

**Financial Performance Analysis and Z-Score Assessment Of
Telecommunication Industry: PT Indonesia, PT XL Axiata, PT Indosat
Ooredoo, PT Smartfren Telecom Before and After Covid19 Pandemic**

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ABSTRACT

The COVID-19 pandemic created changes in the telecommunications industry in Indonesia. During the pandemic, demand for digital services increased as people relied on online platforms for work, education, and daily activities. This led to an increase in demand for telecom companies. However, after the pandemic ended and people returned to normal physical activities, sales growth in the telecom industry began to decline. This study aims to understand the impact of COVID-19 on the financial performance of Indonesia's telecommunications industry, analyze the performance of each company, assess their risk of bankruptcy, and propose strategies to address these challenges. To achieve these objectives, quantitative approaches such as financial ratio metrics, including profitability, liquidity, solvency, and activity, were calculated. Statistical tests, including paired t-tests, Wilcoxon signed-rank tests, and Kolmogorov-Smirnov tests, were conducted to compare the financial performance of the Indonesian telecommunications industry before and after the pandemic. The Altman Z-Score model was also used to measure bankruptcy risk and identify whether the companies are in financial distress. The results showed a significant difference in Indonesia's telecommunications industry's financial performance before and after the pandemic in terms of profitability, as measured by ROA, ROE, and NPM, all of which showed an increase. Among the major players, PT Telkom Indonesia Tbk led the industry with strong and stable financial performance and was the only company classified in the "safe zone" by the Altman Z-Score. XL Axiata also maintained stability, although its performance was lower than Telkom and Indosat. Indosat Hutchison showed improvement during the period, partly due to its merger with Hutchison and initiatives such as massive tower sales and continuous innovation, which helped strengthen its position in the market. On the other hand, Smartfren faced significant struggles, showing a decline in profitability and being heavily in financial distress.

Keywords: COVID19 Pandemic, Financial Performance, Telecommunication Industry, Altman Z-Score

ABSTRAK

Pandemi COVID-19 menciptakan perubahan pada industri telekomunikasi di Indonesia. Selama pandemi, permintaan akan layanan digital meningkat karena masyarakat bergantung pada platform *online* untuk bekerja, belajar, dan aktivitas sehari-hari. Hal ini menyebabkan peningkatan permintaan bagi perusahaan telekomunikasi. Namun, setelah pandemi berakhir dan masyarakat kembali melaksanakan aktivitas fisik secara normal, pertumbuhan penjualan di industri telekomunikasi mulai menurun. Penelitian ini bertujuan untuk memahami dampak COVID-19 terhadap kinerja keuangan industri telekomunikasi Indonesia, menganalisis kinerja masing-masing perusahaan, menilai risiko kebangkrutan, dan mengusulkan strategi untuk mengatasi tantangan tersebut. Untuk mencapai tujuan ini, digunakan metrik rasio keuangan seperti profitabilitas, likuiditas, solvabilitas, dan aktivitas.

Uji statistik, termasuk uji t-berpasangan, uji Wilcoxon signed-rank, dan uji Kolmogorov-Smirnov, juga dilakukan untuk membandingkan kinerja keuangan industri telekomunikasi Indonesia sebelum dan setelah pandemi. Model Altman Z-Score juga digunakan untuk mengukur risiko kebangkrutan. Hasil penelitian menunjukkan adanya perbedaan yang signifikan dalam kinerja keuangan industri telekomunikasi Indonesia sebelum dan setelah pandemi dalam hal profitabilitas, yang diukur dengan ROA, ROE, dan NPM, yang mengalami peningkatan. Di antara perusahaan besar lainnya, PT Telkom Indonesia Tbk memimpin industri dengan kinerja keuangan yang kuat dan stabil, serta merupakan satu-satunya perusahaan yang diklasifikasikan dalam “zona aman” menurut Altman Z-Score. PT XL Axiata juga mempertahankan stabilitas, meskipun kinerjanya lebih rendah dibandingkan Telkom dan Indosat. PT Indosat Hutchison menunjukkan peningkatan selama periode tersebut, sebagian besar karena merger dengan Hutchison dan inisiatif seperti penjualan menara serta inovasi berkelanjutan yang membantu memperkuat posisinya di pasar. Di sisi lain, Smartfren menghadapi kesulitan signifikan, menunjukkan penurunan profitabilitas dan berada dalam kondisi keuangan yang berat.

