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FINANCIAL PERFORMANCE AND CORPORATE VALUE POST MERGER AND ACQUISITION (STUDY ON MANUFACTURING INDUSTRY ISSUER IN INDONESIA)

Son Ekabiakto [1], BambangMulyana [1]
[1] MercuBuana University, Jakarta

Abstract:
This study was aimed to analyze company financial performance before and after merger or acquisition. Financial performance was measured using Current Ratio (CR), Debt to Equity Ratio (DER), Total Assets Turnover (TATO), Inventory Turnover (ITO), Operating Profit Margin (OPM), Return on Assets (ROA), Return on Equity (ROE), while corporate value was measured using Price to Book Value (PBV). This study was limited to manufacturing industry issuers which had merged and acquisited between 2003 and 2011. Sample was collected using purposive sampling method and there were 11 companies. Data analysis was statistic parametric analysis using paired sample t-test. Study result found that CR, DER, TATO, ITO, OPM, ROA, ROE, and PBV after merger and acquisition was better than before merger and acquisition, even ROA and ROE showed significant improvement.

Keywords: Merger or Acquisition; Financial Performance; Company Value; Paired Sample T-Test.

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1. Introduction

Strategic decision in financial field could be categorized into investation decision, dividend decision, and financing decision. One of the investation decision that could be used by company is expansion, which is internal and external expansion. External expansion strategy could be done by consolidating several business entities (merger and acquisition), one form of business consolidation frequently done in the last two decades.

Studies had been conducted for company financial performance and company values in association with corporative act in the form of merger or acquisition, with varying results. In measuring company financial performance, those studies used liquidity ratio, solvency, activity, profitability, and market value. Liquidity could be measured using *current ratio* (CR), while solvency by *debt to equity ratio* (DER), activity by using *total assets turnover* (TATO), *Inventory Turnover* (ITO), profitability by using *operating profit margin* (OPM), *return on assets* (ROA), *return on equity*

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(ROE), and market value by *price to book value* (PBV).Studies results were not always consistent between one study and another.

Aprilia and Oetomo (2015) in their study of company financial performance before and after acquisition in manufacturing company in Indonesia between 2008-2014 found that *current ratio* (CR) had significant alteration, in conjunction with study by Novaliza (2013) which was also in Indonesia and Rani and Jain (2013) in India. Studies with contradictory result were Suryawathy (2014) study in Indonesia and Ahmed and Ahmed (2014) study in Pakistan, where liquidity was not increased significantly after company merger.

Sharma (2013), in his study found that *debt to equity ratio* (DER) had significant change after company merger, but this result was contradicting to study by Kurniawanand Widyarti (2011), where they found that DER had no significant change, but based on descriptive data there was slight increase. Similar result was brought by Abbas *et.al* (2014), where their study result showed that there was no improvement in *leverage* in merging company.

Annisa and Prasetiono (2010) in their study found that *total asets turover* (TATO) had been beter after company merger, this was in line with study by Aprilia and Oetomo (2015), but not with study by Yonathan and Ancella (2013)stating that there was no significant differences in *total asets turnover* after the company had merged or acquisited.

On *operating profit margin* (OPM), Widyaputra (2006) found that OPM post merger or acquisition had significant decline compared with before merger or acquisition, while Harjeet and Jiayin (2013) found that OPM post merger or acquisition was not significantly different. This result was not in accordance with study by Rani and Jain (2013), where they found that there was increase of company performance regarding profitability.

On *return on assets* (ROA), Sisbintari (2011) study and Kumara and Satyanarayana (2013) study in Indonesia and Rani and Jain (2013) in India found that ROA had increased significantly after company merger or acquisition. This was in contrast with studies by Sharma (2013) in India and Harjeet and Jiayin (2013) in China. In studies by Payamta and Setiawan (2004), Widyaputra (2006), Harjeet and Jiayin (2013), also Kuncoro (2014), ROE of companies after merger or acquisition was found not changed significantly, even had decreased significantly. Meanwhile, Sisbintari (2011), Gunawan and Sukartha (2013), and Rani and Jain (2013) found that ROE had significant increase after merger or acquisition. Widyaputra (2006) found that there was difference of *price to book value* (PBV) significantly one year after merger or acquisition, but this study was in contrast with Yonathan and Ancella (2013) where *price to book value* had no significant increase after merger or acquisition.

