

## FUNDAMENTAL STOCK INVESTMENT DECISION MAKING WITH PRICE EARNING RATIO (PER) APPROACH IN TECHNOLOGY SUBSECTOR STOCK LISTED ON THE INDONESIA STOCK EXCHANGE

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### Abstract

This study aims to determine fundamental investment decisions with the Price Earning Ratio (PER) approach in technology subsector stocks listed on the Indonesia Stock Exchange for the 2018-2021 period. This study uses secondary data in the form of financial statements of each technology subsector company, where the sample used in this study is as many as 11 technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period. The data analysis method used in this study is fundamental analysis using the Price Earning Ratio (PER) approach with the help of Microsoft Excel 2021 software. The results showed that all technology subsector companies used in this study were correctly valued because the intrinsic value of the stock was equal to the stock market price or experienced price stability so that investors could hold the stock.

**Keywords:** Investment Decisions, Fundamental Analysis, Price Earning Ratio Approach

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### INTRODUCTION

The capital market has a very important role in supporting a country's economy. The capital market itself is used as a meeting place between individuals, business entities, or institutions that need funds or have excess funds. This is as explained by Tandelilin (2017) where the capital market is a meeting place between parties who have excess funds and parties who need funds by trading securities, here securities traded generally have a lifespan of more than one year like stocks or bonds. The development of a company itself can be influenced by many factors such as the presence of capital, capital in a company will be used to expand the business and also all operational activities of the company. According to Palalangan, et al (2021), one way to realize the capital of a company is to issue shares in the capital market. The capital market itself has a very important role because it is a financial industry in which long-term financial products are traded. In this capital market, investors invest part of their funds for the purpose of obtaining profits in the future, while companies or parties who need funds will look for investors to lend their funds for business development and increase their working capital.

The progress of the capital market as an investment medium in Indonesia is currently experiencing very rapid progress. This can be seen from the increase in trading volume, transaction value and the number of issuers. According to Subekti in Aji (2012) investment in the capital market is considered attractive because there are many choices and each choice has different risks, among various capital market instruments, stocks are investment instruments that have a high level of *return* and risk. The transaction value or what in capital market terms is better known as a high capitalization value indicates the potential for high profits. On the other hand, the *return* on stock investment is dividends and *capital gains*, so investors must conduct stock analysis to obtain the expected profit. The capital market is a place where investors meet to conduct transactions over a long period with a provision. The capital market can also be interpreted as a business field for trading securities such as stocks, stock certificates and bonds. The capital market has a very important role in a country's economy. According to Maya (2019) there are several roles and benefits of the capital market, including: as a vehicle for efficient fund allocation, as an investment alternative, as a way for investors to choose and own healthy companies with good prospects, as evidence of a company in carrying out management professionally and transparently, and increasing national economic activity.

The increase in the capital market accompanied by the increasing number of investors above must really be used by an investor in analyzing which stocks should be bought or sold to obtain the maximum possible profit. Investors will want optimal returns on their investment to be used again as company funds or capital. The increasing number of shares and stock trading volume makes investors need a lot of accurate and relevant

information in making investment decisions in the capital market. Investment decisions are a factor that can affect firm value because the better management manages investment decisions, the better the company's value in the eyes of investors. According to Sutrisno (2017), Investment decisions are how financial managers decide to allocate funds to an investment to generate profits in the future.

In analyzing which stocks should be sold and should be kept and which stocks should be bought, an investor can use fundamental analysis. According to Tjiptono and Fakhruddin (2017), fundamental analysis is a technique that tries to estimate stock prices in the future by estimating the value of fundamental factors that affect stock prices in the future and applying the relationship of these variables until an estimate of stock prices is obtained. The stock exchange is a party that is the executor of the market or *marketplace* or can be said to be a capital market where there are various kinds of companies. Indonesia itself has a stock exchange known as the Indonesia Stock Exchange (IDX). There are several shares of large companies on the Indonesia Stock Exchange, one of which is technology service companies, technology companies themselves until 2022 listed on the Indonesia Stock Exchange reaching 32 companies. The use of fundamental analysis in this study is because fundamental analysis is an analysis that is often used by investors for long-term investment by paying attention to many things such as information in the company such as financial data and also economic factors that can affect the development of a company. While technical analysis itself is only used by *traders* by analyzing stock movements using charts and looking at price data and stock trading volume in the past. Where this is certainly more important to conduct a fundamental analysis because each share has an intrinsic value (true value) to determine the fairness of the stock price whether it is undervalued, *overvalued*, and *correctly valued* (Palalangan et al., 2021).

