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# FACTORS OF CAPITAL STRUCTURE AND PROFITABILITY ON INFRASTRUCTURE, UTILITY AND TRANSPORTATION COMPANIES REGISTERED ON INDONESIA STOCK EXCHANGE

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Abstract: This research aims to analyze the factors affecting the capital structure and profitability of infrastructure, utilities and transportation companies in Indonesia stock exchange. The variables used were capital structure and profitability as the dependent variables as well as tangibility, firm size, business risk, and liquidity as the independent variables. Meanwhile, the sample used were the companies registered on infrastructure, utilities and transportation sectors in Indonesia stock exchange. Furthermore, the analysis method used was path pls. This research result showed that tangibility, firm size, business risk, and liquidity have significant influence on capital structure. Tangibility and liquidity have significant effect on profitability, while firm size, business risk and capital structure do not have any significant influence on profitability.

**Keywords:** Capital structure, profitability, tangibility, firm size, business risk, liquidity

#### 1. Introduction

The economic condition of a country can be identified based on its own economic growth. The economic growth of a country is determined by the total value of the production of goods and services traded. All production values of goods and services traded can be seen from the Gross Domestic Product (GDP) of the country. In this case, sustainable development is needed to improve the economy of a country. Indonesia as a developing country encounters obstacles in implementing the development programs for national welfare.

The government faces limited capital issue to finance development. The reason is that there is a development budget deficit or a gap between national income and expenditure. Therefore, in order to overcome this issue, the government of Indonesia establishes a series of internal and external policies. In addition to increasing sources of national income through tax and non-tax extensification and intensification, the Indonesian government has also been implementing external debt and foreign investment policies. Normatively, Indonesia's external debt is used to finance development, yet in its implementation, not all external debt is used to finance development. In this case, the government used part of the debt to cover the payment of principal and interest installments. This condition is certainly not favorable since most of the State Budget (APBN), which is expected to support the economy, has been used for routine expenditures. External debt is actually expected to positively affect the economic growth by increasing GDP production, expanding employment opportunities, and improving

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the balance of payments. However, if the external debt is utilized inappropriately, it might give a negative effect on economic growth instead and even threaten the country's economic stability.

Several aspects, including external and internal aspects of the company, can affect the development of a company. In this case, the external aspects consist of factors from the outside of the company or the macro-economy, such as the economic crisis, politics, foreign factors. Meanwhile, the internal aspects include the movement of the company's performance including the financial statements and the form of capital structure owned by the company. The capital structure describes the origin of the source of funds, or how long the funds will be used to finance investments. The debt in a company is used for company activities, thus the company must pay off the debt and interest. Meanwhile, the capital which is from the company's shares is obliged to be used to improve the shareholders' or investors' welfare. Financing decisions must produce an effective, productive, and efficient capital structure. The need for finance must be met to finance the company's investment in order to create income or sales so that the company earns profits that can continuously expect, thus the company can achieve its goals.

A good company will show its ability in improving its shareholders or investors' welfare. The company's ability to earn profits can be seen from the company's profitability. The higher the profit obtained by the company, the healthier the company is because the company's profit is increasing. In this case, the profits obtained will be used to fulfill the company's obligations and operational activities. The decision-making of capital structure which is not done carefully and appropriately inappropriate will cause the company to receive high capital, thus it will decrease the profitability. On the other hand, the optimal capital structure between debt and equity will increase the profitability of the company.

Related to this, previous research that was conducted by (Septariani & Johan, 2018) revealed that capital structure gives positive effect to profitability. However, another previous study (Myers & Majluf, 1984) claimed that capital structure gives negative effect on profitability, referring to the pecking order theory which states that profitable companies prefer financing from internal companies rather than external companies in the forms of debt. The results of this study are supported by research conducted by (Addae et al., 2013; Bauer, 2004; Chandra, 2014; Margaretha & Khairunisa, 2016). In addition, the current research analyzed the Factors of Capital Structure and Profitability in Infrastructure, Utilities, and Transportation Companies registered on the Indonesia Stock Exchange.

#### 2. Literature Review

#### **Capital Structure**

Capital structure is an important component for the company because this component has a direct impact on the company's financial position. It is expected that capital structure can increase company profits, which further leads to the increase of the company owners' welfare. It indicates that the control of capital structure is expected to affect the company's profit. Capital structure initially used Net Income Approach. The net income (NI) approach was proposed by David Durand in 1952 (Chandra, 2016). In this case, the net profit refers to the profit earned after deducting all costs, except the income tax paid by the company. This net profit approach correlates the cost of capital, capital structure, and firm value.