Based on results of several studies above, the problem in this study was whether current ratio, debit equity ratio, total assets turnover, inventory turnover, operating profit margin, return on assets, return on equity, and price to book value after merger and acquisition were better than before merger and acquisition?

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2. Literature Review

Merger is a combination of two or more companies to establish new company (Whitaker, 2012), while Djohanputro (2008) presumed merger as consolidation of two or more companies into one while using legal status of one of the company, while others was revoked.

Another consolidation form was acquisition. Through acquisition, acquisiting company could make target company into their subsidiaries. In other word, either acquisiting company or target company are still existed, therefore acquisition is a *take over* of parts or whole share of another company therefore acquisiting company had controlling right over target company.

Merger and acquisition give various benefit to shareholder and company when consolidated company had more value than being independently (PillofdanSantomero, 1996). The best consequences of merger and acquisition is synergy of power between several consolidating company to optimalize owned resources to create greater financial capability (Wheelenand Hunger, 2006). To reach the best financial capability, before merger or acquisition, involved companies should therefore be efficient first (Mardanugraha, 2005).

Financial Ratios

According to Keown, Martin, Petty, and Scott Jr. (2005), to evaluate company financial performance, either had corporative act or not, could use financial ratios as analysis tools. Emery, Finnerty, and Stowey (2011), classified financial ratios that could be used as company financial indicators, that are:

1) Liquidity Ratio

This ratio was meant to evaluate company liquidity level, which is company capability to fulfill their short term obligation. Ratio used was *current ratio* (CR), a ratio that showed company capability to fulfill short term obligation using current asset, with formula as below:

CR = (Current Assets /Current Liabilities) x 100% …………… (1)

2) Solvency Ratio / Leverage

Debt to equity ratio (DER), ratio used to evaluate debt to equity, with formula as below:

DER = (Total Debt /Total Equity) x 100% ……………… (2)

3) Activity Ratio

This is used to measure effectivity of resource usage to generate profit. Ratio used was *total assets turnover*and *inventory turnover*with formula as below:

TATO = (Net Sales /Total Assets) x 360 days…………..… (3)

ITO = (Cost of Goods Sold /Inventory) x 360 days………… (4)

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4) Profitability Ratio

Ratio used to measure company capability in acquiring profit in relation with sales, with three formulas, as below:

OPM = (Earnings Before Interest and Tax /Net Sales) x 100% ………... (5)
ROA = (Earning After Interest and Tax /Total Assets) x 100% ……….. (6)
ROE = (Earning After Interest and Tax /Total Equity) x 100% ……..… (7)

5) Market Ratio

According to Brigham and Ehrhardt (2013), ratio used to measure profit performance compared with company value performance was *price to book value* (PBV) with formula as below:

PBV = (Price per Share /Book Value per Share) x 100% …………… (8)

Based on study problem above, therefore hypothesis of this study was there would be improvement in *current ratio, debt to equity ratio, inventory turnover, total assets turnover, operating profit margin, return on assets, return on equity,* and *price to book value*after company merger or acquisition.

3. Method

Study Design and Sample

This study was combination of explorative, descriptive, and explanatory study to get in depth information regarding of measurement of company financial performance before and after merger or acquisition and company value resulted after merger or acquisition. Population in this study was all public company having merger or get acquisited listed in Indonesia Stock Exchange between 2003 and 2011, as much as 43 company. Sample was obtained using purposive sampling therefore there were 11 sample company, 10 of which were merged and 1 was acquisited.

Type and Data Collection Technique

This study used quantitative data, secondary data, and time series sourced from Indonesia Stock Exchange and also collected using documentative technique.

Data Analysis Technique

This study calculated financial ratio of company 2 years before merger or acquisition, followed with calculating financial ratio 2 years after merger or acquisition, and mean of total ratio in each company for year T – 2 and T – 1 was compared with mean of year T + 1 and T + 2 to find out the best performance.