Kata kunci: Pandemi COVID19, Industri Telekomunikasi, Kinerja Keuangan, Altman Z-Score

INTRODUCTION

The World Health Organization (WHO) announced a worldwide pandemic due to Coronavirus disease called COVID-19, initially found in Wuhan, China, in December 2019, and rapidly spreading worldwide (Tosepu et al., 2020). The trend of COVID-19 infections and deaths from early January 2020 to early March 2020 showing an exponential growth in confirmed cases, surpassing 160,000, and total deaths exceeding 6,000 by March 2020, highlighting the urgency of controlling the outbreak (M.S. Alami et al., 2020).

The pandemic led to significant societal fear and behavioral shifts, impacting businesses globally and increasing demand for internet services (Dwi et al., 2023). There is a consistent growth in the global telecommunications industry from 2020 to 2025, with the Americas leading in revenue, followed by Asia Pacific and EMEA, driven by digital transformation and rising connectivity demands (Weissberger, 2021). In Southeast Asia, companies like Telekom Malaysia and PLDT in the Philippines saw revenue growth of 5% and 7.7%, respectively, due to increased adoption of digital services and 5G investments (Darmawan & Rizti, 2023).

In Indonesia, the first COVID-19 outbreak occurred in March 2020, rapidly escalating into a public health crisis. The government responded by issuing Regulation No. 21 of 2020, implementing Pembatasan Sosial Berskala Besar (PSBB) to control the spread (Andriani, 2020).

The PSBB regulation led to a decrease in Indonesia's economic activities, reducing nominal GDP from 5.02% in 2019 to -2.07% in 2020 (Badan Pusat Statistik, 2021). The pandemic weakened most business sectors, including Mining, Manufacturing, Construction, and Transportation, while positively affecting Agriculture, Information and Communication, Financial Services, and Health sectors (Hermansah, 2020).

Indonesia's information and communication sector showed positive growth during the pandemic, increasing by 2.97% from Q4-2019 to Q1-2020. Where telecommunication companies played a pivotal role in connecting the country's 17,000 islands and promoting economic development, technological advancements, and business innovation (Dale Benton, 2020). By 2023, internet penetration in Indonesia reached 78.19%, highlighting the rapid growth of the telecommunication industry and the increasing number of citizens with internet access (APJII, 2023; Cindy Mutia Annur, 2023).

The rapid growth of internet penetration in Indonesia, driven by smartphone usage, improved digital infrastructure, and changing consumer behavior during the COVID-19 pandemic, transformed the telecommunications sector. Four major companies dominate this market: PT Telkom Indonesia with a 50.5% share, followed by PT Indosat Ooredoo Hutchison (20%), PT XL Axiata (17%), and PT Smartfren Telecom (10%) (Bisnis Tekno News, 2024). These companies play a crucial role in supporting Indonesia's digital transformation and economic growth.

Despite growth during the pandemic, the post-pandemic period saw declining sales growth for several companies. PT Telkom's sales growth dropped from 4.94% in 2021 to 1.30% in 2023, while PT Indosat's growth fell from 48.95% in 2022 to 9.57% in 2023. PT Smartfren also experienced a decline, from 11.15% in 2021 to 4.04% in 2023. In contrast, PT XL Axiata showed steady growth, increasing from 2.86% in 2021 to 10.91% in 2023 (WSJ Markets).

This decline affects investor confidence, reduces profitability, and weakens the market position of these companies, making it harder to compete with rivals who sustain growth. Examining the telecommunication industry's growth and identifying areas for improvement is critical, as it plays a pivotal role in Indonesia's economic transformation and digitalization.

This study analyzes the impact of COVID-19 on the telecommunication sector, comparing the periods before (2018-2019) and after (2022-2023) the pandemic. The financial performance of PT Telkom Indonesia, PT Indosat Ooredoo, PT XL Axiata, and PT Smartfren Telecom will be evaluated to provide strategic recommendations for improving profitability and identifying broader opportunities.

RESEARCH METHODS

Data analysis in this research will be conducted using quantitative approaches with selected tools such as financial ratios analysis, Z-score assessment, and Paired t-test statistical analysis. Financial ratios analysis is used to determine companies' financial performance between different time periods, before and after the economic crisis from 2018 to 2023, providing necessary information about financial strengths and weaknesses. Financial ratios assessed are Return on Asset, Return on Equity, Net Profit Margin, Operating Profit Margin, Cash Ratio, Current Ratio, Quick Ratio, Total Asset Turnover, Debt to Equity Ratio, and Debt to Asset Ratio.

