Journal of Economics, Finance and Management Studies

ISSN (print): 2644-0490, ISSN (online): 2644-0504

Volume 06 Issue 11 November 2023

Article DOI: 10.47191/jefms/v6-i11-22, Impact Factor: 7.144

Page No: 5459-5467

Determinants Of Capital Structure In Manufacturing Companies In Emerging Stock Market



^{1,2,3} Master of Management, Faculty of Economics and Business, University of Lampung, Indonesia

ABSTRACT: This study aims to examine and obtain empirical evidence that business risk, profitability, tangibility, firm size, liquidity, and asset growth rate, affect the capital structure of manufacturing companies listed on the Indonesia Stock Exchange in the 2017-2021 period.

The study was conducted on 95 manufacturing companies listed on the Indonesia Stock Exchange for the period 2017 – 2021. The data used in this study is panel data. The method used in this research is explanatory with a quantitative approach and the sampling used is simple purposive sampling.analysis Explanatory is used to explain the relationships between the variables of capital structure, business risk, profitability, tangibility, firm size, liquidity, and asset growth rate.

The results show that profitability and liquidity have a negative effect on capital structure, tangibility and asset growth rate have a positive effect on capital structure, while business risk and firm size have no effect on capital structure. The results also show that the simultaneous test concludes that all independent variables affect the dependent variable

I. INTRODUCTION

The development of the number of new shares on the stock exchange is very important for the development of investment activities in the Indonesian capital market, especially manufacturing companies. The more successful and prospective companies offer their shares to the public through going public (IPO), the better the portfolio and risk management carried out by investors and other investment managers (Hagstrom, 2013). Currently, the business world is very dependent on funding issues, several experts agree that to get out of this economic crisis the real sector must be mobilized to stimulate economic growth. Many obstacles are experienced by the business world, one of which is very crucial is this funding problem. Funding is the process of obtaining resources to finance business activities. Management and creditors should know the factors related to this funding problem, by knowing the factors that affect the capital structure is expected to be a consideration for management evaluation. The use of fund source in capital structure can come from internal or external of the company. Internal fund sources are funds formed or generated by the company itself in the form of retained earnings while external fund sources are funds from creditors and participants or shareholders in the company (Myers & Majluf, 1984). Funds from creditors are debt for the company which can also be called foreign capital (Myers & Majluf, 1984).

Capital structure has been a central topic of financial economists for decades, there is no single theory that explains the right choice of capital structure. Ardalan (2017) even suggests that capital structure becomes irrelevant if more appropriate assumptions are made. Many empirical papers that provide inconclusive results highlight the importance of further investigation to shed more light on this issue. Many studies have been conducted on the factors that influence capital structure. However, from some previous studies, there are inconsistencies in the research results, where there are variables that affect the capital structure while in other studies these variables have no influence.

Mark Mobius (2012), states that emerging markets are developing countries around the world that have the potential to surpass progress in developed countries. Emerging markets can be defined as countries with fast-growing economies, with high economic growth rates, low inflation rates, low unemployment rates, and faster private sector development than developed countries. These countries also typically have low debt levels and conservative fiscal policies.

The development of the economic sector that supports the smooth running of economic activity, especially the manufacturing sector in Emerging Markets, especially Indonesia, is very interesting to watch. Manufacturing companies are one of the sectors that investors are interested in, the reason is that manufacturing companies are companies that are vulnerable to economic



conditions, especially in terms of funding or capital structure and countries in the Emerging Market are countries with economies that have great potential so that they require the right composition to carry out company funding.

The empirical evidence above shows that there are several factors that can affect the capital structure, researchers are interested in conducting a re-study by taking six factors namely business risk, profitability, tangibility, firm size, liquidity, and growth rate. The motivation of this research is to examine how much influence of business risk, profitability, tangibility, firm size, liquidity, firm size, liquidity and asset growth rate on capital structure in Emerging Market manufacturing companies in Indonesia Stock Exchange. Factors that influence the capital structure in Emerging Market, help manufacturing companies in determining the fulfillment of funds that should be done so that the company's goals can be achieved. This study also uses different samples and research periods, namely from year 2017 to 2021.

II. LITERATURE REVIEW

A. Business Risk

According to Brigham & Houston (2019) the definition of Business Risk is as follows: "Business Risk is the most important determinant of capital structure, and it represents the amount of risk inherent in the company's operations even if it does not use debt financing". The definition of Business Risk according to Gitman & Zutter (2015) is as follows: "Business risk as the risk that the company cannot cover its operating costs. In general, the greater the company's operating leverage-the use of fixed operating costs-the higher the business risk".

