each dollar invested in total assets or how efficient management utilized assets to generate sales.

# Operating Synergy

The operating synergy theory of mergers states that economies of scale exist in industry and that before a merger take place, the levels of activity that the firms operate at are insufficient to exploit the economies of scale

# **Financial Synergy**

The financial synergy theory states that when the cash flow rate of the acquirer is greater than that of the acquired firm, capital is relocated to the acquired firm and its investment opportunities



research was before and after merger of banks considered as the participant of merger of the Office of Comptroller of the Currency (OCC) in 1984-1988. This index estimated the return to scale.

The research found that there was a big disequilibrium number from banks with most varieties product, generally with the elasticity less than one. It can be seen from the result, that the institute, which acquire in merger tends to be more productive, and maintain its excellence productivity until the commencement of merger.

The Saffer's (1992) simulated on the effect the mega-merger among the United States commercial banks from their efficiency of cost. The simulation technique gave the future picture whether market can trust to the effect of cost from mega-merger, based on the financial statement. Result that was obtained from each bank's profitability merger depends on which partner that has cost structure that was more inefficient. If each bank is inefficient before merger, some of banks with assets more then 1 million are possible to experience the increasing of total cost, and some of them will be more efficient, which means the operational cost will decrease. Among the banks merger with each assets bigger than \$ 10 billion, only 14-17 percentage of case which can be predicted decrease the total cost; and from nine banks that conduct merger, four banks are predicted to be able to have cost reduction.

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### 2.2 Theoretical Framework

# 2.2.1 Mergers & Acquisition

## 2.2.1.1 Mergers

Pringle and Harris<sup>1</sup> defined merger as follows: "Merger is a combination of two or more firm in which one company survives under its own name while any others cease to exit as legal entities." When two or more companies agree to combine their operations, where one company survives and the other loses its corporate existence, a merger is affected. The surviving company acquires all the assets and liabilities of the merged company. The company that survives is generally the buyer and it either retains its identity or the merged company is provided with a new name.

# 2.2.1.2 Types of Mergers

1. Horizontal Mergers

This type of merger involves two firms that operate and compete in a similar kind of business. The merger is based on the assumption that it will provide economies of scale from the larger combined unit.

**Example:** Merger among the four government banks combining into Mandiri Bank

2. Vertical Mergers

Vertical mergers take place between firms in different stages of production/operation, either as forward or backward integration. The

<sup>&</sup>lt;sup>1</sup> Pringle, J.J., and Harris, R.S, 1987, Esentials of Managerial Finance, second edition, Illinois-London, page: 778.

specific management functions. The merger is termed as concentric when there is a carry-over of specific management functions or any complementarities in relative strengths between management functions.

# 2.2.2 Acquisitions

The term acquisition means an attempt by one firm, called the acquiring firm, to gain a majority interest in another firm, called target firm. The effort to control may be a prelude

- To a subsequent merger or
- To establish a parent-subsidiary relationship or
- To break-up the target firm, and dispose off its assets or
- To take the target firm private by a small group of investors.

There are broadly two kinds of strategies that can be employed in corporate acquisitions. These include:

A. Friendly Takeover

The acquiring firm makes a financial proposal to the target firm's management and board. This proposal might involve the merger of the two firms, the consolidation of two firms, or the creation of parent/subsidiary relationship.

# B. Hostile Takeover

A hostile takeover may not follow a preliminary attempt at a friendly takeover. For example, it is not uncommon for an acquiring firm to embrace the target firm's management in what is colloquially called a bear hug.

# 2.2.3 Motives of Mergers

The companies conducting merger have various motives. According to Pringle & Harris (1987), merger motives cover about 11 aspects as follows:

- 1. Cost saving. Cost Saving can be achieved because two or more company having the power of different affiliation, so that they can improve the company value by together
- 2. Monopoly power. By conducting merger, the assets of the company become greater, so it will be able to operate at more economic scale. The consequences, the merger company can decrease the cost per unit, so the price of goods or service per unit can be depressed lower. This condition can add the market compartment (market share) and become the market leader in industry where the company locates.
  - 3. Avoiding bankruptcy. Merger is also intended to obviate bankrupt risk from the companies. One of or all the companies that conduct merger may in suffer economical condition caused of miss management or other factors like market loss, technological obsolescence and/or fail to

# 2.3 Financial Ratio Analysis

The financial statement of a company contains a lot of information about the financial performance of the company. Financial statements mainly consist of the Balance Sheet and Profit and Loss Accounts. These statements give the overall picture of the company, but to analyze every aspect of business extensively, financial ratios are used. The Balance Sheet and the Statement of Income are essential, but they are only the starting point for successful financial management. Financial Ratio Analysis derived from Financial Statements analyses the success, failure, and progress of business.

