ANALYSIS OF PROFIT GROWTH WITH FIRM SIZE AS A MODERATING VARIABLE IN TRANSPORTATION AND LOGISTICS COMPANIES ON THE INDONESIAN STOCK EXCHANGE FROM 2021 TO 2024

ABSTRACT

This study aims to analyze the effect of liquidity, leverage, and activity on profit growth with company size as a moderating variable in transportation and logistics companies listed on the Indonesia Stock Exchange for the period 2021-2024. The phenomenon in this study is that the transportation and logistics sector contributed to Indonesia's economic growth in 2022 and 2023, but company profit growth tended to decline. The dependent variable used is profit growth. The independent variables consist of liquidity, leverage, and activity, as well as company size as a moderating variable. This study uses a quantitative method with purposive sampling and 28 companies as the research population, with a final sample that meets the criteria. Data analysis was performed using multiple linear regression and Moderated Regression Analysis (MRA) with SPSS software. The results show that liquidity and activity have a significant positive effect on profit growth, while leverage has a negative effect on profit growth. In addition, company size is able to moderate the relationship between liquidity, leverage, and activity on profit growth.

Keywords: Liquidity, Leverage, Activity, Profit Growth

A. INTRODUCTION

Indonesia is an archipelagic country, so transportation and logistics are essential for the country. Transportation and logistics companies are very much needed in Indonesia, as this sector is one of the largest contributors to economic growth in the country. Profit is one of the goals of a Firm, so it can affect the Firm's survival. Every Firm hopes to see an increase in profit every year. Maximum profit growth must be based on optimal Firm management in decision-making and consideration of Firm planning. A Firm can be said to experience profit growth if the percentage of profit income increases from one period to another (Ghaisani & Takarini, 2022).

Table 1. Data on Profit Growth in the Transportation and Logistics Sector companies for the periode 2021-2024

Years	2021	2022	2023	2024
Profit growth	-2.80%	3.60%	1.66%	0.80%

The table above shows the average profit growth data of transportation and logistics companies listed on the Indonesia Stock Exchange (IDX). The average data from the population of transportation and logistics companies above shows a downward fluctuation, which is a phenomenon in this study.

Liquidity is a measurement that shows how well a company can pay off its short-term loans with its cash or things that can quickly be turned into cash. In this research, we look at liquidity through the current ratio. The current ratio helps us see how well a company can handle its short-term obligations or debts that need to be paid right away when they are completely charged.

Leverage is a way to show how much a company relies on borrowing money to run its business. In this research, leverage is shown through the debt to equity ratio. The debt to equity ratio compares how much money a company owes to how much its owners have invested in it.

Activity is a ratio used to measure how effectively a Firm's assets are being used in its operations. In this study, activity is measured using total asset turnover. Total asset turnover is a ratio used to measure the total assets used to increase a Firm's sales. Firm size can be defined as the scale of a business entity measured through various indicators such as total assets, total sales, total profit, tax expenses, and other financial indicators. Firm size can serve as a reference in assessing the potential for profit growth. The larger the scale of the Firm, the greater the resources it possesses and can utilize to increase profit growth. Thus, the size of a Firm’s assets is directly proportional to the potential for future profit growth. Furthermore, large-scale companies generally have greater resilience in facing the dynamics of external economic conditions that are beyond management’s control, making them less susceptible to external environmental changes.

B. LITERATUR REVIEW

Signaling theory was proposed by Spence (1973) and later developed by Ross (1977). Financial reports can serve as signals for investors, allowing them to assess the financial health of a Firm. Financial reports show how a Firm manages its assets and liabilities. According to this research hypothesis, a Firm's profit growth serves as a signal for investors. Information regarding asymmetry between a Firm's performance and its environment is included in signaling theory (Aprilianda & Nur, 2023). Signals can provide guidance to investors regarding a Firm's future prospects. These signals can take the form of financial reports on profitability, leverage, liquidity, and Firm activities, or they can be policies to be taken by Firm management. Profit growth is a ratio used to determine a Firm's ability to increase its net profit from the previous year (Harahap, 2013). Profit growth can indicate whether a Firm is in good or bad health. Profit growth can also be a measure of a Firm's performance. If a Firm's profit growth is high, this is a positive sign for the Firm. the liquidity ratio, also known as the working capital ratio, is a measure of a Firm's liquidity,

