Examining Stock Return Drivers in Garment and Textile Firms on the Indonesia Stock Exchange

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Abstract
This research aims to analyze the factors influencing stock returns with company size as a moderating variable in garment companies and the textile industry listed on the Indonesia Stock Exchange (BEI) 2016-2020. The methodology of this research is data collection using secondary data obtained from annual reports of Garment and Textile companies on the IDX. The sample used in the research was 16 companies using the purposive sampling technique. The collected data set was analyzed using panel data regression with e-views 9.0. The research results show no significant influence of ROE, DER, and CR on stock returns. Interest rates and company size have a significant negative influence on stock returns. The Firm Size variable was also not proven to play a moderating role in the influence of ROE, DER, and CR; however, Firm Size was able to significantly moderate the influence of interest rates on stock returns of garment and textile companies in 2016-2020. The limitations/implications of research in this study only examine stock return factors for garment and textile companies; future researchers can add variables from macro factors (such as inflation and exchange rates) or intermediary variables such as stock prices.

Keywords: Return on Equity, Debt-equity Ratio, Current Ratio, Interest Rate, Firm Size, Stock Return

JEL Classification: G32, G35, G33


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1. Introduction
Entering a new era, or "New Normal," has allowed society, economic actors, and industry worldwide to return to activity after the Covid 19 pandemic. The New Normal era provides opportunities for economic actors to invest. One investment that can be made is in the capital market. The capital market is the center for registered companies buying and selling their shares (Asia, 2020).
Investment in investing certainly aims to obtain a return (return) from the shares invested in. Return is the income obtained by an investment when investing, then added to the market price change, also called a percentage of the initial market price in the investment activity (Hemansyah, 2022).

The need for clothing is important for Indonesians, so the contribution made from exports, foreign exchange earnings, and Gross Domestic Product is promising. Apart from that, the consideration for using the Textile and Garment sector is because these companies absorb a large workforce and can reduce unemployment.

Based on the capacity of the Ministry of Industry 2021, Textile and Garment companies can absorb up to 4 million workers, and the export value will reach 11.6 US Billion in 2021, up from 10.6 US Billion in 2020 and is predicted to continue to increase in the coming year come.

![Figure 1. Graph of Growth of the Textile Industry and Textile Products (TPT) 2011 – 2020](image)

Based on the graphic image above, it shows that the TPT industry grew from 2017 to 2019. Based on data from the Ministry of Industry 2021, there are several obstacles in the importer problem, namely the existence of a policy that allows importers freedom, as stated in Minister of Trade Regulation number 64 of 2017, so that the production sector Fabric is less competitive with imports and is less absorbed by downstream garments, so prices become cheap and are detrimental to MSMEs (Prasetio, 2020). The pressure on the company's performance is due to the flow of import competition and the increasing export market, which results in the issue of the company failing to fulfill its obligations or debts (Agustina et al., 2021).

This analysis can be carried out at macro and micro levels. Microanalysis was obtained from several financial ratios, including Profitability, Solvency, and Liquidity. Meanwhile, macro fundamentals are outside the company, such as SBI interest rates. Interest rates are one of three macroeconomic factors that investors need to be aware of or pay attention to (Wulandari et al., 2021).

Several previous studies have suggested that several factors can significantly influence stock returns, including Return on Equity (Pradrwati, 2019), Debt Equity Ratio (Handayani, 2018), Current Ratio (Limto, 2019), and macro factors such as SBI interest rates in his research (Hakim., 2020). However, on the contrary, many previous studies have found that Return on Equity does not significantly influence stock returns (Anugrah, 2017). The Current ratio does not significantly influence stock returns (Arsita, 2021). Interest rates do not significantly influence stock returns (Rompas, 2018).
Previous studies examining the impact of Return on Equity, Debt Equity Ratio, Current Ratio, and Interest Rates on Stock Returns have yielded varying results. This inconsistency in findings has led researchers to consider the potential moderating effect of firm size, which could either amplify or diminish the influence of these variables on Stock Returns.

