergence of foreign companies in the country, the competition in the business world is getting sharper. Supplies certainly occur also in food and beverage companies listed on the IDX.

Company value as measured by price-book value (Sawir, 2009) and Tobin's q (Smithers and Wright, 2000) is a long-term goal of the company, with increasing value of the company stakeholders will be more prosperous. Changes in company value will be influenced by the company's financial performance, where financial performance can be measured, among others, net profit margin, return on assets, and return on equity Brigham and Houston (2010). At the same time, financial performance is influenced by liquidity, activity, and leverage. To measure the level of liquidity of the company used the current asset ratio, cash ratio, and quick ratio (Horne and Wachowicz, 2012). The level of company activity is measured by fixed asset turnover, working capital turnover, and total assets turnover. While the level of company leverage as measured by debt to asset ratio and debt to equity ratio (Husnan and Padjastutti, 2015).

Research on financial performance has been carried out (Fadilah et al., 2017; Supardi et al., 2016). The results of his research show that the current ratio, inventory turnover, and debt to equity have no effect on financial performance as measured by profitability. Utami Research (2016) DER has a significant effect, and WCT has no effect on financial performance as measured by ROE. Chandra and Sari's (2017) research proved that CR, DER, and debt ratio did not have a significant effect, while total asset turnover had a significant effect on financial performance as measured by ROA. Different from the results of the Kaddumi and Ramadan (2012) study in Jordan and Borhan et al. (2014) in Malaysia and Widyastuti et al. (2017) in Indonesia, which stated that CR, DER, had a significant effect and the debt ratio did not affect financial performance. Research in the UK by Afrifa and Padachi (2016) found leverage had a significant effect on ROE but did not affect ROA. Research in Pakistan Azad et al. (2018) shows that CR has a significant effect on ROE.

II. LITERATURE REVIEW

A. Financial Analysis

Financial statements are valuable information for owners, managers, and creditors. The financial statements present data used as a basis for knowing and evaluating the results of the company's operations in carrying out business activities. Financial analysis can answer a number of questions as follows: 1) can the company pay interest and loan installments; 2) whether the company gets a return on invested capital; 3) whether the profits increase; 4) whether the company is effective in using its debt; 5) whether the company's market experiences growth. (Al-Rawi et al. 2008; Kasmir, 2015).

According to Sawir (2009), financial ratios are comparisons between one amount and the other so as to provide an overview of financial conditions that reflect the company's performance. Financial ratios can make it easier for investors to understand information on financial statements, so investors can analyze and predict dividends to be received. For potential investors, it can be used as a
material consideration for the investment that will be made. The creditors really need financial ratio analysis as a consideration in providing loans and are used to predict the credit risk that may be faced with regard to installment payments and loan interest.

a. Liquidity Ratio

The liquidity ratio measures the company's ability to fulfill its short-term obligations. The size of this ratio is influenced by: 1) Current Asset Ratio; 2) Cash Ratio; 3) Quick Ratio (Al-Ajmi et al., 2009; Chowdury and Paul, 2010; Kasmir, 2011; Paydar and Baejowyabin, 2012).

b. Activity Ratio

Fahmi (2012) Activity Ratio is a ratio that measures the effectiveness of the use of assets in generating sales. The greater the ratio shows, the more effective use of assets owned by the company. This ratio is measured by: 1) total assets turnover; 2) working capital turnover; 3) fixed asset turnover. The activity ratio is influenced by the size of the sales and the number of assets, fixed assets, and current assets; then the activity ratio can be enlarged by adding assets but on the other hand endeavored so that sales increase is greater than the increase in assets (Leenupun, 2003).

c. Leverage ratio

Cashmere (2011) Leverage is used to measure debt ratios with assets and own capital owned by the company. This ratio acts as information on the number of assets and funds used as collateral to creditors. This ratio describes the extent to which debt can be guaranteed by the company. The company's management decision in the use of debt is a signal given by investors in assessing the company's prospects. Companies with good prospects will choose to use debt as alternative funding compared to self-financing.

