

# PROCEEDING

# IC 2018 MS

**The 4<sup>th</sup> International Conference on Management Sciences  
Universitas Muhammadiyah Yogyakarta, Indonesia**

**“Disruptive Innovation in Modern Business Era”**

held in UMY, Indonesia, on March 28, 2018

**Department of Management**

FACULTY OF ECONOMICS AND BUSINESS  
**Universitas Muhammadiyah Yogyakarta**

in collaboration with:  
**Universiti Sains Islam, Malaysia**  
**Tamkang University, Taiwan**  
**Khon Kaen University, Thailand**



**The 4<sup>rd</sup> International Conference on Management Sciences 2018  
(ICoMS 2018)**

**March 28 2018**

**Universitas Muhammadiyah Yogyakarta, Indonesia**

**Chair Person**

Dr. Indah Fatmawati, S.E., M.Si

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2. Dr. Kawpong Polyorat (Khon Khaen University, Thailand)
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3. Dr. Indah Fatmawati S.E., M.Si. (Universitas Muhammadiyah Yogyakarta)
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- ROOM A** : Dr. Indah Fatmawati S.E., M.Si.  
**ROOM B** : Retno Widowati PA, M.Si., Ph.D  
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**ROOM D** : Prof. Dr. Heru Kurnianto Tjahjono, M.M.  
**ROOM E** : Dr. Arni Surwanti, M.Si.

**Preface ICoMS 2018**  
**The 4<sup>rd</sup> International Conference on Management Sciences 2018**  
**(ICoMS 2018)**  
**March 28 2018**  
**Universitas Muhammadiyah Yogyakarta, Indonesia**

Dear Presenters and Delegates,

Department of Management, Economics Faculty, University of Muhammadiyah Yogyakarta, in collaboration with the Tamkang University Taiwan, Khon Kaen University Thailand, USIM Malaysia, organized an International Conference which will be held on March 28 2018.

We are proud to know that there is a thick manuscript submissions came to our table for this conference. In detail, there are 42 international academic manuscripts which we received from Indonesia, Malaysia, Thailand. And in this conference we choose **Disruptive Innovation in Modern Business Era** as the main theme.

Our international conference is a manifestation of the Government of Indonesia through the Directorate General of Higher Education, which has encouraged the internationalization of research and teaching in order to foster high-caliber academic institutions globally and increase competitiveness in International Higher Education.

We are very confident that our presenters and delegates will get a lot of ideas together and experience of this conference. In addition, our participants will enjoy additional insight from our plenary session keynote speakers, namely, Prof.Dr.Shu-Hsien Liao from Tamkang University Taiwan, Dr. Kawpong Polyorat from Khon Kaen University Thailand, Prof. Dr. Syadiyah Abdul Shukor from USIM Malaysia, and Punang Amaripuja, S.E., S.T., M.IT. from Universitas Muhammadiyah Yogyakarta.

Through this conference, we are committed to promote and improve our mission and academic culture synthesize global progress with local knowledge. Therefore, it is my great honour to welcome you to ICoMS 2018 in great cultural city of Yogyakarta, Indonesia. I look forward to seeing you soon in the conference.

Best wishes,

Dr. Indah Fatmawati

Chair of ICoMS 2018

<http://icoms.umy.ac.id/call-for-papers>

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# Pre and Post Merger and Acquisition Decisions Related to The Company's Operating Performance in Indonesia

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## ABSTRACT

This research discusses Merger and Acquisition (M&A) decisions' impact on the Indonesian Companies' Operating Performance (OP). It measured the impact of the company's OP before and after the M&A's decisions have been taken by using operational performance data of the listed Indonesian company.

Various results have been shown by the previous research in determining the impact of the M&A's decisions on the company's performances. Ramachandran Azhagaiah and Thangavelu Sathiskhumar (2014) discover that M&As strategy has the positive and significant impact on the Indian companies. In contrary, there are some studies that result in insignificant impacts in M&A. Scherer (1988) argues that most of the companies which made the M&A strategy have experienced profitability stagnancy in the long term. These research gaps become the foundation to address the issue in this research.