#### Modligiani Miller (MM) Approach

The no-tax Modligiani Miller (MM) approach was first published in 1958. This MM approach claims that the increased use of debt will not affect the weighted average cost of capital. Therefore, the use of debt will not change the company value (Chandra, 2016). The



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assumptions included in this approach are: (1) The capital market is perfect. Information can be obtained quickly and free of charge. (2) There is no corporate tax. (3) Investors have the same expectations about the company's operating profit (EBIT) in the future. (4) The company's business risk is measured using the standard deviation of EBIT. (5) EBIT is not affected by the use of debt.

In 1963, Modligiani & Miller revised the assumptions they have made by adding tax element in their analysis. MM began to consider the validity of the net income (NI) approach, in which the changes of capital structure will affect firm value. In the Modligiani & Miller approach with tax, the firm value is considered to increase as well due to an increase in the use of corporate debt which will result in a decrease in the weighted average cost of capital. The decrease in the weighted average cost of capital occurred as a result of tax savings due to increased interest costs.

#### **Trade of Theory Approach**

The approach proposed by Modligiani & Miller which suggests the use of large amounts of debt has been criticized by many parties. The Modligiani & Miller model without taxes has considered the risk of using debt by the company. However, it is still not clear what risks are considered by investors.

One of the criticisms raised came from Scott (1977) who proposed the trade of theory. Trade of theory explains that the increase of debt will increase the risk of bankruptcy leads to the increase of costs if the company experiences financial distress. Such financial distress cost can be in the form of management costs of the company liquidation, the cost of selling the company's assets below the market price, or as the management's precaution against concerns of being bankrupt. This approach indicates that the increased use of debt by the company will further increase the cost of bankruptcy.

#### **Pecking Order Theory**

Modligiani & Miller approach explained that optimal capital structure can be obtained by considering taxes and costs related to bankruptcy and costs related to agency. This means that the company must balance the use of its own capital with debt to finance the company. Financing a company using debt is highly recommended and is considered good to increase the firm value. However, if the use of debt is too much it will cause a decrease in firm value itself. The main principle of packing order theory is trying to find a comparison of the benefits obtained and costs incurred. The addition of debt will increase the benefit for the company in the forms of saving tax from paying interest. However, when the additional debt exceeds a certain limit, it will cause the increase of financial distress cost. This indicates that the use of debt to finance the company must be stopped at certain level. This approach also discusses the tendency of companies to add debt rather than printing new shares due to the new shares printing costs and issuance costs which can lead to negative perceptions by investors, thus reducing the firm value (Chandra, 2016).

#### Free Cash Flow Theory

The theory of free cash flow (Jensen, 1986) is another capital structure theory that states that managers who have financial freedom will tend to invest even though it is less profitable than returning the funds to the owners of capital or shareholders. The capital will be invested by the manager so that the company's growth can be maintained although the growth does not affect the firm value. In this theory, owners of capital force managers to borrow as much as possible to minimize the agency costs and to make the managers disciplined in managing the existing funds.



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### Relationship between Variables

The current research tried to examine the relationship between capital structure and profitability. In addition, this research also identified the factors affecting the two variables. Therefore, several factors that affect the capital structure and profitability are discussed.

Tangibility or asset structure is the property owned by the company. Company assets can be in the form of fixed assets, current assets, and intangible assets owned by the company and can be measured in money (Utami et al., 2018). Tangibility is an illustration of the amount of fixed assets owned by the company. Large fixed assets illustrate the company's difficulty in changing, thus increasing the risk of the company. At the end, the company will be abandoned by investors. According to the trade of theory (Scott, 1977), tangibility can be used as collateral for debt.

Firm Size or company is an illustration of the size of a company. Previous study has explained that firm size takes part in determining the capital structure policy for the company and profitability for assessing the company's condition. Firm size is considered to have a positive effect on the capital structure. According to research conducted previously (Adiyana & Ardiana, 2014) companies which have high growth rates will lack revenue to finance its high growth internally. In addition, instead of issuing new shares which requires high costs, the company prefers debt as a source of financing, either from debt policy or own capital in maintaining or developing the company.

According to another previous study (Chandra, 2015) high-risk companies tend to find it difficult to offer shares at high prices (asymmetric information). As a result, they prefer to use debt as a source of funds. This means that the effect of business risk on the capital structure is positive. In this case, in accordance with research conducted by (Chandra, 2014; Deesomsak et al., 2004), high-risk companies will also encounter high financial distress. Therefore, in order to anticipate this issue, companies tend to reduce the use of debt. This shows that business risk has a negative effect on the capital structure. This research is supported by the results of previous research projects (Adiyana & Ardiana, 2014; Akhtar & Oliver, 2009; Kaliman & Wibowo, 2017). Therefore, based on the concept of the relationship between variables above, the hypotheses that can be tested in this study are as follows.

According to the pecking order theory (Myers & Majluf, 1984), companies will borrow less when they have high liquidity. In fact, liquid companies prefer to finance their activities through loans because they feel capable of paying the interest. This indicates that liquidity has a negative effect on the capital structure. These results are supported by research (Çekrezi, 2013). Therefore, based on the concept of the relationship between variables above, the hypotheses that can be tested in this study are as follows.