Ratio Analysis enables the business owner/manager to predict future trends in a business and to compare its performance and condition with the average performance of similar businesses in the same industry. Usually a benchmark is set against which comparisons are done. This process involves the following steps:

- 1. Analyze three to five years past data, calculate the financial ratios and try to analyze the future trend in that particular business.
- 2. Comparison is made between the average performance of the company and of the industry. Depending upon the ratios, soundness of the company on various aspects is analyzed. For example, the average collection period for the industry is 38 days whereas the average collection period of a company is 42 days. This means that the company's debt collection department is not so efficient because them it takes 4 days more for the collection of money as compared to the industry average.

- 3. In-depth analysis of the average performance of the company and of the industry enables the company to analyze its strength and weaknesses.
- 4. Predicting future trends and identifying the strength and weakness of a particular company through financial ratios analysis provides direction to the company. A proper strategic plan can be implemented through the use of this information. Companies can exploit it for competitive advantage and can identify the focus areas within the company.

# 2.4 Hypothesis Formulation

Research conducted by John H. Boyd in United States in 1976 - 1990, known that the merger will decrease the amount of institution, expanding the business, minimizing expense and improving the profitability. Generally, the rate of profitability will increase as the size of the bank get increase. According to that research, the writer assume there will be significant different on the profitability and efficiency at Mandiri Bank before merger compare with Mandiri bank after merger. Therefore, the formula of the hypothesis will be as follows:

- H1: ROE of banks before merger is different significantly from ROE after merger.
- H2: ROA of banks before merger is different significantly from ROA after merger.

- H3: Financial Leverage of banks before merger is different significantly from Financial Leverage after merger.
- H4: NPM of banks before merger is different significantly from NPM after merger.
- H5: TATR of banks before merger is different significantly from TATR after merger.



Bank, library of Branch of Bank Indonesia located in Jogjakarta, official Mandiri Bank web site and library of Economics Faculties of Islamic University of Indonesia both for the data and literatures. Those are:

- Financial statement especially for the balance sheet and income statement already been audited for the year 1994 – 2003.
- 2. Theories literatures concerning merger and acquisitions especially relates to the case of Mandiri Bank merger.

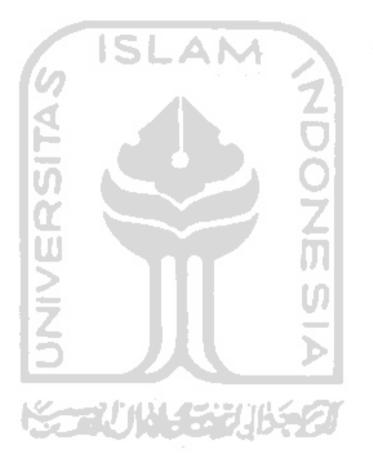
# 3.5 Research Variables

Variable used in this research were independent and dependent variable. The former is variable that is not depending on other variables or called free variable while the latter is variable that depends on other variable. Those were:

- Return on Equity (ROE) measured from net profit from operations divided by total equity.
- 2. Return on Assets (ROA) income net profit from operations divided by total assets
- Net Profit Margin (NPM) measured from income from continuing operation divided by net sales. It also measures income from ongoing operations per dollar of sales.
- 4. Total Assets Turnover (TATR) measured from net sales divided by average total assets. It also measures how many dollars in sales the firm is able to produce for each dollar invested in total assets or how efficient management utilized assets to generate sales.

the data are collected from two random samples of independent observations, each from an underlying normal distribution:

To test on whether the distribution of the data was normal, one sample Kolgomorov Smirnov Test for normality will be implemented in this thesis.



us where ROE of Bapindo at the most 0.55% even tend to decrease, even in 1997 able to yield the big amount of ROE, which was 14.64%

ROA and FL of Exim Bank (see figure 4-3) during 1994 - 1998 as a whole were better than Bapindo (see figure 4-4). ROA measures the efficiency for the company in operating their total assets to yield net profit. From 1994 to 1998 in average the NPM and TATR of Exim Bank was better than Bapindo Bank. This tells us that Exim bank was both more profitable and efficient than Bapindo Bank.

NPM measures the net profit from the income or sales. The higher the NPM of a company means the better its profitability and efficiency. So based on the Dupont ratios we may conclude that Exim Bank was more profitable and efficient in running their business compare with Bapindo Bank



# 4.4 Test of Normality

The One-Sample Kolmogorov-Smirnov Test procedure compares the observed cumulative distribution function for a variable with a specified theoretical distribution, which may be normal, uniform, Poisson, or exponential. In this study, the Kolmogorov-Smirnov Z was computed from the largest difference (in absolute value) between the observed and theoretical cumulative distribution functions. This goodness-of-fit test tests whether the observations could reasonably have normal distribution.

