The Effect of Profitability (Return on Investment) and Financial Risk Against Stock Price Before Covid-19

Deni Sunaryo
Fakultas Ekonomi dan Bisnis Universitas Serang Raya

* Corresponding author:
Email: denisunaryomm@gmail.com

Abstract.
The discussion leads to the effect of profitability of return on investment (ROI) and financial risk on stock prices which shows the inequality of the results of previous studies. Therefore, this study was conducted to determine whether the difference has a relationship between return on investment (ROI) profitability and financial risk to the stock price under study. This research uses automotive industry and spare parts companies in the Southeast Asia Stock Exchange for the 2012-2018 period. The method used was purposive sampling to obtain 10 companies that present complete financial statements, so as many as 70 samples were obtained. The analysis technique used is multiple linear regression analysis, partial test and simultaneous test. The results of the partial study concluded that the profitability of return on investment (ROI) and financial risk have a significant effect on stock prices. The results of the study simultaneously return on investment (ROI) profitability and financial risk has a significance level of 0.001 <0.05 then simultaneously states that profitability return on investment (ROI) and financial risk have a significant effect on stock prices. Future studies are expected to add or replace variables and methodologies of other sub-sectors.

Keywords: Return On Investment (ROI), Financial Risk and Stock Prices.

1. INTRODUCTION

The development of industries that grow and develop quickly and dynamically requires companies to continue to maintain and improve the performance of their companies. The development of the automotive and spare parts industry needs to be continuously carried out in order to be able to compete and obtain sustainable profits for the shareholders of the automotive and spare parts companies, as well as having broad links with other economic sectors and also having considerable market potential. Investment activities in the capital market for investors require a lot of information about the company that will be the place to invest. Lots of information needed by shareholders can be obtained through an assessment of the development of shares and financial statements of the company. In general, stock prices determine the demand and supply of the number of shares. If the demand for a stock increases, the price of the company's shares will also increase indirectly, and vice versa if the demand for a stock decreases, the share price will decrease. Investments in shares of companies in the automotive and spare parts industries are very attractive to investors because of the
growing era, the higher the interest of consumers to buy vehicles. This sub-sector stock is still called prospective in the long run, so it is interesting to study. The company's performance and the company's success in investment activities will be examined through two ratios, namely Return On Investment (ROI) and Financial Risk.

ROI (Return On Investment) is a measure of the effectiveness of company management in managing its investment. ROI (Return On Investement) can be used as an indicator in assessing the company's performance in this case to assess its effect on the value of the company reflected in stock prices, by looking at the value of the ROI (Return On Investment) ratio, investors will see the company's performance and decide whether to invest or not. Financial risks include risks that can affect the sustainability of a company so that risk is generally considered a form of uncertainty about a situation that might occur later with decisions taken based on a consideration of the source of risk, where risks arising from unhealthy conditions in the company has the risk of bankruptcy or declining company performance, and rising and falling interest rates (exchange rates) can affect the stock price in the capital market.

Several studies have been carried out and produced diverse differences regarding the profitability of return on investment (ROI) and financial risk in the stock price. The research was conducted according to Denny Kurnia (2017) The results of the study stated that Return On Investment (ROI) had a significant effect on stock prices, while Financial Risk had no significant effect on stock prices. According to Rizqi Aning Tyas (2016) Based on the results of the study stated that NPM and ROI through the t-test had a significant effect on stock prices, ROE and EPS through the t-test had no significant effect on stock prices.

