



Assessing Mergers and Acquisitions on Acquiring Firms' Profitability: A Comparative Analysis of Pre- and Post-Transaction Performance in ASEAN Stock Market

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Abstract

The intense competition in today's global market drives companies to adopt strategies like mergers and acquisitions (M&A) to enhance their competitive edge. This study, focusing on public companies in ASEAN, examines the relationship between M&A activity and acquiring firms' performance through three profitability ratios while accounting for the type of M&A. Using purposive sampling, 188 paired samples were analyzed through a paired sample t-test to assess profitability changes before and after M&A transactions. An independent sample t-test was conducted on 254 samples to compare the profitability of related versus unrelated M&As. The findings reveal that M&A activities are generally associated with a decline in profitability, particularly in return on assets (ROA) and return on equity (ROE). No significant difference in profitability was found between related and unrelated M&As. The results align with agency and hubris theories, contributing to the ongoing discourse on the implications of M&As on acquiring firms' performance.

Keywords: business combination, M&A, profitability

Introduction

The intensifying competition driven by the dynamic and rapidly evolving global market has increasingly challenged companies to maintain their competitiveness. In response, organizations are compelled to explore effective strategies to sustain their market position. Among these strategies, business combinations have emerged as a prominent approach (Tarigan et al., 2016).

Business combinations often take the form of mergers and acquisitions (M&A), where the acquiring firm assumes the role of the acquirer and the target firm becomes the acquired entity. As highlighted by Mat Rahim & Ching Pok (2013), M&A is frequently chosen as a strategic tool due to its potential to stimulate external growth. Globally, companies engage in M&A not only to drive growth but also to achieve broader organizational objectives and ensure long-term sustainability (Ashfaq et al., 2014).

Mergers and acquisitions (M&A) have become a prevalent strategy among companies in ASEAN, with data from Refinitiv Eikon highlighting numerous completed M&A transactions over the past 15 years. The peak year for M&A activity was 2010, which saw 2,332 transactions. However, a significant decline occurred in 2020 due to the COVID-19 pandemic, which created uncertainty in capital markets and prompted buyers to delay or cancel M&A plans (Kooli & Lock Son, 2021; Kumar & Pal, 2021).

Despite periodic declines, M&A continues to attract interest as companies increasingly favor this strategy over organic growth approaches (Tarigan et al., 2016). The heightened competition in a rapidly evolving global market further underscores the importance of M&A in maintaining competitiveness (Jallow et al., 2017). From the perspective of the resource-based view (RBV), M&A serves as a critical tool for acquiring both tangible and intangible resources, enabling firms to build sustainable competitive advantages (Barney, 1991; Sacui & Maticiu, 2020). Managers undertaking M&A primarily aim to enhance long-term profitability and overall firm value (Kar et al., 2020; Tarigan et al., 2016).

Profitability gains following M&A are often attributed to synergy motives, whereas declines or insignificant outcomes may result from agency and hubris motives. Synergies created through effective M&A can enhance profitability by increasing resource capacity, reducing transaction costs, and acquiring new capabilities (Rani et al., 2015). Empirical studies generally support the positive impact of M&A on the profitability of acquiring firms, highlighting its potential to strengthen competitive advantages and yield long-term financial and operational benefits (Anthony, 2017; Cioli et al., 2020; Cui & Leung, 2020; Fernández et al., 2018; Rani et al., 2015; Yadong et al., 2019; W. Zhang et al., 2018).

Conversely, some researchers have documented cases where M&A leads to reduced profitability. Ineffective M&A can result in excess idle assets and inflated fixed costs, eroding the anticipated benefits (Jallow et al., 2017). A lack of synergy from poorly planned M&A further exacerbates these challenges (Halim & Widjaja, 2020). To mitigate such risks, acquiring firms must thoroughly evaluate potential targets, assess resource compatibility, and project post-M&A performance to avoid adverse outcomes (Gandamihardja & Rusliati, 2020; W. Zhang et al., 2018).

Ultimately, the success of M&A depends on comprehensive strategic planning and careful execution. Poorly considered transactions are unlikely to generate significant improvements in profitability or long-term value (Bhabra & Huang, 2013; Hasanah, 2020; Navisah & Asakdiyah, 2013; Noor & Lestari, 2020). For acquiring firms, a rigorous assessment of risks and performance projections remains critical to ensuring M&A delivers its intended financial and strategic outcomes.

Mergers and acquisitions (M&A) can be categorized based on the industry classifications of the companies involved in the transaction. Tarigan et al. (2016) classify M&A into two main types: related M&A and unrelated M&A. The distinction lies in the resource linkages between the merging firms, which significantly influence the value created through the transaction (Colovic et al., 2021). Accordingly, the type of M&A has implications for the acquiring firm's performance and its ability to generate profitability.

Empirical studies suggest that related M&A tends to result in more substantial performance improvements for acquiring firms compared to unrelated M&A (Barai & Mohanty, 2014; Bhabra & Huang, 2013; Colovic et al., 2021; Cui & Leung, 2020; Z. Zhang

et al., 2020). This is primarily due to the ease of achieving synergies in related M&A, as acquiring firms generally possess sufficient knowledge of similar industries, facilitating integration and operational efficiencies (Colovic et al., 2021). Conversely, Martynova et al. (2007) and Morosini et al. (1998) argue that the type of M&A does not significantly impact acquiring firm performance. They highlight that both types offer unique advantages: related M&A enables cost reductions by eliminating redundancies (Ramaswamy & Waagelein, 2003), while unrelated M&A supports diversification and expansion of product lines (Aggarwal & Garg, 2022).

This study contributes to the literature by providing empirical evidence based on a comprehensive research model that examines M&A within the ASEAN region. Unlike previous studies, which often focused on a single country, this research employs a broader sample encompassing all public companies in ASEAN to enhance the generalizability of the findings. Companies in the financial and utilities sectors are excluded from the analysis due to their distinct characteristics, which could skew the results.

Additionally, this research addresses inconsistencies in prior studies regarding the profitability of acquiring firms post-M&A. To assess performance, three profitability ratios—return on assets (ROA), return on equity (ROE), and net profit margin (NPM)—are employed. The study also seeks to clarify the relationship between M&A types and acquiring firm profitability, as prior research has yielded mixed results on this matter. By focusing on these aspects, the research aims to provide a more nuanced understanding of how M&A impacts the financial outcomes of acquiring firms.

