Effect of Debt to Equity Ratio, Current Ratio, Total Assets Turnover, Earning Per Share, Price Earning-Ratio, Sales Growth, and Net Profit Margin on Return on Equity

(Case Study on Tobacco Sub-Sector Companies Listed on the Indonesia Stock Exchange 2016-2020)

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ABSTRACT
This research aims to determine whether DER, CR, TAT, EPS, PER, Sales Growth, and NPM partially affect the ROE variable in the cigarette sector companies from 2016-2020. Secondary data was gathered from the Indonesia Stock Exchange's (IDX) official website, with a population of all firms listed on the IDX in the cigarette industry totaling five companies. Purposive sampling was performed, a non-probability sampling strategy, and obtained a sample of 4 companies. The independent variables are the DER, CR, TAT, EPS, PER, Sales Growth, and NPM variables, while the dependent variable is the ROE variable. This study shows that TAT and NPM factors significantly impact ROE, but the DER, CR, EPS, PER, and Sales Growth variables have no impact. Simultaneously DER, CR, TAT, EPS, PER, Sales Growth, and NPM affect ROE.

Keywords: Debt to Equity Ratio, Current Ratio, Total Assets Turnover, Earning Per Share, Price Earning-Ratio, Sales Growth, Net Profit Margin, Return on Equity.

1. INTRODUCTION
The tobacco products industry, called IHT, is a sector with high competitiveness, high enough. In addition, the IHT sector is also one of the highest national incomes after the food and beverage sector, namely through customs. In Indonesia, customs revenue increases from year to year. Based on the Ministry of Finance records in 2020, cigarette customs receipts were more than Rp. 170.24 trillion. Meanwhile, in 2021 the contribution of cigarette excise tax will reach 96% of the total excise tax revenue. In 2021, the government targeted excise revenues from the cigarette sector to reach IDR 173.78 trillion and IDR 193 trillion in the coming year.

This increase in CHT will undoubtedly impact income generation because the price of cigarettes will increase, and public interest will likely decrease. The rate of active smokers over 15 years for the last three years has continued to decline. In 2019, there was a decrease of 3.17% from the initial 32.20 to 29.03. Meanwhile, in 2020 the number of active smokers will be 28.69. These dynamics will more or less affect the financial performance of cigarette companies. Financial statements represent a company's financial situation and can be used to benchmark its financial performance. [1]. Financial
statements are a fundamental tool in obtaining financial information and results achieved by the company within a specific time.

These financial reports can assist users in making financial decisions [2]. The financial performance of a good company may be observed in its financial accounts, which are presented well and precisely. Thus, in determining whether the financial performance of the company is excellent or bad, it is necessary to analyze any financial information owned by the company.

Every activity carried out by the company must be analyzed in depth by management or interested parties. This is done so that stakeholders can make financial decisions. Essentially, forming a business aims to maximize profits to ensure the company's survival; therefore, every operational business seeks to make the most money with the least amount of capital. You will automatically have a high return on investment by getting the maximum profit. Thus, if a company can maximize the profit level and have a high return on investment, it is possible to conclude that the corporation has a solid financial performance, as evidenced by the financial statements.

2. LITERATURE REVIEW

2.1. Signaling Theory

Signaling theory assumes that there is asymmetry of financial information between company management and external company parties, such as creditors and investors [4]. This Theory has a close relationship with financial statements because to prevent this information asymmetry; management needs to issue financial statements that users of financial information can use. Information on published financial statements can signal the market. Suppose the publication of the notification contains a positive value. In that case, it will cause a positive response because the company indicates good job prospects in the future and will be able to attract investors [5]. Investors will be able to change the firm in terms of trading volume and stock prices, causing stock prices to rise and the company's worth to rise. Financial Data such as corporate earnings or losses, company costs, debts, receivables, investment returns, and other financial data are critical to investors since they will be considered when making investment decisions [6].