According to Andreas R. Wangarry (2015) stated the results of his research that Return On Investment (ROI) and Debt to Equity Ratio (DER) had no significant effect on stock prices. Partially, Net Profit Margin (NPM) has a significant effect on stock prices. Simultaneously, Return On Investment (ROI), Net Profit Margin (NPM), and Debt to Equity Ratio (DER) have a significant effect on stock prices. According to Mathius Tandiontong and Margaretha Sitompul (2017) stated the results of their research that financial distressing or financial risk by measuring using the Altman Z-Score has a positive or significant effect on stock returns. According to Tantri Widya Sari, Raden Rustam Hidayat and Sri Sulasmiyati (2017) the results of their research stated that simultaneous ROI, ROE, EPS, and MVA have a significant effect on Stock Returns simultaneously and partially ROE and EPS have a significant effect on stock returns. ROI and MVA do not have a significant effect on stock returns.

The purpose of this study is to analyze and determine the effect of return on investment (ROI) profitability and financial risk on stock prices as seen from previous studies above are still conflicting with each other.

**Profitability Ratio**

According to Kasmir (2018: 196) profitability ratios are ratios to assess a company's ability to look for profits. This ratio also provides a measure of the effectiveness of a company's management. This is shown by the profits generated from sales and investment income. The point is the use of this ratio shows the efficiency of the company. The following types of profitability ratios according to James van Horne and John Wachoeicz (2019: 180-184)

http://ijstm.inarah.co.id 88
Net Profit Margin (NPM)
Net Profit Margin (NPM) is the ratio between net profit after tax to total sales.

Gross Profit Margin (GPM)
Gross Profit Margin (GPM) is the ratio between gross profit to net sales

Return On Asset (ROA)
Return On Asset (ROA) is the ratio between profit after tax and the amount of assets

Return On Equity (ROE)
Return On Equity (ROE) is the ratio between profit after tax against own capital.

Return On Investment (ROI)
Return On Investment (ROI) is a ratio that sees the extent to which investments that have been invested are able to provide a return on profits as expected or return on investment where the ratio between profit after tax with the average wealth.

Financial Risk

Definition of Risk
Risk can be interpreted as a form of uncertainty about a situation that will occur later (future) with decisions taken based on various considerations at this time. Irham Fahmi (2016: 357). Financial risk is a risk that causes a decrease in the flow, value or income of the company in an unexpected amount, where the amount is influenced by the price movement of one or more financial assets. A decrease in profits due to a decrease in demand for unexpected products such as market risk results in a decrease in wealth or a decrease in cash flow. Unexpected (expected) market changes that affect asset prices, indices, interest rates as a benchmark. According to Hanafi (2009: 230) in Denny Kurnia (2017) To determine the level of financial risk or financial distressed, companies can predict the potential for bankruptcy with the Altman Z-Score method. The Altman Z-score method is an analytical model that functions to predict company bankruptcy with relatively reliable accuracy, so this analysis can be used to regulate the financial risk level of a company. Financial risk analysis is an important tool for obtaining information relating to financial position with the results that have been achieved through the selection of corporate strategies that will be applied.
In assessing the level of financial risk required data and financial statements consisting of income statements and balance sheets. After each data is obtained, then analyzed using the Z-Score method, the company allows to know whether it has a low level of risk, is in a vulnerable position, or has a high level of risk. To be able to analyze the financial risks previously processed data processing by calculating, as for the formula that can be calculated as follows:

**Working Capital to Total Asset**

Intended here is an analysis between current assets with current debts (Current Liabilities)

\[
\frac{\text{Working Capital}}{\text{Total Assets}}
\]

**Retained Earning to Total Asset**

Retained here is retained earnings, retained earnings to total assets is the company's ability to generate profits in a certain period in terms of the company's ability to earn profits compared to the speed of operating asset turnover as a measure of business efficiency. This calculation regulates the accumulation of profits while the company is operating which allows to facilitate the accumulation of retained earnings.

\[
\frac{\text{Retained Earning}}{\text{Total Assets}}
\]

**Earning Before Interest and Tax (EBIT) to Total Asset.**

Is an indicator that can be used in detecting problems with the company's ability.

\[
\frac{\text{Operating Profit}}{\text{Total Assets}}
\]

