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LEVERAGE DYNAMICS: THE ROLE OF PROFITABILITY AND FIRM SIZE IN SHAPING FIRM VALUE

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ABSTRACT

This study examines the influence of leverage on firm value with profitability and firm size acting as influencing variables in non-cyclical sector companies listed on the Indonesia's Capital Market between 2020 - 2023. This study uses 188 observation data from 47 companies selected through the purposive sampling. Tobin's Q is utilized to calculate firm value, while leverage is evaluated using the ratio of debt to total assets. The Return on Assets (ROA) ratio measures profitability, whereas the natural logarithm of total assets is employed to assess firm size. Multivariate linear regression analysis in the first model without moderation shows that leverage and profitability have a considerable favorable impact on firm value. In contrast, firm size has a considerable adverse impact. In the second model, profitability was tested as a influencing variable in the link between leverage and firm value, but no significant moderating effect was found. The same thing is also found in the third model, where firm size as a moderating variable does not have a meaningful impact on the leverage-firm value connection. The study's result demonstrates that although leverage, profitability, and company size impact firm value directly, profitability and firm size as moderating variables are not strong enough to affect the dynamics between leverage and firm value. Therefore, it is recommended that company management focus more on optimizing financial structure and operational efficiency without relying too much on company size growth to increase firm value.

Keywords: *Leverage, Firm Value, Profitability, Firm Size, Moderation*

1. INTRODUCTION

Leverage, profitability, and firm size are influential factors in determining firm value, as each reflects a firm's financial health and operational strategy. Leverage, or the use of debt, can enhance firm value by financing growth without diluting ownership, though excessive leverage raises financial risks. Profitability demonstrates a firm's efficiency in generating returns, thus attracting investor confidence and raising market valuation. Meanwhile, firm size, often associated with stability and market power, can either increase value through economies of scale or decrease it if growth leads to operational inefficiencies. These variables together provide a multidimensional view of a firm's worth in the marketplace.

Non-cyclical companies, often referred to as defensive firms, are characterized by their provision of essential goods and services that remain in demand regardless of economic fluctuations. The unique characteristics of non-cyclical companies include stable revenue streams and consistent demand, which contribute to their resilience during economic downturns. This stability is significant in the market as it provides investors with a sense of security, making these firms attractive during periods of economic uncertainty (Putri & Rahmiyati, 2022). Furthermore, the consistent performance of non-cyclical companies can lead to lower volatility in their stock prices, enhancing their appeal as investment options (Syakirra & Chia, 2023).

Firm value is a critical concept in economic analysis, representing the worth of a company as perceived by investors and stakeholders. Understanding firm value is essential for investors, as it influences investment decisions and market perceptions. Tobin's Q is one commonly applied indicator of business worth. This ratio shows how closely a company's book value and market valuation match up. A Tobin's Q greater than one reflects growth potential and investor confidence, suggesting that the market values the company more than its book value. On the other hand, a Tobin's Q below one may indicate that the market considers the firm overvalued or believes it faces challenges that could limit future profitability. (Handriani, 2020).

In non-cyclical companies, firm value manifests through stable earnings and consistent dividend payouts, which are crucial for attracting long-term investors. However, these firms face unique challenges in maximizing their firm value compared to their cyclical counterparts. For instance, while cyclical companies can leverage economic booms to enhance their value through aggressive growth strategies, non-cyclical firms often prioritize stability and risk management, which can limit their growth potential (Ketut et al., 2023). Additionally, the inherent nature of non-cyclical businesses may lead to lower profit margins, making it challenging to achieve high valuations in comparison to more dynamic sectors. Thus, understanding the interplay between leverage, profitability, and firm size in the context of non-cyclical companies is essential for comprehending their firm value dynamics.

Researching firm value in non-cyclical companies is particularly relevant given the existing gap in literature regarding how these firms navigate the balance between stability and innovation. While much of the existing research focuses on cyclical firms, non-cyclical companies present a unique case where understanding firm value dynamics is crucial, especially during catastrophes such as the COVID-19 pandemic. The pandemic highlighted how robust non-cyclical enterprises are, as they continued to perform relatively well compared to cyclical firms, which faced significant downturns (Putri & Rahmiyati, 2022). However, this resilience often comes at the cost of dynamism, as these firms may struggle to innovate and adapt to changing market conditions, which can ultimately affect their long-term value.