To assess the significance of changes in financial ratios before and after the COVID-19 pandemic, statistical analysis is conducted using SPSS 27 Software. Tools include Paired t-Test, Kolmogorov-Smirnov test, and Wilcoxon Signed-Rank test, depending on whether the data follows normal distribution. A p-value ≤ 0.05 indicates statistically significant differences, while a p-value > 0.05 indicates no significant difference.

To determine bankruptcy risk, the Altman Z-Score will be manually calculated in Microsoft Excel, and results will classify companies into safe, grey, or distress zones based on the Z-Score formula.

RESULTS AND DISCUSSION

Statistical Analysis

This study aims to determine whether there is a statistically significant difference in the financial performance of the Indonesian telecommunications industry represented by four leading telecommunication companies (PT Telkom Indonesia Tbk, PT XL Axiata Tbk, PT Indosat Ooredoo Hutchison, and PT Smartfren Telecom) before and after the COVID-19 pandemic using a paired t-test. Before performing the paired t-test, the normality of the data will be tested using the Kolmogorov-Smirnov test. If the data is not normally distributed (p-value ≤ 0.05), alternative non-parametric methods, such as the Wilcoxon signed-rank test, will be considered.

Table 1. Kolmogorov Smirnov Result

Financial Ratio	Status	Test Statistic	Asymp. Sig. (2-tailed)	Decision
Return on Asset (ROA)	Pre & Post Pandemic	0.205	0.200	Accept H0
Return on Equity (ROE)	Pre & Post Pandemic	0.186	0.200	Accept H0
Operating Profit Margin (OPM)	Pre & Post Pandemic	0.158	0.200	Accept H0
Net Profit Margin (NPM)	Pre & Post Pandemic	0.171	0.200	Accept H0
Earning per Share (EPS)	Pre & Post Pandemic	0.240	0.194	Accept H0
Debt to Asset (DAR)	Pre & Post Pandemic	0.247	0.161	Accept H0
Debt to Equity (DER)	Pre & Post Pandemic	0.292	0.043	Reject H0 & Accept H1
Current Ratio	Pre & Post Pandemic	0.204	0.200	Accept H0

Quick Ratio	Pre & Post Pandemic	0.224	0.200	Accept H0
Cash Ratio	Pre & Post Pandemic	0.189	0.200	Accept H0
Total Asset Turnover	Pre & Post Pandemic	0.309	0.024	Reject H0 & Accept H1

Based on the Kolmogorov-Smirnov test results which depict on Table 1, Debt to Equity Ratio and Total Asset Turnover Ratio were found not follow a normal distribution. As a result, these ratios do not meet the requirement for conducting the paired t-test.

Table 2. Paired t-test Table

Financial Ratio	Status	Mean	Std Dev	Sig. (2-tailed)	Decision
Return on Asset	Pre & Post Pandemic	-0.053	0.063	0.049	Reject H0 & Accept H1
Return on Equity	Pre & Post Pandemic	-0.160	0.162	0.027	Reject H0 & Accept H1
Operating Profit Margin	Pre & Post Pandemic	-0.138	0.221	0.121	Fail to Reject H0
Net Profit Margin	Pre & Post Pandemic	-0.199	0.246	0.050	Reject H0 & Accept H1
Earning per Share	Pre & Post Pandemic	300.23	436.53	0.093	Fail to Reject H0
Debt to Asset	Pre & Post Pandemic	-0.007	0.137	0.885	Fail to Reject H0
Current Ratio	Pre & Post Pandemic	-0.028	0.166	0.648	Fail to Reject H0
Quick Ratio	Pre & Post Pandemic	-0.023	0.166	0.700	Fail to Reject H0
Cash Ratio	Pre & Post Pandemic	-0.043	0.105	0.284	Fail to Reject H0

Using the analysis of the paired t-test as depicted in Table 2, which compares the financial ratios of Indonesian Telecommunication Industry before and after the COVID-19 pandemic, the results show that there is indeed a significant difference in the profitability ratios on Indonesia's Telecommunication Industry, particularly Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). The significance value (2-tailed) for these ratios was found to be less than or equal to 0.05, which indicates that the differences observed between the two periods are statistically significant.

Table 3. Wilcoxon Signed-Rank

Financial Ratio	Status	Z	Asymp. Sig. (2-tailed)	Decision
Debt to Equity	Pre & Post Pandemic	-0.771	0.441	Fail to Reject H ₀
Total Asset Turnover	Pre & Post Pandemic	-1.260	0.208	Fail to Reject H ₀

The results of the Wilcoxon Signed-Rank Test as demonstrated in Table 3 indicate that there were no significant changes in the Debt to Equity Ratio and Total Asset Turnover Ratio in the Indonesian telecommunications industry when comparing the period before and after the COVID-19 pandemic.