The variability of a company's income will have an influence on the level of use of foreign capital, because it can be used as a guarantee in meeting the fixed costs that must be borne by the company in the form of principal and interest debt. There are two risks faced by the company, namely systematic risk and unsystematic risk. Unsystematic risk is a risk that can be diversified, whereas systematic risk is a risk that cannot be diversified. Systematic risk is also called market risk. Gitman & Zutter (2015) say that systematic risk is measured by beta. Beta is a measure of the volatility of a security's return on market return. Volatility is the fluctuation of the returns of a security or portfolio. If the fluctuations in the returns of a security or portfolio systematically follow the fluctuations of market returns, then beta and the security are said to be worth 1. This indicates that the systematic risk of a security or portfolio is equal to market risk.

Degree of operating leverage (DOL) is a multiple that measures how much a firm's operating income will change in response to changes in sales. Companies with a large proportion of fixed costs (or costs that do not change with production) to variable costs (costs that change with production volume) have a higher degree of operating leverage. The DOL ratio helps the analyst in determining the impact of any change in sales on the company's revenue or profit (Alnajjar 2015), with the following formula: DOL = %change in EBIT / %change in SALES

In a company, business risk will increase if it uses high debt. This will also increase the likelihood of bankruptcy. Research results from Neves (2020) show that the smaller the company, the greater the company risk, avoiding external financing even as banks realize the volatility of earnings before interest and taxes (EBIT) of these companies. Other research results also prove that companies with high risk should use less debt to avoid the possibility of bankruptcy (Roslan, 2022).

H1 : Business risk negatively affects capital structure.

B. Profitability

The profitability ratio is a ratio used to measure the company's ability to earn profits and also this ratio provides the final answer about management effectiveness because it shows the company's success in obtaining a net return or profit generated from the investment that has been invested or from sales. For some parties, the profitability ratio is very important because of the way the company operates, which is the result of various kinds of company policies and decisions.

This study calculates Profitability with Return On Asset Ratio (ROA), this ratio measures the company's ability to generate profits based on a certain level of assets. Profitability affects companies that announce losses or low profitability. This is related to the consequences that the market can have on the announcement of the loss for the company. Based on the previous definition, in this study, the benchmark for the level of profitability is the Return On Asset Ratio (ROA) obtained by the following equation: ROA = (EBIT / Total Assets) x 100%

The pecking order theory implies that company managers will prefer to use internal funding sources, such as profits generated from operations, rather than external funding sources, such as debt or equity. This is because the cost of external capital is usually higher than the cost of internal capital. Therefore, the pecking order theory states that an increase in profitability will increase internal funding, allowing the company to reduce external capital sources. In other words, the pecking order theory states that higher profitability will reduce the capital structure.

H2 : Profitability has a negative effect on capital structure.

C. Tangibility

Tangibility of assets or the structure of a company's assets plays a crucial role in choosing corporate financing. Companies that have high long-term fixed assets, due to high demand for their products. This will lead to the use of long-term debt. Companies whose assets are partly in the form of receivables and inventory, whose value is highly dependent on the stability of profitability levels, are less dependent on short-term financing. Tangible assets can be used as collateral to receive loans and are usually more valuable at the time of liquidation than intangible assets.

A company usually has two types of assets, namely current assets and fixed assets. These two asset elements will produce an asset structure or tangibility asset. The asset structure of a company will appear on the left side of the balance sheet. Then the measurement of tangibility assets can be done using the following ratio: Tangibility Asset = Fixed Assets / Total Assets

Neves (2020) says that companies that have more tangible assets will be more likely to use internal funds to finance investment, because the cost of raising external funds is higher. This is because investors are more likely to have higher confidence in tangible assets. Therefore, companies that have tangible physical assets tend to have a more conservative capital structure composition.

H3 : Tangibility has a positive effect on capital structure

D. Company Size

According to Brigham and Houston (2019) company size is a measure of the size of a company which can be seen from total assets, total sales, total profits, tax burden and others. Company size is a scale where the size of the company can be classified in various ways, including: total assets, log size, stock market value, and others. Basically, according to Suwito and Herawaty (2005) company size is only divided into 3 categories, namely: "large companies (large firms), medium-sized companies (medium-size) and small companies (small firms). Determination of company size is based on the company's total assets".

