

## THE INFLUENCE OF LIQUIDITY AND LEVERAGE RATIO ON SHARE PRICES OF THE PHARMACEUTICAL SUB-SECTOR LISTED ON THE INDONESIAN STOCK EXCHANGE FOR THE PERIOD 2016-2020

**Dede mariyani**

Sekolah Tinggi Ilmu Ekonomi Muhammadiyah Tuban

[dedemariyani89@gmail.com](mailto:dedemariyani89@gmail.com)

### **ABSTRACT**

*This research aims to determine the effect of Liquidity and Leverage Ratios on share prices in the pharmaceutical sub-sector listed on the Indonesia Stock Exchange for the 2016-2020 period. The sample in this study consisted of 8 pharmaceutical sub-sector companies on the Indonesia Stock Exchange (BEI) in the 2016-2020 research period which were selected based on certain criteria using the purposive sampling method. The data analysis used in this research is multiple linear regression analysis processed with SPSS 26. From the multiple regression model used in this research, the regression equation is obtained, namely  $Y = 4000.998 - 324.194 (CR) - 549.615 (DER) + e$ . Based on the test results, it shows that partially the Liquidity variable which is measured using the Current Ratio (CR) has a negative and insignificant effect on stock prices, Leverage which is measured using the Debt to Equity Ratio (DER) has a negative and significant effect on the stock prices of listed pharmaceutical sub-sector companies on the Indonesian Stock Exchange for the 2016-2020 period.*

**Keywords:** *Liquidity, Leverage, Stock Price*

### **INTRODUCTION**

The Indonesian capital market is currently developing very rapidly and has an important role for companies, because with the existence of the capital market companies can get funds to expand their companies from people who invest, and can also reduce dependence on banks to increase funding sources. According to Fahmi (2017:55), the capital market is a place that will be used to provide additional sources of company funds or strengthen capital and these funds are obtained from the sale of shares (stock) and bonds (bonds) carried out by various parties, especially companies that go public. The Indonesian Stock Exchange (BEI) is an official Indonesian government institution that provides facilities for carrying out various share buying and selling activities for all companies that go public. The Indonesian Stock Exchange is a capital market in Indonesia and has an important role, namely as an intermediary for the public to invest. One of the investment instruments that the public can buy on the stock exchange is shares.

Shares are one of the instruments that investors can buy in the capital market. Shares are very attractive because by buying shares, investors will get a return in the form of dividends or profit distribution from the company that sells shares to shareholders and the difference between the selling and buying prices (capital gain), this profit will be obtained if investors sell their shares. Shares are in demand by various groups of people, because shares have high rewards, but behind that shares also have high risks or what is called high risk, high return.

In this study, researchers chose pharmaceutical sub-sector companies listed on the Indonesian Stock Exchange as research objects, because the development of pharmaceutical companies in Indonesia is very rapid, with increasingly sophisticated technological developments making it easier for pharmaceutical companies to carry out their activities, from the production process to distribution is carried out with the help of adequate technology so that all activities can be completed quickly, as well as the development of medical equipment production facilities which increase every year will encourage the realization of more effective and efficient company performance. The expansion of several products and increasing demand for generic medicines is one of the drivers of growth for pharmaceutical sub-sector companies. Seeing the development of pharmaceutical companies will provide an opportunity for investors to invest capital in the form of shares in pharmaceutical sub-sector companies.

The phenomenon that occurs in pharmaceutical sub-sector companies is the poor performance of company shares, where the average share price of pharmaceutical sub-sector companies from 2016 to 2020 tends to decline.