The resource-based view (RBV) theory posits that a firm's resources serve as a foundation for achieving competitive advantage (Barney, 1991). Internal resources, such as managerial expertise and knowledge, as well as external resources obtained through mergers and acquisitions (M&A), can drive organizational growth (Penrose, 1959). Effective resource selection and management play a pivotal role in fostering sustainable competitive advantage (Oliver, 1997). Firms unable to achieve this advantage internally often resort to acquiring additional resources through M&A. From an RBV perspective, M&A serves as a strategic mechanism for acquiring tangible and intangible resources, thereby enhancing long-term competitive advantages (Sacui & Maticiuc, 2020). By leveraging M&A, firms gain access to new resources and capabilities that can drive performance improvements (Cioli et al., 2020; Cui & Leung, 2020). Firms that develop and maintain control over their resources are better positioned to sustain competitive advantages (Widhiadnyana & Ratnadi, 2019). Consequently, RBV suggests that new resources obtained via M&A, when aligned with strategic goals, can improve firm performance. This is supported by evidence indicating that M&A often leads to enhanced profitability for acquiring firms (Anthony, 2017; Cioli et al., 2020; Cui & Leung, 2020; Fernández et al., 2018; Rani et al., 2015; Yadong et al., 2019; W. Zhang et al., 2018).

The success of M&A hinges on management's ability to achieve synergies between the acquiring and target firms (Popli et al., 2017). For M&A to deliver the desired outcomes, firms must carefully evaluate the long-term benefits of the transaction (Rahman et al., 2017) and implement clear strategies to integrate resources swiftly and effectively (W. Zhang et al., 2018). Resources acquired through M&A must align with the firm's strategic objectives to foster competitive advantage (Barney, 1991). Conversely, poorly planned strategies and misaligned resources can negate profitability gains or even result in negative outcomes. Research has documented both significant and negligible

impacts of M&A on acquiring firm profitability, highlighting the importance of strategic alignment (Bhabra & Huang, 2013; Hasanah, 2020; Navisah & Asakdiyah, 2013; Noor & Lestari, 2020). While some studies demonstrate that M&A enhances profitability (Abdelrahman & Elgiziry Khairy, 2019; Ashfaq et al., 2014; Edi & Irayanti, 2019; Gandamihardja & Rusliati, 2020; Halim & Widjaja, 2020; Jallow et al., 2017; Nisak, 2020), others attribute poor outcomes to ineffective management and inadequate resource utilization.

The overarching goal of firms is to maximize profits while achieving other strategic objectives (Kasmir, 2019). Profitability serves as a key metric for assessing the effectiveness of corporate strategies, including M&A (Aggarwal & Garg, 2022). When management prioritizes shareholder interests, the ultimate aim of M&A is to boost current and future profits (Tarigan et al., 2016). Profitability ratios provide a quantitative measure of a firm's ability to generate income and reflect operational efficiency. Commonly used ratios include return on assets (ROA), return on equity (ROE), gross profit margin (GPM), operating profit margin (OPM), and net profit margin (NPM) (Hery, 2018).

Top management plays a critical role in M&A decision-making, encompassing investment strategies, financing, and other strategic initiatives (Suryaningrum et al., 2023). In some instances, shareholder approval is required, particularly for transactions involving significant equity issuance. Shareholders rely on management to present the potential wealth effects of an M&A proposal (Tokbolat et al., 2018). Regulatory frameworks, such as POJK No. 32/POJK.04/2014 in Indonesia, Bursa Malaysia's Main Market Listing Requirements, SGX Listing Manual Rule 806 in Singapore, and PSE Listing Rules in the Philippines, mandate shareholder approval for such transactions. Thus, management's strategic foresight and ability to forecast post-M&A impacts are critical.

The motives underlying M&A decisions significantly influence outcomes. These motives can be categorized as synergy, agency, or hubris (Berkovitch & Narayanan, 1993). Synergy motives aim to create value exceeding the combined worth of the individual firms. Agency motives, however, reflect managerial self-interest, potentially harming shareholder value. Hubris motives arise when overconfident management overestimates the target firm's value, leading to overpayment. Positive outcomes are generally driven by synergy motives, while agency and hubris motives often yield negative or insignificant results. Understanding and addressing these motives is crucial to achieving the desired financial and strategic outcomes from M&A transactions.

Mergers and acquisitions (M&A) provide firms with opportunities to acquire new resources and capabilities, enhancing their competitive positioning (Cui & Leung, 2020). According to the resource-based view (RBV) theory, a firm's ability to effectively leverage its resources determines its potential for achieving competitive advantage (Barney, 1991). M&A can influence firm performance by fostering synergies, which drive actual and future profitability (Anthony, 2017; Rani et al., 2015; Tarigan et al., 2016). The integration of complementary resources and creation of operational efficiencies through M&A enhances innovative capabilities, enabling firms to achieve economies of scale and scope, transfer knowledge, and foster collaboration between the acquiring and target firms (Fernández et al., 2018).

Empirical evidence indicates that M&A often leads to significant improvements in the profitability of acquiring firms (Anthony, 2017; Cioli et al., 2020; Cui & Leung, 2020; Fernández et al., 2018; Rani et al., 2015; Yadong et al., 2019; W. Zhang et al., 2018).

However, the success of M&A depends on the implementation of clear strategies and well-defined targets to ensure effective integration of acquired resources (W. Zhang et al., 2018). Managers must possess the skills necessary to optimize additional resources, as the effective use of these resources is critical to achieving long-term benefits (Cui & Leung, 2020). M&A offers acquiring firms the potential to enhance market power, increase capacity, and strengthen economies of scale by reducing costs and boosting sales (Rani et al., 2015). These benefits contribute to sustained competitive advantage and positively impact financial and operational performance (Barai & Mohanty, 2014; Cui & Leung, 2020; Rani et al., 2015).

H₁: Mergers and acquisitions have a positive relationship with the profitability of the acquiring firm.