The Kolmogorov-Smirnov test assumes that the parameters of the test distribution are specified in advance. This procedure estimates the parameters from the sample. The sample mean and sample standard deviation is the parameters for a normal distribution.

The data obtained were ROE, ROA, FL, NPM, and TAX. Those were in the form of ratio. When the data gathered in the form of ratio it could be examined further using either parametric or non-parametric statistical test. The former was applicable if the distribution of data was normal while the latter applicable if the distribution of data tends to be non-normal.

To test whether the data normally distributed, Kolmogorov-Smirnov test was strongly recommended for testing the normality of the data distribution. There were 10 variables and each would be tested for the five years before merger as well after merger. The summary of the test result could be seen in figure 4-7 and figure 4-8 (see appendix 9 and 10 for detail result of the test).

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# 4.6 Research Implication

The result in figure 4-7 showed the profitability and efficiency of Mandiri Bank for five years after merger was not differed significantly compare to five years after merger. It was marked on the accounting performance measured by return on equity (ROE), return on Assets (ROA), financial leverage, net profit margin (NPM), and total assets turnover (TATR).

The implication of this result was the merger that was expected to have better profitability and efficiency for the unhealthy bank was not proven yet. It means that, indeed there were differences among the variables (ROE, ROA, FL, NPM and TATR) along the five years after merger compare to five years before merger, but it just in particular point not as a whole. Merger seems give no significant potential synergy for banks to increase their profitability and efficiency. To examine the factors that makes profitability and efficiency instead of merger need further work.

The results of empirical analysis carry an important message for company managers that consider different strategies to increase the profitability and efficiency rather than through merger.

# 4.7 Factors Concerning Profitability and Efficiency of Mandiri Bank

This research found that profitability and efficiency of Mandiri bank are not significantly different. Some factors caused the findings concerning mandiri bank's profitability are as follows. *First,* the election of merger partners was based on government pressure rather than professional approach. In order to avoid the liquidation, therefore the participants of merger were among banks with bad performance that not creating financial synergy.

However, if we see through the profitability from the entire banks in Indonesia<sup>1</sup>, hence we may conclude that the degradation on profitability of banks that conducted merger was caused by Indonesian economics macro condition that not supported the bank growth.

From the efficiency side, this thesis tells us that the efficiency of Mandiri bank before merger is not significantly different from Mandiri bank after merger. Some factors influencing this result are because of these factors: *Fisrt*, the large number of equities and fund from the third parties, as input, are not equivalent with the output such as the distribution of credit that need to be maximized and increased. *Second*, Mandiri bank still have the operational inefficient, concerning the excess of labors and its offices.



<sup>&</sup>lt;sup>1</sup> Taurusianingsih, Dyah nirmalawati, 2003, Analisis Dampak Merger Horisontal antar Bank terhadap Profitabilitas dan Efisiensi Industri Perbankan Indonesia. Jurnal Keuangan dan Moneter, BPEK, BAKM, Depkeu.

T-Test

Appendix 7

Paired Samples Statistic

	2	Mean	z	Std. Deviation Std	Std. Error Mean
Pair 1	VAR.1 ROE (%)_Before Merger	-45.6760	S	71.8724	32.1423
	VAR_1 ROE (%)_After Merger	-41.03	5	146.02	65.30
Pair 2	VAR.2 ROA (%)_Before Merger	-15.1640	S	33.0721	14.7903
	VAR_2 ROA (%)_After Merger	-1.3460	S	5.8958	2.6367
Pair 3	VAR.3 FL (%)_Before Merger	18.0760	5	14.4781	6.4748
	VAR_3 FL (%)_After Merger	21.7920	5	6.9239	3.0965
Pair 4	VAR.4 NPM (%)_Before Merger	-82.6700	5	176.7161	79.0298
	VAR_4 NPM (%)_After Merger	-64.0440	5	165.9376	74.2096
Pair 5	VAR.5 TATR_Before Merger	12.1900	5	3.6329	1.6247
	VAR_5 TATR_After Merger	10.8640	5	4.3244	1.9339

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Appendix

**T-Test** 

Appendix 9

# **Paired Samples Correlation**

		Z	N Correlation	Sig.
Pair 1	VAR.1 ROE (%)_Before Merger & VAR_1 ROE (%)_After Merger	5	402	.503
Pair 2	VAR.2 ROA (%)_Before Merger & VAR_2 ROA (%)_After Merger	5	316	.605
Pair 3	VAR.3 FL_Before Merger & VAR_3 FL_After Merger	5	.049	.938
Pair 4	VAR.4 NPM (%)_Before Merger & VAR_4 NPM (%)_After Merger	5	292	.634
Pair 5	Pair 5 VAR.5 TATR_Before Merger & VAR_5 TATR_After Merger	5	.126	.840



Appendix