Tangibility reflects how much fixed assets dominate the composition of the company property. The greater the tangibility ratio, the lower the efficiency of the company in utilizing working capital. Hence, it shows that tangibility has a negative effect on profitability. The results of this study are supported by research (Nursatyani et al., 2014; Willi & Chandra, 2019). On the other hand, tangibility has a positive effect on profitability. The bigger the ratio the better because it shows the availability of cash, receivables, and inventories. The presence of liquid assets can be used at any time to finance the company's operational needs (Rahmawati & Mahfudz, 2018; Rahmiyatun & Nainggolan, 2016). Based on the concept of the relationship between variables above, the hypotheses that can be tested in this study are as follows.

Firm Size is a determination of the size of the company. It is easier for large companies that have large amounts of assets to obtain external funds in the form of large debt so that it can increase the company's operational activities and productivity, thus the profitability will increase as well. The results of this study are supported by previous studies (Miswanto et al., 2017; Putra & Badjra, 2015) which claimed that firm size has a positive effect on



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profitability. On the other hand, other studies (Meidiyustiani, 2016; Nurdiana, 2018) revealed that firm size has a negative effect on profitability. Therefore, based on the concept of the relationship between variables above, the hypotheses that can be tested in this study are as follows.

Business risk is a failure of internal control that results in management failure and unexpected losses to ensure returns to the company. According to trade of theory, it is stated that the larger debt the company has, the higher the burden or risk borne by the company, such as agency costs, bankruptcy costs, and the reluctance of creditors to provide large loans. This means that business risk has a positive effect on profitability. This result is supported by research (Saraswathi et al., 2016) which states that business risk has a positive effect on profitability. On the other hand, another study carried out by (Aglen & Panjaitan, 2019) revealed that business risk has no effect on profitability. Based on the concept of the relationship between variables above, the hypotheses that can be tested in this study are as follows

Previous study (Sari et al., 2016) revealed that liquidity has positive effect on profitability. In this case, when a company has high liquidity, it will affect the profits earned by the company. This is in accordance with the results obtained from the previous studies (Meidiyustiani, 2016; Novita & Sofie, 2015; Nurdiana, 2018; Sufitrayati et al., 2019). However, other studies revealed that liquidity has a negative effect on Profitability (Dewi, 2015; Rizki, 2019; Sugiartini & Dewi, 2019). Based on the concept of the relationship between variables above, the hypotheses that can be tested in this study are as follows.

Furthermore, research that has been conducted by (Septariani & Johan, 2018) discovered that capital structure has a positive effect on profitability. This result is in line with the research that was conducted by (Fauzan & Mukaram, 2018). However, another study found the opposite that capital structure has a negative effect on profitability (Myers & Majluf, 1984) This is related to the pecking order theory which states that profitable companies prefer financing from internal companies rather than external companies in the forms of debt. The results of this study are supported by research conducted by (Addae et al., 2013; Bauer, 2004; Chandra, 2014; Margaretha & Khairunisa, 2016). Based on the concept of the relationship between variables above, the hypotheses that can be tested in this study are as follows.

#### **Hypothesis**

H1: There is an effect of tangibility on the capital structure of infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange.

H2: There is an effect of firm size on the capital structure of infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange

H3: There is an effect of business risk on the capital structure of infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange.

H4: There is an effect of liquidity on the capital structure of infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange

H5: There is an effect of tangibility on profitability in infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange

H6: There is an effect of firm size on profitability in infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange

H7: There is an effect of Business Risk on profitability in infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange

H8: There is an effect of liquidity on profitability in infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange

H9: There is an effect of capital structure on profitability in infrastructure, utility, and transportation companies registered on the Indonesia Stock Exchange.



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#### 3. Method

#### **Population and Sample**

The population involved in this study is all 38 infrastructure, utility, and transportation sector companies that were registered on the Indonesian stock exchange for the period of 2013 to 2018. Among the population, the samples were selected through purposive sampling, which means that the sampling was done based on certain criteria that were adjusted to the research objectives. The criteria used in the selection of the sample are: (1) Infrastructure, utility, and transportation sector companies registered on the Indonesia Stock Exchange (IDX) in 2013. (2) Active in trading activities during the period of 2013 to 2018.

Infrastructure, utilities, and transportation companies that have financial reports for the period 2013 to 2018 are.

**Table 1. Evaluation Criteria** 

No.	Criteria	Total
1	Infrastructure, utilities, and transportation companies registered on the Indonesia Stock Exchange (IDX) from 2013 to 2018.	71 Companies
2	Companies that do not meet the criteria (do not provide complete financial statements)	37 Companies
3	The number of samples in the study that meet the criteria	34 Companies

Source: Processed Data

Therefore, the number of samples which met the criteria above and became the research object is 38 infrastructure, utility, and transportation companies.