2.2. Financial Statements

Financial statements show the financial status at a given moment in time or the present. [7]. The present condition refers to the company's financial standing on a particular day and for a specified period in the balance sheet and income statement. Financial reports are frequently issued quarterly, semester, or annual. Financial reports aim to provide stakeholders with information on a company at a particular time. Thus, financial statements are not enough to read, but a financial analysis must be carried out using ratio analysis [8]. The financial statements describe several items such as:

1) Balance Sheet, at a specific time, this item displays the total assets, liabilities, and owner's equity.
2) An income statement shows the company's condition in a certain period, such as revenue, expenses, and profit.
3) Statement of changes in capital, the quantity of money possessed by the company, and the changes that occur are depicted in this post.
4) Cash flow statement: This post shows a view of cash inflows and cash outflows.
5) Report notes to financial statements; this post explains things that are considered necessary to know the causes.

2.3. Financial Ratio Analysis

Ratio analysis is a business-performance measurement method that describes numerous financial relationships and indicators, intended to see how the company's performance has changed in the past and help predict the trend of these changes [9]. Hence, it can show the risks and opportunities in the company. The link between selected components of financial statement data is expressed through ratio analysis. This ratio analysis systematically demonstrates the relationship between the number of posts. [10]. This ratio is presented as a percentage, grade, or proportion. Ratio analysis might disclose important information not represented in the financial statements. This ratio analysis will be meaningful if a comparison is made as follows:

1) Intracompany comparisons, comparing with two periods in the same company.
2) Industry comparisons, comparing with existing industry averages.
3) Intercompany comparisons, comparing with other companies engaged in the same field.

Three ways can be done in ratio analysis: the liquidity ratio, profitability ratio, and solvency ratio.
2.4. Hypotheses Development

The ratio of Equity to Debt compares the company's total debt to total capital. The real money given by creditors is compared to the total funds provided by the company's owners in this ratio. The higher the percentage, the better the business because the chances of profit are higher, but the risk of losing money increases [11]. The debt-to-equity ratio has a substantial impact on ROE [7].

H1: Debt to Equity Ratio affects Return on Equity

The current ratio is used to assess a company's capacity to pay current liabilities due and fully invoiced. The greater the percentage, the better because the corporation is thought to produce all of its current liabilities with current assets, but it can also suggest bad cash management [7]. Return On equity is unaffected by the current ratio [12].

H2: Current Ratio does not affect Return on Equity

Assets in Total The sales ratio to total assets is known as turnover. The company's entire asset turnover and the number of sales generated from each rupiah of assets are calculated using this ratio [13]. Total Assets Turnover significantly influences Return on Equity [14].

H3: Total Assets Turnover Affects Return on Equity

Earning Per Share compares earnings of ordinary shares and the number of shares outstanding [6]. This ratio assesses the company's level of success in obtaining profits for shareholders. If this ratio is low, it indicates that the corporation has not satisfied its shareholders.

H4: Earning Per Share affects Return on Equity

The price-to-earnings ratio is a calculation that compares a stock's price to its earnings per share. The higher this ratio's value, the higher the expected profit increase [25].

H5: Price Earning Ratio affects Return on Equity

Sales growth is the company's capability in increasing the company's assets from year to year in the capital market [16]. The greater a company's growth, the more it will rely on external funding. Return On equity is unaffected by increased sales [17].

H6: Sales does not affect Return on Equity

Net Profit Margin has a significant influence on Return on Equity [18]. The difference between profit after taxes and sales is the net profit margin.

This ratio evaluates a firm's ability to create net income per dollar of total sales.

H7: Net Profit Margin affects Return on Equity.

3. RESEARCH METHODS

3.1. Types of Research

Quantitative research approaches are used in this work. Quantitative research uses numbers to represent research data, processed and analyzed using statistics.

