



# The Effect Of Investment Decisions, Financing Decisions, Macroeconomic And Company Size On Company Value With Profitability As Intervening Variables In The Telecommunications Sector Registered In Indonesia Stock Exchange 2016 – 2019

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## ABSTACT

This study aims to test the dependent variable, namely firm value with profitability as an intervening variable on the independent variable, namely investment decisions, funding decisions, macroeconomics, and company size in telecommunications sector companies listed on the Indonesia Stock Exchange for the period 2016-2019. This study uses the outer model evaluation research method, inner model evaluation, and hypothesis testing. Retrieval of data sources obtained from the annual reports of shares of telecommunications subsector companies listed on the Indonesia Stock Exchange (IDX) in 2016-2019 can be accessed on the IDX website, namely [www.idx.co.id](http://www.idx.co.id).

The results of this study indicate that there is no significant effect of investment decisions on profitability, there is no significant effect of investment decisions on firm value, there is no significant effect of funding decisions on profitability, there is no significant effect of funding decisions on firm value, no Macroeconomic significant influence on profitability, there is no significant macroeconomic influence on firm value, there is no significant effect on firm size on profitability, there is a significant effect on firm size on firm value, and there is no significant effect on firm value.

**KEY WORDS:** Company Value, Investment Decision, Funding Decision, Macro Economy, Company Size, Telecommunication Sector on the Indonesia Stock Exchange 2016 - 2019

## ABSTRAK

Penelitian ini bertujuan untuk menguji variabel dependen yaitu nilai perusahaan dengan profitabilitas sebagai variabel intervening terhadap variabel independen, yaitu keputusan investasi, keputusan pendanaan, makro ekonomi, dan ukuran perusahaan pada perusahaan sektor telekomunikasi yang terdaftar pada Bursa Efek Indonesia periode 2016-2019. Penelitian ini menggunakan metode penelitian evaluasi outer model, evaluasi inner model, dan pengujian hipotesis. Pengambilan sumber data didapat dari laporan tahunan saham-saham perusahaan subsektor telekomunikasi yang tercatat di Bursa Efek Indonesia (BEI) pada tahun 2016-2019 dapat diakses disitus BEI yaitu [www.idx.co.id](http://www.idx.co.id).

Hasil pada penelitian ini menunjukkan bahwa tidak terdapat pengaruh yang signifikan keputusan investasi terhadap profitabilitas, tidak terdapat pengaruh yang signifikan keputusan investasi terhadap nilai perusahaan, tidak terdapat pengaruh yang signifikan keputusan pendanaan terhadap profitabilitas, tidak terdapat pengaruh yang signifikan keputusan pendanaan terhadap nilai perusahaan, tidak terdapat pengaruh yang signifikan makro ekonomi terhadap profitabilitas, tidak terdapat pengaruh yang signifikan makro ekonomi terhadap nilai perusahaan, tidak terdapat pengaruh yang signifikan ukuran perusahaan terhadap profitabilitas, terdapat pengaruh yang signifikan ukuran perusahaan terhadap nilai perusahaan, dan tidak terdapat pengaruh yang signifikan Profitabilitas terhadap nilai perusahaan.



**Kata Kunci:** Nilai Perusahaan, Keputusan Investasi, Keputusan Pendanaan, Makro Ekonomi, Ukuran Perusahaan, Sektor Telekomunikasi di Bursa Efek Indonesia Tahun 2016 – 2019

**I. PREFACE**

Firm value according to Fahmi (2014: 190), company value is obtained from the results of the quality of a company's performance, especially financial performance, of course it cannot be ruled out by the support of non-financial performance as well, as a synergy that supports the formation of

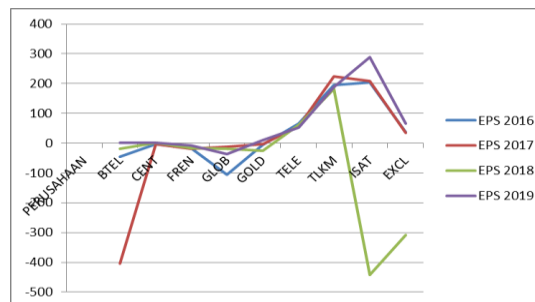
company value corporate value). Firm value is the result of the quality of the performance of a company where the higher the stock price the higher the company value. In this study, the indicators used to measure firm value are Price Book Value (PBV) and Earning Per Share (EPS). PBV measures the value that the market places on management or the company on the performance of the company's financial management. Because the value of the company can make the shareholders prosperous if the share price increases.

**Table 1. Firm Value Data from the EPS aspect**

Company	EPS 2016	EPS 2017	EPS 2018	EPS 2019
BTEL	-45,50	-404,50	-19,60	0,20
CENT	-2,47	-3,90	1,14	0,29
FREN	-17,63	-19,77	-16,40	-7,07
GLOB	-106,00	-13,00	-19,00	-36,00
GOLD	-4,31	-3,36	-25,69	9,38
TELE	66,00	57,00	61,00	52,00
TLKM	196,20	223,60	182,03	188,40
ISAT	203,40	209,00	-442,40	288,70
EXCL	38,00	35,00	-308,00	67,00

The data source is processed

Earning per share is a ratio that describes the amount of rupiah earned for each common share (Syamsuddin, 2009: 66). From this data, it is illustrated in the following graph.



**Figure 1. EPS Graph of Telecommunication Companies in Indonesia Stock Exchange 2016 - 2019**

This graph shows an increase and decrease in the value of unstable EPS in telecommunications sector companies on the Indonesia Stock Exchange 2016-2019.

**Table 2. Data of Firm Value from PBV aspect**

Company	PBV 2016	PBV 2017	PBV 2018	PBV 2019
BTEL	-0,11004	-0,00013	-119,247	-0,12077
CENT	1,322536	0,840492	0,882621	0,75505
FREN	0,901132	0,560884	1,072216	2,361831
GLOB	-0,74507	-0,74071	-0,51041	-0,56975



GOLD	2,245395	2,114473	1,806281	0,955688
TELE	1,915761	0,173766	1,765159	0,511304
TLKM	4,672303	4,744062	3,755771	3,950111
ISAT	2,625328	186,3451	0,754449	1,153609
EXCL	1,16409	1,462547	1986,913	1,760646

The data source is processed

This PBV shows the level of ability to create value relative to the amount of invested capital.

