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DISCOUNTED CASH FLOW VALUATION OF INDONESIAN TELECOMMUNICATION STOCKS: INVESTMENT IMPLICATIONS FOR PT LEMBUR SADAYA INVESTAMA

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ABSTRACT

Background: The telecommunications sector in Indonesia has experienced rapid growth driven by increasing internet penetration and expanding digital infrastructure. The rising demand for mobile data services has strengthened the role of telecommunications companies as key enablers of the national digital economy.
Purpose: This study aims to estimate the intrinsic value of telecommunication companies listed on the Indonesia Stock Exchange using the Discounted Cash Flow (DCF) method to support investment decision-making.
Design/Methodology/Approach: This study employs a fundamental valuation approach using the Free Cash Flow to Firm (FCFF) model. Financial data from 2017–2023 were obtained from audited annual reports of PT Telekomunikasi Indonesia Tbk (TLKM), PT Indosat Tbk (ISAT), and PT XL Axiata Tbk (EXCL). Future cash flows were projected based on historical financial performance and discounted using the Weighted Average Cost of Capital (WACC).
Findings/Result: The valuation results indicate that the intrinsic values of TLKM, ISAT, and EXCL are estimated at Rp 4,047, Rp 14,281, and Rp 2,801 per share, respectively. These values exceed their corresponding market prices at the time of analysis, indicating that the stocks are undervalued.
Conclusion: The findings suggest that telecommunications stocks in Indonesia offer potential long-term investment opportunities.
Originality/Value: This study provides empirical evidence on the intrinsic valuation of Indonesian telecommunication stocks using an FCFF-based DCF framework.

Keywords: discounted cash flow, intrinsic value, investment decision, stock valuation, telecommunication industry

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INTRODUCTION

Investment decision making in capital markets requires a comprehensive evaluation of a firm's financial performance and growth prospects in order to ensure that capital is allocated efficiently. Investors continuously face the challenge of determining whether the price of a stock reflects its true economic value. One of the most widely used analytical approaches to address this challenge is stock valuation. Stock valuation aims to estimate the intrinsic value of a company based on its expected future cash flows and underlying financial fundamentals. By comparing intrinsic value with the prevailing market price, investors are able to determine whether a stock is undervalued, fairly valued, or overvalued. This process provides a rational basis for investment decisions and helps reduce uncertainty in financial markets (Damodaran, 2002).

Within the broader capital market environment, the telecommunications industry has become one of the most strategically important sectors in the global digital economy. The rapid development of information and communication technologies has significantly transformed the structure of modern economies. The increasing adoption of digital services, mobile broadband networks, cloud computing infrastructure, and Internet of Things technologies has generated substantial demand for reliable data connectivity. Telecommunications companies, therefore, play a critical role as infrastructure providers that support digital transformation across industries and societies.

The significance of telecommunications companies has become particularly evident in emerging markets such as Indonesia. Over the past decade, Indonesia has experienced a rapid expansion in digital connectivity driven by increasing smartphone adoption, improved internet infrastructure, and the growing integration of digital platforms into everyday economic activities. According to data from the Indonesian Internet Service Providers Association, internet penetration in Indonesia reached 78.19 percent in 2023. This indicates that more than three-quarters of the national population is connected to the internet. The number of internet users reached approximately 215.63 million people during the 2022 to 2023 period, reflecting a continuous upward trend in digital adoption across the country.

Figure 1 presents the growth of internet penetration in Indonesia over several years. The data illustrate a consistent increase in the percentage of internet users, which reflects the expansion of digital infrastructure and the growing dependence of society on digital communication technologies. The increasing level of digital connectivity is expected to generate positive implications for the financial performance of telecommunications companies. Higher internet penetration increases data consumption, service subscriptions, and digital traffic, which in turn may enhance revenue growth and operating cash flows for telecommunications operators. From an investment perspective, these developments may influence the valuation of telecommunications companies and make the sector increasingly attractive for investors seeking long-term growth opportunities.

