# "The relationship between capital structure, firm performance and a firm's market competitiveness: Evidence from Indonesia"

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# THE RELATIONSHIP BETWEEN CAPITAL STRUCTURE, FIRM PERFORMANCE AND A FIRM'S MARKET COMPETITIVENESS: EVIDENCE FROM INDONESIA

#### **Abstract**

Market competitiveness shows a condition where a company can enter the market and survive in that market. In an economic environment experiencing a global crisis, it is important to study the factors of company competitiveness so that companies can compete in the global market. Therefore, this study aims to examine the relationship between the influence of capital structure, firm performance, and market competitiveness. This study took samples from manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2018 to 2020. The data collected are panel data that are quantitative in nature, analyzed by multiple regression, which is processed using the Eviews 9 software. The variables used are debt to asset ratio, debt to equity ratio, and current assets as indicators of capital structure, and return on assets and return on equity as indicators of firm performance are placed as independent variables, and firm size as control variables. The dependent variable is market competitiveness, which is proxied using the Herfindahl-Hirschman Index (HHI) measurement. The results of the analysis show that the debt to asset ratio, debt to equity ratio, return on assets, and firm size have no effect on market competitiveness. However, the current ratio has a negative effect, while the return on equity has a positive effect on market competitiveness. Thus, firm size does not act as a control variable in influencing market competitiveness.

**Keywords** capital, competitiveness, Eviews 9, Herfindahl-

Hirschman Index, performance, size

JEL Classification D41, G32

# INTRODUCTION

Capital policy is an important step in facing business competition, both domestic and global (Nguyen et al., 2021). This policy is to deal with the current business conditions, where many companies are experiencing difficulties due to the global economic crisis as a result of the Covid-19 pandemic which has hit almost all countries in the world. This condition makes business competition very competitive and affects a firm's performance. Therefore, companies are required to implement a well-planned business strategy to compete in domestic and international competition.

The representation of capital policy is the capital structure; the use of debt is an important factor in the capital structure. Capital structure is always closely related to firm performance, and this is an important concern for academics in studying firm performance. As stated by Modigliani and Miller (1963), capital structure is an important factor that can determine firm value through the benefits of tax savings on the use of debt. Therefore, it is necessary to study the relationship between capital structure, firm performance

and company competitiveness in today's competitive business competition, even though topics like this have been discussed in previous studies by Kovenock and Phillips (1995), Myers (2001), Guney et al. (2011), and Nguyen et al. (2021).

To strengthen the competitive position, a company must use debt for the purpose of increasing market power, but the use of too much debt will cause failure in competition (Myers & Majluf, 1984). This failure is because the company cannot optimize production and prices against its competitors. If a failure occurs, a company will face a dilemma when faced with the condition of choosing to liquidate the company or pay all of its debts. If the use of debt is too much, then the burden of obligation to pay debts is also large so that the company will spend more cash to pay debts than for investment purposes. However, if the company can generate high returns using its debt, then it will get tax cost savings and reduce costs for shareholders from implicit commitments, so that this will increase the company's competitiveness (Myers, 2001).

According to Myers (2001), in developing countries the study of capital structure is very important, because capital structure is an important part of the funding policy for companies as well as investors. Investors need information related to this policy, so this policy becomes very important information for investors. Information asymmetry will have a negative impact on investors and businesses, investors can take wrong decisions because of the information asymmetry, so that the business becomes unhealthy. Investors need accurate market information related to a company's funding policy so that they can make right investment decisions, and this will have an impact on increasing a company's competitiveness. Most studies on capital structure in Indonesia stop at its effect on firm performance and value, whether the influence is significant or not, so studies on the relationship of capital structure to competitiveness in the market are still very limited.

The results of previous research conducted by Kovenock and Phillips (1995), Guney (2011), Fosu (2013), and Moeinaddin et al. (2013) found a linear and nonlinear relationship between competitive elements and a company's capital structure. Meanwhile, Nguyen et al. (2021) found that capital structure affects company competitiveness in an inverted U shape. Similar studies in Indonesia have not been widely conducted, particularly those exploring the relationship between capital structure, firm performance and market competitiveness of firms. Therefore, the problem in this study is that there is still uncertainty or inconsistency regarding the influence of the relationship between capital structure and firm performance on the company's market competitiveness.