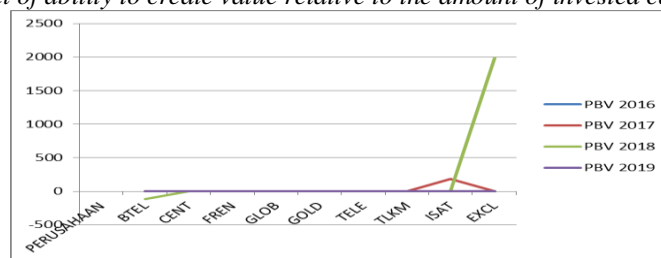


Figure 2. PBV Graph of Telecommunication Companies on the Indonesia Stock Exchange 2016 - 2019

This graph shows a stable trend in PBV in telecommunication sector companies on the Indonesia Stock Exchange 2016-2019 except for the Telkom company, which experienced a significant increase in 2018 so that researchers are interested in conducting research on company value.

The specific objectives in this study are to test and analyze whether investment decisions have a significant effect on profitability in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019, Test and analyze whether investment decisions have a significant effect on company value in telecommunications sector companies on the Indonesia Stock Exchange in 2017 -2019, Test and analyze whether funding decisions affect profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019, Test and analyze whether funding decisions have an effect on company value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019, Test and analyze whether macroeconomics has an effect on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019 ahaan telecommunications sector on the Indonesia Stock Exchange 2017-2019., Testing and analyzing whether company size affects profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019., Testing and analyzing whether company size affects company value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019, Test and analyze whether profitability has a significant effect on company value in telecommunications sector

companies on the Indonesia Stock Exchange 2017-2019.

## II. THEORY

### The value of the company

#### a. Earning Per share (EPS)

Earning per share is a ratio that describes the amount of rupiah earned for each common share (Syamsuddin, 2009: 66). According to Sofyan Syafri Harahap 2008: 306 "Earning Per Share is a ratio that shows how much the ability per share to generate profits". Therefore, in general, company management companies, common shareholders and prospective shareholders are very interested in Earning Per Share. Earning Per Share is an indicator of the success of a company.

$$EPS = \frac{\text{Laba setelah pajak}}{\text{Jumlah lembar saham beredar}}$$

#### b. Price to Book Value (PBV)

Firm value is measured by Price to Book Value (PBV). This PBV shows the level of ability to create value relative to the amount of invested capital. According to Husnan. S and Pudjiastuti (2006: 258), the formula used to calculate the Price to Book Value is as follows:

$$PBV = \frac{\text{Harga Saham}}{\text{Nilai Buku}}$$

### Investation Decisions

#### a. Price earning ratio (PER)

Price earning ratio (PER) functions to measure changes in the ability of earnings that are expected in the future. The greater the PER, the more likely the company will grow so that it can increase



company value. According to Hanafi and Halim (2007: 87) PER can be calculated as:

$$PER = \frac{\text{Harga Saham (Close Price)}}{\text{Laba per Lembar Saham (EPS)}}$$

### Funding Decisions

#### a. Debt to Asset Ratio (DAR)

Indicators of funding decisions in the study used the Debt to Asset Ratio (DAR). Debt ratio is a debt ratio that is used to measure the ratio between total debt and total assets. According to Kasmir (2012: 156) the formula for finding the debt ratio can be used as follows:

$$DAR = \frac{\text{Total Utang (Debt)}}{\text{Total Aktiva (Assets)}}$$

### Macro Economics

#### a. Inflation Rate

Fahmi (2012: 190) in his book explains how to calculate the inflation rate by using the ratio of the increase in the current consumer price index (CPI) to the consumer price index a year earlier (IHK-1). The consumer price index value is issued by Bank Indonesia (BI) as the government's arm in fiscal and monetary regulation.

$$\text{Inflasi} = \frac{IHK(t) - IHK(t-1)}{IHK(t-1)} \times 100\%$$

Keterangan :

Inf (t) = Inflation month t

IHK (t) = Consumer price index month t

IHK (t-1) = Consumer Price Index month t-1

#### b. Interest Rate

High interest rates will encourage investors to invest their funds in banks rather than investing in the production sector or industry that has a greater level of risk. Thus, the inflation rate can be controlled through the interest rate policy.

$$r = i - \mu$$

Dimana:

r = real interest rate

i = nominal interest rate

$\mu$  = inflation rate.

#### Exchange rate

"The way of valuing currency prices by stating the number of units of local currency needed to obtain one unit of foreign currency is called direct

quotation" (Joesoef, 2008: 25). In general, the direct exchange rate valuation formula is:

$$\text{Direct Quotation} = \frac{\text{Jumlah unit mata uang lokal}}{\text{Satu unit mata uang asing}}$$

Exchange rate (exchange rate) is the exchange rate of a country's currency with the currencies of other countries. Exchange rate data in this study is the exchange rate of the Indonesian currency (Rupiah) against the United States currency (dollar) using direct quotation which is expressed in IDR / USD (Indonesian Rupiah / US Dollar).

### Company Size

#### a. Ln (Total Asset)

According to Brigham and Houston (2010), company size is the average total net sales for the year concerned to several years. According to Jogyanto (2008), company size can be measured by the logarithm of total assets. The higher the total assets, the bigger the persh and the bigger the size.

Jogyanto (2008: 273) formulates the size of the company as follows;

$$\text{Size} = \text{Ln (Total Asset)}$$

#### b. Total Sales

Total assets, sales and market capitalization. The greater the total assets, sales and market capitalization, the greater the size of the company. When this variable is used to determine the size of the company because it can represent how big the company is. The bigger the asset, the more capital that is invested, the more sales, the more circulation of money, and the bigger the market capitalization, the more it is known to the public.