3.2. Population and Research Sample

The participants in this research were all firms involved in the tobacco sector listed on the Indonesia Stock Exchange (IDX). There are five companies engaged in the tobacco industry on the Stock Exchange. Purposive sampling, a non-probability sampling method, was used to get the data sample for this investigation. Based on this sampling technique, four companies will be the research object. As sample criteria, companies in the tobacco companies listed on the Indonesia Stock Exchange were chosen until 2016 and have financial reports from 2016 to 2020. All of their financial statements are declared audited.

3.3. Data Collection Techniques

Secondary data was employed in this research. Secondary data in this study included financial records and information on the official website of the Indonesia Stock Exchange were used as research data sources.

3.4. Operational Definitions

Definitions are designed to avoid different interpretations. This operational definition contains a brief explanation of each variable used in this study. This working definition also includes an indicator scale so that the results obtained are precise and accurate. Therefore, the researcher defines operational research variables as follows:

3.4.1. Debt to Equity Ratio (DER)

To measure debt, the debt-to-equity ratio compares all debt to all equity [19]. The higher the value of this ratio, the higher the debt-to-capital percentage of the firm. It signifies that debt rather than its capital finances, the more significant its funds.

3.4.2. Current Ratio (CR)

The current ratio evaluates a company's ability to pay its current debt using its existing assets. The
higher the value, the better the company can pay off its current debt [20].

3.4.3. Total Asset Turnover (TATO)

Total Assets Turnover measures the activities of the company's assets and capabilities through these assets [21]. This ratio is intended to indicate how much influence the company's management has on creating revenue or profit through Total Assets Turnover when employing its assets. Total Assets Turnover can also be referred to as the tangible assets turnover speed in a certain period. If a company's asset turnover is higher, it can be claimed that it is more effective in asset management. Thus, to get the maximum profit from the asset turnover, a company must experience an increase to increase sales volume. So, the faster the turnover of the company's assets, the more profit generated will also increase.

3.4.4. Earning per Share

Earnings per share (EPS) is a number that determines how much profit each share brings to shareholders [22]. If the EPS value rises, the stock price increases, and the stock return increases. The stock price will grow if the company's capacity to generate profits improves. With the rise in the share price, the share profits obtained by investors will also be higher. So, if the EPS value is by the wishes of investors, then along with the desire of investors to buy shares, changes in stock prices will increase. The higher the EPS value, the greater the profit presented to shareholders.

3.4.5. Price Earning-Ratio

Divide the price of ordinary shares by the company's earnings to get the Price Earning-Ratio (PER) [23]. In this approach, the greater a company's ratio, the better its performance. However, if the PER itself is too high, it is also dangerous for a company because it can describe the stock price offered by the company as too high and even irrational.

3.4.6. Sales Growth

In this research, sales growth is used as a representative proxy. The entire sales of a company's operations in pursuit of maximum profit are sales growth. This increase in sales may be calculated by dividing this year's sales by the prior year's sales. The growth of sales positively influences the growth of own capital [24]. When a company's sales growth positively impacts its own money, increasing its capital accompanies every rise in sales growth. The amount of profit earned will be affected by the previous year's more excellent sales, indicating an increase in a company's money.

3.4.7. Net Profit Margin (NPM)

The net profit margin is calculated by dividing its profit after taxes by its net sales. The level to which a company's ability to generate money for sales has been realized is determined by NPM [7].

3.4.8. Return on Equity (ROE)

The return on Equity (ROE) is a statistic that compares a company's profit after taxes to the capital it owns [25]. The bigger the value generated, the better because the company's owner's position becomes more muscular. This ratio also evaluates the company's capital utilization efficiency. Profit has a significant influence on a company's Return On Equity results; therefore, the higher the Return On Equity results, the better the company's position.