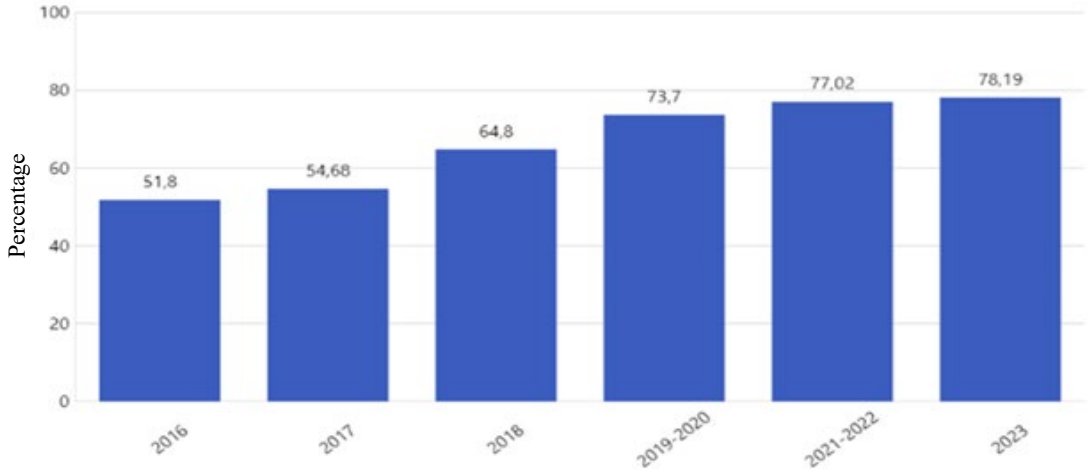

Figure 1. Internet Penetration in Indonesia according to APJII

In addition to growth opportunities, the telecommunications sector also faces structural changes that influence financial performance and valuation dynamics. The rapid expansion of over-the-top digital platforms has altered traditional telecommunications revenue models. Services such as internet messaging, streaming platforms, and cloud based applications have reduced the reliance on traditional voice and short message services while simultaneously increasing demand for data services. These technological disruptions have forced telecommunications operators to adapt their business models and revenue strategies in order to remain competitive within the evolving digital ecosystem (Confido et al. 2018; Arifiani, 2019).

Despite the strong growth potential of the telecommunications industry, market prices of stocks do not always fully reflect the intrinsic value of companies. Financial markets are influenced by multiple factors, including investor sentiment, information asymmetry, macroeconomic conditions, and short-term market volatility. As a result, stock prices may deviate from their fundamental value even when companies demonstrate strong financial performance. Such deviations create opportunities for investors who are able to identify mispriced securities through fundamental valuation analysis (Koller, Goedhart, & Wessels, 2020).

Among the various valuation techniques used in financial analysis, the Discounted Cash Flow method remains one of the most widely accepted approaches in corporate finance. The DCF method estimates the intrinsic value of a firm by projecting future cash flows and discounting them to their present value using an appropriate cost of capital. This approach directly links firm value to its ability to generate cash flows over time and therefore provides a theoretically sound framework for evaluating investment opportunities (Damodaran, 2002).

The Free Cash Flow to Firm approach is commonly used within the DCF framework to measure the cash flows available to all providers of capital, including both equity holders and debt holders. Free cash flow represents the net cash generated by a company after accounting for operating expenses, taxes, and investments required to maintain or expand the firm's asset base. Because free cash flow captures the economic value generated by business operations, it is considered a reliable indicator of a firm's long-term financial sustainability.

Previous empirical research has shown that DCF valuation can provide meaningful insights into stock pricing and intrinsic value estimation. Ivanovska, Ivanovski, and Narasanov (2014) demonstrate that fundamental valuation models based on discounted cash flows are capable of identifying discrepancies between market prices and intrinsic value in capital markets. Other studies indicate that the accuracy of stock valuation improves when cash flow based models are combined with additional financial indicators such as profitability ratios, liquidity indicators, and value creation measures (Frensidy, Pelealu, & Robiyanto, 2020).

