

LEVERAGE ON FIRM VALUE: THE ROLE OF FINANCIAL PERFORMANCE MECHANISMS

Rizqa Anita^{*1}, Giri suseno^{*}, Muhammad Rasyid Abdillah^{*}

^{*}Universitas Lancang Kuning
Jl. Yos sudarso KM. 8 Rumbai, Pekanbaru, Indonesia

Abstract: During the COVID-19 pandemic, several companies increased their leverage to enhance their performance and ultimately impact the value of their firm. The purpose of this study is to investigate the relationship between leverage and firm value as well as to examine the potential mediating role of firm performance, specifically return on equity and earnings per share. The study employs a quantitative approach, utilizing the partial least squares-structural equation modeling (PLS-SEM) tool, with a sample of 687 companies listed on the Indonesia Stock Exchange (IDX) for the 2021 period. Sampling was conducted using a purposive sampling method. The findings indicate that leverage does not have a direct impact on firm value, but rather, the mediating role of return on equity is significant in this relationship. In contrast, earnings per share were found not mediate the relationship between leverage and firm value. This study provides an important contribution in the field of financial performance to managers and investors in making decisions. Limitations and suggestions for future research will be discussed.

Keywords: decisions making, financial performance, firm value, indonesia stock exchange, leverage, structural equation modeling

Abstrak: Selama pandemi COVID-19, beberapa perusahaan meningkatkan leverage untuk meningkatkan kinerja mereka dan pada akhirnya berdampak pada nilai perusahaan mereka. Tujuan dari penelitian ini adalah untuk menyelidiki hubungan antara leverage dan nilai perusahaan serta untuk menguji potensi peran mediasi kinerja perusahaan, khususnya pengembalian ekuitas dan laba per saham. Penelitian ini menggunakan pendekatan kuantitatif dengan menggunakan alat Partial Least Squares-Structural Equation Modeling (PLS-SEM) dengan sampel sebanyak 687 perusahaan yang terdaftar di Bursa Efek Indonesia (BEI) periode tahun 2021. Pengambilan sampel dilakukan dengan menggunakan metode purposive sampling. Temuan menunjukkan bahwa leverage tidak memiliki dampak langsung pada nilai perusahaan, melainkan peran mediasi return on equity signifikan dalam hubungan ini. Sebaliknya, laba per saham ditemukan tidak memediasi hubungan antara leverage dan nilai perusahaan. Studi ini memberikan kontribusi penting di bidang kinerja keuangan kepada manajer dan investor dalam mengambil keputusan. Keterbatasan dan saran untuk penelitian selanjutnya akan dibahas.

Kata kunci: pengambilan keputusan, kinerja keuangan, nilai perusahaan, bursa efek indonesia, leverage, structural equation modeling

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¹ Corresponding author:
Email: rizqa.anita@unilak.ac.id

INTRODUCTION

The Indonesia Stock Exchange (IDX) is a capital market that facilitates the trading of both long-term and short-term financial instruments, such as stocks and bonds (Bratamanggala, 2018). Fundamental factors, including leverage (DER), return on equity (ROE), and earnings per share (EPS), are considered important indicators of financial performance and management effectiveness in increasing the value of a firm for investors (Endri et al. 2019; Prihatni et al. 2020). Before investing in stocks in the capital market, an investor must consider whether the invested capital will provide the expected return by analyzing the company's financial performance (Fama & French, 2006; Pardal et al. 2020). Investor warnings about a stock are influenced by the company's financial performance and the risks it faces, as this will provide an indication of the company's prospects in the future (Prihatni et al. 2020).

According to research by Shen et al. (2020), the impact of Covid-19 had a negative effect on company performance. The sectors most severely impacted by Covid-19 were tourism, transportation, and entertainment, due to lockdowns and the prioritization of health over other concerns (Shen et al. 2020).

Based on Figure 1, it showed companies in Indonesia experienced an increase prior to Covid-19, from 2011 to 2019. In 2019, the JCI was at 6.299, but in 2020, the JCI experienced a sharp decline to 4.926. However, in 2021, the IHSG of Indonesian companies experienced a significant increase to 6.581.

Vo et al. (2022) and Kim (2022) explained that several companies have increased their debt and were able to survive during the pandemic as well as to increase the value of their companies. Therelatively improved performance of companies in Indonesia will have a positive impact on investors and shareholders. However, not all companies experienced an increase, and there were several sub-sectors that experienced a decline. Based on Jakarta Composite Index chart (IHSG) industrial classification (Figure 2) in 2021, it described overall, the sub-sectors of companies in Indonesia are still able to survive after the Covid-19 pandemic. There are three sub-sectors that have decreased, namely the property sector, which has experienced a decrease of -19.11%. The non-cyclical sector is -16.04%, and the transportation sector is -1.03%. Meanwhile, companies in sectors with good growth include the energy sector, which grew by 45.56%, followed by the cyclical sector by 21.21%, and the finance sector by 21.14%.

