International Journal of Management Research and Economics
Volume. 3 Nomor. 1, 2025
e-ISSN : 2986-7398, p-ISSN : 2987-6311, Page 478-502
DOI: https://doi.org/10.54066/ijmre-itb.v3i1.2924
Available Online at: https://jurnal.itbsemarang.ac.id/index.php/Ijmre

The Influence of Liquidity and Leverage on Stock Returns with Profitability as A Mediating Variable

(A Study on Telecommunication Companies on the Indonesia Stock Exchange)

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Abstract The purpose of investors investing in stock securities is to get a high return with a certain level of risk. Return is the main factor that motivates investors to invest and as a reward for the courage to bear the risk of the investment made. This study aims to determine the influence of liquidity and leverage on stock returns with profitability as a mediating variable in Telecommunications Companies on the Indonesia Stock Exchange. This research is an associative research, by selecting telecommunication companies on the Indonesia Stock Exchange as the scope of research. The type of data in the study is secondary data obtained from www.idx.com. The sampling method used in the study used a simple random sampling method with the Slovin formula and obtained 15 telecommunications companies for the period 2020-2022. The analysis technique used in the research is descriptive analysis and path analysis. Based on the results of the analysis, it was found that liquidity has an insignificant effect on stock returns. Leverage has a negative significant effect on stock returns. Liquidity has a positive and significant effect on profitability. Leverage has a negative and significant effect on profitability. Profitability is able to mediate the effect of liquidity on stock returns and the effect of leverage on stock returns.

Keywords: Liquidity, Leverage, Profitability, Stock Returns

1. INTRODUCTION

Investment may have seemed foreign in the past, but today, investment has become a term that is quite popular among the public and is starting to be in demand because it is interesting. Investment is essentially the placement of a certain amount of funds at this time with the hope of obtaining profits in the future.(Adnyana, 2020). Investment is a form of capital investment or money in a company in a certain period of time to gain profit. Investment can be defined as the postponement of current consumption to be put into efficient productive assets during a certain period of time. (Hartono, 2017). According to Tandelililin(2017)investment activity is an activity of placing funds in one or more assets during a certain period with the hope of obtaining income/profit or an increase in the initial investment value (capital) which aims to maximize future returns. Investment can be done through various means, one of which is by investing in the capital market.

The capital market is a meeting between parties who have excess funds with parties who need funds by trading securities which are generally more than one year old, such as shares and bonds.(Tandelilin, 2017). The goal is to bring together investors and parties who need funds. From an economic perspective, the capital market functions as an engine of economic growth by providing resources, increasing allocation efficiency, and facilitating innovation and long-term economic development. From a financial perspective, the capital market is an

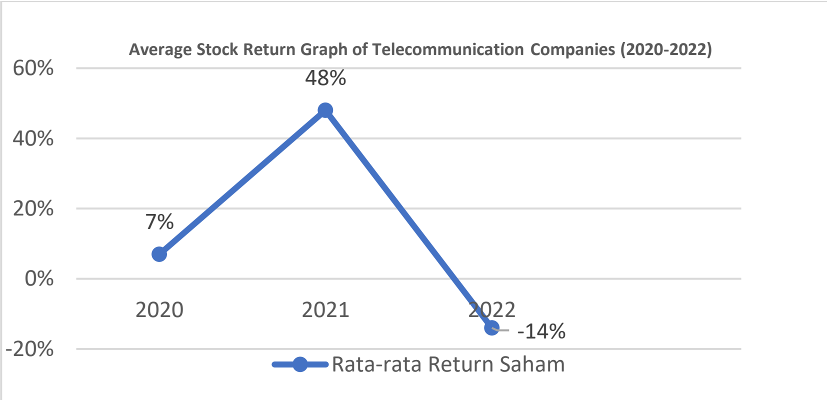
Received: December 15, 2024; Revised: December 29, 2024; Accepted: January 14, 2025; Online Available: January 17, 2025

important center of activity in providing sources of funding, liquidity, and investment opportunities for economic entities and individual investors.

In the capital market, investment products or capital market instruments offered are in the form of securities, namely short-term securities (Money Market) and long-term securities (Capital Market). Long-term securities traded in the equity market include common stocks, preferred stocks, right certificates, and warrants. Securities traded in the bond market are corporate bonds, government bonds, and convertible bonds. Securities traded in the derivative market are futures contracts, option contracts, and mutual funds. Investment in capital market instruments that are most popular with the Indonesian people is stock investment because stocks are considered to be able to provide a high and attractive level of profit for investors even though the risk offered is also higher than other capital market instruments. The profit obtained by investors when buying and selling shares (return) comes from the difference between the purchase price of shares and the sale price of shares so that capital gain and yield are obtained. By buying shares of a company, investors mean that they have owned and participated in capital participation in the company that issued the shares. The goal of investors investing their capital in stock securities is to get a high return (rate of return) with a certain level of risk. Therefore, in making stock securities investments, investors will prefer companies that can provide returns that tend to be higher. Stocks are a sign of participation or ownership of a person or entity in a company or limited liability company (Darmadji and Fakhurddin, 2016). There are two types of stocks, namely common stock and preferred stock (Tandelilin, 2018). Common stock shows that shareholders have ownership rights to the company's assets, while preferred stock is a combination of the characteristics of common stock and bonds, this is because preferred stock gets ownership rights like common stock while getting fixed income like bonds.