However, several scholars also highlight limitations associated with traditional DCF models, particularly when applied in dynamic industries and emerging markets. Valuation outcomes may be highly sensitive to assumptions regarding growth rates, discount rates, and long-term cash flow projections. In industries characterized by rapid technological change and regulatory uncertainty, these assumptions may become difficult to estimate with precision. Consequently, valuation results may vary depending on the analytical framework and scenario assumptions used in the model. In modern financial research, firm valuation methods continue to evolve in order to improve the accuracy of investment decision making. Traditional intrinsic valuation approaches, such as the Discounted Cash Flow model, are often complemented by other analytical frameworks that incorporate broader financial information. Studies in financial economics highlight that stock valuation accuracy improves when financial statement information, risk factors, and capital market dynamics are jointly considered in valuation analysis (Penman, 2013). In addition, asset pricing research suggests that stock returns are influenced by multiple risk factors beyond traditional market risk, including profitability and investment characteristics, which may also affect how investors interpret firm value (Fama & French, 2015).

Furthermore, valuation practitioners often combine intrinsic valuation methods with market based indicators in order to obtain more reliable estimates of firm value. Comparative valuation using financial multiples is frequently used alongside discounted cash flow analysis to provide additional benchmarks for stock valuation (Liu, Nissim, & Thomas, 2002). These approaches demonstrate that stock valuation should not rely solely on one analytical technique but may

benefit from integrating multiple perspectives on firm performance and market expectations.

The telecommunications industry in Indonesia represents a particularly interesting context for examining stock valuation dynamics. The sector is characterized by an oligopolistic market structure dominated by a small number of major operators, including PT Telekomunikasi Indonesia Tbk, PT Indosat Tbk, and PT XL Axiata Tbk. These companies compete intensively in providing mobile data services, network infrastructure, and digital connectivity solutions. At the same time, they must continuously invest in network expansion, spectrum acquisition, and technological upgrades in order to support increasing demand for digital services.

Given these characteristics, valuation analysis becomes essential for investors seeking to assess the financial prospects of telecommunications companies in Indonesia. Despite the availability of financial information and market data, there remains limited empirical research that applies a comprehensive DCF based valuation framework to telecommunications firms listed on the Indonesia Stock Exchange. Existing studies often combine multiple valuation approaches or focus on broader market analyses rather than providing detailed intrinsic value estimation for specific telecommunications companies.

Therefore, further research is needed to examine whether the market prices of major Indonesian telecommunications companies accurately reflect their fundamental value. A systematic valuation analysis using the Discounted Cash Flow method may provide deeper insights into the relationship between financial performance and stock pricing within this sector.

Based on this context, the purpose of this study is to estimate the intrinsic value of telecommunications companies listed on the Indonesia Stock Exchange using the Discounted Cash Flow method with the Free Cash Flow to Firm approach. By comparing the estimated intrinsic value with the prevailing market price, this study aims to determine whether the selected telecommunications stocks are undervalued or overvalued. The results of this research are expected to contribute to the literature on stock valuation in emerging markets and provide practical insights for investors and institutional decision makers in evaluating investment opportunities within the telecommunications sector.

METHODS

This study applies a quantitative valuation approach to estimate the intrinsic value of selected telecommunications companies listed on the Indonesia Stock Exchange. The valuation analysis is conducted using the Discounted Cash Flow method with the Free Cash Flow to Firm approach. The DCF approach is widely applied in financial analysis because it evaluates the economic value of a firm based on its ability to generate future cash flows. By projecting future free cash flows and discounting them to their present value, the model provides an estimate of the intrinsic value of a firm. This approach is considered theoretically sound in corporate finance because it links firm value directly to operational performance and expected financial sustainability (Damodaran, 2002).

The research focuses on three major telecommunications companies listed on the Indonesia Stock Exchange, namely PT Telekomunikasi Indonesia Tbk, PT Indosat Tbk, and PT XL Axiata Tbk. These companies represent the dominant telecommunications operators in Indonesia and account for a substantial share of the national telecommunications market. The selection of these firms is based on their significant market capitalization, availability of financial data, and their strategic role in supporting Indonesia's digital economy.

The research is conducted using secondary financial data obtained from publicly available financial databases and official corporate disclosures. The primary data sources include the official website of the Indonesia Stock Exchange and the published annual reports of the selected companies. The study analyzes financial data covering the period from 2017 to 2023. This time period is selected in order to capture recent financial performance trends and to provide a sufficient historical basis for projecting future cash flows. The analysis and data processing were conducted during the 2024 research period.