### **Research Variable Operational**

Research variable is an attribute or trait (the value of a person, object, or activity that has a certain variation determined by the research to be studied and draw conclusions). The variables employed in this study were categorized into: (1) Exogenous variables, which are variables suspected as the cause, including Tangibility (X1), Firm Size (X2), Business Risk (X3), and Liquidity (X4); (2) Endogenous variables, including the effect variables, those are Capital Structure (Y1) and Profitability (Y2).

Table 2. Research Variable Operational

Research Variable	Ratio	Source
Capital Structure (Y1)	<u>Total Debt</u> Total Assets	(Chandra, 2014)
Profitability (Y2)	Earning After Tax Total Assets	(Çekrezi, 2013)
Tangibility (X1)	<u>Total Fixed Assets</u> Total Assets	(Utami et al., 2018)
Firm Size (X2)	LN (Total Assets)	(Kaliman & Wibowo, 2017)
Business Risk (X3)	<u>EBIT</u> CAPITAL	(Chandra, 2014)
Liquidity (X4)	<u>Current Assets</u> Current Liabilities	(Çekrezi, 2013)

Source: Processed Data, 2019

#### **Descriptive Analysis**

This descriptive analysis was performed to provide a description of the variables data studied in the current research. The data observed include the amount of data, the minimum value, the maximum value, and the average value. This research analyzed the data with the



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assistance of *Smart PLS 3.0 Software* which is a multivariate statistical technique that compares multiple dependent variables and multiple independent variables. PLS is a variant-based SEM statistical method that is designed to solve multiple regression when specific problems occur in the data.

#### **Multicolinearity Test**

Multicolinearity test aims to test whether there is a correlation between the independent variables. In this case, a correlation between the independent variables will not occur if the model is good. However, if the independent variables are correlated with each other, then these variables are not orthogonal. This means that the correlation value between independent variables is equal to zero.

The R-value ranges between 0 and 1. The closer the value to 1, the stronger the relationship. On the contrary, the more the value away from 1, the weaker the relationship. If there is a fairly high correlation between independent variables (generally above 0.90), this indicates that multicolinearity occurs. Multicolinearity can also be seen from the tolerance value and its opposite, as well as the variance inflation factor (VIF). The value that is commonly used to indicate the presence of multicolinearity is the tolerance value < 0.10 or the same as VIF > 10.

#### **Hypothesis Test**

A hypothesis test is a procedure based on sample evidence used to determine whether the hypothesis is a reasonable statement, thus must be accepted. The t-test (partial) in this research was applied to see whether the exogenous variables and endogenous variables met certain criteria. The criteria refer to (1) If t-count > t-table or significant <0.05, then the exogenous variable has a significant effect on the endogenous variable, thus Ha is accepted. However, (2) if the t-table < t-count or significant > 0.05, then the exogenous variable is not significant to the endogenous variable. Therefore, Ha is rejected.

#### 4. Result and Discussion

#### **Descriptive Analysis**

Based on the research samples of 38 companies engaging in the infrastructure, utility, and transportation sectors, research data have been collected based on the variables of this study. In this case, the variables included are the dependent variables (capital structure and profitability) and the independent variables (tangibility, firm size, business risk, and liquidity). The next section will discuss the variables data respectively.

#### **Summary of Research Data**

Based on the observations of all variables, studied a summary of the averages of all research variables was drawn as shown in the following table:

Table 3. Summary of Research Data

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No	VARIABLE	Year					
No		2013	2014	2015	2016	2017	2018
1	Tangibility (X1)	0.4892	0.4850	0.4941	0.5776	0.5666	0.5933
2	Firm Size (X2)	12.4965	12.5335	12.5183	12.5637	12.6369	12.6750
3	Business Risk (X3)	0.0744	0.1136	0.0525	0.0162	0.0518	0.0486
4	Liquidity (X4)	1.7853	1.4054	2.6117	1.5360	1.8833	1.7587
5	Capital Structure (Y1)	0.8251	0.9170	0.8895	0.7928	0.7189	0.7441
6	Profitability (Y2)	0.0290	0.0341	0.0038	0.0821	0.0061	-0.0401

**Source: Data Processed** 

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#### **Multicolinearity Test**

The purpose of multicolinearity test is to test whether there is a correlation between the independent variables. In this research, multicolinearity test was done using Smart PLS, obtaining the following results. The value commonly used to indicate the presence of multicolinearity are tolerance values < 0.10 or equal to VIF > 10

The independent variables in this study indicate that there are no symptoms of multicolinearity seen based on the results of the VIF calculation that all independent variables < 10. This indicates that no symptoms of multicolinearity were found between independent variables in this model.