Financial Ratio Analysis

Profitability

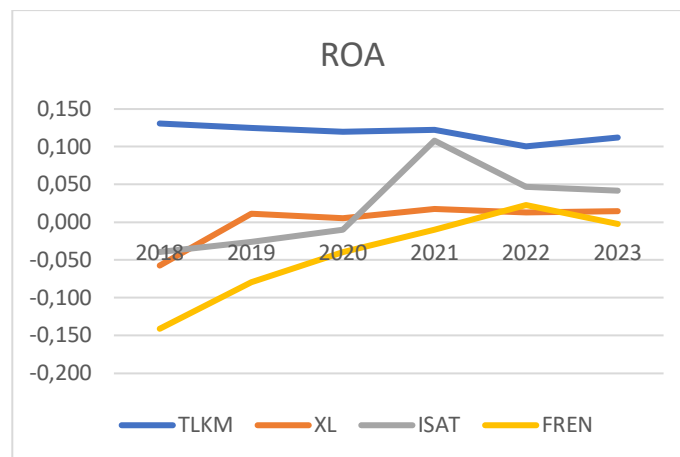


Figure 1. ROA

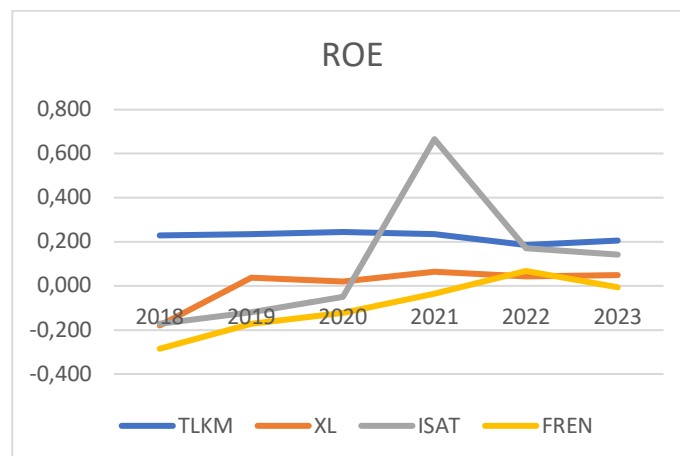


Figure 2. ROE

During the COVID-19 pandemic, PT Indosat experienced a significant increase in its profitability, especially in 2021, where both its Return on Assets (ROA) and Return on Equity (ROE) rose drastically due to an increase in net income as 1188.79%. This was mostly contributed by selling 4200 towers to PT EPID Menara AssetCo and gains IDR 6.02 trillion (PT Indosat Tbk, 2021). However, in 2022, Indosat's ROA and ROE dropped significantly due to a strategic merger with PT Hutchison 3 Indonesia (H3I), where there was an expansion of the company's assets, which jumped from IDR 63.4 trillion in 2021 to IDR 113.9 trillion in 2022 (PT Indosat Hutchison, 2022). In 2023, while PT Indosat's total assets grew slightly to IDR 114.7 trillion, its net income dropped to IDR 4.7 trillion, indicating that the company was still adjusting to its larger scale.

On the other hand, before the COVID-19 pandemic, PT Smartfren's profitability, reflected in its Return on Assets (ROA) and Return on Equity (ROE), consistently showed negative figures. In 2022, Smartfren experienced a slight increase in ROA and ROE as its net profit reached IDR 1.06 trillion, mainly supported by profit from investment in shares reaching IDR 1.64 trillion and increase in operating profit reaches IDR 623 billion due to 7% employee reduction (Laporan Keuangan PT Smartfren 2022, 2022). However, in 2023, Smartfren reported a 5% increase in operating expenses, reaching IDR 11.1 trillion, and higher costs for network operations and sales, limiting further improvements in profitability.

Meanwhile, Telkom has maintained stable ROA and ROE, leveraging its significant infrastructure and broad customer base to sustain profitability. Despite a moderate increase in operating expenses from 2022 to 2023, Telkom's EBITDA remained strong at IDR 78.9 trillion, reflecting efficient cost management and diverse revenue streams.

Similarly, XL has maintained steady ROA and ROE, driven by infrastructure-sharing agreements and digital transformation. In 2023, XL's EBITDA margin remained consistent at around 43.9%, highlighting a stable cost structure. However, XL still faces the challenge of increasing its ROA and ROE to strengthen its competitive position, especially as it remains in third place among the four major telecom players in Indonesia.

