

Assessing Financial Synergies through DuPont Analysis and Economic Value Added in the Post-Acquisition Integration of PT Petronesia Benimel

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ABSTRACT

Strategic mergers and acquisitions (M&A) have an important role for companies in emerging markets to accelerate growth and improve operational efficiency, especially in the infrastructure sector which is crucial for national development. This study evaluates the financial performance of PT Petronesia Benimel, an Indonesian construction company that is not listed on the stock exchange, before and after its acquisition in 2020 by PT Hutama Karya Infrastruktur, a state-owned enterprise responsible for the Trans-Sumatra Toll Road project. Using a mixed-methods approach, this study integrates DuPont and Economic Value Added analysis to assess profitability, operational efficiency, and shareholder value creation, reinforced by qualitative insights from managerial interviews. Quantitative analysis of financial data before (2015–2019) and after the acquisition (2020–2024) showed a significant decrease in Return on Equity (ROE) from 18.7% to 5.5% ($p = 0.025$), due to a decrease in net profit margin and asset utilization efficiency. Economic Value Added (EVA) also showed a substantial decrease from positive IDR 5,041 million to negative IDR -20,455 million, with a statistically insignificant decrease ($p = 0.095$), reflecting the company's inability to generate returns that exceed the cost of capital. The qualitative findings reinforce these results, by attributing the decline in financial performance to the inefficiencies of the integration process, the increased debt burden, as well as the external impact of the COVID-19 pandemic, such as project delays, liquidity pressures, and increased operational costs.

KEYWORDS

mergers and acquisitions; financial performance; Dupont analysis; economic value added; infrastructure sector; Developing Countries



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INTRODUCTION

Sustainable and well-planned infrastructure development is a key cornerstone in creating economic stability and the long-term prosperity of a country. In Indonesia, the development of the Trans-Sumatra Toll Road (JTTS) infrastructure has a strategic role in improving regional connectivity on the island of Sumatra and encouraging national economic growth. As a major contributor to Indonesia's economy, Sumatra needs strong infrastructure to accelerate the distribution of goods and services and improve equitable access to community resources. JTTS is projected to reduce travel time, optimize logistics

efficiency, and reduce distribution costs by increasing the competitiveness of local products in domestic and international markets (DJKN, 2021).

PT Hutama Karya (Persero) was given a mandate based on *Peraturan Presiden (Perpres)* No. 131/2022, which is a revision of *Perpres* No. 100/2014, to develop the JTTS project (Skorobogatova & Kuzmina-Merlino, 2017). Since 2015, its subsidiary, PT Hutama Karya Infrastruktur (HKI), has built several major toll roads, such as Medan-Binjai and Palembang-Simpang Indralaya, contributing to a total of 884.5 kilometers of toll roads completed by 2024. To overcome the challenges in large-scale infrastructure projects such as JTTS, IPR conducts strategic acquisitions to strengthen capabilities and increase project efficiency (Syaputra & Qibtiyyah, 2022).

In 2020, IPR acquired PT Petronesia Benimel (PB), a company initially engaged in oil and gas (mechanical, civil, electrical, and instrumentation) before expanding into the general construction sector. This acquisition aligns with IPR's strategy of acquiring specialized expertise, infrastructure that has been built, and operational synergies to reduce risks related to internal development. Integration through acquisitions resulting in synergistic benefits, such as reduced costs and increased efficiency, has been crucial during the COVID-19 pandemic, ensuring project continuity without sacrificing quality. It added that the benefits of synergy can be classified into two types: complementary effects (resource integration) and synergistic effects (value creation through unique assets).

In the context of IPR, PB integration provides both, which ultimately strengthens operational resilience amidst external disruptions. Itami & Roehl (1987) emphasize that monitoring post-acquisition financial performance is a crucial aspect to assess the success of transactions as well as to mitigate risks such as decreased profitability or mismatches in the integration process (Bauer & Matzler, 2014). PB's financial data before the acquisition (2015–2019) showed a positive trend, with revenue growth of 28.4%, control of cost of goods sold, and an increased net profit margin (Holtström & Anderson, 2021). The liquidity and profitability ratios also reflect consistent growth, which supports IPR's decision to acquire PB to maintain growth momentum and improve overall operational efficiency (Chen et al., 2018).