**Market Value Equity**

Is a calculation that measures the company's ability to provide collateral for each debt through its own capital which includes the amount of equity and total debt

\[
\frac{\text{Market Value Equity}}{\text{Total Equity}}
\]

**Sales To Total Liabilities**

Is a calculation to measure management's ability to use assets to generate sales.

\[
\frac{\text{Sales}}{\text{Total Assets}}
\]

After all calculations are obtained then entered into the formula (Hanafi, 2010: 656), namely:

\[
Z = 1.2 \times (X1) + 1.4 \times (X2) + 3.3 \times (X3) + 0.6 \times (X4) + 1.0 \times (X5)
\]

To find out which company has a high or low risk level can be seen from the Z-Score, if:

1. A Z-score of less than or equal to 1.81 means that the company is experiencing financial difficulties and has a high risk.
2. Z-Score value between 1.81 to 2.99 means the company is considered to be in the gray area (Gray Area). In this condition, the company is experiencing financial problems that must be dealt with with proper management. If it's too late to handle the company, it can go bankrupt.
3. Z-Score value greater than 2.99 means that the company is in good health so it has a low level of risk.

**Definition of Stock**

According to Fisiko (2014) "stock is a proof of ownership of a particular company as a financier. Stocks provide returns in the form of dividends and capital gains (increases in stock prices on the market) ".

According to (Irham Fahmi, 20-19: 80) "stock is a proof of ownership of capital / funds in a company, shares are papers that are clearly listed in nominal value, the name of the company and followed by clear rights and obligations to each holder or shares are also referred to inventory that is ready for sale ". Based on several definitions of stocks above, it is concluded that stocks are a form of securities which is a sign of ownership and participation of a person or group in a company or can be called an issuer.

**Stock Price**

According to (Jestry, 2017) "stock prices are one indicator of company management. Success in making profits will provide satisfaction for rational investors. A high enough stock price will provide benefits, in the form of capital gains and a better image for the company making it easier for management to get funds from outside the company ". According to Pandji Anoraga (2011: 129) in Denny Kurnia (2017) defines "stock prices as the selling price of shares as a consequence of the bargaining position between sellers and buyers of shares, so that market values show fluctuations in stock prices. Whereas the company's market value is related to the financial statements described by efficient market theory ".

From some of the above understanding of the stock price, the researcher can conclude that the stock price is the price formed by the agreement of the seller and buyer of shares or which is formed from the strength of the demand and supply of shares that occur in the stock market at a certain time.

**II. METHODS**

The research method according to Sugiyono (2017: 2) is "The scientific way to get data with specific purposes and uses. The scientific way means that research activities are based on scientific characteristics, namely rational, empirical, and systematic". Researchers use quantitative methods to proceed to hypothesis testing by taking samples from the population using data collection methods. Samples were obtained from automotive and parts industry companies listed on the Southeast Asian Stock Exchange. The type of data used in this study is secondary data, data that is said to have been in the finished form, has been examined from other parties.

According to Sugiyono (2017: 136) "Population is the area of generalization consisting of objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions". In this study there were 40 population companies listed on the southeast Asia stock exchange.

In this study using a purposive sampling technique. The purposive sampling method according to Sugiyono (2018) is "A technique for determining research samples with certain considerations aimed at making the data obtained more
representative later". So as to get a sample in accordance with criteria as many as 10 companies that present a complete financial report, then for the research company automotive and spare parts subsectors in Southeast Asia for the period 2012-2018 obtained as many as 70 samples.