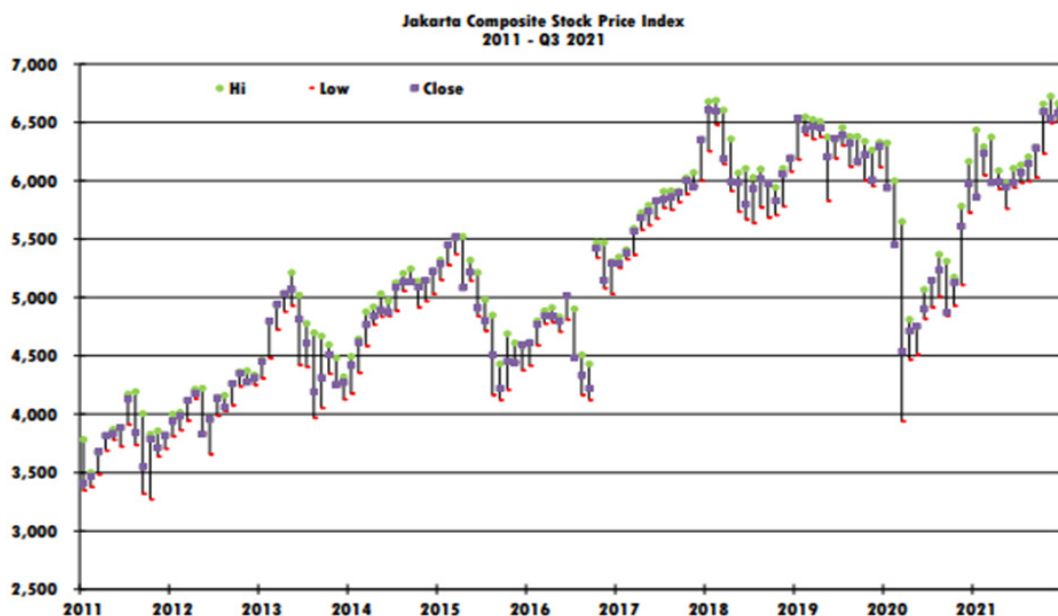


Figure 1. Jakarta Composite Index chart (IHSG)

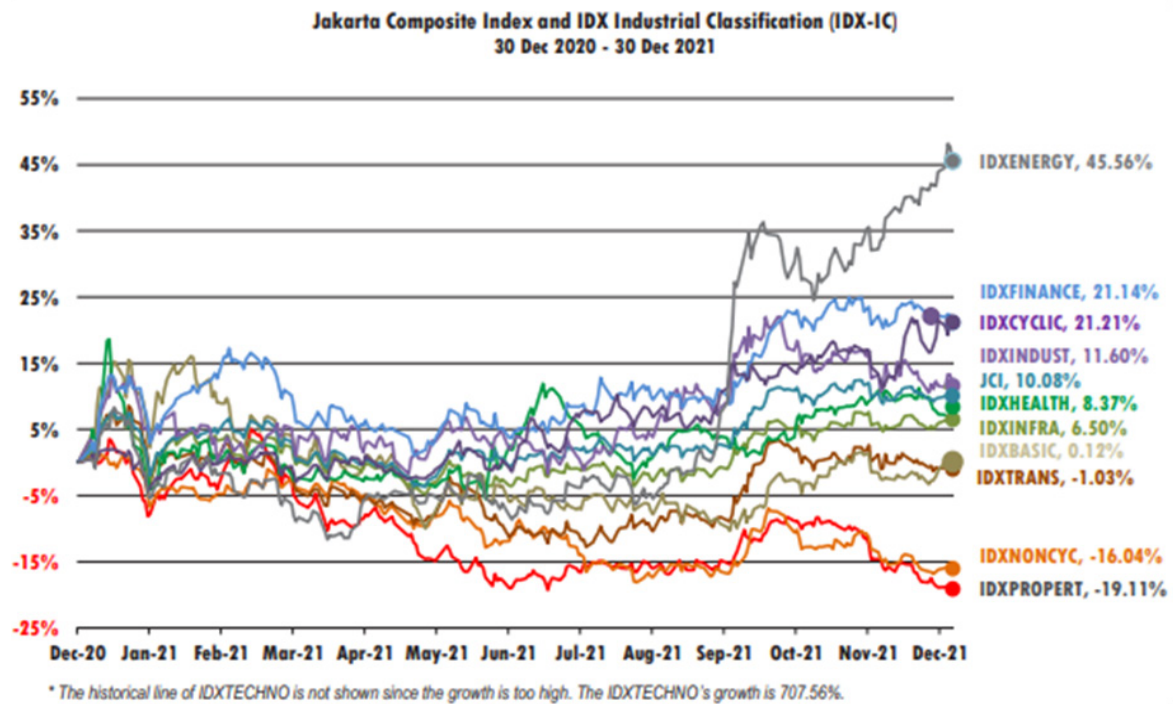


Figure 2. Jakarta Composite Index chart (IHSG) industrial classification (IDX-IC)