Based on the above phenomenon, an investor must be able to conduct an analysis to find out which company shares will benefit, so that with the analysis of the stock price, an investor will be able to make the right investment decisions so as to benefit from the investment he makes. Based on the description above, it is one of the reasons the author wants to conduct research on "Fundamental Stock Investment Decision Making with a *Price Earning Ratio* (PER) Approach on Technology Subsector Stocks Listed on the IDX".

## RESEARCH METHOD

This research was conducted on the Indonesia Stock Exchange (IDX) which is accessed on the *idx website or website*. The object of this study is technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period. Where this research is related to making fundamental investment decisions using the *Price Earning Ratio* (PER) approach or assessing using a comparison of intrinsic value and market value of a company. The types and sources of data used in this study are secondary data, this is because the data needed has existed before, the data in this study is data from the financial statements of each company obtained from the *website* of each technology subsector company. The population used in this study is all technology subsector companies listed on the Indonesia Stock Exchange until 2022, which is 32 companies. Based on the results of sample selection using *purposive sampling*, it shows that the samples obtained are as many as 11 technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period.

The data analysis method to determine fundamental investment decision making is with the following steps (Peranginangin, 2021):

1. Calculating earning per share

The formula:

$$EPS = \frac{\text{Net Profit}}{\text{Number of Shares Outstanding}}$$

2. Calculating dividend payout ratio

The formula:

$$DPR = \frac{\text{Dividend Per Sahre}}{\text{Earning Per Share}}$$

3. Calculating dividend per share

The formula:

$$DPS = \frac{\text{Dividend Cash}}{\text{Number of Shares Outstanding}}$$

4. Calculating price earning ratio  
The formula:

$$PER = \frac{\text{Price Per Share}}{\text{Earning Per Share (EPS)}}$$

5. Calculating return on equity  
The formula:

$$ROE = \frac{\text{Net Profit}}{\text{Capital (Total Equity)}}$$

6. Calculating intrinsic value with price earning ratio approach  
The component that is usually observed in analyzing an industry is the profit per share or what is often referred to as *earnings per share* and the second component is the *price earning ratio* which is a ratio to tell investors how much to invest in the company's shares that are being looked at. There are 3 main components in calculating intrinsic value with *the price earning ratio approach*, including (Peranginangin, 2021):
- Dividend payout ratio* which is a comparison of how much of a company's profits are used as dividends by the company.
  - Required *rate* of return ( $k$ ), the expected rate of *return* to find out whether the company has expectations to grow in accordance with the accepted risk. The formula is as follows:

$$k = \frac{D_1}{P_0} + g$$

- The expected growth rate of dividends, the formula:

$$g = \frac{\text{Net Profit}}{\text{Amount of Own Capital}} \times (1 - \text{DPR})$$

The *price earning ratio* formula that is usually used to determine the intrinsic value of stocks is as follows:

$$PER = \frac{D1/E1}{k - g}$$

7. Calculating the intrinsic value of stock

$$\text{Intrinsic Value} = \text{Estimated EPS} \times \text{PER}$$

8. Decision-making determination

According to Peranginangin (2021), the investment decision-making procedure is as follows:

- If the market price of a stock is less than its intrinsic value ( $NP < NI$ ) then it can be said to be undervalued. So it can be concluded that the stock should be bought and held with the aim of obtaining capital gains (profits from capital sales) if then the price rises again.
- If the market price of a stock is equal to its intrinsic value ( $NP = NI$ ) then it can be said to be correctly valued. So it can be concluded that investors should not invest because the stock is in a state of balance, the transaction of buying or selling shares has no profit obtained.
- If the market price of a stock is greater than its intrinsic value ( $NP > NI$ ) then it can be said to be overvalued. So it can be concluded that the stock should be sold to avoid losses because the price will then fall to adjust to its value.

The framework and hypotheses in the study are as follows:

