

## The size and value effect anomalies in Indonesian capital market

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**ABSTRACT:** The size effect anomaly was first discovered by Banz (1981), and it involved establishing a relationship between company size and stock returns. This concept has been studied in several world capital markets based on two streams. The first observes a premium return from the Size Effect while the second is focused on the absence of its anomaly in global capital markets research. There is limited research on the persistent existence of size effect anomalies in the capital market, and not much has been conducted in Indonesia to explain the source of this anomaly through the use of business risk and financial distress. Therefore, the findings of this study were expected to confirm the existence of an anomalous size effect in Indonesia's capital market.

### 1 INTRODUCTION

Size anomaly has been successfully proven in the capital market of US (Banz, (1981), Sanger, (1989), Reinganum, (1992)), Indian (Tripathi, 2005), Indonesia (Pratomo, 2007), and RE, (2012) and the findings revealed an inverse or *negative* relationship between the size of a company and the *returns* stock. This means small company shares provide a higher *return* than larger ones and tends towards lower *earnings*. This phenomenon is illustrated by the *Size Effect*, and it is a strategy used in portfolio selection to achieve the best *returns*.

According to French (1992), *size effect* arguments and Three Factors Model contradict the theory of the Capital Asset Pricing Model, which shows beta or market risk is the only explaining factor for the variation in *return* stock. It was revealed that, in addition to beta, *size* also has significant power, and French (1992) found the role of beta to have disappeared between 1963-1990. Moreover, stocks of group *value* with high *book to market equity* ratio were observed to be outperforming the *returns* of those with a low ratio, and this phenomenon is known as the *value effect*. The research conducted by Barbee (1996) showed firm size has a negative effect on *returns* stock and also measured the size of the company through the market value of equity (*Market Value Equity*-MUE).

There is limited research on the persistent existence of *size effect* anomalies in the capital market except for the few ones conducted in India, Brazil, and South Korea (Pandey, 2015). Moreover, not much study has been conducted in developing capital markets, especially in Indonesia, to explain the source of this anomaly through the use of business risk and financial distress. Small companies are estimated to operate at more risk than larger ones (Pandey, 2016) due to the lower level of diversification, efficient labor, bargaining position, technology, consumer loyalty, and committed employees as well as the possibilities of significant financial risk due to high debt costs. It was also reported that small firms relatively experience more financial difficulties, as reflected in the *Price to Book value (P/B)* ratio. French (1992) used 3-factor models to determine asset prices by adding Size and Value variables to Beta for the purpose of measuring both business and financial risks as well as potential financial difficulties.

Therefore, the findings of this study were expected to confirm the existence of an anomalous size effect in Indonesia's capital market and to provide potential investors with the information required to form an effective portfolio.

## 2 LITERATURE REVIEW

Jones (1996) defined market anomaly as a strategy or technique in investment due to the opportunities it provides investors to obtain abnormal *returns* by relying on a variety of events (*event*) occurring in the capital market. According to (Alteza, 2007), "market anomalies are *an exception of rule or model*," and this means it is a deviation from the conventional model or concept of an efficient market which is normally supported by the existence of specific patterns on stock trading days, opportunity for investors to obtain *abnormal* profits, presence of *insider trading* in the capital market, as well as information asymmetry.

Levy (1996) in Alteza (2007) classified the market anomaly into four types based on the characteristics of *the event*, and they include *firm, seasonal, event, and accounting anomalies*. Moreover, *Size Effect* is the result of the test on the *abnormal return* associated with company characteristics and was first discovered by Banz (1981) in the American capital market. It was reported that there is an inverse or *negative* relationship between company size and *returns* stock, and this means small company shares provide a higher *return* than larger ones. This phenomenon is contrary to the concept of an efficient market where no single information is provided for market participants to obtain a higher *return* (Tandelilin, 2001). The *Size Effect* anomaly, however, presents the market participants the opportunity to select portfolio strategies consisting of small-company shares to achieve a better *return (outperform)* on investments. The concept has been explained and researched by (Fama 1970); Fama (2012); French (1992); French (2008) and Berk (1996) in 15 European and other countries of the world like China (Xu, 2002).

Size is one of the factors usually considered in determining the funding decision policy or capital structure for a company's assets. This means companies with high growth always need more significant capital and vice versa. Moreover, the concept of sales growth rate has a positive relationship, but it has different implications on capital structure, especially in determining the type of capital used. For example, in large companies with widespread shares, any expansion of share capital usually has little effect on the loss or displacement of control from the dominant party to other parties concerned.

In general, large companies with investment opportunities should set a lower payment ratio by retaining more profit. Furthermore, if there is a large degree of uncertainty in *free cash flow*, which is defined as the company's operating cash flow minus the required equity investment, it is best for the company to be conservative and set a low current cash dividend (Brigham, 2001). Conversely, for a small company, increasing the number of shares has a significant influence on the possibility of a dominant party having control over the company. Therefore, the following hypotheses were developed

1. Company size affects the *returns* of companies listed on the Indonesia Stock Exchange
2. Market to book ratio affects the *returns* of companies listed on the Indonesia Stock Exchange
3. Beta company shares affect the *returns* of companies listed on the Indonesia Stock Exchange
4. *Return* of small companies is higher than *the return* of large companies listed on the Indonesia Stock Exchange
5. The ratio of *Market-to-book* stocks of small companies are lower than for large companies listed in Indonesia Stock Exchange
6. Return of small companies with the low market to book ratios (small value stocks) outperformed the return of small companies with the high market to book ratios (*small growth stock*).

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