This study uses secondary quantitative data. The financial data include information from audited financial statements of the selected companies, including income statements, balance sheets, and cash flow statements. These financial statements provide the necessary information to calculate operating cash flows, capital expenditures, debt structure, and other financial indicators required for valuation analysis.

Additional market data used in this study include stock prices, market index returns, and government bond yields. Stock price data are used to compare the estimated intrinsic value with market value in order to determine whether the selected stocks are undervalued or overvalued. Government bond yields are used as a proxy for the risk-free rate in estimating the cost of equity within the Capital Asset Pricing Model. Market return data are obtained from the Jakarta Composite Index, which represents the overall performance of the Indonesian capital market.

The data collection technique used in this research is a documentation method. Financial statements and annual reports were collected from the official website of the Indonesian Stock Exchange and from the investor relations sections of the companies' websites. Market data such as stock prices, bond yields, and market index returns were obtained from financial databases and publicly available financial market reports. The collected data were then organized and processed for financial analysis and valuation modeling.

The valuation analysis follows several sequential steps using the Discounted Cash Flow model with the Free Cash Flow to Firm approach.

Financial Data Collection

The first stage involves collecting historical financial data from the selected companies. Key financial indicators analyzed include revenue, operating income, capital expenditures, working capital, and operating cash flows. These variables are essential in estimating the cash generating capability of each firm.

Forecasting Operating Performance

Future financial performance is projected based on historical trends observed during the period from 2017 to 2023. The projection process includes estimates of revenue growth, operating expenses, changes in working capital, and tax expenses. These projected financial components are used to estimate future cash flow from operations.

Estimation of Capital Expenditure

Capital expenditures represent investments made by companies to maintain and expand their fixed asset base. In the telecommunications sector, capital expenditures are particularly important because companies must continuously invest in network infrastructure and technological upgrades. Capital expenditure projections are estimated based on historical capital investment patterns observed in the financial statements.

Calculation of Free Cash Flow to Firm

Free Cash Flow to Firm (FCFF) represents the cash flow available to all providers of capital, including both equity holders and debt holders. FCFF is calculated using the following formula.

FCFF = Cash Flow from Operations + Interest multiplied by one minus tax minus Capital Expenditure

Free cash flow provides an indication of the firm's ability to generate cash from its core operations after accounting for investments required to maintain and expand its asset base.

Estimation of Cost of Capital

The discount rate used in the DCF model is the Weighted Average Cost of Capital. WACC represents the average cost of financing from both equity and debt sources. The cost of equity is estimated using the Capital Asset Pricing Model.

$$Re = Rf + \beta (Rm - Rf)$$

Rf represents the risk-free rate, which is proxied by the yield of Indonesian government bonds with a ten-year maturity. Beta represents the systematic risk of the company's stock relative to the overall market. Rm represents the expected market return measured using the Jakarta Composite Index. The cost of debt is estimated based on the effective interest rate paid on corporate debt adjusted for the corporate tax rate. The Weighted Average Cost of Capital is calculated using the proportion of equity and debt in the company's capital structure.

Terminal Value Estimation

Since companies are assumed to operate indefinitely, a terminal value is calculated to estimate the value of cash flows beyond the explicit projection period. Terminal value is estimated using the perpetuity growth model, which assumes that cash flows grow at a constant rate in the long term. The long term growth rate is assumed

to reflect the long term economic growth rate of Indonesia.

$TV = FCFF_{n+1} / (WACC - g)$

where g = long-term growth rate, assumed to follow the long-term growth rate of the Indonesian economy.

Calculation of Enterprise Value

Enterprise value is obtained by discounting projected free cash flows and terminal value to their present value using the Weighted Average Cost of Capital. Enterprise value represents the total value of the firm attributable to all providers of capital.

$EV = \Sigma [FCFF_t / (1 + WACC)^t] + TV / (1 + WACC)^n$

where EV = Enterprise Value; $FCFF_t$ = Free Cash Flow to Firm in year t; TV = Terminal Value; n = end of projection period.

Calculation of Equity Value

Equity value is obtained by subtracting net debt from enterprise value. Net debt is calculated as total debt minus cash and cash equivalents. This step isolates the portion of firm value attributable specifically to shareholders.