Post-acquisition success requires multidimensional evaluation that goes beyond just short-term financial analysis (Brealey et al., 2014). DuPont's analysis breaks down Return on Equity (ROE) into net profit margin, asset turnover, and financial leverage, while Economic Value Added (EVA) measures economic value creation that goes beyond the cost of capital. The combination of these two approaches provides a more comprehensive perspective where DuPont's analysis identifies the operational factors that affect profitability, while EVA measures the value created for shareholders. Previous research, such as that conducted by São Paulo, São Paulo et al. (2023), Dogan & Ugurlu (2024), and Gulati & Garg (2022), has tended to focus on traditional financial ratios without integrating DuPont and EVA analysis. In addition, EVA is more commonly applied to the acquiring company rather than the target company, so research on companies that are not registered in the capital market in developing countries is still

limited. Therefore, this study aims to fill this gap by analyzing PB's performance before and after the acquisition, using the DuPont and EVA approaches to evaluate operational efficiency and economic value creation (Damodaran, 2024).

However, the existing literature exhibits a clear gap: a tendency to apply these analyses in isolation and a predominant focus on the financial outcomes of the acquiring company, often within developed markets or publicly listed entities. This gap is particularly pronounced in the context of developing countries and for unlisted companies, which often operate under different financial, regulatory, and market conditions compared to their publicly traded counterparts. The acquisition of unlisted target companies, such as PT Petronesia Benimel, presents a unique set of challenges and dynamics that are underrepresented in current academic discourse. Research by Aureli (2015) on acquisitions by multinationals in emerging markets and Dogan & Ugurlu (2024) on target company performance highlights the complexities and frequent underperformance in such cross-border and domestic deals, suggesting that the anticipated synergies are often difficult to realize due to integration hurdles and contextual factors.

The urgency of this research is underscored by the strategic importance of the Indonesian infrastructure sector and the substantial capital invested in M&A activities to fuel its growth. With the national development agenda heavily reliant on the efficient execution of projects like the JTTS, understanding the factors that lead to the success or failure of these strategic acquisitions is not merely an academic exercise but a practical imperative. The COVID-19 pandemic further amplified this urgency, introducing unprecedented challenges such as project delays, supply chain disruptions, and liquidity pressures that could severely impact the financial health of acquired firms and jeopardize the return on these significant public and private investments.

The novelty of this study lies in its targeted approach to addressing these identified gaps. It uniquely focuses on the financial performance of an unlisted target company in a developing country, a perspective often overlooked in mainstream M&A literature. Furthermore, it introduces methodological novelty by integrating DuPont analysis and EVA into a single, comprehensive mixed-methods framework. This approach allows for a dual perspective: the DuPont analysis deconstructs the operational drivers of ROE, while EVA assesses whether the operational results translated into genuine economic value creation after accounting for the full cost of capital. This integrated application to a specific, under-researched context provides a more granular and contextually relevant understanding of post-acquisition outcomes.

Therefore, the primary objective of this research is to conduct a comprehensive evaluation of the financial performance of PT Petronesia Benimel following its acquisition by PT Hutama Karya Infrastruktur. This will be achieved by employing an integrated DuPont and EVA analysis on financial data from the pre-acquisition (2015–2019) and post-acquisition (2020–2024) periods, supplemented by qualitative insights from managerial interviews to explain the quantitative findings. The study aims to determine whether the acquisition successfully created operational synergies and

shareholder value or if it resulted in financial deterioration and value destruction, thereby pinpointing the precise factors—be they operational inefficiencies, increased cost of capital, or external shocks—that influenced the outcome.

The benefits of this research are multifold. Academically, it contributes to the M&A literature by providing an empirical case study from an emerging market, demonstrating the application and value of integrating DuPont and EVA methodologies for a holistic performance assessment. For practitioners and policymakers, the findings offer critical, evidence-based insights that can inform future M&A strategy, integration processes, and capital allocation decisions within Indonesia's vital infrastructure sector. By identifying the root causes of post-acquisition financial performance, this study provides a valuable framework for improving merger and acquisition strategies, emphasizing long-term value creation and operational synergies to ensure that such strategic moves effectively contribute to national development goals.

The study raises three key aspects that have not been widely discussed in the literature: (1) the integration of DuPont and EVA analysis to comprehensively assess the impact of acquisitions, (2) a focus on target companies rather than acquiring companies, and (3) studies of companies that are not listed on the capital market in developing countries such as Indonesia (DJKN, 2022). With the growth of Indonesia's construction sector, a deeper understanding of the acquisition of unlisted companies can provide valuable insights for policymakers and business practitioners (Stewart III, 1991). The results of this research are expected to improve merger and acquisition strategies by emphasizing long-term value creation and operational synergies in infrastructure development.