Larger companies face less adverse selection and assume that larger size opens up opportunities to obtain debt, assumes greater profit accumulation, lower information and bankruptcy costs, and therefore, less level of debt is required. This relationship is supported by the pecking order theory. (Neves, 2020).

H4 : Firm size has a positive effect on capital structure.

E. Liquidity

Liquidity is how much the company's ability to meet its short-term obligations. Liquidity is the ratio between current assets and current debt of the company. The higher the liquidity of the company, the better the company's ability to meet its short-term obligations (Gitman & Zutter 2015). Research conducted by Kumar et al (2017) states that liquidity has a positive influence on capital structure where the higher the liquidity, the capital structure will also increase.

Company liquidity shows the company's ability to pay short-term financial obligations on time. According to Gitman & Zutter (2015) liquidity problems are related to the ability of a company to meet its short-term obligations. Pecking order theory states that companies will prefer to use funding from internal companies. Companies that have high liquidity will reduce funding through debt.

The results of research from Kahya, (2020) say that the more illiquid the company is, it shows an increase in short-term financing, this can lead to an increase in long-term debt and leverage. Pecking Order theory states that companies are more likely to use their internal cash flow before using external debt or equity. If internal cash flow is not enough to finance operations, companies must use external debt or equity to fund their operations. Thus, the higher the level of liquidity a company has, the less likely it will be forced to use external debt or equity to finance their operations. H5 : Liquidity has a negative effect on capital structure.

F. Growth Asset

Growth is a change (decrease or increase) in total assets owned by the company. Asset growth is calculated as a percentage change in assets at a certain time against the previous year. Based on the above definition, it can be explained that growth is a change in total assets in the form of both an increase and a decrease experienced by the company during one period (one year).

Asset growth describes the growth of the company's assets which will affect the profitability of the company which believes that the percentage change in total assets is a better indicator in measuring company growth (Brigham & Houston, 2019). The measure used is to calculate the proportion of increase or decrease in assets. In this study, company growth is measured by the proportion of changes in assets, to compare the increase or decrease in total assets owned by the company.

Companies that have high growth rates have a greater need for funding and will keep their retained earnings. As a result, the company will try more debt to maintain its debt to capital ratio (Li and Stathis, 2017). Linking it with Pecking order theory where

growth will cause the company to shift its policy from issuing shares to debt because the company needs a lot of funds to overcome agency problems.

H6 : Asset growth has a positive effect on the level of capital structure

III. METHODOLOGY

The method used in this research is the explanatory analysis method with a quantitative approach. The explanatory analysis method is to explain the relationship between a variable and another variable or how one variable affects another variable. In this research, the explanatory analysis method with quantitative approach is used to test whether there is an influence between business risk, profitability, tangibility, company size, liquidity, and asset growth on capital structure and test the theory by testing a hypothesis whether accepted or rejected.

Testing in this study was conducted from 2017 to 2021 as the most actual condition with the research time. The population used in this study after conducting the initial elimination stage is all manufacturing companies listed on the Indonesia Stock Exchange in the 2017-2021 period. Based on the calculation with the Slovin calculation, the number of samples taken is 95 companies per year, because this study uses 7 variables and 5 years, the total data is 3,325 data.

In this study, testing was carried out by multiple linear regression analysis, which is a statistical method commonly used to examine the relationship between a dependent variable and several independent variables.

The regression model used is as follows:

 $Y = a + b1.X_1 + b2.X_2 + b3.X_3 + b4.X_4 + b5.X_5 + b6.X_6 + e$

- Description:
- Y = Capital Structure
- a = Constant
- X_1 = Business Risk of the company
- X_2 = Profitability of the company
- X_3 = Tangibility of the company
- $X_4 =$ Company size of the company
- X 5 = Liquidity of the company
- X6 = Asset Growth of the company
- b1 b6 = regression coefficient of each independent variable

e = error or other variables that affect

IV. RESULT AND DISCUSSION

In this section, we will present the results of the study, summarize the descriptive statistics, and present the regression model of the study. It also presents a discussion of the summary of the hypothesis test results for each variable

A. Descriptive Statistics

Variable	n	Min	Max	Mean	Std. Deviation
Capital Structure	95	-166.97	114.29	1.04	8.63
Business Risk	95	-3186.2	5372.7	12.87	305.84
Profitability	95	-2.89	0.92	0.03	0.20
Tangibility	95	0.0053	0.8700	0.4089	0.1964
Company Size	95	25.22	33.54	28.79	1.59
Liquidity	95	0.07	65.25	2.40	3.30
Asset Growth	95	-0.79	3.28	0.08	0.25