The optimal capital structure, or the balance between debt and capital, is still a widely debated topic (Fosu, 2013). Does higher debt increase or decrease the value of a company? The debt-to-equity ratio is one of the leverage ratios used to measure the level of debt compared to equity (Endri et al. 2019; Kasmir, 2018). The level of corporate debt is a significant concern for investors in purchasing shares as it relates to the risk that they will bear as guarantors (Endri et al. 2019). An increase in debt, if properly managed by the company, will be responded to positively by the market, so that changes in capital structure will have a positive impact on the value of the company (Prihatni, 2020). Debt can improve company performance, which will have an impact on the value of the company, which in turn affects stock prices (Ibhagui & Olokoyo, 2018).

Profitability ratios are a reflection of a company's performance (Kasmir, 2018). High profitability is a factor that attracts investors, as it indicates the efficiency of a company in using its finances to generate returns on capital (Haryanto, et al. 2019). One profitability ratio of particular interest is the return on equity (ROE), which measures how successful a company is in generating profits for its shareholders (Prihatni, 2020). Earnings per share (EPS) is another indicator that can demonstrate a company's performance and the management's success in achieving profits for the owners (Bratamanggala, 2019). In addition, EPS

represents the amount earned for each share of the company (Kasmir, 2018). It is calculated by dividing the net profit after tax by the number of outstanding shares (Kasmir, 2018). Investors often rely on EPS information as a benchmark in making investment decisions (Herawati & Putra 2018).

Companies with high value often attract the attention and trust of investors. The value of a company is reflected in its stock price (Herawati & Putra, 2018). Stock prices are influenced by both fundamental and technical factors (Endri, et al. 2019; Prihatni, 2020). Investors generally seek to achieve both capital gains and dividends when purchasing shares (Medyawati & Yunanto, 2017). Capital gains refer to the difference between the buying and selling price of shares, while dividends represent profits distributed to stakeholders (Medyawati & Yunanto, 2017). By owning shares in a company, investors have the right to the company's income and assets after all company obligations have been paid (Herawati & Putra, 2018). Based on this, it can be assumed that there are two indirect factors that influence the relationship between leverage and firm value, namely return on equity (ROE) and earnings per share (EPS).

This study has a potential contribution. First, theoretically, previous researchers (Ibhagui & Olokoyo, 2018; Herawati & Putra, 2018; Fosu, 2013)

only focused on the effect of debt on stock prices and financial performance. This research is an initial effort to broaden understanding and develop a research model on the mechanism of the dual mediating effect of financial performance, namely return on equity (ROE) and earnings per share (EPS) tend to increase firm value. This study proposes Return on Equity (ROE) and earnings per share (EPS) as new mediating variables to explain how and why leverage can increase firm value. This study integrates agency theory, signaling theory, and trade-off theory, each theory explaining how leverage can increase firm value through return on equity (ROE) and earnings per share (EPS). Second, empirically this study provides an overview of the performance conditions of all Indonesian companies. Previous studies only examined companies per sub-sector on the IDX. Subsequent research expands the generalization of understanding regarding policy leverage in increasing company value after the Covid-19 pandemic. Third, practically for managerial purposes, this research provides an overview of management's important role of leverage which has a positive impact on increasing company value after the Covid-19 pandemic. This research provides an overview to investors. That the investment decision to buy shares must understand the changes that occur, especially the fundamental variables, especially leverage, return on equity (ROE), and earnings per share (EPS) which affect the value of the company and also contribute knowledge to future academics and researchers in the same field.

METHODS

This research employs a positivist philosophy and uses a quantitative approach based on causality. It utilizes secondary data, specifically cross-sectional financial ratio data (DER, ROE, EPS, and stock prices) obtained from www.idx.co.id, as well as data from various journals and the internet. The analytical tool employed in this study is Partial Least Squares (PLS) using the Smart PLS computer program version 3.2.9, using the model and research framework proposed by Anita et al. (2020) and Abdillah et al. (2022). According to Hair et al. (2017), PLS has the advantage of not requiring normally distributed data and can be used with a small sample size. Ghazali & Latan (2021) also note that research using secondary data does not need to test validity and reliability with a single indicator (outer

model), so this research only tests the inner model. The decision on statistical significance is based on a P-value less than 0.05 or a T statistic above 1.96 (Ghozali & Latan, 2021).

