

Financial determinants of firm value in telecommunications companies: evidence from the Indonesian stock exchange

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh ukuran perusahaan, struktur modal, likuiditas, dan profitabilitas terhadap nilai perusahaan pada perusahaan telekomunikasi yang terdaftar di Bursa Efek Indonesia periode 2020–2024. Penelitian menggunakan pendekatan kuantitatif dengan analisis regresi data panel. Sampel penelitian terdiri dari 19 perusahaan telekomunikasi dengan total 95 observasi yang dipilih menggunakan teknik *purposive sampling*. Metode analisis yang digunakan adalah *Fixed Effect Model* berdasarkan hasil uji Chow dan Hausman. Nilai perusahaan diukur menggunakan *Price to Book Value*, ukuran perusahaan menggunakan total aset, struktur modal menggunakan *Debt to Equity Ratio*, likuiditas menggunakan *Current Ratio*, dan profitabilitas menggunakan *Return on Equity*. Hasil penelitian menunjukkan bahwa likuiditas berpengaruh negatif dan signifikan terhadap nilai perusahaan, sedangkan ukuran perusahaan, struktur modal, dan profitabilitas tidak berpengaruh signifikan. Secara simultan, seluruh variabel independen berpengaruh terhadap nilai perusahaan. Temuan ini menunjukkan bahwa investor pada sektor telekomunikasi lebih memperhatikan efisiensi pengelolaan likuiditas dan stabilitas keuangan dalam menilai perusahaan. Penelitian ini memberikan implikasi bagi manajemen perusahaan dalam mengoptimalkan kebijakan keuangan untuk meningkatkan nilai perusahaan.

Kata Kunci: ukuran perusahaan; struktur modal; likuiditas; nilai perusahaan; industri telekomunikasi

ABSTRACT

This study aims to analyze the effect of company size, capital structure, liquidity, and profitability on firm value in telecommunications companies listed on the Indonesia Stock Exchange for the 2020–2024 period. The study uses a quantitative approach with panel data regression analysis. The research sample consisted of 19 telecommunications companies with a total of 95 observations selected using a purposive sampling technique. The analytical method used is the Fixed Effect Model based on the results of the Chow and Hausman test. Firm value is measured using Price to Book Value, firm size using total assets, capital structure using the Debt to Equity Ratio, liquidity using the Current Ratio, and profitability using Return on Equity. The results show that liquidity has a negative and significant effect on firm value, while firm size, capital structure, and profitability have no significant effect. Simultaneously, all independent variables affect firm value. These findings indicate that investors in the telecommunications sector pay more attention to the efficiency of liquidity management and financial stability in assessing companies. This study provides implications for company management in optimizing financial policies to increase firm value.

Keyword: company size; capital structure; liquidity; company value; telecommunications industry

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1. INTRODUCTION

Firm value represents one of the most important indicators reflecting investors' perceptions of a company's performance and future prospects, particularly in the telecommunications industry, which is characterized by high capital intensity, rapid technological change, and intense market competition. In capital markets, firm value is closely associated with management's ability to optimize financial resources, generate sustainable returns, and reduce financial risk. Investors generally evaluate firm value using fundamental financial indicators such as firm size, capital structure, liquidity, and profitability, which collectively reflect the financial strength and operational efficiency of a company. Prior studies indicate that these financial characteristics influence firm value through signaling effects, agency considerations, risk reduction, and expected future cash flows, although the magnitude and direction of the relationships often vary across industries and market conditions (Fama & French, 1993; Frank & Goyal, 2009; Kraus & Litzenberger, 1973; Myers & Majluf, 1984; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Eljelly, 2004; Saleem & Rehman, 2011; Hirdinis, 2019; Jubaedah et al., 2016; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025).

Firm size is commonly considered an important determinant of firm value because larger firms tend to possess greater assets, stronger market power, better access to external financing, and more diversified operations. These advantages may reduce information asymmetry and perceived risk, thereby increasing investor confidence and firm valuation. However, large firms may also face inefficiencies, bureaucratic rigidity, and agency conflicts that potentially reduce firm value. Empirical findings remain mixed, particularly in capital-intensive industries such as telecommunications, where large asset bases do not necessarily translate into higher profitability or market valuation. Investors often emphasize asset efficiency rather than absolute asset size, which may weaken the relationship between firm size and firm value (Fama & French, 1993; Frank & Goyal, 2009; Hirdinis, 2019; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

