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Profitability Analysis of Transportation and Logistics Sector Companies listed on the Indonesia Stock Exchange

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A R T I C L E I N F O

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A B S T R A C T

Profitability is one of the important measures of a company's success and is very important in financial terms. The purpose of this study is to determine whether the profitability of companies listed on the Indonesia Stock Exchange in the transportation and logistics industry is influenced by liquidity, leverage, activity, and company size. This study conducted multiple linear analysis. The study involved 30 businesses, with 28 samples that met the criteria. The main data from www.idx.co.id was used for this study. which was then processed by the researcher.The results of multiple linear analysis in this study indicate that (1) Liquidity, Leverage, Activity, Company Size have a positive effect on profitability simultaneously. (2) Liquidity and activity have a positive effect on profitability partially (3) Leverage and company size have a negative effect on profitability partially.

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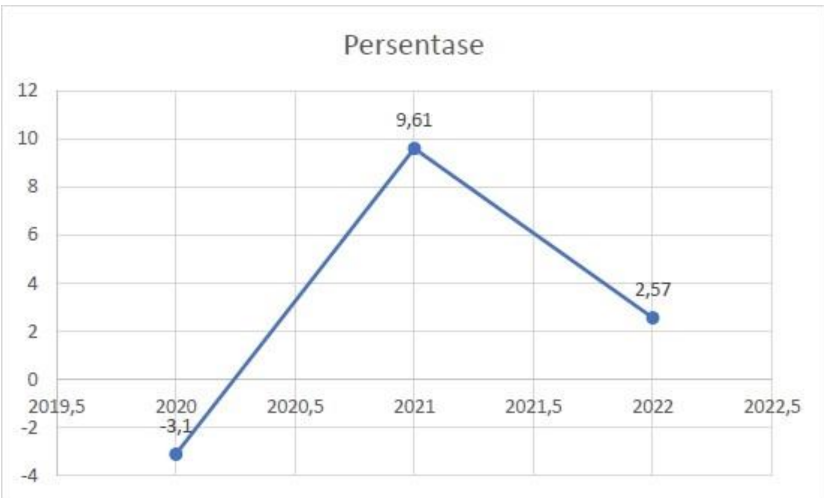
INTRODUCTION

Currently, economic growth is experiencing a positive shift, according to data from the Central Bureau of Statistics. The largest growth of 15.9% occurred in transportation and logistics, which was driven by increased domestic consumption and the rapid growth of online businesses among the public. Currently, the manufacturing industry is expected to have the most opportunities for logistics services. The logistics sector can help the agriculture, forestry, and fisheries sectors.(CNBC Indonesia,2023).

This study uses the object of research, namely the transportation and logistics sector. Based on the financial statements of transportation and logistics sector companies in some conditions they are able to obtain profitability in each period. In each period this sector obtains profitability which tends to fluctuate, because in obtaining profitability many different factors influence it. However, in this study the researchers decided to examine the profitability of transportation and logistics sector companies through 4 factors, namely liquidity, leverage, activity, and company size. The period used in this study is 2020-2022.

In 2020, especially in the fourth quarter, this sector experienced the deepest growth contraction of 13.42% (Statistics Indonesia, 2021). Factors that caused this decline include the global recession, travel restrictions, decreased consumption and demand, supply chain disruptions, etc. In 2021, companies in this sector experienced a fairly good growth when compared to 2020, namely 3.24%, which amounted to IDR 406.19 trillion (databoks, 2022). The factors that caused this increase were the increase in e-commerce, which led to an increase in demand for goods delivery services, digital transformation, infrastructure investment, economic growth, and the growth of consumer behavior that increasingly demands fast and reliable delivery services. Furthermore, in 2020 this sector company experienced growth again but not as big as the previous year.

Graph of Return on Asset Fluctuations in transportation and logistics sector companies 2020-2022



Source: www.idx.co.id (data processed by researchers)

Figure 1. Return on Asset Fluctuation Chart

Based on the graph above, the average profitability in 2020 decreased by 3.1% compared to the previous year; then, the average profitability increased by 9.61% in 201, but decreased again by 2.57% in 2022. This shows that businesses in the transportation and logistics sector have the lowest average percentage of profit and loss (ROA).