In this study, Table 1 shows that the population consists of all companies listed and published on the Indonesia Stock Exchange (IDX) in 2021, totaling 729 companies. The sample size for this study is 687 companies, selected using a non-probability purposive sampling method that selects data based on specific criteria that represent the population. The research sample criteria are presented in Table 1 regarding data processed by researcher in 2022.

Table 1. Research sample criteria

Sample criteria	Number of samples
Companies listed on the IDX for the 2021 period	729
Companies that do not have complete data on the IDX for the 2021 period	(42)
Number of samples	687

Based on Figure 3 that showed the research framework, this study will explain several variables used in this study. The dependent variable in this study is the value of the company using the closing price measurement tool on December 31, 2021. Shares can be defined as certificates showing proof of company ownership, and shareholders are entitled to benefit from the income earned by the company (Herawati & Putra, 2018). By owning shares, shareholders will benefit in the form of dividends and capital gains (Medyawati & Yunanto, 2017). The mediating variable uses financial performance which uses a measuring instrument, Return on assets (ROE), and earnings per share (EPS).

1. Return on equity (ROE) is calculated as the ratio of net profit after tax to total equity (Kasmir, 2018; Haryanto et al. 2019; Prihatni, 2020). As for the formula:

$$ROE = (\text{Net profit}) / (\text{Total equity}) \times 100\%$$

2. Earning per share (EPS) compares net profit after tax and the number of outstanding shares (Kasmir, 2018). As for the formula:

$$EPS = (\text{Income after tax}) / (\text{Number of outstanding shares})$$

The independent variable uses the capital structure variable, which uses the debt-to-equity ratio (DER) measuring instrument. DER compares the debt a company owns and its own capital (Kasmir, 2018). This ratio is called the leverage ratio or solvency to measure the optimal capital structure in the company (Kasmir, 2018). As for the formula:

$$\text{DER} = (\text{Total debt})/(\text{Total equity}) \times 100\%$$

Signaling theory

The signaling theory, first developed by Spence (1973), posits that companies (signalers) can influence the decisions of investors (signal recipients) through the information they provide (Ghozali, 2020; Haryanto et al. 2019; Endri et al. 2019). Companies that are able to successfully navigate the challenges of the Covid-19 pandemic can send positive signals to investors. Optimal debt management can provide benefits (Wardani & Subowo, 2020) and companies with high profitability are likely to have more internal funds than those with low profitability (Adair & Adaskou, 2015). When a company is profitable, it is able to return its own capital and pay off its debts. When companies with high debt are able to manage it effectively and efficiently (Haryanto et al. 2019), this can have a positive impact on earnings per share, and in turn, the dividends investors receive. This can increase the value of the company in the eyes of investors and creditors, and send a positive signal that the company is able to pay its debts and generate significant profits (Prihatni, 2020).

Trade-off theory

The trade-off theory, developed by Modigliani and Miller in 1958, suggests that there is an optimal level of debt for a company, in which the value of the company is maximized through a balance between tax savings and bankruptcy costs (Jarallah et al. 2019; Glover & Hambusch, 2014; Adair and Adaskou, 2015; Haddad & Lotfaliei, 2019). According to this theory, every company has an optimal capital structure, and when a company owes debt at this optimal level, it can take advantage of the debt tax shield, which refers to the tax benefits obtained by utilizing the large interest costs of debt as a business expense, thus reducing taxable profits and minimizing the proportion of costs borne by the company in relation to tax payments (Jarallah

et al. 2019; Glover and Hambusch, 2013; Adair and Adaskou, 2015). High levels of debt can also lead to high levels of profitability (Haryanto et al. 2019; Endri et al. 2019; Medyawati and Yunanto, 2017), and companies with high profitability generally have more internal funds than those with low profitability (Adair and Adaskou, 2015). If a company is able to effectively take advantage of the tax benefits of interest, this can increase earnings per share and provide the company with capital for investment and operational activities, which can ultimately increase the value of the company.