Table 1. List of Automotive and Spare Part Industry Sub Sector Companies in Southeast Asia that became the Research Samples for the 2012 - 2018 Period

<table>
<thead>
<tr>
<th>No</th>
<th>Country</th>
<th>Kode</th>
<th>Emiten</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indonesia</td>
<td>AUTO</td>
<td>Astra Otoparts Tbk</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>GJTL</td>
<td>Gajah Tunnggal Tbk</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>IMAS</td>
<td>Indomobil Internasional</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>LPIN</td>
<td>Multi Prima Sejahtera Tbk</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>PRAS</td>
<td>Prima Aloy Steel Universal Tbk</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>6</td>
<td>Malaysia</td>
<td>APM</td>
<td>Automotive Holdings Berhard</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>MBM</td>
<td>MBM Resources Berhard</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>UMW</td>
<td>UMW Holdings Berhard</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>9</td>
<td>Singapura</td>
<td>ACMA</td>
<td>ACMA Ltd</td>
<td>2012 – 2018</td>
</tr>
<tr>
<td>10</td>
<td>Thailand</td>
<td>AH</td>
<td>Aapico Hitech Public Company LTD</td>
<td>2012 – 2018</td>
</tr>
</tbody>
</table>

Data source processed in 2019 (Website of the Stock Exchange in Southeast Asia)
The dependent variable, the researcher uses the Stock Price ratio, and for the independent variable or the independent variable that is Profitability Return on Investment (ROI) and Financial Risk. The analysis technique used is multiple linear regression analysis, partial test and simultaneous test.

III. RESULT AND DISCUSSION

Descriptive statistics

Table 2. Statistical Descriptive Results

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Sum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROI</td>
<td>70</td>
<td>62.13</td>
<td>-41.93</td>
<td>29.38</td>
<td>-34.41</td>
<td>-4.973</td>
<td>3.90680</td>
<td>15.565</td>
</tr>
<tr>
<td>RIS_KELUANGAN</td>
<td>70</td>
<td>110.41</td>
<td>-5.1</td>
<td>105.90</td>
<td>1217.52</td>
<td>17.3932</td>
<td>3.01850</td>
<td>9.11920</td>
</tr>
<tr>
<td>HARGA_SAHAM</td>
<td>70</td>
<td>259.80</td>
<td>0.0</td>
<td>259.80</td>
<td>726.31</td>
<td>10.3758</td>
<td>4.81154</td>
<td>22.5619</td>
</tr>
<tr>
<td>Valid N ([listwise])</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed Data
After processing descriptive statistical data, it can be seen that the amount of valid data in the study is 70 and the results are as follows:

http://ijstm.inarah.co.id
This Return on Investment (ROI) data has a minimum value of -41.83 with a maximum value of 20.30. At an average or mean value of -0.47873, the standard deviation is 6.75020 and the data variance is 45.565, (2) The Financial Risk data has a minimum value of -0.51 and for a maximum value of 109.90. This financial risk data has an average value of 17.3932, the standard deviation value reaches 25.25460 and its variance is 637.795, (3) Valid data for variable stock prices are 70 with a minimum value of 0.00 and a maximum value of 259.80. For the average value of this stock price variable data is 10.3758, for the standard deviation value is 40.25619 and its data variance.

Classic assumption test
1. Normality Test

**Figure 1. Data Normality Test Results**

The normality test results show the point spreads around the diagonal line and follows the direction of the diagonal line, then the regression model meets the normality assumption.

**Graph 1. Data Normality Test Results**

The normality test results show the point spreads around the diagonal line and follows the direction of the diagonal line, then the regression model meets the normality assumption.

**Source: Processed Data**

http://ijstm.inarah.co.id
2. **Autocorrelation Test**

**Table 3. Autocorrelation Test Results**

<table>
<thead>
<tr>
<th>Source: Processed Data</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.508*</td>
<td>.258</td>
<td>.228</td>
<td>2.07455</td>
<td>2.227</td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), Ln_RIS KEUANGAN, Ln_ROI*

*b. Dependent Variable: Ln_HARGA SAHAM*

**Source: Processed Data**

The Autocorrelation Test results show that the durbin watson (DW) value is 2.227 which indicates that the DW value is between du (1.63339) to 4-du (2.36663). The DW value is in the area of no positive or negative autocorrelation.