2. Literature Review and Hypothesis

The Effect of Return on Equity on Stock Returns

The ROE ratio compares net profit after tax (minus ordinary share dividends) with the equity invested by shareholders in the company (Arsita & Sihombing, 2021). It reflects the company's good and bad in the efficient use of its capital (Gitman and Zuttter, 2015). ROE is one of the prospects for looking at the future of a company in terms of growth and generating high profits (Pradrwati, 2019). This statement shows that the greater the ROE in a company, the better the opportunity to generate profits, which in turn also will make the stock return better because it has been able to use capital efficiently. Pradrwati's research results (2019) concluded that ROE has a positive and significant influence on stock returns.

H1: There is a positive influence of ROE on stock returns

The Effect of Debt of Equity Ratio on Stock Returns

Debt to Equity Ratio is the company's ability to fulfill its obligations as shown by a portion of its capital or equity used to pay debts (Arsita & Sihombing, 2021). Firms with a high Debt Equity Ratio (DER) have the potential to deliver substantial profits to shareholders, particularly when the company leverages debt to boost sales or revenue. As profits surge, this heightened performance becomes an attractive prospect for investors, prompting them to consider allocating their capital to the company in anticipation of augmented stock returns. The research results of Handayati and Zulyanti (2018) concluded that DER significantly influences stock returns.

H2: There is a positive influence of DER on stock returns.

The Effect of Current Ratio on Stock Returns

The current ratio is a current ratio that is usually used to measure a company's ability to meet short-term obligations that will mature within one year (Arsita & Sihombing, 2021). A company with a high Current Ratio (CR) demonstrates strong performance in terms of its current assets in relation to its liabilities. When current assets outweigh liabilities, it signifies the potential for substantial profits, ultimately leading to the company offering lucrative returns for investors. Therefore, high CR greatly influences stock returns (Pradrwati, 2019). The research results by Limto & Firdausy (2019) concluded that CR had a significant influence on stock returns.

H3: There is a positive influence of CR on stock returns.

The Effect of Interest Rates on Stock Returns

According to Hakim and Kusmanto (2020), interest rates are a macro factor influencing returns. The measurement of this interest rate is in percentage units, and the data taken is the annual SBI interest rate. In addition, high-interest rates also cause the investor's expected return from an investment to decrease. In general, lower interest rates will increase economic growth because the intensity of the flow of funds will increase, so production costs will increase when interest rates are high. Product prices will be more expensive, so consumers will postpone their purchases and save their funds in the bank. Ultimately, the company's sales will decline. A decline in company sales and profits will suppress stock returns (Arsita, 2019). The research results of Hakim & Kusmanto (2020) show that interest rates can better predict future stock returns.

H4: There is a negative influence of SBI interest rates on stock returns.

The Influence of Firm Size on Stock Returns

According to Sitorus (2020), the size of a company can be determined from total assets or total assets and market capitalization. With the scale of this company, it is hoped that it will also become a benchmark for investors. Because large companies are more likely to have easy access to capital in terms of funding or capital and terms of growth rates, large companies have better opportunities to grow quickly because they are more capable of generating large amounts of profit. With this
large profit, the stock return rate will be easily obtained. Meanwhile, identical small companies with small profit levels are less trusted in accessing capital, so the returns produced are also uncertain. Firm Size is divided into large, small, and medium. For medium-sized companies, the more ideal they are, the better their ability to adapt (Nurhayati et al., 2021). The research results of Nurhayati et al. (2021) concluded that Firm Size significantly influences stock returns.

