



Fundamental, Technical and Broker Summary Analysis in Investing in Indonesian Stock Market between 2016 -2022

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DOI:

10.36418/comserva.v2i3.2
70

ABSTRACT

Histori Artikel:

Diajukan : 11-08-2022

Diterima : 20-08-2022

Diterbitkan : 25-08-2022

The development of the Indonesian capital market is getting faster every year. This is demonstrated by the increasing rise of investors each year. However, choosing which stocks to buy and when to buy and sell these stocks is the major challenge encountered by investors. Analysis is thus required in order for investors in order to choose the right company by calculating the intrinsic value. Fundamental, technical, and broker summary analysis will be used in this study. These financial ratios are used in fundamental analysis to rank the filtered stocks including Return on Asset, Return on Equity, Price to Earnings, and Price to Book Value. Through technical analysis, the data is back tested between 2016 and 2022 using the Simple Moving Average, Weighted Moving Average dan Exponential Moving Average strategies. In the broker summary analysis, it will be seen which stocks are being accumulated or distributed by the broker. By choosing the right company and performing well (fundamental analysis) and determining the right time (technical analysis) to buy and sell the company's stocks, investors will get the maximum return. From the results of the study, the largest return was obtained by the Simple Moving Average method of 112.03% Meanwhile, broker summary analysis is used as a tool to determine whether the stock price will go up or down. Investors must master these three analyses (fundamental, technical, broker summary) to be confident in their investments.

Keyword: Fundamental analysis; technical analysis; broker summary analysis.

INTRODUCTION

Trading in securities issued by public corporations, as well as institutions and professions associated with securities, are all part of the stock market (Suhartono, 2009). Many people are interested in investing in the stock market since doing so will allow them to benefit from the company's capital gains and dividends. Because the stock market has a link with economic circumstances in a nation, in addition to its stated goals as outlined in the stock market legislation, it is crucial that information about stock markets be widely distributed to the public. One of the sources of funding that can increase productive investment in the economy and have a favorable impact on the overall national economy is the capital market (Sumanto, 2006). The Financial Services Authority also oversees businesses listed on the Indonesian stock exchange (OJK) (Atikah, 2020). Investors are more likely to put their money into the stock market as a result of this (Merkle & Weber, 2014). As can be seen, the majority of the world's wealthy individuals, including Warren Buffet of the United States and Lo Kheng Hong of Indonesia, participate in the stock market. Being able to effectively invest in the stock market depends on a number of aspects, one of which is the significance of picking a business that performs well. While stock market investments involve high risk and large profits, investing in the capital market also carries some risk. Purchasing power risk, business risk, interest rate risk, market risk, and liquidity risk are

among the possible dangers, according to ([dan Harjito](#), n.d.). As a result, prudent risk management is always required of stock market investors, and the significance of keeping capital should not be diminished.

The challenge for a beginner investor is not understanding how to pick a good company and when to buy and sell the company's stock ([Anderson & Smith](#), 2006). A lot of amateur investors purchase stocks without researching the company. The majority of investors experience financial losses in their first year of investing as a direct result of this. In order to limit losses and maximize profits, investing, particularly on the Indonesian stock market, requires a plan. Investment analysis includes a variety of techniques, including fundamental analysis, technical analysis, and broker summary analysis.

Investors are anticipated to be able to discover a reputable firm and identify the ideal entry and exit points using the combination of these three analyses. Stocks are bought with the hope of profiting from them. Investors first need to: Before considering a purchase of business stocks, conduct research about the firm. Investors may determine if stocks have a promising future by using stock analysis. As a result, the author of this study suggests employing the back-testing method to determine the best course of action for an investor with a good return.

All three types of analysis are employed to evaluate stock investments in this work: fundamental, technical, and broker's summary. An instance of the research approach applied to this project is shown in Figure 2.1. The company's issue is that individual investors are still unsure of how to select reputable company stocks to invest in and when it is best to buy or sell these equities. The company has an issue with this. After realizing investment-related firm problems, as depicted in Figure 2.1, the author will choose a decent stock choice via the screening selection procedure.

After then, the results of the stock screening will be used, and they will be subject to the following four conditions: return on equity, price to earnings ratio, price to book value ratio, and earnings per share. After researching this analysis, the author developed a straightforward template for a technical screener that may be applied to evaluation. The author also conducted research on other financial websites, including [Marketinout.com](#), [Stockbit.com](#), and the official [IDX](#) website, in addition to the company's yearly reports, which were accessible on the internet.