Capital structure also plays a crucial role in determining firm value because it reflects corporate financing decisions between debt and equity. According to *trade-off theory*, the use of debt may increase firm value through tax benefits; however, excessive leverage increases financial distress risk and agency costs. In the telecommunications sector, companies typically rely on debt financing to support infrastructure expansion and technological investment. While moderate leverage may improve firm performance, high leverage levels may reduce financial flexibility and negatively affect investor perception. Previous studies report inconsistent findings regarding the relationship between capital structure and firm value, suggesting that optimal leverage depends on firm-specific characteristics, industry structure, and economic conditions (Modigliani & Miller, 1958; Kraus & Litzenberger, 1973; Myers & Majluf, 1984; Frank & Goyal, 2009; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

Liquidity represents a company's ability to meet short-term obligations and is closely related to financial stability. Companies with higher liquidity are generally perceived as having lower financial risk and greater operational flexibility, which can increase investor confidence. In the telecommunications industry, maintaining adequate liquidity is particularly important due to large capital expenditures, high operational costs, and continuous infrastructure investment. Adequate liquidity allows firms to finance operations without relying excessively on external financing, thereby reducing financial risk. However, excessive liquidity may indicate inefficient asset utilization and idle resources. Therefore, the relationship between liquidity and firm value may vary depending on how effectively firms manage working capital (Eljelly, 2004; Saleem & Rehman, 2011; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

Profitability reflects the firm's ability to generate earnings from its assets and equity and is often considered a key determinant of firm value. Higher profitability indicates efficient management performance and stronger future cash flow prospects, which typically lead to higher market valuation. Nevertheless, in capital-intensive industries such as telecommunications, profitability may fluctuate due to high depreciation costs, infrastructure investment cycles, and technological upgrades. Consequently, investors may prioritize long-term growth potential and financial stability over short-term profitability. Previous empirical studies show mixed results regarding the effect of profitability on firm value, suggesting that profitability alone may not fully explain valuation differences in telecommunications firms (Fama & French, 1993; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Hirdinis, 2019; Jubaedah et al., 2016; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Siahaan et al., 2014).

Based on these arguments, examining the determinants of firm value in the telecommunications sector is particularly important due to the industry's unique characteristics, including high capital requirements, rapid technological transformation, and intense competition. Financial decisions related to firm size, capital structure, liquidity, and profitability may influence investor perceptions and ultimately determine firm value.

Therefore, this study aims to analyze the effect of firm size, capital structure, liquidity, and profitability on the firm value of telecommunications companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The findings are expected to provide empirical evidence on the financial determinants of firm value in the telecommunications sector and contribute to the financial management literature, while also offering practical implications for managers and investors in making strategic financial decisions.

2. LITERATURE REVIEW

A. Firm Value

Firm value reflects the market's overall assessment of a company's performance and future growth prospects and is commonly used by investors as a benchmark for evaluating investment decisions. In financial management theory, firm value is closely related to the present value of expected future cash flows and is influenced by corporate financial policies, operational efficiency, and risk management. A higher firm value indicates stronger investor confidence and better company performance, while a lower firm value reflects uncertainty regarding profitability and financial stability. In capital-intensive industries such as telecommunications, firm value becomes particularly important because large infrastructure investments require long-term financial sustainability and efficient capital allocation. Prior studies emphasize that firm value is shaped by internal financial indicators such as profitability, liquidity, leverage, and firm size, which collectively signal corporate performance and risk profile to investors (Modigliani & Miller, 1958; Fama & French, 1993; Frank & Goyal, 2009; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Hirdinis, 2019; Jubaedah et al., 2016; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Myers & Majluf, 1984; Kraus & Litztenberger, 1973; Rosenberg et al., 1985).

Firm value is commonly measured using market-based indicators such as *Price to Book Value* (PBV) and Tobin's Q. These measures capture investors' perceptions of firm performance relative to accounting value and are widely used in corporate finance research. A higher PBV reflects that investors are willing to pay a premium for the company's shares, indicating positive expectations regarding future growth and profitability. Conversely, a lower PBV suggests weaker market confidence in the firm's financial performance. Empirical studies in telecommunications and other capital-intensive industries show that firm value is influenced by financial structure, operational efficiency, and risk management decisions, highlighting the importance of internal financial indicators in shaping investor perceptions (Fama & French, 1993; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Frank & Goyal, 2009; Hirdinis, 2019; Jubaedah et al., 2016; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025).