### Profitability

#### a. Return On Equity (ROE)

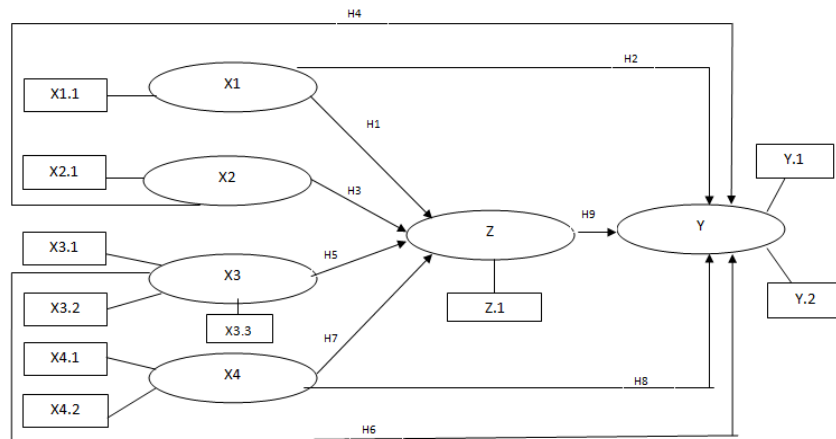
According to Brigham & Houston (2010), "Return On Equity, namely the ratio of net income to ordinary equity, measures the rate of return on investment of shareholders. Meanwhile, according to Tandelin "Return On Equity describes the extent to which the company's ability to generate profits that can be obtained by shareholders". The profitability formula according to Sartono (2012: 113) is as follows:

$$\text{Return On Equity} = \frac{\text{Laba setelah pajak}}{\text{Modal Sendiri}}$$

Modal Sendiri



## CONCEPTUAL FRAMEWORK



Gambar 3. Kerangka Konseptual

### Information:

X1: Investment Decision:

X1.1: Price Earning Ratio (PER)

X2: Funding Decision:

X2.1: Debt to Asset Ratio (DAR)

X3: Macro Economy:

X3.1: Inflation Rate

X3.2: Interest Rate

X3.3: Change Value

X4: Ukuran Perusahaan:

X4.1: Asset Total

X4.2: Sales Total

Z: Profitabilitas:

Z.1: Return on Equity (ROE)

Y: Value Company

Y.1: Earning Per Share (EPS)

Y.2: Price to Book Value (PBV)

### HYPOTHESIS

(1) Investment decisions have a significant effect on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019.

(2) The investment decision has a significant effect on company value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019.

(3) Funding decisions have a significant effect on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019.

(4) Funding decisions have a significant effect on company value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019.

(5) Macro economy has a significant effect on profitability in telecommunications sector

companies on the Indonesia Stock Exchange 2017-2019.

(6) Macroeconomics has a significant effect on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019.

(7) Company size has a significant effect on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019.

(8) Company size has a significant effect on company value in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019.

(9) Profitability has a significant effect on company value in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019.

### III. RESEARCH METHOD

The population in this study were 12 companies in the telecommunications sector listed on the IDX for the period 2016-2019.

1. BTEL - Bakrie Telecom Tbk
1. CENT - PT Centratama Telekomunikasi Indonesia Tbk
2. FREN - Smartfren Telecom Tbk
3. GHON - PT Gihon Telekomunikasi Indonesia Tbk
4. GLOB - Global Teleshop Tbk
5. GOLD - PT Visi Telekomunikasi Infrastruktur Tbk.
6. JAST - PT Jasnita Telekomindo Tbk.
7. TELE - PT Tiphone Mobile Indonesia Tbk.
8. TFAS - PT Telefast Indonesia Tbk.
9. TLKM - PT Telekomunikasi Indonesia (Persero) Tbk.
10. ISAT - PT Indosat Tbk
11. EXCL - PT XL Axiata Tbk



The sample selection using purposive sampling technique, namely the sampling technique of data sources with certain considerations, (Sugiyono, 2007). Following are the characteristics that researchers can take to become samples. The first is the telecommunications company sector listed on the Indonesia Stock Exchange in 2016-2019, because the telecommunications sector is currently growing rapidly. The second is a telecommunications sector company that has a complete annual report from 2016-2019. From this purposive sampling technique, the researcher obtained 9 samples of companies. The researcher did not use the 3 companies in the population because the 3 companies were relatively new and did not have complete financial reports from 2016-2019. The 9 companies that were the sample of researchers were BTEL-Bakrie Telecom Tbk, CENT-PT Centratama Telekomunikasi Indonesia Tbk, FREN-Smartfren Telecom Tbk, GLOB-Global Teleshop Tbk, GOLD-PT Visi Telekomunikasi Infrastruktur Tbk., TELE-PT Tiphone Mobile Indonesia Tbk. , TLKM-PT Telekomunikasi Indonesia (Persero) Tbk., ISAT-PT Indosat Tbk., EXCL-PT XL Axiata Tbk. This study uses the outer model evaluation research method, inner model evaluation, and hypothesis testing.

#### IV. RESULTS

##### Descriptive Analysis Results

Firm value in telecommunication sector companies has EPS and PBV indicators. The data on EPS and PBV are as follows:

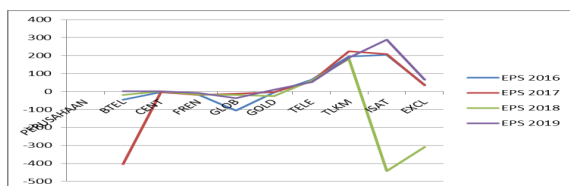


Figure 4. Graph of company EPS in the telecommunication sector on the Indonesia Stock Exchange 2016–2019

Earning Per Share is a ratio that shows how much the ability per share to generate profits. Therefore, in general, company management companies, common shareholders and prospective shareholders are very interested in Earning Per Share. Earning Per Share is an indicator of the success of a company. Earning Per Share (EPS) is the company's profit divided per share. The more the EPS value increases from year to year, the better the company is because the company's profits are

increasing, and the company can be said to be growing.

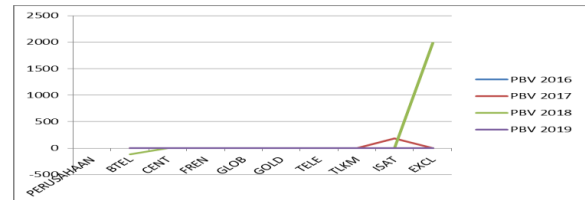


Figure 5. PBV chart of companies in the telecommunications sector on the Indonesia Stock Exchange 2016-2019

The Price to Book Value is essentially used to assess whether the stock price offered by a company is an expensive or cheap stock price. Price to Book Value Ratio (PBV) or the ratio of share prices to book value is often used to assess the price of a stock, whether cheap or expensive, which is usually referred to as stock valuation. Companies with PBV below the number "1" are usually considered as stocks with low price, while PBV ratios above the value "1" can be considered as stocks with high prices. Of course, investors want to buy stocks at low prices, or those with a Price to Book Value of less than 1.