namely its ability to meet its short-term obligations. Similarly, Munawir (2010) states that the liquidity ratio is used to analyze and interpret a Firm's short-term financial position and as a tool for management to evaluate the efficiency of working capital use. Meanwhile, Yuniningsih (2018) reveals that the liquidity ratio aims to measure a Firm's ability to meet its maturing obligations, which can be seen from the extent to which operating cash flow or operating profit margin is able to cover these obligations.The total use of debt in financing Firm assets can be measured through a ratio known as leverage (Kasmir, 2018). One form of leverage proxy is the debt to equity Ratio (DER), which represents the level of debt used to finance Firm equity. According to Kasmir (2018), leverage is a ratio used to assess the extent to which Firm assets are financed through external sources of debt. In line with this, Munawir (2010) states that leverage is used to measure the proportion of Firm asset financing that comes from debt. Meanwhile, according to Yuniningsih (2018), leverage reflects the extent to which a Firm uses debt as a source of funding for its investment activities. In other words, leverage shows the ratio between a Firm's total debt and its total assets. According to Kasmir (2018), the liquidity ratio, also known as the working capital ratio, is a measure of a Firm's liquidity, namely its ability to meet its short-term obligations. Similarly, Munawir (2010) states that the liquidity ratio is used to analyze and interpret a Firm's short-term financial position and as a tool for management to evaluate the efficiency of working capital use. Meanwhile, Yuniningsih (2018) reveals that the liquidity ratio aims to measure a Firm's ability to meet its maturing obligations, which can be seen from the extent to which operating cash flow or operating profit margin is able to cover these obligations. According to Kasmir (2018), the activity ratio is a financial indicator used to assess the extent to which a Firm is effective in utilizing its assets. Similarly, Munawir (2010) states that the activity ratio serves to measure a Firm's ability to carry out its daily operational activities, including sales, accounts receivable collection, and the use of available assets. Meanwhile, according to Yuniningsih (2018), activity ratios are used to assess a Firm's effectiveness in managing its assets or investments.

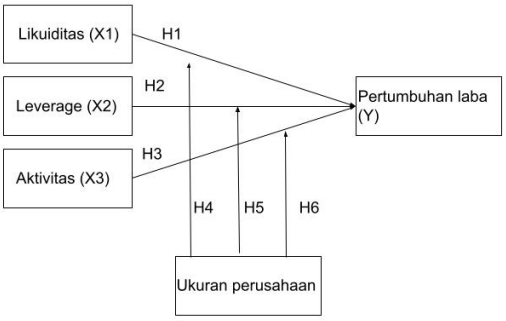

Fig 1- Liquidity, Leverage, and Activity on Earnings Growth: The Moderating Role of Company Size

2.1 Impact of Liquidity on Profit Growth

Liquidity is a ratio used to measure whether a Firm is able to pay off its short-term liabilities. Liquidity can be measured using the current ratio. The current ratio is one indicator used to measure liquidity. By using liquidity, we can determine the percentage of a Firm's ability to pay off its short-term liabilities. The greater the liquidity value, the greater the

growth in a Firm's profits. Research conducted by (Ayu et al., 2020) and (Anugrah et al., 2025) concluded that liquidity has a positive and significant effect on profit growth.

2.2 Impact of Leverage on Profit growth

Leverage means tahat a firm uses more debt compared to its overall funding. This helps the firm pat less in interest to for borrowerd money, which lowers costs and help boots profit. So, leverage can influence how much profit a firm makes. Research done by Ghaisani and Takarini in 2022 shows that leverage actually has a big negative impact. This finding is backed up by another study by Hayuningtyias and Nur 2022, which also claims that leverage leverage negatively affcets profit growth.

2.3 Impact of Activity on Profit Growth

Activity is a way to check how well a company is managing its resources or investments (Yuniningsih, 2018). One way to measure this activity is through total assets turnover, which looks at how quickly a firm ises its assets to create sales (Kasmir, 2018). When the activity value is high, it means the company is doing a good job of using its resources to incrase profits (Sutrisno, 2009). A high activity value shows how effectively and efficiently the firm is using its assets to bring in larger sales and profits (Sulastri and Saputro, 2020). Research by Hayuningtyias and Nur (2022) found that activity has a strong positive impact on profit growth. This was also supported by a study from Candradevi and Alliyah (2024), which also found that activity positively affects profit growth.