This research is used to provide information to authors, further research, companies, and parties who read this journal about how liquidity, leverage, activity, and company size affect company profitability in the transportation and logistics industry until 2022.

THEORETICAL REVIEW

Signaling Theory

The grand theory used in this research is signaling theory. Signaling Theory was first coined by Michael Spence who is an American economist. In his article entitled "Job Market Signaling" published in 1973. This theory discusses how parties who have asymmetric information use signals to reduce uncertainty. The information issued by the company is important, because of its influence on the investment decisions of parties outside the company (Jannata and Pertiwi, 2022). Internal and external parties. For internal parties, this signal theory is used, among others, by management and employees, with increasing profitability in a company, management can see the development of the company, then for employees, the signal theory regarding increasing profitability will increase morale for them because the greater the profitability of the company will increase the potential for salary increases for them. Furthermore, for external parties, signal theory is used by investors and the government, where these investors can assess company finances through financial reports, one of the influencing factors is profitability. Furthermore, for the government, this signal theory is used to predict and calculate taxes on the company.

Profitability (Y)

Profitability is the company's ability to generate profits from its activities in an accounting period. Profitability is included in the proportion used to determine the company's capacity to share overall profits in a certain period which also illustrates the level of feasibility in its work practice (Ranti and Pertiwi, 2022).The higher the profitability, the greater the company's ability to utilize its resources. Profitability reflects the health of the company (Muarif et al., 2019). High profitability reflects the company's financial health. In this study, profitability is proxied using Return on Asset (ROA)

Liquidity **(X1)**

Liquidity is the company's ability to meet its short-term obligations using its current assets (Irawati, 2019). Companies with high liquidity show a smooth financial condition, so they are expected to be able to meet their short-term obligations on time. (JayantoPurba and Dwi, 2020) In this study, liquidity is proxied using the Current Ratio.

In research conducted by Alifianda and Takarin (2020) on food and beverage companies found that the company has the ability to pay its short-term obligations in a timely manner which can be seen in the company's high level of liquidity. With high liquidity It can be concluded that the company is able to manage financial flows efficiently. This study shows that by having high liquidity, the company is able to obtain higher profitability, which can be concluded that liquidity has a positive effect on profitability.

H1 : Liquidity has a positive effect on profitabilityLeverage(X2)

Leverage (X2)

Leverage is the company's ability to fulfill its obligations, both short and long term, or to measure the extent to which the company's activities are financed by debt (Novari & Lestari, 2016). The higher the leverage, the greater the costs that must be borne by the company to fulfill its obligations (JayantoPurba and Dwi, 2020). In this study, leverage is proxied using the Debt to Asset Ratio.

In research conducted by Putra and Badjra (2015) shows that food and beverage industry companies on the IDX have a high level of leverage that will increase financial risk which can make companies more vulnerable to economic fluctuations and decreased profitability. This shows that the greater the leverage owned by the company will reduce profitability, which can be concluded that leverage has a negative effect on profitability.

H2 = Leverage has a negative effect on profitability.

Activity (X3)

Activity is a measuring tool used to measure the company's effectiveness in utilizing its resources in an operational activity (Wage and Toni, 2021). The higher the activity will illustrate the company's ability to utilize its assets in generating income through sales activities. The higher the sales value, the greater the activity that the company is able to carry out (Ambarwati et al., 2015). In this study, activity is proxied using Total Asset Turnover.

In research conducted by malida et al., (2019) in automotive companies shows that high activity in a company will have an effect on increasing profitability. With high activity, it will have many positive impacts on a company, including increasing operational efficiency, optimizing resource utilization, and increasing sales. This shows that the higher the activity, the higher the profitability of the Company.

So it can be concluded that in this study activity has a positive effect on profitability.

