COMPARATIVE ANALYSIS OF COMPANY PERFORMANCE BEFORE AND AFTER MERGERS AND ACQUISITIONS IN COMPANY LISTED ON IDX 2018-2021

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ABSTRACT

The purpose of this study is to examine how companies trading on the Indonesia Stock Exchange fared before and after M&A deals were made in the years 2018 through 2021. In this Study, we employed a comparable quantitative approach called "purposive sampling" to collect our data. There are seven suitable businesses to use as examples. Descriptive statistics, a normality test, and the Wilcoxon signed-rank test were employed to analyze the data. There was no discernible change in the financial performance of companies listed on the Indonesia Stock Exchange (IDX) before and after the announcement of mergers and acquisitions, as measured by three financial ratios: return on assets (ROA), return on equity (ROE), and debt to equity ratio (DER), for the period of 2018-2021. Several elements, according to the findings of this research, determine the ultimate fate of mergers and acquisitions. Investors should be aware that mergers and acquisitions do not always improve business efficiency.

Keywords: Mergers, Acquisitions, Financial Performance, Financial Ratio

1. INTRODUCTION

Despite the fact that between 70% and 90% of mergers and acquisitions (M&A) fail, businesses continue to spend over $4 trillion year on them, as reported by the Harvard Business Review [1]. Both practitioners and academics have struggled to make sense of these numbers by investigating the causes of M&A failure. One probable explanation of this high failure rate is cultural challenges, along with other factors such as wrong evaluation of financial synergies, lack of transparency in the execution of the integration process, misunderstanding during talks, and a lack of contingency planning. 337 "C-Suite" professionals from 31 sectors and more than 40 countries were polled for the Oxford M&A Insights Project [2] to determine the top risks and successful approaches to M&A.

The following are some more major takeaways from the project: (1) Companies often do well in the period before an M&A agreement is finalized. Sixty-one percent of those polled about M&A activity reported that their company is excellent at incorporating pre-deal activities such as due diligence, developing a clear M&A strategy, focusing on companies with strategic conformity, negotiating, assessing, and paying attention to legal and regulatory requirements; (2) Businesses should work to improve their "post-deal" M&A capabilities. There should be a much greater focus on the "human factor" in M&A; (3) Post-deal activities include technology operations and integration; communications; cultural analysis and integration; personnel management and retention; senior leadership engagement; measurement and reporting; and other M&A activities where the organization can perform better. Multiple respondents praised their organizations for their skill in understanding and integrating cultural differences, communicating effectively during mergers and acquisitions, and hiring and keeping talented individuals. Managing stakeholder expectations and

maintaining open lines of communication are two areas that have been highlighted by respondents in their open replies, further highlighting the necessity of addressing the human component of M&A. Most mergers and acquisitions fail because of bias and cultural differences. The financial performance of the firm after the merger may be used to judge the success of the merger by determining whether or not it has increased, decreased, or remained steady. The success of the merger may be gauged by looking at the company's performance after the merger has taken place, namely whether or not financial performance improves, declines, or remains the same. According to Yadessa and Shemelis [3], a company's financial performance may be understood via the use of financial analysis techniques that reveal trends throughout time. According to De Clercq & Sapienza [4], financial measures may be used to evaluate the success of a company's merger or acquisition.

Return on assets, return on equity, and debt to equity ratio have not been shown to change significantly before and after mergers and acquisitions, according to certain studies. Firdaus [5], Bella [6], Dinanti [7], Ali [8], Rey [9], Izzatika [10], Laiman [11], Siti [12], Agustian [13]. Using the return on assets metric, Suprihatin [14], shows a number of outcomes and asserts that there are differences between pre- and post-merger and acquisition financial performance. According to Sumantri [15], return on equity fluctuated between 2004 and 2013 for IDX-listed businesses before and after the announcement of a merger. According to Mashkour [4], the return on assets (ROA) and return on equity (ROE) both vary greatly, leading one to the conclusion that ROA and ROE have a major impact on M&A. According to the latest research by Almurni and Azhar [12], We looked at four firms that conducted mergers and acquisitions in 2014. According to the results, DER changes significantly before and after a merger or acquisition. According to the paired sample test (T-Test) findings, ROA and ROE variables are significantly different before and after mergers and acquisitions, Jallow [16]. According to Singh [17], companies perform better following mergers and acquisitions. This improvement does not occur before the merger. According to Gupta [18], businesses perform better after M&A than they did before.