Supporting data and background information underscore the necessity for further research in this area. For instance, studies have shown that non-cyclical companies tend to maintain stable profit margins even during economic downturns, which can positively influence their firm value (Siswanto et al., 2021). Additionally, empirical evidence suggests that while profitability and firm size are significant determinants of firm value, their effects can vary widely across different sectors, particularly between cyclical and non-cyclical firms. This disparity emphasizes the significance of investigating how leverage, profitability, and company size interact to determine firm value, primarily in the non-cyclical industry, as previous work frequently produces contradictory results on these linkages.

Trade-Off Theory

Debt-Equity Trade-Off Theory offers an approach for analyzing the relationship between leverage and firm value, particularly in non-cyclical sectors. According to this theory, corporations seek to balance the tax reward of debt financing against the expenses of probable financial hardship. Specifically, the tax shield connected with interest payments can increase company value by lowering the overall tax burden on the firm. However, when leverage increases, so does the danger of bankruptcy and its accompanying costs, which can have a negative influence on company value. Therefore, firms must establish an appropriate

capital structure that optimizes their value by considering these competing variables. (Uddin et al., 2022).

Pecking Order Theory

The Pecking Order Theory (POT) offers persuasive paradigm for analyzing the dynamics between leverage, firm value, profitability, and company size. Based on the aforementioned theory, corporations arrange their financing sources according to the principle of least effort or cost, which causes them to favor internal funds over external capital and borrowing instead of issuing equity when external funds is required. This hierarchy is largely a result of information asymmetry, where managers have a deeper understanding of the company's value compared to external investors. As a result, issuing new equity tends to be more costly than taking on debt (Marimuthu & Singh, 2021). Consequently, firms with high profitability are likely to rely on retained earnings for financing, which reduces their need for external debt and can positively influence their firm value by minimizing the expense of external financing (Jansen et al., 2023). Furthermore, larger enterprises, experience more steady cash flows and broader entryway to capital markets, may prefer debt financing over equity, reinforcing the pecking order hierarchy. This is because larger companies are viewed as less dangerous by lenders, allowing them to secure debt at lower interest rates, thereby enhancing their overall value.

Firm Value

Firm value is a pivotal concept in economic analysis, representing a company's worth based on its ability to generate future cash flows and provide returns to its shareholders. One of the most widely used metrics for measuring firm value is Tobin's Q. This ratio serves as an indicator of how the market values a firm relative to its accounting value, reflecting investor perceptions of growth potential and overall financial health (Gartenberg et al., 2019). A Tobin's Q exceeding one implies that the market assigns a higher value to the company than its book value, suggesting that investors anticipate the company will produce substantial profits in the future, while a Q less than one may imply that the market perceives the firm as overvalued or facing challenges. Thus, calculating Tobin's Q provides insights into the firm's competitive position, growth prospects, and the effectiveness of its management strategies, making it an essential tool for investors and analysts in assessing firm performance.

Leverage and Firm Value

Leverage, defined as the proportion of outstanding balance relative to overall assets, is a vital component of a company's capital structure and can greatly impact its overall worth. An increase level of leverage signifies that a firm is utilizing more debt to finance its assets, which can amplify returns on equity during profitable periods. According to Modigliani and Miller's theory, when a firm uses debt financing, it may enhance its value due to the tax benefits associated with interest payments, thereby increasing the firm’s net income and, ultimately, its market valuation as measured by Tobin's Q. Furthermore, increased leverage can signal to investors that a firm is confident in its growth prospects, as it is willing to incur debt to finance its expansion, potentially leading to higher firm value. A study by Uddin et al. (2022) indicates that leverage positively influences firm performance, a finding supported by Hirdinis (2019) and Yuliyanti et al. (2022). In contrast, Puri (2023) reports that leverage negatively and significantly affects firm value, a conclusion backed by Hidayat (2022). Additionally, Burhanuddin et al. (2023) and Tuerah et al. (2024) contend that leverage has little to no impact on firm value. Therefore, it may be inferred that:

H1: Leverage positively and significantly influences firm value.