Table 1. Descriptive Statistics

Capital structure is measured by the company's Debt to Equity Ratio (DER). The capital structure of manufacturing companies listed on the IDX for the period 2017-2021 has an average value of 1.04 with a standard deviation of 8.63. The average value of the capital structure in 2017-2021 can be interpreted that the ratio of own capital to foreign capital is 1.04. The standard deviation value shows the size of the spread of the capital structure variable data is 8.63. The capital structure has a maximum value of 114.29 obtained by PT Asia Pasific Investama tbk in 2020 and a minimum value of -166.97 obtained by PT Century Textile Industry tbk in 2018.

Business risk is measured by Degree Operating Leverage (DOL), namely the percentage change in EBIT divided by the percentage change in company SALES. Business risk in manufacturing companies listed on the IDX for the period 2017-2021 has an average value of 12.87 or 1287% with a standard deviation of 305.84 or 30584%. The average value of business risk in 2017-2021 means that every 1% of corporate debt means 1287% of the business risk that the company will face. Business risk has a maximum value of 5372.71 or 537271% obtained by PT Pelat Timah Nusantara tbk in 2019 and a minimum value of -3186.2 or -31862% obtained by PT Sierad Produce tbk in 2017.

Profitability is measured by the company's Return on Assets (ROA). Profitability in manufacturing companies listed on the IDX for the 2017-2021 period has an average value of 0.03 or 3% with a standard deviation of 0.20 or 20%. Profitability has a maximum value of 0.92 or 92% and a minimum value of -2.89 or -289%. This shows that every Rp 1 of company assets can generate Rp 0.03 profit. The standard deviation value of ROA is 0.20 or 20% (above average), meaning that ROA has a high level of data variation.

Tangibility is measured by total fixed assets divided by the company's total assets. Tangibility in manufacturing companies listed on the IDX for the period 2017 - 2021 has an average value of 0.4089 with a standard deviation of 0.1964. The average value of company size in 2017-2021 means that the level of tangibility is 0.4089. The standard deviation shows the size of the data distribution of the tangibility variable is 0.1964. Tangibility has a maximum value of 0.8700 obtained by PT Steadfast Marine tbk in 2017 and a minimum value of 0.0053 obtained by PT Star Petrochem Tbk in 2020.

Company size is seen from the number of assets owned by the company. From the company's assets, it is then processed into Natural Logarithm units for measurement. Company size in manufacturing companies listed on the IDX for the period 2017-2021 has an average value of 28.79 with a standard deviation of 1.59. The average value of company size in 2017-2021 means that the sample company size level is 28.79. The standard deviation shows the size of the company size variable data distribution is 1.59. The capital structure has a maximum value of 33.54 obtained by PT Astra Internasional tbk in 2021 and a minimum value of 25.22 obtained by PT Primarindo Asia Infrastructure tbk in 2017.

Liquidity is measured by the Current Ratio, namely Current Assets divided by the company's Current Liabilities. Liquidity in manufacturing companies listed on the IDX for the period 2017-2021 has an average value of 2.40 with a standard deviation of 3.30. The average value of liquidity in 2017-2021 means that the company's ability to meet their short-term obligations is 2.40. The standard deviation shows the size of the spread of the liquidity variable data is 3.30. Liquidity has a maximum value of 65.25 obtained by PT Star Petrochem tbk in 2021 and a minimum value of 0.07 PT Argo Pantes tbk in 2020.

Asset growth is measured by this year's total assets minus the total assets of the year before last divided by the total assets of the year before the company. Asset growth in manufacturing companies listed on the IDX for the period 2017 - 2021 has an average value of 0.08 or 8% with a standard deviation of 0.25 or 25%. The average value of growth in 2017-2021 can be interpreted that the level of opportunity to grow from company sales is 0.08 or 8%. The standard deviation shows the size of the data distribution of the company growth variable is 0.25 or 25%. The capital structure has a maximum value of 3.28 or 328% obtained by PT Sat Nusapersada tbk in 2018 and a minimum value of -0.79 or -79% obtained by PT FKS Food Sejahtera tbk in 2017.

