Determinant of acquisition of financial institution

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Abstract
This study is aimed to investigate the determinants of finance companies' acquisition. During the last 15 years, there were more than 30 mergers and acquisition deals happened in the finance company industry. We have analyzed six micro financial ratios which are productivity ratio, profitability ratio, equity capitalization, leverage ratio, asset composition ratio, and firm size. The dependent variables are dummy variables of acquisition. The financial ratios are OER (operating efficiency ratio), ROE (return on equity), leverage, asset allocation ratio, equity size and firm size. The samples are the 90 finance companies who issued financial report from 2001-2015. Data were analyzed using panel data regression. The results of the study found that only company size had a significant effect on finance companies acquisition.

***Keywords**: Acquisition, Finance, Merger*

JEL classification: G23, G34

INTRODUCTION

Every company that wants to grow bigger has two choices: grow in organic or in non-organic. Growing organically is the way that most companies do. Growing in a non-organic way is by forging alliance with other companies.

Building alliances with other companies can be through mergers and acquisitions, joint venture, strategic partnership/alliance, and franchise cooperation. Some companies choose mergers and acquisition options. The merger and acquisition strategy are some of the growth strategies, chosen by many companies to grow faster.

Many mergers and acquisitions transactions have taken place in the Indonesian financial industry over the last 15 years. Merger and acquisition transaction take place in the banking industries as well as the non-banking. Non-banking occurs in the finance industry, insurance and as well as security industries.

Merger and acquisition transactions will also affect the economic growth of a country. Xu (2017) found that prohibiting the merger and acquisition (M&A) would lead to the reduction of the aggregate growth rate of US economy by 0.1% and the reduction of the aggregate TFP by 5%.

Most of the merger and acquisition transactions in financial industry are conducted by companies that have specific relationship. The relationship deliberated here is that the holding company acquires the finance company for their supply chains. Banks and automotive companies acquire finance companies as their supply chain. Both industries are related to the financing industry.

Although there are numerous researches concerning the determinant of merger and acquisition, especially financial industry, there is no conclusive result yet, such as

Ashmore (2004), Hyun & Kim (2007), Wu & Xie (2010), Erel, Liao, & Weisbach (2011), Nguyen, Yung, & Sun Nguyen (2012), Tanriverdi & Uysal (2015), Holburn & Bergh (2014), Offenberg & Pirinsky (2015), Henrich & Zhang (2017). Therefore, it is important to conduct a research on this topic, especially in a specific industry such as consumer finance industry.

Ashmore (2004) found that profitability, capitalization, intangible assets, quality of credit were the determinants of mergers and acquisitions. The research was conducted in 1994-2003 in the United States.

Hyun & Kim (2007) suggested that legal and institutional quality and financial market development increased M&A volume across countries. The significant effect of institutions however, might disappear for transactions between countries of the similar stage of the development. Correa (2009) found that the small size of assets, the diversified portfolio, the size of assets, the size of revenue and capabilities were the determinant factors in the acquisition. Wu & Xie (2010) showed that pre-acquisition performance and proportion of the state shares had a positive impact on performance of acquiring companies.

Erel, Liao, & Weisbach (2011) showed that geography, the quality of accounting disclosure, and bilateral trade increased the likelihood of mergers between two countries. Therefore, valuation appeared to play a role in motivating mergers; firms in countries whose stock market had increased in value, whose currency had recently appreciated, and who had relatively high markets to book value tend to be purchasers, and firms from weaker-performing economies tend to be targets.

Nguyen, Yung, & Sun Nguyen (2012) used a recently developed technique to examine post-acquisition evidence as to the motives behind merger and acquisition activity. Using a sample of 3,520 domestic acquisitions in the United States, we found that 73% of those were related to market timing; 59% were related to agency motives and/or hubris; and 3% were responses to industry and economic shocks. Our results also showed that about 80% of the mergers in our sample involved multiple motives. Thus, in general, it is very difficult to have a clear picture of merger motivation because value-increasing and value-decreasing motives may coexist.

Johan (2012) researched on the determinant of financial services industry acquisition determinant in Indonesia from 2000 – 2011. It was found that the determinants of finance companies targeted for all types of takeover were the size of the assets and profitability ratios. The larger the asset size was, the more attractive the companies would be for acquisition; while companies with low profitability would be more attractive for acquisition. The sample of the research was 100 finance companies in Indonesia.

Becalli & Frantz (2013) investigated the determinants associated with the likelihood of a bank becoming involved in a merger or an acquisition. They investigated the determinants of being a target or an acquirer from a sample of 777 deals involving EU acquirers and 312 global targets over the period of 1991 to 2006. The results found that banks were more likely to be targets if they have lower free cash flows, are less efficient, are relatively illiquid, and are under-capitalized.