Agency theory

According to the agency theory developed by Jensen and Making in 1976, there is a conflict of interest between managers and company owners (Oded, 2020; Ghozali, 2020). This conflict arises because managers may have self-serving and opportunistic behavior, which may not align with the interests of shareholders, leading to agency costs (Oded, 2020; Ghozali, 2020). One way to mitigate these agency costs is to have a higher level of debt, as this will provide oversight from shareholders and creditors, encouraging managers to perform better in order to pay off the debt (Oded, 2020; Ghozali, 2020). The pressure of debt may also reduce opportunistic behavior and increase the company's performance, leading to higher profits (Dawar, 2014). These higher profits can also result in a larger proportion of return on investment and operational activities, as well as higher earnings per share and dividends for stakeholders (Bratamanggala, 2018).

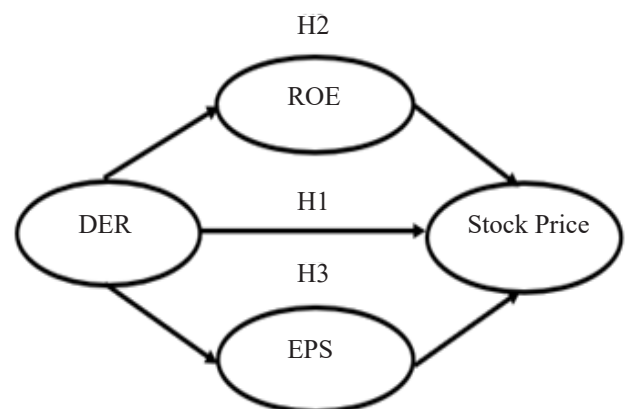


Figure 3. Research framework (Return on equity (ROE); Debt-to-equity ratio (DER); Earning per share (EPS))

Leverage on firm value

There is evidence that companies that utilize a combination of debt and capital as sources of funding may have an advantage over those that rely solely on capital (Poletti-Hughes & Martinez Garcia, 2022; Glover & Hambusch, 2014; Jarallah et al. 2019). When managed effectively, debt financing can create an optimal capital structure by providing a debt tax shield and reducing agency costs, while also generating high profits (Jarallah et al. 2019; Endri et al. 2019; Medyawati & Yunanto, 2017). However, it is important to consider that debt financing also carries risks, such as the risk of bankruptcy (Gurrea-Martínez, 2018). This risk is more likely to occur when a company has a higher proportion of debt compared to equity (Jarallah et al. 2019; Glover & Hambusch, 2014; Adair & Adaskou, 2015; Haddad & Lotfaliei, 2019). Higher interest payments can also decrease income and cash flow, increasing the risk of default and ultimately, bankruptcy (Gurrea-Martínez, 2018). Bankruptcy costs may arise when a company increases its debt financing rather than using equity, leading to a higher likelihood of defaulting on financial obligations (Jarallah et al. 2019; Glover & Hambusch, 2013; Adair & Adaskou, 2015; Haddad & Lotfaliei, 2019). The debt-to-equity ratio is one of the leverage ratios used to measure the level of debt utilization in relation to equity (Endri et al. 2019; Kasmir, 2018). Studies by Haryanto et al. (2019) and Prihatni (2020) using the debt-to-equity ratio (DER) on firm value with Tobin's Q proxy have found that the debt-to-equity ratio (DER) has no effect on company value. On the other hand, Endri et al. (2019) found that leverage (DER) has a negative effect on firm value. In contrast, research by Medyawati & Yunanto (2017) found that leverage (DER) has a positive effect on firm value. Based on the explanation above, therefore, this research is hypothesized as follows:

H1: Leverage (DER) has a positive influence on firm value

The mediating role of financial performance

Financial performance is a way to assess a company's success in effectively and efficiently managing the business (Susanti et al. 2020; Hasanudin, 2020). Financial performance can also be an indicator of a company's future condition (Hasanudin, 2020). In addition, company performance is the ability of the

company to generate profits that are greater than expenses (Widnyana et al. 2021). Financial information is also important for various parties, including investors, as it can provide signals for investment decisions (Widnyana et al. 2012; Ghozali, 2020; Haryanto et al. 2019; Endri et al. 2019). A high level of leverage can improve a company's performance (Hasanudin et al. 2020) and increase the value of the company. The authors propose that two factors, namely return on equity (ROE) and earnings per share (EPS), may mediate the relationship between leverage and firm value. Profitability ratios are a reflection of company performance (Kasmir, 2018; Miranti et al. 2020). Return on equity (ROE) measures the efficiency of a company in using its finances to achieve a return on capital (Haryanto et al. 2019). It is calculated as the ratio of net profit after tax to total equity (Kasmir, 2018; Haryanto et al. 2019; Prihatni, 2020). Previous research has found evidence that leverage (DER) affects return on equity (ROE) (Samo & Murad, 2019). However, Colline (2022) found that return on equity (ROE) has a positive effect on firm value. Based on the explanation above, therefore, this research is hypothesized as follows:

H2: The return on equity (ROE) mediates the effect of leverage (DER) on firm value.

