OVERVIEW OF RETURN ON INVESTMENT ON CIGARETTE COMPANIES REGISTERED IN INDONESIA STOCK EXCHANGE

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Abstract—This study aims to confirm the impact of investment returns in the form of profitability (ROA, ROE and EPS) on stock prices. The study conducted on cigarette manufacturing companies listed in the Indonesia Stock Exchange for 2012 - 2018 period. The data collection method was doing through secondary data obtained through the Indonesia Stock Exchange website. To test the hypothesis through linear regression analysis through IBM SPSS Version 25 software. It found that ROA, ROE and EPS simultaneously had a positive and significant effect on stock prices. Besides, partially it was found that ROA did not affect stock prices, whereas ROE and EPS had a positive and significant effect on stock prices, and EPS was the dominant influence. This paper also contains discussions relating to theoretical and empirical studies and new findings in research.

Index Terms— ROA, ROE, EPS, Stock Price, Cigarette Company, Investment.

1. INTRODUCTION

Cigarette company shares are indeed profitable enough to be collected. Because it is still unclear that the enactment of the increase in cigarette excise makes the price of the shares of this company still have good prospects. Not to mention, the number of smokers in Indonesia is indeed very much. This business is indeed quite controversial. Because, the more people who are not healthy, the more profitable the cigarette company. The price of cigarettes in Indonesia is indeed too low, and that finally triggered the number of new smokers to emerge and increased from 7.2 per cent in 2013 to 8.8 per cent in 2016. The most critical condition is that 84.8 million smokers in Indonesia are middle to lower class people who earn less than Rp. 20 thousand per day. Until now, it is just waiting for the times of rising cigarette prices caused by rising cigarette customs up to 23%. The smoking ban that has imposed throughout Indonesia has been enacted in recent years so that the issue of increasing cigarette customs tariffs will further weaken the cigarette producers. This phenomenon can clearly illustrate at the share prices of cigarette companies listed on the Indonesia Stock Exchange, which are also affected by the decline. GGRM, HMSP and WIIM stocks during 2012 - 2018 experienced a significant decline in hard work in recent years. However, this situation also caused the company's internal factors to influence the determination of stock prices in the market. In this study, the focus is on the rate of return on investment and also earnings per share. ROE partially has a significant effect on stock prices. There is because ROE is an essential ratio, and if the value is excellent and continues to be stable, it will make the stock price high. ROE shows the return on equity. When an investor invests, he indeed expects a return on what he has invested.

2. LITERATURE REVIEW

2.1 Investment Theory

Investment theory can also regard as a science which is said to be the science of investment. Science is a collection of several theories that can solve various problems in science. Investment is often also called investment or capital formation. Investment can be interpreted as spending by investors or companies to purchase capital goods or production equipment to increase the ability to produce goods and services available in the economy. So an expenditure can be regarded as an investment if it intended to increase production capability. Investment is essential in the economy (Scott and Eugene, 2000). This investment theory know before the 20th century, but Williams (1930) introduced this investment theory, then the beginning of this investment theory was introduced by Markowitz (1952) by proposing a very well-known theory namely portfolio theory, namely “The process of selecting a portfolio may be divided into two stages. The first stage starts with observation and experience and ends with beliefs about the future performances of available securities. The second stage starts with the relevant beliefs about future performances and ends with the choice of the portfolio” (Markowitz, 2010). The definition of investment stated, “Investment is the sacrifice of the certain present value of (possibly uncertain) future value” (Sharpe and William, 2007). Stated that “investment is the current commitment of dollars for a while in order to derive future payments that will compensate the investor for (1) the time the funds committed, (2) the expected rate of inflation, and (3) the uncertainty of the future payments” (Gitman and Joehnk, 2008). Investment is the current commitment measured in dollars in a period to
obtain future payments that will compensate investors for the
time of the funds committed, the expected level of inflation and
the uncertainty of future payments (Reilly, Frank K & Brown et
al., 2012), (Gitman and Michael, 2004).

2.2 Financial Ratio Analysis
Financial statements issued by a company, whether in the
form of financial position reports, statements of comprehensive
income, statements of changes in equity, and statements of
cash flows are enough to present a lot of fundamental data of
the company concerned to investors. Based on the financial
statements, users of financial statements in the form of
investors, creditors or other third parties will be able to see
further the prospects of the companies concerned. These
prospects can see through the financial ratio analysis
conducted. According to (Ciaran, 2006) "Data that makes
sense", managers, indeed, all of us, are deluged with business
data. It comes from internal operating reports, the daily Press,
business magazines and many other sources. Much of this
data is incomprehensible. The significant issues in business are
(1) assets; (2) profits; (3) growth; and (4) cash flow. "
There shows that in this case, four variables have an internal
network that interconnected with one another. Financial
statements, in this case, can manage all the information and
will make the company value. Ratio analysis is one that
studies the relationships between various types of financial
statement items. Financial ratios allow investors to make an
assessment of the company's past and future conditions as
well as operational results. The benefit derived from the use
of financial ratios is to compare the risks and profitability of
various companies to help investors and creditors in making a
sound investment and credit decisions (White et al., 2002),
(Chin and Lee., 2008).