# 1. LITERATURE REVIEW

A financial manager in a company has a big responsibility to make investment decisions for the business in which she is involved. In addition to investment decisions, the financial manager is also responsible for financial decisions related to determining the optimum capital structure and dividend policy. These policies are made to increase business activities and a company's market competitiveness to face competition. The capital structure is a combination of debt and equity, which is nothing but the company's total claims on its assets. Capital structure items include publicly issued securities, bank loans, private investments, and other commercial debt, which create liabilities for the company that issued them. The capital structure ra-

tio can be calculated as debt to total assets, equity to total assets, and debt to equity (Moeinaddin et al., 2013). According to Myers (1984), companies do not have predetermined capital structure objectives. However, if a company needs to mobilize outside capital, then the company will issue securities from the lowest risk to the highest.

The theory of modern capital structure was first introduced by Modigliani and Merton Miller who later became known as MM in the decade of the 1960s. During the publication period, the theory raises a lot of controversy such as the contradiction of the research presented by O'Brien (2003). In 1963, MM published an article in response to criticism of MM's 1958 theory by changing the assumption that there was a tax on corporate income.

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As for the imposition of corporate income tax, MM concludes that the use of debt will increase a firm's value, because debt interest is a cost that reduces tax payments so there is a savings in tax costs on the use of debt by a company. Increasing the leverage ratio will also increase a company's market competitiveness in industrial conditions with low concentration and without technological barriers (Phillips, 1995).

A firm's performance is an important source for the firm's sustainability in carrying out business activities. According to Le (2005), firm performance is a measure of an organization's capacity to employ both material and human resources to meet its objectives. When evaluating a company's success, it is important to take into account how well its facilities are used for both production and consumption (Nguyen et al., 2021). Meanwhile, according to Truong and Tran (2009), a correlation exists between firm performance and the input and output resources used in a company's business operations. Thus, to increase the competitiveness of a company, management needs to improve the firm's performance by maximizing the use of inputs to produce output.

Regarding the measurement of firm performance in the related literature, there is a very large heterogeneity, but in this study, a firm's performance is measured using financial ratios, namely return on equity, which is a conventional measurement. This measurement represents a firm's ability to use the resources of capital owners to generate net income. The greater the return on equity generated by a company, the higher the company's market competitiveness, so that the company can maintain its viability.

The degree to which a company's operating environment is competitive is referred to as the market's level of competitiveness. According to Pot (2018), competitive advantage is a company's ability to differentiate from other competitors. Market competitiveness will be determined by the competitiveness of its products, as stated by Girout and Mueller (2010), Tian and Twitter (2011), Ko et al. (2016); they state that the competitiveness of company products in the industry helps in achieving business goals, which means that to increase market competitiveness, quality products are needed so that they have high competitiveness.

Development, innovation, and promotion must be targeted at an analytical framework that focuses on the notion of competitiveness in order for businesses to compete in a dynamic market, where there is a growing amount of market saturation. For this reason, large capital is needed, so that funding policy is an important factor to encourage the creation of a more competitive company market competitiveness. Large capital can be used for product expansion and business development, increasing firm size, increasing investment, and promotion so that it can help companies occupy a dominant position in the market.

Leverage of a company will rise as a result of the funding strategy employing debt as a source of funding. The level of leverage will suppress the competitiveness of companies to a greater extent in highly concentrated industries (Li & Wang, 2019). Because the balance of an expanding debt ratio essentially suggests that a company is dedicated to acting aggressively in the market, the usage of debt and equity must be balanced for the company. The use of debt for business expansion will allow a company to seize and occupy a large market share, so that the company will have a competitive advantage. Empirical evidence shows that companies with rapidly increasing debt experience a rapid increase in their sales and market share (Li & Wang, 2019). Meanwhile, Sun et al. (2012) show empirical evidence that companies with large cash can increase a company's market share by expanding their sales network and through research and development activities.

Companies with large debts in their financial structure have a high commitment to increase productivity by aggressively expanding their products and markets to increase their competitiveness. Thus, a company's income will increase, and this can maintain investor confidence. The use of debt will increase leverage and determine a company's capital structure. According to Gitman (2006), leverage describes the proportion of total assets financed by a company's creditors, so that leverage is the result of financial decisions. Brander and Lewis (1986) show empirical evidence that there is a significant relationship between product markets and corporate financial decisions. Meanwhile, Grullon et al. (2006) stated that leverage policy will increase the debt ratio, which can weaken the

competitiveness of companies. The product market will determine the level of company competition, therefore companies that have high competitiveness will be able to increase their product market. Strategic commitment theory also supports that high leverage in manufacturing firms will benefit product-market competitiveness.