There are still discrepancies in the findings linked to corporate performance following mergers and acquisitions, despite the prevalence of the phenomena and the presence of a research gap from the results of earlier studies. For this reason, studies are planned to evaluate and contrast the fortunes of IDX-listed firms from 2018 through 2021. The goals of this research are to (1) find a statistically significant relationship between ROA and performance before and after mergers and acquisitions; (2) find a similar relationship between ROE and performance before and after mergers and acquisitions; and (3) find a similar relationship between the DE ratio and performance before and after mergers and acquisitions.

Related Work

In this study, we used concepts from both the Theory of Synergy and the Theory of Signaling. In the 1960s, the concept of synergy was created in strategic management. According to Andersen et al. [19], synergy is "the more effective use of resources to adapt to an evolving environment with intense competitive pressure." Most M&A models, as stated by Gates and Véry [19], have looked at acquisition synergy from the perspective of company financial development, including changes in stock price, sales, investments, and sources of value creation via performance evaluation. According to Bergh et al. [20], there are four main parts to signaling theory: the sender, the message, the receiver, and the feedback loop. Asymmetric information refers to any circumstance in which one party receives different data

than the other. Investors are interested in the company's financial performance and stability, and this data provides both. According to Nisak [7], the stock price might rise when an informed insider sends a message to the outside world, in this case, investors. When examining the use of signaling theory in the business literature, it becomes apparent that its most common application is in the realm of management. But the theory's foundations are particularly applicable to marketing interactions with customers, say Bergh and Gibbons [20]. Many researchers have used the term "signaling" without explicitly referencing or including signaling theory, claim Erdem & Swait [20].

Our Contribution

There is a number of factors that contribute to the success or failure of a merger or acquisition, and researchers hope that a comparative analysis of the performance of companies listed on the IDX before and after mergers and acquisitions between 2018 and 2021 will encourage businesses to proceed with caution. Investors should also be aware that a merger or acquisition does not guarantee a rise in productivity.

Paper Structure

The concepts used in this analysis are introduced in Section 2. This includes measures like ROA, ROE, and the debt-to-equity ratio. In Section 3, we show how the variables in this work are connected. The results of the SPSS analyses presented in Section 4 are presented as a summary. The managerial implications of the study's results are discussed in Section 5, and the study's findings and potential future research directions are summed up and discussed in Section 6.

2. BACKGROUND

Return on Assets

Return on assets (ROA), as defined by Hery [21], is an indicator of the significance of assets in producing net income. According to Delis [22], ROA is calculated as net income minus interest and taxes divided by total assets. According to Sirait [23], return on assets (ROA), also known as the earnings power ratio, represents a company's ability to generate profits from its current resources (assets). Return on assets, as defined by Halim [24], is the ratio of a company's ability to generate net income to its total assets. Return on assets, as defined by Singh [25], is a measure of an organization's profitability relative to its total assets.

Return on Equity

Return on equity is a measure of a company's ability to generate profits from its shareholders' equity, as defined by Sukmawati Sukamulja [26]. Investors should pay close attention to this ratio since it affects their return on investment in the company's shares. Return on equity, as defined by Singh [25], measures a company's efficiency in returning capital to its owners. Kasmir [27], explains that the ratio of a company's after-tax earnings to the value of its equity is known as its return on equity. This ratio illustrates how efficiently one may put one's money to use. According to Fahmi [28], a company's ability to generate a return on equity may be evaluated by looking at its return on equity as a percentage of total assets. Return on equity is a measure of a company's ability to create profits for its shareholders, as defined by

Harahap [24]. The level of debt a firm has will also have an effect on this ratio; a larger debt to equity ratio indicates a riskier investment.