Tanriverdi & Uysal (2015) indicated that information technology merger and acquisition integration did not always lead to greater value creation in M&A. The study makes a contribution by identifying the contingencies under which IT M&A integration creates wealth for acquirer's shareholders.

Holburn & Bergh (2014) investigated empirically whether and how firms use election campaign contributions to politicians as a method of influencing regulatory merger approvals. They found that utilities increased their contributions in the year before they announced a merger and that merging utilities increased their contributions more in states with greater political party competition. Their findings contributed to political strategy research by providing novel evidence that firms integrate market and nonmarket strategies.

Jayaraman, Srinivasan, & Arunachalam (2014) observed that technical efficiency of merged banks deteriorated immediately after the merger and showed improvement from the third year of post-merger period. Hence, the effect of merger and acquisition on the profitability and operational cost of merged banks, in general, is not significant during the initial phase of merger, i.e. initial three years.

Offenberg & Pirinsky (2015) showed that deals in more competitive environments and deals with lesser external impediments on execution are more likely to be structured as tender offers. Furthermore, the rivals of the bidding firm exhibit significantly lower announcement returns in tender offers than in mergers.

Table 1. Previous research summary

Variable	Researched By	Related to Acquisition
Pre-acquisition Performance	Wu & Xie (2010)	Significant /Positive
Profitability	Ashmore (2004) Johan (2012)	Significant
Efficiency	Jayaraman, Srinivasan, & Arunachalam (2014) Becalli & Frantz (2013)	Significant
Legal Quality	Hyun & Kim (2007)	Significant/Positive
Financial Market Quality	Hyun & Kim (2007)	Significant /Positive
Market Timing	Nguyen, Yung, & Sun Nguyen (2012)	Not Significant
Agency Motives	Nguyen, Yung, & Sun Nguyen (2012)	Not Significant
Higher Growth	Becalli & Frantz (2013)	Significant
Equity Size	Becalli & Frantz (2013)	Significant
Firm Size	Correa (2009), Johan (2012)	Significant
Leverage	Jandik, T., Lallemand, J., (2017).	Significant
Asset Allocation	Correa (2009)	Significant

Jandik & Lallemand (2017) found that bank debt is the primary source of these debt increases. Lastly, we find evidence consistent with the expectation of improved bargaining power for target equity holders with target debt issuances. We document that compared to debt issued by non-target firms, announcements of debt issuances by takeover targets are associated with additional positive abnormal returns to target stockholders. Debt issuances occurring after takeover announcement appear to reverse lower (higher) abnormal returns experienced by targets (bidders) upon takeover announcement itself.

Henrich & Zhang (2017) analyzed how the old state socialism logic and the new market capitalism logic competed to influence Chinese firms' mergers and acquisitions. They found that these institutional logics affected M&A decisions via the coalitions committed to each logic—coalitions whose balance of power reflected the external power source of ownership and the internal power source of board representation. They also found that each coalition's strength changed as the market capitalism logic became more established during China's economic transition, and that investors viewed M&A by firms with high state ownership skeptically.

This paper will study the determinant of acquisition of consumer finance company industries in Indonesia during 2001-2015. The performance measurement will be based on the financial performance: OER (operating efficiency ratio), ROE (return on equity), equity capitalization, leverage ratio, asset allocation, and firm size.

The rest of the paper will be organized as follows, after the introduction; we describe the data and methodology in Section 2, followed by the result and discussion in Section 3. Finally, Section 4 will be giving summary and conclusion remarks.

METHOD

Data

This research uses secondary data which was collected from various official publications by the institutions. The data are panel data consisted of cross section and time series data from 2001-2015.

The sample is the finance company who issued their official financial statement during the research period. The sample consisted of 90 finance companies. All finance companies are registered under the Financial Service Authority/*Otoritas Jasa Keuangan* (OJK).

Research model

To analyze the determinants of acquisition of finance company industries, the panel data regression model is used with the following equation:

$$Y_{it} = a + b_1 BOPO_{it} + b_2 ROE_{it} + b_3 Equ_{it} + b_4 Lev_{it} + b_5 PATA_{it} + b_6 FSI_{it} + \varepsilon$$

Y_{it} = Dummy of acquisition
OER = Operating efficiency ratio
ROE = Return on equity
Equ = Equity capitalization
Lev = Leverage ratio
PATA = Asset allocation
FSi = Firm size

There are three models in panel data regression, namely PLS, FEM and REM models. For the selection of the best model, the Chow test and Hausman test are used. Furthermore, the variables and measurements are given in Table 2

Table 2. Variables measurements

Variables	Codes	Measurements
Return On Equity	ROE	Net income/total equity
Leverage	LEV	Total debt/total equity
Asset allocation	PATA	Productive asset/total asset
Operating efficiency ratio	OER	Expense/revenue
Firm Size	FSi	ln (Total Asset)
Equity Capitalization	Equ	ln (Total Equity)

Hypothesis

There are six hypotheses proposed in this study. Based on the previous research, the hypotheses are as Table 3.