Stocks returns are obtained because they have made an investment. The return can be in the form of a realized return or an expected return. Realized return is a return that has occurred and is calculated based on historical data, while expected return is a return that investors hope to obtain in the future. Stock returns are obtained from calculating the difference between the current stock price and the previous stock price and then compared to the previous stock price (Hartono, 2019). Stock returns are the results obtained from a stock investment. Investments should not only pay attention to returns but also to risk. This risk is a fluctuating stock return caused by various risks and uncertainties that are difficult to predict because stock prices fluctuate rapidly. This causes investors to be careful in deciding which stock investments to make.

The development of technology in Indonesia is very rapid. This situation is reflected in the increasingly complex telecommunications devices and the increasing need for public information. Telecommunications companies have begun to emerge, making these companies compete with each other. This competition forces companies to continue to improve their telecommunications devices to be more sophisticated than their competitors. Selling telecommunications company securities is a profitable business choice. This is because the rapid development of information flow requires telecommunications services to support it. The large number of telecommunications companies has caused many investors to be interested in investing in the effects of telecommunications service companies. The following is a description of some telecommunications company stock returns which can be seen in Figure 1



Source :*Yahoo Finance*(processed data, 2024)

Figure 1. Average Graph*Return*Telecommunication Company Shares 2020-2022 Period (in percent)

Figure 1 shows that the average value of telecommunications sector stock returns from 2020 to 2022 is very volatile. The average return of telecommunications sector stocks on the IDX in 2020 was 7%, then increased in 2021 by 48%. In 2022, the average decreased by 14 percent. The Covid-19 pandemic led to a contraction in the Indonesian economy in 2020 by 2. 07%, as per CSA (Central Statistics Agency) data. The Covid-19 pandemic has limited individual mobility and interfered with business productivity. This situation will impact company performance, fundamental elements, and company prospectuses (reports), and may alter stock trading behaviors that influence the company's stock returns. However, this is different from what is shown in Figure 1 where telecommunications companies in 2020 were still able to provide a stock return of 7 percent amid the pandemic.*covid*-19. This is due to the pandemic*covid*-19 has had a major impact on telecommunications companies in Indonesia. One of them is the social restrictions and work from home implemented in many countries, the demand for telecommunications services such as the internet, voice calls, and text messages has increased significantly. This results in a surge in data traffic and calls that need to be handled by telecommunications service providers. In 2021, the average experienced a significant increase of 48%. In 2022, the average experienced a significant decrease of 14%. Considering that there is no assurance about the returns that will be gained, it is crucial for investors to carry out an assessment prior to making an investment choice.

One analysis that investors can use to find information is fundamental analysis.(Tandelilin, 2017)said that fundamental analysis is an analysis of macroeconomic factors that affect the performance of all companies, then continued with industry analysis, and finally an analysis is carried out on the company issuing the securities concerned to assess whether the securities issued are profitable or detrimental to investors. Fundamental analysis of the company (*fundamental security analysis*) can be used by investors to analyze stock prices using financial data.(Hartono, 2017). Financial performance can be one aspect of assessment that needs to be considered in a company's fundamental analysis. Investors can analyze financial performance using financial ratios.

Ratios that can affect stock returns include liquidity,*leverage*, and profitability(Bintara & Tanjung, 2019). According to the research findings, liquidity has a significant positive effect on stock returns, *leverage* has a significant negative effect on stock returns, and profitability does not have a significant effect on stock returns. Ratios that can affect stock returns include *leverage*, profitability, and liquidity (Sitohang et al. 2019). The research results obtained, namely leverage and profitability have a significant positive effect on stock returns, liquidity does not have a significant effect on stock returns.

Liquidity is the ability of a company to meet its short-term financial obligations with available liquid funds. A company that possesses substantial liquidity resources, thereby enabling it to fulfill its immediate financial obligations, is referred to as a liquid company. In contrast, if a company lacks adequate resources to satisfy all its financial obligations that require prompt settlement, it is identified as a company that is unable to pay its debts (Wiagustini, 2022). Based on signaling theory, investors who see companies with good liquidity levels will give positive signals to investors. Firms that can settle their short-term debts promptly exist in a liquid condition. A liquid company suggests that the firm is performing well or experiencing positive growth. When a company's growth is robust, it affects stock prices and returns on stocks. This can serve as an indicator for investors in evaluating whether investing in a company aligns with their expectations.Identification of liquidity in this study is measured using the Current Ratio (CR) which reflects the company's ability to meet its financial obligations.

There are several studies on the effect of liquidity on stock returns with different results. In the studies (Bintara & Tanjung, 2019), (Tezar, 2020), and (Anderson et al., 2021) stated that liquidity has a significant positive effect on stock returns. While in the studies (Sitohang et al., 2019) and(Razak et al., 2020)stated that liquidity has no significant effect on stock returns and research (Prayoga & Wahyudi, 2021) stated that liquidity has a significant negative effect on stock returns.

The first thing to consider when building a company is funds, both for initial development and company development. Funds or capital are also important for the survival of a company. One way to obtain funds is through debt. Leverage is a tool to measure a company's ability to repay debts or loans provided by third parties, both short-term debt and long-term debt. Leverage is a ratio used to measure a company's assets that are financed by the company using debt (Fahmi et al., 2019). Leverage management is very important in accordance with signal theory which explains that if the use of debt is carried out to assist the company's operational activities, then managers can use debt as a more reliable signal for investors. Identification*leverage*In this study, it was measured using the Debt to Equity Ratio (DER) which reflects the level of debt usage against the total shareholder equity owned by the company.