d. Financial performance

Financial performance is the ability of a company to gain profits in relation to sales, total assets, and own capital. Long-term investors have an interest in the company's financial performance because they can see the number of profits that can really be received in the form of dividends (Sartono, 2010). According to Brigham and Houston (2011), a high profitability ratio is a ratio that shows the combined effect of liquidity, asset management, and debt from operating results. Some ratios for measuring financial performance include Gross Profit Margin, Operating Profit Margin, Net Profit Margin, Return on Asset, Return on Equity Research on has been done by Sadiamajeed et al. (2013); Akoto et al. (2013); Abuzayed (2011).

e. The value of the company

The increase in company value is a long-term goal of a company. According to Horne and Wachowicz (2012), Company value is the company's selling price, which is reflected in the stock market prices traded in the capital market. According to Weston and Copeland (2008), measurement of firm value uses: 1) Price Earning Ratio; 2) Price to Book Value; 3) Tobin's Q. Research on company value has been carried out by Alghifari et al. (2013); Huzaini (2012); Sudiyanto (2010).

B. Influence between variables

a. Effect of liquidity on financial performance

According to Brigham and Houston (2011), a high rate of return allows the company to do most of its internal funding. The higher the company's liquidity, the more funds available to finance operations and investments so that investors' perceptions of performance will also increase. This is in line with the results of the study of Azam and Haider (2011), which shows that CAR has a positive effect on ROA. Thus the hypothesis can be formulated as follows: H1: liquidity has a significant positive effect on financial performance.

b. Influence of Activities on financial performance

According to Husnan and Pudjiastuti (2015), Activity Ratios measure the turnover of all assets owned by a company to get sales. The higher this ratio indicates that the use of assets is more efficient in generating net sales. In this study, the activity ratio is measured by fixed asset turnover (PAT), working capital turnover (PMK), and total asset turnover (PTA). In Du Pont's theory, financial performance (ROA) is a net profit margin multiplied by asset circulation. So it was concluded that the activity ratio (PTA) is one of the factors that can affect financial performance. The more effective the company uses assets, the better financial performance. Thus the relationship between the ratio of financial activity and financial performance is positive. From the description above, the hypothesis can be formulated as follows: H2: Activities have a significant positive effect on financial performance.

c. Effect of leverage on financial performance

According to Fahmi (2011), the Leverage Ratio in this study is DAR and DER; what is meant by DAR is the comparison between the amount of debt and total assets, while DER shows the comparison between total debt and equity. The company's policy to use funding with debt will greatly affect profits. This is due to the use of excessive debt will increase the risk of corporate bankruptcy (Brigham and Houston, 2011). The higher the DAR and DER values, the higher the dependence on outsiders. This has an impact on the possibility of a decrease in company performance. Thus the relationship between DAR, DER, and financial performance is negative. This is in line with the results of Sari et al.'s research (2018). H3: Leverage has a significant negative effect on financial performance.

d. Effect of financial performance on company value

Financial performance in this study was measured by net profit margin (NPM), return on assets (ROA) and return on equity (ROE) (Fahmi, I (2012)). Net profit margin measures to profit from sales that can be achieved whereas, return on assets measures to profit from the number of
assets invested in the company while return on equity from own capital is used. Increasing NPM, ROA, and ROE show better financial performance and company prospects. Companies with good prospects will attract investors because they are considered to provide good returns. Investors catch an increase in ROA as a positive signal that can increase the value of the company. So that the higher the financial performance, the higher the value of the company. Thus the relationship between financial performance and company value is positive. This is reinforced by the results of the research conducted (Sujoko, 2007; Kabajeh et al., 2012; Borhan et al., 2014); the hypothesis can be formulated as follows:

H4: Financial performance has a significant positive effect on firm value

III. METHODOLOGY

This research is explanatory research, namely research that explains the influence of several variables through testing hypotheses, this study explaining the effect of liquidity, activity, and leverage on the performance and value of the company. This study uses a quantitative approach. The data used is secondary data. Secondary data from the financial statements of companies listed on the IDX from 2015 to 2017 sourced from the IDX database, http://www.IDX.co.id.