Equity Value = Enterprise Value − Net Debt

where Net Debt = Total Debt − Cash and Cash Equivalents.

Intrinsic Value per Share

The intrinsic value per share is obtained by dividing equity value by the total number of outstanding shares. This value represents the estimated fair price of the company's stock based on fundamental valuation.

Intrinsic Value per Share = Equity Value / Shares Outstanding

Investment Decision

Investment decisions are determined by comparing intrinsic value with the current market price of each stock. If the intrinsic value is higher than the market price, the stock is considered undervalued and may represent a potential investment opportunity. If the intrinsic value is lower than the market price, the stock is considered overvalued.

Based on fundamental valuation theory, stock prices in capital markets may deviate from intrinsic value due to information asymmetry, market inefficiencies, and investor sentiment. The Discounted Cash Flow model is designed to estimate the intrinsic value of firms based on expected future cash flows. If the intrinsic value estimated using the DCF approach is higher than the market price, the stock is considered undervalued and may provide potential investment opportunities. Based on this theoretical foundation, the hypothesis proposed in this study is as follows.

H1: The intrinsic value of telecommunications companies estimated using the Discounted Cash Flow method differs from the prevailing market price of the stocks.

The conceptual framework of this study illustrates the process of estimating intrinsic stock value using financial statement analysis and the Discounted Cash Flow valuation approach (Figure 2). The framework begins with the collection of financial statement data from telecommunications companies listed on the Indonesia Stock Exchange. These financial data are used to estimate future free cash flows through financial projections. The projected free cash flows are then discounted using the Weighted Average Cost of Capital in order to obtain enterprise value and equity value. Finally, the intrinsic value per share is compared with the market price of the stock in order to determine whether the stock is undervalued or overvalued and to provide investment recommendations.

RESULTS

Financial Performance of Telecommunication Companies

The three companies analyzed in this study, namely PT Telekomunikasi Indonesia Tbk, PT Indosat Tbk, and PT XL Axiata Tbk, represent the largest telecommunications operators in Indonesia. These firms play a strategic role in providing telecommunications infrastructure and digital connectivity services across the country. As dominant market participants, their financial performance reflects broader trends within the Indonesian telecommunications industry.

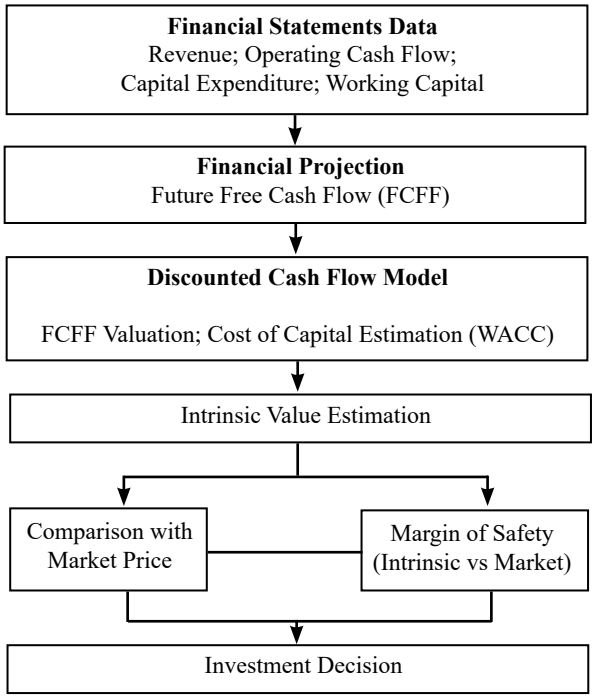

Figure 2. Conceptual framework

Financial data obtained from the companies' annual reports indicate that the three firms demonstrate relatively stable operating performance during the observation period from 2017 to 2023. One important indicator of financial stability is the level of cash flow generated from operating activities. Cash flow from operating activities shows a generally positive trend across the three companies, suggesting that the firms are capable of generating sustainable cash flows from their core business operations.

Stable operating cash flows are particularly important in capital intensive industries such as telecommunications. Telecommunications operators must continuously invest in network infrastructure, spectrum acquisition, and technological upgrades in order to maintain service quality and expand network coverage. Despite these substantial investment requirements, the positive trend in operating cash flow indicates that the selected companies maintain strong operational capacity to finance both operational expenses and capital investments.