Measurement of capital structure can be done with various proxies, but this study will use debt to asset ratio, debt to equity ratio and current ratio as capital structure proxies. A study by Campello (2003) found that the industry-adjusted quarterly sales growth of firms that are larger in debt is 1.3% lower than firms that use less debt. Thus, the use of greater debt reduces the competitiveness of a company. However, empirical findings are shown from the research of Rooker and Kalhor (2017), which examines the relationship between product market competition and capital structure in companies listed in the USA. The results show that there is a positive relationship between leverage and competition across companies listed in the USA, meaning that the greater the use of debt increases the competitiveness of a company. Nguyen et al. (2021) also provide empirical evidence from the results of their research by finding a positive effect of capital structure on market competitiveness.

A firm's performance shows the level of profitability generated by the company, and to measure the profitability of a business company, it can be used by using the mechanism for returning assets and returning equity. This indicator is a conventional financial accounting ratio calculated from the balance sheet and income statement and has been widely used by several researchers such as Mehran (1995), Ang et al. (2000), Nurhayati et al. (2021), and Nguyen et al. (2021). Return on assets (ROA) as a representation of firm performance is the rate of return generated from assets used for company operations (Nurhayati et al., 2021). Thus, the return on assets shows how well management manages the company's assets to get a profit from every dollar invested in the company's assets.

According to Bathia et al. (2020), return on equity aids in gauging how well a company does within the same industry. On the other hand, a company's return on equity demonstrates how well each dollar invested in shareholder equity gener-

ates profit (Liu et al., 2022). The higher the return on equity generated by a company, the greater the management's ability to generate profits from the company's equity. The greatest way to assess a firm's performance is based on return on equity, in the opinion of the stakeholder group (Brown & Caylor, 2009). Companies with high return on equity tend to have a greater commitment and opportunity to expand their business, which will have an impact on increasing their market competitiveness.

According to Spence (1973) and Spence (2002), signaling theory is basically related to reducing information asymmetry between one party and another. Signaling theory explains how signals of success or failure of management are communicated to owners, and signaling theory is related to information asymmetry (Connelly et al., 2011). Management has more information about the company than investors, the information is related to, among others, company policies in the future. Company information can be read through a company's financial reporting which is published annually as a management responsibility. From a company's financial statement data, it is implied that the company's condition signal can be observed and studied further to be known by investors. The signal implies something that the market or investors expect will make a change in the company's valuation. Investors may respond favorably to the firm's performance, including its return on equity and return on assets, which will boost its competitiveness in the market.

As explained earlier, the capital structure is a representation of a company's financial policies related to the use of debt and equity. Theoretically, large companies have greater debt than small ones so that large companies have a greater chance of having more investment opportunities to grow. According to Ezeoha (2008), large companies will be able to get more financing because of their growth. Thus, large companies have more assets that can be used for product and market development so that a firm's competitiveness will increase. Therefore, the greater the firm's assets, the greater the opportunity to grow and have high competitiveness. This condition is also supported by banks that are always more willing to provide financial support to large companies.

According to Ezeoha (2008), company size plays an important role in determining the business diversification of a company. Business diversification is part of business development that requires large financing, so that large companies will have more opportunities to do so. By diversifying the business, the company's product and market competitiveness will increase.

This study aims to clarify the relationship between capital structure, firm performance and market competitiveness. Based on the arguments and literature review mentioned above, this study suspects that there is an influence of capital structure and company performance on market competitiveness. This study places company size as a control variable to influence market competitiveness. Thus, the following formulation of the research hypotheses is used:

- $H_1$ : The debt-to-asset ratio has a positive effect on market competitiveness.
- $H_2$ : The debt-to-equity ratio has a favorable effect on market competitiveness.
- *H*<sub>3</sub>: Current liquidity has a positive effect on market competitiveness.
- $H_4$ : Market competitiveness is positively impacted by return on assets.
- *H<sub>5</sub>*: Return on equity has a positive effect on market competitiveness.
- $H_6$ : Market competitiveness is positively impacted by firm size.

Table 1. Description of study variables

# 2. METHODS

This study uses quantitative data collected from manufacturing companies listed on the Indonesia Stock Exchange for the period 2018 to 2020. The data and information are taken from the audited annual financial statements through the Indonesia Stock Exchange website. The sample is selected using certain limitations needed for analysis purposes. This study uses the variables of capital structure, firm performance, firm size, and market competitiveness. The Herfindahl-Hirschman Index is a general measure of market concentration and is used to determine market competitiveness.