There have been various studies on the effect of leverage on stock returns, with varying outcomes. In the study(Sitohang et al., 2019),(Irawan & Polimpung, 2021)And(Sibarani et al., 2022)states that there is a significant positive relationship between the influence of leverage on stock returns. Meanwhile, research by(National Army & Tanjung, 2019)And(Tezar, 2020)states that leverage has no significant influence on stock returns. And in the research(Fadjar et al., 2021)states that leverage has a significant negative effect on stock returns.

In running its business, companies need to pay attention to the company's profit which can be used by shareholders in making investment decisions. Investor analysis of the company's profit aspect will show how comprehensive the company is in achieving its short-term goals. Profitability is one of the financial ratio analysis instruments to measure a company's ability to generate profits. Profitability reflects a company's expertise in making profits or how effective the company's management is in managing the business (Wiagustini, 2022). Based on signaling theory, the company's ability to generate profits provides a positive signal to shareholders or external parties that can increase stock prices and stock returns.

The inconsistency of research on the effect of liquidity and leverage on stock returns is the motivation for this study to add profitability as a mediator. Profitability reflects a company's expertise in making a profit or how effective the company's management is in managing the business (Wiagustini, 2022). Companies that experience increased profits indicate better performance, thus impacting the wealth of the company's owners which is related to increased profitability.

There have been various studies on the effect of profitability on stock returns, with varying outcomes. In the study(Sitohang et al., 2019)And(Irawan & Polimpung, 2021)states that profitability has a significant positive effect on stock returns. However, in the research conducted(Fadjar et al., 2021)states that profitability has a negative and significant effect on stock returns.

In order for a company to increase profitability, the company's management needs to know what factors affect the company. One factor that needs to be considered is liquidity. Liquidity is one of the important factors that affects profitability because changes or developments in the company's obligations that must be paid immediately will affect the company's profitability. Research on the effect of leverage on profitability has been conducted by several previous researchers and there is a research gap so it is worth further research. In the study (Sandra Dewi, 2020) it was stated that liquidity has a significant positive effect on profitability. However, in the study conducted (Rahmaita & Nini, 2021) it was stated that liquidity has a significant negative effect on profitability.

Companies experiencing high growth undoubtedly necessitate substantial funds to support their operational activities. The demand for funds can be satisfied, one of the means being through external sources of funds, specifically debt. Leverage constitutes one of the critical elements that influences profitability, as it can be utilized by companies to augment their capital in order to enhance profits.Research on the effect of leverage on profitability has been conducted by several previous researchers and there is a research gap so it is worthy of further research. In the study(Rizvi et al., 2022)states that leverage has a significant positive effect on profitability. However, in the research conducted(Dyastaria, 2018)and (Rahmaita & Nini, 2021) stated that leverage has a significant negative effect on profitability.

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Previous studies still show inconsistent results related to the effect of liquidity and leverage on stock returns, so it is indicated that there are other variables that influence the relationship between these variables and stock returns. In this study, profitability is used as a mediating variable for liquidity, because the high and low levels of liquidity significantly affect the company's profitability. Companies that have a high level of liquidity will be able to generate high profitability, which will increase the value and return of stocks. In accordance with signal theory, if a company has a high level of liquidity, investors view the company as having good performance so that demand for shares will increase and stock returns will also increase. The results of research conducted by (Sandra Dewi, 2020) state that profitability is able to mediate the effect of liquidity on stock returns. There are different research results conducted by (Rahmaita & Nini, 2021) stating that profitability cannot mediate liquidity on stock returns.

Profitability can be a mediating variable in the effect of leverage on stock returns because high leverage levels make debt greater to fund company activities. In accordance with signal theory, if a company has a high level of profitability, investors view the company as having good performance so that demand for shares will increase and stock returns will also increase. The results of research conducted by (Rizvi et al., 2022) state that profitability is able to mediate leverage on stock returns. There are different research results conducted by (Dyastaria, 2018) stating that profitability cannot mediate leverage on stock returns.

Based on the research gap of previous research and the phenomenon of stock return business in telecommunication sector companies, there are still problems that connect liquidity, leverage, and profitability with stock returns so that further research is needed on stock returns in telecommunication sector companies. This is what underlies the researcher to take the title The Effect of Liquidity and Leverage on Stock Returns with Profitability as a Mediating Variable (Study on Telecommunication Companies on the Indonesia Stock Exchange).

2. RESEARCH METHODS

This study uses a quantitative design with a quantitative approach in the form of associative causality. A quantitative approach is an approach that contains data expressed in numbers. Research in the form of associative causality is a study that aims to determine how the causal relationship of two or more variables is influenced by the study (Sugiyono, 2018). This study aims to determine the relationship between the influence of liquidity and leverage on stock returns mediated by profitability.

The location of this research was conducted at telecommunications sub-sector companies listed on the Indonesia Stock Exchange (BEI) using financial reports published on the website.*www.idx.co.id*. The object of this research is stock returns measured by capital gain (loss) in telecommunications companies listed on the Indonesia Stock Exchange (IDX) for the period 2020-2022.