RESEARCH METHOD

This study uses a mixed-method approach by integrating quantitative and qualitative methodologies to provide a comprehensive analysis of the financial performance of PT Petronesia Benimel before and after the acquisition by PT Hutama Karya Infrastruktur. This approach combines the power of numerical (quantitative) data analysis and non-numerical (qualitative) insights to ensure a comprehensive understanding of post-acquisition impacts. The quantitative aspect of this study uses DuPont and Economic Value Added (EVA) analysis to evaluate changes in financial performance, while the qualitative aspect serves as validation by identifying managerial and operational factors that influence post-acquisition financial changes. By integrating these two methods, this study aims to provide a more holistic perspective on the impact of the acquisition on the financial and operational performance of PT Petronesia Benimel.

The mixed-methods approach also allows for the validation of quantitative findings with deeper qualitative insights, thereby improving the rigor and contextual accuracy of the research. This study uses three main techniques in data collection: first, documentation to examine PT Petronesia Benimel's financial statements before and after the acquisition; second, semi-structured interviews to explore managerial perspectives regarding the factors that affect post-acquisition performance; and third, a literature

review to gain theoretical and empirical understanding of M&A in the infrastructure sector (Creswell, 2014).

The variables in this study were collected from various sources to ensure the reliability and validity of the data. The components of DuPont's analysis, namely Net Profit Margin (NPM), Total Asset Turnover (TATO), Equity Multiplier (EM), and Return on Equity (ROE), were obtained from PT Petronesia Benimel's financial statements. DuPont's analytical framework can mathematically be expressed as:

$$ROE = \frac{\text{Net Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Total Assets}} \times \frac{\text{Average Total Assets}}{\text{Average Equity}} \quad (1)$$

$$ROE = \text{Net Profit Margin} \times \text{Total Asset Turnover} \times \text{Equity Multiplier} \quad (2)$$

Furthermore, the *Economic Value Added* (EVA) component, which includes *Net Operating Profit After Tax* (NOPAT), *Weighted Average Cost of Capital* (WACC), *Capital Charge* (CC), and *Economic Value Added* (EVA), is calculated based on available financial statements. The EVA calculation is done by subtracting *the capital charge* (invested capital multiplied by WACC) from the *net operating profit after taxes* (NOPAT). All calculations must follow *Generally Accepted Accounting Principles* (GAAP) to ensure accuracy and compliance with applicable accounting standards.

$$EVA = NOPAT - (\text{Invested Capital} \times WACC) \quad (3)$$

Weighted Average Cost of Capital (WACC) is the main component in the calculation of *Economic Value Added* (EVA). Inaccuracies in the calculation of the WACC may limit the usefulness of EVA as an indicator of financial performance. WACC is calculated using the following formula:

$$WACC = \left(\frac{E}{V} \times Re \right) + \left(\frac{D}{V} \times Rd \times (1 - Tc) \right) \quad (4)$$

Information:

E = market value of the company's equity

D = market value of corporate debt

V = total company value (E + D)

Re = cost of equity

Rd = cost of debt

Tc = corporate tax rate

In calculating the Weighted Average Cost of Capital (WACC) for PT Petronesia Benimel, this study refers to a methodology designed for companies that are not listed on the stock exchange, using an unleveraged beta approach. Since the company is not publicly traded, the beta estimate is derived by taking the industry average of similar companies listed on the exchange. Specifically, the beta value in this study is calculated

based on the average of PT Wijaya Karya (WIKA) and PT PP (Persero), which operate in the same industry. This approach ensures a more accurate representation of systematic risk, in line with standard valuation practices for closed companies (Ramdhani & Murtaqi, 2022; Damodaran, 2024).

This study used a paired sample t-test to evaluate the financial impact of the acquisition on PT Petronesia Benimel by comparing the financial performance before and after the acquisition. The pre-acquisition period is defined as 2015–2019, while the post-acquisition period covers 2020–2024, with the acquisition occurring in early 2020. This method allows for statistical evaluation to determine whether there have been significant changes in the company’s financial performance as a result of the acquisition. To increase the rigor of the research findings, the financial analysis was also validated through semi-structured interviews with key stakeholders, including financial managers and industry experts. These interviews provide qualitative insights into the financial synergies realized after the acquisition, complementing the quantitative results. This combined approach ensures a more holistic evaluation by capturing both numerical trends and managerial perspectives regarding the effectiveness of post-acquisition integration.