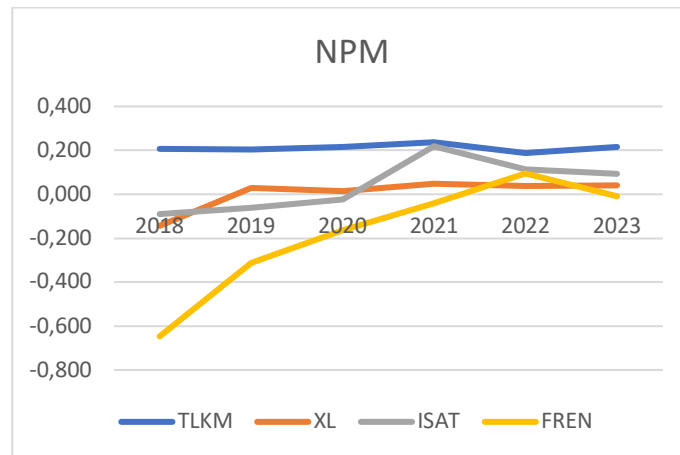


Figure 3. NPM

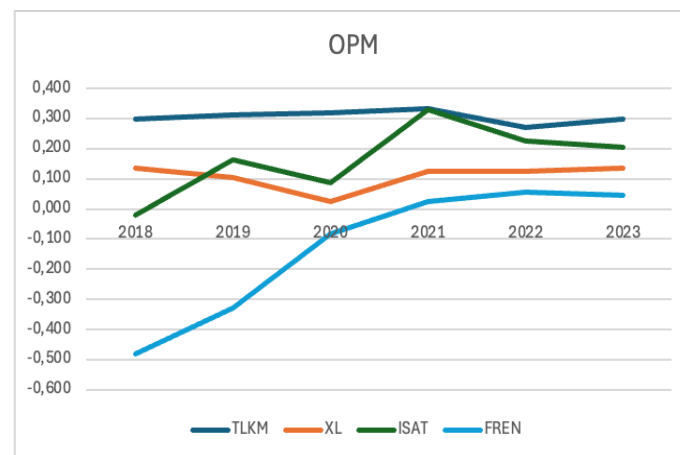


Figure 4. OPM

Figure 3 and 4 illustrate the Net Profit Margin (NPM) and Operating Profit Margin (OPM) of Telkom, XL, Indosat, and Smartfren from 2018 to 2023. Telkom consistently maintains the highest and most stable NPM and OPM among the four companies. XL has a lower NPM and OPM than Telkom and experiences fluctuations in 2020 due to digital transformation efforts. Indosat's NPM and OPM show significant volatility, peaking in 2021 due to tower sales, but declining in 2022 as total expenses increased during its merger integration with Hutchison Tri.

Smartfren has experienced negative NPM and OPM, particularly from 2018 to 2020, due to high operational and marketing costs, limited market share, and reliance on low-margin data services. In 2022, Smartfren briefly achieved a positive NPM of 10%, driven by investment income, but profitability declined again in 2023 due to rising expenses, including spectrum band costs and investment losses.

Telkom and XL demonstrate stable NPM and OPM, with Telkom showing strong performance due to economies of scale and diversified revenue streams. XL's stable margins reflect its cost optimization and network expansion efforts, though its

lower margins compared to Telkom and Indosat highlight the challenges XL faces in scaling its operations to match its larger competitors