B. Firm Size and Firm Value

Firm size reflects the scale of a company's operations and is typically measured using total assets, total sales, or market capitalization. Larger firms are generally considered more stable and less risky because they have diversified operations, stronger market power, and better access to capital markets. These characteristics may reduce information asymmetry and increase investor confidence, thereby improving firm value. In addition, large firms often benefit from economies of scale, operational efficiency, and stronger bargaining power, which can enhance profitability and long-term growth prospects. Consequently, firm size is frequently expected to have a positive relationship with firm value, particularly in industries requiring substantial investment such as telecommunications (Fama & French, 1993; Frank & Goyal, 2009; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Hirdinis, 2019; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

However, the relationship between firm size and firm value is not always positive. Large firms may experience bureaucratic inefficiencies, agency conflicts, and declining operational flexibility, which may weaken financial performance and reduce investor valuation. In telecommunications companies, large asset ownership often involves high maintenance costs, depreciation expenses, and continuous capital expenditures, which may limit profitability growth. Therefore, investors may focus more on asset utilization efficiency rather than asset size itself. Empirical findings regarding the effect of firm size on firm value remain mixed, with some studies reporting positive effects, while others find insignificant or even negative relationships depending on industry characteristics and financial performance (Fama & French, 1993; Frank & Goyal, 2009; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016; Myers & Majluf, 1984; Kraus & Litztenberger, 1973).

Firm size reflects the scale of a company's operations and financial capacity, which may influence investor perception and market valuation. Larger firms generally have better access to capital markets, diversified business operations, and lower bankruptcy risk, which may increase firm value. In addition, large companies tend to have stronger bargaining power, operational efficiency, and economies of scale that may enhance performance and future growth prospects. However, large firms may also face agency problems and operational inefficiencies that potentially weaken the relationship between firm size and firm value. Empirical studies show mixed findings, where firm size may positively influence firm value, although some studies find

insignificant effects depending on industry characteristics and firm performance (Fama & French, 1993; Frank & Goyal, 2009; Hirdinis, 2019; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016). Based on the theoretical and empirical arguments, the first hypothesis is formulated as follows:

H1: Firm size has an effect on firm value.

C. *Capital Structure and Firm Value*

Capital structure refers to the proportion of debt and equity used by a company to finance its operations. Financial theory suggests that capital structure decisions influence firm value through tax benefits, bankruptcy risk, and agency costs. According to *trade-off theory*, an optimal level of leverage can increase firm value because debt provides tax advantages and disciplines management. However, excessive leverage increases financial distress risk and reduces financial flexibility, which may negatively affect firm value. Therefore, the relationship between capital structure and firm value is expected to be nonlinear and depends on the company's ability to manage financial risk (Modigliani & Miller, 1958; Kraus & Litzenberger, 1973; Myers & Majluf, 1984; Frank & Goyal, 2009; Fama & French, 1993; Hirdinis, 2019; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

In the telecommunications industry, capital structure plays a crucial role due to high infrastructure investment requirements. Companies often rely on debt financing to expand network coverage and technological capacity. Moderate leverage may improve firm value by supporting growth, but excessive debt may increase financial risk and reduce investor confidence. Empirical studies report mixed results regarding the effect of capital structure on firm value, suggesting that the impact depends on company size, profitability, and industry conditions. Some studies report positive relationships, while others find insignificant or negative effects (Modigliani & Miller, 1958; Frank & Goyal, 2009; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016; Myers & Majluf, 1984; Kraus & Litzenberger, 1973).

Capital structure reflects financing decisions related to the proportion of debt and equity used by a company. According to *trade-off theory*, the use of debt may increase firm value due to tax advantages; however, excessive leverage increases financial distress risk and reduces investor confidence. In capital-intensive industries such as telecommunications, companies often rely on debt to finance infrastructure investments, which may influence firm value depending on the optimal leverage level. Empirical studies show inconsistent results, indicating that capital structure may positively, negatively, or insignificantly affect firm value depending on firm characteristics and economic conditions (Modigliani & Miller, 1958; Kraus & Litzenberger, 1973; Myers & Majluf, 1984; Frank & Goyal, 2009; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016). Based on these arguments, the second hypothesis is formulated as follows:

H2: Capital structure has an effect on firm value.