The population in this study were all telecommunications sector companies that were liquid, had and were able to manage debt and were able to create large profits and were listed on the Indonesia Stock Exchange, namely 16 companies. The sample is a small part of the number and characteristics of the population to be investigated (Sugiyono, 2018). The method used to determine the number of samples was the Slovin Technique so that a sample of 15 companies was obtained during 3 years of observation with sampling using simple random sampling so that the total observations were 180.

3. RESULTS AND DISCUSSION

Inferential Analysis Results

Table 1. Results of Structural Path Analysis 1

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Coefficient		
(Constant)	0.012	0.61		0.201	0.841
Liquidity	0.224	0.70	0.105	0.061	0.000
Leverage	-0.021	0.34	-0.051	-0.632	0.000
R2 : 0.075					

Based on the results of the path analysis in Table 1, the structural equation formed can be formulated as follows.

$$Z = \mathrm{a} + \beta 1X1 + \beta 2X2 + e1$$

$$Z = 0.012 + 0.224\ X1 - 0.021\ X2 + e1$$

The structural equation can be interpreted as follows:

The liquidity variable has a coefficient of 0.224, meaning that liquidity has a positive influence on profitability. This result means that if liquidity increases, profitability will increase by 0.224.

The leverage variable has a coefficient of -0.021, meaning that leverage has a negative influence on profitability. This result means that if leverage increases, profitability will decrease by 0.021.

In this study, the influence of liquidity, leverage, and profitability on stock returns was calculated using the SPSS 26 program. The following are the results of the calculation of structure 1 in table 2.

Table 2. Results of Path Analysis on Structural 2

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Coefficient**		
(Constant)	0.032	0.61		0.923	0.841
Liquidity	0.303	0.032	0.208	0.103	0.918
Leverage	-0.101	0.006	-0.127	-0.339	0.000
Profitability	0.355	0.10	0.402	1,359	0.000
R2 : 0.212					

Based on the results of the path analysis in table 2, the structural equation formed can be formulated as follows.

$Y = a + \beta_3 X_1 + \beta_4 X_2 + \beta_5 Z + e_2$

$Y = 0.032 + 0.303\ X_1 – 0.101\ X_2 + 0.255Z + e_2$

The structural equation can be interpreted as follows:

The liquidity variable has a coefficient of 0.303, meaning that liquidity has a positive influence on stock returns. This result means that if liquidity increases, stock returns will increase by 0.303.

The leverage variable has a coefficient of -0.101, meaning that leverage has a negative influence on stock returns. This result means that if leverage increases, stock returns will decrease by 0.101.

The profitability variable has a coefficient of 0.355, meaning that profitability has a positive influence on stock returns. This result means that if profitability increases, stock returns will increase by 0.355.

Table 3. Coefficient of Determination of Structure 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.236	.075	.057	.33925

The coefficient of determination above the R^2 (R square) value of the regression model is used to determine how much the independent variable (exogenous) is able to explain the dependent variable (endogenous). Based on the table above, it is known that the R^2 value is 0.075, this means that 7.5% of the variation in the profitability variable can be explained by the variation in the liquidity and leverage variables, while (100% - 7.5% = 92.5%) is influenced by other variables outside this study.

Table 4. Coefficient of Determination of Structure 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.408	.212	.005	.33844

Based on the table above, it is known that the R^2 value is 0.212, this means that 21.2% of the variation in the stock return variable can be explained by the variation in the liquidity, leverage, and profitability variables, while (100% - 21.2% = 78.8%) is influenced by other variables outside this study.

The following are the results of calculating the error variable values for each structure as follows:

$e_i = \sqrt{1 - Ri^2}$

$e1 = \sqrt{1 - R1^2} = \sqrt{1 - 0.075} = 0.9617$

$e2 = \sqrt{1 - R2^2} = \sqrt{1 - 0.212} = 0.8876$

In the calculation of the influence of error (e), the results obtained for the influence of error structure 1 (e1) are 0.9617 and the influence of error structure 2 (e2) is 0.8876. Next, the total determination coefficient will be calculated which aims to determine how much the exogenous variable can explain the endogenous variable in the study. The calculation of the total determination coefficient is as follows:

$$
\begin{aligned}
R^2_m &= 1- (e1)^2\,(e2)^2 \\
&= 1- (0,9617)^2\,(0,8876)^2 \\
&= 1- (0,9248)\,(0,7878) \\
&= 1-0,7285 \\
&= 0,2715
\end{aligned}
$$

In the calculation of the total determination coefficient value obtained 0.2715, the conclusion is that 27.15% of the stock return variable in telecommunications companies on the Indonesia Stock Exchange for the 2020-2022 period is influenced by liquidity, leverage and profitability, while the remaining 72.85% is influenced by other factors not included in the research model or outside the research model. The result of 27.15% shows that the influence of exogenous variables on endogenous is not too large or is said to be weak.

The results of the structural equation that have been presented are explained by the results of the value of the path coefficient calculation shown through the unstandardized Beta coefficient value on each influence of the relationship between variables. The magnitude of the influence of liquidity and leverage on profitability and stock returns, as well as the magnitude of the influence of profitability on stock returns, the value of the magnitude of the influence is obtained from the unstandardized Beta coefficient and the magnitude of the value of each error variable from each structural equation.