H3 : Activity has a positive effect on profitability

Company Size (X4)

The size of the company is based on various methods, such as total assets, log size, stock market value, and others (Limajatini et al., 2021). The larger the company size, the more likely the company is to obtain profitability (Nurron and Nur, 2022). In this study, company size is proxied by using Ln Total Assets .

Research conducted by Nurron and Nur (2022) on mining companies shows that company size can increase company profitability. Companies that have a large company size will have a better reputation, which can attract more talented and qualified customers so that company size can contribute to increased profitability. So it can be concluded that company size has a positive influence on the company's profitability

H4 : Company size has a positive effect on profitability

Conseptual Framwork

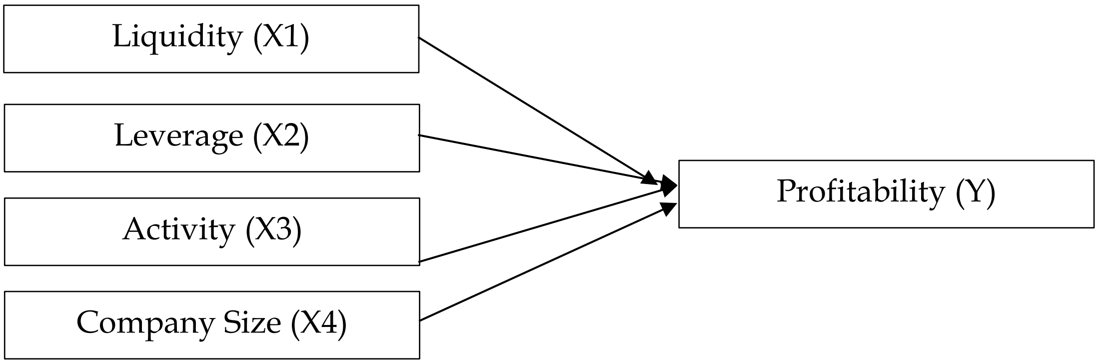


Figure 1. Conceptual Framework

Data Analysis Technique

The data analysis technique used in this research is multiple linear analysis. This technique is used to find solutions to research problems both individually (partially) and simultaneously (simultaneously). The reason for using this technique is to determine whether there is an influence between several independent variables and the dependent variable. Theoretically, these variables have a functional relationship or influence on each other. The regression equation generated in this study is as follows:

Y = a + b1X1 + b2X2 + b3X3 + b3X4 + ei

Where:
Y = Profitability
a = Constant
b = Regression
X1 = Liquidity
X2 = Leverage
X3 = Activity
X4 = Company Size
e = Error

Classical Assumption Test

The Classical Assumption Test is used to detect the presence of multicollinearity, heteroscedasticity, autocorrelation, and normality. A regression model is considered good if it meets this set of classical tests.

Multicollinearity test is a test used to determine whether there is a perfect linear relationship between the independent variables in the regression model. A regression model is considered good if there is no multicollinearity. Data is declared free from multicollinearity if the VIF value is <10, and vice versa.

Heteroscedasticity test is a test used to determine whether there are differences in the variance of the residuals between one observation and another in the regression model. Data is considered free from heteroscedasticity if the significance value is> 0.05, and vice versa.

The Autocorrelation test is a test used to determine whether there is a relationship between current observation errors and previous observation errors. The Autocorrelation test is performed using the Durbin-Watson test.

Normality test is a test used to determine the distribution of data in a group of data or variables, whether the data is normally distributed or not. Data is said to be normally distributed if the significance value is> 0.05.

Hypothesis Test Data

Hypothesis testing is carried out to determine the significant effect of the independent variables, namely liquidity, leverage, activity, and company size, the hypothesis test used includes simultaneous test (F test), partial test (t test), and coefficient of determination (R^2).

The F test is used to test whether all independent variables, namely liquidity, leverage, activity, and company size, jointly affect the dependent variable, namely profitability. The decision in the F test is taken based on significance <0.05; if so, then there is an influence between the independent variables on the dependent variable simultaneously, and vice versa.

The t test is used to test the partial influence between the independent variables of liquidity, leverage, activity, and company size, assuming other variables are considered constant. The decision in the t test is taken based on significance <0.05; if so, then there is an influence between the independent variable and the dependent variable, and vice versa.