The sample in this study is a food and beverage company that is listed on the Indonesia Stock Exchange (IDX) which has financial report data in the year 2015 to 2017. The representative sampling technique was purposive sampling, with criteria during the observation period: 1) the company did not experience losses; 2) own capital must be positive.

<table>
<thead>
<tr>
<th>NO</th>
<th>KODE</th>
<th>NAME</th>
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<tbody>
<tr>
<td>1</td>
<td>ADES</td>
<td>Akasha Wira International</td>
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<tr>
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<td>Cahaya Kalbar</td>
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<td>3</td>
<td>DLTA</td>
<td>Delta Djakarta</td>
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<td>4</td>
<td>ICBP</td>
<td>Indofood CBP Sukses Makmur</td>
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<td>8</td>
<td>PSDN</td>
<td>Prasidia Aneka Niaga</td>
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<td>9</td>
<td>ROTI</td>
<td>Nippon Indosari Corporindo</td>
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<tr>
<td>10</td>
<td>ULTJ</td>
<td>Ultrajaya Milk Industry</td>
</tr>
</tbody>
</table>

Source: http://www.idx.co.id

Food and beverage companies listed on the IDX were sampled in this study because the positions for three years, 2015, 2016 and 2017 are as follows: 1) Absorbing the largest workforce: 3,529,630 people - 4,091,682 people, 2) Experiencing growth significant: 7.54% - 9.23%, 3) Contributors to National GDP: 5.61% - 6.14%, 4) Biggest exports: US $ 26.28 million-US $ 31.27 million.

Variable definitions and measurements

a. **Liquidity Ratio**

Current Asset Ratio

This ratio shows the ability of a company with its current assets to be able to pay off current debt.

\[ CAR = \frac{\text{Current asset}}{\text{Current liabilities}} \]

Cash Ratio

This ratio shows the ability of cash owned by the company to pay off current debt.

\[ CR = \frac{\text{Cash} + \text{Investment in Short-term Securities}}{\text{Current liabilities}} \]

Quick Ratio

This ratio shows the ability of a company with liquid assets held to be able to pay off current debt.

\[ QR = \frac{\text{Current-Inventory Assets}}{\text{Current liabilities}} \]

b. **Activity Ratio**

Fixed Asset Turnover

This ratio shows the ability of fixed assets invested in the company to generate sales.

\[ PAT = \frac{\text{Sales}}{\text{Fixed assets}} \]

Working Capital Turnover

This ratio shows the ability of working capital or current assets invested in the company to generate sales.

\[ PMK = \frac{\text{Sales}}{\text{Current assets}} \]

Total Asset Turnover

This ratio shows the ability of working capital or current assets invested in the company to generate sales.

\[ PTA = \frac{\text{Sales}}{\text{Total assets}} \]

c. **Leverage ratio**

Debt Asset Ratio

This ratio shows the ability of the company's total assets to finance the debt held by the company.

\[ DAR = \frac{\text{Total amount of debt}}{\text{Total assets}} \]

Debt Equity Ratio

This ratio shows the ability of the company's own capital to finance the debt held by the company.

\[ DER = \frac{\text{Total amount of debt}}{\text{Owners equity}} \]

d. **Financial performance**

Net Profit Margin

This ratio shows the company's ability to realize sales that can increase net income.

\[ NPM = \frac{\text{Net profit}}{\text{Sales}} \]

Return On Asset

This ratio shows the level of efficiency of the use of total assets in generating net income.

\[ ROA = \frac{\text{Profit Before interest and Tax}}{\text{Total assets}} \]

