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## FUNDAMENTAL VERSUS TECHNICAL ANALYSIS OF INVESTMENT: CASE STUDY OF INVESTORS DECISION IN INDONESIA STOCK EXCHANGE

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### ABSTRACT

**T**he focus of this research is to explain whether investors prefer technical or fundamental analysis to analyze their investment options and to analyze factors influencing the selection of that investment analysis method. The research uses questionnaire with 125 participants. Six independent variables used to explain the choice of investment analysis method, namely investor's education, investor's experience, information accessibility by the investor, investor's time the horizon, trading activity frequency, and investor's perception toward the disclosure done by the corporation. The result showed that Indonesian investors prefer technical analysis. The influencing factors that significantly the selection of analysis method are investor's experience and investor's time horizon.

**KEYWORDS:** Investor Demography; Investment Decision; Fundamental Analysis

### INTRODUCTION:

Nowadays, the modern and advanced economy has always characterized the rapid development of the activity in the capital market. Likewise, increasing

awareness of the public to invest in the stock exchange because in the past people invest only in deposits. In making an investment decision, investors can analyze their investments by using two methods of analysis, namely fundamental analysis and technical analysis [1,2]. Fundamental analysis is the analysis of investment aimed at knowing the intrinsic value of shares in the company [3,4]. While technical analysis is an analytical tool that relies on market data that can be either graphics or other technical indicators, thus the technical analysis is also called charting [5]. Taylor and Allen [6] have conducted a survey of 353 dealers in the London exchange market. The results showed that the use of fundamental analysis and technical analysis are complementary. However, 90% of respondents in this study give more weight to the technical analysis. Similar to Taylor and Allen [6], Lui and Mole [7] conducted a study on investment analysis



methods that are widely used by Hong Kong investors. Lui and Mole [7] conducted a survey of the exchange market dealers in Hong Kong and found that technical analysis is more attractive to use, especially for a shorter period.

Selection of the analytical methods used by investors associated with the Efficient Market Hypothesis and regarding Fama [8], an active market as a market that prices have reflected in all the relevant information. Relevant information is including past event, society, and personal information. Based on the absorption rate of the relevant information, Fama [8] divides the efficient market into three categories which include weak market, semi-strong market, and efficient markets. In Indonesia, an efficient market mechanism research has been carried out. Sirait [9] conducted a study to examine the mechanism of the weak market in Indonesia. The results of this study indicate that the Indonesian stock market is inefficient and becomes efficient when done with a long-term research. Pontoh [3] also showed that the Indonesian stock market is not efficient, even including a weak stock market. Suryadimaja [10] tested the semi-strong form efficient market in Indonesia by using event study to analyze the effect of the announcement of the Initial Public Offering (IPO) and additional listing. Suryadimaja [10] showed that the information related to the announcement of the stock listing could not reflect in stock prices. In other words, the Indonesian stock market is not efficient or classified as the semi-strong stock market. The implication of this research is the investor can earn abnormal returns by using only historical data on the Indonesian stock market because the Indonesian stock market is not efficient [3]. Therefore, the use of technical analysis might be useful in Indonesia. The purposes of this study are:

1. To review and investigate whether the level of investor education influence the selection model of investment analysis;
2. To examine and investigate whether the experience of investors influence the selection model of investment analysis;
3. To review and investigate whether the time horizon investor-owned affect the selection of models of investment analysis;
4. To review and investigate whether the trading frequency do investors influence the selection model of investment analysis;
5. To examine and investigate whether the accessibility of information investors influence the selection model of investment analysis;
6. To assess and investigate whether the level of investor perceptions affecting the composition of the investment analysis model.

Moreover, this study provides two main contributions were:

1. Purpose on aspects of science are expected to provide and add knowledge to the reader how the techniques or methods in stock investing and what factors are affecting it,
2. Purpose on aspects of the practitioner is methods of analysis in this study is still relatively rare, especially in Indonesia and this study contributes to investigating methods of analysis used by investors in investing.

## LITERATURE REVIEW

Decision-making theory: According to Davis [11], the decision is the result of solving its problems. It relates to the answers to questions about "what to do" and the making of planning. In another word, the decision was the result of a thought process that the form of elections one among

several alternatives that can use. There are five models of decision-making [12], namely: Model Rational, Rational Model Limited, Trash Cans Model (Garbage Can Model), Transcendent Model, and Model Intuitive.