Profitability and Firm Value

Profitability, indicated by the return on assets (ROA) ratio, serve as an indicator of a firm's financial well-being and operational effectiveness. An elevated ROA implies that an enterprise is successfully leveraging its assets to produce profits, which can enhance its total worth from the investors' perspective. When a firm demonstrates strong profitability, it conveys to the market its ability to maintain operations, pursue growth opportunities, and deliver returns to shareholders, all of which contribute to a higher firm value. Empirical evidence supports this notion; for instance, research by Naqiya & Setyabudi (2024) and Damayanti & Sucipto (2022) found that profitability has a considerable favorable impact on firm value, illustrating that firms with higher ROA are often correlated with greater market valuations. In contrast, Viriany (2020) reports that profitability has a considerable adverse impact on firm value. Additionally, Nuswandari et al. (2019) and Tuerah et al. (2024) argue that leverage shows no meaningful impact on firm value. Consequently, the second hypothesis is as follows:

H2: Profitability positively and significantly influences firm value.

Company Size and Its Value

Firm size, determined by taking the natural logarithm of total assets, is a primary metric of a firm's operational capacity and market presence. Larger firms often enjoy various advantages that contribute positively to their overall value. These advantages include economies of scale, which allow larger firms to reduce costs per unit and enhance profitability, leading to higher market valuations. Furthermore, larger firms tend to have greater brand recognition and customer loyalty, resulting in more stable revenue streams. Natsir & Yusbardini (2020) found a favorable correlation between company size and its value, with larger enterprises seen as less risky by investors, which can increase their market capitalization. Additionally, findings from Boenyamin & Santioso (2023) suggest that larger firms benefit from improved access to capital and resources, enabling them to invest in innovation and strategic initiatives that drive growth. This relationship between firm size and value is particularly evident in non-cyclical sectors, where stable demand for essential goods and services further enhances the financial performance of larger firms. In contrast, Ramdhonah et al. (2019) and Khalifaturofi'ah & Setiawan (2024) reports that company size has a notable negative impact on firm value. Additionally, Naqiya & Setyabudi (2024) and Tuerah et al. (2024) claims that firm size does not play a substantial role on firm value. As a result, the third hypothesis can be stated as:

H3: Company size positively and significantly influences firm value.

Profitability as an Intervening Factor

The connection between leverage and company value is largely moderated by profitability. Leverage, which refers to the incorporation of borrowed funds in a company's financial structure, can boost returns on equity if the company generates enough earnings to pay its interest. However, the impact of leverage on firm value might differ significantly based on the firm's profitability. When a firm is highly profitable, as indicated by a strong return on assets (ROA), it is better positioned to manage its debt obligations and invest in growth opportunities, thereby enhancing the favorable effects of leverage on its value. Conversely, if a firm is not profitable, high levels of leverage can result in financial hardship, as the strain of debt may surpass any potential advantages, ultimately harming firm value. Research by Natsir & Yusbardini (2020) supports the notion that profitability moderates the leverage-firm value relationship, indicating that firms with strong profitability can leverage their capital more effectively to enhance market valuation. In contrast, studies by Hirdinis (2019) demonstrate that the connection between leverage and company value is not moderated by profitability. As a result, the fourth hypothesis is as follows:

H4: Profitability moderates the connection between leverage and firm value.

Firm Size as an Intervening Factor

Firm size has the capacity to greatly influence the link between leverage and firm value, as larger organizations often possess unique advantages that influence how debt affects their valuation. In general, larger companies tend to have improved access to financial markets, enabling them to obtain debt financing under more favorable conditions than their smaller counterparts. This can enhance their ability to leverage capital effectively, leading to increased investments in growth opportunities that positively impact firm value. Moreover, larger firms often exhibit greater operational stability and have established brand recognition, which can reduce the perceived risk associated with their leverage. Research conducted by Santosa (2020) indicates that size of a firm significantly influences how leverage affects its value, showing that larger firms can manage their debt more effectively, which enhances the positive correlation between leverage and firm value. Conversely, smaller firms may struggle with high levels of debt due to limited resources and market presence, potentially resulting in financial difficulties that adversely affect their valuation. In contrast, research by Mahdaleta et al. (2016) implies that company size does not influence the link between leverage and firm value. As a result, the following represents the fifth hypothesis:

H5: The connection between leverage and firm value is moderated by firm size.

2. RESEARCH METHOD

This investigation employs a quantifiable method within a descriptive research framework, utilizing secondary data that is readily accessible and previously analyzed. Financial figures were sourced from the Indonesia's capital market website and from official yearly reports of public companies. Data processing was conducted using Microsoft Excel 365 and Eviews version 13 software. The study focuses on non-cyclical industry firms that are traded on the Indonesia's capital market over the course of 2020 to 2023. A purposive sampling approach was utilized, adhering to several criteria: companies must be non-cyclical and listed on the exchange during 2020 - 2023, must have published audited yearly reports for the periods ending December 31 from 2020 to 2023, must not have conducted an Initial Public Offering (IPO) in the same timeframe, and must report in Indonesian Rupiah (IDR). Ultimately, the study examines 47 companies that satisfy these criteria, totaling 188 data entries.