In this study, several formulas were used to help facilitate research, such as:

Table 1. Formula

<table>
<thead>
<tr>
<th>No</th>
<th>Ratio Analysis</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Debt to Equity Ratio</td>
<td>Total Liabilities / Total Equity</td>
</tr>
<tr>
<td>2.</td>
<td>Current Ratio</td>
<td>Current Assets / Current Liabilities</td>
</tr>
<tr>
<td>3.</td>
<td>Total Assets Turnover</td>
<td>Revenue / Total Assets</td>
</tr>
<tr>
<td>4.</td>
<td>Earning Per Share</td>
<td>Earning After Interest and Tax / Outstanding Stock</td>
</tr>
<tr>
<td>5.</td>
<td>Price Earning-Ratio</td>
<td>Market Value per Share / Earning Per Share</td>
</tr>
</tbody>
</table>
3.6. Data Analysis Techniques

The net profit margin is calculated by dividing its profit after taxes by its net sales. The level to which a company's ability to generate money for sales has been realized is determined by NPM [7].

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + e \] (1)

Description:

- **Y** = Return on Equity
- **a** = Constant
- **b** = Regression coefficient for each independent variable
- **X1** = Debt to Equity Ratio
- **X2** = Current Ratio
- **X3** = Total Assets Turnover
- **X4** = Earning Per Share
- **X5** = Price Earning-Ratio
- **X6** = Sales
- **X7** = Net Profit Margin
- **e** = Standard error

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistical Analysis

Table 2. Descriptive Statistical Analysis

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>.1169</td>
<td>.21203</td>
</tr>
<tr>
<td>DER</td>
<td>.4975</td>
<td>.25815</td>
</tr>
<tr>
<td>CR</td>
<td>3.2667</td>
<td>1.54857</td>
</tr>
<tr>
<td>TAT</td>
<td>1.5015</td>
<td>.41161</td>
</tr>
<tr>
<td>EPS</td>
<td>1.0929E3</td>
<td>1900.92470</td>
</tr>
<tr>
<td>PER</td>
<td>23.2838</td>
<td>53.08116</td>
</tr>
<tr>
<td>SALES</td>
<td>.0095</td>
<td>.15831</td>
</tr>
<tr>
<td>NPM</td>
<td>.0484</td>
<td>.08260</td>
</tr>
</tbody>
</table>

Table 2 shows that the average value of the dependent variable or Return on Equity from 2016 to 2020 is 0.1169, with a standard deviation of 0.21203, as calculated by the descriptive statistics. As for the independent variable, the lowest average value was obtained from the Sales variable of 0.0095 with a standard deviation of 0.15831. The Price Earning-Ratio received the highest average of 23.2838 with a standard deviation of 53.08116.

4.2. Classical Assumption Test

4.2.1. Normality Test

It can be observed from the histogram graphic and the P-Plot normality test that the model is ordinarily distributed; hence the assumption of normality has been met. Because the data in the histogram image matches the path of the histogram graph line, this is the case. Meanwhile, the diagonal line in the P-Plot normality test figure is surrounded by dots that stretch out to form the diagonal line's direction.

4.2.2. Multicollinearity Test

Table 2 shows that all independent variables have tolerance values of more than 0.01, and the VIF value is less than 10. This means there are no signs or symptoms of multicollinearity.

Table 3. Multicollinearity Test

<table>
<thead>
<tr>
<th></th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER</td>
<td>.109</td>
<td>9.201</td>
</tr>
<tr>
<td>CR</td>
<td>.163</td>
<td>6.119</td>
</tr>
<tr>
<td>TAT</td>
<td>.540</td>
<td>1.851</td>
</tr>
</tbody>
</table>
4.2.3. Heteroscedasticity Test

It is clear that there is no heteroscedasticity in this regression model based on the pattern of point distribution that extends above and below the number 0 on the Y axis, does not create a specific design, and does not gather at one spot.

4.2.4. Autocorrelation Test

It is clear from table 3 that there is no autocorrelation between variables. This is because the value of Durbin Watson (DW) in this study was 1.719 while the value of Durbin Upper (du) of 2.3394 and 4-du of 1.6606, which means the value of DW is between the value du and 4-du. By the applicable conditions, if the DW value is between the du to 4-du, then there is no autocorrelation.