Investment decisions in telecommunication sector companies have a PER indicator. The data on PER are as follows:

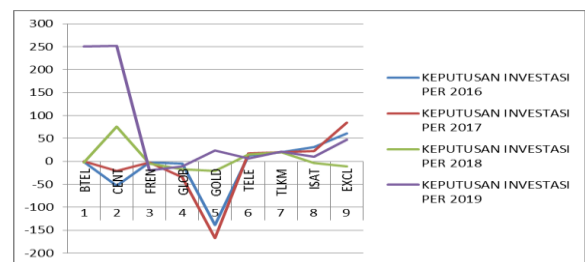


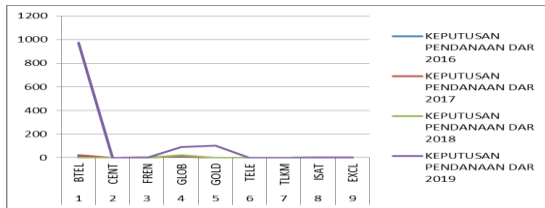
Figure 6. Graph of PER companies in the telecommunications sector on the Indonesia Stock Exchange 2016-2019

A company with high development has a high PER indicating that the market expects profit growth in the future. Companies with small growth tend to have a low price earning ratio. If the price earning ratio of a stock is low, it is cheap to invest. The price earning ratio becomes small in value, it could be due to lower stock prices or an increase in the company's net profit. So the smaller the PER value, the cheaper the shares to buy. Then the better the performance per share in generating profits for the company. The PER company range between 7 - 9 means the company is in poor condition. The



company's PER range between 10 - 14 means that the company is improving the company's condition going forward. The company PER ranges from 15 to 18 companies in good condition.

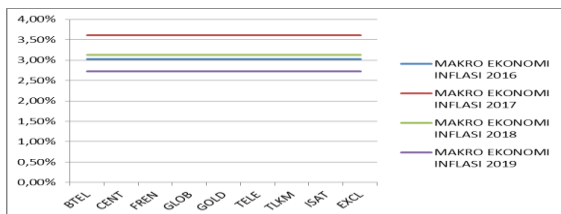
Funding decisions for telecommunications sector companies have a DAR indicator. The data on DAR are as follows:



**Figure 7 Graph of company DAR in the Telecommunication sector on the Indonesia Stock Exchange 2016-2019**

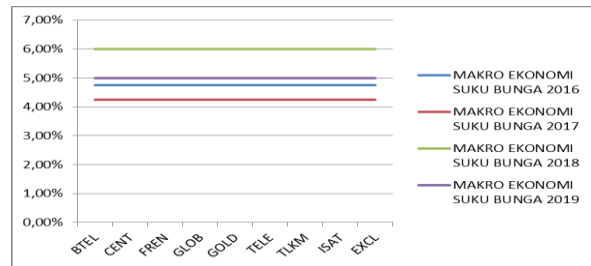
Ratio (DAR) is used to measure how much the company's assets are financed by total debt. The higher the DAR value, the greater the amount of assets financed by debt. The smaller the number of assets financed by capital. The higher the risk of the company to settle long-term obligations.

Macroeconomics in telecommunications sector companies have indicators of inflation, interest rates, and exchange rates. The data on inflation, interest rates and exchange rates are as follows:



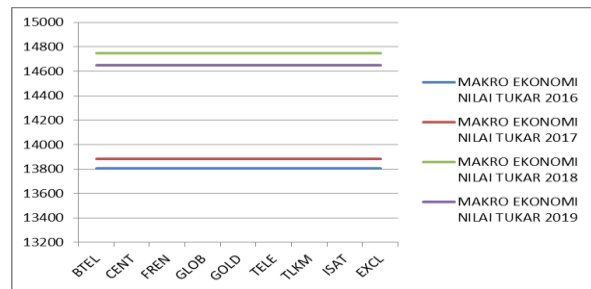
**Figure 8. Chart of company inflation in the telecommunications sector in the Indonesia Stock Exchange 2016-2019**

Inflation is an increase in prices in general, or inflation can also be said to be a decrease in the purchasing power of money. The higher the price increase, the lower the value of money. A healthy inflation rate is considered to be around 2-3% per year.



**Figure 9. Graph of company interest rates in the telecommunications sector on the Indonesia Stock Exchange 2016 - 2019**

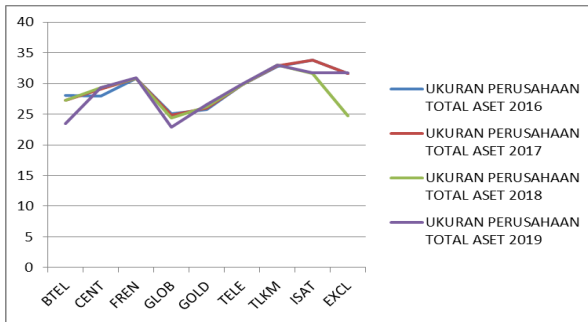
The effect of interest rates and investment can be seen from the condition that if interest rates are low, the amount of investment will increase. If investment increases, national income will increase. Conversely, if interest rates are high, the amount of investment will decrease. If investment decreases, national income will decrease.



**Figure 10. Chart of company exchange rates in the telecommunications sector on the Indonesia Stock Exchange 2016 - 2019**

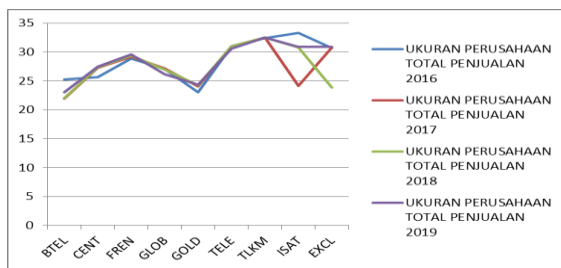
Countries with a strong exchange rate (having a large number of transactions) have a strong influence on the fundamentals of the world economy so that the central bank policies of developed countries on interest rates will usually be responded to by market players and investors to take advantage of this moment to get a better profit. The higher the exchange rate of a country, the country has a strong economy.

Company size in telecommunication sector companies has an indicator of total assets and total sales. The data on total assets and total sales are as follows:



**Figure 11. Graph of total company assets in the telecommunication sector on the Indonesia Stock Exchange 2016 - 2019**

Company size can be measured by the total assets owned by a company. The higher the total assets, the bigger the persh and the bigger the size.