Return on Equity

This ratio shows the level of efficiency of the use of own capital in generating net income.

\[ ROE = \frac{\text{After-Tax Profit}}{\text{Owners equity}} \]

e. **The value of the company**

Price Book Value

PBV describes how much the market values the book value of a company's stock.
IV. RESULTS AND DISCUSSION

A. Structural Model Results

Structural model testing using PLS is measured through R-Square, Q-Square predictive relevance, and Goodness of fit model.

a. Determination Coefficient (R-Square)

According to Ghozali (2013), for the dependent variable in the structural model that has R-Square, 0.67 models in the 'good' category. R-Square 0.33 in the moderate category, and 0.19 indicate the model with the 'weak' category. Statistical calculations for R-Square are presented in table 2 below:

<table>
<thead>
<tr>
<th>Financial performance</th>
<th>R-Square</th>
<th>Description</th>
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<tbody>
<tr>
<td></td>
<td>0.157</td>
<td>weak</td>
</tr>
<tr>
<td>The value of the company</td>
<td>0.854</td>
<td>well</td>
</tr>
</tbody>
</table>

Source: results of data processing

From table 2, it can be seen that the influence between liquidity, activity, and leverage on financial performance is only 15.7% which can be categorized as weak because 84.3% is explained by other factors originating from outside the model. While the influence of financial performance as measured by NPM, ROA, and ROE on firm value is 85.4%, which means the model with the category 'good' because only 14.6% is influenced by factors outside the model.

b. Predictive Relevance (Q-Square)

Q-Square is used to measure how well the observation value is generated by the Q-Square model = 1-(1-R-Square1) (1-R-Square2). If Q-Square > 0 means the model has predictive relevance; on the contrary, if Q-Square < 0 means the model has less predictive relevance (Ghozali, 2013). From table 1 Q-Square can be calculated as follows: 1- (1- 0.157) (1-0.854) = 0.877. From the calculation results, the total determination coefficient value is 0.877 or 87.7%, which means that the developed model can explain the phenomenon of the value of the company with liquidity, activity, leverage, and financial performance have predictive relevance because Q-Square > 0 or 0.877.

c. The goodness of fit model (GOF)

GOF is a match test to validate the overall model between the measurement model and the structural model obtained from the AVE root multiplied by the average root R-Square. According to Tenenhau et.al (2004) the range of GOF values is between 0-1 with a small GOF interpretation = 0.1; moderate = 0.25 and large = 0.38. From the calculation results, it can be seen that the combined model compatibility test shows GOF of = 0.6852, which means the model includes substantial or large criteria.

B. Influence Between Variables

The results of processing data to show the influence of the dependent and independent variables are shown in table 3 below.

<table>
<thead>
<tr>
<th>Table 3. Path Coefficients</th>
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<tr>
<td>Liquidity Financial performance</td>
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<td>Activity Financial performance</td>
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<tr>
<td>Leverage Financial performance</td>
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<tr>
<td>Liquidity company value</td>
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<td>Activity company value</td>
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<td>Leverage company value</td>
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<tr>
<td>Financial performance company value</td>
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<tr>
<td>CAR Liquidity</td>
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<td>QKR Liquidity</td>
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<td>CHR Liquidity</td>
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<tr>
<td>PTA Activity</td>
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<td>PMK Activity</td>
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<tr>
<td>PAT Activity</td>
</tr>
<tr>
<td>DAR Leverage</td>
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<td>DER Leverage</td>
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<tr>
<td>NPM Financial Performance</td>
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<td>ROA Financial Performance</td>
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<tr>
<td>ROE Financial Performance</td>
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<tr>
<td>PBV Company Value</td>
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<tr>
<td>PER Company Value</td>
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<tr>
<td>Tobin’s Q Company Value</td>
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</table>

Source: results of data processing
a. **Effect of Liquidity on Financial Performance**