The coefficient of determination (R^2) is used to measure how much the model's ability to explain variations in the dependent variable. The coefficient of determination ranges from 0 to 1. A value close to 1 indicates that the independent variables are able to provide strong information to predict the dependent variable.

METHODOLOGY

This research uses quantitative methods with four independent variables and one dependent variable. Independent variables consist of liquidity (X1), leverage (X2), activity (X3), and company size (X4). Profitability (Y) is the dependent variable. Annual financial reports of transportation and logistics companies can be accessed at www.idx.co.id, and the data was processed by researchers for this study. This study examines 30 companies operating in the transportation and logistics industry listed on the Indonesia Stock Exchange until 2022. Of these, 28 companies meet the criteria and publish their financial reports consecutively on the Indonesia Stock Exchange from 2020 to 2022. The sample used is a population that meets these criteria, namely 28 companies that publish their financial reports consecutively from 2020 to 2022 on the Indonesia Stock Exchange. The data obtained was then processed by researchers using the Statistical Product and Service Solution (SPSS) application.

RESULTS

Classical Assumtion Test

Normality test obtained the results of Liquidity (X1) = <0.001, Leverage variable (X2) = 0.003, Activity variable (X3) = <0.001 and company size variable (X4) = 0.001. Based on this normality test, all variables are not normally distributed because the significance is smaller than 0.05 (5%). however, the data quality test shows that there are no outliers, therefore this data has good quality and can be continued to be processed again.

The Multicollinearity Test obtained the results of the Liquidity variable (X1) = 1.850, the Leverage variable (X2) = 1.710, the activity variable (X3) = 1.145, and the Company Size variable (X4) = 1.036, showing no symptoms of multicollinearity where the VIF value on the variable is smaller than 10.

The Heteroscedasticity test obtained the results of the Liquidity variable (X1) = 0.832, the Leverage variable (X2) = 0.131, the Activity variable (X3) = 0.689, and the Company Size variable (X4) = 0.057. Does not have a significant correlation between the residuals and the independent variables. Where the 4 variables that have a variable significance value> 0.05 so that there is no Heterokedastisitas.

The Autocorrelation test found that the Durbin Waston (DW) value was 2.122 The Durbin Waston value with the number of data (N) = 79 and the number of independent variables (K) = 4 and α = 0.05 is dL = 1.5302 and dU = 1.7423. Because the DW value = 2.122> dU = 1.7423, there is no positive autocorrelation.

Hypothesis Test Data

The F test gets the results of the number Fhitung = 8.111 with sig.< 0.001 < 0.05: significant positive. means there is a model fit with sig. > 0.001 < 0.05, it means that together (simultaneously) Liquidity (X1), Leverage (X2), Activity (X3), and Company Size (X4) have a significant effect on profitability (Y).

The t test found that liquidity has a positive and significant effect on profitability, Leverage has a negative and insignificant effect on profitability. Activity has a positive and significant effect on profitability, company size has a negative and significant effect on profitability.

The coefficient of determination shows that (R2) = 0.305 This means that Profitability is influenced by the independent variables, Liquidity, Leverage, Activity, and Company Size by 30.5% while the remaining 69.5% is influenced by variables other than the four independent variables contained in the model.

Multiple Linear Regression Analysis

Profitabilitas = β0+β1 X1 + β2 X2 + β3 X3 + β4 X4 + μi

Profitabilitas = 10.278 + 3.058 X1 - 0.398 X2 + 4.446 X3 – 0.646 X4 + μi

Table 1. Multiple Linear Regression Analysis

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	10.278	7.222		1.423	.159		
	X1 = Likuiditas	3.058	1.213	.332	2.520	.014	.541	1.850
	X2 = Leverage	-.398	2.807	-.018	-.142	.888	.585	1.710
	X3 = Aktivitas	4.446	1.986	.232	2.239	.028	.874	1.145
	X4 = Ukuran Perusahaan	-.646	.271	-.235	-2.386	.020	.965	1.036

a. Profitability (Y)

DISCUSSION

Effect of Liquidity on Profitability

Liquidity proxied by CR (Current Ratio) has a significant positive effect on profitability (ROA) in the transportation and logistics sector listed on the Indonesia Stock Exchange for the period 2020-2022. This shows that the more liquid a company is, the higher the profitability that can be obtained by the company. Good liquidity is more than 1, while based on this study it shows that the liquidity owned in this sector is more than 3, namely 3.058, which indicates that the Company has a very good ability in terms of liquidity or even has excess liquidity.