4.3. Multiple Linear Regression Test

Table 5. Regression Test

4.4. Coefficient of Determination

Adjusted R-Square in this study was 0.992, or 99.2%, which means that the independent variable can affect research ROE of 99.2% and 0; another 8% is influenced by other variables apart from the research variables.

Table 6. Coefficient of Determination

4.5. F-Test

Table 7 shows that the independent variables all affect ROE simultaneously. Because the significance value of 0.000 is less than 0.05, this is the case.

Table 7. F Test

4.6. T-Test

Table 8 shows that 5 of the 7 independent variables partially affect ROE because their value is more than 0.05. The other two independent variables, on the other hand, have a substantial effect on ROE because their values are smaller than 0.05.

Table 8. t-Test

The following is a multiple linear regression equation based on table 4:

\[ Y = -0.123 - 0.037CR - 0.006CR + 0.114TAT - 2.436EPS + 0.0PER - 0.46Sales + 2.221NPM + e \]

(1)
4.7. Discussion

This discussion will describe hypothesis testing based on the t-test that the researcher has processed. In this test, a comparison between t-table and t-count, besides that, a comparison between significance and an alpha value of 0.05 is also carried out.

4.7.1. Influence of Debt to Equity Ratio Variable on Return on Equity

The significance value of DER is 0.483, which is higher than the alpha value of 0.05. Meanwhile, the t-table of this research is 2.17881; this value is greater than the t-count, which is only -0.724. The results of this test indicate that DER does not affect ROE. The findings of this study are consistent with previous studies, which found that DER has no significant impact on ROE [19]. This result could be due to the unstable value of DER during the last five years, where there was a significant increase and decrease. The company’s increase in liabilities can cause the rise in DER value without being followed by capital. For example, from 2019 to 2020, an average increase of 0.068 was caused by the rise in liabilities at RMBA, HMSP, and WIIM companies, while only GGRM companies experienced a decrease.

4.7.2. Effect of Current Ratio Variable on Return on Equity

In the CR variable, it can be seen that the t-count of -0.865 this value is very low when compared to the t-table value, which obtains a value of 2.17881 while the significance value is at a value of 0.404; this value is much higher than 0.05. Based on this study, it can be concluded that CR has no impact on ROE. The findings of this investigation support previous results that CR had no substantial effect on ROE. Where the significance value is more than 0.05, which is 0.347. Similarly, because the significance value is 0.296, more than 0.05, CR has no meaningful effect on ROE.

4.7.3. Influence of Total Assets Turnover Variable on Return on Equity

Based on the study results, it was found that the TAT significance value of 0.00 this value is lower than 0.05 while the t-table is 2.17881, and the t-value is at 7.945. This value is more excellent from the t-table. So, it can be concluded that TAT partially significant effect on ROE. It can be caused by the TAT value, which has increased/decreased and is simultaneously followed by the ROE value, which has increased/decreased. For example, in 2019-2020, the TAT value increased by 0.03, and in the same year, the ROE value also increased by 0.02. The results of this study are in line with the results of research, which states that TAT has a positive and significant impact on ROE.

4.7.4. Effect of Variable Earning Per Share on Return on Equity

According to the study’s findings, the t-count value was -0.744, lower than the t-table value of 2.17881. Meanwhile, the obtained significance value of 0.471 is more significant than 0.05. Based on these findings, it is safe to say that EPS has no bearing on ROE. Because the EPS number changes without the ROE value, EPS does not affect ROE. The EPS value has had little effect on the ROE value in the last five years. In 2017-218, for example, the median EPS climbed by 6.01, but the median ROE declined by 0.01. Meanwhile, the median value of EPS rose by 13.65 percent, and the median value of ROE improved by 0.02 percent in 2019-2020.