Earnings per share (EPS) is a measure of a company's performance and management success in achieving profits for shareholders (Bratamanggala, 2018). Essentially, EPS represents the amount earned for each share (Hilal & Samono, 2019). It is calculated by dividing the net profit after tax by the number of outstanding shares (Kasmir, 2018). As the level of debt increases, so does the profit, leading to an increase in EPS (Haryanto et al. 2019; Endri et al. 2019; Bratamanggala, 2018). When EPS increases, dividends earned by shareholders also increase, which can increase the value of the company (Haryanto et al. 2019; Endri et al. 2019; Bratamanggala, 2018). Several studies have found that EPS has a positive effect on firm value (Haryanto et al. 2019; Endri et al. 2019). However, research by Amiputra et al. (2021) found that EPS has a negative effect on company value. Based on the explanation above, therefore, this research is hypothesized as follows:

H3: The earnings per share (EPS) mediates the effect of leverage (DER) on firm value.

RESULTS

Descriptive statistics in Table 2 are a set of statistical tools used to describe and summarize data in a clear and understandable way, providing an overview of the research and the relationships between independent variables. Descriptive statistical analysis involves calculating descriptive measures such as the minimum, maximum, average, and standard deviation of the variables to understand the characteristics of the data. These measures provide a summary of the data and can help to identify patterns and trends.

A minimum stock price of 36 suggests that a lower stock price may indicate worse performance and a lower potential for future returns for the company. On the other hand, a maximum stock price of 49.000 suggests that the company has a higher value and good performance, potentially leading to higher future returns. The average stock price for the company is 1.707, with a standard deviation of 4.112. This relatively high standard deviation indicates a large range of fluctuations in the company's stock price data, with many values falling significantly above or below the average. A minimum EPS of -1.463 indicates that the company is experiencing losses due to higher costs than revenue. On the other hand, a maximum EPS of 35.303 suggests that the company is profitable and well-managed, with income exceeding expenses. The average EPS for the company is 154.15, with a standard deviation of 1.667. This relatively high standard deviation indicates a large range of fluctuations in the company's EPS data, with many values falling significantly above or below the average. A minimum DER of 0.01 indicates that the company is not heavily reliant on debt in managing its equity. On the other

hand, a maximum DER value of 142.7 suggests that the company is heavily dependent on debt, potentially making it difficult for the company to fulfill its long-term obligations in the future. The average DER for the company is 2.27, with a standard deviation of 8.39. This relatively high standard deviation indicates a large range of fluctuations in the company's DER data, with many values falling significantly above or below the average. A minimum ROE of -284 suggests that the company has not been successful in using its equity to increase profits. On the other hand, a maximum ROE value of 1.52 indicates that the company is effectively managing its equity to optimize revenue. The average ROE for the company is -0.58, with a standard deviation of 12.05. This relatively high standard deviation indicates a large range of fluctuations in the company's ROE data, with many values falling significantly above or below the average. The coefficient of determination (Table 3), often represented by the R-square value, reflects the extent to which the independent variables in the regression model can explain the strength of the model on the dependent variable. A low R-square value indicates that the dependent variable has limited ability to be explained or predicted by the independent variables in the model.

Based on the Table 3 (coefficient of determination), the R-square value for Earning per share (EPS) is 0.002, indicating that Debt to equity (DER) can influence Earning per share (EPS) by 0.2%. The R-square value for Return on Equity (ROE) is 0.079, meaning that Debt to equity (DER) can affect Return on Equity (ROE) by 7.9%. The R-square value for the stock price is 0.104, indicating that Debt to equity (DER), Earning per share (EPS), and Return on Equity (ROE) can collectively affect the stock price by 10.4%.

Table 2. Descriptive statistics

Indicators	Min	Max	Mean	Standard Deviation
Stock Price	36	49.000	1.707	4.112
Earnings per share (EPS)	-1.463	35.303	154.15	1.667
Debt-to-equity ratio (DER)	0.01	142.7	2.27	8.39
Return on equity (ROE)	-284	1.52	-0.58	12.05

Table 3. Coefficient of determination

	R Square
Earnings per share (EPS)	0.002
Return on equity (ROE)	0.079
Stock Price	0.104