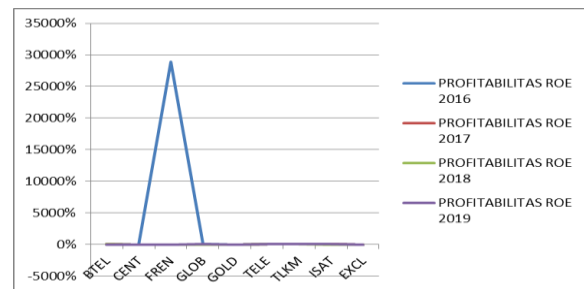
**Figure 12. Graph of total company sales in the telecommunication sector on the Indonesia Stock Exchange 2016 - 2019**

The size of the company can be measured by the

**Table 3. Descriptive Statistics**

Variable	Minimum	Maximum	Mean	St.Deviation
PER	-166.667	251.724	13.183	74.841
DAR	0.023	973.406	34.793	162.443
Inflation	2.720	3.610	3.120	0.325
Interest rate	4.250	6	5	0.646
Exchange rate	13807.380	14746.430	14271.068	433.710
Total Assets	22.837	33.862	29.124	3.136
Total Sales	21.976	33.307	28.022	3.399
ROE	-32.700	288.600	13.234	49.647
EPS	-442.400	288.700	10.659	152.518
PBV	-119.247	1986.913	58.262	332.724

total sales by a company. The higher the total sales, the better and the expected profit will increase Profitability in telecommunication sector companies has an ROE indicator. The data on ROE are as follows:



**Figure 13. Graph of company ROE in the telecommunication sector on the Indonesia Stock Exchange 2016 - 2019**

ROE is generally calculated using an accounting based performance measure and is calculated as the company's net income divided by the equity of common stockholders. According to Lestari and Sugiharto (2007: 196) "ROE figures can be said to be good if > 12%".

Descriptive statistical analysis provides a general description of the data in the form of mean, standard deviation, lowest value and highest value. The results of the descriptive analysis are as follows:





Based on table 3 it can be seen that the registered value of PER is -166,667. Then the highest PER value is 251,724. The average PER value of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 was 13,183 with a standard deviation of 74,841. A standard deviation value that is greater than the average indicates that the diversity or variation of PER data tends to be large.

The ternedah DAR value is 0.023. Then the highest value for DAR was 973,406. The average DAR value of telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 was 34,793 with a standard deviation of 162,443. A standard deviation value that is greater than the average indicates that the diversity or variation of DAR data tends to be large

The lowest inflation value is 2,720. Then the highest value of inflation is 3,610. The average inflation value of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 is 3,120 with a standard deviation of 0.325. A standard deviation value that is smaller than the average indicates that the variation or variation in inflation data tends to be small

The lowest interest rate is 4,250. Then the highest interest rate value is 6. The average interest rate of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 is 5 with a standard deviation of 0.646. A standard deviation value that is smaller than the average indicates that the diversity or variation of Interest Rate data tends to be small

The recorded value of the Exchange Rate is 13807,380. Then the highest exchange rate value is 14746,430. The average exchange rate value of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 was 14271,068 with a standard deviation of 433,710. The standard deviation value that is smaller than the average indicates that the diversity or variation of the Exchange Rate data tends to be small.

The recorded value of Total Assets is 22,837. Then the highest value of total assets is 33,862. The average value of total assets of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 is 29,124 with a standard deviation of 3,136. The standard deviation value that is smaller than the average indicates that the diversity or variation of the Total Asset data tends to be small.

Total Sales recorded value of 21,976. Then the highest value of Total Sales is 33,307. The average value of total sales of telecommunications sector companies on the

Indonesia Stock Exchange in 2017-2019 was 28,022 with a standard deviation of 3,399. The standard deviation value that is smaller than the average indicates that the diversity or variation of the Total Sales data tends to be small

The recorded ROE value is -32,700. Then the highest ROE value is 288,600. The average ROE value of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 was 13,234 with a standard deviation of 49,647. A standard deviation value that is greater than the average indicates that the variability or variation in ROE data tends to be large

The recorded value of EPS is -442,400. Then the highest EPS value is 288,700. The average EPS value of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 is 10,659 with a standard deviation of 152,518. A standard deviation value that is greater than the average indicates that the diversity or variation of EPS data tends to be large

The lowest PBV value is -119,247. Then the highest PBV value is about 1986,913. The average PBV value of telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 was 58,262 with a standard deviation of 332,724. A standard deviation value that is greater than the average indicates that the diversity or variation of PBV data tends to be large

### Evaluate the Outer Model

Evaluation of the measurement model is a stage to evaluate the validity and reliability of a construct, which consists of evaluation of construct validity and evaluation of construct reliability. Each will be explained as follows:

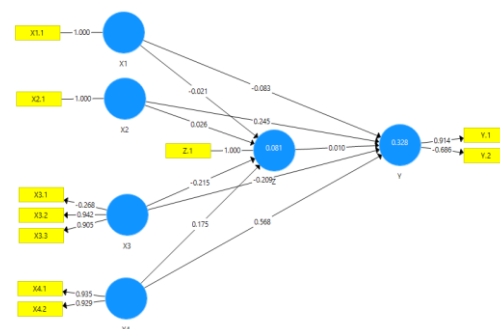


Figure 14. Construction of the Outer Model

#### a. Convergent Validity Test

Evaluation of construct validity is done by calculating convergent validity. Convergent validity is known through the loading factor value and Average Variance Extracted (AVE). An



instrument is said to meet the convergent validity test if it has a loading factor and an Average Variance Extracted (AVE) above 0.5. The results

of the convergent validity test are presented in the following table:

**Table 4. Convergent Validity Test Results**

Variable	Indicator	Loading Factor	AVE
Investation decision	Price Earning Ratio (PER)	1.000	1,000
Funding Decisions	Debt to Asset Ratio (DAR)	1.000	1,000
Macro Economics	Inflation Rate	-0,268	0,592
	Interest Rate	0.942	
	Exchange rate	0.905	
Company Size	Total Asset	0.935	0,868
	Total Sales	0.929	
Profitability	Return on Equity (ROE)	1,000	1,000
The value of the company	Earning Per Share (EPS)	0.914	0,653
	Price to Book Value (PBV)	-0.686	

Based on table 4 above, it can be seen that the Inflation Level indicator in the Macroeconomic variable and the Price to Book Value (PBV) indicator on the Firm Value variable results in a loading factor value of less than 0.5. Thus it can be

said that the indicator is declared invalid so that reduction is carried out gradually. The following results from the analysis after reduction of the indicators are invalid.

