
Analysis of Stock Return Anomaly on the Indonesia Stock Exchange Based on Market Capitalization

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Abstract

There has been a well-known market anomaly in the stock market called the firm size effect. This theory explains that small-cap stocks may provide greater stock returns than big-cap stocks. This research aimed to test the firm size effect theory on 827 stocks listed on the Indonesia Stock Exchange (IDX) during January 2 to June 27, 2023. The research sample was divided into big-cap and small-cap categories based on the calculation of average market capitalization, then the average value of stock returns from both categories were statistically compared. The result showed that the average values of stock return from both categories were significantly different, but this finding did not support the hypothesis related to market anomalies, because the result showed that big-cap stocks provide a greater stock return compared to small-cap stocks. However, the top 10 small-cap stocks with the highest return showed a much greater value than the return of big-cap stocks. Therefore, investors may still choose to invest in small-cap stocks, especially for short-term investments.

Keywords: Market Anomalies, Size Effect, Size Anomaly, Market Capitalization, Stock Return

1. Introduction

The Indonesian's stock market, known as the Indonesia Stock Exchange (IDX), has become a place for investors to buy and sell stocks and obtain funds for the company. Stocks are the most widely chosen investment instrument by investors because stocks are able to provide a certain level of profit. Profits from investing in the capital market can be reflected through the return on the selected stocks. Various approaches are taken in an effort to reveal the factors that determine the return on stock investment (Utama and Lumondang, 2009). The greater the profit earned by investors, the greater the risk that must be faced. Therefore, investors need relevant information to make investment decisions. Information that is relevant to market conditions can be accessed by investors if the market is efficient (Adiman, 2018).

Efficient market hypothesis (EMH) has been discovered and developed by Fama (1970). However, the discussion related to the efficient market hypothesis cannot be separated from the deviations and abnormalities associated with these hypotheses. In stock investment, Jones (2016) explains the existence of market anomalies, which are findings that contrast with what is expected in an efficient market. One type of market anomaly that attracts attention is the firm size effect as measured by market capitalization value. In a popular publication, Banz (1981) found that small firms on the New York Stock Exchange (NYSE) earn larger returns than larger firms (on average). This finding is supported by several other similar studies. In Indonesia, some stocks with small and medium capitalization are proven to record high stock

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returns. However, several studies show that there is no size effect anomaly on the Indonesia Stock Exchange.

Based on the data showing that small market capitalization companies are able to generate returns and based on the research gap, further research is conducted with a larger sample to see if there is a size effect anomaly which shows that companies with small market capitalization provide greater stock returns compared to large market capitalization companies.

2. Methods

2.1. Data Collection

The data used in this study were secondary data derived from the Indonesia Stock Exchange report and related websites during the first to second quarter period of 2023 (January 2–June 27, 2023). The data used are stock prices and outstanding shares to calculate market capitalization value and stock returns. Sampling in this study was carried out using purposive sampling technique with the following criteria:

- Companies listed and traded on the Indonesia Stock Exchange during the period of January 2–June 27, 2023.
- Companies that are consistently listed during the research period.

The sample selected in accordance with the research criteria was 827 companies. Based on the research sample, an average market capitalization assessment was carried out to categorize the sample into large market capitalization companies and small market capitalization companies. The average market capitalization for the entire sample is 11, 150, 534, 391, 993. Companies which had a market capitalization value greater than or equal to the average were categorized as large market capitalization. The number of companies in the large market capitalization category was 114 companies. Otherwise, companies with market capitalization values less than the average were categorized as small market capitalization. The number of companies in the small market capitalization category was 713 companies.

2.2. Analysis Methods

This research used a descriptive analysis method with a quantitative approach. Descriptive analysis was used to see the average return value, standard deviation, maximum value, and minimum value. Statistical analysis with independent sample t-test method were used to analyze the difference of stock returns from the large and small market capitalization categories.

3. Result and Discussion

Based on the market capitalization categories, a return analysis was carried out for each company. Stock returns were calculated by subtracting the stock price on January 2 and June 27, 2023. The average return for the large market capitalization category was -0.20%, which was greater than the average return for the small market capitalization category (-7.76%). In addition to the calculation of average stock returns, the descriptive analysis also displays the highest and lowest stock return values for each category. The highest and lowest return values

Table 1. Comparison of the 10 Companies with the Highest Return

Large Market Capitalization		Small Market Capitalization	
Code	Return	Code	Return
MASA	81.13%	FMII	435.16%
MAPA	74.68%	IBOS	318.607%
AUTO	67.12%	KAYU	210.00%
PANI	66.32%	MTSM	156.05%
FILM	61.26%	UNIQ	154.24%
GGRM	54.44%	IMAS	145.98%
NISP	54.36%	DRMA	138.46%
SILO	44.84%	WIIM	136.51%
ISAT	42.11%	ASPI	133.71%
ACES	37.10%	HRTA	105.94%

Source: Processing Results, 2023

Table 2. Comparison of the 10 Companies with the Lowest Return

Large Market Capitalization		Small Market Capitalization	
Code	Return	Code	Return
MIDI	-85.93%	TECH	-98.75%
TMAS	-85.60%	BEBS	-93.24%
BMRI	-48.36%	IMPC	-88.75%
ADMR	-45.13%	INPS	-86.61%
ADRO	-42.60%	KRYA	-83.73%
MCOL	-38.64%	TAYS	-82.19%
ITMG	-38.50%	AMAN	-81.70%
SRTG	-34.58%	SMDR	-80.52%
EMTK	-31.55%	SMKM	-79.68%
MKPI	-31.03%	SKRN	-79.46%

Source: Processing Results, 2023

for large market capitalization were 81.13% and -85.93%, while the values for small market capitalization were 435.16% and -98.75%.