4.7.5. Effect of Price Earning-Ratio Variable on Return on Equity

Table 5 shows that the t-the value of 1.022 is less than the t-table of 2.17881 and that the significance value is 0.253, which is higher than 0.05. Based on these findings, it is possible to conclude that PER does not affect ROE. The PER value that has fluctuated during the last five years causes the PER variable not to affect ROE because

<table>
<thead>
<tr>
<th>DER</th>
<th>-0.724</th>
<th>0.483</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>-0.865</td>
<td>0.404</td>
</tr>
<tr>
<td>TAT</td>
<td>7.945</td>
<td>0.000</td>
</tr>
<tr>
<td>EPS</td>
<td>-0.744</td>
<td>0.471</td>
</tr>
<tr>
<td>PER</td>
<td>1.202</td>
<td>0.253</td>
</tr>
<tr>
<td>SALES</td>
<td>-1.017</td>
<td>0.329</td>
</tr>
<tr>
<td>NPM</td>
<td>22.436</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Several circumstances can lead the current ratio (CR) not to influence return on equity (ROE). One of them is when the CR value increased from 2.90 to 3.60 in 2016-2017; the ROE value decreased by 0.02. Moreover, vice versa, when CR decreased in 2018-2019, the ROE value increased. However, in 2017-2018 there was a decrease in the CR value of 0.42, and a decrease followed this value in the ROE value of 0.01. So, it can be concluded that any increase/decrease in CR cannot be interpreted as an increase/decrease in ROE value.
the ROE value cannot keep up with the increase/decrease in PER value. For example, in 2017-2018, there was a decrease in the PER value of 4.68, and the ROE value also decreased by 0.01. However, when the PER value declined in 2019-2020 to 6.91, the ROE value increased by around 0.02. This is why there is no influence between PER and ROE.

4.7.6. The Effect of Sales Growth Variables on Return on Equity

Based on the findings, it was determined that sales had no impact on ROE. This is because the significance value is 0.329, and the t-count is -1.0017, which is more than 0.05, and lower than the t-table, which is 2.17881. Because the significant result indicates a value of 0.946, which means this value is more critical than 0.05, this finding is consistent with studies that claim sales growth does not affect ROE.

This result, however, contradicts studies that claim sales growth has a considerable impact on ROE. If the value of sales growth has changed over the last five years, it does not influence ROE. However, the decrease/increase in sales growth does not affect the value of ROE; this can be seen from the value of sales growth in 2016-2017, which decreased by 0.037 while the ROE value increased by 0.054. Then in 2018-2019, the value of sales growth decreased by 0.039 while the ROE value increased by 0.027. This shows that sales value does not affect ROE value.

4.7.7. Net Profit Margin Variables Influence on Return on Equity

The final variable in this study is the NPM; table 5 shows that the significant value of 0.00 and the t-count of 22.436 are substantial. This signature value is higher than the t-table of 2.17881 and lower than the alpha value of 0.05. As a result, the NPM variable impacts the ROE value. The findings of this study are consistent with previous research findings showing NPM has a significant effect on ROE, according to the NPM significance value of 0.000, which is less than 0.05. Similarly, NPM influences ROE, with a significance value of 0.000 less than 0.05. The results can be affected because an increase always follows any increase in NPM in ROE. For example, the NPM value climbed by 0.024 from 2016 to 2017, and a 0.054 ROE value followed this growth. As a result, a more excellent NPM value equals a higher ROE value, and vice versa, a lower NPM value equals a lower ROE value.

5. CONCLUSION

Based on the results, it can be concluded that TAT and NPM factors significantly impact ROE, but the DER, CR, EPS, PER, and Sales Growth variables have no impact. The researchers recommend that based on the discussion and results above. First, Company management pays close attention to the TAT and NPM variables because these two variables significantly affect the ROE variable.

In addition, management must also pay attention to the value of the DER, CR, TAT, EPS, PER, Sales Growth, and ROE variables, especially during the Covid-19 pandemic so that they do not continue to decline, because almost all of these variables have decreased, especially during the Covid pandemic. For further research, it is suggested that future researchers provide research objects so that the scope of the study can be expanded. In addition, other variables that can affect ROE, such as company size, inventory turnover, cash ratio, and so on, are included by future researchers.

REFERENCES


