THE ROLE OF PROFITABILITY IN MEDIATING DETERMINANTS OF FIRM VALUE

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ABSTRACT

This study aims to analyze the role of profitability in mediating the relationship between liquidity, leverage, and firm size on firm value. The data used in this study are secondary data obtained from the Indonesia Stock Exchange websites. The population comprises 71 companies listed in the LQ45 index for 2018-2022. The study sample includes 18 non-bank companies within the LQ45 index, selected through purposive sampling, yielding 90 observations over five years. Data analysis was conducted using panel data with EViews 13 software. Model selection was carried out through the Chow, Hausman, and Lagrange Multiplier tests. The study results show that liquidity does not affect profitability, while leverage negatively affects profitability, but company size positively affects profitability. Furthermore, leverage negatively affects firm value, liquidity, and company size do not affect firm value, but profitability positively affects firm value. Profitability cannot mediate the effect of liquidity and firm size on firm value, but profitability can mediate the effect of leverage on firm value. Theoretically, this research complements previous theories and serves as a reference for future studies. Practically, investors can utilize this information to exercise caution when assessing companies with high leverage levels but low profitability.

Keywords: profitability, liquidity, leverage, firm size, firm value.

INTRODUCTION

Firm value is one of the primary indicator's investors use to assess a company's performance and prospects. High firm value reflects investor confidence in the company's ability to generate profits and sustain itself over the long term. Maximizing firm value is crucial for a company, as it also maximizes shareholder wealth, which is the primary objective of a business (Anggeriani, Fachrudin, and Silalahi 2018). Firm value has become a primary focus in business and academics as it reflects investors' perceptions of a company's prospects and performance (Kurniati 2019). However, in practice, firm value is only sometimes stable and can be influenced by various internal and external factors. For instance, during periods of global economic uncertainty, such as a pandemic or financial crisis, firm value tends to fluctuate due to changes in investors' perceptions of risks and opportunities (Qiu et al. 2021).

On the other hand, companies with strong financial performance, as indicated by high profitability or an optimal capital structure, only sometimes sustain their firm value if complemented by innovation, reputation, and effective risk management (Abdi, Li, and Càmara-Turull 2020). This phenomenon illustrates the complexity of the relationship between a company's internal performance, external conditions, and market behavior in determining firm value.

Numerous studies have examined factors affecting firm value, yet their findings have been inconsistent. Factors such as liquidity, leverage, firm size, and profitability significantly influence firm value, as each reflects key aspects of a company's financial health and prospects.

High liquidity signals to investors that the company has sound financial health and a low risk of bankruptcy. However, excessive liquidity may also indicate that a company is not optimally utilizing its financial resources. Several studies have examined the influence of liquidity on firm value, including Kahfi, Pratomo, and Aminah (2018); Darmawan et al. (2020); Hapsoro and Falih (2020); Reschiwati, Syahdina, and Handayani (2020); Jihadi et al. (2021); Ripaluddin, Pasulu, and Taufiq (2023) liquidity has a positive effect on firm value. In contrast, studies by Tui et al. (2017); Adiputra and Hermawan (2020); Sari and Sedana (2020); Nurwulandari, Wibowo, and Hasanudin (2021); Putro and Risman (2021); Suhendry, Toni, and Simorangkir (2021); Yondrichs et al. (2021); Handayani, Indarto, and Santoso (2022); Wahid, Ambarwati, and Satmoko (2022); Budiarti, Moeldjadi, and Wijayanti (2023); Panjaitan and Supriyati (2023); Zulfa, Azam, and Bandono (2024) indicate that liquidity does not affect firm value.

The leverage ratio measures the extent to which a company's activities are financed by debt, including both short-term and long-term debt. A higher leverage ratio indicates a greater dependence on external parties (creditors) and larger interest expenses the company must pay. Several studies have examined the influence of leverage on firm value, including Fosu et al. (2016); Kahfi, Pratomo, and Aminah (2018); Simorangkir (2019); Jihadi et al. (2021); Wahid, Ambarwati, and Satmoko (2022); Lestari (2023); Panjaitan and Supriyati (2023); Ripaluddin, Pasulu, and Taufiq (2023); Zulfa, Azam, and Bandono (2024), which found that leverage significantly affects firm value. In contrast, research by Dwiastuti and Dillak (2019); Suhendry, Toni, and Simorangkir (2021); Almomani et al. (2022); Handayani, Indarto, and Santoso (2022); Habakkuk, Nduati, and Wang'ombe (2023); Yulandri, Hertina, and Asih (2023) found that leverage does not affect firm value.

Firm size is also a significant factor in determining firm value. Larger companies typically have better access to resources and capital markets, which can help them maintain stable performance and enhance firm value. However, company size can also lead to inefficiencies that negatively impact firm value. Several studies have examined the influence of firm size on firm value, including Anggeriani, Fachrudin, and Silalahi (2018); Susanti and Restiana (2018); Hirdinis (2019); Hapsoro and Falih (2020); Natsir and Yusbardini (2020); Nugraha et al. (2020); Reschiwati, Syahdina, and Handayani (2020); Sugosha and Artini (2020); Atiningsih and Izzaty (2021); Nurwulandari, Wibowo, and Hasanudin (2021); Wahid, Ambarwati, and Satmoko (2022); Lestari (2023); Zulfa, Azam, and Bandono (2024), which found that firm size has a effects on firm value. In contrast, research by Tui et al. (2017); Dwiastuti and Dillak (2019); Adiputra and Hermawan (2020); Nurwulandari, Wibowo, and Hasanudin (2021); Handayani, Indarto, and Santoso (2022); Yulandri, Hertina, and Asih (2023); Hechmi and Saanoun (2024) found that firm size does not affect firm value.

High profitability can enhance investor confidence, which in turn can increase firm value. Profitability is the result of a series of policies and decisions made by the company (Brigham and Houston 2020). Several studies have

examined the influence of profitability on firm value, including Sucuahi and Cambarihan (2016); Tui et al. (2017); Rosikah et al. (2018); Dwiastuti and Dillak (2019); Zuhroh (2019); Darmawan et al. (2020); Natsir and Yusbardini (2020); Sari and Sedana (2020); Sugosha and Artini (2020); Syamsudin et al. (2020); Atiningsih and Izzaty (2021); Jihadi et al. (2021); Putri and Wiksuana (2021); Suhendry, Toni, and Simorangkir (2021); Yondrichs et al. (2021); Handayani, Indarto, and Santoso (2022); Budiarti, Moeldjadi, and Wijayanti (2023); Buti and Wiyarni (2023); Faradila and Effendi (2023); Lestari (2023); Yulianti et al (2024); Zulfa, Azam, and Bandono (2024), which found that profitability affects firm value. In contrast, research conducted by Astuti, Wahyudi, and Mawardi (2018); Hapsoro and Falih (2020); Reschiwati, Syahdina, and Handayani (2020); Nurwulandari, Wibowo, and Hasanudin (2021); Ripaluddin, Pasulu, and Taufiq (2023); Yulianti et al. (Panjaitan and Supriyati 2023) found that profitability does not affect firm value.