Debt to Equity Ratio

Dewi [29], argues that the debt-to-equity ratio may help investors get insight into the effects of corporate restructuring on a variety of debt issues. For a corporation to have a high debt ratio, the owner must finance a large number of assets. Inversely, too. Kasmir [21], states that the debt-to-equity ratio (DER) is a debt ratio used in the determination of the overall debt-to-equity ratio. Husain [30], explains that the debt-to-equity ratio (DER) compares all debt (including current money) to all equity. According to Singh [25], the debt-to-equity ratio is a measure of the extent to which shareholders are obligated to finance the company's operations. The higher the DER, the greater the proportion of the company's financing that comes from outside sources rather than internal resources. According to Harahap [31], the lower the debt-to-equity ratio, the greater the ability of the company's owners to repay their debts to external parties.

The Difference in Performance of the Company Listed on the Indonesia Stock Exchange in Terms of Return on Asset (ROA) Before and After Merger and Acquisitions

Firdaus [5] found that the z-value for the Wilcoxon Signed Ranks Test comparing return on assets before and after a merger or acquisition was -1.481, with a significance level of 0.139. The value of return on assets before and after merger and acquisition operations are not significantly different since the sig value is 0.139 > 0.05. Based on Ali's [8] analysis, it can be seen that the Asymp. Sig. (2-tailed) value of 0.214 is greater than: 0.05, suggesting that the ROA values before and after the merger and acquisition are statistically indistinguishable. The first hypothesis (H1) is rejected since the calculated return on assets (ROA) has a significance value of 0.083 > 0.05, as shown by the research of Rey [9]. The value of a company's return on assets (ROA) is not found to change following a merger or acquisition, according to this analysis. Izzatika [10] found no difference in ROA between pre- and post-merger and acquisition periods. After the purchase, the company's total assets are not profitable, according to the return on assets statistics. Laiman [11] found that the paired sample t-test for the ROA variable yielded a t count of -0.743 and a significance value of 0.462 (Sig. > 0.05), indicating that there was no statistically significant difference in ROA between the pre- and post-merger periods.

H_1: There is a significant difference between the return on assets on company performance before and after mergers and acquisitions.

The Difference in Performance of the Company Listed on the Indonesia Stock Exchange in Terms of Return on Equity (ROE) Before and After Merger and Acquisitions

Siti [12] reports that the t-count for evaluating the return on equity (ROE) data was 1.241 with a significance level of 0.234. Since this p-value is greater than the essential =0.05 threshold for statistical significance, the recommended course of action is to accept Ho and reject Ha, indicating that there is no statistically significant difference between the company's ROE before and after its first year of formation. Bella [6] found that there is no difference in return on equity (ROE) between the year before and the year before mergers and acquisitions, using a significance value (sig 2-tailed) of 0.212 (meaning it is greater than the alpha value of 0.05) and a measurement of the ROE profitability ratio two years before and two years after

mergers and acquisitions. Agustian [13] found that the ROE variable indicating financial success in the year before to a merger or acquisition was 7,652, 5,770, 13,860, 12,630, and 15,030. This indicates that there has been no significant change in financial results either before or after the merger. Ali [8] finds that there is no difference in the value of return on equity (ROE) before and after the merger and acquisition because the value of Asymp. Signature. (2-tailed) is greater than: 0.05, as shown in the preceding analysis. Laiman [11] found that merger activity has less of an effect on a company's ability to turn a profit than it did before the merger because of the lack of a statistically significant difference in return on equity before and after the merger. Plus, it's profitable on the net.

H_2: There is a significant difference between the return on equity on company performance before and after mergers and acquisitions.

The Difference in Performance of the Company Listed on the Indonesia Stock Exchange in Terms of Debt to Equity Ratio (DER) Before and After Merger and Acquisitions