Data analysis is carried out in accordance with the research objectives, using a dynamic model to examine the variables that affect the competitiveness index (HHI). This analysis refers to the research model conducted by Mitani (2014) and Nguyen et al. (2021) in assessing a company's capital structure and competitive market. The research analysis model is presented with the following formulation:

$$HHI_{it} = \beta_0 + \beta_1 DAR_{it} + \beta_2 DER_{it} +$$

$$+\beta_3 CR_{it} + \beta_4 ROA_{it} + \beta_5 ROE_{it} +$$

$$+\beta_6 Size_{it} + \varepsilon_{it},$$
(1)

where  $\beta$  is the coefficient,  $\varepsilon$  is the error term, and i, t represents firm i in year t.

The sampling strategy used in this study was purposive sampling, and data were collected from issuers' financial reports for the 2018–2020 period. The data collected are entered into the Eviews

Variable Category	Variable	Expected	Definition
Dependent Variable	Competitive Enterprise (CE)		$CE = \sum (X/\sum X_j)^2$ ; $X_i$ – Sales of firm; $X_j$ – Sales of industry
	DAR	+	DAR = total liabilities/total assets
Independent Variables	DER	+	DER = total liabilities/equity
	ROA	+	ROA = EAT/Total Assets
	ROE	+	ROE = EAT/Equity
	CR	+	CR = Current Assets/Current Liabilities
Control Variable	Firm Size	+	Log (total assets)

Table 2. Descriptive statistics

Variable Name	N	Minimum	Maximum	Mean	Std. Deviation
ННІ	177	0.00	0.19	0.0162	0.03258
DAR	177	0.02	3.34	0.4580	0.38242
DER	177	0.06	5.37	0.9441	0.83973
CR	177	0.28	10.48	2.4755	1.76373
ROA	177	-0.23	1.70	0.0753	0.15746
ROE	177	-0.44	1.45	0.1012	0.19715
SIZE	177	5.36	21.85	12.1473	4.24447
Valid N (listwise)	177				

software for analysis. The analysis was carried out using the Fixed Effect Model and Random Effect Model basis first. Then, an appropriate model between FEM and REM was discovered using the Chow test and Hausman test for the real research data (Hausman, 1978). Table 1 shows an overview of the variables used in the study.

### 3. RESULTS

Descriptive statistics provide an overview of the status of the variables used in the research model. The indicators of the competitive enterprise variable are proxied by the market competitiveness index; it can be explained that the average market competitiveness index is 0.0162 or 1.62% with the largest value 19.00% and the highest value is 19.00%, smallest 0.00%. The standard deviation of the competitiveness index is 3.26%, this suggests that the market competitiveness index differences between businesses in the sector are not substantial.

The indicators of the capital structure variable can be explained be the fact that the average ratio of debt to total assets is 0.4580 or 45.80%, with the highest debt ratio being 334.00% and the lowest debt ratio being 2.00%. The ratio of DAR among businesses in the industry varies significantly, as shown by the standard deviation figure of 38.24%. Likewise, the DER shows an average value of 94.41% with the highest ratio of 537.00% and the lowest ratio of 6.00%. The value of the standard deviation is 83.97%, which is very large, indicating the difference in the DER is significant. While the average value of the current ratio is 247.55% with the highest ratio value 1048.00% and the lowest ratio value 38.00%. The standard deviation of firm size is 1,763.73% greater than the average value; this

indicates a significant difference in the current ratio between companies in the industry.

The indicators of a firm's performance variables can also be explained by the fact that the average return on assets is 7.53% with the highest ROA of 170.00% and the lowest ROA of -23.00%. The standard deviation of return on assets is 15.75%, this indicates that the difference in return on assets generated between companies in the industry is significant. Meanwhile, the average return on equity is 10.12%, with the largest return on equity of 145.00% and the lowest of -44.00%. The standard deviation of return on equity is 19.72%, thus the difference in return on equity between companies in the industry is significant.

As for firm size as a control variable, the average value is 12.15, with the highest value being 21.85 and the lowest value being 5.36. The standard deviation value is 4.24, which is quite large; this shows that the difference in company size or the value of assets between companies in the industry is quite large and significant. Table 2 shows the full distribution of the model's variable values.

Table 3 shows the results of the Chow test that the Chi-square P value is 0.0000 <0.05, and the Hausman test shows a P value of 0.0008 <0.05 so based on the Chow test and Hausman test it is to choose the Fixed Effect Model (FEM).

**Table 3.** Selection of the regression model

Test	Probability	Approach	
Chow	0.0000	FEM	
Housman	0.0010	FEM	

Table 4 displays the findings of the regression analysis.