Based on the table 2, it can be seen that the value of the liquidity coefficient is 0.490 with a t-statistic value of 1.998. The results of the study show t-statistics> 1.96 means that liquidity has a significant positive effect on financial performance. Measurement of liquidity in this study: Current Asset Ratio (CAR), Cach Ratio (CHR), Quick Asset Ratio (QKR). Based on the calculation of the CAR t-statistic of 6.269, CHR t-statistic of 7.084, and t-statistic QKR of 6.993, this means that the three indicators of the magnitude of t-statistics> 1.96 indicate that all three contribute significantly positively to liquidity to influence financial performance. Thus the hypothesis states that liquidity has a positive effect on proven financial performance. These results are in line with the research of Mashady and Husaini (2014), Lusy et al. (2018)

b. **Effect of Activities on Financial Performance**

Based on table 2, it can be seen that the activity coefficient value is -0.273 with a t-statistic value of 0.861. The results showed that the t-statistic <1.96 means that the activity did not have a significant positive effect on financial performance. Activity measurement in this study: total assets turnover (PTA), working capital turnover (PMK), fixed asset turnover (PAT). Based on the results of the calculation of A-statistic PTA of 0.812, PMK of 1.199, and PAT of 1.314, the results of these calculations mean that the three indicators of the magnitude of t-statistics <1.96 indicate that the three did not contribute significantly to activities in influencing financial performance. Thus the hypothesis which states that activity has a significant positive effect on financial performance is not proven. The study of Azam and Heider (2011) on the Karachi Stock Exchange and the results of a study by Widyastuti et al. (2017) support the results of this study.

c. **Effect of Leverage on Financial Performance**

Based on table 2, it can be seen that the value of the leverage coefficient is 0.356 with a t-statistic value of 1.335. The results showed that t-statistics <1.96 means that leverage does not have a significant negative effect on financial performance. Leverage measurements in this study: debt to asset ratio (DAR) and debt to equity ratio (DER). Although based on the results of the calculation of t-statistics for DAR of 8.305 and DER of 7.476, the two indicators produced t-statistics> 1.96, indicating both of them contributed significantly to the Activity but did not influence financial performance. Thus the hypothesis which states that leverage has a significant negative effect on financial performance is not proven. These results are in line with the research of Mashady and Husaini (2014), Lusy et al. (2018).

d. **Effect of financial performance on company value**

Based on table 2, it can be seen that the financial performance coefficient is 0.924 with a t-statistic value of 15.720. The results of the study show t-statistics> 1.96 means that financial performance has a significant positive effect on firm value. Measurement of financial performance in this study: Net profit margin (NPM), return on assets (ROA), and return on equity (ROE) Although based on the results of the calculation of t-statistics for NPM of 15.079, ROA is 61.664 and ROE is 31.405. -statistics> 1.96 shows that all three contribute significantly to financial performance in influencing the firm's value as measured by Price Book Value, Price Earning Ratio, and Tobin's. Thus the hypothesis states that financial performance has a significant positive effect on proven company value. This result is in line with the research of Ulupui (2007), Alghifari et al. (2013), and Widyastuti et al. (2017).

The results of the discussion above are summarized in Figure 1 below:

![Figure 1 Summary of Statistical Calculation Results](image)

V. CONCLUSION AND RECOMMENDATION

A. **Conclusion**

a. Liquidity has a significant positive effect on financial performance

b. Activities and Leverage have no significant effect on financial performance

c. Financial performance has a significant positive effect on firm value

B. **Recommendation**

a. Food and beverage companies must maintain their level of liquidity because it greatly influences financial performance, where further increases in financial performance will affect the confidence of investors and prospective investors, and creditors.

b. Increasing the value of the company as measured by Price book value, Price Earning Ratio and Tobin'sq reflect the welfare of stakeholders increasing, so the businesses carried out by the company must all be directed at improving financial performance through efficiency measured in Net profit margin, Return on Assets and Return on Equity.

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