### Analysis of Coefficient of Determination (R<sup>2</sup>)

Table 5. Results of R<sup>2</sup> Test (R Square Adjusted)

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	R Square	R Square Adjusted	Description	
Capital Structure (Y1)	0.291	0.276	Weak	
Profitability (Y2)	0.077	0.054	Weak	

Source: Data Processed by Smart PLS 30

Based on the calculation results of R Square Adjusted, it shows that the Capital Structure (Y1) variable is affected by tangibility, firm size, business risk, and liquidity variables of 0.291 or 29.1%. Meanwhile, the remaining 70.9% is affected by other factors which are not included in the study. Furthermore, profitability (Y2) variable is affected by tangibility, firm size, business risk, liquidity, and capital structure variables by 0.077 or 7.7%. Meanwhile, the rest is affected by other factors that are not included in the study.

#### **Hypothesis Test**

The following table and figures show the processing results of smart pls on the share the infrastructure, utilities, and transportation sectors.

**Table 6. Test Results** 

	Original Sample (O)	T Statistics ( O/STDEV )	P Values	Results
Tangibility -> DAR	2.484	0.013**	0.980	TS
Tangibility -> ROA	4.926	0.000***	0.003	$\mathbf{S}$
Firm Size -> DAR	2.018	0.044**	0.718	TS
Firm Size -> ROA	2.711	0.007***	0.038	$\mathbf{S}$
Business Risk -> DAR	3.003	0.003***	0.324	TS
Business Risk -> ROA	0.799	0.425	0.131	TS
Liquidity -> DAR	0.631	0.528	0.283	TS
Liquidity -> ROA	1.994	0.047**	0.420	TS
$DAR \rightarrow ROA$	0.637	0.525	0.013	$\mathbf{S}$

Source: Data Processed by Smart PLS 30

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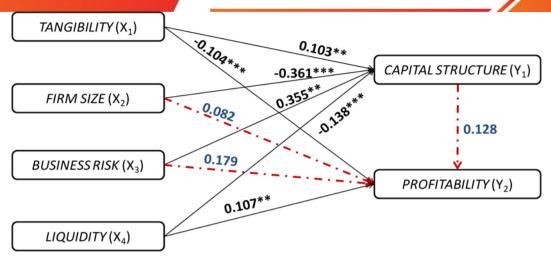


Figure 1: Results of Research using Smart PLS

### Tangibility (X1)

The results of hypothesis testing shows that the tangibility variable has P-Value of 0.013 or less than alpha ( $\alpha < 0.05^{**}$ ). This indicates that H0 is rejected, while Ha is accepted. This indicates that tangibility gives a significant effect on the capital structure. Furthermore, the tangibility variable (X1) also gives a positive effect on the capital structure by 0.103. Therefore, if the tangibility variable increases by one unit, assuming other factors are constant or zero, then the capital structure variable will increase by 0.103. This result is in line with the trade off theory, claiming that greater tangibility will provide a higher value of collateral or guarantees in taking on larger debts. These results are also supported by previous research conducted by (Akhtar & Oliver, 2009; Çekrezi, 2013; Chandra, 2015).

Furthermore, based on the results of hypothesis testing, it shows that the tangibility variable has P Values of 0.003 or less than alpha ( $\alpha < 0.01^{***}$ ). Therefore, it can be concluded that H0 is rejected, while Ha is accepted. This shows that tangibility has a significant effect on profitability. However, tangibility (X1) variable has a negative effect on the profitability by -0.104. This means that if the tangibility variable increases by one unit, assuming other factors are constant or zero, then the tangibility variable will decrease by -0.104. Therefore, the tangibility variable has a negative effect on the profitability variable. The results of this study support the previous research projects conducted by (Nursatyani et al., 2014; Willi & Chandra, 2019).

#### Firm Size (X2)

Furthermore, related to firm size variable, the hypothesis testing obtained that the firm size variable has P-Values of 0.000 or less than alpha ( $\alpha < 0.01^{***}$ ). Hence, it can be concluded that H0 is rejected, while Ha is accepted. This shows that firm size has a significant effect on the capital structure. However, firm size (X2) variable has a negative effect on the capital structure by -0.361. This indicates that if the firm size variable increases by one unit, assuming other factors are constant or zero, then the capital structure variable will decrease by -0.361. Therefore, the firm size variable has a negative effect on the capital structure variable. The results of this study are in line with research conducted by (Adiyana & Ardiana, 2014; Bauer, 2004; Bhawa & S, 2015; Kaliman & Wibowo, 2017).

Furthermore, the hypothesis testing also obtained that the firm size variable has P Values of 0.528 or greater than alpha ( $\alpha$  < 0.10\*). Hence, it can be concluded that H0 is accepted, while Ha is rejected. This shows that firm size has no significant effect on profitability. However, firm size (X2) variable has a positive effect on profitability by 0.082. It means that if the firm size variable increases by one unit, assuming other factors are constant or zero, then the



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profitability variable will increase by 0.082. Therefore, the firm size variable has a positive effect on the profitability variable. The results of this study support the results of the research conducted by (Nurdiana, 2018; Putra & Badjra, 2015).