3. **Heteroscedasticity Test**

**Figure 2. Heteroscedasticity Test Result**

| Source: Processed Data |

Based on the picture above it can be seen that the residual data in the two regression models spreads both above and below the 0 point and does not form a specific pattern. Thus the regression model proposed in this study does not occur symptoms of heteroscedasticity.
4. Multicollinearity Test

Table 4. Multicollinearity Test Results

| Source: Processed Data |

Based on table 4.3, it is known that the Tolerance Return On Investment (ROI) value is 0.803 and the Financial Risk is 0.803 and the VIF Return On Investment (ROI) value is 1.245 and Financial Risk is 1.245, in terms of Tolerance = Return On Investment (ROI) value and Financial Risk > 0.10 and VIF = Return On Investment (ROI) and Financial Risk < 10 in accordance with the basic assumptions of decision making if the Tolerance value > 0.10 and VIF value < 10, it can be stated that the regression equation model studied is not there are symptoms of multicollinearity.

Model Accuracy Test

1. Simultaneous Significance Test (Test F)

Table 5. Test F Results

| Source: Processed Data |

The results of data processing note that the calculated F value is greater than the F table value of 8.530 > 3.19, and the significance value is smaller than 0.05 (0.001 < 0.05). Thus Ho is rejected and Ha is accepted. This means that all X variables, namely Return On Investments (ROI) and Financial Risk, simultaneously influence the variable Y, namely the Stock Price.

2. Coefficient of determination (R2)

Table 6. Coefficient of determination Result

| Source: Processed Data |
The results of the coefficient of determination data processing in the table above shows that the variable Y or share price is influenced by all X variables, namely return on investment (ROI) and financial risk with a value of 25.8% and the remaining 74.2% is influenced by other variables outside of the study this. Other factors such as: interest rates, the amount of cash dividends distributed, earnings per share (EPS), the amount of profits from the company, the level of risk and returns, government policies, microeconomic fundamentals, corporate corporate actions (mergers, acquisitions, right issues) and fluctuations in the exchange rate of the rupiah against foreign currencies.

3. **Multiple Linear Regression Analysis**

**Table 7. Multiple Linear Regression Analysis Result**

![Table](http://ijstm.inarah.co.id)

In the table above presents the test results from multiple linear regression analysis. Can be seen from the multiple linear regression analysis tests above, the equation of the multiple linear regression model can be made as follows:

\[ Y = -1.267 + 0.371\text{ROI} + 0.410\text{KEUANGAN} + e \]

From the equation of the multiple linear regression model above can illustrate:

1. \( \beta_0 \) value or constant equal to \(-1.267\) indicates that if the independent variable is zero (0) or eliminated, then the Share Price is \(-1.267\),
2. Return On Investment (ROI) coefficient of 0.371 indicates that each addition of Return On Investment (ROI) of one unit, it will be followed by a decrease in Share Price by 0.371,
3. Financial Risk Coefficient of 0.410 indicates that each additional Financial Risk of one unit will be followed by an increase in Share Price value of 0.410.

4. **Partial Test (t-Test)**

**Table 8. Partial Test (t-Test) Result**

![Table](http://ijstm.inarah.co.id)

In the table above presents the results of the T test as follows:

1. In Ln_ROI, \( t_{count} \) is 2.235 while \( t_{table} \) with a confidence level of 95% or (\( \alpha : 0.05 \)) is 2.00958 because \( t_{count} > t_{table} \) or a significance level of 0.030 < 0.05 then \( H_1 \) is accepted, which means Return on Investment (ROI) has a significant effect on stock prices.
2. In Ln_Ris_Finance the \( t_{count} \) value is 2.120 while the \( t_{table} \) value with a confidence level of 95% or (\( \alpha : 0.05 \)) is 2.00958 because \( t_{count} > t_{table} \) or significance...
level 0.039 <0.05 then H2 is accepted, which means that Financial Risk has significant effect on stock prices.