D. *Liquidity and Firm Value*

Liquidity represents a company's ability to meet short-term obligations using current assets. High liquidity indicates financial stability and lower risk of default, which may increase investor confidence and firm value. Companies with strong liquidity positions are better able to finance operational needs and investment opportunities without relying heavily on external funding. In telecommunications firms, liquidity is essential due to high operational costs, network maintenance expenses, and continuous capital expenditures. Adequate liquidity ensures operational continuity and reduces financial risk, thereby positively influencing firm value (Eljelly, 2004; Saleem & Rehman, 2011; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Fama & French, 1993; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

Nevertheless, excessive liquidity may signal inefficient asset utilization and idle cash holdings, which can reduce profitability and firm value. Investors may interpret excessive current assets as a sign that management is not effectively allocating resources. Therefore, the relationship between liquidity and firm value may vary depending on working capital efficiency and financial management strategy. Previous studies show mixed results regarding the effect of liquidity on firm value, indicating that optimal liquidity management is essential for maximizing firm value (Eljelly, 2004; Saleem & Rehman, 2011; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016; Fama & French, 1993; Nissim & Penman, 2001).

Liquidity indicates a company's ability to meet short-term obligations and maintain operational stability. Firms with higher liquidity are generally perceived as having lower financial risk and stronger financial flexibility. Adequate liquidity allows companies to finance operational activities and investment opportunities without excessive reliance on external funding. In telecommunications companies, liquidity is crucial due to large operational costs and continuous infrastructure investment. Therefore, higher liquidity is expected to increase investor confidence and firm value. However, excessive liquidity may indicate inefficient asset utilization. Previous studies report mixed findings regarding the relationship between liquidity and firm value (Eljelly, 2004; Saleem & Rehman, 2011; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Hirdinis,

2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016). Based on the theoretical explanation, the third hypothesis is formulated as follows:

H3: Liquidity has a positive effect on firm value.

E. Profitability and Firm Value

Profitability reflects a company's ability to generate earnings from its assets and equity. Higher profitability indicates efficient resource utilization and strong financial performance, which may increase investor confidence and firm value. Profitability also signals future growth potential and expected cash flows, which are important determinants of market valuation. Companies with higher profitability are generally perceived as having better operational efficiency and lower financial risk, thereby increasing firm value (Fama & French, 1993; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Frank & Goyal, 2009; Hirdinis, 2019; Siahaan et al., 2014; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

However, profitability may not always significantly influence firm value, particularly in capital-intensive industries such as telecommunications. Large depreciation expenses, infrastructure investments, and technological upgrades may reduce short-term profitability, even though they improve long-term growth prospects. Investors may therefore focus more on long-term performance and financial stability rather than short-term profitability. Empirical studies show inconsistent findings regarding the effect of profitability on firm value, suggesting that profitability alone may not fully explain valuation differences across firms (Fama & French, 1993; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016; Frank & Goyal, 2009).

Profitability reflects a company's ability to generate earnings from its assets and equity. Higher profitability indicates efficient management performance and stronger future cash flow prospects, which may increase firm value. Investors often consider profitability as an important indicator of company performance and sustainability. However, in capital-intensive industries such as telecommunications, profitability may fluctuate due to large investment and depreciation costs. Therefore, profitability may not always significantly influence firm value. Empirical studies show mixed results regarding the effect of profitability on firm value (Fama & French, 1993; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Frank & Goyal, 2009; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016). Based on the theoretical arguments, the fourth hypothesis is formulated as follows:

H4: Profitability has an effect on firm value.

F. Simultaneous Effect

Firm value is influenced by multiple financial factors simultaneously. Firm size reflects company scale, capital structure reflects financing policy, liquidity reflects short-term financial stability, and profitability reflects operational performance. The combination of these variables provides comprehensive information for investors in assessing firm value. Therefore, these variables are expected to jointly influence firm value.

H5: Firm size, capital structure, liquidity, and profitability simultaneously affect firm value.

3. RESEARCH METHOD

This study employs a quantitative research approach with a causal associative design to examine the effect of firm size, capital structure, liquidity, and profitability on firm value. Quantitative research is appropriate because this study analyzes numerical financial data obtained from corporate financial statements and examines the relationships among variables using statistical analysis. The causal approach is used to identify the influence of independent variables on the dependent variable and to provide empirical evidence regarding the determinants of firm value in the telecommunications sector. The use of panel data allows the study to capture both cross-sectional and time-series variations, thereby improving estimation accuracy and reducing potential bias in the analysis (Baltagi, 2005; Gujarati & Porter, 2009; Wooldridge, 2010; Hsiao, 2014; Greene, 2018; Brooks, 2019; Verbeek, 2017; Kennedy, 2008; Gujarati, 2003; Wooldridge, 2013).