M&A transactions can be categorized based on the industry alignment of the participating firms. Related M&A involves firms operating within similar industries or possessing complementary resources, offering strategic advantages and enhancing profitability (Tarigan et al., 2016). The integration of related resources facilitates value creation, as demonstrated in prior studies (Barai & Mohanty, 2014; Z. Zhang et al., 2020). For M&A decisions to yield optimal outcomes, management must align the transaction with the firm's existing strategies, resources, and capabilities while avoiding conflicts of interest. Within the RBV framework, the combination of complementary resources is central to creating sustainable competitive advantages (Sacui & Maticiu, 2020).

Achieving competitive advantage through M&A is contingent on realizing potential synergies, which are easier to attain in related M&A due to the acquiring firm's familiarity with the target firm's operational environment. Managers in related M&A transactions are better equipped to assess economic drivers, mitigate risks, and manage the combined entity effectively (Cui & Leung, 2020). Synergies achieved in related M&A reduce operational costs, strengthen market dominance, and enhance profitability (Barai & Mohanty, 2014).

The risks associated with M&A differ by type. Related M&A carries lower risk because the acquiring firm can more easily adapt to the target firm's operations and management systems (Colovic et al., 2021; Lewis & Bozos, 2019; Z. Zhang et al., 2020). Conversely, unrelated M&A is riskier, as post-M&A performance is less predictable due to difficulties in transferring knowledge and aligning operations (Colovic et al., 2021). Adapting to unrelated M&A requires more time and resources compared to related M&A. The strategic fit hypothesis supports the notion that related M&A, by leveraging similar resources and capabilities, increases the likelihood of achieving efficiency and market power, resulting in higher profitability (Barai & Mohanty, 2014).

H₂: Related mergers and acquisitions have a stronger positive relationship with the profitability of acquiring firms compared to unrelated mergers and acquisitions.

Research Method

This study examines M&A transactions across major stock exchanges in ASEAN countries, including the Indonesia Stock Exchange, Bursa Malaysia, Philippine Stock Exchange, Singapore Exchange, Ho Chi Minh Stock Exchange, Hanoi Stock Exchange, the Unlisted Public Company Market (UPCOM) in Vietnam, and the Stock Exchange of Thailand. The

sample was selected using a non-probability purposive sampling method, guided by specific criteria to ensure relevance and robustness.

The first criterion required that M&A transactions be conducted between 2010 and 2017. The year 2010 was chosen as the starting point as it marked the highest number of M&A transactions in the past 15 years. This surge was attributed to policy changes following the 2008-2009 global financial crisis, as M&A was widely seen as a means to facilitate financial restructuring and improve corporate conditions (Halim & Widjaja, 2020). Transactions after 2017 were excluded because a five-year post-M&A financial performance analysis (t+5) was required, and the latest available financial data extended only to 2022 at the time of this research.

Second, the study excluded M&A transactions classified as repurchases, self-tenders, or recapitalizations in the Refinitiv Eikon database. These transactions involve the same acquiring and target firms, and thus do not align with the study's definition of M&A.

Third, the research focused on M&A transactions involving firms headquartered in ASEAN countries, whose shares are publicly traded on one of the ASEAN stock exchanges. Fourth, transactions involving firms in the financial and utilities sectors were excluded, following the Refinitiv Business Classification (TRBC). Firms in these industries exhibit unique characteristics that differ significantly from other sectors. Financial firms differ in capital structure, while utilities firms are heavily regulated, limiting their operational flexibility (Fama & French, 2001; Lundstrum, 2009).

The data used in this study is secondary data, primarily derived from the annual financial reports of companies available on Refinitiv Eikon. The dataset includes financial reports spanning 2005 to 2022 to ensure a comprehensive pre- and post-M&A performance analysis.

Profitability ratios, which reflect a company's earnings relative to its sales, assets, or equity, are used to measure performance (Anthony, 2017). In this study, profitability is assessed using three widely recognized financial ratios: return on assets (ROA), return on equity (ROE), and net profit margin (NPM). Each ratio is calculated for the five years preceding and five years following the M&A transaction. This time frame is deemed sufficient to capture the realization of synergies, as the integration process requires significant managerial knowledge, skills, and experience (Cui & Leung, 2020).

The methodology for calculating these profitability ratios is based on prior research (Ashfaq et al., 2014; Cioli et al., 2020; Jallow et al., 2017; Rani et al., 2015). Specifically, ROA is calculated following the formula employed in studies by Anthony (2017), Bhabra & Huang (2013), Halim & Widjaja (2020), Jallow et al. (2017), Noor & Lestari (2020), Yadong et al. (2019). This approach ensures consistency and comparability with established literature while enabling a rigorous evaluation of profitability trends over the designated period.

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income Before Extraordinary Items}}{\text{Total Assets}} \dots\dots\dots (1)$$

$$\text{Pre ROA} = \frac{\text{ROA}_{t-5} + \text{ROA}_{t-4} + \text{ROA}_{t-3} + \text{ROA}_{t-2} + \text{ROA}_{t-1}}{5} \dots\dots\dots (2)$$

$$\text{Post ROA} = \frac{ROA_{t+5} + ROA_{t+4} + ROA_{t+3} + ROA_{t+2} + ROA_{t+1}}{5} \dots\dots\dots (3)$$

ROA is a comprehensive measure that can be used to see the overall performance of an entity from an accounting perspective (Anthony, 2017). ROA is considered an important indicator in measuring company efficiency through the use of total company assets (Jallow et al., 2017).

ROE is measured using the formula used by Anthony (2017), Bhabra & Huang (2013), Halim & Widjaja (2020), Jallow et al. (2017), Noor & Lestari (2020):

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income Before Extraordinary Items}}{\text{Total Equity}} \dots\dots\dots 4)$$

$$\text{Pre ROE} = \frac{ROE_{t-5} + ROE_{t-4} + ROE_{t-3} + ROE_{t-2} + ROE_{t-1}}{5} \dots\dots\dots (5)$$

$$\text{Post ROE} = \frac{ROE_{t+5} + ROE_{t+4} + ROE_{t+3} + ROE_{t+2} + ROE_{t+1}}{5} \dots\dots\dots (6)$$

ROE is used to assess profitability from the shareholder investment side (Rani et al., 2015). ROE is usually used as a consideration for investors in assessing company performance, where companies with high ROE are considered capable of generating liquidity internally (Jallow et al., 2017).