**Discussion of Data Analysis Results (Proof of Hypothesis)**

1. **First Hypothesis**

The first hypothesis is to find out whether there is an influence of Return On Investment (ROI) on the Stock Price from the t test table obtained by t-count of 2.235 and the value of t-table of 2.00958. The significance value is 0.030 which means that there is a positive and significant effect between the Return on Investment (ROI) Profitability variable on the Share Price. This research has the same research results as previous studies, namely research from Denny Kurnia (2017), Fisko Riski Saputra (2014), Rizky Aning Tyas (2016), Andreas R. Wangrry (2015), and Tantri Widya Sari (2017) who states that the Return on Investment (ROI) profitability has a significant effect on the Share Price. Profitability is a ratio to assess a company's ability to seek profits. This ratio also describes a measure of the effectiveness of the management of a company, this is shown by the profits generated from sales and investment income (Kasmir, 2013: 115). Every company strives to achieve profit or optimal profit by increasing sales volume, controlling costs effectively, maintaining market share, and customers and conducting business expansion to achieve the survival of the company. Return On Investment is a ratio that shows the results (return) of the total assets used in the company. The greater the level of the company's ability to generate profits, it will affect the stock price, and vice versa.

2. **Second Hypothesis**

This second hypothesis is to find out whether there is a significant influence of financial risk on stock prices. It is known from the processing of t test obtained t-count of 2.120 and t-table value of 2.00958. The significance value is 0.039, which means that there is a positive and significant effect between the Financial Risk variables on the Stock Price. The results of this study are in line with research conducted by Indra R. Onibala (2014) and Riekie P. (2019) which shows that Financial Risk has a significant effect on stock prices. Inversely related to the results of research from Denny Kurnia (2017) and Mathius Tandiontong (2017) Financial Risk has a negative or insignificant effect on stock prices. Financial risks include risks that can affect the sustainability of a company so that risk is generally considered as a form of uncertainty about a situation that might occur later with decisions taken based on a consideration of the source of risk, where risks arising from unhealthy company conditions has the risk of bankruptcy or declining company performance, and rising and falling interest rates (exchange rates) can affect the stock price in the capital market this is explained by Denny Kurnia (2017).

3. **Third Hypothesis**

This third hypothesis is to find out whether there is a significant simultaneous effect of return on investment (ROI) and financial risk on stock prices. Judging from the results of the simultaneous study (Test F), it is known that the variable Profitability of Return On Investment (ROI) and Financial Risk together affect the Stock Price. This can be seen from the significance value in the ANOVA table that is equal to 0.001 or <0.05. The results of the above tests are inversely proportional to the results of previous
studies, namely from Denny Kurnia (2017) which states that the Return on Investment Profitability (ROI) has a significant effect on stock prices while Financial Risk does not significantly influence stock prices.

IV. CONCLUSION

Based on the results of testing the data that has been stated above this study aims to determine the effect of Return on Investment (ROI) Profitability and Financial Risk on Stock Prices in Automotive and Parts Industry Companies listed on the Southeast Asia Stock Exchange during 2012-2018. Based on the data analysis that has been done, the researcher draws some conclusions as follows:

Based on the t test results the Return on Investment (ROI) variable with a significance level of 0.030 <0.05 so partially the Return on Investment (ROI) variable has a significant effect on the Stock Price.

1. Based on the t-test results of the Financial Risk variable with a significance level of 0.039 <0.05, so partially the Financial Risk variable has a significant effect on Stock Prices.

2. The F-Test results show the Return on Investment (ROI) Profitability and Financial Risk together affect the Stock Price with a significance level of 0.001 <0.05, this means that there is a significant influence between the Return on Investment (ROI) Profitability and Financial Risk on Stock Prices.

V. ACKNOWLEDGMENTS

The authors are grateful to Serang Raya University for contributing funding during the research.

REFERENCES


www.gatreneprise.com/GATRJournals/index.html