A. Population and Sample

The population of this study consists of all telecommunications companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The telecommunications sector was selected because it represents a capital-intensive industry with high infrastructure investment and rapid technological development, making firm value highly dependent on financial performance. The sampling technique used in this study is *purposive sampling*, which selects companies based on specific criteria to ensure data availability and consistency. The criteria include: (1) telecommunications companies listed on the Indonesia Stock Exchange during the observation period, (2) companies that published complete financial statements consecutively during the study period, and (3) companies with complete data for all research variables. Based on these criteria, the final sample consists of 19 telecommunications companies with five years of observation, resulting in 95 balanced panel data observations. The use of *purposive sampling* is widely applied in financial research to ensure data reliability and comparability across firms and periods (Hair et al., 2019; Sekaran &

Bougie, 2016; Creswell, 2014; Saunders et al., 2019; Pallant, 2020; Cooper & Schindler, 2014; Field, 2018; Tabachnick & Fidell, 2019; Kothari, 2004; Bryman, 2016).

This study uses secondary data obtained from the audited annual financial statements of telecommunications companies listed on the Indonesia Stock Exchange. The data include balance sheets, income statements, and financial ratios required to calculate the research variables. The data were collected from the official website of the Indonesia Stock Exchange, company annual reports, and financial databases. Secondary data are used because they provide reliable, objective, and verifiable financial information that has been audited and publicly disclosed. The use of secondary financial data is common in corporate finance research because it allows for consistent measurement across firms and reduces measurement bias (Hair et al., 2019; Sekaran & Bougie, 2016; Creswell, 2014; Saunders et al., 2019; Field, 2018; Pallant, 2020; Bryman, 2016; Cooper & Schindler, 2014; Tabachnick & Fidell, 2019; Kothari, 2004).

This study consists of one dependent variable and four independent variables. The dependent variable is firm value, measured using *Price to Book Value* (PBV), which reflects market valuation relative to book value. The independent variables include firm size, capital structure, liquidity, and profitability. Firm size is measured using total assets, representing the scale of company operations. Capital structure is measured using the *Debt to Equity Ratio* (DER), reflecting the proportion of debt financing. Liquidity is measured using the *Current Ratio* (CR), representing the firm's ability to meet short-term obligations. Profitability is measured using *Return on Equity* (ROE), indicating the firm's ability to generate earnings from shareholders' equity. These financial ratios are widely used in corporate finance research to evaluate firm performance and financial decisions (Fama & French, 1993; Frank & Goyal, 2009; Nissim & Penman, 2001; Fairfield & Yohn, 2001; Hirdinis, 2019; Nurwulandari, 2021; Febriyanti & Hasibuan, 2025; Jubaedah et al., 2016).

The data analysis technique used in this study is panel data regression analysis. Panel data regression combines cross-sectional and time-series data, allowing the model to control for individual heterogeneity and improve estimation efficiency. The regression model used in this study is expressed as follows:

$$\text{Firm Value} = \beta_0 + \beta_1 \text{Firm Size} + \beta_2 \text{Capital Structure} + \beta_3 \text{Liquidity} + \beta_4 \text{Profitability} + \varepsilon \quad (1)$$

Model selection was conducted using the Chow test and Hausman test to determine the most appropriate panel data model among the *Common Effect Model*, *Fixed Effect Model*, and *Random Effect Model*. The Chow test was used to compare the *Common Effect Model* with the *Fixed Effect Model*, while the Hausman test was used to determine whether the *Fixed Effect Model* or *Random Effect Model* was more appropriate. Based on these tests, the *Fixed Effect Model* was selected as the best model for this study. Hypothesis testing was conducted using the t-test to examine partial effects and the F-test to examine simultaneous effects, with a significance level of 5%. The coefficient of determination (R^2) was used to evaluate the explanatory power of the model. Panel data regression is widely used in financial research because it provides more informative data, greater variability, and reduced multicollinearity compared to pure cross-sectional or time-series models (Baltagi, 2005; Gujarati & Porter, 2009; Wooldridge, 2010; Hsiao, 2014; Greene, 2018; Brooks, 2019; Verbeek, 2017; Kennedy, 2008; Gujarati, 2003; Wooldridge, 2013).