In this research, leverage, profitability, and firm size are treated as explanatory variables, with firm value being the measured variable. Additionally, profitability and firm size act as intervening variables that influence the dynamics between leverage and firm value

Table 1. Variable Measurement
Source: Compiled by Author

Variable	Indicator	Scale	Source
LEV (X1)	$\frac{Total\ Liabilities}{Total\ Assets}$	Ratio	Supatmi (2022)
PROF (X2)	$\frac{Net\ Income}{Total\ Assets} \times 100\%$	Ratio	Fali et al. (2020)
SIZE (X3)	$Natural\ logarithm\ of\ firm's\ total\ asset$	Ratio	Indrati & Aulia (2022)
FV (Y)	$\frac{Equity\ Market\ Value}{Equity\ Book\ Value}$	Ratio	Bui et al. (2023)

Data Collection and Analysis

The connection between the measured and explanatory variables is assessed through multivariate linear regression analysis. The prediction model applied in this study is:

Model 1

$$FV = \alpha + \beta_1 LEV + \beta_2 PROF + \beta_3 SIZE + e$$

Model 2

$$FV = \alpha + \beta_1 LEV + \beta_2 PROF + \beta_3 (LEV \times PROF) + e$$

Model 3

$$FV = \alpha + \beta_1 LEV + \beta_2 SIZE + \beta_3 (LEV \times SIZE) + e$$

Description:
FV : Firm Value
α : Constant
LEV : Leverage
PROF : Profitability
SIZE : Firm Size
e : Error

3. RESULTS AND DISCUSSIONS

Table 2. Descriptive Statistics
Source: Output Data Eviews 13

	LEV	PROF	SIZE	FV
Mean	0.455488	0.057600	29.39383	0.465611
Median	0.466800	0.057447	29.16109	0.362209
Maximum	0.958989	0.599025	32.85992	4.039266
Minimum	0.093235	-0.255309	25.33226	-1.475945
Std. Dev.	0.197189	0.099094	1.569647	1.064447

This study's descriptive statistics provide valuable insights into the firms' financial features. The average leverage, representing the debt ratio, is 0.4555, indicating that firms in this sample finance approximately 45.5% of their assets with debt. The median leverage is close to the mean at 0.4668, with a maximum of 0.9589 and a minimum of 0.0932. This spread indicates variability in debt usage across firms, with a standard deviation of 0.1972, reflecting moderate dispersion around the mean. Profitability has an average value of 0.0576, suggesting that firms generate a profit of 5.76% relative to their assets. The median profitability is similar at 0.0574, with values ranging from -0.2553 to 0.5990, showing a wide variation in performance. The standard deviation of 0.0991 suggests a moderate level of variability in profitability among the firms. Firm size has a mean of 29.3938 and a median of 29.1611. This indicates that the sizes of the firms are fairly symmetrical around the central values. Firm sizes range from 25.3323 to 32.8599, and the standard deviation is 1.5696, showing a moderate spread in asset size across the sample. Firm value has an average of 0.4656, implying that firms are valued at 46.56% of their assets on average. The median firm value is slightly lower at 0.3622, with a maximum of 4.0393 and a minimum of -1.4759, indicating considerable variation among firms. The standard deviation of 1.0644 further highlights this variability in firm value.

The graphic below presents the conclusions from the normality test:

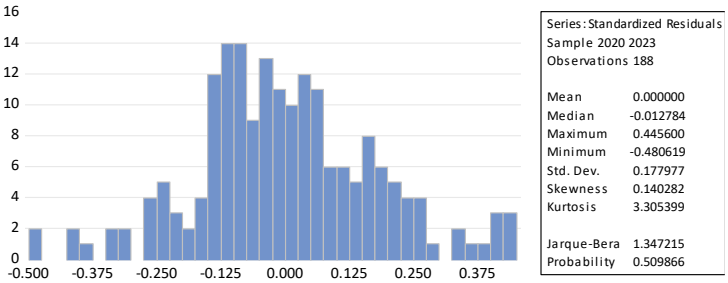

Figure 1. Normality Test Result
Source: Output Data Eviews 13

Figure 1 shows that the normality test yielded a Jarque-Bera probability value of 0.509866, which exceeds 0.05. This implies that the residual values has a normal distributed.