2.3 Firm size in moderating the effect of liquidity on profit growth

Firm size refers to how we can sort a firm into large or small categories by looking at things like revenue, total assets, and total capital. The size of a business is a key sign when we are examming how well it performs and what it is like as a company. Brigham and Houston say that we can figure out business size through different numbers, like how many assets they have, how much money they make in sales, how much profit they gain, and what their tax costs are. The size of a business is one of the things that can affect how steady and sustainable its money situasion is. A research study by Ariyagraha and Heru found that the size of a business can affect how liquidity relates to profit growth. This idea is backed up by another study from Damayanti and others, which also found that size of a business can influencel liquidity

2.4 Firm Size in moderating the effect of leverage on profit growth

Firm size is considered a factor that plays a role in strengthening the relationship between leverage and profit growth. Companies with large asset scales generally have sufficient internal resources to finance operational activities, so they are not too dependent on external funding such as debt. Conversely, small-scale companies tend to have limited assets, which leads to higher dependence on debt financing, which in turn can hamper the rate of profit growth. The results of research by Putra As'ari & Pertiwi (2021) suggest that Firm size can moderate leverage on profit growth, which is supported by research by Wiguna & Hakim (2024) which suggests that Firm size can moderate leverage on profit growth.

2.5 Firm size in moderating the effect of activity on profit growth

The size of firm is seen as an important factor that influences how leverage affects profit growth. Bigger firm usually have enough internal resources to pay for their operation , so they rely less on outside funding like loans. On the other hand, smaller firm often have fewer assets, which makes them rely more on borrowing money, and this can slow down their profit growth. Research by Putra As'ari and Pertiwi (2021) indicates that the size of a firm can help balance the affects of leverage on profit growth. This view is also backed a study from Wiguna and Hakim (2024), wich also indicates that firm size can help manage how leverage impacts profit growth.

C. RESEARCH METHODOLOGY

This study uses a quantitative research approach with an associative causal design to analyze the direct and indirect relationships between Firm growth, Firm size, profits, and Firm value. This analysis focuses on the moderating role of Firm size in the relationship between liquidity, leverage, and activity on profit growth. The population in this study consists of all companies in the transportation and logistics sector listed on the Indonesia Stock Exchange (IDX) during the period 2021–2024. Using purposive sampling, a total of 28 companies were selected as research samples based on the criteria of data completeness and consistency of recording during the research period. Secondary data were obtained from the annual financial reports of the selected companies. Data analysis was performed using multiple linear regression to test the direct effect, and moderated regression analysis totest moderation. All statistical analyses, including classical assumption tests and significance tests (t-test, F-test, and R^2), were performed using SPSS software. The following table summarizes all variables used in the study, operational definitions, and moderated regression analysis to test moderation. All statistical analyses, including classical assumption tests and significance tests (t-test, F-test, and R^2), were performed using SPSS software. The following table summarizes all variables used in the study, operational definitions, and measurement methods:

variable	type	Operational Definition	Indicator / measurement	Source

Table 2. Operational Definition and Variable Measurment

Profit growth	Dependent (Y)	Profit growth reflects the Firm's healthy financial condition, which ultimately contributes to an increase in the Firm's value. In addition, profit growth is also used as an indicator of Firm performance, where the higher the profit generated, the more optimal the Firm's performance is considered to be.	Net Income Growth = net profit this year - net profit last year / net profit last year	Harahap (2015)
Liquidity	Independent (X1)	Liquidity measures a Firm's ability to pay off short-term liabilities using its assets. The higher the ratio, the more likely the Firm is to be able to pay off its short-term liabilities smoothly.	Current ratio = current assets / current liabilities	Kasmir (2018)
Leverage	Independent (X2)	Leverage is a financial ratio used to assess the ratio between total liabilities and a Firm's equity. This ratio illustrates the ability of owners' capital to cover all of the Firm's liabilities to external parties.	Debt to Equity Ratio = liabilities / equity	Kasmir (2018)
Activity	Independent (X3)	Activity is a financial ratio used to measure the turnover rate of all assets owned by a Firm, as well as to calculate the amount of sales revenue generated from each unit of rupiah of assets.	Total Assets Turnover = sales / total assets	Kasmir (2018)
Firm size	Moderating	Firm size as an indicator of the size of a business entity that can be measured through total assets, total sales, total profit, tax expenses, and other indicators. Total assets are considered more stable than sales value and market capitalization in measuring Firm size.	Total Assets = Ln total assets	Munawair (2010)

C. RESULT AND DICUSSION

RESULT

To conduct this study, we collected and calculated liquidity, leverage, activity, Firm size, and over the period 2021–2024. The secondary data used in this study was obtained from the financial reports of transportation and logistics companies listed on the Indonesia Stock Exchange (IDX) for the period 2021–2024, as described earlier.