NPM is measured using the formula used by Abdelrahman & Elgiziry Khairy (2019), Halim & Widjaja (2020), Jallow et al. (2017), Noor & Lestari (2020):

$$\text{Net Profit Margin (NPM)} = \frac{\text{Net Income Before Extraordinary Items}}{\text{Sales}} \dots\dots\dots (7)$$

$$\text{Pre NPM} = \frac{NPM_{t-5} + NPM_{t-4} + NPM_{t-3} + NPM_{t-2} + NPM_{t-1}}{5} \dots\dots\dots (8)$$

$$\text{Post NPM} = \frac{NPM_{t+5} + NPM_{t+4} + NPM_{t+3} + NPM_{t+2} + NPM_{t+1}}{5} \dots\dots\dots (9)$$

Net profit margin (NPM) is employed to evaluate profitability from the perspective of sales performance (Rani et al., 2015). It provides insights into a firm's overall operational efficiency, encompassing production, administrative functions, marketing, and tax management processes (Noor & Lestari, 2020). Alongside NPM, return on assets (ROA) and return on equity (ROE) are widely recognized in the literature as robust indicators of corporate profitability (Abdelrahman & Elgiziry Khairy, 2019; Anthony, 2017; Ashfaq et al., 2014; Bhabra & Huang, 2013; Cioli et al., 2020; Edi & Irayanti, 2019; Gandamihardja & Rusliati, 2020; Jallow et al., 2017; Noor & Lestari, 2020; Rani et al., 2015; Yadong et al., 2019; W. Zhang et al., 2018). Together, these ratios enable a comprehensive analysis of profitability, reflecting efficiency in asset utilization (ROA), returns to shareholders (ROE), and overall sales performance (NPM).

To distinguish between types of M&A transactions, this research employs a dummy variable, DumTYP, where a value of 0 represents unrelated M&A and a value of 1 represents related M&A. Related M&A occurs when both firms belong to the same industry, while unrelated M&A involves firms from different industries. Industry classification is based on the Refinitiv Business Classification (TRBC).

The analysis for testing H₁ employs a paired sample t-test, which is suitable for comparing means within paired samples. In this study, the paired sample t-test is used to

compare the average profitability ratios of acquiring firms five years before and five years after the M&A transactions. For testing H_2 , the research applies an independent sample t-test, which compares the means between unrelated samples. This test evaluates the effect of M&A type (related vs. unrelated) on the profitability of acquiring firms.

A normality test was not conducted because the Central Limit Theorem asserts that the sampling distribution of the mean is approximately normal when the sample size exceeds 30. Given the study's sample size, this assumption holds, ensuring the validity of the t-tests applied.

Result and Discussion

The sample selection process for this study is outlined in [Table 1](#), which categorizes the data into two sample sets. The first set is used for the paired sample t-test, which evaluates differences in the profitability of acquiring firms before and after M&A transactions. The second set is used for the independent sample t-test, which examines differences in profitability based on the type of M&A (related or unrelated). A total of 437 samples initially met the criteria outlined in this study. However, certain samples were excluded for specific reasons, as detailed below.

Among the excluded samples, 129 involved multiple M&A transactions by the same acquiring firm in the same year. In such cases, only the first M&A transaction was retained to represent the profitability of the acquiring firm, ensuring consistency in the analysis.

The difference in sample size between the paired sample t-test and the independent sample t-test arises for two primary reasons. First, when a firm conducted multiple M&A transactions involving different types of M&A within the same year, only one transaction was included in the paired sample t-test to avoid duplication in assessing pre- and post-M&A profitability. In contrast, both transactions were retained in the independent sample t-test because they had distinct DumTYP values, resulting in an additional 12 samples for this test. Second, the data requirements differ between the two tests. The paired sample t-test requires complete profitability ratios for both pre-M&A and post-M&A periods, whereas the independent sample t-test only requires post-M&A profitability ratios. Consequently, variations in incomplete data and other conditions further contributed to differences in sample sizes.

Incomplete data refers to instances where a firm did not publish comprehensive financial reports for the required period. Additionally, certain anomalies led to the exclusion of data from the sample. For example, when total sales were reported as zero, the net profit margin (NPM) could not be calculated. Similarly, cases where total sales were negative but net income was positive indicated that the firm's main operations did not generate income, and profits were derived from non-operating activities. These samples were excluded as they did not align with the research objectives. Instances where both total equity and net income were negative were also eliminated, as this caused the return on equity (ROE) to appear artificially positive, introducing bias. Finally, samples with extreme profitability ratios, significantly deviating from the sample set's norm, were excluded to maintain data integrity.

After applying these criteria, the final sample consisted of 188 paired samples for each profitability ratio in the paired sample t-test and 254 samples for each ratio in the

independent sample t-test. This refined dataset ensures robust and reliable analysis of M&A impacts on acquiring firm profitability.

Table 1. Selection Sample Process

Sample Criteria	Total	
	Paired Sample t-test	Independent Sample t-test
“Completed” M&A transactions were carried out by public companies with headquarters in ASEAN 2010-2022*	1.000	1.000
*Source: Refinitiv Eikon		
1. M&A with acquiring firm = target firm	(153)	(153)
2. M&A by acquiring firm / target firm that:		
a. <i>Headquarters outside</i> ASEAN	(149)	(149)
b. Shares are not traded on ASEAN exchanges	(16)	(16)
3. M&A by acquiring firms / target firms in the Financials or Utilities sector	(121)	(121)
4. M&A Transactions 2018-2022	(124)	(124)
Total Samples That Meet the Criteria	437	437
Unusable samples		
Multi M&A (same year)	(129)	(129)
Multi M&A (different types)		12
Incomplete data (and other conditions)		
Financial report data is missing/incomplete	(91)	(43)
<i>Total Sales 0</i> /marked (-)	(10)	(9)
The ROE value is biased	(11)	(7)
Extreme Value	(8)	(7)
Total Sample	188	254

Table 2 presents the descriptive statistics for the two sample sets used in the analysis: 188 paired samples for the paired sample t-test and 254 samples for the independent sample t-test. The paired sample t-test examines six profitability variables: PreROA, PostROA, PreROE, PostROE, PreNPM, and PostNPM.