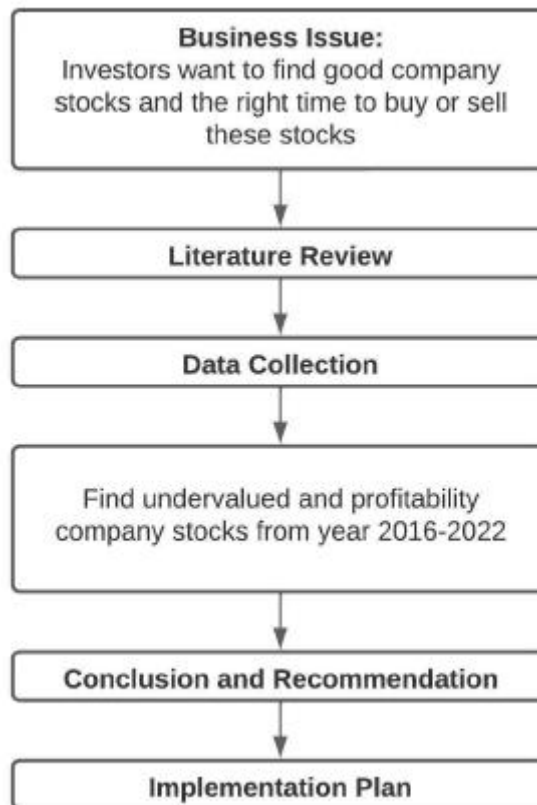


Figure 2-1. Research Framework

Fundamental Analysis is a method of assessing a company's performance based on financial statements is fundamental analysis (Balance Sheet, Income Statement and Cash Flow Statement). These financial accounts will reveal which businesses are consistently profitable and expanding year over year. Additionally, it is possible to determine whether the firm is still in the low-cost (undervalued) category, making it appropriate for long-term investment. A company's profitability and stock valuation tend to rise together, and vice versa. By investigating the company's economic and financial reports and evaluating all qualitative and quantitative data, the fundamental analysis seeks to determine the company's value. Although this method is typically used to establish the real value of publicly traded equities, it may also be used to value any other kind of asset. When performing a fundamental analysis, investors often use one or both of the following approaches: top-down and bottom-up analysis. Top-down analysis looks at local and international economic indicators, such as GDP growth rates, energy prices, inflation, and interest rates. The search for the largest asset and the finest business within a given industry is then honed using an analysis of overall sales, price points, and global competitiveness.

$$\text{Price to Book Value Ratio} = \frac{\text{stock price per share}}{\text{book value per share}} \quad (1)$$

$$\text{Price to Earnings Ratio} = \frac{\text{stock price per share}}{\text{earnings per share}} \quad (2)$$

$$\text{Earnings per Share} = \frac{\text{earnings available for common stockholder}}{\text{number of shares of common stocks outstanding}} \quad (3)$$

$$\text{Return on Assets} = \frac{\text{earnings after tax}}{\text{total assets}} \quad (4)$$

$$\text{Return on Equity} = \frac{\text{net income available to common shareholders}}{\text{common equity}} \quad (5)$$

Technical Analysis is analyzing information generated by recent market activity, technical analysis can forecast future price changes. According to Dow theory, there are three types of price movements: uptrending (rising prices), downtrending (falling prices), and static prices (sideways). Building and evaluating stock charts in terms of price changes and transaction volumes is what technical analysis comprises in order to get insight into potential future change orientations (Malkiel, 2019). According to (Eric et al., 2009) technical analysis is used with based on 3 assumptions namely:

- 1) The market discounts all relevant information
- 2) Price moves in trends
- 3) History tends to repeat itself

It is necessary to do a broker summary analysis to determine which brokers are responsible for rising or falling stock prices. This study is completed in order to track the movements of the broker who controls the stock's price. The volume of shares exchanged at a specific time, ranging from daily, weekly, monthly, and even annually, is taken into consideration in this research. The broker summary itself is a quantitative study that places a focus on the accumulation and distribution principles. Investors should familiarize themselves with stock brokers before making any capital market investments since they serve as a middleman in the trading of stocks on the market. Retail brokers and institutional brokers are the two categories of brokers in Indonesia. Because the funds to be managed are not as substantial as with an institutional broker, where institutional brokers manage money from the corporation, investors often create an account with a retail broker. With domestic (D) and foreign (F) codes, the broker domicile may also be classified into two categories. The phase of broker summary analysis:

- 1) Accumulation
- 2) Mark-up
- 3) Distribution
- 4) Mark-down

METHOD

The author chooses which stocks to research in this particular situation by using a stock filter ([Ivković & Weisbenner](#), 2007). When making investing selections, the author will take the moving average of the stock's price movement into account ([Drakopoulou](#), 2016).