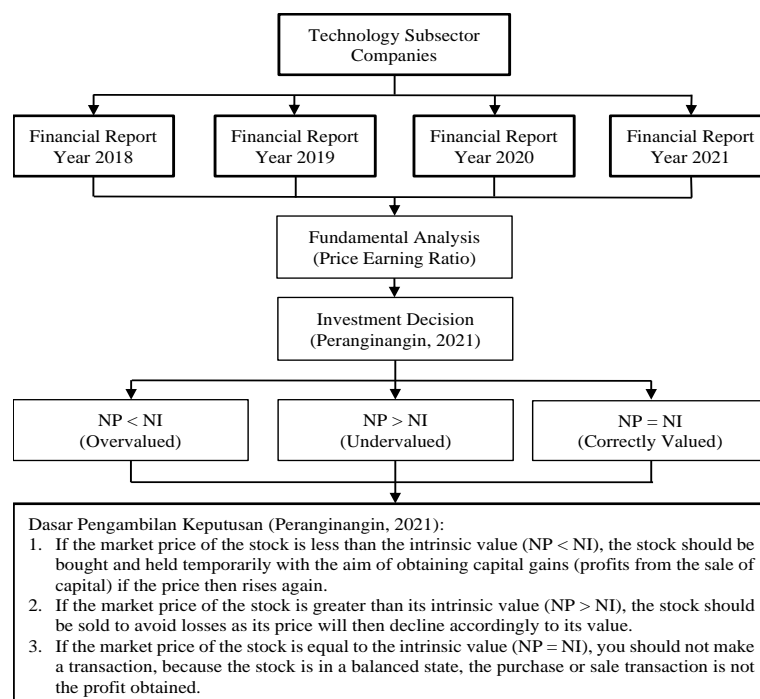


Image 1. conceptual framework

Based on the description of the conceptual framework and supported by existing theories, the research hypothesis is as follows:

- H1: Stock prices are included in the *overvalued* category in technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period.
- H2 : The stock price is included in the *correctly valued* category in technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period.
- H3 : Stock prices are included in the *undervalued* category in technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period.

## RESULTS AND DISCUSSION

### Results

#### Stock Valuation

After calculating the intrinsic value of each company's shares using the *Price Earning Ratio* (PER) approach, the next step that will be taken is to compare the market price of the stock with the intrinsic value obtained. The market price used as a comparison is the stock price on December 31, 2019. According to Peranginangin (2021), the results of stock valuations with their intrinsic value can produce different stock conditions, including *undervalued*, *overvalued*, or *correctly valued*. The results of the comparison of stock market value with the intrinsic value of stocks in this study are as in table below:

Table 1. Result of Comparison of Market Value and Intrinsic Value of Stock

No	Company Name	Comparison		Condition
		Stock Price	Intrinsic Value	
1	PT. Anabatic Technologies	Rp 800	Rp 800	Correctly Valued
2	PT. Distribusi Voucher Nusantara	Rp 2.150	Rp 2.150	Correctly Valued
3	PT. Elang Mahkota Teknologi	Rp 2.280	Rp 2.280	Correctly Valued
4	PT. Kioson Komersial Indonesia	Rp 509	Rp 509	Correctly Valued

5	PT. Kresna Graha Investama	Rp 96	Rp 96	Correctly Valued
6	PT. Sentral Mitra Informatika	Rp 370	Rp 370	Correctly Valued
7	PT. M Cash Integrasi	Rp 9.525	Rp 9.525	Correctly Valued
8	PT. Multipolar Technology	Rp 3.510	Rp 3.510	Correctly Valued
9	PT. Metrodata Electronics	Rp 764	Rp 764	Correctly Valued
10	PT. NFC Indonesia	Rp 8.950	Rp 8.950	Correctly Valued
11	PT. Sat Nusapersada	Rp 234	Rp 234	Correctly Valued

Data Processed (2023)

Based on the results of the comparison of the value of shares with the intrinsic value of shares in table above, the following results are obtained:

1. PT. Anabatic Technologies is in a stock condition of *correctly valued*. This is because in the analysis of the share price of PT. Anabatic Technologies obtained the result that the intrinsic value obtained is Rp 800 or the same as the market price of its shares which is Rp 800.
2. PT. Distribusi Voucher Nusantara is in the condition of *shares correctly valued*. This is because in the analysis of the share price of PT. The distribution of Nusantara Vouchers results in the intrinsic value obtained is Rp 2,150 or the same as the market price of the shares, which is Rp 2,150.
3. PT. Elang Mahkota Teknologi is in a stock condition of *correctly valued*. This is because in the analysis of the stock price of PT. Elang Mahkota Teknologi obtained the result that the intrinsic value obtained is Rp 2,280 or the same as the market price of the stock which is Rp 2,280.
4. PT. Kioson Komersial Indonesia is in a stock condition of *correctly valued*. This is because in the analysis of the stock price of PT. Kioson Komersial Indonesia obtained the result that the intrinsic value obtained is Rp 509 or equal to the market price of its shares which is Rp 509.
5. PT. Kresna Graha Investama is in a condition of *correctly value d shares*. This is because in the analysis of the stock price of PT. Kresna Graha Investama obtained the result that the intrinsic value obtained was Rp 96 or the same as the stock market price of Rp 96.
6. PT. Sentral Mitra Informatika is in a stock condition of *correctly valued*. This is because in the analysis of the stock price of PT. Sentral Mitra Informatika obtained the result that the intrinsic value obtained was Rp 370 or the same as the stock market price of Rp 370.
7. PT. M Cash Integrasi is in the condition of *shares correctly valued*. This is because in the analysis of the share price of PT. M Cash Integration obtained the result that the intrinsic value obtained is Rp 9,525 or the same as the market price of the stock which is Rp 9,525.
8. PT. Multipolar Technology is in a stock condition *correctly valued*. This is because in the analysis of the stock price of PT. Multipolar Technology obtained the result that the intrinsic value obtained is Rp 3,510 or equal to the market price of the stock which is Rp 3,510.
9. PT. Metrodata Electronics is in a stock condition of *correctly valued*. This is because in the analysis of the stock price of PT. Metrodata Electronics obtained the result that the intrinsic value obtained was Rp 764 or the same as the market price of the stock which was Rp 764.
10. PT. NFC Indonesia is in a stock condition *correctly valued*. This is because in the analysis of the share price of PT. NFC Indonesia obtained the result that the intrinsic value obtained is Rp 8,950 or the same as the market price of the stock which is Rp 8,950.
11. PT. Sat Nusapersada is in a stock condition *correctly valued*. This is because in the analysis of the stock price of PT. Sat Nusapersada obtained the result that the intrinsic value obtained was Rp 234 or the same as the market price of the stock which was Rp 234.