The mean PreROA is 7.2%, with a maximum of 28.5% and a minimum of -13.7%, while the mean PostROA is 5.1%, with a maximum of 29.2% and a minimum of -31.9%. The lower mean PostROA suggests a decline in the efficiency of asset utilization in generating net profit post-M&A, although some firms demonstrated improvement, as reflected in the increase in the maximum PostROA value. Negative minimum values indicate that certain companies recorded losses, resulting in a negative net income.

For ROE, the mean PreROE is 14.3%, with a maximum of 79.8% and a minimum of -21.1%, compared to a mean PostROE of 9.4%, with a maximum of 38.8% and a minimum of -93.1%. The decline in mean PostROE highlights reduced profitability from equity contributions after M&A. Notably, some firms reported extreme losses, with ROE values as low as -93.1%.

The mean PreNPM is 14.1%, with a maximum of 100% and a minimum of -40.7%, while the mean PostNPM is 12.1%, with a maximum of 74.3% and a minimum of -71.3%. The smaller decline in PostNPM compared to ROA and ROE suggests relatively stable

efficiency in generating net profit from sales, though some firms experienced significant reductions. The maximum PreNPM value of 100% indicates that certain companies generated income from both core and non-core activities, such as other revenue streams.

For the independent sample t-test, four variables are analyzed: PostROA, PostROE, PostNPM, and DumTYP. The mean PostROA is 5.0%, with a maximum of 29.2% and a minimum of -31.9%, indicating that, on average, firms generated 5 cents of net profit for every dollar of total assets after M&A. The mean PostROE is 9.5%, with a maximum of 44.6% and a minimum of -93.1%, reflecting an average of 9.5 cents of net profit per dollar of equity post-M&A. The mean PostNPM is 12.6%, with a maximum of 96.7% and a minimum of -71.3%, suggesting an average generation of 12.6 cents of net profit per dollar of revenue earned.

Finally, the mean DumTYP value of 51.6% indicates that related M&A transactions (Dummy=1) are slightly more frequent than unrelated M&A transactions (Dummy=0) in the sample. Specifically, the dataset includes 131 related M&A samples and 123 unrelated M&A samples. This distribution ensures sufficient representation for analyzing differences between the two types of M&A.

Table 2. Descriptive Statistic Test Results

Variable	Obs	Mean	Std. dev.	Min	Max
Pre ROA (Pair. t-test)	188	0,072	0,064	-0,137	0,285
Post ROA (Pair. t-test)	188	0,051	0,059	-0,319	0,292
Pre ROE (Pair. t-test)	188	0,143	0,127	-0,211	0,798
Post ROE (Pair. t-test)	188	0,094	0,115	-0,931	0,388
Pre NPM (Pair. t-test)	188	0,141	0,180	-0,407	1,000
Post NPM (Pair. t-test)	188	0,121	0,155	-0,713	0,743
Post ROA (Ind.t-test)	254	0,050	0,059	-0,319	0,292
Post ROE (Ind.t-test)	254	0,095	0,121	-0,931	0,446
Post NPM (Ind.t-test)	254	0,126	0,183	-0,713	0,967
DumTYP (Ind.t-test)	254	0,516	0,501	0	1

The paired sample t-test was conducted on 188 pairs of samples for each profitability ratio, namely ROA, ROE, and NPM. The paired sample t-test is used to see the difference in the profitability of acquiring firms before and after carrying out M&A. The results of the paired sample t-test for profitability are presented in [Table 3](#).

Table 3. Paired Sample t-Test Results

	Profitability	N	ROA	ROE	NPM
Mean	Pre	188	0,072	0,143	0,141
	Post	188	0,051	0,094	0,121
Significance 2-tailed			0,000*	0,000*	0,129

* = significance level <0,01

[Table 3](#) shows that the mean of PreROA is 7.2% and PostROA is 5.1%, with a significance value of >0.01. These results indicate a significant decrease in ROA in acquiring firms after carrying out M&A. Furthermore, the mean of PreROE is 14.3% and PostROE is 9.4%, with a significance value of >0.01. These results indicate a significant decrease in ROE in acquiring firms after carrying out M&A. Finally, the mean of PreNPM

is 14.1% and PostNPM is 12.1%, with a significance value of 0.129. These results indicate a decrease in NPM in acquiring firms after carrying out M&A, but in insignificant value.

The independent sample t-test was conducted on 254 samples consisting of 123 unrelated M&A samples and 131 related M&A samples for each profitability ratio, namely ROA, ROE and NPM. The independent sample t-test is used to see differences in the profitability of acquiring firms based on the type of M&A chosen, namely unrelated M&A or related M&A. The results of the independent sample t-test for profitability are presented in Table 4.

Table 4. Independent Sample t-Test Results

	Type	N	ROA	ROE	NPM
Mean	Unrelated	123	0,045	0,093	0,138
	Related	131	0,054	0,097	0,115
Significance 2-tailed			0,251	0,806	0,306

Table 4 presents the comparative profitability metrics for related and unrelated M&A transactions. The mean ROA for unrelated M&A is 4.5%, compared to 5.4% for related M&A, with a significance value of 0.251. Similarly, the mean ROE for unrelated M&A is 9.3%, whereas related M&A records a slightly higher mean of 9.7%, with a significance value of 0.806. For NPM, unrelated M&A achieves a mean of 13.8%, outperforming the mean of 11.5% for related M&A, with a significance value of 0.306. These results indicate that while related M&A yields higher average ROA and ROE values and unrelated M&A results in a higher NPM, none of these differences are statistically significant.

The first hypothesis (H_1) posits that M&A has a positive relationship with the profitability of the acquiring firm. Descriptive statistics in Table 2 reveal that the mean values of ROA, ROE, and NPM decrease post-M&A compared to pre-M&A levels. Testing confirms that this decline is statistically significant for ROA and ROE but not for NPM. Thus, H_1 is not supported, as the profitability of acquiring firms tends to decline after M&A. These findings align with prior research indicating a negative relationship between M&A and acquiring firm profitability (Abdelrahman & Elgiziry Khairy, 2019; Ashfaq et al., 2014; Edi & Irayanti, 2019; Gandamihardja & Rusliati, 2020; Halim & Widjaja, 2020; Jallow et al., 2017; Nisak, 2020).