Table 1 Average Pharmaceutical Company Share Prices 2016-2020

NAMA	TAHUN				
	2016	2017	2018	2019	2020
DVLA	1.515,00	1.908,00	1.950,00	2.191,00	2.335,00
INAF	1.796,00	3.046,00	4.651,00	2.772,0	2.000,00
KAEF	1.774,00	2.551,00	2.405,00	2.864,00	2.102,00
KLBF	1.529,00	1.605,00	1.441,00	1.550,00	1.447,00
MERK	8.543,00	8.943,00	6.187,00	3.587,00	2.702,00
PYFA	194,00	198,00	193,00	182,00	589,00
SIDO	261,00	249,00	389,00	543,00	669,00
TSPC	1.981,00	1.915,00	1.515,00	1.578,00	1.272,00
RATA-RATA	2.199,13	2.551,88	2.341,38	1.908,38	1.639,50

. Source: Processed Secondary Data, Yahoo Finance

In table 1.1, the average share price of pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange during the 2016-2020 period, it is explained that in 2016 the average

value was IDR. 2199.13, then increased in 2017 to Rp. 2551.88, in 2018 the average decreased to Rp. 2341.38, then in the following year, namely 2019, the average decreased to Rp. 1908.38, and in 2020 the average share price in the pharmaceutical sub-sector was IDR. 1639.50. The rise and fall of share prices in the capital market is an interesting phenomenon to pay attention to. Based on the graph of the average share prices of pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange during the 2016-2020 period, the average share price of pharmaceutical sub-sector companies tends to decline. The rise and fall of share prices is influenced by several factors, both internal to the company and external to the company. Several factors that can influence the share price of a company are liquidity and leverage.

Liquidity is a tool used to describe a company's ability to meet its short-term obligations. Apart from that, liquidity can be used to show how many assets the company has. A company that has high liquidity will have better performance, and conversely if liquidity decreases it will indicate that the company's performance is less than optimal in carrying out its activities. Leverage is a financial ratio analysis to measure a company's ability to fulfill its long-term obligations. Companies that use debt for most of their operational funding will incur large business risks. With this ratio, investors will conclude that the company has less attractive prospects, because the higher the debt it has, the higher the interest burden the company must pay. Based on the background and phenomena that occur in share prices in pharmaceutical sub-sector companies, researchers are interested in conducting research with the title "The Influence of Liquidity Ratios, Leverage and Profitability on Share Prices in the Pharmaceutical Sub-Sector Listed on the Indonesian Stock Exchange for the 2016-2020 Period"

## **LITERATURE REVIEW**

### ***Stock price***

The definition of shares is a sign of capital participation for a person or party (business entity) in a company (Jogiyanto 2014:141). Meanwhile, according to Nor Hadi (2013:67) shares are securities that can be bought and sold on the market where securities are bought and sold by individuals or companies.

Share price According to Jogiyanto (2014: 143) share price is the price of a share price that occurs on the stock market at a certain time which is determined by market players and is also determined by the demand and supply of the share price in question on the capital market.

According to Musdalifah Azis (2015: 80), the share price is the price in the real market, and is the easiest price to determine because it is the price of a company's shares in the ongoing market (which occurs in the capital market) or if the market is closed, then the price market is the closing price. Based on the opinions of the experts above regarding share prices, it can be concluded that the definition of share price is the price per share that applies in the capital market.

### **Liquidity**

According to Brigham and Houston (2015: 134), the liquidity ratio provides an overview of a company's ability to pay debts with short term maturities. The liquidity ratio shows the relationship between the company's cash and other current assets and its current liabilities. According to Kasmir (2016:110) the liquidity ratio is a ratio that shows the company's ability to fulfill short-term obligations when they are due. This means that if a company is charged by the lender, it will be able to pay the obligation, especially when it is due. From several definitions of liquidity according to experts, it can be concluded that liquidity is a ratio that shows a company's ability to fulfill short-term obligations.

### **Leverage**

According to Brigham and Houston (2015:140) the solvency ratio (leverage ratio) is a ratio to measure the extent to which a company is financed with debt. According to Kasmir (2016:151) Leverage or solvency ratio is a ratio used to measure how much of a company's assets are financed by debt, or you could say leverage is a tool used to measure a company's ability to pay short or long term obligations. From the several definitions of leverage above, it can be concluded that leverage is a ratio used to measure the size of assets in a company that is funded with debt.

Research on stock prices that has been carried out by previous researchers includes: Research conducted by Evi Nur Khanifah and Budiyanto (2018) with the title Effect of Liquidity, Profitability on Share Prices On the Effect of Liquidity on Share Prices.

