Indonesia Auditing Research Journal, 10 (1) (2021), pp. 13-20

Published by: Institute of Accounting Research and Novation (IARN)

Indonesia Auditing Research Journal

Journal homepage: https://journals.iarn.or.id/index.php/ARJ/index

Analysis of the performance of manufacturing companies before and after the merger on the Indonesian stock exchange in the period 2002-2006.

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Article Info

Article history:

Received Mar 02, 2021
Revised Mar 15, 2021
Accepted Mar 29, 2021

Keywords:

Acquisitions;
Mergers;
Paired sample tests;
Descriptive statistics.

ABSTRACT

The purposes of this research are to gain evidence whether mergers gave positive effects on manufacturing company's financial performance and to evaluate each of the manufacturing sub-sectors' financial performance, in what sub-sectors did the merger create the best performance. The population in this research is a merged manufacturing company that is listed in IDX. The method of sample selection is purposive sampling method. This research used secondary data that is audited companies' financial report. The data processing technique in this research is descriptive statistics and paired sample tests. The result of this research is that they have no evidence that the company's financial performance has improved after merger based on liquidity, activity, solvency and profitability ratios. stone, clay,

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1. INTRODUCTION

Business development continues to be carried out by company managers in order to face globalization and the current tight competition in the free market. In maintaining its existence and improving its performance, companies can carry out growth or expansion strategies. Companies can carry out internal and external growth strategies. Internal expansion can be done through business unit development, marketing area expansion, product innovation and other aspects developed from within the company itself. Business mergers can take the form of forming a new business entity (new enterprise) to control the merging company, transferring net assets from one or more merging business entities to another, or dissolving one or more merging business entities (PSAK No. 22, 2007).).

According to Donald M. Depamphilis (2007), from a legal perspective, a merger is a combination of two or more companies where one of them is legally eliminated but the organizational combination is continued under the name of the surviving company. Acquisitions occur when one company takes ownership of an interest, legal subsidiary or certain assets, such as a manufacturing facility. The reason why companies merge with other companies or acquisitions is because acquisitions enable companies to achieve faster growth compared to building their own business units. Nevertheless, the most underlying thing is the economic motive. Where the mutually beneficial conditions will occur if the acquisition event obtains synergy.

It is assumed that company A intends to acquire company B. The value of company A is VA and the value of company B is VB. The difference between the value of the combined company (VAB) and the total value of the two companies when they were not yet merged is what is called synergy. Synergy = VAB – (VA + VB) (Ross, Westerfield & Jafee, 2007). The purpose of combining businesses through mergers and acquisitions is expected to improve company performance. Company performance interprets the company's achievements in a certain period, reflecting the company's health level

Financial ratios are used to measure a company's performance and efficiency because it has been empirically proven to have high explanatory and predictive abilities (Keown, 2004). Financial ratios that can be used to assess company performance according to Hunt (2007) include: liquidity ratios (to measure a company's ability to meet its short-term obligations), activity ratio (to measure the effectiveness of asset use), solvency ratio (to measure a company's ability to meet obligations long term), and profitability ratios (to measure a company's ability to generate profits). Synergy comes from increased revenues and cost savings. When two companies operating in the same industry merge, the new company will get a combination of revenue from the two companies and it is possible that some expenses can be reduced. The emergence of synergy in mergers and acquisitions companies will be seen from the significant improvement in the ratio of debt and assets.

However, Murni Hardiningsih's (2007) research on the long-term impact of mergers and acquisitions on the performance of acquirers and acquired companies with consideration of synergies that are expected to have long-term effects, concludes that there is no significant difference in overall financial ratios between one year and one year after and one year before the merger and acquisition of both the acquiring company and the acquired company.

Indira Mentari Putri (2004) on the analysis of the performance of mergers and acquisitions companies proxied by financial ratios on the Jakarta stock exchange in 2000-2002. The financial ratios studied are quarterly financial ratios, namely the first quarter to the fourth quarter before and after mergers and acquisitions are carried out. From these results it can generally be concluded that mergers and acquisitions have no significant effect on company performance as proxied by financial ratios. The expected synergies did not emerge until the fourth quarter.