## Decisions

Investment decision making based on fundamental analysis using the *Price Earning Ratio* (PER) approach can be done after knowing the intrinsic value in the shares of each company which is then compared to the stock market price and determining the condition of the company's shares. According to Peranginangin (2021), guidelines for how to make decisions in investing are as in table below:

**Table 2. Investment Decision Making Guide**

Keterangan	Kondisi Saham	Keputusan Investasi
IV > SM	<i>Undervalued</i>	Buying Stocks
IV < SM	<i>Overvalued</i>	Selling Shares
IV = SM	<i>Correctly Valued</i>	Hold Stocks

Source: Peranginangin (2021)

Note:

IV : Intrinsic Value

SM : Stock Market Value

Based on the stock investment decision making guidelines in the table above, the results of investment decision making in this study are as in table below:

**Table 6. Results of Panel Data Regression Estimation with Random Effect Model  
On Financial Performance Proxied Through Solvency Ratio**

No	Perusahaan	Kondisi Saham	Keputusan Investasi
1	PT. Anabatic Technologies	<i>Correctly Valued</i>	Hold Stocks
2	PT. Distribusi Voucher Nusantara	<i>Correctly Valued</i>	Hold Stocks
3	PT. Elang Mahkota Teknologi	<i>Correctly Valued</i>	Hold Stocks
4	PT. Kioson Komersial Indonesia	<i>Correctly Valued</i>	Hold Stocks
5	PT. Kresna Graha Investama	<i>Correctly Valued</i>	Hold Stocks
6	PT. Sentral Mitra Informatika	<i>Correctly Valued</i>	Hold Stocks
7	PT. M Cash Integrasi	<i>Correctly Valued</i>	Hold Stocks
8	PT. Multipolar Technology	<i>Correctly Valued</i>	Hold Stocks
9	PT. Metrodata Electronics	<i>Correctly Valued</i>	Hold Stocks
10	PT. NFC Indonesia	<i>Correctly Valued</i>	Hold Stocks
11	PT. Sat Nusapersada	<i>Correctly Valued</i>	Hold Stocks

Data Processed (2023)

Based on the results of investment decision making in table 4.14 above, it is obtained that all companies have stock conditions that are *correctly valued* because the intrinsic value of shares and the market value of shares obtain the same results, so it can be concluded that investors should not invest because the shares are in a state of balance, the transaction of buying or selling shares has no profit obtained, And if the investor already owns the shares, you should hold the shares. Therefore, the hypothesis stating that stock prices are included in the *correctly valued* category in technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period is accepted (H2 accepted).

## CONCLUSION

Based on the results of the research that has been conducted, it was found that the assessment of stock price fairness using fundamental analysis with the *Price Earning Ratio* (PER) approach in technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period was obtained that the eleven companies sampled in this study were in a *correctly valued* condition i.e. the intrinsic value of a stock is equal to its market price. Then the results of research on the assessment of stock price fairness using fundamental analysis with the *Price Earning Ratio* (PER) approach in technology subsector companies listed on the Indonesia Stock Exchange for the 2018-2021 period that the author has done, where the results were obtained that all samples used in this study were in a *correctly valued* condition. Theoretically, the shares of the eleven companies that are *correctly valued* experience price stability. So that investors can hold the shares.

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