

Comparison of financial performance and firm value before and after mergers and acquisitions of non-financial companies in Indonesia

 Jubaedah Nawir^(a) *  Kevin Christopher^(b)  Himawan Rahardika^(c)  Rida Anisa Permata^(d)
 Helena Olivia Yosih N^(e)



^(a,b,c,d,e) Faculty of Economics and Business, Universitas Pembangunan Nasional Veteran Jakarta, Pondok Labu, 12450, Jakarta, Indonesia

ARTICLE INFO

Article history:

Received 10 January 2023

Received in rev. form 18 April 2023

Accepted 24 April 2023

Keywords:

Mergers and Acquisitions, Financial Performance, Firm Value

JEL Classification:

L2, G32, G34

ABSTRACT

This study was conducted to see whether there is a difference between mergers and acquisitions on financial performance and firm value or not. A total of 31 companies conducting mergers and acquisitions in 2016-2018 listed on the Indonesia Stock Exchange were sampled in this study. The occurrence of decline in profitability, liquidity, activity ratios and firm value as well as an increase in solvency ratios after mergers and acquisitions became the impetus for conducting research. The measuring tool of profitability is Net Profit Margin (NPM). The measuring tool of liquidity is the Current Ratio (CR). The measuring tool of Solvency is the Debt-to-Equity Ratio (DER). The measuring tool for the activity ratio is Total Asset Turnover Ratio (TATO). And the instrument for measuring the Firm value is the stock price. This study used the Wilcoxon-Signed Rank Test to test the hypothesis. The results showed that there was a difference in the Current Ratio (CR) after the merger and acquisition. However, mergers and acquisitions make no difference in Net Profit Margin (NPM), Total Asset Ratio (TATO), Debt-to-Equity Ratio (DER), and Firm value.

© 2023 by the authors. Licensee SSBFNET, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Introduction

Businesses and industries are expanding as a result of the globalization that has occurred since the implementation of AFTA (Asean Free Trade Agreement) in China in 2010. The company will eventually be able to overcome business challenges such as geography and time, allowing it to expand into new markets. With the growth of business and the industry, competition among businesses is increasing. The company worked hard to increase profits and achieve growth by obtaining positive profitability. Management, as an agent within a company, must make strategic decisions in order to maximize profits for stockholders and investors. When it comes to business, there aren't many companies that thrive or fail because of their inability to generate profits or gain a competitive advantage. Many companies decide to merge or buy (acquisition) another company to help them grow. This process of merging and purchasing between two or more companies is called Mergers and Acquisitions (M&A). M&A is a strategy that is commonly used by companies to expand their operations and make them more profitable.

Mergers and acquisitions are believed to provide potential benefits for the company, especially for shareholders. Mergers and acquisitions are corporate restructuring processes that are believed to generate prosperity and profits in a short time (Malatesta, 1983). According to (Gitman & Zutter, 2015), the initial goal of this merger fund acquisition strategy is to achieve rapid company growth, increase funds, achieve business synergies, reduce competing companies, add management and technology skills, and increase owner liquidity. When this process is completed, the company can maintain its market power and compete effectively in the global market (Nurdin et al., 2020).

This study found that financial performance as measured by profitability, liquidity, and activity ratios tended to decrease. In addition, this study finds an increase in solvency after mergers and acquisitions. Based on KPPU data regarding companies that merged and

* Corresponding author. ORCID ID: 0000-0002-5701-8477

© 2023 by the authors. Hosting by SSBFNET. Peer review under responsibility of Center for Strategic Studies in Business and Finance.

<https://doi.org/10.20525/ijrbs.v12i3.2575>

were acquired in 2016–2018, there was a decrease in profitability. In 2016, there were six companies that carried out mergers and acquisitions whose profitability decreased. The average profitability of these six companies is 17.47%, and after 1 year of mergers and acquisitions, these companies have an average profitability of 14.37%. Then, after 2 years, the average profitability is 12.44%. Then, as many as 8 companies merged or were acquired in 2017, and the average profitability decreased in 2018 and 2019. The company's average profitability in 2017 was 8.51%, while the average profitability in 2018 was 4.52%, and in 2019, it was 0.04%. Then, 17 companies that carried out mergers and acquisitions in 2018 experienced a decline in profitability for two years after the mergers and acquisitions. A total of 17 companies, have an average profitability of 8.65%, while in 2019, the average was 8.41%, and the average profitability in 2019 was lower than in 2018.