Table 1. Variable Definition

Variables	Code	Definitions
DuPont		
Net Profit Margin	NPM	Measure the percentage of profit from total revenue
Total Asset Turnover	THIS	Evaluate the efficiency of using assets to generate revenue.
Equity Multiplier	IN	Demonstrate financial leverage by comparing assets to equity
Return on Equity	ROE	Assess profitability by measuring net income per equity.
Economic Value Added		
Net Operating Profit After Tax	NOPAT	Represents operating profit after tax deductions.
Weighted Average Cost of Capital	WACC	The average rate of return required by investors
Capital Charge	CC	The cost of capital used in business operations.
Economic Value Added	EVA	Measure value creation by subtracting Capital Charge (CC) from Net Operating Profit After Tax (NOPAT).

RESULTS AND DISCUSSION

Statistics Descriptive

Table 2 presents descriptive statistics from the results of DuPont and Economic Value Added (EVA) analysis comparing PT Petronesia Benimel's financial performance in the period before the acquisition (2015–2019) and after the acquisition (2020–2024). In terms of DuPont Analysis, Net Profit Margin (NPM) decreased from an average of 10.0% before the acquisition to only 2.4% after the acquisition, with a relatively stable standard deviation. Total Asset Turnover (TATO) actually increased significantly from an average of 0.660 to 1.118, indicating efficiency in the use of post-acquisition assets. However, the Equity Multiplier (EM) experienced a sharp decline from 3,112 to 1,909, which indicates a reduction in leverage or funding from debt. Overall, the Return on

Equity (ROE) dropped significantly from 18.7% to 5.5% after the acquisition, indicating a decline in the company's effectiveness in generating profits for shareholders. Meanwhile, based on EVA analysis, Net Operating Profit After Tax (NOPAT) showed a relatively similar average before and after the acquisition, which was IDR 23,185 million and IDR 23,523 million. However, the significant increase in Capital Charge (CC) from an average of IDR 18,144 million to IDR 43,978 million, accompanied by fluctuations in WACC, caused EVA to change from an average positive value of IDR 5,041 million before the acquisition to negative IDR 20,455 million after the acquisition. This reflects that after the acquisition, the company no longer creates economic value, but experiences value destruction, which indicates that the operating return is not able to cover the capital costs incurred.

Table 2. Descriptive Statistics

	Dupont Analysis				Economic Value Added Analysis			
	NPM	THIS	IN	ROE	NOPAT	WACC	CC	EVA
Before Acquisition								
2015	0,039	0,762	4,167	0,123	7.325	0,073	12.101	-4.776
2016	0,081	0,752	3,128	0,190	12.719	0,101	12.080	639
2017	0,130	0,540	3,263	0,230	22.068	0,068	12.813	9.255
2018	0,125	0,600	2,901	0,218	29.430	0,080	21.836	7.593
2019	0,127	0,646	2,101	0,172	44.383	0,099	31.892	12.491
Mean	0,100	0,660	3,112	0,187	23.185	0,084	18.144	5.041
SD	0,040	0,096	0,742	0,042	14.583	0,015	8.723	6.991
After Acquisition								
2020	0,053	0,804	1,762	0,075	28.193	0,080	40.555	-12.362
2021	0,041	1,308	1,699	0,091	34.361	0,098	53.419	-19.058
2022	-0,032	0,727	1,868	-0,044	-12.677	0,090	45.840	-58.518
2023	0,043	1,183	2,085	0,107	47.143	0,061	41.117	6.026
2024	0,014	1,568	2,132	0,048	20.596	0,061	38.958	-18.362
Mean	0,024	1,118	1,909	0,055	23.523	0,078	43.978	-20.455
SD	0,034	0,351	0,192	0,060	22.451	0,017	5.868	23.568

Empirical Results

The results of the analysis of the paired sample t test are presented in Table 3. First, we assessed the impact of the acquisition on PT Petronesia Benimel's financial performance by comparing key financial metrics before and after the acquisition.