Table 3. Multicollinearity Test Result
Source: Output Data Eviews 13

	LEV	**PROF**	**SIZE**
LEV	1.000000	-0.243936	0.154650
PROF	-0.243936	1.000000	0.185559
SIZE	0.154650	0.185559	1.000000

Table 3 reveals the outcoms of the multicollinearity test, indicating that the correlation values among the independent variables, namely company size (SIZE), leverage (LEV), and profitability (PROF), do not exceed 0.85. This indicates that H0 cannot be rejected, suggesting the regression model utilized in this investigation shows no signs of multicollinearity. As a result, it is possible to conclude that no two independent variables have a high association.

Table 4. Autocorellation Test Result
Source: Output Data Eviews 13

Obs*R-squared	**Prob. Chi-Square**
2.234751	0.3271

Table 4's autocorrelation test results reveal a Prob. Chi-Square value of 0.3271, which exceeds 0.05. This points to the fact that the regression model utilized in this investigation shows no symptoms of autocorrelation.

Table 5. Heteroscedasticity Test Result
Source: Output Data Eviews 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.725782	2.195454	1.697044	0.0919
LEV	-0.131072	0.147458	-0.888878	0.3756
PROF	0.079682	0.127328	0.625801	0.5325
SIZE	-0.120193	0.074537	-1.612530	0.1091

The conclusions from the heteroscedasticity assessment shown in Table 5 reveal that the probability values for company size (SIZE), leverage (LEV), and profitability (PROF) all surpass 0.05. Consequently, this leads to the acceptance of H0, pointing out that heteroscedasticity is not precent in the regression model employed in this study.

The following table displays the outcome of the Chow test:

Table 6. Chow Test Result
Source: Output Data Eviews 13

Effect Test	Prob.
Cross-Section F	0.000000

The Chow Test reveals a Cross-section F probability of 0.0000 (which is below the 0.05 threshold), suggesting that the fixed effect model is the most suitable option.

The following table displays the findings of the Hausman test:

Table 7. Hausman Test Result
Source: Output Data Eviews 13

Effect Test	Prob.
Cross-Section F	0.000000

The Hausman Test shows a cross-section random probability of 0.000000, given that it is below the 0.05 threshold, it points to the fixed effect model as the most suitable option.

After successfully passing all classical assumption tests, the data is ready for regression analysis. The Chow Test and Hausman Test were conducted to determine the best regression model for this study, both indicating that the Fixed Effect Model (FEM) is optimal, thus making the Lagrange Multiplier Test unneeded. The first regression model employs Multiple Linear Regression, while the second and third models utilize Moderated Regression Analysis (MRA). The resulting regression models are detailed below.

Table 8. Model 1 Regression Test Result
Source: Output Data Eviews 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.65480	4.820216	2.625360	0.0096
LEV	0.984415	0.323751	3.040655	0.0028
PROF	1.122002	0.279555	4.013526	0.0001
SIZE	-0.432139	0.163649	-2.640644	0.0092

Leverage shows a coefficient of 0.984415 and a probability of 0.0028 ($\alpha < 0.05$), This suggests a strong beneficial effect on company value. This shows that a rise in leverage is related with an increase in firm value, supporting the first hypothesis that increased leverage might boost the firm value of non-cyclical firms. Profitability has a coefficient of 1.122002 and a probability of 0.0001 ($\alpha < 0.05$), demonstrating a considerable beneficial impact on firm value. This research supports the notion that higher profitability directly contributes to boost company value, affirming the importance of effective asset utilization in generating returns and leading to the acceptance of the second hypothesis. Conversely, firm size presents a coefficient of -0.432139 with a probability of 0.0092 ($\alpha < 0.05$), indicating a considerable detrimental impact on firm value. This finding suggests that larger companies may not necessarily translate into higher firm value, possibly due to inefficiencies or diminishing returns associated with increased scale in non-cyclical firms. This findings causes the third hypothesis to be rejected.