**Table 5. Results of Convergent Validity Testing after Reduction**

Variable	Indicator	Loading Factor	AVE
Investation decision	Price Earning Ratio (PER)	1.000	1,000
Funding Decisions	Debt to Asset Ratio (DAR)	1.000	1,000
Macro Economics	Interest Rate	0.947	0,904
	Exchange rate	0.955	
Company Size	Total Asset	0.935	0,868
	Total Sales	0.928	
Profitability	Return on Equity (ROE)	1.000	1.000
The value of the company	Earning Per Share (EPS)	1.000	1.000

Based on table 5 above, it can be seen that all the indicators on the variables produce a loading factor value and AVE is more than 0.5. Thus it can be said that all indicators are declared valid and can be analyzed further.

**b. Discriminant Validity Test**

Discriminant validity is calculated using cross loading with the criteria that if the cross loading value in a corresponding variable is greater than the correlation value of the indicator in the other variable, then the indicator is declared valid in measuring the corresponding variable. The results of



the cross loading calculation are presented in the following table:

**Table 6. Results of Cross Loading Discriminant Validity Testing**

Indicator	X1	X2	X3	X4	Y	Z
<b>X1.1</b>	<b>1,000</b>	0,535	0,187	0,154	0,116	-0,005
<b>X2.1</b>	0,535	<b>1,000</b>	0,093	-0,352	-0,029	-0,053
<b>X3.2</b>	0,077	-0,002	<b>0,947</b>	-0,084	-0,211	-0,131
<b>X3.3</b>	0,271	0,172	<b>0,955</b>	-0,089	-0,108	-0,241
<b>X4.1</b>	0,141	-0,368	-0,139	<b>0,935</b>	0,483	0,197
<b>X4.2</b>	0,146	-0,287	-0,028	<b>0,928</b>	0,477	0,146
<b>Y.1</b>	0,116	-0,029	-0,166	0,516	<b>1,000</b>	0,140
<b>Z.1</b>	-0,005	-0,053	-0,198	0,185	0,140	<b>1,000</b>

Based on the cross loading measurement in table 6 above, it can be seen that overall the indicators of all variables produce a loading value (bold font) that is greater than the loading value of other variables (viewed horizontally). Thus it can be stated that from the discriminant validity test, each indicator is able to measure the latent variable that corresponds to the indicator.

### c. Construct Reliability

Calculations that can be used to test construct reliability are Cronbach alpha and composite reliability. The test criteria states that if the composite reliability is greater than 0.7 and Cronbach alpha is greater than 0.6, the construct is declared reliable.

The results of calculating composite reliability and cronbach alpha can be seen through the summary presented in the following table:

**Table 7. Construction Reliability Test Results**

Variable	<i>Cronbach's Alpha</i>	<i>Composite Reliability</i>
Investation decision	1,000	1,000
Funding Decisions	1,000	1,000
Macro Economics	0,894	0,950
Company Size	0,848	0,929
The value of the company	1,000	1,000
Profitability	1,000	1,000

Based on table 7 above, it can be seen that only each variable produces a Chronbach alpha value greater than 0.6 or a composite reliability value greater than 0.7. Thus, based on the calculation of the Chronbach alpha value or the composite reliability value, all indicators are declared reliable in measuring the variables.

### Inner Model Evaluation

Evaluation of the structural model or inner model is a stage to evaluate the goodness of fit which includes the coefficient of determination and

predictive relevance as well as hypothesis testing. Each will be explained as follows:

#### a. Coefficient of Determination (R2)

The coefficient of determination (R2) is used to determine the ability of endogenous variables to explain the diversity of exogenous variables, or in other words to determine the magnitude of the contribution of exogenous variables to endogenous variables. The results of R2 can be seen in the following table.



**Table 8. The results of the coefficient of determination (R2)**

Variabel Dependen	R Square	1-R Square	R Square Total
Company Value	0,313	0,687	0,360
Profitability	0,068	0,932	

Table 8 shows that the R-square value on the Profitability variable is 0.068 or 6.8%. This can indicate that the diversity of profitability variables can be explained by the investment decision, funding decision, macroeconomic, and company size variables of 6.8%. Or in other words, the contribution of the influence of the variables of Investment Decisions, Funding Decisions, Macroeconomics, and Company Size on Profitability is 6.8%. While the remaining 93.2% is the contribution of other variables which are not discussed in this study.

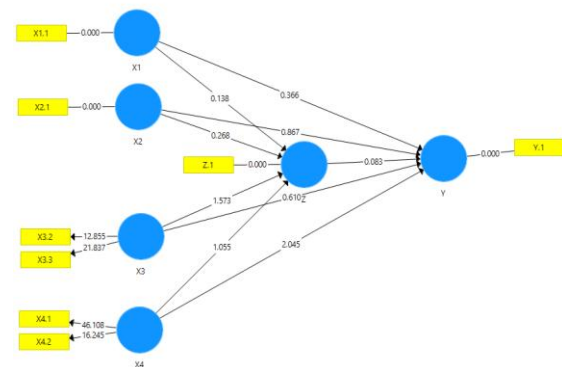
The R-square value for the Firm Value variable is 0.313 or 31.3%. This can indicate that the variety of firm value variables can be explained by the variables of investment decisions, funding decisions, macroeconomics, company size, and profitability by 31.3%. Or in other words, the contribution of the influence of the variables of Investment Decisions, Funding Decisions, Macroeconomics, Company Size, and Profitability on Firm Value is 31.3%. While the remaining 68.7% is the contribution of other variables which are not discussed in this study.

The total R-square value is 0.360 or 36.0%. This can indicate that the variety of variables of Firm Value can be explained by the variables of Investment Decisions, Funding Decisions, Macroeconomics, and Company Size, directly or indirectly through profitability of 36.0%. Or in other words the contribution of the influence of the variables of Investment Decisions, Funding

Decisions, Macroeconomics, and Company Size on Company Value directly or indirectly through Profitability of 36.0%. While the remaining 64.0% is the contribution of other variables which are not discussed in this study.