Table 1. presents the comparison of the 10 companies with the highest returns. Meanwhile, Table 2 the comparison of the 10 companies with the lowest returns.

According to Ghozali (2016), the t-test is used to analyze whether there is an average difference between two unrelated samples. The t-test is performed by comparing the difference between the two mean values with the standard error of the difference in the means of the two samples. Independent sample t-test is a comparative test to determine whether there is a significant difference in mean value between two independent groups. Based on the results of statistical analysis with an independent sample t-test, it is known that the significance value was $0.037 < 0.05$. Thus, it can be concluded that there was a significant difference between the average stock returns between large and small market capitalizations.

Descriptive and statistical analysis of stock returns for large and small market capitalization categories showed that the two categories have significantly different average values. However, large market capitalization category had a greater average value than small market capitalization category. This indicates that stocks listed on the Indonesia Stock Exchange in

the period of June 2, 2023 to June 27, 2023 did not experience size effect anomaly, thus the hypothesis that small-cap company outperformed the return of the big-cap was rejected. In the theory of market anomalies, especially the size effect anomaly, Banz (1981) found that there was a very strong negative relationship between average returns and company size, where companies with small market capitalization have larger returns than companies with large capitalization. This finding was also supported by Fama and French (1996) who stated that small capitalization companies would provide greater returns than large capitalization companies. Companies with small market capitalization are considered more resilient to economic conditions, because companies will continue to strive to increase company growth when compared to large market capitalization companies which are relatively more mature (Tahmat, 2021). Research on IDX conducted by Hasnawati (2020) and Tahmat (2021) also cannot be proven in this study, because this study had the opposite result. That research support the market size effect anomaly theory that stocks with market capitalization provide greater stock returns than large market capitalization companies.

The results of this study were in line with research conducted by Rujikartawi (2023) which shows that stocks with large market capitalization provide greater returns than small market capitalization stocks. Previous research conducted by Artini (2020) and Shabri (2023) also showed that there was no size effect anomaly on the Indonesia Stock Exchange, especially for stocks listed on the Kompas 100 and LQ-45 index. This study used a larger sample, which involved all stocks listed on the Indonesia Stock Exchange during the period of January 2 to June 27, 2023, also supports the results of previous studies. This finding further confirms that there was no size effect anomaly on the Indonesia Stock Exchange. This was because stocks with large capitalization are generally the target of investors for long-term investment due to the company's impressive growth potential in addition to dividend distribution and relatively low risk exposure. Because there are many enthusiasts, the share price is generally relatively high, which can lead to an increase in stock returns (Ang, 1997). The finding of this study also verifies the signaling theory which reveals that good financial information of the company, in this case is company with high market capitalization, is a good signal for investors so that it may affects stock returns (Rujikartawi, 2023). In addition, during the study period, capital market conditions were also influenced by domestic and global economic conditions. Both domestically and globally, the trend of economic growth is still recovering after the COVID-19 pandemic, thus it is estimated that investors would prefer stocks with large market capitalizations which are relatively more stable and low risk.

Although the stocks listed on the IDX during the research period could not prove the size effect market anomaly, the results showed that the 10 companies with the highest return from small market capitalization category had a much higher return value when compared to large market capitalization category. The company with the highest return from small market capitalization category was Fortune Mate Indonesia Tbk (FMII) with a return value of 435.16%. This value is five times greater than the highest return from the large market capitalization category, which is Multistrada Arah Sarana Tbk. (MASA) with a return value of 81.13%. These results showed that small capitalization company can be an alternative choice for investors in compiling an investment portfolio, especially for short-term investments, because these companies may provide enormous potential returns. However, of course, investors still need to analyze stocks both fundamentally and technically, and pay attention to the overall performance of the company.

The limitation of this study is that it does not separate companies based on sharia and conventional stocks, banking and non-banking stocks, and there was an imbalance in the

number of samples for each category. Therefore, for further research, these limitations of this study can be taken into consideration.

4. Conclusion

This study aims to prove the size effect anomaly theory which argues that companies with small market capitalization provide greater returns than large market capitalization companies. From the results of research data analysis and discussion, it is concluded that there is a significant stock returns difference between large and small market capitalization categories. However, the average value of stock returns for companies with large market capitalization is higher than companies with small market capitalization, thus the theory of size effect anomaly cannot be proven in stocks listed on the Indonesia Stock Exchange.

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