Once it is known that mergers and acquisitions do not improve the profitability ratio, the liquidity ratio also decreases. A total of six companies that merged or were acquired in 2016 had an average liquidity of 0.346. But the average liquidity of the six companies in 2018 was 0.301, or decreased by 13%. Then, as many as 8 companies that merged or were acquired in 2017 had an average liquidity of 1.86. Then in 2018, the company's average liquidity was 1.49, and in 2019, it was 1.24. As a result, the liquidity ratios of these companies decreased for 1 to 2 years after the mergers and acquisitions.

Mergers and acquisitions not only have an impact on financial performance but also on company value. The firm value can be determined by the stock price (Ardiansyah, 2020). However, researchers found a decline in stock prices after mergers and acquisitions. In 2016, the company had an average stock price of Rp2,207.33 during mergers and acquisitions. In 2018, the company had an average stock price of Rp2,103.33 after mergers and acquisitions. so that the company's stock price after two years of mergers and acquisitions has decreased. Then, in 2017, the company's stock price also decreased in 2018 and 2019 after mergers and acquisitions. The company has an average stock price of Rp2,350 during mergers and acquisitions, then an average stock price of Rp1,415.63 in 2018 and Rp1,497.44 in 2019.

So based on the background stated above, the formulation of the problem can be made, namely whether there is a difference in financial performance with profitability ratios (NPM), liquidity ratios (CR), activity ratios (TATO), solvency ratios (DER), and stock price on firm value before and after mergers and acquisitions.

This paper is organized as follows: following the introduction part, a second part is a literature review with theoretical and empirical studies that shed a light on linkage between theory and practice. The third part introduces the background information on research and methodology. After analysis and findings of the study, authors provide discussions and implications. Finally, this paper concludes with key points, recommendations, future research directions and limitations.

Literature Review

Theoretical and Conceptual Background

Signaling Theory

Signaling Theory is about how investors can make decisions based on information or signals issued by the company (Spence, 1973). Through financial statements, company is able to convey signals to investors about the company's condition (Suhartono, 2018). So that the existence of financial information can facilitate investors in making investment decisions, and these signals can describe conditions in the past, present, and future. Based on (Brigham & Houston, 2019) signaling theory is an action taken by management in conveying signals to investors regarding company management and the company's performance and prospects. This means that the signal can provide an explanation of the company's ability to provide signals to users of financial statements.

Mergers and Acquisition

Mergers and acquisitions are strategies that are often implemented by companies to expand their businesses. Merger is the commitment of two or more companies to become one entity and thus give birth to a new single legal entity company, while the operations of the other party are declared to have ceased permanently as a result of the merger with the first-party company. Furthermore, acquisition means an act of taking over ownership, shares, or assets so that the company can fully control other company assets (Saputra et al., 2021).

Financial performance

Financial performance is useful for showing a company how the description of the activities carried out by the company has achieved business goals for a certain period of time. Financial performance according to the explanation from (Putra et al., 2021), which can be used to make measurements through analysis and evaluation of the company's financial statements in the past and can be used to make predictions about the condition of its financial position and performance in the future. In general, the liquidity ratio, profitability ratio, activity ratio, and solvency ratio are used to assess the company's financial performance.

Financial performance is one of the references regarding the impact that mergers and acquisitions have on companies. Analysis of the financial performance can be done through the financial ratios. Financial ratios are a form of comparison between one financial position and another that has a significant relationship.

Firm value

Firm value is based on the explanation from (Inoti, 2014), which explains its meaning as the price assessed by the buyer of a company if all of its assets are sold. The value of the company can also be seen based on the stock price in the market. When the price of a stock is high, the firm value follows (Persada & Martono, 2012). Investors also often see stock prices as a material consideration for assessing company performance, besides the fact that firm value is also often seen through its stock price. Where the movement of stock prices has a linear relationship with firm value. so that this will increase investor confidence in the company.

Empirical Review and Hypothesis Development

Based on previous research, The model of this research is as follows:

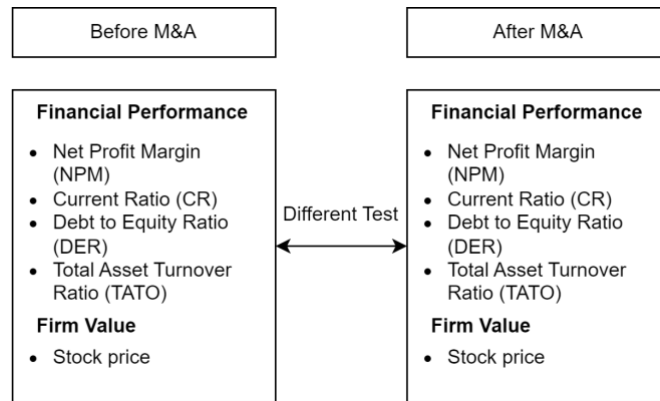


Figure 1: Conceptual Model of the Study; *Source:* Authors

Therefore, the hypotheses in this study are:

- H1: There are differences in the company's profitability before and after the acquisition.
- H2: There are differences in the company's liquidity before and after the acquisition.
- H3: There are differences in the company's activity before and after the acquisition.
- H4: There are differences in the company's solvency before and after the acquisition.
- H5: There is a difference in firm value before and after the acquisition.