Maintaining liquidity allows the company to operate efficiently, supporting increased profitability. Several studies have examined the influence of liquidity on profitability, including Tahu and Susilo (2017); Tui et al. (2017); Bintara (2020); Nugraha et al. (2020); Suhendry, Toni, and Simorangkir (2021); Ripaluddin, Pasulu, and Taufiq (2023); Nguyen, Le, and Nguyen (2024), which found that liquidity affects profitability. In contrast, research conducted by Krismunita and Imronudin (2021); Handayani, Indarto, and Santoso (2022) found that liquidity does not affect profitability. Optimal use of leverage allows a company to finance investments without sacrificing equity, thereby increasing potential profits and growth. Several studies have examined the effect of leverage on profitability, including Bintara (2020); Nugraha et al. (2020); Suhendry, Toni, and Simorangkir (2021); Ripaluddin, Pasulu, and Taufiq (2023), which found that leverage affects profitability. In contrast, research by Hamidah (2016); Makhdalena (2018); Ramadhanti, Amaliawiati, and Nugraha (2021); Handayani, Indarto, and Santoso (2022) found that leverage does not affect profitability. Larger companies generally have more resources, better market access, and the ability to use economies of scale. Several studies have examined the effect of firm size on profitability, including Hirdinis (2019); Natsir and Yusbardini (2020); Atiningsih and Izzaty (2021) found that firm size has a positive effects on profitability. In contrast, research by Tui et al. (2017); Lorenza, Kadir, and Sjahruddin (2020) found that firm size does not affect profitability. Previous research on the direct influence of liquidity, leverage, and firm size on company value and profitability showed inconsistent results; this opens a research gap.

Furthermore, studies on the mediating role of profitability on firm value have been conducted by Putro and Risman (2021) found that profitability can mediate the effect of liquidity on firm value. However, the studies by Handayani, Indarto, and Santoso (2022); Ripaluddin, Pasulu, and Taufiq (2023) found that profitability cannot mediate the effect of liquidity on firm value. Additionally, the study by Suhendry, Toni, and Simorangkir (2021) found that profitability can mediate the relationship between leverage and firm value, while the research by Ripaluddin, Pasulu, and Taufiq (2023) found that profitability does not mediate the relationship between leverage and firm value. Then subsequent studies by Natsir and Yusbardini (2020); Atiningsih and Izzaty (2021) found that profitability can mediate the effect of firm size on firm value. Meanwhile,

Hirdinis (2019) found that profitability does not mediate the relationship between firm size and firm value. Previous research on the indirect effects of liquidity, leverage, and firm size on firm value through profitability has shown inconsistent results; this may also open research gaps.

The novelty of this research lies in the comprehensive approach used to analyze the role of profitability as a mediating variable in the effects of liquidity, leverage, and firm size on firm value. While most previous studies tend to examine these variables separately or only focus on their direct influence on firm value, research on the role of profitability as a mediator of these variables is still lacking, so this study offers an integrated approach by evaluating all three variables simultaneously. This provides a new perspective that enriches the academic literature and generates deeper insights into the mediating role of profitability in enhancing firm value. This research is highly urgent as it aims to address the inconsistencies in the results of previous studies. Considering that firm value is a primary reference for investors in making investment decisions, understanding the role of profitability as a mediating variable will provide practical guidance for companies in enhancing investor confidence and attractiveness. This study aims to analyze the effect of liquidity, leverage, and company size on company value with profitability as a mediator, both directly and indirectly. Additionally, this study aims to explain how these three variables influence firm value comprehensively. The findings of this research are expected to contribute academically by enriching the literature on the role of profitability as a mediating variable. It can guide financial managers in making decisions about liquidity management, leverage, and firm size, ultimately enhancing profitability and firm value.

LITERATURE REVIEW

Signaling Theory

Signaling theory was proposed by Spence (1973), suggesting that asymmetric information between company managers and investors can be addressed through signals provided by management. In this context, companies use financial reports or strategic actions as signals to investors regarding the company's condition and prospects. The information management conveys through financial statements, dividend policies, or investment decisions can signal the company's status and future potential to external parties (Brigham and Houston 2020). These signals help reduce the information asymmetry between managers and investors, assisting investors in making better investment decisions.

Firm Value

The firm value represents the market's perception of the company's overall performance and prospects. Firm value can be defined as the market value assessed through stock price and the total equity held by shareholders (Brigham and Houston 2020). Firm value is crucial because the primary objective of financial management is to maximize it for the benefit of shareholders. A standard measure used to assess firm value is Tobin's Q, which is the ratio of the company's market value of assets (market capitalization) to the replacement cost of the company's assets.

Profitability

Profitability is a measure of a company's performance in generating profit relative to its sales, assets, or equity. Profitability is a key indicator in assessing how efficiently a company's management utilizes its resources to generate earnings (Brigham and Houston 2020). High profitability indicates that the company has successfully managed its assets efficiently to generate profits, which indicates good financial performance. Profitability is also often used as a mediating variable that strengthens the relationship between other financial factors and company value, as good performance typically enhances investor confidence.

Liquidity

Liquidity refers to a company's ability to meet its short-term obligations as they come due without facing financial difficulties. Liquidity is crucial for a company as it reflects the ability to convert current assets into cash to fulfil short-term liabilities (Brigham and Houston 2020). High liquidity can reduce the risk of bankruptcy because the company can meet its short-term obligations. However, excessive liquidity may also indicate inefficient cash management, as excess current assets can decrease profitability.

Leverage

Leverage refers to using debt financing to enhance the potential return to a company's shareholders. Leverage reflects the extent to which a company utilizes debt in its capital structure, which can increase risk and potential returns for shareholders (Brigham and Houston 2020). Leverage could provide benefits in the form of increased profits if the investments financed with debt yield returns greater than the cost of the debt itself. However, leverage also carries financial risks because the higher the debt, the greater the obligation for interest and principal repayments the company must fulfil. If a company fails to meet these obligations, it could lead to bankruptcy. Companies with high leverage have more debt than equity, which can provide tax benefits and heighten financial risk. High leverage can increase the value of a company due to tax advantages, but if it becomes excessive, it may raise the risk of bankruptcy.

Firm Size

Firm size is an important factor in financial analysis and management strategy. Firm size, measured by total assets or sales, reflects the capacity and stability of a company in its operations and can influence market perceptions (Brigham and Houston 2020). Firm size is often associated with the total assets owned, which reflects the magnitude of resources available to support business operations and expansion. Generally, the larger the company size, the greater its capacity to obtain financing from capital markets, whether through equity or debt.