Based on Table 4 (direct effect), the significance showed that the direct effect, namely: The path coefficient value of Debt to equity (DER) on Earning per share (EPS) is -0.043 (original sample column), which is negative. This suggests that Debt to equity (DER) has a negative effect on Earning per share (EPS). The P-Value is 0.010, which is less than 0.05, indicating that the relationship between Debt to equity (DER) and earning per share (EPS) is statistically significant. Therefore, it can be concluded that Debt to equity (DER) has a negative and significant effect on Earning per share (EPS). The path coefficient value of Debt to Equity (DER) on Return on Equity (ROE) is -0.280 (original sample column). This negative value indicates that Debt to Equity (DER) has a negative impact on Return on Equity (ROE). The P-Value for this relationship is 0.000, which is less than 0.05. Therefore, it can be concluded that Debt to Equity (DER) has a negative and statistically significant effect on stock prices. The path coefficient value of Debt to Equity (DER) on stock price is -0.004 (original sample column). This negative value indicates that Debt to Equity (DER) has a negative impact on stock price. The P-Value for this relationship is 0.437, which is greater than 0.05. Therefore, it can be concluded that Debt to Equity (DER) does not have a statistically significant negative effect on stock price. The path coefficient value of Earnings per Share (EPS) on stock price is 0.306 (original sample column). This positive value indicates that Earnings per Share (EPS) has a positive impact on stock price. The P-Value for this relationship is 0.010, which is less than 0.05. Therefore, it can be concluded that Earnings per Share (EPS) has a positive and statistically significant effect on stock price. The path coefficient value of Return on Equity (ROE) on stock price is 0.083 (original sample column). This

positive value indicates that Return on Equity (ROE) has a positive impact on stock price. The P-Value for this relationship is 0.004, which is less than 0.05. Therefore, it can be concluded that Return on Equity (ROE) has a positive and statistically significant effect on stock price.

Based on Table 4, it can be observed that the path coefficient value for Debt to Equity (DER) on stock prices is -0.004 (in the original sample column). This negative value indicates that Debt to Equity (DER) has a negative impact on stock prices. The P-Value is 0.437, which is greater than 0.05, meaning that Debt to Equity (DER) does not have a statistically significant negative effect on stock prices. In addition, previous researchers (Haryanto et al. 2019; Prihatni et al. 2020) found that debt-to-equity ratio (DER) on firm value with the Tobin's Q has no effect on firm valuation. Furthermore, Endri et al. (2019) found that leverage (DER) has a negative impact on firm valuation.

Based on the Table 5 (specific indirect effect), the significance showed that the direct effect, namely: The indirect effect of Debt to Equity (DER) on stock price through Return on Equity (ROE) is -0.023, with a P-Value of 0.014, which is less than 0.05. This indicates that Return on Equity (ROE) is a statistically significant mediator of the relationship between Debt to Equity (DER) and stock price. The indirect effect of Debt to Equity (DER) on stock price, through Earnings per Share (EPS), is -0.013, with a P-Value of 0.116, which is greater than 0.05. This indicates that Earnings per Share (EPS) is not a statistically significant mediator of the relationship between Debt to Equity (DER) and stock price.

Table 4. Direct effect

	Original Sample (O)	P Values	Hypothesis
Debt-to-equity ratio (DER) → Earnings per share (EPS)	-0.043	0.010	
Debt-to-equity ratio (DER) → Return on equity (ROE)	-0.280	0.000	
Debt-to-equity ratio (DER) → Stock Price	-0.004	0.437	H1 (not significant/rejected)
Earnings per share (EPS) → Stock Price	0.306	0.010	
Return on equity (ROE) → Stock Price	0.083	0.004	

Table 5. Specific indirect effect

	Original Sample (O)	P Values	Hypothesis
Debt-to-equity ratio (DER) → Return on equity (ROE) → Stock Price	-0.023	0.014	H2 (significant/accepted)
Debt-to-equity ratio (DER) → Earnings per share (EPS) → Stock Price	-0.013	0.116	H3 (not significant/rejected)

According to Table 5, the indirect effect of debt-to-equity (DER) on stock prices through return on equity (ROE) is -0.023, with a P-value of 0.014, which is significant at the 0.05 level. This indicates that return on equity (ROE) is a significant mediator in the relationship between debt-to-equity (DER) and stock prices. This research is an initial effort to improve the previous research that found evidence that leverage (DER) affects return on equity (ROE) as a direct effect (Samo & Murad, 2019) and return on equity (ROE) has a direct impact on firm value (Colline, 2022). Furthermore, the result of this research found that return on equity (ROE) is a significant mediator in the relationship between debt-to-equity (DER) and stock prices. Finally, Based on Table 5, the indirect effect of Debt to Equity (DER) on stock prices through Earnings per Share (EPS) is -0.013, with a P-Value of 0.116, which is greater than 0.05. This indicates that Earnings per Share (EPS) is not a statistically significant mediator in the relationship between Debt to Equity (DER) and stock prices. This research is an initial effort to improve the previous research that found evidence that leverage (DER) has a negative effect on earnings per share (EPS) direct effect (Nugraha et al. 2020) and earnings per Share (EPS) has a negative impact on firm value (Colline, 2022). Furthermore, the result of this research found that earnings per Share (EPS) is a not significant mediator in the relationship between debt-to-equity (DER) and stock prices.