**H5:** There is a positive influence of Firm Size on stock returns.

**Firm Size can moderate the influence of ROE on stock returns.**
The larger a company is the greater the number of assets it owns. This means that large companies certainly have greater opportunities to use their capital to obtain net profits. So, a good ROE (Pradrwati, 2019; Anugrah & Syaichu, 2017) will give hope for increased stock returns. Firm size will be reacted positively by the market because it is considered to have good growth prospects in the future. Information about profits will be reacted more positively by the market if the company's assets also grow. This shows that the company is reinvesting, which provides the prospect of future profits, so Firm Size strengthens the relationship between information about profits and company stock returns. Prasetyaningrum's research results (2014) Firm Size is not proven to increase the positive influence of ROE on stock returns.

**H6:** Size is proven to increase the positive influence of ROE on stock returns.

**Company Size Can Moderate the Effect of DER on Stock Returns**
The bigger the company, the greater the guarantee of large profits, whereas according to Anugrah & Syaichu (2017), with large profits, the company naturally has a high DER when the company uses debt as funds to increase sales or income. Firm size is also a company's ability to face uncertainty, so careful investors (risk averse) tend to consider the company's size when investing their funds in shares. Investors can use grouping companies based on the scale of operation (large/small) as a variable in determining investment decisions. States that company size reflects the risks that investors will face. Research findings indicated that when firm size was introduced as a moderating variable, it was observed to attenuate the positive impact of Debt Equity Ratio (DER) on stock returns.

**H7:** Size is proven to increase the positive influence of DER on stock returns.

**Firm Size Can Moderate the Effect of CR on Stock Returns**
The bigger the company, the greater the guarantee of large profit, so the company can better fulfill short-term obligations. This means that a high current ratio will be easier for large companies to achieve than for small companies. When the current ratio is high, the company's security level will be higher, and stock returns will increase (Arsita & Sihombing, 2021). Firm size weakens the influence of the current ratio on profitability. When it can weaken profits, it is also thought to weaken stock returns.

**H8:** Size is proven to increase the positive influence of CR on stock returns.

**Firm Size Can Moderate the Influence of Ethnicity on Stock Returns**
The bigger the company, the greater the guarantee of large profit, so investors tend to postpone investing when interest rates rise, but when they fall, investors will be more interested in making long-term investments (Hakim & Kusmanto, 2020). When interest rates fall, people tend to invest in large companies expected to obtain high stock returns.

**H9:** Size is proven to reduce the negative influence of SBI on stock returns.

### 3. Data and Method

The type of research carried out is causal-comparative, which tests hypotheses related to the influence of independent variables on dependent variables in cross-sectional and time series data using the reviews analysis method. Independent (free) variables are variables that influence or are the cause of changes or emergence of the dependent variable. A dependent variable is a variable that is influenced by or results from an independent variable's existence. Moderating variables can increase or decrease the influence of the independent variable on the dependent variable.
Table 1. Operational Definition and Variable Measurement

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Definition</th>
<th>Formulation</th>
<th>Scale</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return On Equity (ROE)</td>
<td>The company can generate profits for shareholders from its capital.</td>
<td>$ROE = \frac{Net\ profit}{Total\ Equity} \times 100%$</td>
<td>Rasio</td>
<td>(Arsita &amp; Sihombing, 2021)</td>
</tr>
<tr>
<td>Debt to equity ratio (DER)</td>
<td>This is the company's ability to fulfill its obligations and the comparison between total liabilities and equity.</td>
<td>$DER = \frac{Total\ Debt}{Total\ Equity} \times 100%$</td>
<td>Rasio</td>
<td>(Mufid, 2020)</td>
</tr>
<tr>
<td>Current Ratio (CR)</td>
<td>This is a ratio used to measure a company's ability to fulfill its short-term obligations with its current activities.</td>
<td>$CR = \frac{Current\ Asset}{Current\ Liabilities} \times 100%$</td>
<td>Rasio</td>
<td>(Asia, 2020)</td>
</tr>
<tr>
<td>Tingkat Suku Bunga (SBI)</td>
<td>The nominal interest rate is established by Bank Indonesia during its monthly Board of Governors Meeting and subsequently disclosed to the public.</td>
<td>$SBI = \frac{i_1 + i_2 + \ldots + i_{12}}{12} \times 100%$</td>
<td>Rasio</td>
<td>(Wulandari et al., 2021)</td>
</tr>
<tr>
<td>Firm Size</td>
<td>A measure reflecting the extent of wealth or assets possessed by a company.</td>
<td>$SIZE = \frac{Log\ n}{(Total\ aset)}$</td>
<td>Rasio</td>
<td>(Sitorus, 2020)</td>
</tr>
<tr>
<td>Stock returns</td>
<td>It refers to the degree of profit that investors derive from their investment endeavors.</td>
<td>$R_1 = \frac{p_1 - p_2}{P_{-1}}$</td>
<td>Information:</td>
<td>(Asia, 2020)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$R_1 = Stock\ return\ in\ period\ 1$</td>
<td>$P_1 = Stock\ price\ for\ the\ observation\ period$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$P_{-1} = stock\ price\ for\ the\ period\ before\ observation$</td>
<td></td>
</tr>
</tbody>
</table>