Hypothesis Development

In signaling theory, high liquidity can serve as a positive signal for investors, indicating that the company can meet its short-term obligations and manage cash efficiently, which in turn can enhance investor confidence and create opportunities for increased profitability. Adequate liquidity allows a company to

exploit profitable investment opportunities and avoid costs associated with late payments or reliance on short-term funding sources (Brigham and Houston 2020). Several previous studies conducted by Tahu and Susilo (2017); Tui et al. (2017); Nugraha et al. (2020); Suhendry, Toni, and Simorangkir (2021) Ripaluddin, Pasulu, and Taufiq (2023); Nguyen, Le, and Nguyen (2024) found that liquidity has a positive effect on profitability. Companies with adequate cash reserves tend to be more stable and flexible in investing in productive assets, ultimately enhancing their financial performance. This indicates that good liquidity management maintains financial stability and can act as a catalyst for improving the company's profitability. Therefore, the hypothesis in this study is: H_1: Liquidity has a positive effect on profitability.

Leverage refers to the use of debt by a company in its capital structure, which can signal management's confidence in the company's ability to generate sufficient profits to meet its debt obligations. Based on signaling theory, an optimal level of leverage is considered a positive signal for investors, indicating that the company is willing to take on debt because it expects its future performance to cover the associated costs. Leverage can enhance the value of a company since debt is often a cheaper funding source than equity, and the interest on debt can provide tax benefits (Brigham and Houston 2020). Research by Suhendry, Toni, and Simorangkir (2021) Ripaluddin, Pasulu, and Taufiq (2023) found that leverage has a positive affects profitability, while Bintara (2020); Nugraha et al. (2020) found that leverage has a positive effect on profitability. Therefore, the hypothesis in this study is: H_2: Leverage has a positive effect on profitability.

Firm size is often measured by total assets or revenue, reflecting capacity and operational scale. Larger companies generally have more resources, better market access, and the ability to use economies of scale. These advantages allow for reduced unit costs and increase operational efficiency, contributing to enhanced profitability. Furthermore, large companies typically have more substantial bargaining power with suppliers and customers, which can result in higher profit margins and a reinforced market position. Additionally, company size is often seen as an indicator of financial strength and stability. From the perspective of signaling theory, a large size serves as a positive signal to investors and stakeholders, as it reflects quality and promising profitability potential. Larger companies usually have better access to various resources, such as funding, technology, and skilled labor, all of which support operational efficiency and facilitate higher profitability (Brigham and Houston 2020). Research by Hirdinis (2019); Natsir and Yusbardini (2020); Atiningsih and Izzaty (2021) found that company size has a positive effect on profitability. Therefore, the hypothesis in this study is: H_3: Firm size has a positive effect on profitability.

Liquidity refers to a company's ability to meet its short-term obligations and is often viewed as a positive signal regarding the company's financial stability in the eyes of investors. According to signaling theory, companies with good liquidity levels send signals indicating they have a solid financial capacity to handle their obligations, enhancing the market perception of the company's value. Adequate liquidity enables companies to maintain operational flexibility and avoid the risk of financial distress, ultimately increasing the company's attractiveness to investors (Brigham and Houston 2020). Research by Kahfi,

Pratomo, and Aminah (2018); Hapsoro and Falih (2020); Darmawan et al. (2020); Jihadi et al. (2021) found that liquidity has a positive effect on firm value. Companies with high liquidity are perceived as more stable and attractive to investors, increasing their market value. Therefore, the hypothesis in this study is: H_4: Liquidity has a positive effect on firm value.

Leverage refers to a company's use of debt within its capital structure, which can signal management's confidence in its ability to generate sufficient profits to meet its debt obligations. According to signaling theory, an optimal level of leverage is considered a positive signal for investors, indicating that the company is willing to take on debt because it expects its future performance to cover the cost of that debt. Leverage can enhance company value because debt is often a cheaper financing source than equity, and the interest on debt can also provide tax benefits (Brigham and Houston 2020). Several studies, including those by Jihadi et al. (2021); Wahid, Ambarwati, and Satmoko (2022); Lestari (2023); Panjaitan and Supriyati (2023); Zulfa, Azam, and Bandono (2024) found that leverage has a positive effect on firm value. Optimal leverage can increase firm value through financing efficiency and the tax benefits obtained. Therefore, the hypothesis in this study is: H_5: Leverage has a positive effect on firm value.

Firm size is often associated with company value, where larger companies are viewed as more stable and capable of facing higher business risks than smaller companies. Based on signaling theory, company size can serve as a positive signal to investors, indicating that the company has financial resilience and adequate resources to support long-term growth. Larger companies typically have better access to financing and business networks, enabling them to achieve more significant economies of scale and improved operational efficiency, thus enhancing their competitiveness and value in the eyes of investors (Brigham and Houston 2020). Several studies have been conducted, including those by Hapsoro and Falih (2020); Natsir and Yusbardini (2020); Atiningsih and Izzaty (2021); Nurwulandari, Wibowo, and Hasanudin (2021); Lestari (2023); Zulfa, Azam, and Bandono (2024), which found that firm size has a positive effect on firm value. A larger company size can strengthen investors' perception of the company's strength and sustainability, ultimately increasing the market value of the company. Therefore, the hypothesis in this study is: H_6: Firm size has a positive effect on firm value.

Profitability is a key factor that reflects a company's financial performance and is often used as an indicator of the company's ability to generate profits. Based on Signaling Theory, high profitability is considered a positive signal for investors as it reflects management efficiency and good growth prospects, ultimately enhancing the attractiveness and value of the company. Consistent profitability allows a company to strengthen its financial position, support expansion, and enhance flexibility in the face of market uncertainties, all of which contribute to increased company value (Brigham and Houston 2020). Several previous studies have been conducted by Sucuahi and Cambarihan (2016); Tui et al. (2017); Rosikah et al. (2018); Zuhroh (2019); Dwiastuti and Dillak (2019); Darmawan et al. (2020); Natsir and Yusbardini (2020); Sari and Sedana (2020); Sugosha and Artini (2020); Atiningsih and Izzaty (2021); Jihadi et al. (2021); Putri and Wiksuana (2021); Suhendry, Toni, and Simorangkir (2021); Yondrichs et al. (2021); Handayani, Indarto, and Santoso (2022); Budiarti, Moeldjadi, and

Wijayanti (2023); Buti and Wiyarni (2023); Faradila and Effendi (2023); Lestari (2023), which found that profitability has a positive effects on firm value. High profitability is considered to strengthen investor confidence in the company's long-term potential, thereby increasing the company's market value. Therefore, the hypothesis in this study is: H_7: Profitability has a positive effect on firm value.