Dinanti [7] found that the solvency ratio, DER, was 1.416 with a Sig value after comparing performance before and after mergers and acquisitions. Since there is no significant variation in this ratio between the pre- and post-merger periods (0.177 > 0.05), H5 is rejected. Laiman [11] found that merger activity has less of an effect on a company's debt-to-equity ratio after the merger because hypothesis testing on the ratio found no significant difference between debt-to-equity ratios before and after the merger. having met all of its debt service commitments with respect to a certain amount of capital. Firdaus [5] found that the z value for the Wilcoxon Signed Ranks Test comparing the debt-to-equity ratio before and after merger and acquisition activity was -0.899, with a significance level of 0.374. The debt-to-equity ratio was not significantly different between the years before to and after merger and acquisition activity (sig 0.374 > 0.05). Bella's [6] study on the debt-to-equity ratio two years before and two years after mergers and acquisitions found a significant value (sig 2-tailed) of 0.094, meaning it was greater than the alpha value of 0.05, thus rejecting the null hypothesis. This study's hypothesis is rejected because a significance value of 0.191 indicates that the debt-to-equity ratio measured one year before and one year after mergers and acquisitions is more significant than an alpha value of 0.05. There is no change in the acquirer's financial performance as measured by this ratio either before or after a merger or acquisition. Ali [8] found that there was no change in the value of the debt-to-equity ratio (DER) before and after the merger and acquisition, concluding that the value of Asymp. Sig. (2-tailed) of 0.767 is more significant than: 0.05.

H_3: There is a significant difference between the debt-to-equity ratio on company performance before and after mergers and acquisitions.
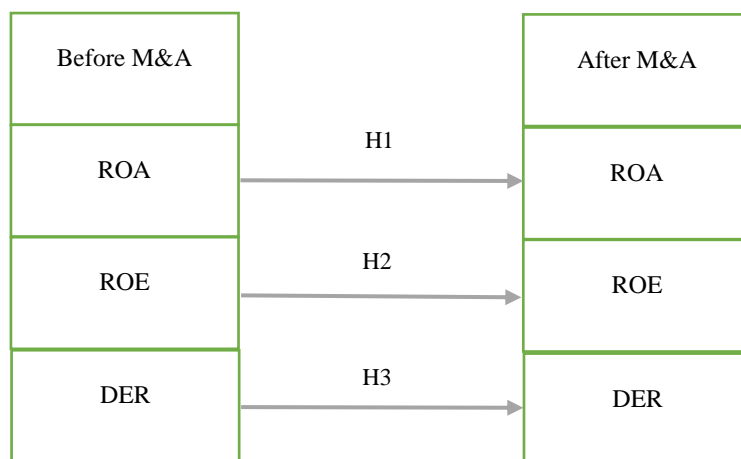
Figure 1 Research Framework

3. RESULTS

In this work, we employed descriptive statistics, the Shapiro-Wilk test of normality, and the Wilcoxon Signed Rank Test to assess our hypotheses. According to descriptive statistics, there is a large dispersion (inhomogeneity) in the ROA, ROE, and DER indices both before and after mergers and acquisitions. Analysis of DER data collected before mergers and acquisitions, however, reveals a low (homogeneous) data variation with a standard deviation value below the mean value. The findings of the Shapiro-Wilk normality test indicate that the data is not normally distributed; hence, parametric testing cannot be performed on the ROA, ROE, and DER indicators before and after mergers and acquisitions. The Wilcoxon Signed Rank Test is a non-parametric method for testing the significance of a difference between two paired samples for examining the impact of mergers and acquisitions on business performance. There is no significant change in ROA, ROE, or DER on average before and after mergers and acquisitions, according to the Wilcoxon Signed Rank Test findings.

Table 1 Descriptive Statistics Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA (BEFORE)	7	-.56	.14	-.0357	.24839
ROE (BEFORE)	7	-.80	.28	-.0200	.37652
DER (BEFORE)	7	.43	2.36	.8486	.70260
ROA (AFTER)	7	-.14	.10	.0271	.07740
ROE (AFTER)	7	-.16	.29	.0871	.13610
DER (AFTER)	7	.12	4.46	1.2229	1.47888
Valid N (listwise)	7				

Source: SPSS Version 26 - Data Processing Results

Table 2 Normality-Test Result

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
ROA(BEFORE)	.287	7	.083	.740	7	.010
ROE(BEFORE)	.267	7	.141	.776	7	.023
DER(BEFORE)	.286	7	.086	.681	7	.002
ROA (AFTER)	.372	7	.004	.740	7	.010
ROE (AFTER)	.250	7	.200[*]	.933	7	.575
DER (AFTER)	.344	7	.012	.702	7	.004
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Source: SPSS Version 26 - Data Processing Results