2.3 Return On Assets
Return On Assets (ROA) is a measure of a company's ability
to generate profits (returns) for companies by utilizing the
assets they have. The greater ROA shows excellent
performance. The higher ROA value shows that a company is
more efficient in utilizing its assets to earn profits so that the
value of the company increases (Subramanyam and Wild,
2010), (Horne and Wachowicz, 2012), (Brigham and Houston,
2009), (Tjia, 2009), (Ciaran, 2006), (Bull, 2008). ROA is a
profitability ratio that measures how much a company can
increase a company's net profit by using all assets owned by
the company. The higher ROA shows that the profit achieved
by the company is greater so that it will attract investors to
invest their capital in the company. The increasing demand for
these shares will later be able to increase the price of the
company's shares in the market. Nevertheless, according to
the results of studies (Hutauruk, Mintarti and Paminto, 2014)
shows that ROA has no significant effect on stock prices.
Because the company situation is more optimizing the
utilization of investment into the company and not in the
dividend distribution. ROA in cigarette companies is quite
different in most other manufacturing companies, given the
situations and conditions that require huge advertising media.

2.2 Return On Equity
Return On Equity (ROE) is another summary measurement
of the company's overall performance is return on equity
(Subramanyam and Wild, 2010), (Horne and Wachowicz,
2012), (Brigham and Houston, 2009), (Tjia, 2009), (Ciaran,
2006), (Bull, 2008), (Hutauruk et al., 2016). In this ratio shows
the power to generate a return on investment based on the
book value of the shareholders and is often used in comparing
two or more companies in the same industry High ROE often
reflects a company's acceptance of excellent investment
opportunities and effective cost management. However, if the
company has chosen to apply a high level of debt based on
industry standards, a high ROE is only the result of an
assumption of excessive financial risk. ROE is a ratio used to
measure the level of net income that a company receives from
its invested capital. The higher the ROE ratio describes, the
better the state of the company so that it will increase investor
confidence to invest their capital. ROE in cigarette companies
is also in line with other manufacturing companies, where the
achievement of the company's profit is made possible through
a little possible through the use of financing sources from debt.

2.3 Earning Per Share
Earning Per Share (EPS) is the ratio of earnings per share
obtained by dividing the resulting net profit against the number
of shares deposited (Subramanyam and Wild, 2010), (Horne
and Wachowicz, 2012), (Brigham and Houston, 2009), (Tjia,
2009), (Ciaran, 2006), (Hutauruk et al., 2016). EPS is a market
ratio used to measure how much market recognition a
company has by comparing net income with the number of
shares outstanding on the market. The rising EPS indicates
that the company has succeeded in increasing investor
prosperity by dividend distribution. There can increase investor
demand for shares which in turn will also increase the
company's stock price. EPS or Earning Per Share or net profit
per share is the net income of a company divided by the
number of shares issued by a company. These like this, with
the assumption that the number of shares of the company
does not change. If the net profit of a company goes up, then,
of course, the EPS will go up, if the net profit of a company
goes down, then the EPS will also definitely go down.
However, if the number of shares of a company increases,
then, if the net profit rises, the EPS will not necessarily
increase, whereas if the net profit falls, the EPS will clearly
and go down. The role of EPS in cigarette companies is like
that of most EPS in manufacturing companies so that it has a
significant effect on stock prices.

2.4 Stock Price
The share price is the present value of income to be received
by investors in the future. The stock price shows the
achievements of companies that move in the direction of the
company's performance. Companies that have excellent
achievements can improve their company performance which
is reflected in the company's financial statements, so investors
will be interested in investing in the company. An increase in
investor demand for the company will cause the price of the
company's shares to tend to increase as well. The company's
financial statements can be a reference for investors in making
investment decisions, such as selling, buying, or investing in
shares. The stock price can change at any time, depending on
the amount of supply, and demand of investors. Factors that
can affect the ups and downs of a company's stock price are
internal factors and external factors of the company (Schwert,
1990). This study uses company internal factors that reflected
in the company's financial statements. The company's internal
factors used in the form of financial ratios such as profitability
ratios that are proxied by Return on Assets (ROA), Return on
Equity (ROE) and market ratios that are proxied by Earning Per Share (EPS). The share price is formed early on from an issuer's management objective. The main objective of management is to maximize shareholder wealth. Based on these factors, management makes a set of strategic policy decisions. These will undoubtedly affect other external factors, namely capital market conditions. Thus it will also affect the condition of the capital market is the investor's interest in the relevant shares so that it directly affects the stock market price (Hutauruk et al., 2016).