This research was conducted for the Indonesian companies which took the M&A's in 2011 by using the panel data including time series and cross-sectional data between 2006-2016. The time frame (2006-2016) was chosen to synchronize with this research's goal, that is examining the OP within five years both before (2006-2010) and after (2012-2016) the M&A's choices (2011). In addition, this research uses the multiple regression method with dependent variable which represent the company's performance in related to OP namely, Profit Margin (PM), Gross Earnings (GE), Liquidity (L), Financial Risk (FR), Turnover (T), Growth (G), and Financial Leverage (FL). Using this method, the hypothesis of this research, whether there were significant differences in the company's OP before and after conducting the M&As can be answered. The research shows that the M&A strategy has significant effect on OP of the acquiring firms in Indonesia after M&A over the research period.

**Keywords:** *merger, acquisition, merger and acquisition, M&A, corporate restructuring, operating performance*

## 1. Introduction

Dhingra and Anggarwal (2014) conclude that the company restructures to maximise the shareholders' welfare by growing the synergy, escalating the economic scale, enhancing financial and marketing profit, diversifying and concentrating on the unstable income, the remarkable organisation's inventory, elevating

the domestic market that may lead to enhance the global market.

A company is built for an infinite time frame purposes related to the continuing growth and expansion to provide a huge advantage for all the stakeholders. The globalisation era and the development of technology force all the company to compete for each other. Each company may face the challenges and

obstacles that resulted from the competition atmosphere, so the company should use the appropriate strategy to continue their business. The proper strategy can be used as a tool to elevate the company's value.

Henry Mintzberg (1987) states that the definition of strategy is divided into five (5) terms, namely; strategy as a plan, strategy as a pattern, strategy as a position, strategy as a ploy, and strategy as a perspective. By understanding each (P), we can develop a strong business strategy so as to take full advantage of the strengths and capabilities of the organization. M&A as business strategy has become very popular.

Each company has their way to maintain their business continuity implicitly and explicitly (Porter, 1980). The company must be able to become a market leader (market leadership) if they want to become a leader in the market, the company leads in cost (cost leadership) and being consistent with its goal. One of the way to enhance the growth and secure the existence of the company is through the global strategy called Merger and Acquisition (M&A).

The reasons behind why the company chooses the M&A's are part of the strategic opportunity, increasing effectivity and price exploiting in the capital market (Foster, 1994). M&A provide a huge benefit for the company, such as increasing the ability in marketing, research, skills, managerial, technology transfer and cost efficiency (Hitt, 2001). In addition, M&A can be used to expand the company size and compete in the global economic, willingness to enhance the existing technology and switch to the new business without starting it from the beginning (Yudyatmoko & Naim, 2000).

Awareness, motivation and ability framework can explain the multinational company that learns from the local company and in the same way explain why the local company learn from the multinational company (Govindarajan, Vijay and Ramamurti, Ravi 2011).

The general theory behind the reason why the company choose merger and acquisition are Operating Synergy (economies of scale and economic of scope), Financial synergy, Diversification (New Products/Current Markets; New Products/New Markets; Current Products/New Markets), Strategic Realignment (Technological Change and Regulatory and Political Change), Hubris (Manajerial Pride), Buying Undervalued Assets (Q-Ratio), Managerialism (Agency Problem), Tax Consideration, Market Power, and Missvaluation (Donald M. DePamphilis, 2014).

The implementation of M&A in Indonesia is affected by several factors that directly and indirectly may lead the success story of M&A decision. The factors are both external and internal factors. The external factors can be funding of M&A which related to cash management decision or issuing new stock. On the other hand, the internal factors may relate to the manager's capability in taking and implementing M&A decision, resource capability and capital accumulation in the company.

## 2. Review Of Literature

The empirical study, which is conducted to investigate the effect of M&A decision to the company's performance, results in many variations. Some of the research that resulted in a positive result namely, Ramachandran Azhagaiah and Sathishkumar (2014) states that M&A give the positive and significant impact on Operating Performance of the manufacturing company in India. Lee, Pamela, and Gayle (1996) argue that the horizontal M&A's results in significant improvement of variables, such as long-term debt to total asset ratio, long-term debt to market value ratio, market value to book value ratio, asset, and sales growth. Ikeda and Do (1993) conclude that the company's performance which is measured by profitability increased after M&A. Healy, Palepu and Ruback (1992) discover that there is the operating performance and asset productivity enhancement compare to the

similar company within same industry which does not choose the M&A's decision.