Profitability is considered capable of mediating the effect of liquidity on firm value because companies with high liquidity have greater financial flexibility to fund operations and investments that support achieving higher profits. Based on signaling theory, companies that can maintain high liquidity signal financial stability to investors, enhancing positive perceptions of the company's profitability potential. Good liquidity can help companies maintain operational smoothness and capitalize on growth opportunities, ultimately enhancing profitability (Brigham and Houston 2020). Research by Putro and Risman (2021) found that profitability can mediate the effect of liquidity on firm value. Good liquidity supports higher profitability, which ultimately increases the company's market value in the eyes of investors. Therefore, the hypothesis in this study is: H_8: Profitability can mediate the effect of liquidity on firm value.

Profitability is seen as capable of mediating the effect of leverage on company value because well-managed leverage can enhance a company's opportunities to generate higher profits, subsequently contributing to an increase in company value. Based on signaling theory, the appropriate use of leverage demonstrates management's confidence in the company's prospects, sending a positive signal to investors that the company can manage debt risk while generating stable profitability. Leverage can be an effective tool for increasing profits, provided the company can manage debt costs and take advantage of the tax benefits derived from interest payments (Brigham and Houston 2020). Research by Suhendry, Toni, and Simorangkir (2021) found that profitability can mediate the relationship between leverage and firm value. Proper leverage can enhance profitability, ultimately strengthening the firm value in the eyes of investors. Therefore, the hypothesis in this study is: H_9: Profitability can mediate the effect of leverage on firm value.

Profitability is believed to be capable of mediating the effect of firm size on firm value, where larger company size often indicates the capacity to generate higher profits, which in turn enhances firm value. Based on Signaling Theory, larger companies can provide positive signals to investors regarding stability and growth potential, indicating that they possess competitive advantages and sufficient resources to achieve sustainable profitability. Larger companies are typically associated with higher operational efficiency and better access to funding sources, which can improve profitability (Brigham and Houston 2020). Subsequent research by Natsir and Yusbardini (2020); Atiningsih and Izzaty (2021) found that profitability can mediate the effect of firm size on firm value. A larger firm size increases profitability, ultimately enhancing the company's value in the eyes of investors. Therefore, the hypothesis in this study is: H_{10}: Profitability can mediate the effect of firm size on firm value.

Based on the theoretical basis of previous studies' results and the problems raised as a basis for formulating a hypothesis, the following framework is presented in the research model in Figure 1.

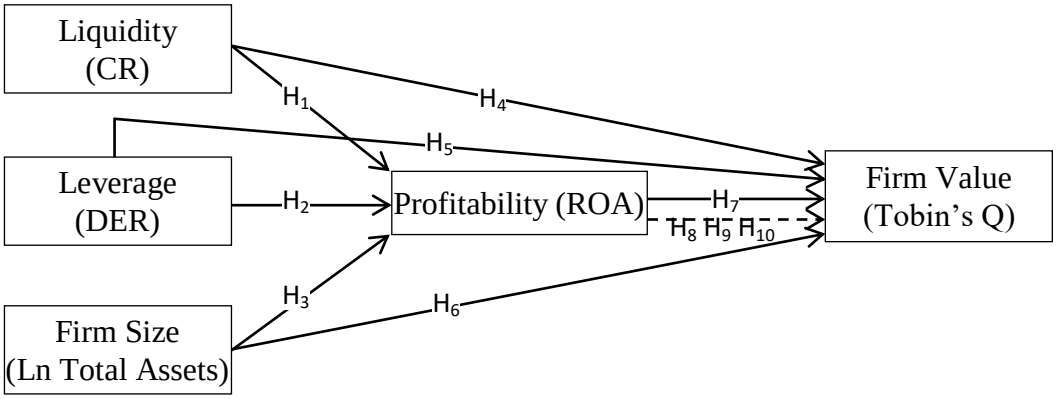

Figure 1 Research Model

METHOD

This study uses a quantitative method, with secondary data in financial reports obtained from the Indonesia Stock Exchange (IDX) website and the sample company websites. The population comprises 71 companies listed in the LQ45 index for 2018-2022. The sampling technique used was purposive sampling with company criteria, as shown in Table 1.

Table 1 Sample Selection Criteria

No.	Criteria	Quantity
1	Companies listed in the LQ45 Index for the period of 2018-2022	71
2	Companies that are continuously listed in the LQ45 Index for the period of 2018-2022	(48)
3	Companies that are part of the banking sector	(5)
4	Total sample of companies	18
5	Total observation periods	5
6	Total research sample: 18 company × 5 years	90

The study employs panel data analysis using EViews 13 software. This technique is appropriate as the data encompasses multiple companies (cross-sections) over several years (time series). Panel data analysis controls unobserved variables, providing more efficient and unbiased estimates compared to separate cross-sectional or time series analyses. Data analysis includes multiple companies (cross-sections) over a defined period (time series), resulting in more efficient estimates than those from separate cross-sectional or time series analyses. Before conducting regression tests, model selection is carried out using the Chow test (to choose between the fixed effect model (FEM) or common effect model (CEM)), the Hausman Test (FEM or random effect model (REM)), and the Lagrange Multiplier Test (REM or CEM).

In this study, firm value is the dependent variable, measured by Tobin's Q (the ratio of market value to book value of assets). Profitability is the mediating variable measured by return on assets (ROA), which reflects the ability to generate profit. The independent variables include liquidity, measured by the current ratio (CR), indicating the ability to meet short-term obligations; leverage,

measured by the debt-to-equity ratio (DER), which shows the use of debt to finance assets; and firm size, measured by the natural logarithm of total assets. Operational variables can be seen in Table 2.

Table 2 Operational Variables

Variables	Measurements	Scale
Liquidity	$\text{CR} = \frac{\text{Current Assets}}{\text{Current Debt}}$ (Adiputra and Hermawan 2020)	Ratio
Leverage	$\text{DER} = \frac{\text{Total Debt}}{\text{Total Equity}}$ (Bintara 2020)	Ratio
Firm Size	SIZE = Ln (Total Asset) (Adiputra and Hermawan 2020)	Ratio
Profitability	$\text{ROA} = \frac{\text{Earning After Tax}}{\text{Total Asset}}$ (Bintara 2020)	Ratio
Firm Value	$\text{TOB\_Q} = \frac{\text{MVE} + \text{Debt}}{\text{TA}}$ (Adiputra and Hermawan 2020)	Ratio

RESULTS AND DISCUSSIONS

Descriptive Statistics

Based on purposive sampling, 18 companies meet the criteria of this study, covering a total research period of 5 years, resulting in 90 observations. Table 3 is the result of descriptive statistics for the research sample.