Therefore, the authors are interested in conducting further research on the impact of mergers and acquisitions. The variables used are the ratio of liquidity, activity, solvency and profitability. The companies studied here are companies engaged in the manufacturing industry. Considering that the manufacturing industry is the industry that contributes the most to the Indonesian economy (Central Bureau of Statistics, 2010), it is hoped that this research can outline the effect of mergers and acquisitions on the performance of companies in Indonesia.

2. RESEARCH METHOD

The research object of this research is a manufacturing company that merged in the 2002-2006 period and is still listed on the Indonesia Stock Exchange. The data collection method used in this research is secondary data. According to Maholtra (2005) secondary data is data that has been collected with the aim of solving the problem at hand. The data used is in the form of time series and cross sections in the form of financial report highlights contained in the 2009 Indonesia Capital Market Directory published by the Indonesia Stock Exchange.

The collection of data related to this research was carried out through the method of library research. Researchers conducted research using secondary data used to answer the formulation of the problem. Financial ratios are the variables examined in this study as a reflection of the company's financial performance. The technique used in this study is descriptive statistical analysis, namely the technique used to explain the meaning of a set of quantitative data. This technique was chosen because this research will take into account and compare secondary data in the form of company financial ratios before and after the merger process. The hypothesis testing method used is the parametric test method, namely paired sample t-test. Previously, a normality test was carried out with the Kolgomorov-Smirnof to see whether the data was normally distributed. If the data is not

normally distributed, a non-parametric statistical test, the Wilcoxon Signed Rank Test, will be used as an alternative.

3. RESULTS AND DISCUSSIONS

Manufacturing companies are companies that make products from raw materials using manual or machine labor and are usually carried out systematically with division of labor. In a more limited sense, manufacturing is the making or assembling of components into products. Until 2008, the number of manufacturing companies listed on the Indonesia Stock Exchange totaled 254. Based on the products produced, the manufacturing sector is further divided into 19 manufacturing sub-sectors.

Table 1. List of manufacturing sub-sectors

Manufacturing sub-sector	Amount	Manufacturing sub-sector	Amount
1. *Food & beverages*	19	11. *Metal and allied products*	11
2. *Tobacco manufacturer*	4	12. *Fabricated metal products*	2
3. *Textile mill products*	9	13. *Stone, clay, glass, concrete products*	4
4. *Apparel & other textile products*	13	14. *Cables*	6
5. *Lumber and wood products*	5	15. *Electronics & office equipment*	3
6. *Paper and allied products*	5	16. *Automotive and allied products*	19
7. *Chemical and allied products*	8	17. *photographic equipment*	3
8. *Adhesives*	4	18. *Pharmaceuticals*	9
9. *Plastics and glass products*	12	19. *consumer goods*	3
10. *Cement*	3		

Source: ICMD

In this section, we will discuss the analysis of data from research results which include data normality testing, hypothesis testing and descriptive statistics for each manufacturing sub-sector. Based on the results of observations in the period 2002-2004, there were 8 sample companies that were suitable for study. In conducting research to determine differences in company financial performance before and after the merger, data were collected in the form of company financial reports to obtain liquidity ratios (CR and QR), activity ratios (IT and TAT), solvency ratios (DTAR) and profitability ratios (ROI). and ROE).

Table 2. Variable descriptive statistics

	N	Means	std. Deviation	Minimum	Maximum
CR_before	8	1.8381	,61098	1.01	2.83
CR_after	8	3.4325	4.61683	,96	14.40
QR_before	8	1.1725	,75177	,31	2.47
QR_after	8	1.0856	,95292	,35	3,40
IT_before	8	6.3819	8.03814	,15	25,28
IT_after	8	4.0163	2.53608	,25	7.04
TAT_before	8	1.3344	,62541	,59	2,33
TAT_after	8	1.3375	, 51981	,82	2.53
DTAR_before	8	,5050	,16138	,34	,78
DTAR_after	8	,4763	,16294	,23	,72
ROI_before	8	22.4788	31.28199	2.06	95.23
ROI_after	8	10.6656	11.58915	1.21	37.35
ROE_before	8	40.7963	48.52616	5.06	154,17
ROE_after	8	20.1363	20.77949	5.06	69,48

Source: processed data

The descriptive statistics table above shows information related to the variables in this study. Each variable consists of a period of two years before and two years after the merger.