However, there are some research that M&A's results in insignificant impact. Nai Chiek Aik, Taufiq Hassan, Shamsir Mohamad (2015) state that the strategic profit results in zero point from the horizontal merger in Malaysia which is reflected by the low operating performance of the acquirer company after the M&A has been taken, while the operating performance of the target company stagnant in the same period. Levin and Aaronovitch (1981) discover that the profit growth between before and after the M&A's decision has been taken experiences an identical result. Scherer (1988) argues that most of the company which chooses the M&A's does not show the long-term profitability improvement. The more extreme result is the research by Rau and Vermaelon (1998) which state that the company experiences a decreasing trend in operating performance for three years after the M&A. Research in Indonesia by Payamta and Setiawan (2004) which show that simultaneously examination to all financial ratio results in undifferentiated. On the other hand, partial examination results in significant outcome for half ratio. Sijabat and Maksum (2009), which their research also results in the negative outcome, state that the acquirer companies' financial ratios, such as liquidity, activity, leverage, and profitability ratio result in the same outcome. These research gaps become the foundation to address the issue in this research.

### 3. Objective And Hypotheses Of The Study

TABLE 1  
Number of Merger and Acquisition in Indonesia, 2010 – 2013

Year	Completed Merger and Acquisition
2010	4 companies
2011	16 companies
2012	10 companies
2013	11 companies

The successfulness of M&A's decision is affected by the company's internal

The company has chosen the merger and acquisition decision in this globalisation era and free trade during the last two decades (Dhingra, Anggrawal 2014). This M&A's decision may look like a 'shortcut' without starting a business from the beginning. On the other hand, the M&A's decision is also regarded as the investing decision. Therefore, the company needs to count the cost and benefit of taking the M&A's decision.

Based on the Indonesia Stock Exchange's data from 2010 to 2013, there was some information that some companies conducted merger and acquisition. The writer uses the adopted model from Ramachandran Azhagiah and Thangavelu Satishkumar's research (2007). This research uses the data panel from time series and cross-section with the time frame between 2006 and 2016. The time frame was chosen by the consideration that the aim of this research is examining the operating performance before the M&A's decision (2006-2010) and after the M&A's decision (2012-2016). The writer selected the year 2011 as the research year since the highest number of the company which chooses the M&A's were in 2011, as shown in Table 1.

This research analyses whether there is a significant difference between the operating performance variables and Return on Investment (ROI) of the company which took the M&A's decision.

environment, including resources (capital and labour), business performance, and technology



proficiency. This research focuses on the company's performance which can determine the successfulness of M&A's decision.

The company can choose any strategy, but at the end, the company is forced to grow optimally and continued. Therefore, this research question can be addressed as follow: Whether there is a significant difference in the company's operating performance which is measured by the financial variable in the period of pre-merger and acquisition; merger and acquisition point; and post-merger and acquisition?

In order to answer those research question, the writer analyses:

1. The comparison of the company's operating performance before and after merger and acquisition.
2. The relationship direction and significance of the financial performance variables, namely Net Margin (NM), Gross Earnings (GE), Liquidity (L), Financial Risk (FR),

Turnover (T), Growth (G), Operating Leverage (OL) related to the level of the company's operating performance, namely Return on Investment (ROI).

The hypotheses design of this research are as follow:

- $H_0^1$ : The company's operating indicator (Return on Investment (ROI)) will significantly different at the period pre-merger and acquisition, merger and acquisition point, and post-merger and acquisition.
- $H_0^2$ : Net Profit (NM), Gross Earnings (GE), Liquidity (L), Financial Risk (FR), Turnover (T), Growth (G), Operating Leverage (OL) explain the company's operating indicator (Return on Investment (ROI)) significantly.

The purposive multi-stage sampling is used in the different steps which are shown in table 2.

TABLE 2  
Sampling Procedure

Stage 1	Total of 16 companies, 2 companies were eliminated since they were delisted from the Indonesia Stock Exchange
Stage 2	Out of 14 companies, 2 company has insufficient data
Stage 3	The Final sample comprises 12 acquiring companies in Indonesia

The research methodology uses the multiple regression to estimate any independent variables from the operating performance which increasing after merger and acquisition.

This research uses the panel data to examine the designed equation for the quantitative research of the company post-merger and acquisition operating performance. The panel data very useful for the policy analysis, especially the evaluation of a decision (Woolridge, 2009). Some benefits from the panel data analysis are (Gujarati, 2003, Baltagi, 2005):

1. Estimating uses the panel data can involve heterogeneity from each cross-section unit.
2. The combination cross-section unit and time series more informative, varied, eliminating the collinearity between variables, higher and more efficient degree of freedom.
3. Suitable to use in determining the dynamic changes.
4. The panel data analysis gives a chance to assess more complex models/equations.
5. The panel data can minimise bias that may exist during the aggregation process of cross-section units.