Table 3. Research hypotheses

Hypotheses	Variables	Expected relationship
H1	Operating efficiency ratio	Significant
H2	Asset Allocation	Significant
H3	Return On Equity	Significant
H4	Leverage Ratio	Significant
H5	Equity Capitalization	Significant
H6	Firm Size	Significant

RESULTS AND DISCUSSIONS

Based on the research data, it showed that the median of operating costs to operating revenues reached 152%. The results showed over than 100%, it means the cost is exceeding the revenues. On the return on equity, there are 1 company that reached 29.84%, however there was a company achieve -61,07% on the return on equity.

Table 4. Statistic descriptive

Variables	N	Minimum	Maximum	Median	Standard Deviation
OER	1,350	-46.71	31,666.67	152.70	1,070.12
ROE	1,350	-61.07	29.84	0.11	2.03
Equ	1,350	494,909.00	87,927,596.00	786,274.73	5,787,874.80
LEV	1,350	0.00	747.66	1.28	20.37
PATA	1,350	0.00	913.58	75.16	41.52
FSi	1,350	0.00	574,911,647.00	33,304,637.56	4,004,731.40

Few finance companies that have zero debt, which is shown in the leverage ratio at 0%. The biggest company booked an asset at IDR 574 Billion; however there was a company with the assets that reached 0. Furthermore, the estimated result of panel data regression model consist of PLS, FEM, and REM, given in Table 5.

Table 5. Panel data regression model result

Variables	PLS		FEM		REM	
OER	0.00000		0.00000		0.00000	
	(0.0000)		(0.0000)		(0.0000)	
ROE	0.00605		-0.00029		-0.00023	
	(-0.0064)		(-0.0019)		(-0.0019)	
Equ	-0.02750	***	-0.00051		-0.00083	
	(-0.0078)		(-0.0026)		(-0.0026)	
LEV	0.00050		0.00012		0.00013	
	(-0.0006)		(-0.0002)		(-0.0002)	
PATA	-0.00037		-0.00014		-0.00014	
	(-0.0003)		(-0.00010		(-0.0001)	
FSi	0.11736	***	0.01106	***	0.01252	***
	(-0.0147)		(-0.0055)		(-0.0055)	

Numbers in () states the estimated standard error
****) Significant at the real level of 1%*

Based on Chow test, PLS model is better than FEM model (with probability of F and Chi-square < 0.01). Furthermore, based on Hausman test shows that FEM model is better than REM (with probability of Chi-square < 0.01). Therefore, it can be concluded that FEM is the best model.

Testing H1 (Efficiency)

The test results show that efficiency ratio is not the significant variable which determinant an acquisition. If the OER is more than 100%, normally, the finance company will be the target of acquisition. In general, the target company is a company that has bad OER. Hence, the efficiency ratio is not a major factor in the determination of the acquisition. The efficiency ratio results is supported by the research of Jayaraman, Srinivasan, & Arunachalam (2014), however it is differed from the results of Johan (2012).

Testing H2 (Asset allocation)

According to the pooled least square, the asset allocation (PATA) variable does not show a significant influence on the decision of the finance companies' acquisition. In general, targeted finance companies tend to have productive assets but poor-quality assets. Poor quality indicates many assets are overdue and write off. Hence, the asset allocation composition is not a major factor in the determination of the acquisition. The results was opposite with the results of Correa (2009).

Testing H3 (Profitability)

No significant results were found for return on equity variable. In general, targeted finance companies have low profitability positions. Low profitability will result in low ROE. Therefore, profitability is not the main thing in determining the acquisitions. The results are linked with the results by Jayaraman, Srinivasan, & Arunachalam (2014) and Johan (2012).

Testing H4 (Capital structure)

Leverage variable does not show any significant influence on the acquisition decision of finance company. The results are connected with the results by Johan (2012). In general, targeted finance companies have high leverage. High leverage ratios result in financial distress. Normally, a company needs an acquisition to assist it out from financial distress. Therefore, the leverage ratio is not determined the acquisition strategy.

Testing H5 (Equity capitalization)

Equity capitalization variable does not show any significant influence on the acquisition decision. The acquired companies usually have low profitability and also low returns. There are companies that have lost money. Hence, the value of equity is not a major factor in determining the acquisition strategy. Acquirer looks for small size of investment. Hence, the acquirer will look for small size of equity capitalization. It is line with the results of Becalli and Frantz (2013).