Table 9. Model 2 Regression Test Result
Source: Output Data Eviews 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.140878	0.166558	-0.845819	0.3391
LEV	1.143247	0.344533	3.318249	0.0012
PROF	2.336217	1.164262	2.006609	0.0467
LEV × PROF	2.270894	2.051817	-1.106772	0.2703

The regression test results for Model 2 indicate that the interaction between leverage and profitability has a coefficient of 2.270894 and a probability value of 0.2703. Since the probability value is exceeds the usual significance threshold of 0.05, suggesting that the interaction has little to no impact on company value and resulting to the rejection of the fourth hypothesis. Thus, it can be summarized that profitability does not alter the connection between leverage and company value, as this interaction does not yield significant insights into how profitability impacts the dynamics of leverage on company value. This finding suggests that while both leverage and profitability play individual roles in contributing to firm value, their interaction does not enhance or reduce leverage's impact on firm value in this model. Consequently, the analysis reveals that the dynamics between leverage and company value remains unchanged by profitability in this case.

Table 10. Model 2 Regression Test Result
Source: Output Data Eviews 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.197034	6.534869	1.254353	0.2118
LEV	8.584199	8.694708	0.987290	0.3252
SIZE	-0.276518	0.222524	-1.242640	0.2161
LEV × SIZE	-0.261497	0.296292	-0.882566	0.3790

The regression test results conducted for Model 3 reveals a magnitude value of 0.3790 for the interaction variable between leverage and company size, with an interaction coefficient of -0.261497. This probability value is above the typical significance threshold of 0.05, indicating that the interaction has an insignificant bearing on company value, therefore rejecting the fifth hypothesis. Consequently, it can be argued that the size of the firm does not moderate the link between leverage and firm value, suggesting that the impact of leverage on firm value remains unchanged regardless of the business size. This finding implies that while both leverage and firm size independently contribute to firm value in Model 1, their combined effect does not enhance or diminish the impact of leverage on company value in this model. Therefore, the findings suggest that the dynamics between leverage and firm value are not influenced by company size, highlighting the need for further investigation into other potential moderating factors that may affect this relationship.

The probability value of the F-statistic is 0.0000 across all regression models, suggesting that the independent variables in each model significantly and simultaneously influence the measured variable, which is firm value. In Model 1, which analyzes the direct impacts of leverage, profitability, and company size on company value, the F-statistic indicates that these variables collectively account for a significant portion of the variation in firm value. In Model 2, where profitability is tested as a intervening variable on the dynamics between leverage and company value, the F-statistic probability remains 0.0000, further supporting the significance of the model and indicating that leverage, profitability, and their interaction together affect firm value. Similarly, in Model 3, with company size as a moderating variable in the link between leverage and firm value, the F-statistic probability of 0.0000 again confirms the joint significance of the independent variables and their interaction. Across all

models, the consistent F-statistic probability of 0.0000 signifies that these independent and interaction terms are important predictors of firm value, collectively contributing to the explanatory power of each model.

The Adjusted R Square test in this study evaluates how well the explanatory variables can describe the measured variable, which is firm value. In Model 1, which analyzes the direct repercussion of leverage, profitability, and firm size on company value, the Adjusted R Square is 0.962117. This shows that 96.21% of the discrepancy in company value can be attributed to the independent variables of leverage, profitability, and firm size, without considering any moderating effects. In Model 2, where profitability is tested as an intervening variable in the dynamic between leverage and company value, the Adjusted R Square experiences a slight decrease to 0.960553. This suggests that including profitability as a moderating variable has a minimal effect on the model's explanatory power, with both the independent and interaction terms still accounting for 96.06% of the discrepancy in firm value. In Model 3, which looks at firm size as a intervening variable in the leverage-company value relationship, the Adjusted R Square is 0.957932, indicating that 95.79% of the variation in company value is explained when firm size is added as a moderator. This value is somewhat lower than those in Models 1 and 2, suggesting that incorporating firm size as a moderating variable has a slight effect on the model's capacity to explain firm value. Overall, the consistently high Adjusted R Square values across all three models imply that a significant portion of the discrepancy in firm value is accounted for by these models, although there are other factors not included in this study that contribute to the remaining unexplained variance.

Leverage's Role in Shaping Firm Value

Leverage exerts a considerable favorable influence on firm value. This conclusion is unchanging with the evaluation by Uddin et al. (2022), Hirdinis (2019), and Yuliyanti et al. (2022), which indicate that companies that effectively use debt can improve their overall valuation. However, this finding contrasts with the research by Puri (2023), Hidayat (2022), and Tuerah et al. (2024), which found no notable positive impact of leverage on company value. The conclusion suggest that an optimal level of leverage can lead to increased returns on equity, as firms leverage their capital to invest in growth opportunities, thus driving higher profitability. Higher leverage can signal to investors that a firm is confident in its ability to generate returns that exceed the cost of debt, which can enhance investor perception and increase market value. However, it's essential to recognize that although leverage can enhance firm value, high levels of debt may result in financial difficulties if not properly managed. This highlights the importance for companies to sustain a balanced capital structure, ensuring that the benefits of leverage do not outweigh the risks associated with high debt levels. Therefore, the acceptance of this hypothesis suggests that firms in non-cyclical sectors should consider leveraging their capital to enhance their market valuation while also being cautious about the potential implications of high leverage.