Baltagi (2005) states that the panel data analysis's goal is acquiring more accurate estimation results since there is an enhancement of the total number of the observation which implies of the increase of the degree of freedom. However, Baltagi also argues that the panel data analysis also has some drawbacks, such as:

- Difficulties in gathering and designing the data structure which caused by the incomplete population or uncooperative respondents.
- Distortion or miss measurement which caused by the respondent's fault to answer or the data collector's fault in recording all the answers.

#### 4.1 Analysis of Operating Performance

This research uses the regression equation to estimate the operating performance which reflected in Return on Investment (ROI).

#### 4.2 Dependent and Independent Variable Operating Performance

Return on Investment (ROI) is also called as the accounting rate of return or accrual

accounting rate of return. The manager usually uses the ROI terminology when evaluating the subunit performance of the organisation, such as a division of the organisation, and the accrual accounting rate of return which using ROI to evaluate a project (Hornngren, Charles., Datar, Srikant., Foster, George., Rajan, Madhav,. and Ittner, Christopher, (2009).

Using the variable independent which represented the company's performance, namely Return on Investment (ROI) and another financial performance independent variables, namely Net Profit (NP), Gross Earnings (GE), Liquidity (L), Financial Risk (FR), Turnover (T), Growth (G), and Operating Leverage (OL). This multiple regression is expected to answer the research hypothesis which is there is a bigger significant difference in the operating performance of the company in the period of before, at the point, and after the merger and acquisition has been taken.

Regression Equation of this research is as follow in figure 1.

FIGURE 1 Regreesion Equation

$$ROI_{it} = \alpha_1 + \gamma_1 NP_{it} + \gamma_2 GE_{it} + \gamma_3 L_{it} + \gamma_4 FR_{it} + \gamma_5 T_{it} + \gamma_6 G_{it} + \gamma_7 OL_{it} + \varepsilon_{it}$$

### 5. Analysis And Discussion

#### 5.1 Descriptive Statistics Prior to M&A's from 2006 to 2010

The descriptive statistics result shows that the

value of ROI prior to merger and acquisition is the highest at 56.5% in 2007, and the lowest at -17.9%, also in 2007.

TABLE 3  
Descriptive Statistics Prior to M&A's from 2006 to 2010

Description	ROI	NM	GE	LQ	FR	TR	GROWTH	FL
Mean	0.065	-0.045	0.431	2.138	2.748	0.588	1.238	3.748
Maximum	0.565	2.151	0.846	8.017	27.575	2.374	53.160	28.575
Minimum	-0.179	-3.723	-0.250	0.215	-38.525	0.075	-0.496	-37.525
Std. Dev.	0.127	0.672	0.226	1.634	7.204	0.581	6.888	7.204
Observations	60	60	60	60	60	60	60	60

Observed from the deviation standard value, Financial Risk and Financial Leverage are

variables that have the most abnormal distribution prior to the merger and

acquisition.

### 5.2 Descriptive Statistics during M&A's in 2011

The descriptive statistics result shows that the highest value of ROI during the acquisition is at 67.1%, and the company has the lowest ROI prior to Merger and

Acquisition period. This shows that the company is able to recover their ROI and it indicates assumption that some companies earn profit on their Operating Performance (OP) from Merger and Acquisition.

TABLE 4  
Descriptive Statistics during M&A's in 2011

Description	ROI	NM	GE	LQ	FR	TR	GROWTH	FL
Mean	0.114	-0.065	0.359	2.002	2.954	0.764	2.815	3.954
Maximum	0.671	0.313	0.699	10.642	12.200	2.254	26.777	13.200
Minimum	-0.097	-2.515	-0.318	0.256	-1.896	0.070	-0.617	-0.896
Std. Dev.	0.195	0.779	0.303	2.796	4.241	0.755	7.601	4.241
Observations	12	12	12	12	12	12	12	12

Observed from the deviation standard value, Financial Risk and Growth are variables that have the most abnormal distribution during the merger and acquisition.