4. RESULTS AND DISCUSSION

This study examines the effect of firm size, capital structure, liquidity, and profitability on firm value in telecommunications companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The analysis uses panel data regression with the *Fixed Effect Model* (FEM), which was selected based on the Chow test and Hausman test results. The panel dataset consists of 19 companies observed over five years, resulting in 95 balanced observations. The FEM approach is considered appropriate because it accounts for firm-specific heterogeneity and allows more accurate estimation of the relationship between financial variables and firm value (Baltagi, 2005; Gujarati & Porter, 2009; Wooldridge, 2010; Hsiao, 2014; Greene, 2018; Brooks, 2019; Verbeek, 2017; Kennedy, 2008; Gujarati, 2003; Wooldridge, 2013).

Table 1. Fixed Effect Panel Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.148644	2.298372	1.369945	0.1750
TA	-1.09E-05	5.69E-05	-0.190746	0.8493
CR	-0.043204	0.014605	-2.958188	0.0042
DER	0.346620	0.418371	0.828498	0.4101
ROE	0.011672	0.032986	0.353852	0.7245

Effects Specification

Cross-section fixed (*dummy variables*)

Indicator	Value	Indicator	Value
Root MSE	4.623149	R-squared	0.429786
Mean dependent var	2.770316	Adjusted R-squared	0.255554

S.D. dependent var	6.154841	S.E. of regression	5.310476
Akaike info criterion	6.384240	Sum squared resid	2030.483
Schwarz criterion	7.002547	Log likelihood	-280.2514
Hannan-Quinn criter.	6.634082	F-statistic	2.466745
Durbin-Watson stat	2.534504	Prob(F-statistic)	0.002184

The regression results indicate that liquidity has a negative and significant effect on firm value. This finding is shown by the probability value of 0.0042, which is lower than the significance level of 0.05. The negative coefficient of liquidity indicates that an increase in the *Current Ratio* tends to reduce *Price to Book Value* (PBV). This result suggests that excessively high liquidity may not always be interpreted positively by investors. In telecommunications companies, large amounts of current assets or idle cash may signal inefficient resource allocation and weak investment productivity. Since the telecommunications industry is highly capital intensive and requires continuous investment in infrastructure, technology, and network expansion, investors may expect companies to allocate resources more aggressively toward productive investment rather than maintaining excessive liquid assets. Consequently, excessive liquidity may reduce investor confidence and lower firm value.

This finding supports the argument that liquidity should be managed at an optimal level rather than maximized excessively. Although adequate liquidity is important to ensure operational continuity and reduce short-term financial risk, excessive liquidity may reflect inefficiency in working capital management. Investors may perceive idle current assets as a missed opportunity to generate higher returns through productive investment activities. This finding is consistent with studies conducted by Eljelly (2004), Saleem and Rehman (2011), Hirdinis (2019), Prasetyo and Wicaksono (2021), which indicate that liquidity may negatively influence firm value when firms fail to utilize liquid resources efficiently.

The results further show that firm size does not have a significant effect on firm value. This is indicated by the probability value of 0.8493, which is greater than 0.05. The insignificant relationship suggests that the magnitude of total assets does not necessarily increase investor valuation in telecommunications companies. Although large firms generally possess greater resources, stronger market power, and broader operational capacity, investors may focus more on how effectively assets are utilized to generate profits and future growth. In telecommunications companies, large asset ownership is often accompanied by high infrastructure costs, depreciation expenses, and substantial capital expenditures, which may reduce efficiency and limit profitability growth.

This finding indicates that investors prioritize asset productivity rather than asset magnitude itself. Large companies may not automatically achieve higher firm value if the assets owned are not managed efficiently. In capital-intensive industries, the ability to optimize infrastructure investment and generate sustainable returns is considered more important than simply expanding total assets. This result is consistent with previous empirical studies by Fama and French (1993), Frank and Goyal (2009), Hirdinis (2019), Siahaan et al. (2014), Prasetyo and Wicaksono (2021), which reported that firm size does not always significantly influence firm value.

The analysis also indicates that capital structure does not significantly affect firm value. This result is reflected in the probability value of 0.4101, which exceeds the significance level of 0.05. The insignificant effect of *Debt to Equity Ratio* (DER) suggests that leverage decisions are not the primary consideration for investors in evaluating telecommunications companies. In the telecommunications sector, debt financing is commonly used to support infrastructure development, network expansion, and technological investment. Therefore, investors may perceive leverage as a normal financing strategy rather than a major source of financial risk.