Data collection technique
This research data collection was obtained from secondary sources, the data of which is available at www.idx.co.id. Then, the researcher accessed and downloaded the sample company's annual report data and then entered the data according to the research variable formulation. The sample calculations were obtained.

Table 2. Sampling Technique

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Jumlah</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Textile and Garment Sub Sector on the IDX for the 2016-2020 period.</td>
<td>22</td>
</tr>
<tr>
<td>2.</td>
<td>The company experienced financial difficulties.</td>
<td>(6)</td>
</tr>
<tr>
<td>3.</td>
<td>Number of samples that can be analyzed</td>
<td>16</td>
</tr>
<tr>
<td>4.</td>
<td>Number of samples in research observations 16 x 5 years</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Data processed from idx.co.id (2022)

As a result of using the criteria above, a research sample of 16 issuers or companies was obtained.

Data analysis method
In this study, the research employs panel data analysis conducted with the aid of e-views 9.0
software. This approach proves highly effective for samples that comprise a combination of both time series and cross-sectional data. Utilizing panel data serves to mitigate issues related to model explanatory variables, thereby minimizing the likelihood of encountering multicollinearity concerns and affording greater flexibility. Furthermore, it enables the distinct utilization of cross-sectional and time-series data.

4. Results

Selection of Regression Model Estimates

The study offers three techniques for estimating model parameters with panel data: Common Effect Models, Fixed Effect Models, and Random Effect Models. To select the appropriate panel data estimation technique, three tests will be conducted: Chow, Hausman, and Lagrange multiplier. In this research, two tests were carried out due to the presence of two regression equation model structures. The first equation model aims to examine the impact of Return on Equity (ROE), Debt to Equity Ratio (DER), Current Ratio (CR), SIZE, and SBI interest rates on stock returns (RETURN). Additionally, SIZE is assessed as a moderating factor (SIZE*ROE), (SIZE *DER), (SIZE*CR), and (SIZE*SBI) against RETURN. In order to determine the optimal estimation model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM) for constructing the regression, the Chow test is employed.

<table>
<thead>
<tr>
<th>Dependent</th>
<th>Independent &amp; Moderating</th>
<th>Chi-square</th>
<th>Prob.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETURN</td>
<td>ROE, DER, CR, SIZE dan SBI</td>
<td>15.434732</td>
<td>0.4206</td>
<td>Ho Accepted</td>
</tr>
</tbody>
</table>

Source: Processed with E-view's 9.0

The results of the Chow test presented in Table 3 indicate a probability value of 0.4206 for the research model. Given that this value exceeds the significance level of 0.05, the chosen estimation model is the Common Effect Model (CEM). To ascertain the appropriate estimation model for regression between the Fixed Effect Model (FEM) and the Random Effect Model (REM), the study employs the Hausman test, the outcomes of which are detailed below.