Calculating Path Coefficients Partially

(1) The effect of liquidity on stock returns

H0: There is no effect of liquidity on stock returns

H1: Liquidity has a positive and significant effect on stock returns.

In table 1, it is obtained information that the Beta value on the unstandardized coefficient of the liquidity variable on stock returns is 0.303 which indicates a positive direction and a significance value of t of 0.918, this value is higher when compared to the real level of $\alpha = 0.05$. The Beta value on the standardized coefficient of the liquidity variable on stock returns is 0.208. Based on this, it can be said that liquidity has an insignificant positive effect on stock returns. Based on this explanation, it is concluded that H0 is rejected and H1 is accepted so that liquidity has an insignificant positive effect on stock returns.

(2) The effect of leverage on stock returns

H0: There is no influence of leverage on stock returns

H2: Leverage has a positive and significant effect on stock returns.

In table 1, it is obtained information that the Beta value on the unstandardized coefficient of the liquidity variable on stock returns is -0.101, which indicates a negative direction and a significance value of t of 0.000, this value is smaller when compared to the real level of $\alpha = 0.05$. The Beta value on the standardized coefficient of the liquidity variable on stock returns is -0.127. Based on this, it can be said that leverage has a significant negative effect on stock returns. Based on this explanation, it is concluded that H0 is rejected and H2 is accepted so that liquidity has a significant negative effect on stock returns.

(3) The effect of liquidity on profitability

H0: There is no effect of liquidity on profitability

H3: Liquidity has a positive and significant effect on profitability.

The Beta value of the unstandardized coefficient of the liquidity variable on profitability is 0.224 which indicates a positive direction and a significance value of t of 0.000, this value is smaller when compared to the real level of $\alpha = 0.05$. The Beta value of the standardized coefficient of the liquidity variable on stock returns is 0.105. Based on this, it can be said that liquidity has a significant positive effect on profitability. Based on this explanation, it is concluded that H0 is rejected and H3 is accepted so that liquidity has a significant positive effect on profitability.

(4) The effect of leverage on profitability

H0: There is no influence of leverage on profitability

H4: Leverage has a positive and significant effect on stock returns.

The Beta value of the unstandardized coefficient of the leverage variable on profitability is -0.021 which indicates a negative direction and a significance value of t of 0.000, this value is smaller when compared to the real level of α = 0.05. The Beta value of the standardized coefficient of the leverage variable on profitability is -0.051. Based on this, it can be said that leverage has a significant negative effect on profitability. Based on this explanation, it is concluded that H0 is rejected and H4 is accepted so that leverage has a significant negative effect on profitability.

(5) The effect of profitability on stock returns

H0: There is no influence of profitability on stock returns

H5: Profitability has a positive and significant effect on stock returns.

The Beta value of the unstandardized coefficient of the profitability variable on stock returns is 0.355 which indicates a positive direction and a significance value of t of 0.000, this value is smaller when compared to the real level of α = 0.05. The Beta value of the standardized coefficient of the profitability variable on stock returns is 0.402. Based on this, it can be said that profitability has a significant positive effect on stock returns. Based on this explanation, it is concluded that H0 is rejected and H5 is accepted so that profitability has a significant positive effect on stock returns.

Calculating indirect effects

The results of the partial path coefficient analysis obtained can then calculate the magnitude of the direct influence, indirect influence, and total influence between variables. The calculation of the influence between variables asfollowing:

(1) Direct Effect

Direct influence occurs when a variable influences another variable without any mediating variable.

a) The effect of liquidity on stock returns is 0.303
b) The effect of leverage on stock returns is -0.101
c) The effect of liquidity on profitability is 0.224
d) The effect of leverage on profitability is -0.021
e) The effect of profitability on stock returns is 0.355

(2) Indirect Effect

Indirect influence occurs when there is another variable that mediates the relationship between the two variables.

a) The effect of liquidity on stock returns with profitability as a mediating variable is 0.224 x 0.355 = 0.080
b) The effect of leverage on stock returns with profitability as a mediating variable is -0.021 x 0.355 = -0.007

(3) Total Influence

Total influence is the influence obtained by adding direct influence and indirect influence.

a) The total effect of adding the direct effect of liquidity on stock returns is 0.303 with the indirect effect of liquidity on stock returns through profitability of 0.080, so the result is 0.303 + 0.080 = 0.383.
b) The total effect of adding the direct effect of leverage on stock returns is -0.101 with the indirect effect of leverage on stock returns through profitability of -0.007, so the result is -0.101-0.007 = -0.108.

Classical Assumption Test

1) Normality Test

Table 5. Normality Test Results

Equality	*Asymp.Sig*(2-tailed) *Kolmogorov-Smirnov Z*
Structural 1	0.200
Structural 2	0.200

Based on the normality test using the One-Sample Kolmogorov Smirnov Test shown in Table 5, it shows that the value of Asymp. Sig. (2-tailed) structural equation I is 0.200 greater than the level of significance of 0.05. This means that the assumption of normality is met. In structural equation II, the value of Asymp. Sig. (2-tailed) structural equation II is 0.200 greater than the level of significance of 0.05 so that the assumption of normality is met. So it can be concluded that the data used in this study are normally distributed and suitable for further analysis.