Research and Methodology

Data type and Sources

Purposive sampling is a technique used in this type of quantitative research. Sources of data used in this study came from the Indonesia Stock Exchange (IDX, 2022), the company's website, Yahoo Finance (Yahoo Finance, 2022), and some other information that supports the research.

Data collection technique

Documentation and library research are data collection techniques in this study, with the process of collecting data first and conducting studies on previous theories and research After the data has been collected, it performs data processing for different tests using SPSS 26 and Microsoft Excel 2013. After the data has been collected, it is processed for different tests using SPSS 26 and Microsoft Excel 2013.

Population and Sample

All companies that carried out mergers and acquisitions listed on the Indonesia Stock Exchange (IDX) during the 2016–2018 period was used as the population in this study. Purposive sampling was used in this study to determine the sample, which included the following criteria:

- i. Companies that carried out merger and acquisition activities for the 2016-2018 period totaled 229 companies.
- ii. Companies listed on the IDX for the 2016-2018 period that carried out merger and acquisition activities totaled 44 companies.
- iii. Companies that have available financial statements and stock prices for a complete period of 2014-2020, totaling 29 companies.

Data Analysis Technique

Descriptive statistics

Descriptive statistics were used to determine the description and description of the research subject based on the research variable data. In general, this method is used to assess the characteristics of research data. This descriptive statistical analysis looks at the average (mean), maximum, minimum, and standard deviation values.

Hypothesis test

The hypothesis in this study uses a different test. The different tests aim to find out how each variable compares before and after a certain treatment. After a different test is carried out, you will find out the difference between the ratios of net profit margin, current ratio, total asset turnover, debt to equity ratio, and company value before and after mergers and acquisitions.

Hypothesis testing in this study included the non-parametric Wilcoxon Signed Rank Test. Non-parametric analysis is used because it overrides the distribution of the data studied so that assumptions are not tested. The Wilcoxon Signed Rank Test is used to prove whether or not there is a difference between two samples that are related to each other. The test conditions for this method consist of the following:

- i. 5% (0.05) significance level
- ii. If the asymptotic sig. residual data value equals 5% (0.05), the hypothesis is accepted
- iii. If the asymptotic sig. residual data value is greater than 5% (0.05), the hypothesis is rejected.

Findings and Discussions

Findings

Hypothesis testing

Summary of the Wilcoxon Signed Rank Test

| Hypothesis | Variable | A | Asymp. Sig. (2-tailed) | Result |
|------------|---|------|------------------------|--------------|
| H1 | Profitability ratio 1 Year Before and 2 Years After | 0,05 | 0,230 | No Different |
| H2 | Liquidity ratio 1 Year Before and 2 Years After | 0,05 | 0,045 | Different |
| H3 | Activity ratio 1 year before and 2 years after | 0,05 | 0,294 | No Different |
| H4 | Solvency ratio 1 Year Before and 2 Years After | 0,05 | 0,705 | No Different |
| H5 | Firm values 10 Days Before and 10 Days After | 0,05 | 0,156 | No Different |

Source: Authors

There is no difference in the table above with a significance value of > 0.05 , but there is a difference with a significance value of 0.05. Only the liquidity variable makes a difference, according to the results. Profitability, activity ratio, solvency, and firm value, on the other hand, show no difference. As a result, H2 is accepted, while H1, H3, H4, and H5 are rejected

Discussion

Profitability

The profitability ratio, as measured by net profit margin (NPM), shows no difference between one year before and two years after the company engages in M&A. This study supports research from (Inoti, 2014; Linda et al., 2021; Yunus et al., 2021) which says that there is no difference in profitability before and after M&A. Companies that are merging and acquiring should be able to increase their operational activities so as to add value to the products and services they sell. From this study, it was found that there was no improvement in company profitability, which means the company could not increase revenue or make cost savings after M&A. So, it can be said that M&A is not a good signal for the company's profit level. So, the results of this study do not support the signaling theory, which states that M&A activities can improve the financial performance of related companies.