#### Business Risk (X3)

Related to business risk, the hypothesis test obtained that the business risk variable has P Values of 0.000 or less than alpha ( $\alpha < 0.05**$ ). Therefore, it can be concluded that H0 is rejected, while Ha is accepted. This shows that business risk has a significant effect on the capital structure. In addition, the business risk variable (X3) also has a positive effect on the capital structure by 0.355. This indicates that if the tangibility variable increases by one unit, assuming that other factors are constant or zero, then the capital structure variable will increase by 0.355 as well. Therefore, the business risk variable has a positive effect on the capital structure variable. These results are in accordance with the results of the research carried out by (Chandra, 2014; Deesomsak et al., 2004).

In addition, the hypothesis test also obtained that the business risk variable has P Values of 0.425 or greater than alpha ( $\alpha < 0.10^*$ ). Therefore, H0 is accepted and Ha is rejected. This indicates that business risk has no significant effect on profitability. Furthermore, the business risk variable (X3) has a positive effect on profitability by 0.179. This means that when the business risk variable increases by one unit, assuming that other factors are constant or zero, then the profitability variable will increase by 0.179. Hence, the business risk variable has a positive effect on the profitability variable. The results of this study support the previous research conducted by (Aglen & Panjaitan, 2019).

#### Liquidity (X4)

Based on the results of hypothesis test, the liquidity variable obtained P Values of 0.000 or less than alpha ( $\alpha < 0.01^{***}$ ). This indicates that H0 is rejected, while Ha is accepted, presenting that liquidity has a significant effect on the capital structure. In addition, the liquidity (X4) variable also has a negative effect on the capital structure by -0.138. This shows that if the liquidity variable increases by one unit, assuming that other factors are constant or zero, then the capital structure variable will decrease by -0.138. Therefore, liquidity variable has a negative effect on the capital structure variable. The results of this study are supported by research that has been conducted previously (Çekrezi, 2013; Deesomsak et al., 2004).

Furthermore, results of hypothesis test also obtained that the liquidity variable has P Values of 0.047 or less than alpha ( $\alpha$  < 0.05\*\*). This sums up that H0 is rejected and Ha is accepted. This indicates that liquidity has a significant effect on profitability. Furthermore, liquidity variable (X4) also has a positive effect on profitability by 0.107. This shows that if the liquidity variable increases by one unit, assuming that other factors are constant or zero, then the profitability variable will increase by 0.107 as well. Hence, the liquidity variable has a positive influence on the profitability variable. The results of this study are in line with the results of research conducted by (Novita & Sofie, 2015; Nurdiana, 2018; Sari et al., 2016; Sufitrayati et al., 2019).

#### Capital Structure (Y1)

Concerning the capital structure, the results of the hypothesis test shows that the capital structure variable has P Values of 0.525 or greater than alpha ( $\alpha < 0.10^*$ ). Therefore, it can be concluded that H0 is accepted, while Ha is rejected. This shows that the capital structure has no significant effect on profitability. The capital structure variable (Y1) also has a positive effect on profitability by 0.128. This means that if the capital structure variable increases by one unit, assuming that other factors are constant or zero, then the profitability variable will



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increase by 0.128. Therefore, the capital structure variable has a positive effect on the profitability variable. This result is in accordance with the trade of theory, stating that the use of large debt will lead to the increase of high liabilities as well. The results of this study support research that has been previously done by (Chandra, 2015; Fauzan & Mukaram, 2018).

#### 5. Conclusions

Based on the partial test that has been performed, it was obtained several results. First, Tangibility has a positive and significant effect on the capital structure. Second, firm size has a negative but significant effect on capital structure. Third, business risk has a positive and significant effect on the capital structure. Fourth, liquidity has a negative but significant effect on the capital structure of companies engaging in the infrastructure, utilities, and transportation sectors registered on the Indonesia Stock Exchange (IDX).

The partial test also obtained that Tangibility has a significant negative effect on profitability. Then, firm size has no significant effect on profitability. Business risk has no significant effect on profitability. Liquidity has a positive and significant impact on profitability. Last, capital structure has no significant effect on profitability of companies engaging in the infrastructure, utilities and transportation sectors registered on the Indonesia Stock Exchange (IDX).

This research has been conducted by certainly following the limitations set. This study utilized data of 6 years period from 2013 to 2018. Furthermore, this research also only analyzed the companies which engage in the infrastructure, utilities, and transportation sectors. This research does not include macroeconomic factors such as inflation, interest rates, foreign exchange rates as well as other factors that affect capital structure and profitability. These limitations are expected to provide information that the decisions made through this research should be supported by other references.