2) Auto Correlation Test

Table 6. Auto Correlation Test Results

Equality	Durbin-Watson
Structural 1	1,816
Structural 2	1,980

Based on table 6, the results of the autocorrelation test on structural 1 obtained a Durbin-Watson (DW) value of 1.816 while the number of independent variables (k = 2) and the number of data is 180 so that the dU value is 1.779. Decision making is that there is no autocorrelation if dU <dW <4-dU. 1.779 <1.816 <2.221 then it can be concluded that structural 1 is free from autocorrelation symptoms. The results of the autocorrelation test on structural 2 obtained a Durbin-Watson (DW) value of 1.980 while the number of independent variables (k = 3) and the number of data is 180 so that the dU value is 1.790. Decision making is that there is no autocorrelation if dU <dW <4-dU. 1.790 <1.980 <2.210 then it can be concluded that structural 2 is free from autocorrelation symptoms.

3) Multicollinearity Test

Table 7. Multicollinearity Test Results

Equality	**Model**	***Collinearity Statistics***	
		Tolerance	***VIF***
Structural 1	Liquidity	0.860	1.163
	Leverage	0.860	1.163
Structural 2	Liquidity	0.758	1.166
	Leverage	0.855	1,160
	Profitability	0.998	1.002

Based on table 7, it is shown that there are no independent variables that have a tolerance value of less than 0.10 and there are also no independent variables that have a VIF value of more than 10. Therefore, the regression model is free from multicollinearity symptoms.

4) Heteroscedasticity Test

Table 8. Heteroscedasticity Test Results

Equality	**Model**	**T**	**Sig.**
Structural 1	Liquidity	-1.247	0.214
	Leverage	-0.407	0.685
Structural 2	Liquidity	-0.112	0.911
	Leverage	0.198	0.483
	Profitability	-1.292	0.198

Based on Table 8, it is shown that each model has a significance value greater than 5% (0.05). This shows that the independent variables used in this study do not significantly affect the dependent variable, namely the absolute residual. So this study is free from heteroscedasticity symptoms.

Hypothesis Testing

a) Simultaneous Significance Test (F Test)

Table 9. Simultaneous Test Results (F Test)

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10,238	3	7,079	3,694	0.005
Residual	20.159	176	5.115		
Total	20,398	179			

The testing criteria to explain the interpretation of the influence between each variable are as follows:

If sig < 0.05 then Ho is rejected and Ha is accepted.

If sig ≥ 0.05 then Ho is accepted and Ha is rejected.

F table = F (k ; nk) = F (3 ; 180-3) = F (3 ; 177) = 2.66

Based on the results of the F test obtained the F count value of 3.694> F table of 2.66 and the Sig. value of 0.005, then it can be said that Ho is rejected and Ha is accepted because the Sig. value of 0.005 <0.05 so that it can be concluded that the liquidity, leverage, and profitability variables simultaneously (together) have a significant effect on stock returns.

b) Partial Significance Test (t-Test)

The testing criteria to explain the interpretation of the influence between each variable are as follows:

If sig < 0.05 then Ho is rejected and Ha is accepted.

If sig ≥ 0.05 then Ho is accepted and Ha is rejected.

1) The effect of liquidity on stock returns

Based on the results of structural path analysis 2, it explains that liquidity has a coefficient value of 0.303 and a Sig. value of 0.918, so it can be said that Ha is rejected and Ho is accepted because the Sig. value is 0.918> 0.05 so it can be concluded that liquidity has a positive but insignificant effect on stock returns. This shows that if liquidity increases or decreases, it will not have an impact on stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

2) The effect of leverage on stock returns

Based on the results of structural path analysis 2, it explains that leverage has a coefficient value of -0.101 and a Sig. value of 0.000, so it can be said that Ho is rejected and Ha is accepted because the Sig. value is 0.000 <0.05 so it can be concluded that leverage has a significant negative effect on stock returns. This shows that if leverage increases, it will have a decreasing impact on stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

3) The effect of liquidity on profitability

Based on the results of structural path analysis 1, it explains that liquidity has a coefficient value of 0.224 and a Sig. value of 0.000, so it can be said that Ho is rejected and Ha is accepted because the Sig. value is 0.000 <0.05, so it can be concluded that liquidity has a significant positive effect on profitability. This shows that if liquidity increases, it will have an impact on increasing profitability in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

4) The effect of leverage on profitability

Based on the results of structural path analysis 1, it explains that leverage has a coefficient value of -0.021 and a Sig. value of 0.000, so it can be said that Ho is rejected and Ha is accepted because the Sig. value is 0.000 <0.05, so it can be concluded that leverage has a significant negative effect on profitability. This shows that if leverage increases, it will have a decreasing impact on profitability in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

5) The effect of profitability on stock returns

Based on the results of structural path analysis 2, it explains that liquidity has a coefficient value of 0.355 and a Sig. value of 0.000, so it can be said that Ho is rejected and Ha is accepted because the Sig. value is 0.000 <0.05 so it can be concluded that profitability has a significant positive effect on stock returns. This shows that if profitability increases, it will have an increasing impact on stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

Sobel Test Results

To test the indirect effect in this study, the Sobel test was used, the results of which are as follows:

1) The effect of liquidity on stock returns mediated by profitability

Ho: Profitability does not mediate the effect of liquidity on stock returns.

Ha: Profitability mediates the effect of liquidity on stock returns.