Normality test.

This test is intended to determine the existence of differences in the cumulative distribution of the variables to be tested with the Kolmogorov – Smirnov Test.

Table 3. Summary of Normality Test.

Variable	p-values	Criteria	Information
CR-before	0.950	p ≥ 0.05	normal
CR-after	0.173	p ≥ 0.05	normal
QR-before	0.850	p ≥ 0.05	normal
QR-after	0.114	p ≥ 0.05	normal
IT-before	0.476	p ≥ 0.05	normal
IT-after	0.868	p ≥ 0.05	normal
TAT-before	0.775	p ≥ 0.05	normal
TAT-after	0.281	p ≥ 0.05	normal
DTAR-before	0.867	p ≥ 0.05	normal
DTAR-after	0.982	p ≥ 0.05	normal
ROI-before	0.444	p ≥ 0.05	normal
ROI-after	0.534	p ≥ 0.05	normal
ROE-before	0.469	p ≥ 0.05	normal
ROE-after	0.298	p ≥ 0.05	normal

Source: processed data

The normality test technique used is Kolgomorov-Smirnov, with a significance level of 5% where the value of α is 0.05. A data is said to be not normally distributed if the p-value < α value. By using SPSS 15 Software, the data obtained has been summarized as listed in table 3 above. Based on the p-value of SPSS analysis results, all data is normally distributed.

Hypothesis testing.

The statistical analysis used to test the hypothesis in this study is a parametric statistical test. The parametric test was used because the data were simple. The hypothesis used in this study was the one-tailed hypothesis where the directions of the collected data in this study were normally distributed based on the normality test that was carried out above. The parametric test used is the Paired Sample test which is commonly used to compare the state of a sample before and after a certain event.

Liquidity variable analysis

After the implementation of the acquisition, it is expected that there will be an increase in liquidity performance as indicated by an increase in the average liquidity ratio after the merger.

Table 4. Paired Samples Test Liquidity

	Paired Differences					t	df	Sig. (2-tailed)
	Means	std. Deviation	std. Error Means	5% Confidence Interval of the Difference Upper	Lower			
CR_before - CR_after	-1.59438	4.49120	1.58788	-5.34911	2.16036	-1.004	7	,349
QR_before QR_after	,08688	,88880	,31424	-,65618	,82993	,276	7	,790

Source: processed data

When viewed from the one-tailed p-value, the p-value current ratio (0.349/2 = 0.1745) and quick ratio (0.790/2 = 0.395) is greater than 0.05, which means that Ho is also accepted. . These results indicate that there is no increase in the average current ratio and quick ratio after the merger.

So that there is no increase in liquidity performance after the merger based on the current ratio and quick ratio.

Activity variable analysis

After the implementation of the merger, it is expected that there will be an increase in activity performance as indicated by an increase in the average activity ratio after the merger. If we look at the one-tailed p-value, we get a p-value of debt to total asset ratio (0.571/2=0.2855) which is greater than 0.05, which means that Ho is also accepted. These results indicate that there is no decrease in the average debt to total asset ratio after the merger. So there is no increase in solvency performance after the merger based on the debt to total asset ratio.

Solvability variable analysis.

After the implementation of the merger, it is expected that there will be an increase in solvency performance as indicated by a decrease in the average solvency ratio after the merger. If we look at the one-tailed p-value, we get a p-value of debt to total asset ratio (0.571/2=0.2855) which is greater than 0.05, which means that Ho is also accepted. These results indicate that there is no decrease in the average debt to total asset ratio after the merger. So there is no increase in solvency performance after the merger based on the debt to total asset ratio. Based on $\alpha = 5\%$ at degrees of freedom (degree of freedom) = 7, then obtained t-table = 1.895. When compared with the t-table, the t-count obtained in the paired sample test solvability ratio is to the left of the t-count or smaller than 1.895, which means Ho is accepted.