Furthermore, the suggestion that can be provided based on the results is that the investors need to be more careful in considering the importance of the company's financial fundamental analysis and as a consideration material in making decisions to buy shares on the Indonesia Stock Exchange. This research is expected to be used as reference material and additional information, especially for those who are interested in studying capital structure and profitability. In addition, the results of this research are also expected to be able to increase knowledge in the fields of infrastructure, utilities, and transportation in the future. This research is also expected to be an input for issuers in making policies and decisions in the financial sector, especially in order to maximize the performance of the company and shareholders. Eventually, the results obtained are expected to be used as reference material and additional information, especially those who are interested in studying capital structure and profitability, both in increasing the number of research periods in the future and developing research variables.

#### References

Addae, A. A., Nyarko-Baasi, M., & Hughes, D. (2013). The Effects of Capital Structure on Profitability of Listed Firms in Ghana. *European Journal of Business and Management*, 5(31), 215–230.

http://www.iiste.org/Journals/index.php/EJBM/article/view/9490

Adiyana, I. B. G. N. S., & Ardiana, P. A. (2014). Pengaruh Ukuran Perusahaan, Risiko Bisnis, Pertumbuhan Aset, Profitabilitas dan Likuiditas pada Struktur Modal. *E-Jurnal Akuntansi Universitas Udayana*, *3*, 788–802.



# 2<sup>nd</sup> INTERNATIONAL CONFERENCE ON BUSINESS & SOCIAL SCIENCES

Digital Transformation Business Strategy in Post Covid-19

- Aglen, L. A., & Panjaitan, Y. (2019). Analisis Financial Leverage, Growth, Dan Risiko Bisnis Terhadap Profitabilitas Perusahaan Yang Terdaftar Dalam Indeks Lq45 Pada Periode 2013-2017. *Jurnal Manajemen*, *16*(1), 64–77. https://doi.org/10.25170/jm.v16i1.791
- Akhtar, S., & Oliver, B. (2009). The Determinants of Capital Structure for Australian Multinational and Domestic Corporations. *Australian Journal of Management*, *30*(2), 321–341. https://doi.org/10.1177/031289620503000208
- Bauer, P. (2004). Determinants of capital structure empirical evidence from the Czech Republic. Finance a Uver Czech Journal of Economics and Finance, 54(1), 2–21.
- Bhawa, I. B. M. D., & S, M. R. D. (2015). Pengaruh ukuran perusahaan, likuiditas, profitabilitas, dan risiko bisnis terhadap struktur modal perusahaan farmasi. 4(7), 1949–1966.
- Çekrezi, A. (2013). Impact Of Firm Specific Factors On Capital Structure Decision: An Empirical Study Of Albanian Firms . 135–148.
- Chandra, T. (2014). Faktor-Faktor Yang Mempengaruhi Struktur Modal Pada Perusahaan Properti dan Real Estate di Indonesia. *Ekuitas*, 18(4), 507–523. https://doi.org/10.13140/RG.2.1.2707.2405
- Chandra, T. (2015). Analysis of Factors Affecting Capital Structure on Listed Company in Kompas 100 Index. *International Journal of Applied Business and Economic Research*, 13(9), 7049–7066.
- Chandra, T. (2016). Hutang di Indonesia (Issue October).
- Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: Evidence from the Asia Pacific region. *Journal of Multinational Financial Management*, 14(4–5), 387–405.
- Fauzan, M. R., & Mukaram, M. (2018). Pengaruh Struktur Modal Terhadap Profitabilitas (Studi Pada Perusahaan Pertambangan Yang Terdaftar di Bursa Efek Indonesia Periode 2011-2015). *Jurnal Riset Bisnis Dan Investasi*, *3*(3), 89.
- Ghozali, I. (2013). *Aplikasi Analisis Multivariate dengan Program SPSS*. (Edisi Ketu). Universitas Diponegoro.
- Grossman, S. J., & Hart, O. D. (1982). Corporate Financial Structure and Managerial Incentives. *The Economics of Information and Uncertainty*, *I*, 107–140.
- Harris, M., & Raviv, A. (1991). The Theory of Capital Structure. *The Journal of Finance*, 46(1), 297–355.
- Jensen, C. M. (1986). Agency Cost Of Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review*, 76(2), 323–329. https://doi.org/10.2139/ssrn.99580
- Kaliman, R., & Wibowo, S. (2017). Pengaruh Ukuran Perusahaan, Risiko Bisnis, Growth, Profitabilitas, Likuiditas, dan Sales Growth terhadap Struktur Modal pada Sektor Farmasi yang Terdafatar di BEI. *Jurnal Bisnis Dan Akuntansi*, 19(1), 185–190.
- Margaretha, F., & Khairunisa. (2016). Pengaruh Struktur Modal dan Likuiditas Terhadap Profitabilitas pada Usaha Kecil dan Menengah di Indonesia. *Jurnal Manajemen Bisnis* (*JAB*), 11(2), 129–140.
- Meidiyustiani, R. (2016). Pengaruh Modal Kerja, Ukuran Perusahaan, Pertumbuhan Penjualan dan Likuiditas Terhadap Profitabilitas pada Perusahaan Manufaktur Sektor Industri Barang Konsumsi yang Terdaftar Di Bursa Efek Indonesia (BEI). 5(2), 161–179.
- Miswanto, Yanuar, R. A., & Suparti, S. (2017). Pengaruh Efisiensi Modal Kerja, Pertumbuhan Penjualan dan Ukuran Perusahaan Terhadap Profitabilitas Perusahaan. 24(2), 119–135.
- Myers, S. C., & Majluf, N. S. (1984). Corporate Financing and Investment Decisions When