Liquidity

The liquidity ratio, as proxied by the current ratio (CR), indicates whether there is a difference between one year before and two years after the company engages in M&A activity. This study is in line with research conducted by (Aggarwal & Garg, 2022; Yunus et al., 2021) which found that M&A had a significant impact on liquidity ratio. So this can be explained by saying that the action of mergers and acquisitions provides a fairly good response for the company's liquidity. The existence of a difference is interpreted by external parties as a positive signal. M&A is able to channel a positive impact on the company's financial performance with its ability to pay off its short-term obligations with its current assets. Furthermore, companies that are able to use current assets to pay off short-term obligations are sending a positive signal to investors so that companies can obtain funding in the form of debt. Investors will

believe in providing funding for the company because they see the company's ability to pay short-term obligations with its current assets. Financial performance with a CR proxy, on the other hand, does not support signaling theory, where the implications of signaling theory discussed in this study are improving financial performance with a current ratio where it is better if the increase in the value of the company's current assets is even greater after carrying out M&A to pay the nominal current debt.

Activity Ratio

The activity ratio, which is a proxy for total asset turnover, or TATO, provides an indication if there is no difference between 1 year before and 2 years after the company conducts M&A. The results of this study are the same as those of research by (Inoti, 2014; Yunus et al., 2021) which stated that there was no difference in TATO ratios. So, this shows that after the M&A action, the company's sales did not increase in the short term. In contrast to the theory that M&A actions should be able to have a positive impact, especially on the company's financial performance in a short period of time. However, these results prove that the company's asset turnover shows no improvement after M&A. So, mergers and acquisitions do not provide many benefits, especially for the efficient use of assets.

Solvability

The Solvency Ratio, proxied by the Debt-to-Equity Ratio (DER), shows no difference between one year before and two years after carrying out the M&A action. This result is strengthened by research by (Linda et al., 2021; Yunus et al., 2021) which says that the ratio does not significantly different between before and after M&A. This is because the company is still not fully optimizing the use of its existing equity in paying debts to creditors after carrying out M&A actions. So, this is of course caused by the company deciding to use its debt as a source of financing, and this is a sign that the company cannot use its available and recorded assets optimally.

In addition, when viewed from the side of signaling theory, this indicates that companies that have carried out M&A actions are still unable to manage their equity, thus giving a signal that companies do not have the ability to pay debts to creditors after mergers and acquisitions. supports this, where if there is an increase in the DER value, it will also give a negative sign or signal because debt that shows a larger number will be directly proportional to the increased risk, especially for companies to default on their debts. As a result, changes in this ratio indicate that the company is experiencing performance fluctuations, and if the average ratio has decreased, it indicates that companies in Indonesia had poor financial performance prior to the acquisition.

Firm Value

The company value as proxied by stock price shows no significant difference before and after the merger and acquisition. This is because mergers and acquisitions of companies do not contain information that influences market players in the short term or according to (Rahman et al., 2018) the market does not sufficiently react to M&A. As a result, investors do not believe that M&A actions can improve company performance, and it can be proven that financial ratios such as profitability and activity have not improved. Not only that, investors also see an increase in risk if the solvency ratio increases, so this is what holds the company's stock price after mergers and acquisitions occur.

This study supports (Mahmood et al., 2012) which says that M&A has no effect on stock prices. Therefore, it can be said that mergers and acquisitions do not change the company's value in the short term because the process of synergizing between the target company and the acquiring company or merging company takes a long time. Furthermore, from the standpoint of signaling theory, the announcement of mergers and acquisitions is no longer a novel and unexpected event, so it has no effect on market expectations of stock prices.

Conclusions

The discussion of research on the comparison of financial performance and firm value before and after M&A concluded that there is no difference in profitability between before and after implementing M&A, so M&A are not a signal that the company will be more profitable going forward. There is a difference in liquidity ratio before and after carrying out M&A, one of the benefits of M&A is that companies can pay off short-term debt with their current assets. There is no difference in the activity ratio between before and after the M&A action this mean that M&A do not significantly increase assets in a way that makes them more efficient. Then, there is no difference in solvency between before and after M&A this indicates that M&A do not assist company's ability to manage equity and debt. And then, this research found that there is no difference in the firm's value between before and after the merger and acquisition action. This study found that sometimes the market does not respond well to M&A for a company. or it can be said that investors do not believe that M&A actions can improve company performance.

In addition, this study offers new perspective regarding signaling theory in merger and acquisition activities. This research also has some limitations. First, this research does not examine all sectors listed on the stock exchange because it does not include financial companies as research objects. Second, studies only analyzed the impact of M&A activities up to two years later. Therefore, future research can conduct research on all industrial sectors and future researchers can make further comparisons to see the impact of M&A. This is due to the fact that M&A is one of company's long-term strategies.