Effect of Leverage on Profitability

Leverage proxied by DAR (Debt to Asset Ratio) has a negative and insignificant effect on profitability proxied by ROA (Return on Asset) in the transportation and logistics sector listed on the Indonesia Stock Exchange for the period 2020-2022. This shows that increasing leverage has no effect on decreasing company profitability, which means that if leverage increases, company profitability does not decrease. This can occur due to effective company management where management has a good ability to manage debt by utilizing loan funds for profitable projects so that when leverage rises profitability does not decrease. Another thing that can cause an increase in leverage to have no effect on decreasing profitability is income diversification where the company's revenue comes from the company.from various sources, so a decline in one area, leverage, does not have a major impact on overall profitability.

Effect of Activity on Profitability

Activity proxied by TATO (Total Asset Turnover) has a significant positive effect on profitability (ROA) in the transportation and logistics sector listed on the Indonesia Stock Exchange for the 2020-2022 period. This shows that activity is able to contribute to an increase in company profitability. Increased activity can increase profitability because the higher the activity, the more company operations will be carried out to increase revenue from sales or services. Activity can be said to be good if it is more than 2.5, while this study shows that the activity owned in this sector is 4.446, which means that the company has been efficient in generating sales from its total assets.

Effect of Company Size on Profitability

Company size proxied by Total Assets has a significant negative effect on profitability (ROA) in the transportation and logistics sector listed on the Indonesia Stock Exchange for the period 2020-2022. This shows that the larger the size of the company, the lower the level of profitability. This happens because in Indonesia, especially in the transportation and logistics sector, there are several obstacles that cause a decrease in profitability despite the increasing size of the company, namely the existence of Overhead and high operating costs, large transportation and logistics companies face challenges, namely high overhead costs including the cost of fleet maintenance, infrastructure, and labor. If revenues do not grow in proportion to these costs, profitability can be depressed. In addition, large companies have regulatory and compliance constraints. Large companies must meet various regulations and compliance standards that may be more complex and costly than those of smaller companies. Compliance with new regulations or changes in regulations can increase operating costs and thus reduce profitability.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the analysis and discussion in this study. Researchers draw the conclusion that (1) Liquidity, Leverage, Activity, and Company Size have a positive effect on profitability simultaneously. While partially Liquidity and Activity have a positive effect on profitability (3) Leverage and Company Size have a negative effect on profitability.

The advice given by the author is that the Company's management should implement several steps to maximize the use of Liquidity so that the Company's profitability is maximized, such as reducing the amount of receivables, analyzing the amount of inventory in accordance with the Company's needs, and allocating

Company funds to items that have a great opportunity to increase profitability. Investors need to pay attention again that profitability is not the only benchmark to see the quality of a company. Profitability is only one of the tools in financial statements that can be used to see the quality and prospects of a company. Other ways that can be used to see the quality and prospects of a company are by looking at financial reports, financial ratios, SWOT analysis, competitor analysis, management analysis, financial projections, market sentiment analysis, etc. For future researchers, it is hoped that they can examine other variables outside of this study that can also affect profitability.

FURTHER STUDY

Although this study has provided important insights into profitability analysis in transportation and logistics companies using 4 independent variables, namely liquidity, leverage, activity, and company size, there are several limitations that need to be addressed in future research. First, the sample of this study is limited to transportation sector companies listed on the Indonesia Stock Exchange until 2022, so generalization of findings to a wider population needs to be done carefully. Future research is expected to include a larger and more diverse sample to increase the external validity of the findings

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