Table 3 The Results of Hypothesis Testing

Wilcoxon Signed Rank Test					
	ROA (AFTER) – ROA (BEFORE)		ROE (AFTER) – ROE (BEFORE)		DER (AFTER) – DER (BEFORE)
Z	.000[b]	Z	-.338[b]	Z	-1.183[b]
Asymp. Sig. (2-tailed)	1.000	Asymp. Sig. (2-tailed)	.735	Asymp. Sig. (2-tailed)	.237
a. Wilcoxon Signed Ranks Test		a. Wilcoxon Signed Ranks Test		a. Wilcoxon Signed Ranks Test	
b. The sum of negative ranks equals the sum of positive ranks.		b. Based on negative ranks.		b. Based on negative ranks.	

Source: SPSS Version 26 - Data Processing Results

3. DISCUSSIONS

This study's results will be discussed in an effort to shed light on their significance. The results of the research provide an explanation for the dramatic changes in the company's financial performance that occurred as a result of mergers and acquisitions. Companies trading on the Indonesia Stock Exchange are the focus of this research, which uses a 2018-2021 observation period. After reviewing the literature and finding conflicting results, this study indicates that no financial ratio equation has been proved to have differences between before and after mergers and acquisitions for the three financial ratios analyzed (ROA, ROE, and DER). This research lends credence to previous studies that found no statistically significant variations in ROA, ROE, and DER either before or after mergers and acquisitions. Firdaus [5], Bella [6], Dinanti [7], Ali [8], Rey [9], Izzatika [10], Laiman [11], Siti [12], Agustian [13].

Using the Wilcoxon signed rank test as a surrogate for return on assets (ROA), we find no statistically significant change in ROA for companies trading on the Indonesia Stock Exchange either before or after merger and acquisition activity. Firdaus [5], Ali [8], Rey [9], Izzatika [10], and Laiman [11] also found no difference in return on assets before and after the mergers and acquisitions, corroborating these results. The company may be more efficient at turning its resources into profits if the rate of growth in net income is lower than the rate of increase in total assets. If the company has a high ROA, it is successful, and vice versa. In addition, results from the analysis of processed IDX data reveal that two companies, GoTo and EMTK, have negative net income, resulting in a negative ROA calculation. Despite the existence of these less effective assets, the corporation is nonetheless able to generate profits for common shareholders.

There is no statistically significant change in return on equity (ROE) for companies listed on the Indonesia Stock Exchange either before or after merger and acquisition activity, as measured by the Wilcoxon signed rank test. Similar results were observed in a research conducted by Siti [12], Bella [6], Agustian [13], Ali [8], and Laiman [11], all of whom concluded that return on equity did not vary significantly either before or after M&A activity. This is because the average ratio of return on equity before and after the merger is higher than the increase in net income. Furthermore, two firms, namely GoTo and EMTK, have a negative net income, leading the results of the computation of ROE to be negative; this is based on data processed from the IDX. This demonstrates that both before and after the merger, investors saw dividend payments as an inefficient means through which to achieve net income for the firm.

Using the Wilcoxon signed-rank test, which is proxied by the debt-to-equity ratio (DER), we find no statistically significant difference between the DERs of companies listed on the Indonesia Stock Exchange before and after they had engaged in mergers and acquisitions. Dinanti [7], Laiman [11], Firdaus [5], Bella [6], and Ali [8] revealed no statistically significant difference in the debt-to-equity ratio before and after mergers and acquisitions, lending credence to these results. As the ideal debt-to-equity ratio both before and after the merger is greater than 1, this is feasible. The IDX-based estimates in this research, however, show a debt-to-equity ratio of 0.81 prior to the merger, which is still below the median profit from a healthy debt-to-equity ratio. It's clear that a firm can only increase its ability to meet its promises after a merger if part of its cash is used to pay down debt.

4. CONCLUSIONS

Based on the results of data analysis that have been carried out in this study, it can be concluded as follows:
(1) No significant difference exists between the return on assets on company performance before and after mergers and acquisitions.
(2) No significant difference between the return on equity on company performance before and after mergers and acquisitions.
(3) No significant difference between the debt-to-equity ratio on company performance before and after mergers and acquisitions.

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