Profitability variable analysis.

After the implementation of the acquisition, it is expected that there will be an increase in profitability performance as indicated by an increase in the average profitability ratio after the merger. If we look at the one-tailed p-value, we get a p-value of ROI (0.328/2=0.164) and ROE (0.285/2=0.1425) which is greater than 0.05, which means that Ho is also accepted. These results indicate that there is no increase in the average ROI and ROE after the merger. So that there is no increase in profitability performance after the merger based on ROI and ROE. Based on $\alpha = 5\%$ at degrees of freedom (degree of freedom) = 7, then obtained t-table = 1.895. When compared with the t-table, all t-counts obtained in the paired sample test of profitability ratio are located to the left of the t-count or are smaller than 1.895, which means Ho is accepted.

Descriptive statistics per manufacturing sub-sector.

Descriptive statistics are used to see the performance of each manufacturing sub-sector that is sampled in this study. With this, an overview of companies in which sub-sectors will have the best performance after the merger is obtained. This assessment is reviewed from which sub-sectors show the most increased performance after the acquisition, seen from how many variables the performance has increased and how high the percentage of increase is.

Table 5. Ratio of Manufacturing Sub Sector

No	Manufacturing Sub-Sector	The Ratio Is Increasing	Decreasing Ratio	Stable Ratio
1	*Tobacco Manufacturers*	CR, QR, IT & DTAR	TAT, ROI & ROE	
2	*Apparel And Other Textile Products*	CR, IT, TAT & DTAR	QR	ROI & ROE
3	*Lumber And Wood Products*	QR, IT & TAT	CR, DTAR, ROI & ROE	
4	*Chemical And Allied Products*		CR, QR, IT, TAT, DTAR, ROI & ROE	
5	*Automotive And Allied Products*	IT, TAT & ROI	CR, QR, DTAR & ROE	
6	*Pharmaceuticals*	CR, QR, TAT, DTAR & ROI	IT & ROE	
7	*Stone, Clay, Glass And Concrete Products*	CR, QR, IT, TAT, DTAR & ROI	ROE	
8	*Consumer Goods*	TAT, ROI & ROE	CR, QR, IT, DTAR	

Source: Processed Data

Tobacco manufacturers.
In the tobacco manufacturing company where PT Gudang Garam became the object of research, it can be seen that there was an increase in four variables, namely CR (585.47%), meaning that there was an increase in the company's ability to fulfill its short-term obligations with the company's current assets, QR (50%)) means that there is an increase in the company's ability to fulfill its short-term obligations with the company's current assets if inventory is not included in current assets, IT (24.67%) means that there is an increase in the company's ability to increase its sales volume and DTAR (6.03%) which shows a decrease in the number of company assets financed by debt.

Apparel and other textile products.
In the textile manufacturing company, PT Indorama Synthetics is the object of research, it can be seen that there has been an increase in the four variables studied, namely, CR (4.98%), meaning that there has been an increase in the company's ability to fulfill its short-term obligations with the company's current assets, IT (19.68%) means an increase in the company's ability to increase its sales volume, TAT (40.17%) means an increase in the company's ability to manage its assets and DTAR (0.86%) indicates a decrease in the number of company assets financed by debt. The ROI and ROE variables show stability, meaning that the company's ability to use assets to earn profits and the company's ability to use capital efficiently have not changed.

Lumber and wood products.
In the processed wood manufacturing company, PT Tirta Mahakam, it can be seen that there has been an increase in three variables, namely QR (14.75%) meaning that there has been an increase in the company's ability to fulfill its short-term obligations with the company's current assets if inventory is not included in current assets. , IT (68.96%) means an increase in the company's ability to increase its sales volume and TAT (5%), namely an increase in the company's ability to manage its assets.