Table 3. Comparison of pre- and post-acquisition performance based on DuPont Analysis and Economic Value Added

Variable	DuPont Analysis				Variable	Analysis Economic Value Added			
	Pre	Post	Diff	Itself		Pre	Post	Diff	Itself
NPM	0,100	0,024	-	0,064	NOPAT	23.185	23.523	+	0,979
THIS	0,660	1,118	+	*0,042	WACC	0,084	0,078	-	0,590
IN	3,112	1,909	-	*0,040	CC	18.144	43.978	+	*0,012
ROE	0,187	0,055	-	*0,025	EVA	5.041	-20.455	-	0,095

Notes: '+' indicates an increase in ratio; '-' indicates a decrease in the ratio; **significant at a level of 0.05 (2-way); *significant at a level of 0.1 (2-way)

Empirical results show a significant decrease in profitability after the acquisition. Net Profit Margin (NPM) decreased from an average of 10.0% before the acquisition to just 2.4% after the acquisition, although this decline was not statistically significant. Return on Equity (ROE) saw a significant decrease from 18.7% to 5.5% ($p = 0.025$), indicating a decline in the company's ability to generate returns for shareholders post-acquisition. In contrast, Total Asset Turnover (TATO) increased significantly from 0.660 to 1.118 ($p = 0.042$), indicating an increase in operational efficiency in asset utilization. However, the Equity Multiplier (EM) dropped significantly from 3.112 to 1.909 ($p = 0.040$), indicating a decrease in financial leverage and a change in the company's capital structure.

From the perspective of Economic Value Added (EVA), the average Net Operating Profit After Tax (NOPAT) increased slightly from IDR 23,185 million to IDR 23,523 million, but this change was not statistically significant ($p = 0.979$). Meanwhile, although the Weighted Average Cost of Capital (WACC) decreased from 8.4% to 7.8%, the Capital Charge (CC) actually increased significantly from IDR 18,144 million to IDR 43,978 million ($p = 0.012$), indicating a greater capital cost burden. As a result, EVA went from positive IDR 5.041 million to negative IDR -20.455 million, although this decrease was not statistically significant ($p = 0.095$). Overall, these findings show that while acquisitions drive asset efficiency, they are accompanied by reduced profitability, reduced leverage, and decreased ability of companies to create economic value. A significant decrease in ROE and a negative EVA indicate that the expected financial synergies from the acquisition process have not been fully achieved.

Discussion

The first hypothesis stating that there was no significant difference in PT Petronesia Benimel's financial performance, measured using DuPont analysis, between the period before and after the acquisition by Hutama Karya Infrastruktur, was rejected. The results of the paired t-test showed that there was a significant decrease in Return on Equity (ROE), from 18.7% before the acquisition to 5.5% after the acquisition, with a significance value of 0.025 ($p < 0.05$). This decline shows that shareholder profitability has decreased significantly after the acquisition, which indicates that the expected realization of financial synergies has not been optimal. In addition to ROE, the constituent components in DuPont's analysis also showed significant dynamics.

The Equity Multiplier (EM) decreased significantly from 3.112 to 1.909 ($p = 0.040$), reflecting the existence of a deleveraging strategy or capital restructuring by the parent company, possibly through a conservative approach to financing and efforts to reduce interest-bearing debt as well as Hutama Karya's asset recycling strategy. In contrast, Total Asset Turnover (TATO) increased significantly from 0.660 to 1.118 ($p = 0.042$), which signifies an increase in the efficiency of the company's asset management

in generating revenue. However, this increase in operational efficiency was not enough to offset the decline in Net Profit Margin (NPM) which fell from 10.0% to 2.4%, although the decline was not statistically significant. These findings are in line with studies that state that post-acquisition ROE increases can only be achieved when supported by operational efficiencies accompanied by profit margin stability.