Testing H6 (Firm size)

Based on Hausman and Chow test with significant at $\alpha < 1\%$ showed in table 6, the fixed effect model test is chosen for the test. Company's size variables show significant influences on the acquisition decision of finance company, with a significance level $\alpha <$ 1%. The results are in line with the results of Correa (2009) and Johan (2012). Almost all investors will look for finance companies that have a meaningful size. Investors want to get results fast. Hence, size becomes a significant factor in the acquisition's decision. The results is also supported by the term of financial company "too big too fall".

CONCLUSION AND RECOMMENDATIONS

Conclusions

The determinant of acquisition of consumer finance company is the company size. It is in line with the investors want in general. If the target company is too small, the investor will tend to establish a new company rather than acquire a company. Hence, the firm size has a significant influence in the acquisition decision. Other variables such as equity capitalization, profitability ratio, efficiency ratio, and asset allocation do not have a significant influence in the acquisition decision.

Normally companies who are under performed in profitability and efficiency, smaller in equity size and lower asset allocation, are targeted for sale by the shareholders. Therefore, the other ratios are not significant. The research only focused on the consumer finance company, however the other researches are focused on banking industry. Even though, the industries are financial services, however there are potentially different characteristic between banking and financial service. The further research, should include all financial industries such banking, insurance, securities house and consumer finance.

Recommendations

The management of finance company should be able to grow the company size, if they want to be the target of acquisition. Size is the important factor for a financial institution. Further research can be conducted to identify other internal factors and external factors that have an impact on acquisition. Other internal factors are management influence, payment method on acquisition, and controlling shareholders background. The external factors are economics growth, population of a country, and gross domestic product.

REFERENCES

Ashmore, L.E. (2004). Determinants of premiums offered in acquisitions of commercial banks during a period of accounting evolution, *PhD Dissertation*, Nova Southeastern University.

Becalli. E., & Frantz. P. (2013). The Determinants of Mergers and Acquisitions in Banking. *Journal of Financial Service Research*, 43(3), 265–291

Correa, R. (2009). Cross Border Bank Acquisitions: Is there a Performance Effect? *Journal Financial Service*, 36, 169-197.

Erel. I., Liao R.C., & Weisbach M.S. (2011). *Determinants of Cross-Border Mergers and Acquisitions* , Ohio State University and NBER

Henrich. G., & Zhang. C.M. (2017). Institutional logics and power sources: Merger and acquisition decisions. *Academy of Management Journal*. 60(2), 671-694.

Holburn. G.L.F., & Bergh R.G.V., (2014) Strategic Management Journal Strat. *Mgmt. J.*, 35, 450–460

Hyun. H.J., & Kim. H.H., (2007). The Determinants of Cross-border M&As: the Role of Institutions and Financial Development in Gravity Model KIEP. *Working Paper* 07-03 Published November 20, 2007 in Korea by KIEP c 2007 KIEP

Jandik, T., & Lallemand, J. (2017). Do Capital Structure Adjustments by Takeover Targets Influence Acquisition Gains? *Financial Review*, 51, 225-261. doi//10.1111/fire.12134

Jayaraman. A.R., Srinivasan, M.R., & Arunachalam. R. (2014). Impact of merger and acquisition on the efficiency of Indian banks: a pre-post analysis using data envelopment analysis, *Int. J. Financial Services Management*, 7(1), 1–18.

Johan, S. (2012). *The Strategic Rationale of Financial Institution Takeover*, *Proceeding International Conference on Management and Business Research*, University of Economics Ho Chi Minh City, Vietnam.

Nguyen. H.T., Yung. K., & Sun Q. (2012). Motives for Mergers and Acquisitions: *Ex-Post* Market Evidence from the US. *Journal of Business Finance & Accounting*, 39 (9) & (10), 1357–1375

Offenberg. D., & Pirinsky. C. (2015). Do acquirers choose between mergers and tender offers?, *Journal of Financial Economics* 116(2), 331-348.

Tanriverdi. H., & Uysal V.B. (2015). When IT capabilities are not scale-free in merger and acquisition integrations: how do capital markets react to IT capability asymmetries between acquirer and target? *European Journal of Information Systems*, 24(2), 145 - 158

Xu. J. (2017). Growing through the merger and acquisition. *Journal of Economic*

Dynamics and Control, 80, 54-74

Wu. C., & Xie N. (2010). Determinants of Cross-Border Merger & Acquisition Performance of Chinese Enterprises. *Procedia Social and Behavioral Sciences, 2(5), 6896–6905*