Table 3 Descriptive Statistics Results

	CR	DER	SIZE	ROA	TOB_Q
Mean	2.069762	0.995962	31.74953	0.098193	2.370528
Median	1.793200	0.716950	31.73615	0.069050	1.328050
Maximum	5.654800	3.582700	33.65520	0.466600	18.35510
Minimum	0.335600	0.126200	30.42460	-0.057200	0.531200
Std. Dev.	1.222886	0.865086	0.858551	0.091028	3.136242
Observations	90	90	90	90	90

Source: secondary data (processed, 2024)

Based on Table 3, the minimum value for liquidity (CR) is 0.335600, observed in the company EXCL in 2019. The maximum value is 5.654800, recorded by the company INCO in 2022. The mean value is 2.069762, with a standard deviation of 1.222886. The minimum value for leverage (DER) is 0.126200, as shown by the company MNCN in 2022, while the maximum value is 3.582700, as indicated by the company UNVR in 2022. The mean value for this variable is 0.995962, with a standard deviation of 0.865086. The minimum value

for firm size (SIZE) is 30.42460, observed in the company MNCN in 2018. The maximum value is 33.65520, recorded by the company ASII in 2022. The mean value for this variable is 31.74953, with a standard deviation of 0.858551. The minimum value for profitability (ROA) is –0.057200, as shown by the company EXCL in 2018. The maximum value is 0.466600, indicated by the company UNVR in 2018. The mean value for this variable is 0.098193, with a standard deviation of 0.091028. The minimum value for firm value (TOB_Q) is 0.531200, observed in the company ANTM in 2021, while the maximum value is 18.35510, recorded by the company UNVR in 2018. The mean value for this variable is 2.370528, with a standard deviation of 3.136242.

Normality Test

Normality testing consists of two structures. The first structure is the influence of liquidity, leverage, and firm size on profitability. The second structure is the influence of liquidity, leverage, firm size, and profitability on firm value. Based on the results of the first structure, the normality probability value is 0.093805> 0.05, meaning that the first structure has normally distributed data. Based on the results of the second structure, the normality probability value is 0.178293> 0.05, meaning that the second structure has normally distributed data.

Model Selection Analysis

The selection of the model in the first structure, namely the influence of liquidity, leverage, and firm size on profitability, uses several tests. Based on the Chow test results, the Cross-section F value is 0.0000 < 0.05, indicating that the chosen model is the fixed effect model (FEM). The Hausman test results show that the Cross-section random value is 0.0005 < 0.05, confirming that the fixed effect model (FEM) is preferred. The Lagrange Multiplier test, Breusch-Pagan, also yields a value of 0.0000 < 0.05, leading to the choice of the random effect model (REM). Therefore, it can be concluded that the best model for this study is the fixed effect model (FEM).

The selection of the model in the second structure, namely the influence of liquidity, leverage, firm size, and profitability on profitability, uses several tests. Like the first structure, the Chow test results indicate a Cross-section F value of 0.0000 < 0.05, leading to the selection of the fixed effect model (FEM). The Hausman test results show a Cross-section random value of 0.0000 < 0.05, confirming the fixed effect model (FEM). The Lagrange Multiplier test also yields a value of 0.0000 < 0.05, supporting the random effect model (REM). Thus, the conclusion remains that the best model for this study is the fixed effect model (FEM).

Panel Data Regression

Based on Table 4, the regression for the first structure is ROA = -1.414084 + 0.013543*CR - 0.078628*DER + 0.049215*SIZE. The regression coefficient value of the liquidity measured by the CR is 0.013543 with a probability value of 0.2171 > 0.05, meaning the liquidity has no effect on profitability, so H_1 is rejected. The regression coefficient value of leverage measured by the DER is -0.078628 with a probability value of 0.0001 < 0.05, meaning leverage has a negative effect on profitability, so H_2 is rejected. The regression coefficient value

of firm size followed by SIZE is 0.049215 with a probability value of 0.0301 < 0.05, meaning firm size has a positive effect on profitability, so H_3 is accepted. Furthermore, the Adjusted R-squared value is 0.830046, which allows us to conclude that the influence of liquidity, leverage, and firm size on profitability accounts for 83.00%, while the remaining 17.00% is attributed to other factors.

Table 4 Regression Test Results

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.414084	0.696202	-2.031140	0.0461
CR → ROA	0.013543	0.010871	1.245752	0.2171
DER → ROA	-0.078628	0.018517	-4.246255	0.0001
SIZE → ROA	0.049215	0.022228	2.214097	0.0301
Adjusted R-Squared	0.830046			
C	31.74085	16.91184	1.876842	0.0648
CR → TOB_Q	0.328991	0.259389	1.268330	0.2090
DER → TOB_Q	-1.647843	0.490714	-3.358054	0.0013
SIZE → TOB_Q	-0.925157	0.542815	-1.704370	0.0929
ROA → TOB_Q	9.809679	2.840672	3.453295	0.0010
Adjusted R-Squared	0.920282			
CR → ROA → TOB_Q	-	0.113378	1.171868	0.2413
DER → ROA → TOB_Q	-	0.287895	-2.679160	0.0074
SIZE → ROA → TOB_Q	-	0.259019	1.863894	0.0623

Source: secondary data (processed, 2024)

Based on Table 4, the regression for the second structure is TOB_Q = 31.74085 + 0.328991*CR - 1.647843*DER - 0.925157*SIZE + 9.809679*ROA. The regression coefficient value of the liquidity measured by the CR is 0.328991 with a probability value of 0.2090 > 0.05, meaning the liquidity does not affect firm value, so H_4 is rejected. The regression coefficient value of leverage measured by the DER is -1.647843 with a probability value of 0.0013 < 0.05, meaning leverage has a negative effect on firm value, so H_5 is rejected. The regression coefficient value of company size followed by SIZE is -0.925157 with a probability value of 0.0929 > 0.05, meaning firm size does not affect firm value, so H_6 is rejected. The regression coefficient value of profitability measured by the ROA is 9.809679 with a probability value of 0.0010 < 0.05, meaning profitability has a positive effect on firm value, so H_7 is accepted. Furthermore, the Adjusted R-squared value is 0.920282, indicating that the influence of liquidity, leverage, firm size, and profitability on firm value accounts for 92.03%, with the remaining 7.97% influenced by other factors.

The results of the Sobel test (Table 4) show that CR → ROA→ TOB_Q has a probability of 0.2413 > 0.05, meaning profitability cannot mediate the liquidity effect on firm value, so H_8 is rejected. DER → ROA → TOB_Q has a probability of 0.0074 < 0.05, meaning profitability can mediate the effect of leverage on firm value, so H_9 is accepted. SIZE → ROA → TOB_Q has a probability of 0.0623 > 0.05, meaning profitability cannot mediate the effect of firm size on firm value, so H_{10} is rejected.