This finding also indicates that the market may focus more on the company's ability to manage debt effectively rather than the level of debt itself. As long as firms maintain stable cash flows and demonstrate the ability to meet long-term obligations, leverage may not significantly influence firm value. In addition, telecommunications companies often operate with long-term financing structures that reduce the short-term impact of leverage on market valuation. This result is consistent with *trade-off theory*, which states that the impact of debt depends on the balance between tax benefits and financial distress risk. Previous studies by Modigliani and Miller (1958), Kraus and Litzenberger (1973), Myers and Majluf (1984), Frank and Goyal (2009), Hirdinis (2019), Prasetyo and Wicaksono (2021), also reported inconsistent or insignificant relationships between capital structure and firm value.

Furthermore, profitability does not significantly affect firm value. The probability value of 0.7245 indicates that *Return on Equity* (ROE) does not significantly explain variations in firm value among telecommunications companies. This result suggests that short-term profitability is not the primary factor considered by investors in valuing firms within this industry. Telecommunications companies typically face high depreciation expenses, infrastructure investment cycles, and rapid technological changes, which may

cause fluctuations in profitability. As a result, investors may place greater emphasis on long-term growth potential, operational sustainability, and financial stability rather than short-term earnings performance.

This finding implies that profitability alone may not fully capture the market valuation of telecommunications firms. High profitability in a certain period may not necessarily indicate sustainable long-term performance, especially in industries characterized by continuous technological investment and high operational costs. Investors may therefore evaluate broader strategic factors such as network expansion, technological capability, and future market competitiveness. This result is consistent with studies conducted by Fama and French (1993), Nissim and Penman (2001), Fairfield and Yohn (2001), Hirdinis (2019), Prasetyo and Wicaksono (2021), which found that profitability does not always significantly influence firm value in capital-intensive industries.

Simultaneously, firm size, capital structure, liquidity, and profitability jointly influence firm value. This is indicated by the probability value of the F-statistic of 0.002184, which is lower than 0.05. The result demonstrates that firm value is determined by the combined influence of multiple financial factors rather than a single variable. Although liquidity is the only variable that significantly affects firm value individually, the combination of all variables improves the explanatory power of the model. The adjusted R-squared value of 0.255554 indicates that approximately 25.56% of the variation in firm value can be explained by firm size, capital structure, liquidity, and profitability, while the remaining variation is influenced by other factors outside the model.

These findings indicate that investors evaluate telecommunications companies comprehensively by considering financial stability, operational performance, financing decisions, and long-term sustainability. The telecommunications industry is characterized by high capital requirements and rapid technological change, making financial management decisions particularly important in influencing investor perception and market valuation. Therefore, companies should focus on maintaining financial efficiency, optimizing resource allocation, and ensuring long-term financial sustainability to enhance firm value.

This study contributes theoretically to the corporate finance literature by providing empirical evidence regarding the determinants of firm value in capital-intensive industries. The findings emphasize that liquidity plays a more dominant role than firm size, capital structure, and profitability in determining firm value within telecommunications companies. The negative significant effect of liquidity suggests that investors may interpret excessive liquidity as a signal of inefficient resource utilization rather than financial strength. This finding extends signaling theory by demonstrating that the market response to liquidity depends not only on financial stability but also on the efficiency of asset utilization and investment allocation.

The study also provides practical implications for managers of telecommunications companies. Since liquidity significantly influences firm value, companies should maintain liquidity at an optimal level rather than accumulating excessive current assets. Management should improve working capital efficiency, optimize cash allocation, and ensure that liquid assets are utilized productively to support operational activities and strategic investment. Excessive liquidity may reduce investor confidence if it signals idle resources or inefficient financial management.

The insignificant effect of firm size indicates that increasing total assets alone is insufficient to improve firm value. Therefore, managers should prioritize asset efficiency and ensure that infrastructure and technological investments generate sustainable returns. Likewise, the insignificant effect of capital structure suggests that managers should focus on maintaining optimal leverage and financial flexibility rather than merely increasing or reducing debt levels. Effective debt management supported by stable cash flows remains essential for maintaining investor confidence.

Additionally, the insignificant effect of profitability suggests that managers should not rely solely on short-term earnings performance to enhance firm value. Instead, telecommunications companies should focus on long-term growth strategies, operational sustainability, service quality improvement, and technological innovation. Strategic investments may reduce short-term profitability but contribute positively to long-term firm value and market competitiveness.