The decline in profitability post-M&A suggests ineffective management strategies. Ineffectively executed M&A often results in excess capacity of idle assets, leading to higher fixed costs (Jallow et al., 2017). Furthermore, the absence of synergy between acquiring and target firms indicates a failure to integrate operations effectively (Halim & Widjaja, 2020).

This decline also aligns with agency theory, which suggests that the separation of ownership and control often leads managers to prioritize personal interests over shareholder wealth (Jensen & Meckling, 1976). Managers driven by agency motives may engage in M&A to retain control over excess cash resources or pursue personal incentives, even when such transactions lack long-term value creation (Jensen, 1986, 2005). Misaligned managerial incentives exacerbate agency problems, ultimately harming firm performance (Fung et al., 2009). Additionally, managers may pursue geographic or product diversification through M&A to reduce personal risks and secure their positions, further detracting from shareholder value (Lindner et al., 2023).

The hubris theory offers another explanation for declining profitability. Overconfidence in evaluating target firms may lead to overpayment and suboptimal decisions, thereby reducing profitability (Roll, 1986). High information asymmetry can exacerbate these errors, as managers overestimate the potential value of M&A transactions (Lindner et al., 2023). These factors highlight the role of managerial misjudgment in post-M&A performance declines.

The second hypothesis (H₂) proposes that related M&A is more profitable than unrelated M&A. While related M&A demonstrates higher mean ROA and ROE values, and unrelated M&A shows higher NPM, none of these differences are statistically significant. Thus, H₂ is not supported. The higher NPM for unrelated M&A suggests that diversification and the addition of new product lines can increase sales, contributing to improved profitability metrics in this dimension (Aggarwal & Garg, 2022). However, the lack of significance indicates that profitability tends to remain unchanged regardless of the type of M&A.

The insignificant differences align with prior studies that found no substantial variation in post-M&A profitability between related and unrelated transactions (Martynova et al., 2007; Morosini et al., 1998). In unrelated M&A, achieving synergy is challenging due to the acquiring firm's inability to effectively transfer knowledge and integrate operations, resulting in uncertain post-acquisition performance (Colovic et al., 2021). Although related M&A offers greater synergy potential, successful integration depends heavily on managerial strategy and the alignment of additional resources with the firm's existing capabilities.

Failure to achieve synergy in either type of M&A can be attributed to resources that do not meet the characteristics of being valuable, rare, inimitable, and non-substitutable (Barney, 1991). Unutilized or misaligned resources increase fixed costs through idle asset capacity (Jallow et al., 2017). Managers often fail to comprehensively evaluate resource compatibility and target firm performance, undermining M&A outcomes. As a result, neither related nor unrelated M&A reliably enhances the profitability of acquiring firms.

Conclusion

The findings of this study reveal a negative relationship between mergers and acquisitions (M&A) and the profitability of acquiring firms, particularly in terms of return on assets (ROA) and return on equity (ROE). These results align with and reinforce both agency theory and hubris theory, demonstrating that profitability declines when M&A decisions are driven by agency or hubris motives rather than synergy motives. Ineffective M&A, characterized by a failure to achieve synergy, contributes to this profitability decline. Additionally, the study finds that the type of M&A—related or unrelated—does not significantly impact the profitability of acquiring firms.

In unrelated M&A, achieving synergy is challenging due to the difficulties in transferring knowledge and integrating operations across dissimilar industries. Conversely, while related M&A offers greater potential for synergy, its success is contingent upon effective managerial strategies and integration efforts. Ultimately, this study concludes that acquiring firms often fail to achieve synergy in both related and unrelated M&A due to inadequate evaluation and integration of target firms.

This research focuses on public companies in ASEAN, excluding those in the financial and utilities industries, as these sectors exhibit unique characteristics that distinguish them from other industries. Future research could specifically examine M&A within these two sectors in the ASEAN context to uncover industry-specific dynamics.

Additionally, this study does not differentiate between mergers and acquisitions, primarily due to the disproportionate representation of acquisitions within the ASEAN region. While most public companies in ASEAN engage in acquisitions, only a small fraction participate in mergers, rendering merger data less representative of the total population. Future research could address this limitation by distinguishing between mergers and acquisitions and using a broader sample, potentially including firms outside ASEAN.

Another limitation of this study is the lack of differentiation between firms conducting single versus multiple M&A transactions within a year. Future research could focus on the profitability implications for companies engaging in multiple M&A transactions, particularly in ASEAN. Lastly, this research compares the average profitability of acquiring firms over five years before and after M&A. Future studies could explore shorter or more granular time frames to analyze incremental changes in profitability and provide a deeper understanding of post-M&A performance trends.

References

- Abdelrahman, A. W., & Elgiziry Khairy. (2019). Exploring improvements of post-acquisitions corporate performance in industrial sector in the Egyptian stock market. *Journal of Finance and Accounting*, 7(3), 60–75. <https://doi.org/10.11648/j.jfa.20190703.11>
- Aggarwal, P., & Garg, S. (2022). Impact of Mergers and Acquisitions on Accounting-based Performance of Acquiring Firms in India. *Global Business Review*, 23(1), 218–236. <https://doi.org/10.1177/0972150919852009>
- Anthony, M. (2017). Effects of merger and acquisition on financial performance: Case Study of commercial banks. *International Journal of Business Management & Finance*, 1(6), 96–107.
- Ashfaq, K., Usman, M., Hanif, Z., & Yousaf, T. (2014). Investigating the impact of merger & acquisition on post merger financial performance (relative & absolute) of companies (evidence from non-financial sector of Pakistan). *International Journal of Academic Research in Business and Social Sciences*, 4(11). <https://doi.org/10.6007/ijarbss/v4-i11/1307>
- Barai, P., & Mohanty, P. (2014). Role of industry relatedness in performance of Indian acquirers—Long and short run effects. *Asia Pacific Journal of Management*, 31(4), 1045–1073. <https://doi.org/10.1007/s10490-014-9372-1>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Berkovitch, E., & Narayanan, M. P. (1993). Motives for Takeovers: An Empirical Investigation. *The Journal of Financial and Quantitative Analysis*, 28(3), 347–362.
- Bhabra, H. S., & Huang, J. (2013). An empirical investigation of mergers and acquisitions by Chinese listed companies, 1997-2007. *Journal of Multinational Financial Management*, 23(3), 186–207. <https://doi.org/10.1016/j.mulfin.2013.03.002>