This analysis includes all equities that were traded on the Indonesian Stock Exchange between 2016 and 2022. The use of the online tools offered by [marketinout.com](#), [tradingview.com](#), and [stockbit.com](#) allowed for the criterion selection. In January 2016, the process for choosing the criteria will begin.

The selection of stocks is filtered using the following standards:

- a. Fundamental Analysis
 - 1) Return on Assets (ROA) >10%
 - 2) Return on Equity (ROE) >10%
 - 3) Price to Book Value (PBV) <1
 - 4) Price to Earnings Ratio (PER) <10
- b. Technical Analysis
 - 1) SMA 50 cross above SMA 200 and SMA 50 cross below SMA 200
 - 2) WMA 50 cross above WMA 200 and WMA 50 cross below WMA 200
 - 3) EMA 50 cross above EMA 200 and EMA 50 cross below EMA 200
- c. Broker Summary Analysis
 - 1) Accumulation
 - 2) Distribution

Stocks with strong performance (profitability) and cheap pricing (undervaluation) are chosen using fundamental research. The financial accounts of the firm might be used to examine this ([Baresa et al.](#), 2013). Whether or not the firm has a strong financial performance will be evident from the facts in the financial statements ([Yuthas et al.](#), 2002). The next stage is determining the best moment to acquire and sell these stocks after finding profitable and inexpensive businesses ([Amit & Zott](#), 2010). When a stock enters an upswing phase is the ideal time to purchase it ([Greenwood & Jovanovic](#), 1999). The Moving Average is one tool that may be employed (MA). When the Moving Average 50 crosses above the Moving Average 200, which is a signal to purchase the stock, an uptrend in the moving average can be noted. When the Moving Average 50 crosses below the Moving Average 200, which is where this trend breaks, a sell signal is generated ([Kannan et al.](#), 2010). The Simple Moving Average (SMA), Weighted Moving Average (WMA), and Exponential Moving Average will be compared in this study (EMA). It will be determined which of the three Moving Averages will provide the best return.

The broker's movement will also be perceived as a price controller during the rising period. Using broker summary analysis, we try to read the movement of the brokers. Broker data collected at the MA 50/200 and MA 200/50 intersections.

We just mimic the trading patterns of brokers since they have access to more detailed and timely information than retail investors and more funds than retail investors. Brokers are frequently thought to have the most up-to-date knowledge, the best strategy, and the power to affect pricing.

Individual retail investors just need to track the movement of the brokers themselves, as a result. It is visible if the brokers are distributing or acquiring stock.

RESULT AND DISCUSSION

The businesses that were included in this research were categorized using the basic analysis for the month of January 2016. The criteria used in this research were Price to Earnings Ratio (PER), Price to Book Value, Return on Assets (ROA), and Return on Equity (ROE) (PBV). SMA, WMA, and EMA are employed for the technical analysis. Seven equities were found utilizing the screeners from marketinout.com and stockbit.com.

Stocks	PBV	PER	ROE	ROA	EPS Growth
SMMT	0.8	2.7	28.7%	22.2%	146.65%
LPLI	0.3	1.3	25.8%	25.5%	1277.78%
LPPS	0.2	2.5	10.5%	10.4%	650%
PALM	0.6	1.2	51.8%	49.3%	1.07%
PSSI	0.7	3.8	19.5%	12.7%	200%
KBLI	0.8	3.3	25.3%	17.9%	8.14%
ELSA	0.5	5.4	10.0%	11.2%	28.95%

Table 1. Result of Stock Screener

It was discovered that the seven stocks that were sorted by the screener are in various sectors and sub-sectors. The sectors of energy and its sub-sector of oil, gas, and coal are those in which SMMT, PSSI, and ELSA operate. LPLI belongs to the sector and sub-sector of real estate and property. The holding and investment firms sub-sector of the financial industry is where LPPS is located. The food and beverage sub-sector of PALM comes from the non-cyclical consumer sector. The industrial goods sub-sector is where KBLI is located.