B. Regression Model

The results of multiple regression processing on Eviews 10 software are presented in the table below:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.262116	0.373567	0.701659	0.4832
X1_RISK	0.000238	6.27E-05	3.804701	0.0002
X2_PROF	-1.596060	0.393578	-4.055256	0.0001
X3_TANG	0.326535	0.136259	2.396431	0.0169
X4_SIZE	0.021671	0.012371	1.751720	0.0805
X5_LIQUID	-0.080947	0.011878	-6.815065	0.0000
X6_GROWTH	0.649541	0.172514	3.765148	0.0002

Table 2. Regression Model

Based on the research results above, the form of multiple linear regression equations is obtained as follows: Y = 0.262116 + 0.000238X1 - 1.596060X2 + 0.326535X3 + 0.021671X4 - 0.080947X5 + 0.649541X6

The regression coefficient value on each independent variable shows the change that will occur in the dependent variable if the independent variable is increased by one unit when the other independent variables are considered constant or zero. Changes in the dependent variable are expected to increase or decrease based on the sign of the regression coefficient.

From the regression equation above, the constant value is 0.262116. It means that if the variables of business risk, profitability, tangibility, company size, liquidity, and asset growth are considered constant (no change) then the capital structure will be worth 26.2116%.

Business risk variable (X1) has positive regression coefficient. It means that every 1% increase in business risk will increase the capital structure variable (Y) by 0.0238% with the assumption that other independent variables are constant.

Profitability variable (X2) has negative regression coefficient. It means that every 1% increase in profitability will reduce the capital structure variable (Y) by 159.6060% with the assumption that the other independent variables are constant.

Tangibility variable (X3) has positive regression coefficient. It means that every 1% increase in tangibility will increase the capital structure variable (Y) by 32.6535% with the assumption that other independent variables are constant.

Company size variable (X4) has positive regression coefficient. It means that every 1% increase in firm size will increase the capital structure variable (Y) by 2.1671% with the assumption that other independent variables are constant.

Liquidity variable (X5) has negative regression coefficient. It means that every 1% increase in liquidity will decrease the capital structure variable (Y) by 8.0947% with the assumption that other independent variables are constant.

Asset growth variable (X6) has positive regression coefficient. It means that every 1% increase in asset growth will increase the capital structure variable (Y) by 64.9541% with the assumption that other independent variables are constant.

C. Effect Of Business Risk to Capital Structure

The results of the study say the effect of positive business risk which contradicts the initial hypothesis so that the hypothesis results are not accepted. The same research results were also presented by (Data et al, 2017). Data et al (2017) say that an increase in business risk actually encourages companies to increase the use of debt. Companies with more debt in their financial structure can be said to have high business risk as well.

Business risk is an internal condition of the company, the internal condition of the company determines the composition of the company's capital structure (Umdiana & Claudia, 2020). Company characteristics such as business risk affect capital structure decisions. Trade off theory explains that when a company with high earnings volatility will have high business risk, the company must increase its debt ratio to reduce its tax costs. The use of high debt will increase fixed costs that potentially increase risk. Higher operating risk combined with higher financing risk will lead to bankruptcy (Myers & Majluf, 1984). According to Umdiana & Claudia (2020), the trade off model cannot be used in determining the optimal capital structure accurately, but through this model there is a conclusion from several conclusions about the use of leverage, namely: "Companies in countries with high tax rates will have greater debt in their capital structure as a cost to reduce taxes". Based on the explanation put forward and the results of this study, it can be said that the companies in this study deliberately increased the amount of debt by a certain amount in their capital structure even though the company's business risk increased, this was done in order to get a tax reduction fee and felt that the corporate tax rate in Indonesia was high.

D. Effect Of Profitability to Capital Structure

The regression result for profitability variable shows a negative influence between profitability toward capital structure. The result of this study supports the finding of Titman and Wessels (1988), which found that profitability is able to decrease capital structure, and also can give negative influence on capital structure. Profitability in this study is measured using Return on Assets (ROA).

Pecking Order Theory says that companies are more likely to choose funding that comes from internal than external companies. The use of internal funds takes precedence over the use of funds sourced from external sources. The order proposed by this theory in terms of funding is first retained earnings followed by the use of debt and the last is the issuance of new equity (Myers & Majluf, 1984). Retained earnings can increase when the company's profitability rises, the results of this study are in accordance with pecking order theory. The same research results were also presented by Zhang (2010) and Panda & Nanda (2020).

