

3 RESEARCH METHODOLOGY

3.1 Population and research samples

The population used to include all companies listed on the Indonesia Stock Exchange from the period between 2010 and 2018, while the samples covered first and second quartile companies that conducted *stock split, rights issues, mergers*, and acquisitions during this period.

Data was collected and obtained from the Indonesia Stock Exchange website, and several other sources related to the topic of this study and the information obtained through documentation include the names of issuers, stock prices, total asset values, market capitalization values, and others.

3.2 Variables

The dependent variable was Return Stock, while the independent variable was company size measured using total assets and market capitalization, Market to Book ratio, and Stock Beta.

3.3 Data analysis method

Hypotheses 1, 2, and 3 were tested using the following formula:

$$RET = \alpha + b_1 DSIZE + b_2 BETA + b_3 MTB + e \quad (3.1)$$

Hypotheses 4, 5, and 6 were tested using the following formula:

$$t = \frac{(\overline{RET}_{small} - \overline{RET}_{large}) - (\mu_{small} - \mu_{large})}{\sqrt{\frac{S_p^2}{n_{small}} + S_p^2/n_{large}}} \quad (3.2)$$

$$t = \frac{(\overline{BETA}_{small} - \overline{BETA}_{large}) - (\mu_{small} - \mu_{large})}{\sqrt{\frac{S_p^2}{n_{small}} + S_p^2/n_{large}}} \quad (3.3)$$

$$t = \frac{(\overline{MTB}_{small\ value\ stock} - \overline{MTB}_{small\ growth\ stock}) - (\mu_{small\ value\ stock} - \mu_{small\ growth\ stock})}{\sqrt{\frac{S_p^2}{n_{small\ value\ stock}} + S_p^2/n_{small\ growth\ stock}}} \quad (3.4)$$

Note:

α = Constant.

b1-3 = Coefficient of the Independent Variable.

DSIZE = Company size.

BETA = systematic risk of a stock or portfolio.

MTB = ratio of market to book value

Small Value Stocks = Small Size stock with Low MTB

Small Growth Stocks = Small Stocks with High MTB

4 DISCUSSION

This study reexamined previous classical research on the role of size in determining stock returns. It has been previously reported that there is an inverse or *negative* relationship between company size and stock *returns* (French, 1992). The beta factor or market risk of CAPM was also reported not to be the only factor to explain the variations in *returns*. *Size*

measured by Market Value of Equity (ME) and Book to Market Equity (BE/ME) ratio also has significant strength in explaining the variation in stock returns.

Companies with large market capitalization have lower returns compared to those with smaller capitalization, and the shares in the equity market of small firms outperformed the stock returns of larger firms through the phenomenon of the size effect. Contrarily, the stock returns of group value with a high book to market equity ratio outperformed those of group growth with a low book to market equity ratio through the phenomenon of value effect.

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