Profitability's Role in Shaping Firm Value

Profitability is essential in increasing company value. This conclusion aligns with studies by Naqiya & Setyabudi (2024) and Damayanti & Sucipto (2022), which suggest that investors tend to view more profitable firms as having greater value. However, this contradicts the findings of Viriany (2020), Nuswandari et al. (2019), and Tuerah et al. (2024), which indicate that profitability does not play a significantly role in determining the company value. These results highlight the importance of maintaining robust profit margins and effective cost management strategies, as they directly influence the firm's market valuation. Higher

profitability can enhance a firm's ability to reinvest in growth opportunities, pay dividends, and reduce reliance on external financing, all of which contribute to increased firm value. Furthermore, profitability is often used to assess a firm's operational efficiency and competitive advantage. Firms that demonstrate consistent profitability signal to investors that they are effectively utilizing their resources, which can lead to increased investor confidence and demand for their shares. However, while high profitability is beneficial, it is crucial for firms to sustain these levels over time to maintain their valuation. In conclusion, the acceptance of this hypothesis emphasizes the critical role that profitability plays in enhancing firm value. Firms should prioritize strategies that improve their profitability, as this will not only enhance their market perception but also provide them with the financial flexibility to invest in future growth opportunities.

Firm Size's Role in Shaping Firm Value

Company size has a notable favorable effect on its value. This result aligns with the common belief that bigger firms naturally have higher value because of economies of scale and a stronger market presence. The outcomes of this assessments correspond to the findings in the study by Khalifaturofi'ah & Setiawan (2024), indicating that as firms expand, they may face diminishing returns, resulting in inefficiencies and bureaucratic challenges that could detract from their overall value. This conclusion contradicts research conducted by Natsir & Yusbardini (2020), Santioso (2023), Naqiya & Setyabudi (2024), and Tuerah et al. (2024) where firm size does not have a considerable adverse influence on firm value. Larger firms often face challenges such as increased operational costs and slower decision-making processes, which can hinder their ability to respond swiftly to market developments and capitalize on new opportunities. Moreover, as firms grow, they may become more heavily scrutinized by regulators and stakeholders, potentially resulting in increased compliance costs and reputational risks. This scenario is supported by Ramdhonah et al. (2019), who found that while firm size can provide certain advantages, it can also lead to greater challenges that ultimately detract from firm value. Additionally, larger firms may become over-diversified, leading to a dilution of focus and resources, which can further negatively impact their market valuation. In conclusion, the rejection of this hypothesis highlights the complexities of firm size in relation to firm value. It suggests that while growth can bring advantages, it is crucial for firms to manage their size effectively and maintain operational efficiency to ensure that their value is not compromised. This finding encourages firms to critically assess their growth strategies and focus on enhancing their operational effectiveness rather than merely pursuing size for its own sake.

How Profitability Moderates the Link Between Leverage and Firm Value

Profitability does not influence the dynamics between leverage and company value. This finding challenges the common belief that higher profitability can enhance the positive effects of leverage on company value. The rejection of this hypothesis suggests that the expected interaction between profitability and leverage may not be as significant as previously thought. This outcome aligns with research conducted by Hirdinis (2019) which indicates that while profitability is generally viewed as a crucial determinant of firm performance, its role as a moderating variable may differ based on the context and financial conditions of the firm. This finding does not align with research conducted by Natsir & Yusbardini (2020) where profitability moderates the dynamics between leverage and company value. The absence of a moderating effect in this study implies that the connection between leverage and company value functions independently of the firm's profitability levels. This suggests that firms may not necessarily derive additional value from leveraging their operations, even if they are profitable. It is possible that the advantage of leverage, such

as tax shields and increased investment capacity, do not translate into higher firm value when profitability is factored into the equation. Furthermore, firms with high leverage might face increased financial risk, which can overshadow any potential advantages brought about by profitability. Consequently, this finding underscores the need for firms to carefully assess their capital structure decisions without over-relying on profitability as a buffer or enhancer of leverage effects. Firms should focus on managing their leverage prudently, as the anticipated positive impact of profitability on the leverage-value relationship may not be realized. This calls for a reassessment of financial strategies that consider both leverage and profitability in isolation, rather than as interconnected variables.