Solvency

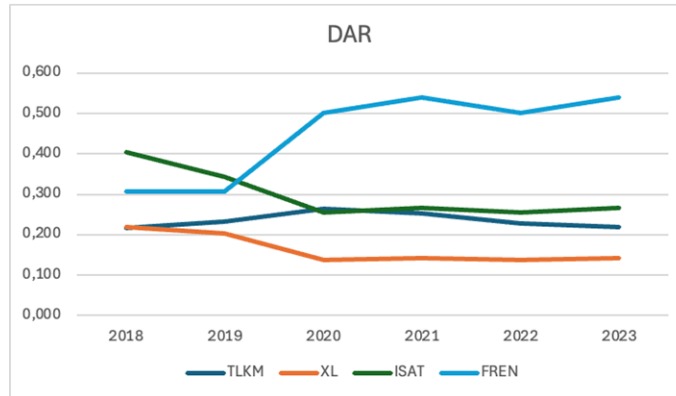


Figure 5. DAR

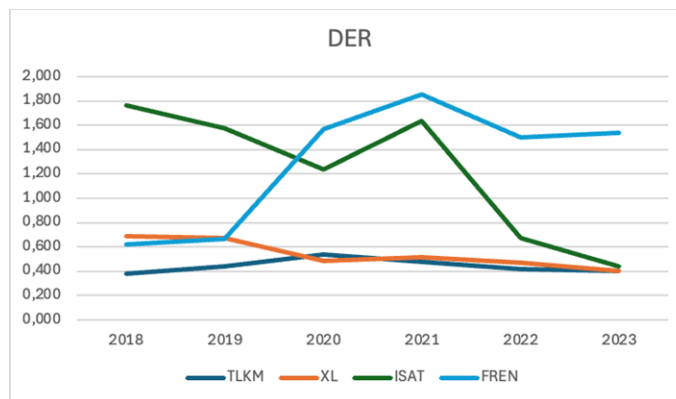


Figure 6. DER

Figure 5 dan 6 illustrate the solvency ratios, specifically Debt to Asset Ratio (DAR) and Debt to Equity Ratio (DER), for Telkom, XL, Indosat, and Smartfren from 2018 to 2023. Telkom and XL show a steady decline in both ratios, indicating strong financial health as they rely more on equity than debt to finance operations.

Indosat also demonstrates a decreasing trend in both DAR and DER, but in 2021, DER rose significantly due to a 20.2% reduction in equity, mainly from a decline in retained earnings caused by the previous year's net loss. While the debt also increased around 5.5% from 2020 to 2021, due to the company was reoriented marketing and distribution strategy in response to pandemic. They also introduced new services called SDWAN (Software Defined Wide Area Network) for connectivity flexibility. However, in 2022, Indosat's DER declined significantly due to increased equity, particularly additional paid-in capital of IDR 17.7 trillion from the merger with PT Hutchison (PT Indosat Hutchison, 2022).

In contrast, Smartfren shows an increasing trend in both DAR and DER from 2018 to 2023, with a significant rise in 2020 when COVID19 pandemic started, where

debt increased from IDR 8.47 trillion in 2019 to IDR 19.4 trillion in 2020 driven by expand infrastructure, acquire new customers, and customer loyalty programs in response to pandemic. Operating expenses also increased significantly, particularly in sales and marketing as 33,56% , employee costs as 29,45%, operating and maintenance as 4,61% and depreciation expenses as 4,08%, reflecting Smartfren’s efforts to expand and maintain service quality. Meanwhile, a DER decrease in 2022 due to an increase in equity as 24,5%, primarily because of increase in non-controlling interest as IDR 75 million.