<table>
<thead>
<tr>
<th>Dependent</th>
<th>Independent &amp; Moderating</th>
<th>Chi-square</th>
<th>Prob.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETURN</td>
<td>ROE, DER, CR, SIZE dan SBI</td>
<td>0.000000</td>
<td>1.0000</td>
<td>Ho Rejected</td>
</tr>
</tbody>
</table>

Source: Processed with E-view's 9.0

According to the findings of the Hausman test displayed in Table 4, the probability value for the research model is 1.0000. As this value exceeds the significance level of 0.05, the selected estimation model is the Random Effect Model (REM). It is important to note that, as a rule, if the Breusch-Pagan probability value is less than 0.05, the optimal estimation method is the Random Effect Model, and vice versa.

<table>
<thead>
<tr>
<th>Dependent</th>
<th>Independent</th>
<th>Breusch-Pagan</th>
<th>Prob.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETURN</td>
<td>ROE, DER, CR, SIZE dan SBI</td>
<td>9.307766</td>
<td>0.0031</td>
<td>Ho Rejected</td>
</tr>
</tbody>
</table>

Source: Processed with E-view's 9.0

As depicted in Table 5, the Breusch-Pagan probability value for the research model is 0.0031, falling below the threshold of 0.05. With the rejection of the null hypothesis (Ho), the most suitable regression model for the research is determined to be the Random Effect Model (REM).
Hypothesis test
During hypothesis testing, various analyses will be conducted, including the examination of the coefficient of determination, simultaneous influence testing (F test), and partial influence testing (t-test). The statistical values for the coefficient of determination can be found in Table 6 below.

Table 6. Results of the Coefficient of Determination Test

<table>
<thead>
<tr>
<th>Dependent</th>
<th>Independent</th>
<th>( R^2 )</th>
<th>( Adjusted R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETURN</td>
<td>ROE, DER, CR, SIZE dan SBI</td>
<td>0.481555</td>
<td>0.316531</td>
</tr>
</tbody>
</table>

Source: Processed with E-view's 9.0

Table 6 displays an Adjusted R-squared value of 0.316531 for stock returns (RETURN). It is evident that ROE, DER, and CR do not exert an impact on stock returns. Furthermore, even in the presence of Firm Size, the influence of ROE, DER, and CR remains insignificantly associated with stock returns. This indicates that Firm Size does not serve as a moderating factor for the influence of ROE, DER, and CR on stock returns.

However, both Firm Size and Interest Rates (SBI) exhibit a direct influence on stock returns. Similarly, when accompanied by Firm Size, the impact of Interest Rates (SBI) on stock returns remains significant. This suggests that Firm Size does indeed moderate the influence of SBI on stock returns.

5. Discussion
The Effect of ROE on Stock Returns
The initial hypothesis testing outcomes reveal that ROE does not have a significant impact on stock returns. This is attributed to inefficient equity management. The data gathered from textile companies indicates that the company's proficiency in generating net profits with its capital is suboptimal, leading to a lack of potential for profitability from operational activities. These findings align with signal theory, wherein a company exhibiting a low ROE value serves as a signal to investors, suggesting that it is improbable for the company to venture into the upstream sector. The results of this research support the research of Anugrah and Syaichu (2017), which concluded that ROE does not affect stock returns.

The Effect of DER on Stock Returns
The findings from testing the second hypothesis indicate that DER does not exert an influence on stock returns. This can be attributed to the necessity of maintaining a balance between the level of company debt used to finance its assets. The data reveals that Textile and Garment companies held a relatively high level of debt during the research period, potentially leading to an imbalance that does not significantly impact returns (share returns). This research supports Asia's research (2020), which concluded that DER has no effect on stock returns.