Normality Test and Hypothesis Testing

Normality test was meant to check whether data was distributed normally or not. To detect normality of the data, *Kolmogorov-Smirnov test* was used. For hypothesis testing, *paired sample t-test* was used.

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4. Result and Discussion

Normality Test Result

This was normality test result of variables 2 (two) years before and after merger or acquisition.

Table 1: Normality Test Result before and after Merger/Acquisition

No	Variable		P-*Value*	Conclusion
1	CR	Before	0,965	Ho accepted
		After	0,874	Ho accepted
2	DER	Before	0,539	Ho accepted
		After	0,961	Ho accepted
3	TATO	Before	0,932	Ho accepted
		After	0,643	Ho accepted
4	ITO	Before	0,812	Ho accepted
		After	0,893	Ho accepted
5	OPM	Before	0,189	Ho accepted
		After	0,215	Ho accepted
6	ROA	Before	0,114	Ho accepted
		After	0,062	Ho accepted
7	ROE	Before	0,203	Ho accepted
		After	0,050	Ho accepted
8	PBV	Before	0,547	Ho accepted
		After	0,440	Ho accepted

Source: Data was processed using SPSS 21

Result of normality test above showed that all variables had significance value above *Kolmogorov-Smirnov* significance value that was 0.05 which meant that all Ho was accepted. Therefore data was distributed normally, ratio number of two years before and after merger and acquisition was not too different one company to others. This indicated that ratio was not varied or there was no anomaly in ratio value.

T-Test

Below is the result of t-test which was meant to find any significant differences between mean score of two independent sample. Two sample meant were company financial ratios before and after merger or acquisition. T-test measurement was using significance level α= 5%. T-test result was as shown below:

Table 2: T-testresult before and after Mergeror Acquisition

No	Variable		*Mean*	P-*Value*	Conclusion
1	CR	Before	1.7200	0,033	Ho rejected*
		After	2.0600		
2	DER	Before	1.4736	0,026	Ho rejected*
		After	1.0973		
3	TATO	Before	1.1182	0,010	Ho rejected*
		After	1.3636		

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4	ITO	Before	4.9582	0,043	Ho rejected*
		After	6.2527		
5	OPM	Before	.1945	0,006	Ho rejected*
		After	.2200		
6	ROA	Before	.1455	0,000	Ho rejected**
		After	.1991		
7	ROE	Before	.2636	0,000	Ho rejected**
		After	.3545		
8	PBV	Before	2.2673	0,038	Ho rejected*
		After	3.0391		

Source: Processed data

Notes:
*** Significant at α = 0,01 ≈ 1%*
** Significant at α = 0,05 ≈ 5%*

Table above showed that Ho of all performance parameter was rejected which meant there was significant increase on *current ratio, debt to equity ratio, total assets turnover, inventory turnover, operating profit margin, return on assets, return on equity,* and *price to book value* after company merger and acquisition with ROA and ROEhad significant increase.

Discussion

Hypothesis 1

This study found that there was improvement in *Current Ratio* (CR), compared with before merger or acquisition. This was in line with studies by Kumara and Satyanarayana (2013) also Sharma (2013) where there was improvement in CR variable after merger or acquisition. Contrasting result were found in studies by Widyaputra (2006), Payamta and Setiawan (2004).

Hypothesis 2

On *Debt to Equity Ratio* (DER)variable, there was improvement after company merger or acquisition compared with before merger or acquisition. This was in line with studies by Kumara and Satyanarayana (2013) also Sharma (2013), where there was improvement in *Debt to Equity Ratio* variable after merger or acquisition, but was inconsistent with studies by Widyaputra (2006), Payamta and Setiawan (2004).

Hypothesis 3

This study found that there was improvement in *Total Asset Turnover* (TATO), compared with before merger or acquisition. This was in line with studies by Harjeet and Jiayin (2013), Sharma (2013) also Annisa and Prasetiono (2010). But this was inconsistent with studies by Widyaputra (2006) also Payamta and Setiawan (2004) where there was no significant improvement in TATO variable after merger or acquisition.