One of the measuring instruments or ratios used in liquidity is the current ratio or current ratio, namely the ratio used to measure a company's ability to pay short-term obligations or debt, meaning how much of the company's assets are ready to be used to finance its short-

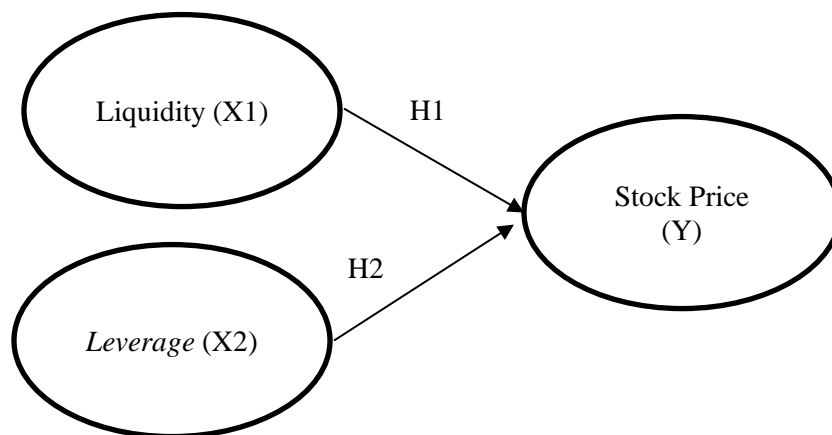
term obligations, which include it includes the obligation to pay dividends to shareholders. So that high CR results in a company will increase investor confidence in the company, because it is considered capable of paying its short-term obligations.

## RESEARCH HYPOTHESIS

### Conceptual Framework

In this research the conceptual framework describes the influence of 3 (three) independent variables (X), namely Liquidity (X1), and Leverage (X2) on the dependent variable (Y), namely Stock Price. So a conceptual framework was prepared as follows:

One of the measuring tools or ratios used in Leverage is the Debt to Equity Ratio, which is a ratio used to assess debt and equity by comparing all debts and liabilities in a company. To find out the effect of leverage on share prices, you can use the du pont formula analysis which in this analysis explains the equity multiplier to measure the ratio of total assets to equity. In the Du Pont formula analysis, it is explained that if a company has high debt, its equity multiplier is also high. A high DER will increase investors' confidence that the company can pay its obligations. so it will give a signal to investors that the company has good prospects This section contains hypotheses that will be tested for correctness according to the problem presented by the author.



**Figuran 1 Conceptual Framework**

### Hypothesis

Based on the problem formulation and literature review and conceptual framework previously described, the following hypothesis is formulated:

H1: Liquidity has a significant effect on share prices in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period.

H2: Leverage has a significant effect on share prices in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period

## **RESEARCH METHODS**

### **Research design**

Research design is the entire process that will be used to carry out research. The type of research that will be used in this research is explanatory research. Explanatory research is research that aims to analyze the cause-and-effect relationship between two or more phenomena.

### **Place and time of research**

This research was conducted on all pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange (BEI) and accessed via the website [www.idx.co.id](http://www.idx.co.id). The data obtained from the official IDX website are the annual financial reports of pharmaceutical sub-sector companies for the 2016-2020 period, with research time starting from March to June 2022.

### **Data Types and Sources**

The type of data used in this research is quantitative data, because the data used in this research is in the form of numbers, namely company financial reports, this data will be analyzed further in data analysis. The data source used in this research is secondary data, namely data obtained indirectly or from third parties.

### **Population and Sample**

#### **Population**

The population used in this research are companies in the pharmaceutical sector listed on the Indonesian Stock Exchange. There are 12 pharmaceutical sub-sector companies listed on the Indonesian Stock Exchange.