A comparison is conducted between a moving average-based trading system approach and a buy-and-sell strategy starting in 2016 and running through 2022. For each of the selected stocks, the author uses the exact same entry point date. The entry is marked by the MA 50's intersection with the MA 200. This proves that the stock is now in an upward period of trading. The place where MA 50 meets MA 200 below is the departure point. It illustrates that the stock has strayed from the trend in this specific case (not in the uptrend phase anymore).

Stocks	Buy Condition		Sell Condition		Return
	SMA50 > SMA200		SMA50 < SMA200		
	Buy Date	Buy Price	Sell Date	Sell Price	
SMMT	12/8/2017	135	11/1/2018	175	29.63%
LPLI	12/10/2020	84	2/7/2022	248	195.24%
LPPS	9/28/2020	82	1/31/2022	102	24.39%
PALM	08/14/2020	245	-	-	-
PSSI	08/04/2020	160	-	-	-
KBLI	1/15/2016	110	10/13/2017	416	278.18%
ELSA	11/9/2020	208	7/6/2021	276	32.69%
Average					112.03%

Table 2. Stock Return of SMA

The maximum return of 278.18 percent was produced by KBLI from the examination of the SMA data. LPLI came in second with a return of 195.24 percent, after. Because they are still in the rising phase, PALM and PSSI have not displayed a sell signal in the meantime. The SMA delivers the highest overall return of the three MAs examined at 112.03 percent.

Stocks	Buy Condition		Sell Condition		Return
	WMA50 > WMA200		WMA50 < WMA200		
	Buy Date	Buy Price	Sell Date	Sell Price	
SMMT	11/23/2017	135	11/15/2018	185	37.04%
LPLI	1/6/2020	86	2/14/2022	244	183.72%
LPPS	9/25/2020	83	11/3/2021	106	27.71%
PALM	08/04/2020	200	-	-	-
PSSI	07/01/2020	155	-	-	-
KBLI	11/23/2015	112	09/05/2017	388	246.43%
ELSA	11/18/2020	230	5/21/2021	290	26.09%
Average					104.20%

Table 3. Stock Return of WMA

According to WMA, KBLI achieved the biggest return with a 246.43 percent, followed by LPLI with an 183.72 percent. ELSA, on the other hand, saw the lowest return, at 26.09 percent. Also showing no signs of selling are PALM and PSSI, thus these two stocks are remaining on hold. WMA had a return of 104.2 percent.

Stocks	Buy Condition		Sell Condition		Return
	EMA50 > EMA200		EMA50 < EMA200		
	Buy Date	Buy Price	Sell Date	Sell Price	
SMMT	2/1/2018	200	11/16/2018	165	-17.50%
LPLI	2/26/2021	102	3/31/2022	252	147.06%
LPPS	10/11/2020	80	2/15/2022	102	27.50%
PALM	08/10/2020	225	-	-	-
PSSI	07/08/2020	150	-	-	-
KBLI	1/29/2016	112	5/23/2018	372	232.14%
ELSA	11/27/2020	288	7/1/2021	256	-11.11%
Average					75.62%

Table 4. Stock Return of EMA

Both positive and negative return findings are observed using EMA. KBLI recorded the greatest return at 232.14 percent. Second-placed LPLI had a return of 147.06 percent. However, SMMT and ELSA saw returns of 17.5% and -11.1%, respectively. Overall, EMA still generates a 75.62 percent positive return. The EMA has the lowest return of the three MA findings that have been examined.

Stocks	Broker Summary	Average Price	Value (IDR)
SMMT	Accumulation with Mark-up	181	16.6 Billion
LPLI	Accumulation with Mark-up	222	6.4 Billion
LPPS	Accumulation with Mark-up	110	9 Billion
PALM	Distribution with Mark-up	802	131.1 Billion
PSSI	Accumulation with Mark-up	363	68.8 Billion
KBLI	Distribution with Mark-up	454	224.9 Billion
ELSA	Distribution with Mark-up	371	333 Billion

Table 5. Broker Summary of SMA

According to the findings of the broker summary analysis using the SMA approach, the broker had four stocks accumulated, namely SMMT, LPLI, LPPS, and PSSI. Brokers are in charge of distributing the other 3 equities, which are PALM, KBLI, and ELSA. The broker adds a markup so that the price rises even when there is a distribution. With IDR 68.8 billion at a price of 363, PSSI had the highest accumulation, whilst ELSA saw the largest distribution with IDR 333 billion at a price of 371.