Liquidity

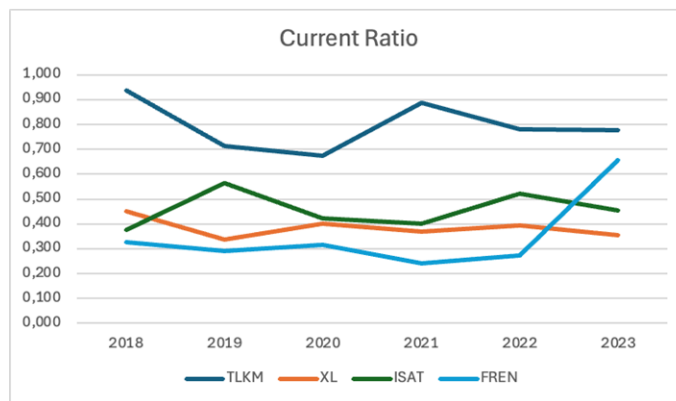


Figure 7. Current Ratio

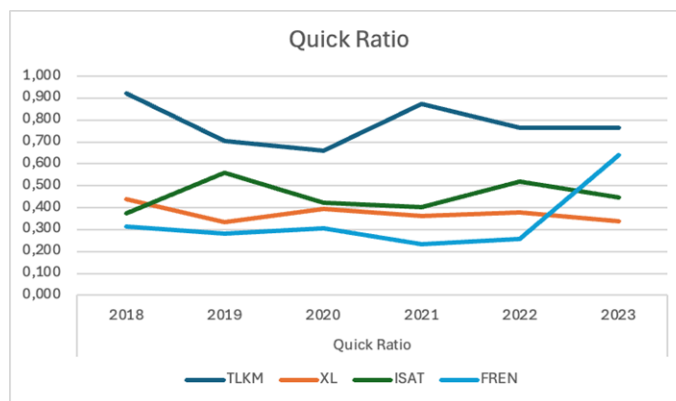


Figure 8. Quick Ratio

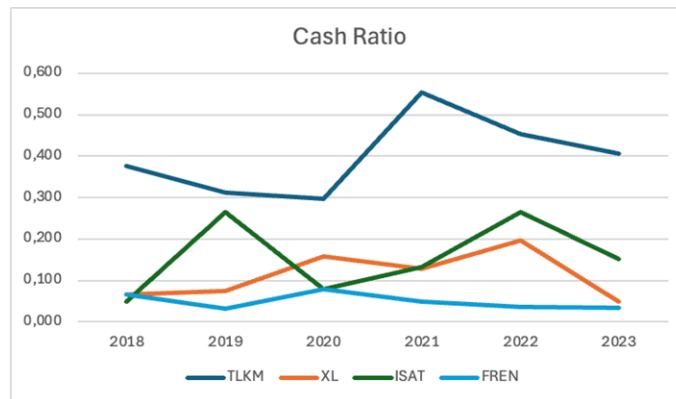


Figure 9. Cash Ratio

Figure 7, 8, and 9 above illustrates the liquidity ratios in terms of current ratio, quick ratio, and cash ratio for Telkom, XL, Indosat, and Smartfren from 2018 to 2023. Telkom shows the highest liquidity among the four companies.

XL maintains stable and moderate liquidity ratios but experienced a decline in 2019 driven by a significant increase in current liabilities, which rose from IDR 15.77 trillion in 2018 to IDR 21.29 trillion in 2019 due to increased liabilities from investments in digitalization and infrastructure development. In 2023, XL's cash ratio declined significantly due to reduced cash and cash equivalents, which were IDR 5.18 trillion in 2022, decreasing to IDR 0.96 trillion in 2023, attributed to the absence of rights/equity issuance.

Indosat's liquidity ratios fluctuate, peaking in 2019 due to Indosat's current assets increased by 57.4%, reaching IDR 12.44 trillion, primarily due to proceeds from the sale of 3,100 towers to PT Telkom and PT Sarana Menara Nusantara subsidiaries, and peak again in 2022 due to increased cash from customer payments as 45.6% and proceeds from long-term loans as IDR 12.23 trillion. However, a decrease in liquidity was observed in 2020 due to a 22.9% reduction in cash and cash equivalents, a result of payments for matured bonds.

Telkom shows fluctuations but achieved a significant peak in 2021. This increase can be attributed to a 31.8% rise in current assets driven by a rise in current assets and cash equivalents due to the Mitratel IPO and increased investment value in GoTo and MDI. This was supported by reduced accounts receivable by 24.9% and inventories by 20.8%, reflecting strong liquidity management.

Activity

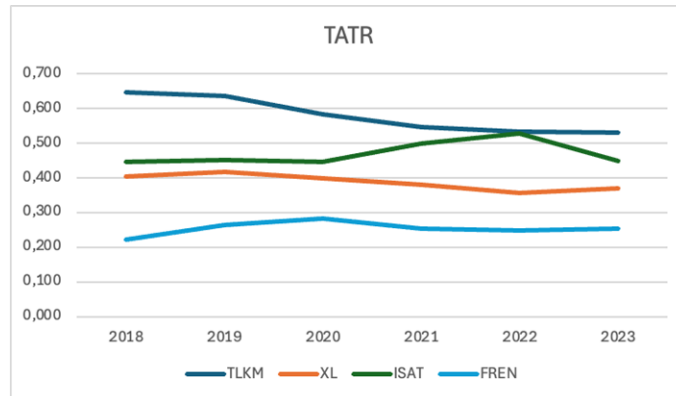


Figure 10. Total Asset Turnover Ratio (TATR)

Figure IV.11 shows the graph of activity ratios by Telkom, XL, Indosat, and Smartfren in the measurement of Total Asset Turnover Ratio (TATR), which measures how well a company uses its assets to generate revenue. A higher TATR means the company generates revenue efficiently using its assets.

Telkom demonstrates the highest TATR compared to the other three companies, indicating strong asset utilization. However, its gradual decline over the years suggests that its growing asset base, reaching IDR 277.184 billion in 2021, which possibly came from capital-intensive expansions, is not being leveraged as effectively to sustain revenue growth. In contrast, XL Axiata exhibits a steady decline in TATR, consistently remaining below 0.5, highlighting challenges in operational efficiency and slower revenue growth relative to its asset base.

Indosat shows significant improvement in TATR between 2020 and 2022, peaking in 2022 after its merger with Hutchison 3, which likely brought operational synergies and enhanced revenue generation where its total revenue was IDR 27,925,661 million in 2020 and increased to IDR 46,752,319 in 2022. However, the slight decline in 2023 may reflect post-merger integration challenges.