**Table 2 Research Population**

No	Code	Company name
1	DVLA	Darya-Varia Laboratoria Tbk.
2	INAF	Indofarma Tbk.
3	KAEF	Kimia Farma Tbk.
4	KLBF	Kalbe Farma Tbk.
5	MERK	Merck Tbk.
6	PEHA	Phapros Tbk.
7	PYFA	Pyridam Farma Tbk
8	SCPI	Organon Pharma Indonesia Tbk.
9	SIDO	Industri Jamu dan Farmasi Sido
10	TSPC	Tempo Scan Pacific Tbk.
11	SDPC	Millenium Pharmacon International Tbk.
12	SOHO	Soho Global Health Tbk

### **Sample**

A sample is a portion of all subjects or objects taken for research and is considered to represent the entire population. This research uses a purposive sampling technique, namely a technique where the researcher determines the sample based on considerations or characteristics possessed by the population.

Of the 12 pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange during the 2016-2020 period, there are 8 companies that meet the criteria.

**Table 3 Research Sample**

No	Kode	Nama Perusahaan
1	DVLA	Darya-Varia Laboratoria Tbk.
2	INAF	Indofarma Tbk.
3	KAEF	Kimia Farma Tbk.
4	KLBF	Kalbe Farma Tbk.
5	PEHA	Phapros Tbk.

6	PYFA	Pyridam Farma Tbk
7	SIDO	Industri Jamu dan Farmasi Sido
8	TSPC	Tempo Scan Pacific Tbk.

## **Variable Definition and Operational Definition**

### **Independent Variable (X)**

Independent variables are variables that influence or cause changes in the dependent variable. The independent variables used in this research are as follows:

#### **1. Liquidity (X1)**

Liquidity is a tool used to describe a company's ability to meet its short-term obligations. Apart from that, liquidity can be used to show how many assets the company has. Liquidity is measured using the Current Ratio, which is a ratio that measures how much current assets can be used to meet short-term obligations.

#### **2. Leverage (X2)**

Leverage is a financial ratio analysis to measure a company's ability to fulfill its long-term obligations. Leverage uses the Debt to Equity Ratio, namely the ratio used to assess debt and equity by comparing total debt and equity.

### **Dependent Variable (Y)**

The dependent variable is the variable that is measured to find out how big the influence of the independent variable is. The dependent variable used in this research is

#### **1. Share Price**

The share price is the price that occurs in the capital market at a certain time which is determined by market players and is formed through the supply and demand mechanism in the capital market. Share prices are measured using Closing Price.

### **Data collection technique**

According to Sugiyono (2017:291) Data collection techniques are the most important stage in research, because the aim of the research is to obtain data. In this research, the data collection technique used was the documentation method and library study method.



## RESULTS OF RESEARCH AND DISCUSSION

### 1. Normality Test

**Table 4 Normality Test Results**

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		40
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1210.84987486
Most Extreme Differences	Absolute	.100
	Positive	.097
	Negative	-.100
Test Statistic		.100
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

Source: SPSS processed

From the Kolmogrov-Smirnov Normality Test table it can be concluded that the Asymp Sig value. of 0.200 above the significance level of 0.05 so it can be stated that the data is normally distributed. To strengthen this finding, the author added a Scatter P-Plot test where if the data distribution follows a diagonal line then the data is normally distributed, but if the data is randomly distributed then the data is not normally distributed.

### 2. Multicollinearity Test

**Table 5 Multicollinearity test results**

Coefficients <sup>a</sup>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	CR	.457	2.190
	DER	.584	1.713

Source: SPSS processed

From the results of the multicollinearity test, it can be stated that the regression model in the study did not have symptoms of multicollinearity because the tolerance value was  $> 0.10$  and  $VIF < 10$ .

## Multiple Linear Regression Analysis

**Table 6 Multiple linear analysis test results**

Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
1	(Constant)	4000.998	641.883	.000
	CR	-324.194	177.369	.076
	DER	-549.615	206.539	.012
a. Dependent Variable: HARGA SAHAM				

Based on the regression model equation table, it is as follows:

$$Y = 4000,998 - 324,194 (CR) - 549,615 (DER) + e$$

Based on the model above, it can be concluded that:

1. The constant value is 4000.998, meaning that if the value of X1 (CR), X2 (DER) is equal to zero then the value of Y (Share Price) is equal to 4000.998.
2. The regression coefficient value of the current ratio (CR) variable is negative, namely equal to -324,194. This shows that the current ratio (CR) has a negative effect on stock prices. Thus, it can be interpreted that if the current ratio (CR) value is increased by one unit, the share price will decrease by 324,194 units, if other factors are equal to zero.
3. The regression coefficient value of the debt to equity ratio (DER) variable is negative, namely -549.615. This shows that the debt to equity ratio (DER) has a negative effect on stock prices. Thus, it can be interpreted that if the debt to equity ratio (DER) value is increased by one unit, the share price will decrease by 549,615 units, if other factors are equal to zero.