The Effect of Liquidity on Profitability

This study found that liquidity, as measured by the Current Ratio (CR), does not affect profitability in LQ 45 index companies. According to signaling theory, high liquidity can provide a positive signal to investors regarding the company's financial stability. However, its impact on profitability is limited if it is not used productively. Brigham and Houston (2020) support this view by stating that high liquidity is often maintained for safety purposes. However, if the funds are only stored or allocated for less productive activities, its effect on profitability remains minimal. This finding suggests that although LQ45 companies generally have good financial performance and high liquidity, their ability to meet short-term obligations does not always directly impact increasing profits. This is due to the less-than-optimal efficiency of using current assets, such as inventory and receivables, which may not be allocated productively to support revenue-generating activities. In addition, the profitability of LQ45 companies is more likely to be influenced by other factors, such as operational strategy, cost structure, leverage, or dividend policy, which are more dominant in influencing financial results. These finding underlines that while high liquidity is important for maintaining financial stability, companies need to ensure that liquid assets are managed efficiently and directed towards investments or operational activities that can increase profitability. This finding is consistent with previous studies by Krismunita and Imronudin (2021); Handayani, Indarto, and Santoso (2022), which found that liquidity did not affect profitability. Thus, this finding reinforces the idea that liquidity, as measured by CR, only provides limited benefits to profitability if not accompanied by an effective asset utilization strategy.

The Effect of Leverage on Profitability

This study found that leverage, as measured by the debt-to-equity ratio (DER), has a negative effect on profitability, as measured by return on assets (ROA), in companies listed in the LQ45 index on the Indonesia Stock Exchange. Based on signal theory, optimal leverage can send a positive signal to investors, indicating that the company is confident in managing debt to maximize profitability. Well-managed leverage can provide tax benefits by reducing taxable income through interest expenses; however, excessive debt use increases the risk of bankruptcy (Brigham and Houston 2020). In practice, companies in the LQ45 index often utilize debt to enhance operations and expand their markets, particularly when investment opportunities are abundant but internal resources are limited. These findings indicate that higher reliance on debt financing among these leading companies tends to reduce their ability to generate profits from their assets. A high DER typically leads to increased interest expenses and fixed financial obligations, ultimately eroding the company’s net profit. Moreover, a high DER reflects greater financial risk, which can limit a company’s operational flexibility in seizing strategic opportunities. The negative impact on profitability may also result from inefficient allocation of debt funds, where investments fail to generate returns higher than the cost of borrowing. These results underscore the importance of prudent debt management for LQ45 companies, which are recognized for their superior financial and operational performance. While debt can be a tool for driving growth, excessive reliance without careful planning can harm profitability. Therefore, maintaining an optimal balance between debt and

equity in the capital structure is crucial to sustaining profitability while managing financial risks effectively. The results align with studies by Bintara (2020); Nugraha et al. (2020), which found that leverage has a negative effect on profitability.

The Effect of Firm Size on Profitability

This study found that firm size, measured using the natural logarithm of total assets (Ln Total Assets), has a positive effect on profitability, as measured by return on assets (ROA), in companies listed in the LQ45 index on the Indonesia Stock Exchange. Based on signal theory, a larger company sends a positive signal to investors about stability and growth potential, which enhances confidence in the company's ability to generate profits. Larger companies typically have better access to resources, such as funding, technology, and skilled labor, which supports operational efficiency and profitability (Brigham and Houston 2020). These findings suggest that large companies in the LQ45 index generally have substantial assets and can leverage economies of scale and competitive advantages to improve operational efficiency and generate higher profits. As leading companies with strong reputations, LQ45-listed firms usually have easier access to capital markets, allowing them to obtain financing at relatively lower costs. Furthermore, these large companies have more excellent capabilities in product diversification, market penetration, and risk management, all of which contribute to improved profitability. The large size of these companies also gives them strong bargaining power with suppliers and customers, creating opportunities to enhance profit margins. However, these findings also emphasize the importance of effective asset management, even for large companies listed in LQ45. Large assets will not provide maximum benefits if they are not utilized efficiently to support value-generating activities. Therefore, companies must continuously improve their asset management strategies to ensure a positive contribution to profitability. These results indicate that company size is one of the key factors that can support profitability, especially in a competitive business environment like the LQ45 index. Large companies that successfully leverage economies of scale and competitive advantages tend to have better financial performance than smaller ones. This finding is consistent with previous research conducted by Hirdinis (2019); Natsir and Yusbardini (2020); Atiningsih and Izzaty (2021), which found that firm size influences profitability, as larger companies can optimize their assets for productive activities and achieve higher profits.

The Effect of Liquidity on Firm Value

This study shows that liquidity, measured using the Current Ratio (CR), does not affect firm value, measured by Tobin's Q, for companies listed on the LQ45 index on the Indonesia Stock Exchange. According to signal theory, high liquidity should indicate financial stability, but if current assets are not productively invested in ventures with high returns, their impact on firm value remains limited. Brigham and Houston (2020) also emphasize that excessive liquidity may signal inefficient use of assets, as liquid assets not allocated to productive investments do not directly contribute to increasing firm value. In practice, many companies in the LQ45 index maintain high liquidity as a reserve against economic uncertainty but tend not to use it for long-term value growth.

These findings indicate that a company's ability to meet its short-term obligations is not a primary factor influencing the market's perception of firm value among these prominent companies. Excessive liquidity in large companies, such as those listed in LQ45, may reflect inefficient cash management. Investors view this as indicating that available funds are not utilized for productive investment opportunities, such as business expansion, product innovation, or diversification strategies. Consequently, the market prioritizes other factors, such as profitability, growth prospects, and operational efficiency, when assessing firm value.

Companies in the LQ45 index generally have easy access to low-cost external financing due to their reputation and credibility. Therefore, liquidity in high current assets may be less relevant than long-term investment and growth strategies. Furthermore, the capital market tends to value companies that enhance operational efficiency and allocate resources optimally rather than those that maintain high liquidity. These results also reflect that the Indonesian capital market, particularly in the LQ45 context, is more influenced by strategic indicators such as return on investment, earnings stability, and innovation rather than merely the company's ability to meet short-term obligations. Thus, while liquidity remains essential for maintaining operational stability, LQ45 companies must focus on strategies that enhance added value and attract investor interest. However, companies must maintain a balance of sufficient liquidity to ensure operational stability and support the implementation of growth strategies that can increase firm value in the eyes of investors. These findings are consistent with Putri and Wiksuana (2021); Adiputra and Hermawan (2020); Nurwulandari, Wibowo, and Hasanudin (2021); Putro and Risman (2021); Suhendry, Toni, and Simorangkir (2021); Yondrichs et al. (2021); Wahid, Ambarwati, and Satmoko (2022); Handayani, Indarto, and Santoso (2022); Budiarti, Moeldjadi, and Wijayanti (2023); Panjaitan and Supriyati (2023); Ripaluddin, Pasulu, and Taufiq (2023); Zulfa, Azam, and Bandono (2024), who found that liquidity did not affects firm value.