### 5.3 Descriptive Statistics Prior to M&A's from 2012 to 2016

The descriptive statistics result shows that the highest value of ROI after merger and acquisition is at 61.8% in a company in 2013, and the lowest ROI is at -8.7%, in 2016

TABLE 5  
Descriptive Statistics Prior to M&A's from 2012 to 2016

Description	ROI	NM	GE	LQ	FR	TR	GROWTH	FL
Mean	0.095	0.057	0.355	1.930	2.600	0.712	0.158	3.600
Maximum	0.618	0.690	0.727	7.929	18.192	2.325	1.396	19.192
Minimum	-0.087	-1.043	0.010	0.281	-4.759	0.062	-0.440	-3.759
Std. Dev.	0.164	0.274	0.197	1.848	3.375	0.671	0.319	3.375
Observations	60	60	60	60	60	60	60	60

Observed from the deviation standard value, Financial Risk and Financial Leverage are

variables that have the most abnormal distribution after the merger and acquisition.

TABLE 6  
Result of Multiple Regression of Selected Variables on Operating performance (ROI) of Acquiring Companies in Indonesia for Pre-M&A's (2006 – 2010), During M&A's (2011), and Post M&A's (2012 -2016)

Variables	Pre M&A's			During M&A's			Post M&A's		
	Beta	t-stat	Prb.	Beta	t-stat	Prb.	Beta	t-stat	Prb.
Constant (ROI)	55.939	1.541	0.129	-2442. 7	-1.57 6	0.190	10.432	0.232	0.818

Profit Margin (NM)	0.020	0.697	0.489	0.091	0.733	0.504	0.024	0.696	0.490
Gross Earning (GE)	0.183	2.061	<b>0.044*</b>	-0.184	-0.52 7	0.626	0.425	8.912	<b>0.000</b> **
Liquidity (LQ)	0.006	0.644	0.522	0.000	0.006	0.996	0.002	0.351	0.727
Financial Risk (FR)	56.036	1.544	0.129	-2442. 7	-1.57 6	0.190	10.617	0.236	0.815
Turnover (TR)	0.136	4.144	<b>0.000*</b> *	0.249	3.416	<b>0.027</b> *	0.199	15.46	<b>0.000</b> **
Growth (Grwth)	-0.001	-0.56 1	0.577	-0.015	-1.46 6	0.217	-0.012	-0.45 3	0.653
Financial Leverage (FL)	-56.03 9	-1.54 4	0.129	2442.8 0	1.576	0.190	-10.62 1	-0.23 6	0.814
R-squared			0.479			0.833			0.873
<b>Adjusted R-squared</b>			<b>0.409</b>			<b>0.541</b>			<b>0.856</b>
F-statistics			6.829			2.855			51.005
Periods included			5			1			5
Cross-sections included			12			12			12
Number of Observations			60			12			60

Notes: compiled from financial statement of 12 acquiring companies in Indonesia \*\* Significant at 1%; \* Significant at 5%

Estimation shows model quality improvement prior to, during and after Merger and Acquisition. It is observed from the model accuracy value prior to merger and acquisition, which is 40.9%, then increasing to 54.1% during merger and acquisition, and increasing to 85.62% after merger and acquisition.

Significant variables explaining ROI prior to the acquisition are Gross Earning and Turnover. Similarly, during merger and acquisition, the significant variables explaining ROI after the merger and acquisition are Gross Earning and Turnover.

## 6. Conclusion

The purpose of Corporate Restructuring is to maximize the wealth of the stakeholders in order to grow in synergy, to increase the economic scalability, to increase financial

profit and marketing, to diversify and concentrate the earnings, excellent resources, to develop the domestic market, and to get into the rapidly increasing global market.

General theories on Merger and Acquisition are Operating Synergy, Financial Synergy, Diversification Products and Market, Strategic Realignment, etc. Not many listed companies in Indonesia perform M&A's. The data shows there are sixteen listed companies in Indonesia that perform M&A's in 2011.

This research employed panel data from time series and cross section within the time range from 2006 to 2016. The chosen time range refers to the research purpose in observing company's operational performance prior to M&A's (2006-2010), during M&A's (2011), and after M&A's (2012-2016). Return on Investment (ROI) atau level of accounting

return was chosen as the analysis unit representing Operating Performance.

Estimation shows model quality improvement prior to and during Merger and Acquisition. Although the ROI shows significant improvement after Merger and Acquisition, only Gross Earning and Turnover as the Operating Performance variables that indicate the acquiring companies generate more profit by maximally employing available resources utilization after the M&A.

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