The Effect of CR on Stock Returns
The results of testing the third hypothesis show that CR has no significant effect on stock returns. This is because other considerations prioritize fulfilling short-term obligations (debts), especially long-term debts. However, it is found that textile companies can fulfill their short-term obligations (debts) in the year studied. However, if the company's long-term debt in the research period is high, it will create an imbalance so that it does not affect profits (share returns). This result can cause a decline in investor sentiment towards the company's value because the risks are too large from an investor's perspective (Hermansyah, 2022).

The Effect of SBI Interest Rates on Stock Returns
The results of testing the fourth hypothesis show that there is an influence of interest rates on stock returns. One of the macroeconomic factors, namely external factors for the company and which is
considered to influence stock returns, is the SBI interest rate. The SBI interest rate is an important factor in making investment decisions. It is quite weak if we look at the average value of interest rates or the proportion of capital use value from investment in the textile and garment industry in the last 5 years, 2016-2020. If interest rates fall, people will choose long-term investments, and when interest rates rise, they will postpone long-term investments. The conclusion is that each industry reacts differently to changes in interest rates. The results of this research support research by Hakim and Kusmanto (2020), which concluded that SBI interest rates affect stock returns.

**The Effect of SIZE on Stock Returns**

The findings of the fifth hypothesis testing demonstrate a positive correlation between SIZE and stock returns. The size of a company is assessed based on its total assets within the textile industry. This indicates that the company is more proactive in seizing opportunities for share redemption, providing a level of assurance for investors in terms of predicting stock returns. A larger company, with greater assets, possesses an enhanced capacity to generate substantial profits, thereby yielding favorable stock returns. However, the more ideal a company is, its adaptability improves.

**The Role of Firm Size in Moderating ROE, DER, CR, and Interest Rates on Stock Returns**

The hypothesis testing outcomes lead to the conclusion that ROE, DER, and CR do not exert a significant impact on stock returns. Furthermore, even when considering Firm Size in conjunction with these variables, their influence on stock returns remains insignificant. This indicates that Firm Size does not act as a moderating factor in the relationship between ROE, DER, and CR with stock returns. So, H6, H7, and H8 are rejected and are not by the hypothesis proposed in this research. The influence of interest rates (SBI) before firm size negatively affects stock returns. These results support the findings of Nurhayati et al. (2021), who concluded that Firm Size influences stock returns. As well as supporting Rompas (2018), who stated that the interest rate is the value of using funds from capital investment.

**6. Conclusion**

The conclusion of this research is that Return on Equity has no influence on Stock Returns, the company's ability to generate net profits with its capital is not optimal, so there is no potential to gain profits from operational activities. Debt Equity Ratio has no influence on stock returns, Textile and Garment companies hold relatively high levels of debt which has the potential to cause an imbalance that does not have a significant impact on stock returns. There is no influence of the Current Ratio on Stock Returns, the company's long-term debt is high which creates an imbalance so it does not affect stock returns. Interest Rates (SBI) have an effect on Stock Returns, if interest rates fall, people will choose long-term investments, and when interest rates interest rises, they will postpone long-term investments. Company size influences stock returns, larger companies, with larger assets, have an increased capacity to generate substantial profits, resulting in profitable stock returns. Company size does not moderate the influence of Return on Equity (ROE), Debt Equity Ratio (DER), Current Ratio (CR) on stock returns but company size moderates the influence of SBI interest rates on stock returns.

**Recommendation**

Suggestions given to future researchers to improve the deficiencies or existing ones in this research are as follows: Future research is expected to examine companies in the Textile and Garment sector and other sectors such as the real estate sector and family companies. Future research is expected to add intervening variables (intermediaries), for example, share prices and stock liquidity (Nurhayati et al., 2021).

**Limitations and avenue for future research**

This research has several limitations, including the following: This research was only conducted on Textile and Garment sub-sector companies during the 2016-2020 period. This research only used the variables ROE, DER, CR, SIZE, and Interest Rates as factors in stock returns.
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Ethics declarations
Availability of data and materials
Data sharing does not apply to this article as no new data were created or analyzed in this study.

Competing interests
The authors reported no potential competing interest.