Smartfren consistently records the lowest TATR among its peers, with a stable trend below 0.3, reflecting persistent challenges in converting assets into revenue due to limited market share or operational inefficiencies. The lack of improvement over the years highlights a need for strategic interventions to enhance its asset utilization.

Altman Z-Score Analysis

Table 4. Altman Z-Score Analysis

	2018	2019	2020	2021	2022	2023
TELKOM	98,24	91,41	66,37	92,68	81,54	86,31
XL	0,82	0,93	0,67	0,84	0,64	0,74
INDOSAT	0,35	0,71	0,58	1,05	0,72	0,83
SMARTFREN	-0,92	-0,22	-0,53	-0,12	-0,24	-0,2

Telkom consistently demonstrates strong financial health, maintaining a Z-score well above the safe threshold throughout the period. However, Telkom's Z-score declined from 98.24 in 2018 to 66.37 in 2020, reflecting the economic impact of the COVID-19 pandemic, but recovered to 86.31 by 2023, underscoring its financial resilience and efficient management.

XL Axiata (XL) consistently recorded a lower Z-score, ranging between 0.64 and 0.93, remaining below the critical threshold for financial distress but reflecting moderate financial stability. Indosat shows significant improvement in its Z-score, rising from 0.35 in 2018 to 1.05 in 2021, driven by revenue growth, cost optimization, and the merger with Hutchison 3, which enhanced market share and operational synergies. However, its Z-score dropped again in 2022 due to merger integration challenges and increased debt levels. Smartfren consistently recorded negative Z-scores throughout the period, starting at -0.92 in 2018 and rising slightly to -0.20 in 2023, indicating ongoing financial distress, high debt levels, weak profitability, and a high risk of insolvency.

Solution

1. PT Smartfren Telecom

According to the analysis earlier, it shows that Smartfren is in distress and low financial performance in terms of profitability, solvency, liquidity, and activity, even though there is an increasing trend in profitability. Smartfren needs to decrease their debt by increasing equity, refinancing high-interest debts, focusing on niche market segments like low-cost data services, and collaborating with larger telecom/tech companies to leverage infrastructure and minimize costs, such as sharing towers and using targeted digital marketing.

2. PT XL Axiata

Based on the analysis, PT XL Axiata demonstrated a stable performance without significant growth, with its Z-Score value in the distress zone. XL Axiata could focus on reducing operational costs by automating activities with AI, diversifying revenue streams through Fintech and IoT solutions, and creating brand differentiation by optimizing customer service quality.

3. PT Indosat Hutchison

Based on the analysis, Indosat experienced a slight decline in profit after the merger despite overall increased profitability and fluctuations in liquidity. Indosat could try a cross-selling strategy to boost revenue, consider divestment and asset swaps to focus resources on profitable areas, and improve liquidity management through cash flow forecasting and diversifying funding sources.

4. PT Telkom Indonesia Tbk

Based on the analysis, PT Telkom Indonesia Tbk has good performance in profitability, liquidity, solvency, and activity compared to the other three companies. Telkom needs to leverage and utilize its assets more efficiently, such as leasing towers or shared infrastructure, while maintaining operational expenses and generating revenue to avoid a decline in performance.

CONCLUSIONS AND SUGGESTIONS

The purpose of this study is to determine the impact of the COVID-19 pandemic on the financial performance of the Indonesian telecommunications industry and analyze the financial performance of four major companies—PT Telkom Indonesia, PT Indosat Hutchison Ooredoo, PT XL Axiata, and PT Smartfren Telecom—during 2018-2023.

1. COVID-19 significantly impacted profitability metrics such as ROA, ROE, and NPM, while liquidity, solvency, and activity ratios showed no significant difference.
2. PT Telkom demonstrated strong financial stability compared to its peers, maintaining its leadership in the industry despite minor fluctuations in liquidity. PT Indosat experienced growth from initiatives like tower sales and a merger, though profitability declined post-merger with liquidity instability raising concerns. PT XL Axiata showed resilience but lagged behind competitors in profitability and cost efficiency. PT Smartfren struggled with key financial metrics, facing challenges with high debt and declining profitability.
3. Only PT Telkom remains in the safe zone, with a Z-score above 3.0, indicating low bankruptcy risk. XL, Indosat, and Smartfren are in the distress zone, with Smartfren at the highest bankruptcy risk.
4. To improve performance, Smartfren should reduce debt, target niche markets, and collaborate with larger firms. XL Axiata should explore new revenue streams and enhance customer service. Indosat should focus on cross-selling strategies, liquidity management, and divestment. Telkom should leverage its assets to sustain growth.

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