E. Effect Of Tangibility to Capital Structure

Myers & Majluf (1984) state that companies that have tangible assets can use greater debt than companies that have the value of intangible assets because intangible assets are easier to lose value in the event of financial distress. When the company experiences an increase in tangibility, the company is able to convince creditors to fund the company. Pecking Order Theory

predicts that companies with high tangible assets are less susceptible to asymmetric information problems and will reduce agency costs.

The regression result for tangibility variable shows a positive influence between tangibility toward capital structure in accordance with the theory stated earlier. Tangibility in this study is measured using total fixed assets divided by total assets. The same research results were also presented by Öztekin (2015) and Kumar et al (2017).

F. Effect Of Company Size to Capital Structure

The regression result for firm size variable shows no influence on capital structure. Company size in this study is measured by the Natural Logarithm of Total Assets. Trade-off theory states that a larger company size will be easier to obtain capital sources from debt for its capital structure (Brigham & Houston, 2019). When the company experiences an increase in total assets, the company will find it easier to convince creditors to fund the company.

The result of the research shows that the influence of company size on the capital structure of the company has no effect. This could be because investors no longer see the size of the company, but see from other factors. The same research results were also presented by Alom (2013).

G. Effect Of Liquidity to Capital Structure

The regression result for liquidity variable shows a negative influence between liquidity toward capital structure. Liquidity in this research is measured using Current Ratio. When the company experiences an increase in Current Ratio, the company will reduce funding through debt (external) and prefer to use internal funds. The same research results were also stated by Alom (2013) and Saif-Alyousfi et al (2020).

Companies that have high liquidity, will choose to use funding from internal sources first, namely using their current assets rather than having to use funding through debt. Pecking Order Theory which states that companies will prefer to use funding from internal sources, namely using their current assets to meet their funding needs. The increasing level of liquidity of the company then the use of debt is decreasing, because with large total current assets, the company will prefer to fund its business activities using its own capital, so liquidity has a negative effect on capital structure.

H. Effect Of Asset Growth to Capital Structure

The regression result for asset growth variable shows a positive influence between asset growth toward capital structure. Asset growth in this study is measured using the amount of change in total assets this year divided by the previous total assets. When the company experiences an increase in asset growth, the company will try to do funding through external funds with creditors. The same research results were also presented by Yuliana (2015) and Kumar et al (2017).

Increased asset growth will result in the company needing additional capital to support company development. On the other hand, creditors tend to see the growth of company assets as one of the things considered in providing loans. The higher the level of asset growth of manufacturing companies, the more funds are needed to finance their business so that the easier it is for companies to obtain funds in the form of debt. Asset growth is positively related to leverage. Growth leads to investment and investment requires funds because equity is more expensive than debt, so debt is preferred. In line with signaling theory which indicates that the greater the company's growth, the better the company's prospects which will attract the attention of outsiders to invest their capital and make it easier for management to get loans because of the confidence of creditors and investors in the company's performance which causes the capital structure to increase. This behavior is in line with the pecking order theory if the company is more likely to choose funding from external sources then the recommended funding sequence is first from debt followed by the issuance of new equity and the last from retained earnings (Myers & Majluf, 1984).

CONCLUSIONS, SUGGESTION, AND LIMITATIONS

The conclusion is that the behavior of manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the 2017-2021 period tends to use the Pecking Order theory approach in determining the capital structure of their companies. Indonesia as one of the emerging market countries shows this behavior in line with the research of Allini et al (2018) other emerging market countries, namely Egypt. This supports the results of research from Yıldırım and Çelik (2021) which say that emerging market and developing market countries tend to have properties that support pecking order theory in determining the capital structure of their companies. Further research is expected to use a sample of companies seen from other business sectors. This is to determine the effect of capital structure with other types of business sectors. Adding other variables that may affect the capital structure. It is possible that there are still many factors that can affect the capital structure other than the variables that have been used in this study such as non-debt tax shield, ownership structure, inflation rate, tax rate, growth opportunities, etc.Other

similar studies can also be conducted to confirm the results of this study by using different test approaches such as trade-off theory and agency cost theory and or adding other variables that are felt to affect the capital structure.