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Pre- and Post-Transaction Performance in ASEAN Stock Market

- Cioli, V., Giannozzi, A., Ippoliti, V., & Roggi, O. (2020). Cross-border M&A and financial performance: Empirical evidence on bidder/target companies. *International Journal of Business and Management*, 15(4), 67–86. <https://doi.org/10.5539/ijbm.v15n4p67>
- Colovic, A., Lamotte, O., & Yang, J. (2021). Investors' decisions following acquisition announcements: A configurational analysis of the role of acquirers' resources, capabilities, and strategic fit with the target firm. *European Management Review*, 19(1), 75–91. <https://doi.org/10.1111/emre.12481>
- Cui, H., & Leung, S. C.-M. (2020). The long-run performance of acquiring firms in mergers and acquisitions: Does managerial ability matter? *Journal of Contemporary Accounting and Economics*, 16(1). <https://doi.org/10.1016/j.jcae.2020.100185>
- Edi, E., & Irayanti, L. (2019). How Merger and Acquisition Affect Firm Performance and Its Quality. *Journal of Accounting Finance and Auditing Studies*, 5(3), 42–53. <https://doi.org/10.32602/jafas.2019.30>
- Fama, E. F., & French, K. R. (2001). Disappearing dividends: Changing firm characteristics or lower propensity to pay? *Journal of Financial Economics*, 60(1), 3–43. [https://doi.org/10.1016/S0304-405X\(01\)00038-1](https://doi.org/10.1016/S0304-405X(01)00038-1)
- Fernández, S., Triguero, Á., & Alfaro-Cortés, E. (2018). M&A effects on innovation and profitability in large European firms. *Management Decision*, 57(1), 100–114. <https://doi.org/10.1108/MD-08-2017-0730>
- Fung, S., Hoje, H., & Tsai, S.-C. (2009). Agency problems in stock market-driven acquisitions. *Review of Accounting and Finance*, 8(4), 388–430. <https://doi.org/10.1108/14757700911006958>
- Gandamihardja, S., & Rusliati, E. (2020). Kinerja Keuangan Sebelum Dan Sesudah Akuisisi Pada Perusahaan Non-Keuangan. *Jurnal Riset Akuntansi Kontemporer*, 12(1), 24–30. <https://doi.org/10.23969/jrak.v12i1.4042>
- Halim, C. C., & Widjaja, I. (2020). Analisis Kinerja Perusahaan Sebelum dan Sesudah Merger dan Akuisisi (Studi Empiris pada Perusahaan Non-Keuangan yang Terdaftar di Bursa Efek Indonesia Tahun 2009-2017). *Jurnal Manajemen Bisnis Dan Kewirausahaan*, 4(2), 69. <https://doi.org/10.24912/jmbk.v4i2.7524>
- Hasanah, H. (2020). Analisis Kinerja Keuangan Sebelum Dan Sesudah Akuisisi (Studi Komparatif Pada Perusahaan Food and Beverage Di Bursa Efek Indonesia). *Ekonomi Bisnis*, 25(2), 122–130. <https://doi.org/10.33592/jeb.v25i2.425>
- Hery. (2018). *Analisis Laporan Keuangan : Integrated and Comprehensive Edition*. PT Gramedia Widiasarana Indonesia.
- Jallow, M. S., Masazing, M., & Basit, A. (2017). The Effects of Mergers & Acquisitions on Financial Performance: Case Study of UK Companies. *International Journal of Accounting & Business Management*, 5(1), 74–92. <https://doi.org/24924/ijabm/2017.04/v5.iss1/74.92>
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow , Corporate Finance , and Takeovers. *American Economic Review*, 76(2), 323–329. <https://www.jstor.org/stable/1818789>
- Jensen, M. C. (2005). Agency Costs of Overvalued Equity. *Financial Management*, 34(1), 5–19.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3, 305–360.