Managerial Implications

This study has several contributions. Theoretically, it expands our understanding and develops a research model on the mechanisms by which financial performance, specifically return on equity (ROE) and earnings per share (EPS), can increase firm value through a dual mediating effect. This study proposes ROE and EPS as new mediating variables to explain how and why leverage can increase firm value. It integrates agency theory, signaling theory, and trade-off theory to provide a comprehensive explanation of the role of leverage in increasing firm value through ROE and EPS. Empirically, the study provides an overview of the performance of all Indonesian companies, whereas previous studies have only examined companies within specific sectors listed on the Indonesian Stock Exchange. This broadens our understanding of the generalizability of the impact of leverage on increasing company value during the Covid-19 pandemic. From a practical standpoint, this

research highlights the important role of leverage in increasing company value for managerial purposes and provides information for investors to consider when making investment decisions. It also adds to the body of knowledge for future academics and researchers in the field.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The purpose of this study is to investigate the relationship between leverage and firm value as well as to examine the mediating role of firm performance, specifically return on equity and earnings per share. The findings reveal that leverage does not have a positive impact on firm value. This finding aligns with previous research (Endri et al. 2019) that found leverage (DER) has not a positive impact on firm valuation. These findings are in alignment with the signaling theory, which states that high levels of debt can be perceived as a negative signal by investors, as it may indicate that the company is struggling to pay its debts. Additionally, the trade-off theory suggests that high levels of debt may lead to increased bankruptcy costs and reduced profits due to increased tax burdens, making it difficult for companies to pay their debts. The agency theory also suggests that if a company is in debt but is not effectively managing it, this may be due to conflicts of interest, where managers use debt for their own gain rather than the benefit of shareholders. Based on these theories, it can be inferred that the company's debt during the Covid-19 pandemic was likely used to sustain operations during the pandemic and also to cover losses. This conclusion aligns with the findings of previous research by Haryanto et al. (2019) and Prihatni et al. (2020), which indicate that company leverage (DER) does not have an impact on value. Furthermore, this study found that Return on Equity (ROE) is a mediator between leverage and firm value. This research improves the previous research that found evidence that leverage (DER) affects return on equity (ROE) as a direct effect (Samo & Murad, 2019) and return on equity (ROE) has a direct impact on firm value (Colline, 2022). This aligns with the signaling theory, which suggests that proper debt management can lead to increased profitability, which in turn can provide a positive response from investors and increase the value of the company. The trade-off theory also suggests that when a company has an optimal level of debt, it

can reap tax benefits and benefits such as the debt tax shield, which can increase the value of the company. The agency theory suggests that high levels of debt can reduce the cash flow available to managers, thereby reducing the potential for opportunistic actions and increasing the benefits to the company and its ability to return capital from company activities. Finally, this research found that Earnings per Share (EPS) is not a mediator in the relationship between leverage and firm value. This study improves the previous research that found evidence that leverage (DER) has a negative effect on earnings per share (EPS) direct effect (Nugraha et al. 2020) and earnings per Share (EPS) has a negative impact on firm value (Colline, 2022). The signaling theory suggests that even if a company has high earnings per share, if the dividends distributed are small, this can be perceived as a negative signal by investors and may discourage them from investing in the company. The trade-off theory states that when a company has high levels of debt and high profits, it will gradually reduce its debt to avoid the risk of financial distress and maximize profits from tax interest expense. The agency theory suggests that when a company has high profits, its internal funds will increase, leading to increased costs for manager supervision. At the same time, supervision from creditors may be reduced as the company reduces its debt. This analysis suggests that even though the company's Earnings per Share are high, not all profits are distributed to investors because they are being reinvested and added to retained earnings, causing dividends to be small. This may be due to the need for funds to sustain operations during the Covid-19 pandemic.

Recommendations

This research has several limitations. First, this research is conducted in Indonesia. Therefore, these findings tend to have a limited impression in other countries. Second, this study uses samples that represent all industrial sectors on the Stock Exchange whose results have various characteristics resulting in varied research data. Future researchers are expected to use control variables in measurements so the characteristics of data are more varied. Furthermore, using all the fundamental variables, technical variables, and macroeconomic variables and adding the firm's growth variables as an information signal from the firm that they will know the profitable prospects and expect a high rate of return on investment (Colline, 2022).

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