REFERENCES

- 1) Ardalan, K. (2017). Capital structure theory: Reconsidered. Research in International Business and Finance, 39, 696–710. https://doi.org/10.1016/j.ribaf.2015.11.010
- 2) Allini, A., Rakha, S., McMillan, D. G., & Caldarelli, A. (2018). Pecking order and market timing theory in emerging markets: The case of Egyptian firms. Research in international business and finance, 44, 297-308.
- 3) Berzkalne, I., & Zelgalve, E. (2014). Intellectual Capital and Company Value. Procedia Social and Behavioral Sciences, 110, 887–896. https://doi.org/10.1016/j.sbspro.2013.12.934
- 4) Brigham, E. F., & Houston, J. F. (n.d.). Fundamentals of financial management.
- 5) Chakraborty, I. (2010). Capital structure in an emerging stock market: The case of India. Research in international business and finance, 24(3), 295-314.
- 6) Danila, N., Noreen, U., Azizan, N. A., Farid, M., & Ahmed, Z. (2020). Growth Opportunities, Capital Structure and Dividend Policy in Emerging Market: Indonesia Case Study. The Journal of Asian Finance, Economics and Business, 7(10), 1-8.
- 7) Data, A., Alhabsji, T., Rahayu, M., & Handayani, S. R. (2017). Effect of Growth, Liquidity, Business Risk and Asset Usage Activity, Toward Capital Structure, Financial Performance and Corporate Value (Study at Manufacturing Companies Listed in Indonesia Stock Exchange in 2010-2015). In European Journal of Business and Management www.iiste.org ISSN (Vol. 9, Issue 24). www.iiste.org
- 8) Dinh Khoi Nguyen, T., Nguyen, T., Dinh, K., Ramachandran, N., Dinh, T., & Nguyen, K. (2006). Capital Structure in Small and Medium-sized Enterprises: The Case of Vietnam Capital Structure in Small and Medium-sized Enterprises: The Case of Vietnam Capital Structure in Small and Medium-sized Enterprises The Case of Vietnam. Article) ASEAN Economic Bulletin, 23(2), 192–211. https://doi.org/10.1353/ase.2007.0006
- 9) Gitman, L. J., & Zutter, C. J. (n.d.). GlobAl edITIon Principles of Managerial Finance FoUrTeenTh edITIon. www.pearsonmylab.com.
- 10) Hagstrom, R. G. (2013). The Warren Buffett Way. John Wiley & Sons.
- 11) Kahya, E. H., Ersen, H. Y., Ekinci, C., Taş, O., & Simsek, K. D. (2020). Determinants of capital structure for firms in an Islamic equity index: comparing developed and developing countries. Journal of Capital Markets Studies, 4(2), 167-191.
- 12) Karadeniz, E., Kandir, S. Y., Balcilar, M., & Onal, Y. B. (2009). Determinants of capital structure: Evidence from Turkish lodging companies. International Journal of Contemporary Hospitality Management, 21(5), 594–609. https://doi.org/10.1108/09596110910967827
- 13) Kraus, A., & Litzenberger, R. H. (1973). American Finance Association A State-Preference Model of Optimal Financial Leverage A STATE-PREFERENCE MODEL OF OPTIMAL FINANCIAL LEVERAGE. In Source: The Journal of Finance (Vol. 28, Issue 4).
- 14) Kumar, S., Colombage, S., & Rao, P. (2017). Research on capital structure determinants: a review and future directions. In International Journal of Managerial Finance (Vol. 13, Issue 2, pp. 106–132). Emerald Group Publishing Ltd. https://doi.org/10.1108/IJMF-09-2014-0135
- 15) Kyissima, K. H., Xue, G. Z., Yapatake Kossele, T. P., & Abeid, A. R. (2020). Analysis of capital structure stability of listed firms in China. China Finance Review International, 10(2), 213–228. https://doi.org/10.1108/CFRI-05-2018-0044
- 16) Liang, C. C., Liu, Y., Troy, C., & Chen, W. W. (2020). Firm characteristics and capital structure: Evidence from ASEAN-4 economies. In Advances in pacific basin business, economics and finance (Vol. 8, pp. 149-162). Emerald Publishing Limited.
- 17) Li, H., & Stathis, P. (2017). Determinants of capital structure in Australia: an analysis of important factors. Managerial Finance, 43(8), 881–897. https://doi.org/10.1108/MF-02-2017-0030
- 18) Li, L., & Islam, S. Z. (2019). Firm and industry specific determinants of capital structure: Evidence from the Australian market. International Review of Economics & Finance, 59, 425-437.
- 19) Lipson, M. L., & Mortal, S. (2009). Liquidity and capital structure. Journal of Financial Markets, 12(4), 611–644. https://doi.org/10.1016/j.finmar.2009.04.002
- 20) M Alnajjar, M. I. (2015). Business Risk Impact on Capital Structure: A Case of Jordan Industrial Sector. https://www.researchgate.net/publication/329498361