Chemical and allied products.
In the manufacturing company, PT AKR Korporindo, it can be seen that there has been a decrease in all the variables examined in this study. The magnitude of the decrease in each variable, CR (95.49%) means that there is a decrease in the company's ability to fulfill its short-term obligations with the company's current assets, QR (68.79%) means that there is a decrease in the company's ability to fulfill its short-term obligations with the company's current assets if inventory is not included in current assets, IT (72.43%) means that there is a decrease in the company's ability to increase its sales volume, TAT (38.60%) means that there is a decrease in the company's ability to manage its assets, DTAR (20.59 %) which shows an increase in the number of company assets financed by debt, ROI (94,

Automotive and allied products.
In the automotive manufacturing company, PT Selamat Sempurna, it can be seen that there was an increase in only three variables, namely IT (6.86%) meaning that there was an increase in the company's ability to increase its sales volume, TAT (13.22%) meaning that there was an increase in the company's ability to managing its assets and ROI (1.01%) means that there is an increase in the company's ability to utilize assets to earn profits. Meanwhile, the variable that experienced a decrease was CR (6.86%), there was a decrease in the company's ability to meet its short-term obligations with the company's current assets, QR (14.5%), meaning that there was a decrease in the company's ability to meet long-term obligations. in short with the company's current assets if inventory is not included in current assets, DTAR (4,

Managerial Implications.
The theory of mergers and acquisitions states that the purpose of a company joining another company is to create synergy. The synergy in mergers and acquisitions comes from: revenue enhancement, cost reduction, lower taxes and lower cost of capital. To see the synergy arising from these sources, financial ratios are used as a benchmark for company performance, such as liquidity

(current ratio and quick ratio), activity (inventory turnover and total asset turnover), solvency (debt to total assets) and profitability (return). on investment and return on equity).

Based on the results mentioned above, this study provides information that it is suspected that there is no expected synergy after mergers and acquisitions in terms of liquidity performance, activity, solvency and profitability. This is probably due to the weakness of the strategy carried out, the selection of target companies that are not quite right, and the acquirer's lack of experience. Furthermore, using descriptive statistical analysis for each company in the manufacturing sector, it can be concluded that the stone, clay, glass and concrete products sector, where PT Surya Toto Indonesia is the object of research, is the manufacturing sub-sector with the best performance after the merger. This sub-sector experienced an increase in performance in the six variables studied. This is allegedly because PT Surya Toto Indonesia acquired a company operating in a similar industry, namely PT Surya Pertiwi. The synergy created by this horizontal merger is thought to arise from revenue enhancement.

In this study it is known that not all companies obtain their respective synergies at the same time. There is a possibility of slow synergy occurring or failing to occur within a certain period of time. Factors that cause failure in mergers and acquisitions according to Hadiningsih (2007) are low strategic compatibility between the acquirer and the acquired company, strategic plans that are not in accordance with field conditions and a lack of conflict resolution in the combined company. In this study, company performance is only calculated based on financial ratios, while theory also takes into account the value of the firm before and after the merger.

4. CONCLUSION

In the automotive manufacturing company, PT Selamat Sempurna, it can be seen that there was an increase in only three variables, namely IT (6.86%) meaning that there was an increase in the company's ability to increase its sales volume, TAT (13.22%) meaning that there was an increase in the company's ability to managing its assets and ROI (1.01%) means that there is an increase in the company's ability to utilize assets to earn profits. Meanwhile, the variable that experienced a decrease was CR (6.86%), there was a decrease in the company's ability to meet its short-term obligations with the company's current assets, QR (14.5%), meaning that there was a decrease in the company's ability to meet long-term obligations. in short with the company's current assets if inventory is not included in current assets, DTAR (4, 16%) which shows an increase in the number of company assets financed by debt and ROE (4.25%) means that there is a decrease in the company's ability to efficiently use capital. There is not enough evidence that mergers increase the financial performance of manufacturing companies in terms of liquidity performance, activities, solvency and profitability. Stone, clay, glass, concrete products is the manufacturing sub-sector that performed the best after the acquisition. This sector sub-sector experienced an increase in performance in the six variables studied. solvency and profitability. Stone, clay, glass, concrete products is the manufacturing sub-sector that performed the best after the acquisition. This sector sub-sector experienced an increase in performance in the six variables studied. solvency and profitability. Stone, clay, glass, concrete products is the manufacturing sub-sector that performed the best after the acquisition. This sector sub-sector experienced an increase in performance in the six variables studied.

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