The growth in operating cash flows is closely related to the increasing demand for mobile data services and internet connectivity. The rapid expansion of smartphone usage and digital platforms has significantly increased data traffic across telecommunications networks. As digital services become more integrated into everyday economic activities, telecommunications companies benefit from higher subscription levels and increased demand for data services. These factors contribute to revenue growth and improve the firms' ability to generate sustainable operating cash flows.

In addition, the telecommunications industry in Indonesia benefits from a relatively stable demand structure. Unlike industries that are highly cyclical, telecommunications services are considered essential for modern economic activity. Individuals, businesses, and public institutions rely on digital communication infrastructure to support social interaction, commercial transactions, and information exchange. As a result, demand for telecommunications services tends to remain stable even during periods of economic uncertainty.

FCFF Projection and Cost of Capital Analysis

Based on historical financial data covering the period from 2017 to 2023, projections of Free Cash Flow to Firm were developed for each company. The FCFF projections were derived from key financial components, including revenue growth, operating profit margins, capital expenditure requirements, and working capital adjustments. The projections indicate that the expected free cash flows of the three telecommunications companies exhibit a generally increasing trend over the forecast period.

The increasing FCFF projections reflect the expected growth of the telecommunications industry in Indonesia. Expanding internet penetration, increasing digital service adoption, and continued investments in telecommunications infrastructure are expected to support revenue growth in the sector. In particular, mobile data services have become the primary driver of telecommunications revenue as traditional voice and messaging services gradually decline.

In addition to cash flow projections, the valuation model requires estimation of the cost of capital. The discount rate used in this study is the Weighted Average Cost of Capital, which reflects the average cost of financing from both equity and debt sources. The estimated WACC values for the three companies are relatively moderate, reflecting the stable demand characteristics of the telecommunications industry and relatively manageable borrowing costs.

Moderate WACC levels also reflect the relatively predictable cash flow structure of telecommunications firms. Because telecommunications services are widely used by both individuals and businesses, revenue streams tend to remain relatively stable. This stability reduces the perceived risk associated with telecommunications investments and contributes to moderate capital costs. In valuation analysis, lower discount rates tend to increase the present value of projected cash flows, which can lead to higher intrinsic value estimates.

Intrinsic Value Estimation

Using the Discounted Cash Flow method with the Free Cash Flow to Firm approach, the intrinsic value of each company's stock was estimated by discounting projected future cash flows to their present value. The results of the valuation analysis indicate that the estimated intrinsic values per share are IDR4,047 for TLKM, IDR14,281 for ISAT, and IDR2,801 for EXCL.

These intrinsic values represent the estimated fair value of each company's stock based on projected financial performance and cost of capital assumptions. When compared with the prevailing market prices at the time of analysis, all three stocks appear to be undervalued. This means that the estimated intrinsic value of each company exceeds the observed market price. A summary of the valuation results is presented in Table 1.

The results indicate that the intrinsic value of each company is higher than its corresponding market price. This suggests that the market may undervalue the financial performance and growth prospects of these companies. From an investment perspective, undervalued stocks may represent attractive opportunities because their market prices are expected to converge toward intrinsic value over time.

Factors Influencing Stock Undervaluation

The finding that all three companies appear undervalued can be explained by several factors related to financial market dynamics and industry characteristics. First, stock prices do not always fully reflect the fundamental value of companies. Financial markets are influenced by investor behavior, information asymmetry, and short-term market fluctuations. These factors may cause temporary deviations between market prices and intrinsic value.

In emerging markets such as Indonesia, market inefficiencies may be more pronounced due to limited information availability and varying levels of investor sophistication. As a result, stock prices may temporarily deviate from their fundamental value even when companies demonstrate stable financial performance.
Second, the telecommunications sector is currently undergoing structural transformation. Although the long-term growth prospects of the sector remain strong, investors may still perceive uncertainties related to infrastructure investment costs, regulatory policies, and competitive pressures. Telecommunications companies must continuously invest in network expansion and technological upgrades, which may create short-term pressure on profitability despite strong long-term growth potential.