Based on the test results on structural 1 and structural 2, it can be seen that the Sobel test of the effect of liquidity on stock returns mediated by profitability is as follows:

$$Z = \frac{0.224\,.\;0.355}{(0.355^2.\;0.70^2)+(0.224^2.\;0.10^2)+(0.70^2.\;0.10^2)}$$

$$= \frac{0.080}{0.030}$$

$$= 2.6$$

Based on the results of the Sobel test, it shows that the result of Z = 2.6 > 1.96, it can be said that Ho is rejected and Ha is accepted, which means that the profitability variable mediates the relationship between liquidity and stock returns. In addition, the role of profitability as a mediating variable is full mediation because the direct effect of liquidity on stock returns is not significant.

2) The effect of leverage on stock returns mediated by profitability

Ho: Profitability does not mediate the effect of leverage on stock returns.

Ha: Profitability mediates the effect of leverage on stock returns.

Based on the test results on structural 1 and structural 2, it can be seen that the Sobel test of the effect of leverage on stock returns mediated by profitability is as follows:

$$Z = \frac{(0.101)\,.\;0.355}{(0.355^2.\;0.34^2)+(0.101^2.\;0.10^2)+(0.34^2.\;0.10^2)}$$

$$= \frac{0.035}{0.015}$$

$$= 2.3$$

Based on the results of the Sobel test, it shows that the results of Z = 2.3 > 1.96, it can be said that Ho is rejected and Ha is accepted, which means that the profitability variable mediates the relationship between leverage and stock returns. In addition, the role of profitability as a mediating variable is partial mediation because the direct effect of leverage on stock returns is significant.

Discussion of Research Results

The Effect of Liquidity on Stock Returns

This study shows that liquidity does not have a significant effect on stock returns. This indicates that the level of the company's ability to pay its short-term debts will not affect the company's stock returns or the high or low liquidity will not affect the company's stock returns. In addition, it shows that in the reality of the capital market, investors do not really take into account the good or bad liquidity capabilities of the company in making decisions to place their investment funds. This is likely because investors realize that the Current Ratio has several limitations and weaknesses so that investors try to compensate by using other information as material to support their decisions.(Li Cholisna, 2019).

According to the signaling theory, companies use financial information such as liquidity to provide signals to investors regarding the financial condition and future prospects of the company. The results of this study indicate that liquidity does not provide a significant signal that affects stock returns. This shows that the signaling theory does not apply to the effect of liquidity on stock returns. The high liquidity owned by the company indicates the company's ability to pay its short-term obligations is also high. However, the high liquidity owned by the company will not necessarily attract investors to invest. Because investors do not merely see liquidity as a signal given by the company to see the company's stock returnsStefanny et al. (2021). In addition, liquidity only provides information related to the fulfillment of short-term obligations, so it is not a basis for investment considerations. It can be concluded that if liquidity increases or decreases, it will not affect stock returns. This is in line with research conducted byStefanny et al. (2021)AndSafari & Nekky (2024)which states that liquidity does not have a significant effect on stock returns.

The Effect of Leverage on Stock Returns

This study shows that leverage has a significant negative effect on stock returns. In other words, the higher the leverage, the lower the stock returns of telecommunications companies on the Indonesia Stock Exchange in 2020-2022.

*Leverage*which is measured using the Debt to Equity Ratio (DER) reflects the proportion between total debt and total equity. According toLee Cholisna (2019)if the DER amount is greater, it will cause the financial risk to be greater. This is because the DER ratio provides sufficient and accurate information for investors about the company's debt management. Based on the research results, debt management will greatly affect stock returns, companies whose operational funds mostly come from debt will cause DER to become large and ultimately have a negative impact on stock returns. The results of this study are in line with the Signal Theory which states that leverage (DER) can provide a signal in the form of bad news because investors assume that the company has a lot of risk so that investors will react by avoiding buying shares of companies with high DER(Li Cholisna, 2019). In addition, a high DER also gives a signal that the company is in financial difficulties which results in a decrease in investor interest in buying shares. This is in line with research conducted byAprillia & Amanah (2023)AndFadjar et al (2021)which states that leverage has a significant negative effect on stock returns.

The Effect of Liquidity on Profitability

This study shows that liquidity has a significant positive effect on profitability. In other words, if liquidity decreases, the company's profitability will increase in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

Liquidity ratio is a ratio that describes the company's ability to meet short-term obligations (debts). Which means, if the company is billed, the company will be able to meet the debt, especially debt that is due. A company that is able to meet its obligations is said to be in a liquid state. Liquidity values that are too high have a negative impact on earning power because of idle cash or indicate excess working capital needed, this excess will reduce the opportunity to make a profit(Sholeh & Indrianasari, 2021). Liquidity analyzed using the current ratio is used to determine the extent to which the company is able to pay off its short-term debts with the current assets it has. The greater the current ratio value, the greater the indication that its profitability will increase. High profitability indicates the company's greater ability to meet its short-term obligations or its liquidity is getting better. A higher level of liquidity can increase the credibility of the company which causes a positive reaction from investors to provide capital that can be used by the company for investment in an effort to increase its profitability. In accordance with Signaling theory, a good signal for investors regarding the company's performance can be seen from how well the company uses debt to run the company's operations. A small proportion of debt indicates that more funding is used from the company's own funds. This is in line with research conducted byAnisa and Febyansyah (2024)AndTalenta Marpaung et al. (2023)which states that liquidity has a significant positive effect on profitability.