Hypothesis 4

This study found that there was improvement in *Inventory Turnover* (ITO), compared with before merger or acquisition. This was in line with studies byHarjeet and Jiayin (2013), Sharma (2013) also Annisa and Prasetiono (2010). But this was inconsistent with studies by Widyaputra (2006)

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also Payamta and Setiawan (2004) where there was no significant improvement in ITO variable after merger or acquisition.

Hypothesis 5

This study found that there was improvement in *Operating Profit Margin* (OPM), compared with before merger or acquisition. This was in line with studies by Kumara and Satyanarayana (2013). But this was inconsistent with studies by Payamta and Setiawan (2004) also Widyaputra (2006); Annisa and Prasetiono (2010); Sharma (2013); Kadek, Gunawan and Sukharta (2013), where there was no significant improvement in OPM variable after merger or acquisition.

Hypothesis 6

This study found that there was improvement in *Return On Asset* (ROA), compared with before merger or acquisition. This was in line with studies by Kumara and Satyanarayana (2013). But this was inconsistent with studies by Payamta and Setiawan (2004) also Widyaputra (2006); Annisa and Prasetiono (2010); Sharma (2013); Gunawan and Sukharta (2013) where there was no significant improvement in ROA variable after merger or acquisition.

Hypothesis 7

This study found that there was improvement in *Return on Equity* (ROE), compared with before merger or acquisition. This was in line with studies by Kumara and Satyanarayana (2013); Gunawan dan Sukharta (2013). But this was inconsistent with studies by Payamta and Setiawan (2004) also Widyaputra (2006); Annisa and Prasetiono (2010); Sharma (2013), where there was no significant improvement in ROE variable after merger or acquisition.

Hypothesis 8

This study found that there was improvement in *Price Book Value* (PBV), compared with before merger or acquisition. This was in line with studies by Kadek, Gunawan and Sukharta (2013). But this was inconsistent with studies by Widyaputra (2006).

5. Conclusion

Merger and acquisition done by eleven manufacturing industry issuer in Indonesia Stock Exchange gave better results in financial performance and company value, where values of CR, DER, TATO, ITO, OPM, ROA, ROE and PBV improved after company merger and acquisition. Of eight measuring tools, ROA and ROE had very significant improvement. Merger and acquisition done by manufacturing industry in Indonesia could give added value in form of financial performance, efficiency, and company value which was better than consolidated company.

References

[1] Abbas, Qamar and Ahmed IH, Rauf IA, Muhammad SI, Maliha Z. 2014. Financial performance of banks in Pakistan after Merger and Acquisition. Journal of Global Entrepreneurship Research. 4:13
[2] Ahmed, Muhammad and Zahid Ahmed. 2014. Mergers and Acquisitions: Effect on Financial Performance of Banking Institutions of Pakistan. Journal of Basic and Applied Scientific Research. Res., 4(4)249-259.