Stocks	Broker Summary	Average Price	Value (IDR)
SMMT	Accumulation with Mark-up	176	17.8 Billion
LPLI	Accumulation with Mark-up	218	6.4 Billion
LPPS	Accumulation with Mark-up	111	9.9 Billion
PALM	Distribution with Mark-up	803	129.8 Billion
PSSI	Accumulation with Mark-up	365	78.1 Billion
KBLI	Distribution with Mark-up	463	219.4 Billion
ELSA	Distribution with Mark-up	391	323.5 Billion

Table 6. Broker Summary of WMA

The SMA approach predicts that the broker will accumulate SMMT, LPLI, LPPS, and PSSI using the WMA method, which is what the broker actually does. PALM, KBLI, and ELSA are distributed by the broker. While ELSA had the greatest distribution with IDR 323.5 billion at IDR 391, PSSI had the most accumulation with IDR 78.1 billion at a price of 365.

Stocks	Broker Summary	Average Price	Value (IDR)
SMMT	Accumulation with Mark-up	195	11 Billion
LPLI	Accumulation with Mark-up	263	6 Billion
LPPS	Accumulation with Mark-up	110	9.7 Billion
PALM	Distribution with Mark-up	810	131.4 Billion
PSSI	Accumulation with Mark-up	362	68.1 Billion
KBLI	Distribution with Mark-up	469	185.3 Billion
ELSA	Distribution with Mark-up	392	325.7 Billion

Table 7. Broker Summary of EMA

Broker analysis, which is based on EMA analysis, yields the same outcomes as SMA and WMA. The LPPS, PSSI, LPLI, and SMMT are accumulated by the broker. The broker distributes PALM, KBLI, and ELSA. ELSA had the highest distribution at IDR 325.7 billion at a price of 392, while PSSI had the largest accumulation at IDR 68.1 billion at a price of 362.

It was discovered that the following table accurately depicts which strategies offer the best average returns after analyzing the returns created by each strategy and computing the returns generated by each strategy.

Stocks	SMA Return	WMA Return	EMA Return	Broker Summary
SMMT	29.63%	37.04%	-17.50%	Accumulation with Mark-up
LPLI	195.24%	183.72%	147.06%	Accumulation with Mark-up
LPPS	24.39%	27.71%	27.50%	Accumulation with Mark-up
PALM	-	-	-	Distribution with Mark-up
PSSI	-	-	-	Accumulation with Mark-up
KBLI	278.18%	246.43%	232.14%	Distribution with Mark-up
ELSA	32.69%	26.09%	-11.11%	Distribution with Mark-up
Average	112.03%	104.20%	75.62%	

Table 8. Comparison Summary

The table demonstrates how the Moving Average return might change based on the employed tactics. While the EMA method produces returns that are less than 100%, SMA and WMA create average returns that are more than 100%. When compared to all other employed methods, the SMA technique had the most impact on the overall return. Return on investment from this method is 112.03 percent. Regarding the broker summary analysis, the three Moving Average techniques provide the same outcomes while having various buy and sell dates.

CONCLUSION

As a summary of some of the most significant findings from the study provided, the author of this publication provides the following: a). Select a good company. One of the tactics that investors must employ is finding a solid firm. On IDX, 788 businesses are listed, however not all of them are performing well. Earnings per share (EPS), return on equity (ROE), and return on assets (ROA) are three measures that might reveal if a business can generate a profit. Price to Book Value (PBV) and Price to Earnings Ratio are two metrics that can reveal if a company's shares are cheap or not (PER). b). Select the ideal buying and selling times. It's time to decide when to purchase and sell stocks after learning the qualities of a good firm. Technical analysis is the ideal indication. Determining how is the most crucial aspect of a technical analysis. The research makes it possible to see patterns as soon as they emerge. The method is carried out by using the trend of changes in indexes or prices over a period of time to undertake technical analysis. When the moving average 50 crosses above the moving average 200 to signify the beginning of the ascending period, it is time to purchase. Moving Average 50 crossing below Moving Average 200 indicates a broken trend and is a sell signal. c). Act as a price mover by following the broker's movement. We are unable to influence a stock's price as regular investors. Broker summary analysis can therefore predict whether the stock price will increase or decrease. Investors have the ability to see when brokers buy or sell certain stocks, allowing them to follow the trend of the brokers and acquire stocks at a profit. An acceptable return will be reached using the three aforementioned criteria, with the Simple Moving Average approach yielding the highest return of 112.03 percent. If PALM and PSSI are taken into account, the return might possibly be higher. However, since the two stocks are in a strong uptrend phase and the price is likely to rise further, it is not taken into account in this analysis.

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