Efficient market theory: An efficient market may indicate that stock prices fully reflect (fully reflect) the information available, it can be a company's annual report, the distribution of dividends, stock splits, stock market analysts' reports, and so on. Regarding Gumanti and Utami [13], Fama [8] presents three (3) types of primary types of market efficiency based on three kinds of information related to the selection method of analysis used by investors that past information, the information is now being published and information provided as follows:

(i) Weak market, (ii) semi-strong market, (iii) efficient markets.

### STOCK VALUATION TECHNIQUES:

In conducting stock transactions, every investor has a different analysis. Many references investment and financial analysis, divide stock investments, namely fundamental analysis, and technical analysis. Nevertheless, the fact that many investors and speculators are not familiar with this type of investment analysis because they only rely on information from the monitor screen, rumors, and news in the media for making an investment decision. Fundamental analysis is a method of forecasting movements of financial instruments in the future based on economic, political, environmental, and other relevant factors, as well as statistics that will affect the demand and supply of such financial instruments [14]. Meanwhile, according to Halim [15], fundamental analysis is an analysis that compares the intrinsic value of stock by its market price to determine whether the stock exchange prices already reflect the intrinsic value or not. According to Jogiyanto, the Fundamental analysis is the analysis using financial data, i.e. data derived from financial statements, such as earnings, dividends distributed and so on. Fundamental analysis is an analysis regarding the condition of the company. Meanwhile, according to Sutrisno [16] is a fundamental analysis of stock price analysis approach that focuses on the performance of businesses that issue shares and economic analysis which will affect the company's future.

Different from the fundamental analysis, technical analysis involves information relating to government policies, economic growth, the development of interest rates, the political conditions of a country, significant events, and others. A fundamental premise of technical analysis is the stock price reflects the relevant information, that information indicates changes in prices in the past, and hence the stock price changes will have a particular pattern, and that pattern will be repeated [17]. According to Ahmad [18], technical analysis is the analysis of the securities market or focusing on stock indices, prices or other market statistics to find patterns that might be predictive of a picture that has made. Briefly, technical analysis can be considered as securities analysis using historical price and volume charts [19].

### Mechanism of Capital Market Transactions

The securities trading activities do not differ from market activities involving buyers and sellers. In the capital market, the parties include referred to as issuers and investors. According to the Capital Market Law Article 1 number 6: "The term refers to the activities listed by the company that sells a broad range of shares to public investors through a public offering (the primary market). The shares have sold to the investors would be traded back among investors through the stock exchange (secondary market)".

According to Siamat [20] defines the prime market is the supply of securities directly by the issuer to the investor without going through the stock exchange. Marketing is the effects of the emissions trading securities. Prices of securities offered in the primary market do not fluctuate. After completion of the offer on the main market, these securities trade continuously and the prices will remain uncertain in the secondary market.

### The Methodology and Model

The population approach in this study is the population of securities investors in Indonesia whose numbers uncertainty. Selection of sample in this research using approach proposed by Sugiyono that for the population that is not known with certainty (because of the amount of very many) can be taken responder as sample at least 100 respondents. Securities companies listed in Indonesia amount to 115 (one hundred and fifteen) companies. In this study, the population takes only 5 (five) securities companies located in Jakarta. The company is the longest securities company in managing the investment, the investors have more than five years' experience, have more than 1 billion investment, have been trading online, and already have permission as broker-dealer (Broker Dealer) Finance Services Authorities (OJK).

In this study used a sample of 125 respondents who became investors in some securities companies. The selection of securities firms as many as five companies from 115 listed companies do randomly. The sample used in this study is cluster random sampling, where each group of investors from securities firms randomly selected with the amount of each of 25 (twenty-five) respondents in securities companies that became the object of this study. Samples were taken as many as 25 respondents because the questionnaire was given randomly to investors who are under the auspices of securities companies who are willing to fill out the survey so that the total samples studied complete (amounted to 125 respondents).

Component questions to understand and know the rankings in the use of fundamental analysis are: macroeconomic analysis, Gross Domestic Product (GDP) analysis, business cycle analysis, yield curve analysis, inflation rate analysis, industry analysis, technical cycle analysis, investment rotation, other company disclosure analysis, and financial ratio analysis. Each of the above components is measured using a Likert scale with an unbalanced rating scale. While the other question components employed in the use of technical analysis are: historical price review, historical volume review, chart usage, use of sentiment indicator, use of put/call ratio, and moving average usage.