## F test results

**Table 7 F test**

ANOVA <sup>a</sup>				
Model	df	Mean Square	F	Sig.
1 Regression	3	10143664.214	6.386	.001 <sup>b</sup>

Residual	36	1588337.204		
Total	39			

Source: SPSS processed

Based on the table of ANOVA test results or F test above, the Fcount is 6.386 while the Ftable is 2.866. So, the results of the F test show that  $F_{count} > F_{table}$  ( $6.386 > 2.866$ ) and a significance level of  $0.001 < 0.05$  is obtained. So it can be concluded that the liquidity variables (Current Ratio), leverage (Debt to Equity Ratio) This shows that the rise and fall of share prices that occur in pharmaceutical sub-sector companies listed on the Indonesian Stock Exchange depend on the rise and fall of liquidity values (CR), leverage (DER).

**Table 8 T test**

Coefficients <sup>a</sup>				
Model		Standardized Coefficients	t	Sig.
		Beta		
1	(Constant)		6.233	.000
	CR	-.364	-1.828	.076
	DER	-.469	-2.661	.012

a. Dependent Variable: HARGA SAHAM

Source: SPSS processed

Based on the t test table, the following conclusions can be drawn:

- The liquidity variable measured using the Current Ratio (CR) shows a significance value of  $0.076 > 0.05$  and the tcount value is - 1.828, while the ttable value is 1.689. So the t test shows that tcount is greater than ttable ( $1.828 > 1.689$ ). This means that partially the liquidity variable measured using the Current Ratio (CR) has a negative and insignificant effect on share prices.
- The leverage variable measured using the Debt to Equity Ratio (DER) shows a significance value of  $0.012 < 0.05$  and the tcount value is -2.661, while the ttable value is 1.689. So the t test shows that tcount is greater than ttable ( $2.661 > 1.689$ ). This means that partially the leverage variable measured using the Debt to Equity Ratio (DER) has a negative and significant effect on stock prices.

### Coefficient of Determination Test (R<sup>2</sup>)

**Table 9 Adjusted R<sup>2</sup> Test Results**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.589 <sup>a</sup>	.347	.293	1260.293

Source: SPSS processed

From the Determination Coefficient Test table it can be concluded that the Adjusted R Square result is 0.293 or 29.3%. This shows that 29.3 % of share prices are influenced by liquidity variables (Current Ratio), leverage (Debt to Equity Ratio). Meanwhile, 70.7% was influenced by other variables not included in this research.

## DISCUSSION

### 1. Liquidity (Current Ratio) has a significant effect on share prices in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period.

The current ratio has a negative and insignificant effect on share prices, so this shows that the influence of liquidity still exists on share prices, but is not very significant or does not have a big impact on the company's share price. The current ratio is not significant to share prices, this could be because investors do not pay too much attention to CR as an indicator in making decisions to invest, apart from that, if a company with a high Current Ratio will indicate an excess of current assets, which will have an unfavorable influence on the company's performance. A Current Ratio that is too high indicates that there are high idle funds, thus reflecting the company's lack of ability to operate its current assets, which can lead to lost opportunities (loss condition). The results of this research are in line with research conducted by Evi Nur Khanifah and Budiyanto (2018) where the current ratio has a negative and insignificant effect on stock prices and is not in line with research conducted by Alfarida Rianisari, Husnah and Cici Rianty K. Bidin (2018) where The current ratio has a positive and significant effect on stock prices.

### 2. Leverage (Debt to Equity Ratio) has a significant effect on share prices in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period.