Table 4. Panel data regression output

Variable	Coefficient	Std. Error	t-Statistics	Probability
С	0.021	0.009	2.304	0.0225
DAR	-0.001	0.008	-0.148	0.8822
DER	-0.004	0.004	-0.951	0.3431
CR	-0.004	0.001	-2.451	0.0152**
ROA	-0.013	0.015	-0.889	0.3750
ROE	0.074	0.012	6.024	0.0000***
SIZE	0.000	0.000	0.303	0.7626

Note: \*, \*\*, and \*\*\* are significance at 10%, 5%, and 1%, respectively.

The equation can be written as follows using the regression analysis results from Table 4:

$$HHI_{ii} = 0.021 - 0.001DAR_{ii} - 0.004DER_{ii} - 0.004CR_{ii} - 0.013ROA_{ii} + 0.074ROE_{ii} + 0.000Size_{ii} + \varepsilon_{ii}.$$
(2)

Based on the regression equation, the mathematical value of the capital structure coefficient DAR = -0.001, DER = -.0.004 and CR = -0.004 all have negative coefficients. The implication is that a company's usage of debt will affect the reduction in the firm's market competitiveness. Of the three variables of capital structure, statistically DAR and DER have a significant negative effect, while the current ratio (CR) has a negative effect. The mathematical value of the profitability coefficient of ROA = -0.013and ROE = 0.074, which implies that ROA has a negative effect, while ROE has a positive effect on a company's market competitiveness. Although an increase in ROE has an effect on boosting a company's market competitiveness, the increase in ROA has an effect on lowering it.

A hypothesis test's findings for capital structure show that the t-Statistic value of DAR is -0.148, with a significance of -0.8822, DER is -0.951 with a significance of 0.3431 and CR is -2.451 with a significance of 0.0152. Thus, hypothesis 1 ( $H_1$ ) and hypothesis 2 ( $H_2$ ) are rejected; hypothesis 3 ( $H_3$ ) is also rejected although statistically significant but in different directions. The results of hypothesis testing for profitability show that the t-statistic value of ROA is -0.889 with a significance of 0.3750 and ROE is 6.024 with a significance of 0.0000. The results of testing hypotheses 4, 5 and 6 show that hypothesis 4 ( $H_4$ ) and hypothesis 6 ( $H_6$ ) are rejected, while hypothesis 5 ( $H_8$ ) is accepted.

# 4. DISCUSSION

The analysis's findings provide empirical proof that the capital structure, specifically DAR, DER, and CR, has a detrimental impact on market competitiveness. Debt to assets ratio and debt to equity ratio have a negative but not significant effect; this condition shows empirical evidence that the use of debt, especially long-term debt, by manufacturing companies in Indonesia has no impact on market competitiveness. Debt is a component of source of funds that can be used to expand business to increase a company's market competitiveness. However, this condition can occur otherwise if the management is not able to manage the debt properly, because the use of sources of funds from debt will increase the risk of a company. The tendency of the negative influence of the use of debt on market competitiveness, even though the influence is not significant for manufacturing companies in Indonesia, cannot be separated from the global economic condition that is experiencing a crisis due to the COVID-19 pandemic that has hit almost all countries in the world. This condition has an impact on the decline in the productivity of manufacturing industrial companies because companies cannot mobilize their resources optimally. In such situations and conditions, a company can maintain its already good market competitiveness, can still survive, and not go bankrupt.

The findings of this study do not concur with the capital structure theory, but are appropriate with the research findings of Moeinaddin et al. (2013), Kiamehr and Khorshidi (2016), but are not in accordance with the empirical findings of Istaitieh and Fermandez (2006), Naha and Roy (2011), Xu (2013), Mahmoudzadeh and Seyfi (2017), and Nguyen et al. (2021) who found a positive effect. Meanwhile, current assets have a negative and significant effect on a company's market competitiveness. So empirical evidence shows that the higher the use of current liabilities, the less competitive a company is in its market. A low current ratio indicates that the company has low working capital, which is due to high current liabilities. This low working capital causes a decrease in a company's market competitiveness because the company is experiencing liquidity difficulties to carry out its operations. The study's findings concur with those of Nguyen et al. (2021), which discovered that the current ratio has a detrimental impact on market competitiveness.

The results of this study prove empirically that ROA has a negative but not significant effect, while ROE has a positive effect at a significance level of less than 1%, so the effect is significant. The effect of return on assets is not statistically significant so it has no impact on market competitiveness. However, the effect of ROE is significant, and this indicates that ROE gets greater attention from customers so that the response is positive and can encourage sales growth and increase a company's market share. The higher the return on equity, the greater the company's market competitiveness, because a high return on equity indicates the company has managed to manage its equity well.