**b. Hypothesis test**

Significance testing is used to test the influence of exogenous variables on endogenous variables. The test criteria states that if the value of T-statistics  $\geq$  T-table (1.96) or the value of P-Value  $<$  significant alpha 5% or 0.05, it is stated that there is a significant effect of exogenous variables on endogenous variables. The results of the significance and model testing can be seen through the following figures and tables.



**Figure 15. Inner Model construct**

**Table 9. Hypothesis Testing Results**

Impact	Coefisien	T Statistics	P Values	Information
Investment Decision -> Profitability	-0,021	0,138	0,890	Not significant
Investment Decision -> Company Value	-0,081	0,366	0,715	Not significant
Funding Decisions -> Profitability	0,040	0,268	0,788	Not significant
Funding Decision -> Company Value	0,236	0,867	0,386	Not significant
Macro Economy -> Profitability	-0,181	1,573	0,116	Not significant
Macro Economy -> Company Value	-0,115	0,610	0,542	Not significant
Company Size -> Profitability	0,186	1,055	0,292	Not significant



Company Size -> Company Value	0,597	2,045	0,041	Significant
Profitability -> Company Value	0,019	0,083	0,934	Not significant

Based on table 9 it can be explained as follows:

1. Hypothesis 1 Investment decisions have a significant effect on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the test of the effect of investment decisions on profitability in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics  $<1.96$  with a  $p\text{-value} > 0.05$ . It can be concluded that there is no significant effect of investment decisions on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. Thus, hypothesis 1 in this study is not fulfilled.
2. Hypothesis 2 Investment decisions have a significant effect on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the test of the effect of investment decisions on firm value in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics  $<1.96$  with a  $p\text{-value} > 0.05$ . It can be concluded that there is no significant effect of investment decisions on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019. Thus, hypothesis 2 in this study is not fulfilled.
3. Hypothesis 3 Funding decisions have a significant effect on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the test of the effect of funding decisions on profitability in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics  $<1.96$  with a  $p\text{-value} > 0.05$ . It can be concluded that there is no significant effect of funding decisions on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019. Thus, hypothesis 3 in this study is not fulfilled.
4. Hypothesis 4 Funding decisions have a significant effect on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that

the test of the effect of funding decisions on company value in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics  $<1.96$  with a  $p\text{-value} > 0.05$ . It can be concluded that there is no significant effect of Funding Decisions on firm value in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. Thus, hypothesis 4 in this study is not fulfilled.

5. Hypothesis 5 Macroeconomics has a significant effect on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the Macroeconomic Influence test on profitability in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics  $<1.96$  with a  $p\text{-value} > 0.05$ . It can be concluded that there is no significant Macroeconomic influence on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. Thus, hypothesis 5 in this study is not fulfilled.

6. Hypothesis 6 Macroeconomics has a significant effect on firm value in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the Macroeconomic Effect test on firm value in telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics  $<1.96$  with a  $p\text{-value} > 0.05$ . It can be concluded that there is no significant Macroeconomic influence on company value in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. Thus, hypothesis 6 in this study is not fulfilled.

7. Hypothesis 7 Company size has a significant effect on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the test of the influence of company size on profitability in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics  $<1.96$  with a  $p\text{-value} > 0.05$ . It can be concluded that there is no significant effect Company size on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-



2019. Thus, hypothesis 7 in this study is not fulfilled.

8. Hypothesis 8 Company size has a significant effect on firm value in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the test of the influence of company size on firm value in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics > 1.96 with a p-value of <0.05. It can be concluded that there is a significant influence on company size on company value in telecommunication sector companies on the Indonesia Stock Exchange in 2017-2019. Thus, hypothesis 8 in this study is fulfilled. The resulting coefficient is 0.597 (positive). This means that if

the size of the company increases by 1 unit, it tends to increase the company value by 0.597 units by assuming other variables are constant.

9. Hypothesis 9 Profitability has a significant effect on company value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019. In the results listed in the table above, it can be seen that the Profitability Influence test on firm value in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019 produces a value of T statistics <1.96 with a p-value > 0.05. It can be concluded that there is no significant effect of profitability on company value in telecommunications sector companies on the Indonesia Stock Exchange in 2017-2019. Thus, hypothesis 9 in this study is not fulfilled.

**Table 10. Hypothesis Testing Results Indirectly**

Impact	Original Sample (O)	T Statistics ( O/STDEV )	P Values
X1 -> Z -> Y	0,000	0,008	0,994
X2 -> Z -> Y	0,001	0,013	0,990
X3 -> Z -> Y	-0,003	0,054	0,957
X4 -> Z -> Y	0,004	0,030	0,976

Based on the results in table 10 above, it can be seen that all indirect effects produce a p value greater than a significant alpha of 5% or 0.05. This shows that the profitability variable has not been able to mediate the influence of the investment decision, funding decision, macroeconomic, and company size variables on firm value.

## V. DISCUSSION

PLS analysis that has been carried out aims to determine the relationship that can be measured from investment decisions, funding decisions, macroeconomics, and company size to firm value with profitability as an intervening.

### 1. The effect of investment decisions on profitability

The results of this study indicate that investment decisions have no significant effect on profitability. These results are supported by previous research by Salama, Rate, and Untu (2019), namely that investment decisions do not have a significant effect on profitability.

However, the results of this study do not support the research hypothesis. The results show that investment decisions have no significant effect on profitability in the telecommunications sector which is listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, due to the

company's PER tends to be low. The PER of the company which tends to be low results in small growth in the company. Small growth in the company causes low company profitability.

The results of this study are not in line with previous research by Mardiyati, Ahmad, and Abrar (2015) which states that investment decisions have a significant effect on profitability.

### 2. The effect of investment decisions on firm value

The results of this study indicate that investment decisions have no significant effect on firm value. These results are supported by previous research by Prastika (2013), namely that investment decisions have no significant effect on firm value.

However, the results of this study do not support the research hypothesis. The results show that investment decisions have no significant effect on company value in the telecommunications sector which is listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, because the PER of the company tends to be low. The PER of the company which tends to be low results in small growth in the company. The small growth in the company causes the company value to be low.

The results of this study are not in line with previous research by Laksmiwati (2017) which



states that investment decisions have a significant effect on firm value.

### 3. The effect of funding decisions on profitability

The results of this study indicate that funding decisions have no significant effect on profitability. These results are supported by previous research by Darmayanti (2013), Selviana and Badjra (2018), namely that funding decisions have no significant effect on profitability.