Third, the Discounted Cash Flow model places significant weight on projected long-term cash flows and terminal value assumptions. Telecommunications companies typically generate relatively stable and recurring revenue streams due to subscription-based service models. When these stable cash flows are projected over long time horizons, the valuation model may produce relatively high intrinsic value estimates.

Table 1. Summary of DCF valuation results for telecommunication companies

Company	PBV	Intrinsic Value (IDR/Share)	Market Price Compared to Intrinsic Value	Valuation Status	Recommendation
TLKM	5.26	4,047	Lower than intrinsic value	Undervalued	Buy
ISAT	5.73	14,281	Lower than intrinsic value	Undervalued	Buy
EXCL	4.89	2,801	Lower than intrinsic value	Undervalued	Buy

*Market price refers to the closing price observed on the valuation date (17 May 2024).

Investment Implications

Based on the comparison between intrinsic value and market price, the results suggest that TLKM, ISAT, and EXCL stocks are undervalued at the time of analysis. For institutional investors such as PT Lembur Sadaya Investama, these findings provide valuable insights for portfolio allocation decisions. Identifying undervalued stocks with strong financial fundamentals and long-term growth prospects may contribute to improved portfolio performance while maintaining a reasonable level of investment risk.

In particular, telecommunications companies represent an important component of the digital economy. As demand for data connectivity continues to grow, companies operating in this sector are expected to maintain strong revenue growth potential. Consequently, telecommunications stocks may offer attractive long-term investment opportunities for investors seeking exposure to digital infrastructure development.

Comparison with Previous Studies

To better understand the implications of these findings, it is important to compare the results of this study with previous empirical research on stock valuation in the telecommunications sector. The results of this study indicate that the intrinsic values of TLKM, ISAT, and EXCL are higher than their corresponding market prices, suggesting that these telecommunications stocks are undervalued according to the Discounted Cash Flow valuation model.

These findings are consistent with previous studies examining stock valuation in the Indonesian telecommunications sector. Neaxie and Hendrawan report that the Discounted Cash Flow method using the Free Cash Flow to Firm approach is widely applied in evaluating telecommunication firms listed on the Indonesia Stock Exchange and frequently identifies discrepancies between intrinsic value and market price. However, previous empirical studies also emphasize that DCF valuation outcomes may vary depending on the assumptions used in the valuation model. Different growth assumptions, discount rates, and terminal value estimates may produce different valuation results. This indicates that the reliability of DCF valuation is highly sensitive to key parameters used in financial projections.

Frensidy and colleagues suggest that combining DCF valuation with relative valuation methods, such as price earnings ratio or price to book value, may improve valuation accuracy. Market-based valuation indicators provide additional information that complements cash flow-based valuation models. These findings are also consistent with broader valuation literature, which emphasizes the importance of integrating multiple analytical perspectives when estimating firm value. Penman explains that financial statement-based valuation provides essential information for understanding the relationship between firm performance and stock valuation outcomes. Financial indicators such as profitability, operating efficiency, and investment activity may significantly influence investors' perceptions of firm value (Penman, 2013).

Similarly, asset pricing research suggests that differences in firm characteristics such as profitability and investment patterns may influence stock pricing dynamics in capital markets. The five-factor asset pricing model proposed by Fama and French highlights that multiple firm-level risk factors contribute to explaining stock returns and valuation differences among companies (Fama & French, 2015). These insights indicate that stock valuation should be interpreted within the broader context of firm performance and market risk factors.

In addition, Liu, Nissim, and Thomas show that valuation methods based on financial multiples can provide complementary insights to discounted cash flow analysis. Their study demonstrates that combining intrinsic valuation models with relative valuation techniques may improve the robustness of equity valuation results (Liu, Nissim, & Thomas, 2002). This perspective supports the argument that future valuation studies may benefit from integrating multiple valuation approaches when analyzing telecommunications firms. Furthermore, industry dynamics also influence valuation outcomes. Arifiani explains that digital transformation and Industry 4.0 technologies have significantly altered the revenue structure of telecommunications operators. Similarly, Confido and colleagues highlight the growing influence of over-the-top digital platforms that disrupt traditional telecommunications business models.