3. RESEARCH FRAMEWORK AND HYPOTHESES

This research focuses on investment returns in the form of return on assets, return on equity and earnings per share and their impact on stock prices based on the support of theoretical and empirical results, the data described as bonded:

![Conceptual Framework](image)

Based on the conceptual framework, the following hypotheses can also state:
H1: Return on assets, return on equity, and earning per share simultaneously affects stock prices
H1: Return on assets affects stock prices
H2: Return on equity affects stock prices
H3: Earning per share affects the stock price

4. METHODOLOGY

The research uses online data in IDX to collect data. The object of the research is cigarette manufacturing sub-sector companies listed on the Indonesia Stock Exchange. Based on the investigations carried out, only three data companies are eligible to be examined, namely with the initials of the company: GGRM, HMSP, and WIIM, where these companies have been listed on the IDX at least from 2012 to 2018 (Indonesia Stock Exchange Research and Development Division, 2019). Furthermore, the financial statements were collected, annual reports and performance reports and closing stock price lists. In this survey, four variables used to be further tested, consisting of Return on Asset (ROA), Return on Equity (ROE), Earning Per Share (EPS) and stock prices. This study uses a linear regression model of multiple regression, with 5% significance (95% level of confident) and data formulated as bonded:

\[ Y = a + bX_1 + bX_2 + bX_3 + e \]

Where:
- \( Y \) = Stock Price
- \( a \) = Constanta
- \( b \) = Regression coefficients

Further analysis assist by using IBM SPSS Version 25 software to output data analysis results.

5. RESULT AND DISCUSSION

Based on the analysis results and hypotheses testing can be described as follows:

### TABLE 1

<table>
<thead>
<tr>
<th>Mode</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>77.155</td>
<td>3</td>
<td>25.718</td>
<td>31.850</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>13.727</td>
<td>17</td>
<td>.807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>90.882</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| a. Dependent Variable: Stock Price |
| b. Predictors: (Constant), Earning Per Share, Return On Equity, Return On Asset |

Based on the Table 1, shows Bahia ROA, ROE and EPS simultaneously have a positive and significant effect on stock prices. These evidenced through the calculation of the significance of the calculated F value greater than the F table or 31,850 > 3.20, at a significance level of 0.000 < 0.005, and so H1 accepted.

### TABLE 2

**MODEL SUMMARY**

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.921*</td>
<td>.849</td>
<td>.822</td>
</tr>
</tbody>
</table>

| a. Predictors: (Constant), EPS, ROE, ROA |
| b. Dependent Variable: Stock Price |

The Table 2 above to shows the level of relationship between the variables of this study was 92.1% classified as very strong, while the level of influence between the research variables was 84.9%. At the same time, the remaining 15.1% influenced by other factors outside the research variable and also invoice error.

### TABLE 3

**COEFFICIENTS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized B</th>
<th>Standard Error</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>4.216</td>
<td>.695</td>
<td>6.064</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Return On Asset</td>
<td>.001</td>
<td>.001</td>
<td>.076</td>
<td>.783</td>
</tr>
</tbody>
</table>

4635

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a. Dependent Variable: Stock Price

In table 3 it can be seen that the value of $t$ count ROA is smaller than $t$ table or 0.783 <1.7613 or through a significance value of 4.444 >0.005 which shows no significant effect, and so $H2$ accepted. Furthermore $t$ calculate ROE is greater than $t$ table or -4.444 <-1.77613 or through a significance value of 0.001 <0.005 which shows a significant effect, so thus $H3$ is accepted. Likewise, the $t$ count EPS is greater than $t$ table or 8.929 > 1.7613 or through a significance value of 0.000 <0.005 which indicates a significant effect, so that $H4$ is accepted. This model has also been tested for classical assumptions so that it has proven to have no interference with multicollinearity, heteroscedasticity and normality of data and has been feasible.

5.1 The ROA, ROE and EPS Simultaneous Effect on Stock Prices

ROA, ROE and EPS simultaneously have a positive and significant effect on stock prices. These shows that $H1$ is accepted, meaning that the higher the role of integrated ROA, ROE and EPS will increasingly make stock prices increase. The findings of this study are also in line with opinion (Subramanyam and Wild, 2010), (Horne and Wachowicz, 2012), (Brigham and Houston, 2009), (Tjia, 2009), (Ciaran, 2006), (Bull, 2008) in which ROA, ROE and EPS greatly affect stock price movements. The higher ROA, ROE and EPS, issuers, the stock price will increase and vice versa. This condition shows how much market information to the public as an investment decision maker. The public will see the investment ability of an issuer's stock, through its success in creating greater returns that will further increase its attractiveness in the market. ROA, ROE and EPS in this case are good investment performance measurement tools, so that they able to form a new unity in determining the perceptions of investors and market players.