The Effect of Leverage on Profitability

This study shows that leverage has a significant negative effect on profitability. In other words, the higher the leverage, the lower the profitability of Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

The use of debt that cannot be managed properly will certainly not affect profitability, if the company uses more debt than its own capital, it will result in a decrease in the company's effectiveness and performance in creating profits for its company, thus the company will have more difficulty in paying debt and interest burdens that are fixed in nature so that it will not be able to increase the company's profitability. The higher the leverage, the higher the interest burden, and the greater the negative impact on profitability. High leverage can also increase the risk of financial failure leading to bankruptcy. This financial failure can have a bad effect on the company's profitability. So this gives a negative signal to investors because high leverage can reduce investor confidence in the company. Investors generally prefer companies with low leverage because they are considered safer and more stable. A decrease in investor confidence can cause the company's stock price to fall, so that the company will find it more difficult to obtain funding in the future and will reduce profitability. This is in line withMeaning (2021)which states that leverage has a significant negative effect on profitability. ResearchThe Last Supper (2023)also stated that leverage has a significant negative effect on profitability.

The Effect of Profitability on Stock Returns

This study shows that profitability has a significant positive effect on stock returns. In other words, the higher the profitability, the more it will have an impact on increasing stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

Profitability ratio is very important to measure the company's ability to generate profits, which will affect stock prices and stock returns. If the profit generated by a company is large or high, then the company's performance will be seen as good and the stock price will increase or be high so that the rate of return or stock return that will be obtained by investors is high, and other investors will be interested in investing in the company. This is in accordance with Signaling Theory with an increase in profit, it will give a positive signal for investors to buy shares, so that the stock price will increase and the stock return rate will also be high. This is in line with research conducted bySibarani et al. (2022)AndThessaloniki (2020)which states that profitability has a significant positive effect on stock returns.

The Effect of Liquidity on Stock Returns Mediated by Profitability

This study shows that liquidity has an effect on stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022 with profitability mediation, so that profitability is a mediator of the effect of liquidity on stock returns, this shows that liquidity can affect profitability, and the size of the profitability owned by Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022 will be able to affect stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

The results of the mediation test show that profitability fully mediates the indirect effect of liquidity on stock returns so that liquidity does not affect stock returns, but when there is mediation of profitability, liquidity will affect stock returns. Liquidity is used to measure the extent to which current assets finance or pay off current liabilities that are due soon. Current liabilities certainly affect the profit to be obtained, the greater the percentage of short-term debt, the smaller the profit obtained because of the large amount of interest to be paid. Likewise, the smaller the percentage of short-term debt, the greater the profit obtained because of the small amount of interest to be paid. Therefore, if the company has a higher level of liquidity, the higher its profitability. A high level of liquidity indicates that the company is increasingly secure in meeting its short-term obligations. It is important for companies to maintain a liquidity ratio at an optimal level in carrying out their short-term financial obligations. Business profitability will increase with well-managed liquidity (Firmansyah & Riduwan, 2021). Liquid companies are more in demand by investors, causing investors to react positively and contribute funds that can be invested to increase the company's profitability. The ability of short-term payment obligations will be a signal for investors in investing to be able to provide stock returns if the company has good profitability capabilities. The results of this study are in line with Antariksa & Sudiartha(2019)AndSudarman et al. (2017)which states that profitability is able to mediate the effect of liquidity on stock returns.

The Effect of Leverage on Stock Returns Mediated by Profitability

This study shows that leverage has an effect on stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022 with profitability mediation, so that profitability is a mediator of the influence of leverage on stock returns, this shows that leverage can affect profitability, and the size of the profitability owned by Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022 will be able to affect stock returns in Telecommunication Companies on the Indonesia Stock Exchange in 2020-2022.

The results of the mediation test show that profitability partially mediates the indirect effect of leverage on stock returns so that leverage can directly affect stock returns or leverage can affect stock returns through profitability. Companies that use debt as a source of funds must be able to consider their ability to pay off their fixed obligations. Companies are required to determine the optimal capital structure for the company. A high level of profitability will indicate a good prospect for a company where each company will try to provide information to investors, this information includes the company being able to run its business well so that investors will respond positively to the signal. The increase in debt will affect the amount of profit (profit) obtained by the company. The greater the debt used for the company's operational activities, the more optimal profit it should be able to produce. Good use of debt in increasing its operational activities is expected to improve the company's financial performance. When the company's profitability increases or decreases, it will give a signal to investors that the stock price has changed which will have an impact on stock returns. The results of this study are in line with Setiawan & Triaryati(2016)AndSudarman et al. (2017)which states that profitability is able to mediate the effect of leverage on stock returns.

4. CONCLUSION

Based on the research results obtained, several conclusions can be drawn as follows.

1) Liquidity does not significantly affect stock returns. Increase or decrease in liquidity does not have an impact on stock returns.
2) *Leverage*has a significant negative effect on stock returns. Increasing leverage can have a negative impact on stock returns.
3) Liquidity has a significant positive effect on profitability. Increasing liquidity has an impact on increasing stock returns.
4) *Leverage*has a significant negative effect on profitability. Increasing leverage can have an impact on decreasing profitability.
5) Profitability has a significant positive effect on stock returns. Increasing profitability has an impact on increasing stock returns.
6) Profitability is able to mediate the effect of liquidity on stock returns.
7) Profitability is able to mediate the effect of leverage on stock returns.

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