These structural changes imply that valuation models must account for evolving industry conditions. Although the Discounted Cash Flow method remains one of the most widely accepted valuation approaches,

integrating scenario analysis and complementary valuation techniques may improve the robustness of valuation results.

Overall, the findings of this study confirm the relevance of the DCF valuation method for analyzing telecommunications stocks in emerging markets. At the same time, the comparison with previous studies suggests that valuation accuracy may be enhanced by incorporating multiple analytical approaches and by considering technological and regulatory developments within the telecommunications industry.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study aimed to estimate the intrinsic value of telecommunications companies listed on the Indonesia Stock Exchange using the Discounted Cash Flow method with the Free Cash Flow to Firm approach. The analysis focused on three major telecommunications operators in Indonesia, namely PT Telekomunikasi Indonesia Tbk, PT Indosat Tbk, and PT XL Axiata Tbk. These companies represent the dominant players in the Indonesian telecommunications market and play an important role in supporting national digital infrastructure development.

The valuation results indicate that the estimated intrinsic values of the three companies exceed their respective market prices at the time of analysis. The intrinsic value of TLKM is estimated at Rp 4,047 per share, ISAT at Rp 14,281 per share, and EXCL at Rp 2,801 per share. Based on the comparison between intrinsic value and market price, all three stocks are classified as undervalued according to the Discounted Cash Flow valuation model. This finding suggests that the market prices of these telecommunications companies may not fully reflect their fundamental financial performance and long-term cash flow potential.

The results of this study support the theoretical perspective that stock prices in financial markets may temporarily deviate from intrinsic value due to information asymmetry, investor behavior, and short term market volatility. In emerging markets such as Indonesia, these deviations may create opportunities for investors who apply fundamental valuation techniques in identifying potential mispricing. By estimating intrinsic value through projected cash flows and cost of capital analysis, the Discounted Cash Flow approach provides a systematic framework for evaluating the economic value of firms.

From an industry perspective, the positive valuation outlook of telecommunications companies is closely related to the continued expansion of digital connectivity in Indonesia. Increasing internet penetration, rising smartphone usage, and growing demand for digital services have strengthened the role of telecommunications operators as essential providers of digital infrastructure. These trends contribute to stable revenue streams and long-term growth potential within the telecommunications sector.

Recommendations

The findings of this study also have practical implications for institutional investors such as PT Lembur Sadaya Investama. The identification of undervalued telecommunications stocks may support more strategic portfolio allocation decisions. Investing in companies with strong financial fundamentals and positive industry prospects may enhance long-term portfolio performance while maintaining a balanced level of investment risk.

Despite providing useful insights into stock valuation in the Indonesian telecommunications sector, this study has several limitations. The valuation results depend heavily on the assumptions used in projecting future cash flows, including revenue growth rates, capital expenditure requirements, and the estimated cost of capital. Changes in these assumptions may significantly affect intrinsic value estimates. In addition, the analysis focuses on a limited number of companies within a single industry, which may limit the generalizability of the findings to other sectors.

Future research may extend this study in several ways. First, further studies may incorporate additional valuation approaches such as relative valuation methods, including price to earnings ratio, price to book value, and enterprise value to earnings before interest, taxes, depreciation, and amortization. Combining multiple valuation techniques may provide a more comprehensive assessment of stock value and improve the robustness of valuation results.

Second, future research may broaden the scope of analysis by including companies from other sectors within the digital economy, such as technology firms, digital platform companies, and data infrastructure providers. Such studies may provide a deeper understanding of valuation dynamics within the broader digital ecosystem.

Third, future studies may conduct sensitivity analysis or scenario analysis in order to evaluate how changes in key assumptions, such as discount rates, growth projections, and macroeconomic conditions, influence intrinsic value estimates. Sensitivity analysis may provide additional insights into the level of uncertainty associated with valuation models and improve the reliability of investment decision making.

Overall, this study contributes to the growing literature on stock valuation in emerging markets by providing empirical evidence on the intrinsic valuation of Indonesian telecommunications companies using a fundamental cash flow-based approach. The findings highlight the importance of applying rigorous financial analysis in evaluating investment opportunities and support the continued relevance of the Discounted Cash Flow method in modern capital market research.

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