Table 3. The Average Profit growth, Liquidity, Leverage, Activity, and Firm size

Years	Profit growth	Liquidity	Leverage	Activity	Firm size
2021	-1.84	1.93	-2.77	0.61	24.91
2022	4.28	1.79	1.86	0.67	24.89
2023	0,54	1.74	0.32	0.66	25.09
2024	2.29	3.13	-0.06	0.68	25.20

Table 3 presents the During the 2021–2024 period, the average Profit growth in 2021 stood at -1.84, then rose sharply to 4.28 in 2023, fell to 0.54 in 2024, and rose again to 2.29 in 2024. Liquidity tended to decline from 2021 to 2023, ranging from 1.93 in 2022 to 1.79 in 2023 and then falling again to 1.74 in 2023. However, liquidity increased dramatically in 2024 to 3.13. Leverage remains fairly stable but is trending downward. In 2021, average leverage stood at -2.77, rising to 1.86 in 2022, then falling to 0.66 in 2023 and declining again to -0.06 in 2024. Firm size is also relatively stable. In 2021, the average Firm size was 24.91, which decreased to 23.89 in 2022, then increased to 25.09 in 2023 and increased again in 2024 to 25.20. Activity is fairly stable. In 2021, the Firm's activity reached 0.61 and increased in 2022 to 0.67. In 2023, it declined again to 0.66 and in 2024 it increased to 0.68. Firm size is also fairly stable. In 2021, the average Firm size was 24.91, in 2022 it decreased

to 23.89, then in 2023 it increased to 25.09 and increased again in 2024 to 25.20. Profit growth in 2021 was -1.84, then increased dramatically in 2022 to 4.28, decreased in 2023 to 0.54, and increased again in 2024 to 2.29.

Table 4. Hypothesis Testing

No	Relationship Between Variable	Path Coefficient	P-Value	Description
1	Liquidity (X1) -> Profit growth (Y)	0.716	0.000	Signifiacnt
2	Leverage (X2) -> Profit Growth (Y)	-0.316	0.039	Significant
3	Activity (X3) -> Profit Growth (Y)	1.168	0.000	Significant

Source: Data Processed using SPSS

The hypothesis testing results indicate that liquidity (X1) has a significant positive effect on profit growth (Y), as shown by a path coefficient of 0.716 and a p-value of 0.000. This finding supports the hypothesis that liquidity contributes directly to higher profit growth. This suggests that expanding assets and business operations can improve market perception, which has a positive impact on Firm valuation. Additionally, leverage (X2) has a significant negative effect on profit growth (Y), with a path coefficient of -0.316 and a p-value of 0.039. This result confirms that greater corporate debt tends to reduce profit growth, as companies must pay interest expenses and face a high risk of default. Activity (X3) has a significant positive effect on profit growth (Y), with a path coefficient of 1.168 and a P-value of 0.000. This result confirms that the more efficient the use of assets, the higher the profit growth. These results are consistent with Signal Theory, which emphasizes that companies with good financial performance will attract investors.

Table 5. Moderating Testing

No	Relationship Between Variable	Moderation Variable	Path Analysis	P-Value	Description
1	Liquidity (X1) -> Profit growth (Y)	Firm Size (Z)	-0.003	0.000	Significant
2	Leverage (X2) -> Profit Growth (Y)	Firm Size (Z)	0.010	0.000	Significant
3	Activity (X3) -> Profit Growth (Y)	Firm Size (Z)	0.050	0.000	Significant

Source: Data Processing using SPSS

The results of the moderated regression analysis, as shown in Table 5, indicate that Firm size significantly moderates the effect of liquidity on profit growth, with a path coefficient of -0.003 and a p-value of 0.000. This finding indicates that Firm size is able to moderate liquidity on profit growth, with the direction weakening the relationship between liquidity and profit growth. Furthermore, Firm size significantly moderates the effect of leverage on profit growth, with a path coefficient of 0.010 and a p-value of 0.000. This finding indicates that Firm size can moderate leverage, in the sense that it weakens the relationship between leverage and profit growth. Furthermore, Firm size significantly moderates the effect of activity on profit growth, with a path coefficient of 0.050 and a p-value of 0.000. This finding indicates that Firm size can moderate activity, in the sense that it strengthens the relationship between leverage and profit growth.