A company's ability to get a high return on equity encourages a very strong belief for management to expand and develop its business venture. With these strengths, the opportunity to improve a company's market competitiveness is getting bigger, customers are increasingly trusting in the firm's reputation. The findings of this study are consistent with the fundamental idea of signaling theory, the profitability generated by a company can be a positive signal that will make investors and customers interested in investing in the company. The findings of this study are similarly consistent with those of Liu et al. (2022), who discovered a favorable link between ROE and market competitiveness.

The firm size of manufacturing companies in Indonesia is not a determining factor for companies in increasing their market competitiveness. Firm size shows the amount of wealth owned by the firm; with its wealth a firm has a great oppor-

tunity to develop its business. However, in conditions of the global economic crisis that occurred, a company experienced problems, because the market demand for its products decreased due to the decline in people's purchasing power. This global economic crisis has had a bad impact on regional and national economic development, many firms in Indonesia are unable to develop their business because of this condition. Without strong market support, it is unlikely that the company will be able to expand its business development.

The findings of this study provide factual evidence for the claim that a company's ability to compete in the market does not increase with an increase in assets. Therefore, the size of a company's assets is not an indicator that will help it enhance its worth and market share. As a result, the conclusions of this study differ from those of Kiamehr and Khorshidi (2016) and Nguyen et al. (2021), who discovered a significant favorable effect.

Based on the empirical evidence from this study's findings, in order to improve market competitiveness, companies must focus on the current ratio and return on equity. Market competitiveness is important under any circumstances, because with high market competitiveness, a company will be able to maintain its existence so that it can operate and maintain its survival. Therefore, the prospect of related studies can investigate the factors that influence the market competitiveness of these companies by taking into account the competitiveness of product markets in various company sectors.

# CONCLUSION

This study aims to investigate the relationships between capital structure, firm performance, and market competitiveness. In addition, to obtain a better and more complete empirical model, this study also places firm size as a control variable. The main result of this study is that the current ratio, which is the capital structure of working capital elements, has a negative effect on market competitiveness. These findings indicate that the higher the current ratio, the lower the company's market competitiveness, the market responds negatively by increasing the ratio of working capital. This condition implies that a company's source of working capital comes from debt, while the use of debt will add to the company's burden and have an impact on reducing the company's market competitiveness. In addition, ROE has a positive effect on market competitiveness. These results imply that the market responds positively to an increase in return on equity so that a company's market competitiveness increases. Therefore, return on equity can be used as positive information that can increase market competitiveness.

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Other empirical findings conclude that the capital structure – DAR and DER – has no effect on market competitiveness. Likewise, ROA has no effect on market competitiveness. This implies that an increase in the use of debt by companies does not get a response from market players, so it does not change a company's market competitiveness. Meanwhile, additional analysis shows that size has no effect on market competitiveness, so size fails to act as a control variable. Based on the findings of this empirical evidence, it can be concluded that market conditions in Indonesia have stagnated due to the global economic crisis and the COVID-19 pandemic since 2019.

These findings prove that market conditions in Indonesia have stagnated as a result of the COVID-19 pandemic since 2019 and the global economic crisis. During the global crisis, the policy on using long-term debt and firm performance (ROA) had no impact on a company's market competitiveness. The findings of this study also provide practical implications for management that debt policy is not appropriate when used in crisis conditions, because the use of debt in crisis conditions will reduce return on equity.

# **AUTHOR CONTRIBUTIONS**

Conceptualization: Bambang Sudiyatno, Andi Kartika, Moch Irsad.

Data curation: Andi Kartika.

Formal analysis: Bambang Sudiyatno.

Investigation: Bambang Sudiyatno, Andi Kartika, Moch Irsad.

Methodology: Bambang Sudiyatno, Mulyobudi Setiawan, Andi Kartika.

Project administration: Mulyobudi Setiawan, Moch Irsad. Supervision: Bambang Sudiyatno, Mulyobudi Setiawan.

Validation: Bambang Sudiyatno, Mulyobudi Setiawan, Andi Kartika.

Visualization: Andi Kartika, Mulyobudi Setiawan.

Writing – original draft: Moch Irsad. Writing – review & editing: Moch Irsad.