5.2 The ROA Effect on Stock Prices

The results of this study found that ROA has a positive but not significant effect on stock prices or $H2$ rejected. These shows that the rate of return on investment measured through net income does not guarantee a rise or fall in stock prices in the market. This result is in line with the findings presented by (Hutauruk et al., 2016) in which ROA does not affect stock prices. These results indicate that the return on investment measured by net income before the tax on total investment does not affect market opinion. In this case, it saw that most of the company's profits are used for the development of company investments so that they rarely distributed in the form of dividends. Cigarette companies today are experiencing difficult times in dealing with the contradictory situation of government regulations. So they try optimally to maintain the continuity of their business through investment in marketing, especially in various advertising media, which of course requires a substantial and sustainable cost. Thus the results of studies proposed by (Subramanyam and Wild, 2010), (Horne and Wachowicz, 2012), (Brigham and Houston, 2009), (Tjia, 2009), (Ciaran, 2006), (Bull, 2008) cannot be accepted in this situation. In this situation, human psychology factors play an essential role in decision making, which naturally adjusts to existing conditions (Hutauruk et al., 2019).

5.3 The ROE Effect on Stock Prices

The analysis results in this study also show that ROE has a positive and significant effect on stock prices, or in this case, $H3$ accepted. The higher the ROE, the higher the stock price will be. The findings of this study are also able to confirm the results of previous studies conducted by (Subramanyam and Wild, 2010), (Horne and Wachowicz, 2012), (Brigham and Houston, 2009), (Tjia, 2009), (Ciaran, 2006), (Bull, 2008), and (Hutauruk et al., 2016), where ROE has a negative and significant effect on stock prices. The higher the value of ROE, the lower the stock price and vice versa. ROE value represents the return on investment measured by the achievement of net profit before tax on the amount of equity held. Thus any achievement of net profit before tax is generated through equity or debt, capital and retained earnings. These also show the efficiency of the use of company funding sources that can be absorbed in its operations. Thus, the higher the value of ROE, then illustrates the use of sizable debt, and vice versa, so that investors see the situation as a condition that illustrates the company's ability to fund its operations. The market will feel confident if the use of investment can realize by using a little of the source of capital sourced from debt.

5.4 The EPS Effect on Stock Prices

The analysis shows that EPS has a positive and significant effect on stock prices or in this case $H4$ accepted. These findings are in line with the opinions of the results of previous studies conducted by (Subramanyam and Wild, 2010), (Horne and Wachowicz, 2012), (Brigham and Houston, 2009), (Tjia, 2009), (Ciaran, 2006), (Hutauruk et al., 2016), where the role of EPS is very influential on stock prices because investors are more looking at the company's ability to generate profits in each share issued. As long as the related company cannot increase its EPS or remain stagnant, it is considered a bad company (Penman et al., 2006). PS or earnings per share is the level of net profit for each share that can be achieved by the company when running its operations. EPS obtained from the profit available to ordinary shareholders divided by the average number shares outstanding. One reason investors buy shares is to get dividends, and if the value of earnings per share is small, then it is also less likely for companies to distribute dividends. So it can be said investors will be more interested in stocks that have high earnings per share compared to stocks that have low earnings per share. Low earnings per share tend to make the stock price go down.

6. CONCLUSION

ROA, ROE and EPS are a series of financial ratio tools to measure profitability or financial performance in a company. In cigarette sub-sector companies listed on the Indonesian stock exchange, the ROA, ROE and EPS factors can simultaneously and positively and significantly influence stock prices. That is, the profitability factor shows the company's ability to get the return on investment for all sacrifices that have made. In terms of return on investment as measured by a comparison of total assets (ROA) shows a positive and not significant effect on stock prices. These show that the higher the profits generated by the company, the majority is also used for investment development so that the market responds to the value of ROA,
the share price will be smaller. It was also shown that the value of ROE is a benchmark of profitability of the company supported by debt inclusion to third parties or with high risk, so that the greater the ROE, the lower the share price will be. These are a market response to the risks borne by the company, which is also getting more significant. EPS value is an illustration of how much profit generated per share outstanding. These also show that net profit is ready to be distributed to shareholders so that the higher the profits obtained by investors based on each share will illustrate the prosperity of shareholders. For cigarette sub-sector companies, the role of profitability ratios is very beneficial for investors in making investment decisions in the future, bearing in mind that government policies that raise high cigarette customs can affect the achievement of sales and corporate profits in EPS so that it affects public opinion and stock prices. Advertising must be improved by the company and using environmentally friendly attributes will be better.

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