Acknowledgments

All authors have read and agreed to the published version of the manuscript.

Author Contributions: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing—Original Draft Preparation, Writing—Review and Editing by author who has read and agreed to the published the final version of the manuscript.

Funding: This research was funded by LP3M Universitas Pembangunan Nasional Veteran Jakarta.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

References

- 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>
- Ardiansyah, G. G. K. (2020). Pengaruh Profitabilitas, Ukuran Perusahaan, Leverage Dan Likuiditas Terhadap Nilai Perusahaan. *Jurnal Paradigma Akuntansi*, 2(1), 367–375.
- Brigham, E. F., & Houston, J. F. (2019). *Fundamental of Financial Management* (15th Ed). Boston: Cengage.
- Gitman, L. J., & Zutter, C. J. (2015). *Principles of Managerial Finance* (14th Edition). England: Pearson.
- IDX. (2022, December 20). Bursa Efek Indonesia. Retrived from <https://www.idx.co.id>.
- Inoti, G. G. (2014). Impact of Acquisitions on the Financial Performance of the Acquiring Companies in Kenya: A Case Study of Listed Acquiring Firms at the Nairobi Securities Exchange. *Journal of Finance and Accounting*, 2(5), 108. <https://doi.org/10.11648/j.jfa.20140205.12>
- Linda, N. P., Dewi, K., & Mustanda, I. K. (2021). Comparative Study of Financial Performance Before and After Acquisition. In *American Journal of Humanities and Social Sciences Research* 5(3), 151-161.
- Mahmood, I., Aamir, M., Hussain, C., & Sohail, N. (2012). Impact of merger/acquisition on share price-a case study of Pakistan. *European Journal of Scientific Research*, 4, 617–624.
- Malatesta, P. H. (1983). The Wealth Effect of Merger Activity and The Objective Functions of Merging Firms. [https://doi.org/10.1016/0304-405x\(83\)90009-0](https://doi.org/10.1016/0304-405x(83)90009-0)
- Nurdin, A. A., Mai, M. U., & Setiawan, S. (2020). Pola Kinerja Perusahaan Sesudah Merger dan Akuisisi serta Analisis Terhadap Faktor-Faktor yang Mempengaruhinya. *Jurnal Riset Akuntansi Dan Keuangan*, 8(2), 431–446.
- Persada, R. A. H., & Martono. (2012). *Manajemen Keuangan* (2nd ed.). Yogyakarta: Ekonisia.
- Putra, M. W., Darwis, D., & Priandika, A. T. (2021). Pengukuran Kinerja Keuangan Menggunakan Analisis Rasio Keuangan Sebagai Dasar Penilaian Kinerja Keuangan (Studi Kasus: CV Sumber Makmur Abadi Lampung Tengah). *Jurnal Ilmiah Sistem Informasi Akuntansi*, 1(1), 48–59. <https://doi.org/10.33365/jimasia.v1i1.889>
- Rahman, Z., Ali, A., & Jebran, K. (2018). The effects of mergers and acquisitions on stock price behavior in banking sector of Pakistan. *Journal of Finance and Data Science*, 4(1), 44–54. <https://doi.org/10.1016/j.jfds.2017.11.005>
- Saputra, A., Syifahayati, A. H., Khosyian, A., Selarasati, D. R., Napitupulu, D. M. G., Asyifa, D. A., & Gunawan, A. (2021). Tinjauan Evaluasi Motif Merger-Akuisisi dalam Perspektif Kinerja Keuangan. *Proceedings of Industrial Research Workshop and National Seminar*, 12, 1234–1239.
- Spence, M. (1973). Job Market Signalling. *The Quarterly Journal of Economics*, 87(3), 355–374.
- Suhartono, S. (2018). Analisis Komparasi Relevansi Nilai Informasi Akuntansi Sebelum dan Sesudah Adopsi Penuh IFRS di Indonesia. *Jurnal Akuntansi Bisnis*, 11(1). <https://doi.org/10.30813/jab.v11i1.1084>
- Yahoo Finance. (2022, December 10). Yahoo Finance. Retrived from <https://finance.yahoo.com>.
- Yunus, I., Rasuli, L. O., & Lukum, A. (2021). Comparative Analysis of Financial Performance Before and After Acquisition (A Study in Acquiring Company Listed in Indonesian Stock Exchange, Period of 2012-2018). *Advances in Economics, Business and Management Research*. 173. 175-186.

Publisher's Note: SSBFNET stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

© 2023 by the authors. Licensee SSBFNET, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

International Journal of Research in Business and Social Science (2147-4478) by SSBFNET is licensed under a Creative Commons Attribution 4.0 International License.