 ISSN: 2454-1907
DOI: 10.5281/zenodo.2115607

[3] Aprilia, Nur Syilvia dan Hening Widi Oetomo. 2015. Perbandingan Kinerja Keuangan Sebelum dan Sesudah Akuisisi Pada Perusahaan Manufaktur.Jurnal Ilmu dan Riset Manajemen Volume 4, Nomor 12.
[4] Brigham, Eguene F. dan Michael C. Ehrhardt. 2013. Financial Management: Theory & Practice (with Thomson ONE - Business School Edition 1-Year Printed Access Card) (Finance Titles in the Brigham Family).14th Edition. South-Western College.
[5] CW, Annisa Meta dan H. Prasetiono. 2010. Analisis Manajemen Laba Dan Kinerja Keuangan Perusahaan Pengakuisisi Sebelum Dan Sesudah Merger Dan Akuisisi Yang Terdaftar Di Bursa Efek Indonesia Tahun 2008-2009.Jurnal Manajemen. Universitas Diponegoro.
[6] Djohanputro, Bramantyo. 2008. Manajemen Resiko Korporat. PPM Manajemen. Jakarta
[7] Emery, Douglas, John D. Finnerty, dan John D. Stowey. 2011. Corporate Financial Management: Bridging the Gap Between Theory and Practice. 4th Edition. Wohl Publishing.
[8] Gunawan, Kadek Hendra dan I Made Sukartha. 2013. Kinerja pasar dan kinerja keuangan sesudah merger dan akuisisi di Bursa Efek Indonesia. E-Jurnal Akuntansi Universitas Udayana. Bali.
[9] Harjeet dan Jiayin. 2013. An empirical investigation of mergers and acquisition by chinese listed companies, 1997-2007.
[10] Keown, Arthur J.; John D. Martin, Mwilliam J. Petty, and David J. Scott, Jr. .2005. Financial Mangement: Principles and Applications. Pearson Education, Inc., New Jersey.
[11] Kumara, Manoj dan Satyanarayana. 2013. Comparative Study of Pre and Post Corporate Integration through Mergers and acquisition. International Journal of Business and Management Invention. Vol 2 Issue 3, pp.31-38.
[12] Kuncoro, Wahyu. 2014. "Analisis Pengaruh merger dan akuisisi terhadap kinerja keuangan perusahaan: perusahaan yang terdaftar di Bursa Efek Indonsia periode 2004-2013". Tesis. Universitas Diponegoro.
[13] Kurniawan, Tri Andy dan Endang Tri Widyarti. 2007. Analisis Perbandingan Kinerja Keuangan Perusahaan Sebelum Dan Setelah Merger dan Akuisisipada Perusahaan Manufaktur di BEI Tahun 2003-2007. Tesis. Universitas Diponegoro.
[14] Mardanugraha, E. 2005.Evaluasi Merger Perbankan di Indonesia Ditinjau Melalui Fungsi Biaya Parametrik. Jurnal Ekonomidan Pembangunan Indonesia Vol. VI No. 10.
[15] Novaliza, Putri dan Atik Djajanti. 2013. Analisis Pengaruh Merger Dan Akuisisi Terhadap Kinerja Perusahaan Publik Di Indonesia (Periode 2004 - 2011). Jurnal Akuntansi & Bisnis. Vol.1 No.1;2013
[16] Pillof, SJ danSantomero AM. 1996. The Value of Bank Merger and Acquisition. Working Paper. Financial Institution Center The Warthon School University of Pensnylvania.
[17] Rani, Neelam, Surendra S. Yadaf and P.K. Jain 2013. Financial performance analysis of mergers and acquisitions: evidence from India. International Journal of Commerce and Management. Vol. 25 No. 4. pp. 402-423.
[18] Sisbintari, Ika. 2011. Analisis Komparatif CAR, LDR, ROA dan ROE Sebelum dan Sesudah Merger Pada PT. Bank Cimb Niaga Tbk.. Jurnal ISIP. Universitas Jember.
[19] Sharma, Sonia. 2013. Measuring Post Merger Performance – A Study of Metal Industry. International Journal of Applied Research and Sudies (iJARS) ISSN: 2278-9480. Volume II, Issue 8.
[20] Suryawathy, I Gusti Ary. 2014. Analisis Kinerja Keuangan Sebelum Dan Sesudah Merger Pada Perusahaan Yang Terdaftar Di Bursa Efek Indonesia. Jurnal Ilmiah dan Humanika. Vol. 3 No. 2.
[21] Wheelen, Thomas L. dan J. David Hunger. 2006.Startegic Management and Business Policy.Prentice Hall. New Jersey
[22] Whitaker, Scott C. 2012. Mergers & Acquisitions Integration Handbook. Wiley-Finance.
[23] Widyaputra, Dyaksa. 2006. Analisis Perbandingan Kinerja Perusahaan & Abnormal Return Saham Sebelum & Sesudah Merger Dan Akuisisi (Di Bursa Efek Jakarta Periode 1998-2004). Tesis. Universitas Diponegoro

ISSN: 2454-1907
DOI: 10.5281/zenodo.2115607

[24] Yonathan, Edwin dan Ancella A. Hermawan. 2013. The effect of financial performance following mergers and acqusitions on firm value. Universitas Indonesia.

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*Corresponding author.
E-mail address: sonymamora@ yahoo.com/bambang_0406@ yahoo.co.id