How Company Size Influences the Link Between Leverage and Firm Value

The size of the firm does not intervene in the dynamics between leverage and company value. This result suggests that company size does not enhances or mitigates the influence of leverage on company value. Contrary to expectations, larger firms do not gain additional advantages in value through increased leverage, nor do smaller firms experience heightened impacts due to their size. This observation agrees with the research by Mahdaleta et al. (2016), which suggested that firm size may lack a moderating influence in specific financial situations. However, this conclusion contrasts with the research of Santosa (2020), which found that profitability moderates the leverage-firm value relationship. Company size is often measured by the combined assets, and larger firms generally have more resources, potentially stronger market positions, and greater access to financing. However, the absence of a moderating effect implies that regardless of the company's size, leverage impacts its value in a similar manner. This may be due to factors such as market perception or risk tolerance, which do not necessarily correlate with firm size. Additionally, firms of all sizes face similar financial risks with increased leverage, such as the potential for higher financial costs and default risk, which may not necessarily be mitigated by larger asset bases. Consequently, firms should consider leverage strategies that are tailored to their specific financial conditions rather than assuming that firm size alone will influence the leverage-value relationship. This insight suggests that firms need to evaluate leverage independently, without expecting that their size will inherently create a cushion or amplify leverage effects. This can encourage more tailored financial decision-making processes that prioritize firm-specific risk management strategies.

4. CONCLUSIONS AND SUGGESTIONS

The findings reveal several key relationships between leverage, profitability, firm size, and firm value. Leverage positively impacts firm value, supporting the notion that effective debt utilization enhances valuation through increased returns and investor confidence, although this benefit has limits if debt levels become excessive. Profitability also contributes a considerable favorable impact on a company's value, as increased profits indicate operational effectiveness and boost investor confidence, improving market perception. In contrast, firm size tends to negatively affect firm value, suggesting that as firms grow, they may encounter inefficiencies, increased operational costs, and regulatory scrutiny, which detract from their overall valuation. Furthermore, the study finds that neither profitability nor company size modifies the impact of leverage on firm value. Profitability does not amplify leverage's effects on firm value, indicating that leverage's benefits are independent of profit levels. Likewise, company size does not adjust leverage's impact, suggesting that firms, regardless of their size, experience similar leverage effects. Overall, these results emphasize the importance of managing leverage and profitability individually while acknowledging that larger firm sizes may pose operational challenges that could affect firm value.

The discovery provides crucial insights for managers, investors, and policymakers by emphasizing the nuanced roles of leverage, profitability, and firm size in firm valuation. For managers, leveraging capital effectively can enhance firm value, but they should be cautious with high debt levels and avoid assuming that profitability or firm size will amplify leverage benefits. Investors can view leverage and profitability as positive indicators of firm value, though they should also recognize that excessive debt or overly large firm sizes could signal operational inefficiencies and risks. For policymakers, these results underscore the need for balanced regulations on corporate debt and the importance of supporting frameworks that allow firms to optimize capital structures without excessive risk. Overall, the findings highlight that while strategic use of debt and profitability are advantageous, a firm's size does not inherently improve the leverage-value relationship, advocating for balanced growth and tailored financial management strategies across sectors.

This research adds to the current literature by addressing the identified discrepancy related to the interplay between leverage, profitability, company size, and company value specifically in non-cyclical enterprise. Although previous research have predominantly concentrated on cyclical enterprise, this study highlights the unique characteristics of non-cyclical firms and their financial dynamics, thereby enriching the understanding of firm value in this context.

However, the study does have limitations. The reliance on secondary data from a specific time frame (2020-2023) may restrict the broader applicability of the results. Furthermore, the focus on non-cyclical firms traded on the Indonesia's capital market may restrict the applicability of the discoveries to firms in other sectors or regions. Future studies could expand on these findings by exploring external factors, such as market competition or macroeconomic conditions, that may influence the links between leverage, profitability, company size, and firm value. Furthermore, examining the impact of additional variables, such as corporate governance or market conditions, could provide a more comprehensive knowledge of the elements affecting firm value in non-cyclical sectors.

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