Debt to Equity Ratio (DER) has a negative and significant effect on stock prices, so this shows that DER has an inverse relationship with stock prices. If the company's DER increases, the share price will decrease. This is because a high DER in a company will indicate that the

company uses too much debt to finance the company's operations compared to its own capital so that the company will focus more on paying off debt rather than providing profits to shareholders, and vice versa if the DER in the company decreases it will increase prices. shares. The results of this research are in line with research conducted by, Evi Nur Khanifah and Budiyanto (2018) and Yulistina and Novalita (2021) where the Debt to Equity Ratio has a negative and significant effect on stock prices and this research is not in line with research conducted by Alfarida Rianisari, Husnah and Cici Rianty K. Bidin (2018) where the Debt To Equity Ratio has a positive and insignificant effect on stock prices.

## **CONCLUSIONS AND ADVICE**

### **Conclusion**

From the results of the research and hypothesis testing that has been carried out, several conclusions can be drawn from the research as follows:

1. Liquidity as measured using the Current Ratio (CR) has a negative and insignificant effect on the share prices of pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period.
2. Leverage as measured using the Debt to Equity Ratio (DER) has a negative and significant effect on the share prices of pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period.

### **ADVICE**

Based on the research results and conclusions obtained from the research above, it cannot be separated from imperfections, therefore the following suggestions are written:

#### **1. For Companies**

The results of this research are to provide information about liquidity ratios, leverage ratios, and share prices of pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the 2016-2020 period. The results of this research can also be used by companies to find out the motives of investors in investing their capital in the company, so that companies can develop strategies to attract investors. Companies must pay attention to financial ratios in this research so that share prices can rise.

## 2. For Investors

The results of this research can be used as information for investors to invest their capital in a company and it is better to carry out more in-depth examination and analysis before investing in shares in a company.

## 3. For Further Researchers

It is hoped that future researchers can add other variables not included in this research that can influence stock prices and can be used to influence investors' decisions in making investment choices, such as Net Profit Margin, Return On Investment, Price to Book Value, and other fundamental factors.

## **BIBLIOGRAPHY**

- Brigham, E. F. and J. F. Houston. 2015. Financial Management Basics. Issue 14. Jakarta: Salemba Empat.
- Fahmi, Irham. 2012. Investment Management. Jakarta : Salemba Empat.
- Hadi, Nor. 2013. Capital Markets: Theoretical and Practical References for Investment in Capital Market Financial Instruments. First Edition. Yogyakarta: Science Graha.
- Hartono, Jogyanto. 2014. Portfolio Theory and Investment Analysis. Yogyakarta: BPFE-Yogyakarta.
- Cashmere. 2016. Financial Report Analysis. Edition 1. 9th printing. Jakarta : PT Raja Grafindo Persada.
- Khanifah, Evi Nur and Budiyo. 2018. The Effect of Liquidity, Profitability on Share Prices in Pharmaceutical Companies. Journal of Management Science and Research. Vol 7 No 5
- Mira Munira, Endang Etty Merawati and Shinta Budi Astuti. 2018. The Influence of Roe and Der on Paper Company Share Prices on the Indonesian Stock Exchange. Journal of Applied Business and Economics Vol. 4 No. 3
- Musdalifah, A., Mintarti, S., & Nadir, M. 2015. Investment management; Fundamentals, Technical Behavior Investors and stock returns. Yogyakarta : Deepublish.
- Rahmadewi, Pande Widya and Nyoman Abundanti. 2018. The Influence of Eps, Per, Cr, and Roe on Share Prices on the Indonesian Stock Exchange. E- Unud Management Journal,

Vol. 7, no. 4: 2106-2133.

Rianisari, Alfarida, Husnah, Cici Rianty K.B. 2018. The Influence of Liquidity, Leverage, and Profitability on Stock Prices of the Food and Beverage Industry in Bei. Tadulako University Management Science Journal. Vol. 4, no. 2, , 113-120

Sugiyono. 2017. R&B Quantitative Qualitative Research Methods. Bandung: Aflabeta