- Kar, R. N., Bhasin, N., & Soni, A. (2020). Role of mergers and acquisitions on corporate performance: emerging perspectives from Indian IT sector. *Transnational Corporations Review*, 13(3), 307–320. <https://doi.org/10.1080/19186444.2020.1832427>
- Kasmir. (2019). *Analisis Laporan Keuangan*. PT Rajagrafindo Persada.
- Kooli, C., & Lock Son, M. (2021). Impact of COVID-19 on Mergers, Acquisitions & Corporate Restructurings. *Businesses*, 1(2), 102–114. <https://doi.org/10.3390/businesses1020008>
- Kumar, M., & Pal, R. (2021). The Coronavirus Crisis' Effect on Mergers and Acquisitions Activity. *International Journal of Innovative Research in Technology*, 8(6), 247–253.
- Lewis, Y., & Bozos, K. (2019). Mitigating post-acquisition risk: the interplay of cross-border uncertainties. *Journal of World Business*, 54(5), 100996. <https://doi.org/10.1016/j.jwb.2019.100996>
- Lindner, T., Müllner, J., & Pühr, H. (2023). Ownership, institutions, and the agency of M&A completion. *Global Strategy Journal*, July, 1–31. <https://doi.org/10.1002/gsj.1494>
- Lundstrum, L. L. (2009). Entrenched management, capital structure changes and firm value. *Journal of Economics and Finance*, 33(2), 161–175. <https://doi.org/10.1007/s12197-008-9037-3>
- Martynova, M., Oosting, S., & Renneboog, L. (2007). The Long-Term Operating Performance in European Mergers and Acquisitions. In G. Gregoriou & L. D. R. Renneboog (Eds.), *International Mergers and Acquisitions Activity Since 1990: Recent Research and Quantitative Analysis* (pp. 79–116). Elsevier. <https://doi.org/10.1016/B978-075068289-3.50006-X>
- Mat Rahim, N., & Ching Pok, W. (2013). Shareholder wealth effects of M&As: The third wave from Malaysia. *International Journal of Managerial Finance*, 9(1), 49–69. <https://doi.org/10.1108/17439131311298520>
- Morosini, P., Shane, S., & Singh, H. (1998). National Cultural Acquisition Distance and Cross-Border Performance. *Journal of International Business Studies*, 29(1), 137–158.
- Navisah, N., & Asakdiyah, S. (2013). Analisis Kinerja Keuangan Perusahaan Pengakuisisi Sebelum dan Sesudah Merger Akuisisi yang Terdaftar di Bursa Efek Indonesia. *Jurnal Fokus Manajemen Bisnis*, 3(2), 150–157. <https://doi.org/10.12928/fokus.v3i2.1342>
- Nisak, U. K. (2020). Analisis Perbandingan Kinerja Keuangan Perusahaan Akuisitor Sebelum Dan Sesudah Merger & Akuisisi (M&a) Tahun 2015. *Jurnal Ilmu Manajemen*, 8(3), 756–767. <https://doi.org/10.26740/jim.v8n3.p756-767>
- Noor, A. S., & Lestari, B. (2020). Analisis Profitabilitas Sebelum Dan Sesudah Merger Atau Akuisisi Pada Perusahaan Manufaktur Makanan Dan Minuman Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Ekonomi Dan Bisnis*, 13(2), 436–449.
- Novaliza, P., & Djajanti, A. (2013). Analisis Pengaruh Merger dan Akuisisi Terhadap Kinerja Perusahaan Publik di Indonesia (Periode 2004–2011). *Jurnal Akuntansi Dan Bisnis*, 1(1), 1–16. <https://datakata.files.wordpress.com/2015/09/analisis-merger-dan-akuisisi-terhadap-kinerja-perusahaan-issn.pdf>
- Oliver, C. (1997). Sustainable competitive advantage: Combining institutional and resource-based views. *Strategic Management Journal*, 18(9), 697–713.

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[https://doi.org/10.1002/\(SICI\)1097-0266\(199710\)18:9<697::AID-SMJ909>3.0.CO;2-C](https://doi.org/10.1002/(SICI)1097-0266(199710)18:9<697::AID-SMJ909>3.0.CO;2-C)

- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. John Wiley.
- Popli, M., Ladkani, R. M., & Gaur, A. S. (2017). Business group affiliation and post-acquisition performance: An extended resource-based view. *Journal of Business Research*, 81, 21–30. <https://doi.org/10.1016/j.jbusres.2017.08.003>
- Rahman, Z., Ali, A., & Jebran, K. (2017). The effects of mergers and acquisitions on stock price behavior in banking sector of Pakistan. *The Journal of Finance and Data Science*, 4(1), 44–54. <https://doi.org/10.1016/j.jfds.2017.11.005>
- Ramaswamy, K. P., & Waagelein, J. F. (2003). Firm financial performance following mergers. *Review of Quantitative Finance and Accounting*, 20(2), 115–126. <https://doi.org/10.1023/A:1023089924640>
- Rani, N., Yadav, S. S., & Jain, P. K. (2015). Financial Performance Analysis of Mergers and Acquisitions: Evidence from India. *International Journal of Commerce and Management*, 5(4), 402–423. <https://doi.org/10.1108/IJCoMA-11-2012-0075>
- Roll, R. (1986). The Hubris Hypothesis of Corporate Takeovers. *The Journal of Business*, 59(2), 197–216. <https://doi.org/http://dx.doi.org/10.1086/296325>
- Sacui, V., & Maticiu, M. D. (2020). The Sources of Revenue Synergies in Mergers & Acquisitions. *Review of International Comparative Management*, 21(4), 592–602. <https://doi.org/10.24818/RMCI.2020.4.592>
- Suhanda, N. H., Hidayat, A. N., & Firmansyah, A. (2019). Firm value and performances in merger policy: Evidence from Indonesia. *Academy of Accounting and Financial Studies Journal*, 23(2).
- Suryaningrum, D. H., Abdul Rahman, A. A., Meero, A., & Cakranegara, P. A. (2023). Mergers and acquisitions: does performance depend on managerial ability? *Journal of Innovation and Entrepreneurship*, 12(1). <https://doi.org/10.1186/s13731-023-00296-x>
- Tarigan, J., Yenewan, S., & Natalia, G. (2016). *Merger dan Akuisisi dari Perspektif Strategis dan Kondisi Indonesia (Pendekatan Konsep dan Studi Kasus)* (1st ed.). Ekuilibria.
- Tokbolat, Y., Thompson, S., & Le, H. (2018). Shareholder voting in mergers and acquisitions: evidence from the UK. *European Journal of Finance*. <https://doi.org/10.1080/1351847X.2018.1552602>
- Widhiadnyana, I. K., & Dwi Ratnadi, N. M. (2019). The impact of managerial ownership, institutional ownership, proportion of independent commissioner, and intellectual capital on financial distress. *Journal of Economics, Business & Accountancy Ventura*, 21(3), 351. <https://doi.org/10.14414/jebav.v21i3.1233>
- Yadong, C., Lee, L. C., Kee, L. P., & Quah, K. (2019). The impact of mergers and acquisitions on financial performance of listed companies in China. *International Journal of Entrepreneurship and Management Practices*, 2(8), 1–12. <https://doi.org/10.35631/ijemp.28001>
- Zhang, W., Wang, K., Li, L., Chen, Y., & Wang, X. (2018). The impact of firms' mergers and acquisitions on their performance in emerging economies. *Technological Forecasting and Social Change*, 135, 208–216. <https://doi.org/10.1016/j.techfore.2018.05.015>
- Zhang, Z., Lyles, M. A., & Wu, C. (2020). The stock market performance of exploration-oriented and exploitation-oriented cross-border mergers and acquisitions:

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Assessing Mergers and Acquisitions on Acquiring Firms' Profitability: A Comparative Analysis of
Pre- and Post-Transaction Performance in ASEAN Stock Market

Evidence from emerging market enterprises. *International Business Review*,
29(4), 101707. <https://doi.org/10.1016/j.ibusrev.2020.101707>