# REFERENCES

- 1. Ang, J. S., Cole, R. A., & Lin, J. W. (2000). Agency costs and ownership structure. *Journal of Finance*, 55(1), 81-106. https://doi.org/10.1111/0022-1082.00201
- Bathia, D., Bouras, C., Demirer, R., & Gupta, R. (2020). Cross-border capital flows and return dynamics in emerging stock markets: relative roles of equity and debt flows. *Journal of International Money Finance 109*, 102258. https://doi.org/10.1016/j.jimonfin.2020.102258
- 3. Brander, J. A., & Lewis, T. R. (1986). Oligopoly and financial structure: The limited liability effect. *American Economics Review*, 76(5), 956-970. Retrieved from https://www.jstor.org/stable/1816462
- 4. Brown, L. D., & Caylor, M. L. (2009). Corporate governance

- and firm operating performance. *Review of Quantitative Finance Accounting*, 32(5), 129-144. Retrieved from https://link.springer.com/article/10.1007/s11156-007-0082-3
- Campello, M. (2003). Capital structure and product markets interactions: Evidence from business cycle. *Journal of Finance Economics*, 68(3), 353-378. https://doi.org/10.1016/S0304-405X(03)00070-9
- 6. Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39-67. https://doi.org/10.1177/0149206310388419
- 7. Ezeoha, A. E. (2008). Firm size and corporate financial-leverage choice in a developing

- economy: evidence from Nigeria. *Journal of Risk Finance*, 9(4), 351-364. https://doi. org/10.1108/15265940810895016
- 8. Fosu, S. (2013). Capital structure, product market competition and firm performance: Evidence from South Africa. *The Quarterly Review of Economics and Finance*, 53(2), 140-151. https://doi.org/10.1016/j.qref.2013.02.004
- 9. Guney, Y., Li, L., & Fairchild, R. (2011). The relationship between product market competition and capital structure in Chinese listed firms. *International Review of Financial Analysis*, 20(1), 41-51. https://doi.org/10.1016/j. qref.2013.02.004
- Giroud, X., & Mueller, H. M. (2010). Does corporate governance matter in competitive industries? *Journal of Financial*

- *Econnomics* 95(3), 312-331. https://doi.org/10.1016/j.jfine-co.2009.10.008
- 11. Grullon, G., Kanatas, G., & Kumar, P. (2006). The Impact of Capital Structure on Advertising Competition: An Empirical Study. *The Journal of Business*, 79(6), 3010-3124. https://doi.org/10.1086/508010
- Hashmi, S. D., Gulzar, S., Ghafoor, Z., & Naz, I. (2020). Sensitivity of firm size measures to practices of corporate finance: evidence from BRICS. Future Business Journal, 6(1), 1-19. https://doi.org/10.1186/ s43093-020-00015-y
- 13. Hausman, J. A. (1978).

  Specification tests in econometrics. *Econometrica*, 46(6), 1251-1271.

  https://doi.org/10.2307/1913827
- 14. Istaitieh, A., & Fermandez, J. M., R. (2006). Factor-product markets and firm's capital structure: A literature review. *Review of Financial Economics*, 15(1), 49-75. https://doi.org/10.1016/j. rfe.2005.02.001
- Kalhor, C., & Rooker, H. (2017).
   The relationship between capital structure and product market competition in US listed company. *International Review of Financial Analysis*, 20(1), 41-51.
- 16. Kiamehr, A., & Khorsidi, A. M. (2016). Study the relationship between capital structure and product market competition in the Tehran Stock Exchange. *International Business Management*, 10(15), 3136-3140. http://dx.doi.org/10.36478/ibm.2016.3136.3140
- Ko, H.-C. A., Tong, Y. J., Zhang, F. F., & Zheng, G. (2016). Corporate governance, product market competition and managerial incentives: evidence from four Pacific basin countries. *Pacific-Basin Finance Journal*, 40(PB), 491-502. https://doi.org/10.1016/j.pacfin.2016.10.009
- Kovenock, D., & Phillips, G. (1995). Capital structure and product-market rivalry: How do we reconcile theory and evidence? *The American Economic Review*, 85(2), 403-408. Retrieved