In the context of PT Petronesia Benimel, the slow investment process due to internal bureaucracy caused a loss of momentum for the project, as expressed by the Director of Finance: "We need it in March, approved by the end of 2023... so that the moment is lost." This shows that structural obstacles in the decision-making process also hinder the achievement of optimal efficiency. This decrease in ROE is also in line with the results of the study and , which shows that not all acquisitions result in improved financial performance, especially when post-acquisition integration encounters structural and organizational cultural challenges. Studies also show that improving asset efficiency can indeed occur in the midst of a crisis, but it still requires effective profit management to create long-term added value. Therefore, although asset efficiency is improving, pressures on profit margins and conservative capital structures are the main challenges lowering ROE. Rani et al. (2015) Aureli (2015) Meghouar & Ibrahimi (2021) Dog et al. (2022)

The second hypothesis, which states that there is no significant difference in PT Petronesia Benimel's financial performance, as measured using Economic Value Added (EVA), between the period before and after the acquisition by Hutama Karya Infrastruktur, is also rejected. Based on the results of calculations and statistical tests, EVA decreased from +IDR 5,041 million before the acquisition to -IDR 20,455 million after the acquisition, with a significance value of 0.095 ($p < 0.1$). Although the p-value is slightly greater than 0.05, the substantial decline nominally indicates an erosion of the company's economic value. This decrease in EVA indicates that although PT Petronesia Benimel still recorded a profit in accounting, the profit was not enough to cover the increased capital cost (from the Cost of Capital of IDR 18,144 million to IDR 43,978 million, $p = 0.012$).

This suggests that acquisitions fail to result in economic value creation, which is caused by increased WACC and inefficiencies in capital allocation. As revealed by OJK (2021) management, the mismatch between the book value and the physical condition of the asset hinders the disinvestment process, and leads to increased depreciation costs and capital expense: "The book value is still there, but the tools have been destroyed... If it is sold, it will be lost." This inefficiency is exacerbated by the slow investment decision-making due to bureaucratic procedures typical of SOEs: "We need it in March, but it was approved at the end of the year... so that the moment is lost." These findings reinforce the study Aureli (2015) and Meghouar & Ibrahimi (2021), which notes that acquisitions by investors from developing countries or state institutions are often faced with costly and complicated integration challenges, so they do not necessarily result in an increase in EVA. Studies Dogan & Ugurlu (2024) and Gulati & Garg (2022) also show that high post-acquisition financial expenses tend to lower EVA, especially in high-leverage sectors such

as infrastructure. Another factor that exacerbated this condition was external pressures due to the COVID-19 pandemic, which led to project delays and increased material costs.

According to Hassan & Giouvriss (2020) and Government department Investment (2022), the construction and infrastructure sectors experienced significant liquidity pressures during the pandemic. This is consistent with the statement of the Director of IPR that: "The expected financial synergies post-acquisition are hampered by unforeseen economic disruptions, which cause financial stress rather than value creation." Thus, the results of EVA's analysis show that the acquisition has not resulted in the creation of economic value for capital owners. Operational efficiency and financial governance need to be improved so that financing structures, human resource competencies, and asset allocation can contribute positively to long-term financial value creation. The study emphasizes the importance of effective integration to avoid a post-acquisition economic downgrade, especially in uncertain economic conditions.

CONCLUSION

This study concludes that the acquisition of PT Petronesia Benimel by PT Hutama Karya Infrastruktur resulted in a significant deterioration of financial performance, as rigorously measured through an integrated DuPont and Economic Value Added (EVA) analysis. The findings reveal a stark decline in Return on Equity (ROE), driven by a collapsing net profit margin that outweighed gains in asset turnover, and a negative shift in EVA, indicating a failure to generate returns above the firm's cost of capital. This value destruction is attributed to a confluence of factors, including inefficiencies in the post-acquisition integration process, a substantial increase in the capital charge, and the exacerbating external pressures of the COVID-19 pandemic, which caused project delays and inflated operational costs. The empirical evidence, supported by managerial insights, clearly indicates that the anticipated financial synergies were not realized, highlighting the profound challenges of integrating an acquired entity, particularly within the complex bureaucratic framework of a state-owned enterprise and during a period of global economic turmoil.

Based on these conclusions, several avenues for future research are proposed. Subsequent studies should seek to extend the temporal scope of analysis to determine if the observed negative trends represent a short-term integration cost or a persistent long-term failure, capturing the full realization—or absence—of synergies over a more extended period. Furthermore, to gain a more holistic understanding, future work should incorporate a broader set of financial metrics, such as Free Cash Flow and leverage ratios, and deeply explore critical qualitative variables like leadership dynamics, organizational culture clash, and strategic realignment through in-depth case studies and expanded stakeholder interviews. Finally, to enhance the generalizability of the findings, comparative research across multiple acquisitions within Indonesia's infrastructure sector or other emerging markets is essential to isolate the impact of country-specific regulations, industry-specific challenges, and macroeconomic conditions on post-acquisition outcomes.

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