- 21) Mangesti Rahayu, S., Suhadak, & Saifi, M. (2020). The reciprocal relationship between profitability and capital structure and its impacts on the corporate values of manufacturing companies in Indonesia. International Journal of Productivity and Performance Management, 69(2), 236–251. https://doi.org/10.1108/IJPPM-05-2018-0196
- 22) Modiglian1, F., & Miller, M. H. (1958). American economic Revlew VOLUME XLVIII JUNE 1958 NUMBER THREE THE COST OF CAPITAL, CORPORATION FINANCE AND THE THEORY OF INVESTMIENT.
- 23) Moh', M. A., Perry, L. G., & Rimbey, J. N. (1998). Financial The Review EFA Eastern Finance Association The Impact of Ownership Structure On Corporate Debt Policy: a Time-Series Cross-Sectional Analysis.
- 24) Myers, S. C., & Majluf, N. S. (1984). CORPORATE FINANCING AND INVESTMENT DECISIONS WHEN FIRMS HAVE INFORMATION THAT INVESTORS DO NOT HAVE*. In Journal of Financial Economics (Vol. 13).
- 25) Neves, M. E., Serrasqueiro, Z., Dias, A., & Hermano, C. (2020). Capital structure decisions in a period of economic intervention: Empirical evidence of Portuguese companies with panel data. International Journal of Accounting & Information Management, 28(3), 465-495.
- 26) Orlova, S., Harper, J. T., & Sun, L. (2020). Determinants of capital structure complexity. Journal of Economics and Business, 110, 105905.
- 27) Öztekin, Ö. (2015). Capital Structure Decisions around the World: Which Factors Are Reliably Important? Journal of Financial and Quantitative Analysis, 50(3), 301–323. https://doi.org/10.1017/S0022109014000660
- 28) Panda, A. K., & Nanda, S. (2020). Determinants of capital structure; a sector-level analysis for Indian manufacturing firms. International Journal of Productivity and Performance Management, 69(5), 1033–1060. https://doi.org/10.1108/IJPPM-12-2018-0451
- 29) Roslan, E. N., Khaidzir, H. S., Azman, N., Jizad, F. A. M., & Zainoddin, A. I. (2022). Determinant of Capital Structure From Shariah-Compliant in The Industrial Products and Services. International Journal of Academic Research in Business and Social Sciences, 12(1), 2548-2558.
- 30) Saif-Alyousfi, A. Y. H., Md-Rus, R., Taufil-Mohd, K. N., Mohd Taib, H., & Shahar, H. K. (2020). Determinants of capital structure: evidence from Malaysian firms. Asia-Pacific Journal of Business Administration, 12(3–4), 283–326. https://doi.org/10.1108/APJBA-09-2019-0202
- 31) Schepens, G. (2016). Taxes and bank capital structure. Journal of financial Economics, 120(3), 585-600.
- 32) Sekaran, Uma. (2019). Research methods for business : a skill-building approach. John Wiley & Sons.
- 33) Thies, C. F., & Klock, M. S. (1992). Determinants of capital structure. Review of Financial Economics, 1(2), 40.
- 34) Titman, S., Wessels, R., Franks, J., Mayers, D., Masulis, R., & Torous, W. (1988). THE JOURNAL OF FINANCE * VOL. XLIII, NO. 1 * The Determinants of Capital Structure Choice.
- 35) Umdiana, N., & Claudia, H. (2020). Struktur Modal Melalui Trade Off Theory. Jurnal Akuntansi Kajian Ilmiah Akuntansi (JAK), 7(1), 52. https://doi.org/10.30656/jak.v7i1.1930
- 36) Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2018). Financial accounting with international financial reporting standards. John Wiley & Sons.
- 37) Yıldırım, D., & Çelik, A. K. (2021). Testing the pecking order theory of capital structure: Evidence from Turkey using panel quantile regression approach. Borsa Istanbul Review, 21(4), 317-331.
- 38) Zhang, Y. (2010). The Product Category Effects on Capital Structure: Evidence from the SMEs of British Manufacturing Industry. International Journal of Business and Management, 5(8). <u>www.ccsenet.org/ijbm</u>



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0

(https://creativecommons.or/licenses/by-nc/4.0/), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.