### Investor Experience

Hypotheses used to test the significant level of the experience of investors are:

H2: experience of investor influence on the selection of investment analysis methods. From the data variables contained in equation table, a regression coefficient of EXP of 0.934, indicating that any increase in EXP may also cause an increase in the Fund. So this can be seen from the significant level of 0.029 EXP where the rate is less than 0.05, which is a significant level used in this study and it means that the second hypothesis in this study received. The higher level of experience possessed by the investor, the higher the use of fundamental analysis. So the more or higher level of experience, investors are becoming more aware of and understand the ins and outs of investing in securities firms.

### Time Span Investors

Hypotheses used to test the significant level in the period the investor is:

H3: investor-owned span of influence on the selection of investment analysis methods.

From the data variables contained in equation table, the regression coefficient of TIM amounted to 2,847, and the figures show that every increase in the TIM may also cause an increase in the Fund. So this can be seen from the significant value gained 0.002 which is the standard of 0.05 which used in this study that means The TIM variable effect on the election method investment analysis. Then the third hypothesis in this study received. The longer span of time has the higher use of fundamental analysis.

### Frequency Trading Investors

Hypotheses used to test the significant level of investor trading frequency are:

H4: frequency trading or trading activity of investors who owned an effect on the selection of investment analysis methods. From the data variables contained in equation table, the regression coefficient of FRQ is equal to 0.713, and significant FRQ value of 0.291 and this figure shows more than 0.05 which is a significant level used in this study, its mean indicates that the FRQ variable no significant effect on the selection of investment analysis methods. The fourth hypothesis in this study is not acceptable.

### Investor Information Accessibility

Hypotheses used to test the significant level of the accessibility of information investors are:

H5: the accessibility of information held by the investor influence on the selection of investment analysis methods. From the data variables contained in equation table explaining that the value of ACS amounted to 0.368 which is greater than 0.05, which is a significant reference value used in this study and it means that the value of ACS does not influence the selection of investment analysis methods. The fifth hypothesis in this study, not acceptable which may result from the normative approach in answering the questionnaire. Most investors said the information in the information exchanges accessible by all means of information. The answer does not generate significant value for the ACS variable selection methods on investment analysis. Other possibilities for ACS components question is general information and not specific therefore the investors tend to answer normative.

### Disclosure Investor Perception

Hypotheses used to test the significance level of the perception of investors is:

H6: owned investor perception level affects the election method investment analysis. From the data variables contained in equation table, the regression coefficient of PCP is more than 0.05 is equal to 0.966, which is the level used in this study that shows the perception variables did not influence the selection of investment analysis methods. The sixth hypothesis in this study was rejected, and its mean caused by the investor-owned normative approach in answering the questionnaire. The majority of investors said that the accuracy of the data companies that go public has been excellent because they believe in the management of professionals in each of these companies. The other reason investors depend on the possibility of SFAS (Statement of Financial Accounting Standards) which serve as guidelines for companies to present the data in the financial statements accurately. Investors believe that every publicly traded company has met its obligations to submit the data with GAAP. There is another possibility that investors believe the auditors provide an opinion on the company's financial statements. Investors believe that the auditor has provided a complete evaluation for the accuracy of financial statements. Therefore, investors are confident that the truth of the financial statements can use as a benchmark on investment decisions. The third reason may lead to an insignificant influence on investors' perception of the correctness of the data the company that made the selection of investment analysis.



## CONCLUSION

According to the analysis done can be seen that the method of analysis of investment chosen by the investor in Indonesia is a method of technical analysis. The factors that significantly affect the selection of investment analysis methods is the experience of the investor and the investor time span. Results from the other four factors tested in this study did not significantly influence the selection of investment analysis method, namely the level of investor education, trading frequency, accessibility of information, and investor perceptions. The conclusion of this research are as follows:

1. Education investor does not significantly influence the selection of investment analysis methods.
2. Experience investor can significantly affect the electoral method investment analysis.
3. The timeframe investors significantly influence the selection of investment analysis methods.
4. The frequency of trading investors does not significantly influence the selection of investment analysis methods.
5. Accessibility of information does not significantly influence the selection of investment analysis methods.
6. Perception does not significantly influence the selection of investment analysis methods

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