This study also provides implications for investors and policymakers. Investors should evaluate liquidity carefully because excessive liquidity may indicate inefficient resource utilization despite reflecting financial stability. Investors should also assess telecommunications companies comprehensively by considering operational efficiency, growth potential, financial sustainability, and investment strategy rather than relying solely on profitability or firm size indicators. For policymakers and regulators, the findings highlight the importance of maintaining financial stability and supporting efficient capital allocation within the telecommunications industry. Policies that improve financial transparency, infrastructure financing flexibility, and investment efficiency may help strengthen firm performance and enhance market valuation in the sector.

5. CONCLUSION

This study aims to examine the effect of firm size, capital structure, liquidity, and profitability on firm value in telecommunications companies listed on the Indonesia Stock Exchange during the 2020–2024 period. Using panel data regression analysis with the *Fixed Effect Model*, the findings reveal that liquidity has a negative and significant effect on firm value. This result indicates that excessively high liquidity levels tend to reduce market valuation, suggesting that investors may perceive excessive current assets as a sign of inefficient resource allocation and low investment productivity. In capital-intensive industries such as telecommunications, investors tend to expect firms to allocate resources efficiently toward infrastructure development, technological investment, and long-term growth rather than maintaining excessive liquid assets. Therefore, liquidity should be maintained at an optimal level to support both financial stability and operational efficiency.

The results further indicate that firm size does not significantly affect firm value. This finding suggests that the magnitude of company assets does not necessarily lead to higher market valuation. Investors appear to place greater emphasis on asset efficiency and the ability of firms to generate returns from their resources rather than the absolute size of assets. In telecommunications companies, large asset ownership often reflects infrastructure investments that may not immediately generate profits, thereby weakening the relationship between firm size and firm value.

Similarly, capital structure is found to have no significant effect on firm value. This result implies that leverage decisions may not directly influence investor valuation in telecommunications companies. The use of debt is common in this sector due to high capital expenditure requirements, and investors may perceive leverage as a normal financing strategy. As long as firms are able to manage debt effectively and maintain stable cash flows, leverage levels may not significantly affect firm value. This finding suggests that financial flexibility and effective debt management are more important than leverage magnitude itself.

Profitability is also found to have no significant effect on firm value. This finding indicates that short-term earnings may not be the primary consideration for investors in evaluating telecommunications companies. Profitability in this sector tends to fluctuate due to high depreciation costs, infrastructure investment cycles, and technological upgrades. Investors may therefore prioritize long-term growth potential and financial stability rather than short-term profitability. This result highlights that firm value in telecommunications companies is influenced more by financial stability and investment efficiency than by temporary earnings performance.

Although only liquidity significantly affects firm value individually, the simultaneous test indicates that firm size, capital structure, liquidity, and profitability collectively influence firm value. This finding suggests that investors evaluate companies based on a combination of financial indicators rather than relying on a single factor. Therefore, telecommunications companies should focus on optimizing working capital management, improving asset utilization efficiency, maintaining financial flexibility, and implementing sustainable long-term growth strategies to enhance firm value.

This study has several limitations that should be considered when interpreting the findings. First, the study focuses only on telecommunications companies listed on the Indonesia Stock Exchange, which limits the generalizability of the results to other industries. Different sectors may have different financial characteristics and determinants of firm value. Second, this study uses a limited observation period from 2020 to 2024, which may not fully capture long-term financial dynamics and structural changes in the telecommunications industry. Third, the study includes only four financial variables, namely firm size, capital structure, liquidity, and profitability. Other factors such as growth opportunities, dividend policy, corporate governance, macroeconomic conditions, and investment decisions may also influence firm value but are not included in this study.

Future research is recommended to expand the scope of the study by including companies from other sectors to compare determinants of firm value across industries. Comparative studies between capital-intensive and non-capital-intensive industries may provide deeper insights into the role of financial variables in determining firm value. Future studies may also extend the observation period to capture long-term financial performance and structural changes in the telecommunications industry.

In addition, future research is encouraged to include additional variables such as growth opportunities, investment decisions, dividend policy, corporate governance, and firm risk to provide a more comprehensive explanation of firm value. The inclusion of macroeconomic variables such as interest rates, inflation, and economic growth may also improve the explanatory power of the model. Furthermore, future studies may employ alternative measurement approaches such as Tobin's Q, market capitalization, or economic value added to capture firm value more comprehensively. Future research may also apply advanced econometric methods such as dynamic panel models, generalized method of moments (GMM), or moderating and mediating variable analysis to better understand the relationships among financial variables and firm value. These approaches may provide deeper insights into causal relationships and improve the robustness of empirical findings.

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