DISCUSSION

The Effect of Liquidity on Profit Growth

The results of this study show that liquidity can increase profit growth. Liquidity has a significant positive effect on profit growth. Companies with high liquidity will be able to increase their profit growth. Companies whose current assets are greater than their current liabilities are liquid companies, because they are able to pay off their current liabilities using their current assets. The results of this study are in line with those of Anugrah et al. (2025), which show that liquidity has a significant positive effect on profit growth. This is supported by the studies of Damayanti et al. (2024) and Juliar & Wahyudi (2023).

The Effect of Leverage on Profit Growth

The results of this study show that leverage affects profit growth. Leverage has a significant negative effect on profit growth. Companies with high total debt tend to experience a decline in profit growth. This is because the greater the total debt compared to equity, the higher the financial burden that must be borne by the Firm, such as paying interest expenses and other obligations. This will disrupt funding for operational and marketing needs, causing the Firm's product sales to decline and profits to fall. The results of this study are in line with those conducted by Hayuningtyias & Nur (2022), which show that leverage has a negative effect on profit growth. This is supported by research by (Purnawan & Suwaidi, 2021) and Firly et al. (2023)

The Effect of Activity on Profit Growth

The results of this study show that activity has an effect on profit growth. Activity has a significant positive effect on profit growth. Companies with high activity levels are able to increase their profit growth. This is because the Firm's sales are greater than its total assets, meaning that the Firm is utilizing its assets effectively. High activity levels reflect the operational efficiency of the Firm in increasing profit growth. The results of this study are in line with previous research conducted by Ghaisani & Takarini (2022), which shows that activity has a positive effect on profit growth. This is supported by research conducted by Hayuningtyias & Nur (2022) and Apriyanti & Sudrajat (2023).

Firm size in moderating the effect of liquidity on profit growth

The Firm size variable proves to be a moderating variable that weakens the relationship between liquidity and profit growth. If a Firm increases its assets, it is expected that the Firm will be better able to pay off its current liabilities. However, the addition of assets is not only current assets but also fixed assets, which actually reduces the Firm's

ability to pay its current liabilities. As a result, the Firm's profit growth will decline. The results of this study are in line with those of As'ari & Pertiwi (2021), which show that Firm size can moderate the effect of liquidity on the dependent variable, namely profit growth. This is supported by the studies of Damayanti et al. (2024) and Habib et al. (2025).

Firm Size in Moderating the Effect of Leverage on Profit Growth

The Firm size variable proves to be a moderating variable that weakens the relationship between leverage and profit growth. If a Firm increases its assets, it will be easier for the Firm to pay all its debts so that the income generated from sales does not need to be allocated to pay debts. Thus, the Firm's profit growth will increase. This study is in line with previous research conducted by Wiguna & Hakim (2024), which shows that Firm size can moderate the effect of leverage on the dependent variable, namely profit growth. This is supported by research by Damayanti et al. (2024) and Putra As'ari & Pertiwi (2021).

Firm size in moderating the effect of activities on profit growth.

The Firm size variable proves to be a moderating variable that strengthens the relationship between activity and profit growth. If a Firm increases its assets, it will be better able to optimize its operations, thereby increasing sales and profit growth. This study is in line with previous research conducted by Putra As'ari & Pertiwi (2021), which shows that Firm size can moderate the effect of activities on the dependent variable, namely profit growth, as supported by research by Apriyanti & Sudrajat (2023) and Agustina (2025).

D. CONCLUSSION

Based on the analysis results, this study concludes that liquidity has a significant positive effect on the profit growth of transportation and logistics companies listed on the Indonesia Stock Exchange for the period 2021–2024, so that the higher the level of liquidity, the greater the profit growth. Activity has a significant positive effect on profit growth, which means that the more assets a Firm uses, the more its sales will increase, thereby increasing profit growth. Conversely, leverage has a significant negative effect on Firm value, which means that the higher the level of debt, the lower the profit growth due to increased financial risk. In addition, Firm size has been proven to moderate the effect of liquidity, leverage, and activity on profit growth. These findings confirm that proper management of liquidity, leverage, activity, and Firm size are important factors in maintaining and increasing profit growth in the transportation and logistics sector in Indonesia.

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