- from https://www.jstor.org/ stable/2117956
- Le, T. B. T. (2005). Analysis of firm performance in manufacturing enterprises of Vietnam Coal Corporation (Master Thesis). National Economics University. (In Vietnamese).
- Li, L., & Wang, Z. (2019). How does capital structure change product-market competitiveness? Evidence from Chinese firms. *Plos One*, 14(2), 1-14. https://doi.org/10.1371/journal.pone.0210618
- Liu, Q., Qu, X., Wang, D., Abbas, J., & Mubeen, R. (2022).
   Product market competition and firm performance: Business survival through innovation and entrepreneurial orientation amid COVID-19 financial crisis.
   Frontiers in Psychology, 12(March), 1-12. https://doi.org/10.3389/fpsyg.2021.790923
- 22. Mahmoudzadeh, M., & Seyfi, A. (2017). The effect of product market competition on the relationship between capital structure and financial performance of companies. *International Journal of Economics and Financial Issues, 7*(3), 523-526. Retrieved from https://www.econjournals.com/index.php/ijefi/article/view/4807
- 23. Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. *Journal of Financial Economics*, 38(2), 163-184. https://doi.org/10.1016/0304-405X(94)00809-F
- 24. Mitani, H. (2014). Capital structure and competitive position. *International Review of Economics & Finance*, 29(C), 358-371. https://doi.org/10.1016/j.iref.2013.06.009
- Modigliani, F., & Miller, M.
   H. (1958). The cost of capital,
   corporation finance, and the
   theory of investment. *The American Economic Review*, 48(3),
   261-297. Retrieved from https://
   www.jstor.org/stable/1809766
- 26. Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *The*

- American Economic Review, 48(3), 433-443. Retrieved from http://www.jstor.org/ stable/1809167?origin=JSTOR-pdf
- 27. Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 574-592. https://doi.org/10.1111/j.1540-6261.1984. tb03646.x
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221. https://doi.org/10.1016/0304-405X(84)90023-0
- Myers, S. C. (2001). Capital Structure. *Journal of Economic Perspectives*, 15(2), 81-102. https://doi.org/10.1257/jep.15.2.81
- Naha, S., & Roy, M. (2011).
   Product market competition
   and capital structure of firms:
   The Indian evidence. *Journal* of Quantitative Economics, 9(2),
   140-153. Retrieved from https://
   econpapers.repec.org/article/jqe-jqenew/
- Nguyen, N. T. V., Nguyen, C. T. K., Ho, P. T. M., Nguyen, H. T., & Nguyen, D. V. (2021). How does capital structure effect firm's market competitiveness? *Cogent Economics & Finance*, 9(1), 1-14. https://doi.org/10.1080/23322039. 2021.2002501
- 32. Nguyen, V. H., Nguyen, T. T. C., Nguyen, V. T., & Do, D, T. (2021). Internal factors affecting firm performance: A case study in Vietnam. *Journal of Asian Finance, Economics and Business*, 8(5), 303-314. https://doi.org/10.13106/jafeb.2021.vol8.no5.0303
- 33. Nurhayati, I., Sudiyatno, B., Puspitasari, E., & Basiya, R. (2021). Moderating effect of firm performance on firm value: Evidence from Indonesia. *Problems and Perspectives in Management*, 19(3), 85-94. https://doi.org/10.21511/ppm.19(3).2021.08
- 34. O'Brien, J. (2003). The capital structure implications of pursuing a strategy of innovation. *Strategic Management Journal*, 24(1), 415-431. https://doi.org/10.1002/smj.308

- 35. Phillips, G. (1995). Increased debt and industry product markets:
  An empirical analysis. *Journal of Financial Economics*, 37(2), 189-238. https://doi.org/10.1016/0304-405X(94)00785-Y
- 36. Pot, P. P. (2018). Competitive advantage effects on firm performance: A Case study of startups in Thailand. *Journal of International Studies*, 10(1), 104-111. https://doi.org/10.14254/2071-8330.2018/11-3/9
- 37. Spence, M. (1973). Job marketing signaling. *The Quarterly Journal of*

- Economics, 87(3), 355-374. https://doi.org/10.2307/1882010
- Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *American Economic Review*, 92(3), 434-459. https://doi.org/10.1257/00028280260136200
- 39. Tian, G. Y., & Twite, G. (2011). Corporate governance, external market discipline and firm productivity. *Journal of Corporate Finance*, 17(3), 403-417. https://doi.org/10.1016/j.jcorpfin.2010.12.004
- 40. Truong, D. D., Nguyen, H., & Duong, T. Q. L. (2020). Factors

- influencing balanced scorecard application in evaluating the performance of tourist firms. *Journal of Asian Finance, Economics and Business, 7*(5), 217-224. https://doi.org/10.13106/JAFEB.2020.VOL7.NO5.217
- 41. Xu, X. (2013). The relationship between capital structure and product market competition (Master's Thesis). Business Administration, University of Twente, School of Management and Governance. Retrieved from https://purl.utwente.nl/essays/63946