However, the results of this study do not support the research hypothesis. The results show that funding decisions have no significant effect on profitability in the telecommunications sector which is listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, because the company's DAR tends to be high. The higher the DAR value means that the greater the amount of assets financed by debt. The greater the amount of assets financed by debt, the greater the expenditure will be. This will lead to low company profitability.

The results of this study are not in line with previous research by Priati (2015) which states that funding decisions have a significant effect on profitability.

### 4. The effect of funding decisions on firm value

The results of this study indicate that funding decisions have no significant effect on firm value. These results are supported by previous research by Tarema, Parengkuan and Untu (2016), Mardiyati, Ahmad, and Abrar (2015), and Jesilia and Purwaningsih (2020), namely that funding decisions have no significant effect on firm value.

However, the results of this study do not support the research hypothesis. The results show that funding decisions have no significant effect on profitability in the telecommunications sector which is listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, because the company's DAR tends to be high. The higher the DAR value means that the greater the amount of assets financed by debt. The greater the amount of assets financed by debt, the greater the expenditure will be. This will lead to lower company value.

The results of this study are not in line with previous research by Ariyanto (2019) which states that funding decisions have a significant effect on firm value.

### 5. Macroeconomic influences affect profitability

The results of this study indicate that funding decisions have no significant effect on profitability. These results are supported by previous research by Adiyadna, Artini, and Rahyuda (2016), Kusuma (2016), and Fathunnida, Defung, and Yudaruddin (2017), namely that macroeconomics has no significant effect on profitability.

However, the results of this study do not support the research hypothesis. The results show that macroeconomic has no significant effect on profitability in the telecommunications sector which is listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, because macroeconomic indicators (inflation, interest rates and exchange rates) tend to be unstable in 2016-2019. This results in minimal macroeconomic influence on profitability.

The results of this study are not in line with previous research by Pranita (2018) which states that macroeconomics has a significant effect on profitability.

### 6. Macroeconomic influence on firm value

The results of this study indicate that funding decisions have no significant effect on firm value. These results are supported by previous research by Sugiarto and Santosa (2017) and Dwipartha (2015), namely that macroeconomics has no significant effect on firm value.

However, the results of this study do not support the research hypothesis. The results show that the macro economy has no significant effect on the value of companies in the telecommunications sector listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, because macroeconomic indicators (inflation, interest rates and exchange rates) tend to be unstable in 2016-2019. This results in minimal macroeconomic influence on firm value.

The results of this study are not in line with previous research by Putra, Suhadar, and Topowijono (2015) which states that investment decisions have a significant effect on firm value.

### 7. The effect of company size on profitability

The results of this study indicate that firm size has no significant effect on profitability. These results are supported by previous research by Putra and Badjra (2015), namely company size has no significant effect on profitability.

However, the results of this study do not support the research hypothesis. The results show that company size has no significant effect on profitability in the telecommunications sector which is listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, because the indicator of total sales tends to be unstable. Company size can be measured by the total sales by a company. The higher the total sales the better and it is expected that the profit will increase, but this time the total sales tend to be unstable. This results in the least influence of company size on profitability.

The results of this study are not in line with previous research by Rifai, Arifati, and Magdalena



(2015) which states that company size has a significant effect on profitability.

#### 8. The effect of company size on firm value

The results of this study indicate that firm size has a significant effect on firm value. Thus the results of this study are in line with previous research by Pratama and Wiksuana (2018) but the results of this study are not in line with previous research by Ramdhonah, Solikin, and Sari (2019) which said that company size has no significant effect on firm value.

The results of this study support the research hypothesis. The results showed that there was a significant influence between company size and firm value. This significant and positive influence indicates that the greater the value of the size of the company can explain and predict the increase in firm value. Conversely, the lower the value of firm size can explain and predict the decline in firm value.

#### 9. Effect of profitability on firm value

The results of this study indicate that profitability has no significant effect on firm value. These results are supported by previous research by Pratama and Wiksuana (2018), namely that profitability has no significant effect on firm value.

However, the results of this study do not support the research hypothesis. The results show that profitability has no significant effect on company value in the telecommunications sector which is listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period, because the company profitability indicator (ROE) tends to be low. This shows that the greater the profit obtained from a company does not guarantee the increase in the value of the company. Large profitability does not reflect the ability of the company to obtain large profits for shareholders. The greater the profit earned does not guarantee the greater the company's ability to pay dividends, it does not necessarily have an impact on the increase in company value.

The results of this study are not in line with previous research by Erawati and Dewi (2018) which states that profitability has a significant effect on firm value.

## VI. CONCLUSION

Based on the results of research data on investment decisions, funding decisions, macroeconomics, and company size on company value with profitability as an intervening in the telecommunications sector listed on the Indonesia Stock Exchange (BEI) for the period 2016-2019, this study can draw the following conclusions.

Based on the results of the model estimation, it can be seen:

1. There is no significant effect of investment decisions on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H1 in the study is rejected
2. There is no significant effect of investment decisions on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H2 in this study is rejected.
3. There is no significant effect of funding decisions on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H3 in this study is rejected.
4. There is no significant effect of funding decisions on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H4 in this study is rejected.
5. There is no significant macroeconomic influence on profitability in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H5 in this study is rejected.
6. There is no significant macroeconomic influence on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H6 in this study is rejected.
7. There is no significant effect company size on profitability in telecommunication sector companies on the Indonesia Stock Exchange 2017-2019 and H7 in this study is accepted.
8. There is a significant effect of company size on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H8 in this study was rejected.
9. There is no significant effect of profitability on firm value in telecommunications sector companies on the Indonesia Stock Exchange 2017-2019 and H9 in this study is rejected.

## SUGGESTION

1. Future research should highlight the factors that affect the value of the company in other fields, both in companies on the IDX or not.
2. Investors who wish to invest, should first look for information that has been published by the relevant company as a guide in making investment decisions.
3. For companies, there are suggestions that there is a significant influence between company size





and firm value. It is hoped that the results of this study will assist the company in making financial decisions.

4. For further research, it is hoped that further research can be carried out related to important decisions that affect firm value. By increasing the research period and adding other variables in the study.
5. There are many other variables that can be used as manifest in explaining investment decisions, such as Tobin-Q, PER, MVEBVE and others. NPM, ROI to explain profitability. LDR, short debt ratio to explain funding decisions so that they can affect the results of the analysis in the study.

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