The Effect of Leverage on Firm Value

This study found that leverage, as measured by the debt-to-equity Ratio (DER), has a negative effect on firm value as measured by Tobin's Q in companies listed in the LQ45 index on the Indonesia Stock Exchange. According to signal theory, appropriate leverage sends a positive signal to investors that the company can manage debt to improve performance and value. Brigham and Houston (2020) noted that leverage can offer tax benefits through interest deductions; however, excessive debt increases the risk of bankruptcy, potentially reducing the perception of the company's value. In practice, LQ45 index companies often use leverage to strengthen capital and expand the market, thereby increase ng their attractiveness to investors. This negative relationship suggests that leading companies in the LQ45 with high leverage levels tend to experience a decline in the company's value perceived by the market. In the context of LQ45 companies, which generally have a good reputation and easier access to external financing, high leverage can raise concerns among investors regarding financial risk. Heavy reliance on debt financing can increase interest expenses, reducing net income available to shareholders. This can also exacerbate liquidity risk, especially in uncertain economic conditions.

Furthermore, high DER in LQ45 companies can indicate a lack of efficiency in capital structure management. Although these companies usually can attract investment due to their reputation and credibility, excessive use of debt can reduce their financial flexibility in allocating funds to strategic growth opportunities, such as business expansion, diversification, or product innovation. From a market perspective, investors tend to focus more on other performance indicators, such as profitability, operational efficiency, and growth stability, than high leverage levels. Excessive leverage can also create the perception that the company is riskier and less oriented towards long-term growth, which ultimately reduces the company's market value, as reflected in Tobin's Q. The results of this study imply that companies in the LQ45 index need to maintain a balance between the use of debt and equity in their capital structure. Focusing on operational efficiency, financial stability, and sustainable growth strategies is more likely to attract investors and increase the company's value in the eyes of the market. The results of this study are in line with the results of studies conducted by Fosu et al. (2016); Kahfi, Pratomo, and Aminah (2018); Simorangkir (2019); Ripaluddin, Pasulu, and Taufiq (2023), which found that leverage has a negative effect on firm value.

The Effect of Firm Size on Firm Value

The research findings indicate that firm size, measured by Ln total assets, does not affect firm value, measured by Tobin's Q. This means that the total assets owned by a company do not significantly impact the perceived market value of the firm. In the context of signaling theory, large companies with greater resources and stability do not necessarily send positive signals to investors, especially if they face managerial challenges or operational inefficiencies. In a competitive business environment, firm size alone is not a determining factor of value (Brigham and Houston 2020). Firm size is often seen as an indicator of operational strength and financial stability. Companies with substantial assets generally possess a higher capacity to operate on a larger scale, diversify revenue streams, and mitigate external risks. However, in this case, the findings suggest that merely owning significant assets is insufficient to negatively or positively impact firm value.

The market tends to evaluate more than just the size of assets, focusing instead on how effectively a company manages and utilizes those assets to generate revenue, profit, and returns on investment. If a company fails to optimize asset utilization, having a larger size does not necessarily provide a competitive advantage. Conversely, the market is likely to prioritize operational efficiency, asset productivity, and the long-term investment strategies implemented by the company. In large companies like those listed in the LQ45 index, firm size may not be the primary factor influencing value. These companies typically have other advantages, such as easy access to financing, strong reputations, and opportunities to achieve economies of scale. Therefore, the market is more inclined to assess performance based on other indicators, such as profitability, innovation, revenue growth, or business diversification, rather than merely the size of the company's assets. These results align with Adiputra and Hermawan (2020), Yulandri, Hertina, and Asih (2023), which found that firm size does not affect firm value.

The Effect of Profitability on Firm Value

The research findings indicate that profitability, measured using return on assets (ROA), has a positive effect on firm value, as measured by Tobin's Q. This implies that the higher a company's ability to generate profits from its total assets, the higher the firm's value perceived by the market. High profitability reflects a company's efficiency in utilizing its income-generating assets. In financial theory, strong profitability sends a positive signal to investors about the company's financial health and capacity to deliver sustainable returns. This aligns with signaling theory, which posits that good financial performance builds investor confidence and enhances the company's attractiveness in capital markets. Brigham and Houston (2020) noted that in a competitive business environment, investors tend to focus on financial performance as an indicator of growth potential, where strong profitability fosters trust in the company's capacity for expansion. A high ROA also demonstrates effective asset management and significant net profit generation. Consequently, companies with high ROA are considered more appealing as they signify operational efficiency and the potential to provide substantial returns to shareholders. In the context of companies listed in the LQ45 index, the positive effect of profitability on firm value becomes even more relevant. These firms typically have better access to resources and more significant business opportunities, making their profits more impactful on their market value. A high Tobin's Q value in such companies reflects a market appreciation for their efficiency and profitability performance. These findings are consistent with previous studies conducted by Sucuahi and Cambarihan (2016); Tui et al. (2017); Rosikah et al. (2018); Zuhroh (2019); Dwiastuti and Dillak (2019); Sari and Sedana (2020); Darmawan et al. (2020); Natsir and Yusbardini (2020); Sugosha and Artini (2020); Jihadi et al. (2021); Putri and Wiksuana (2021); Yondrichs et al. (2021); Suhendry, Toni, and Simorangkir (2021); Atiningsih and Izzaty (2021); Handayani, Indarto, and Santoso (2022); Budiarti, Moeldjadi, and Wijayanti (2023); Buti and Wiyarni (2023); Faradila and Effendi (2023); Lestari (2023), which also found that profitability positively influences firm value.

Profitability as a Mediator of the Effect of Liquidity on Firm Value

This study reveals that profitability, measured using return on assets (ROA), cannot mediate the effect of liquidity, measured by the Current Ratio (CR), on firm value, measured by Tobin's Q. This indicates that while liquidity is an important factor, profitability does not always function as a linking element that strengthens the relationship. In signaling theory, good liquidity can positively signal a company's financial health. However, if profitability is low, investors may remain skeptical about the company's long-term growth prospects, hindering an increase in firm value. Brigham and Houston (2020) state that companies with high liquidity but low profitability are often perceived as high-risk, reducing their attractiveness to investors. These findings suggest that although liquidity reflects a company's ability to meet its short-term obligations, it does not significantly influence firm value through the profitability pathway. From a liquidity perspective, the CR is often used to assess a company's ability to maintain short-term financial stability. However, a high liquidity ratio does not necessarily indicate efficient utilization of assets or working capital to generate profits. If a

company merely maintains liquidity without utilizing excess current assets to support operational or investment activities, its impact on profitability—and consequently on firm value—becomes limited.