# 2<sup>nd</sup> INTERNATIONAL CONFERENCE ON BUSINESS & SOCIAL SCIENCES

**Digital Transformation Business Strategy in Post Covid-19** 

Firm have Information that Investors do not have. Journal of Financial Economics.

- Novita, B. A., & Sofie. (2015). Pengaruh Struktur Modal dan Likuiditas Terhadap Profitabilitas. 13–28.
- Nurdiana, D. (2018). Pengaruh Ukuran Perusahaan Dan Likuiditas Terhadap Profitabilitas. XII(6), 77–88.
- Nursatyani, A., Wahyudi, S., & Syaichu, M. (2014). Analisis pengaruh current ratio, firm size, dan aseets tangibility terhadap return on assets dengan debt to total asset sebagai variabel intervening. *Jurnal Bisnis Strategi*, 23(2), 97–127.
- Nyoto. (2015). Metodologi Penelitian Teori dan Aplikasi. Cetakan Pertama UR Press.
- Putra, A. A. W. Y., & Badjra, I. B. (2015). Pengaruh Laverage, Pertumbuhan Penjualan dan Ukuran Perusahaan Terhadap Profitabilitas. 4(7), 2052–2067.
- Rahmawati, I., & Mahfudz, M. K. (2018). Analisis Pengaruh Perputaran Modal Kerja, Lukuiditas, Struktur MOdal, Sales Growth, Struktur Aktiva, Size Terhadap Profitabilitas (Studi pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia tahun 2012-2016). 7, 1–14.
- Rahmiyatun, F., & Nainggolan, K. (2016). Pengaruh Struktur Aktiva, Perputaran Modal dan Pendanaan terhadap Profitabilitas Perusahaan Farmasi. IV(2), 156–166.
- Rizki, M. S. (2019). Pengaruh rasio likuiditas dan solvabilitas terhadap profitabilitas dengan pendekatan. 4, 94–101.
- Sanjaya, I. D. G. G., Sudirman, I. M. S. N., & Dewi, M. R. (2015). Pengaruh Likuiditas dan Aktivitas erhadap Profitabilitas Pada PT PLN (Perseo). *E-Jurnal Manajemen Unud*, 4(8), 2350–2359.
- Saraswathi, I. A. A., Wiksuana, I. G. B., & Rahyuda, H. (2016). Pengaruh Risiko Bisnis, Pertumbuhan Perusahaan dan Struktur Modal Terhadap Profitabilitas Serta NIlai Perusahaan Manufaktur. 6, 1729–1756.
- Sari, M., Saragih, D., Siregar, L., Inrawan, A., Yang, T., Di, T., Sampoerna, H. M., & Pendahuluan, A. (2016). *Pengaruh Likuiditas dan Leverage Terhadap Profitabilitas Pada PT Hanjaya Mandala Sampoerna Tbk.* 5(2), 59–65.
- Scott, J. H. (1977). Bankruptcy, Secured Debt and Optimal Capital Structure.
- Septariani, D., & Johan, R. S. (2018). Analisis Pengaruh Struktur Modal terhadap Profitabilitas pada Perusahaan LQ45 di BEI Periode 2012-2016. *Sosio E-Kons*, 10(3), 261.
- Sufitrayati, Mahdi, & Nelly. (2019). Pengaruh Struktur Modal dan Likuiditas terhadap Profitabilitas pada Perusahaan Perbankan. 10(1), 29–37.
- Sugiartini, N. K., & Dewi, S. K. S. (2019). Pengaruh Likuiditas dan Modal Kerja terhadap Profitabilitas pada Perusahaan Industri Barang Konsumsi. 8(9), 5401–5420.
- Utami, S. B., Pratiwi, D., & Ghifaari, S. M. (2018). Pengaruh Pertumbuhan Penjualan, Tangbility, Assets Turnover dan Profitabilitas Terhadap Struktur Modal Perusahaan Sub Sektor Transportasi yang Terdaftar di Bursa Efek Indonesia (BEI) Tahun 2012-2016. 7.
- Willi, N., & Chandra, S. (2019). Pengaruh CR, DAR, TATO dan Tangibility Terhadap ROA pada Perusahaan Manufaktur yang Terdaftar di BEI. 3(1), 91–98.