Profitability, represented by ROA, typically reflects a company's efficiency in managing assets to generate profits. However, this study reveals that ROA cannot strengthen the relationship between CR and Tobin's Q. High liquidity does not always generate sufficient profits to influence market perceptions of firm value. In other words, the market does not focus solely on liquidity and profitability but also considers other variables, such as growth, innovation, or investment strategies. This study, conducted on companies listed in the LQ45 index, further validates these findings. Companies within the LQ45 index typically have greater access to resources and business opportunities, making their liquidity more stable. However, in a competitive environment, the market evaluates companies based on other indicators, such as operational efficiency, innovation, or long-term growth strategies, rather than solely focusing on the relationship between liquidity and profitability. These findings align with studies by Handayani, Indarto, and Santoso (2022); Ripaluddin, Pasulu, and Taufiq (2023), which found that profitability cannot mediate the effect of liquidity on firm value.

Profitability as a Mediator of the Effect of Leverage on Firm Value

The research findings indicate that profitability, as measured by return on assets (ROA), can mediate the relationship between leverage, measured by the debt-to-equity ratio (DER), and firm value, measured by Tobin's Q. In other words, the influence of leverage on firm value is not solely direct but also involves profitability as a connecting pathway. High leverage, as reflected by a high DER, indicates that a company significantly utilizes debt in its capital structure. This can provide strategic advantages if the debt is allocated to productive investments, leading to higher profits. However, high leverage also entails substantial financial risks, such as the potential for default, which may diminish investor confidence. In this context, profitability is a key indicator of the company's efficiency in utilizing its assets to generate profits while managing the risks associated with debt usage. When a company optimally uses debt to boost productivity and generate substantial net income, it reflects sound financial management. High ROA signals the market that the company effectively manages its assets, even under significant debt obligations. This, in turn, enhances investor confidence in the company's ability to sustain growth, thereby increasing firm value, as evidenced by an improvement in Tobin's Q.

Under the framework of signaling theory, companies with strong profitability send positive signals to investors, demonstrating their ability to manage not only leverage-related risks but also deliver significant returns. High profitability creates a perception that the company has solid fundamentals, intense competitiveness, and promising long-term growth prospects, thereby boosting its value in the eyes of the market. Brigham and Houston (2020) emphasize that leverage can enhance shareholder returns as long as companies can generate sufficient profits to cover debt costs. This study underscores the importance of proper leverage management, with profitability as a critical success factor. Leverage utilized without sufficient profitability may only amplify risks.

However, when accompanied by improved operational efficiency, as reflected by a higher ROA, its impact on firm value becomes more significant. Thus, companies that successfully manage this relationship are more likely to attract investor interest and enhance their competitiveness in the market. These findings align with Suhendry, Toni, and Simorangkir (2021) research, which also found that profitability can mediate the relationship between leverage and firm value. Profitability plays a vital role in bridging the gap between leverage and firm value, as companies that efficiently manage debt and generate profits tend to have higher perceived value among investors. This demonstrates that profitability reflects a company's financial health and enhances investors' perceptions of the risks and potential returns associated with using debt.

Profitability as a Mediator of the Effect of Firm Size on Firm Value

The study conducted on companies listed in the LQ45 index reveals that profitability, measured using return on assets (ROA), cannot mediate the effect of firm size, measured by Ln Total Assets, on firm value, measured by Tobin's Q. This finding indicates that, although companies in the LQ45 index generally possess substantial assets, the profitability generated from these assets is not sufficiently significant to strengthen the relationship between firm size and firm value. Companies within the LQ45 index are known for their large market capitalization and extensive access to capital markets. However, the results show that possessing significant assets alone cannot enhance firm value through profitability. One possible explanation is that these sizable assets are not yet optimally managed to generate profits. High operational costs, long-term investments that have not yielded results, or reliance on specific markets could hinder asset utilization efficiency. Moreover, investors focusing on LQ45 companies tend to consider factors beyond firm size and profitability. Indicators such as innovation, sustainability, long-term growth strategies, and global competitiveness are often prioritized. Thus, having substantial assets without accompanying operational efficiency and effective profit management might not significantly impact investors' perception of firm value.

Under the signaling theory, large firms often signal stability and business continuity to investors; however, firm size alone does not guarantee high profitability. High profitability can positively signal a company's financial efficiency and sustainability. Brigham and Houston (2020) explain that, in practice, large companies with extensive assets may not always efficiently manage their resources, leading to lower profitability. In this case, if ROA is not sufficiently high, investors remain skeptical about the company's ability to utilize its assets optimally. This highlights the need for LQ45 companies to focus on asset accumulation and efficient management to generate significant profits. The findings of this study carry important implications for companies in the LQ45 index. These companies need to improve the efficiency of managing their large assets to boost net profits. Additionally, they must develop long-term strategies involving innovation, business diversification, and better cost management. Through such efforts, these companies can send positive signals to investors about their financial fundamentals while enhancing firm value. This research aligns with the findings of Hirdinis (2019), which showed that profitability cannot mediate the relationship between firm size and firm value.

CONCLUSIONS

The findings indicate that liquidity does not affect profitability, leverage has a negative effect on profitability, and firm size has a positive effect on profitability. Furthermore, liquidity does not affect firm value, leverage negatively affects firm value, firm size does not affect firm value, and profitability positively affects firm value. Additionally, profitability cannot mediate the effects of liquidity and firm size on firm value but can mediate the effect of leverage on firm value. This research provides valuable insights into the relationships among these variables in the Indonesian capital market, particularly for companies in the LQ45 index. Within the framework of signaling theory, the study highlights that signals from liquidity and firm size are only effective if supported by significant profitability. The findings underscore the importance of prudent leverage management, asset optimization, and long-term growth strategies such as innovation and diversification to enhance a firm's competitiveness. The study emphasizes that large assets or high liquidity alone cannot enhance firm value without optimal management and well-directed business strategies.

This study has limited data from non-bank companies in the LQ45 index for the 2018–2022 period so that it can limit the generalization of findings to all companies listed on the Indonesia Stock Exchange (IDX) or those in other sectors. Then, this study only considers important variables such as liquidity, leverage, company size, and profitability. To extend the usefulness of these findings, further research is suggested to include companies outside the LQ45 index, additional variables such as innovation, risk management, or corporate governance quality, and utilize more complex methodologies such as structural equality modelling (SEM). These approaches can provide deeper insights into the financial dynamics of the Indonesian capital market.

Companies are advised to prioritize efficiency in leverage management to ensure debt is productively utilized in profit-generating activities, as high leverage without a solid strategy can diminish firm value. Financial transparency and corporate governance are also essential for building investor confidence, particularly among institutional investors who are more sensitive to risk. For investors, it is important to prioritize profitability as a key indicator when evaluating companies with high leverage, as it reflects the firm’s ability to manage financial risks and generate returns. Diversifying portfolios across various sectors and firm sizes is also recommended to mitigate risks and enable more informed investment decisions.

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