THE ANALYSIS OF COMPANY'S FINANCIAL PERFORMANCE BEFORE AND AFTER IMPLEMENTING ENTERPRISE RISK MANAGEMENT: AN EMPIRICAL STUDY IN INDONESIA

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ABSTRACT

ERM is a comprehensive and integrative framework to manage company's risk in order to achieve company's required goal. COSO Organization creates ERM framework to be incorporated as good corporate governance, therefore the company is able to provide more attention towards the risk that attached to the company. The purpose of this research is to acquire better insight on different affects to company's financial performance caused by ERM implementation. Therefore it can determine whether ERM policy will provide significant difference to company's financial performance before and after ERM implementation or not. This research uses 18 samples of non-banks public company that implement ERM. The sign of a company that implement ERM can be seen in the company's annual report such as the company that assigns Chief Financial Officer, forms risk committee, and the presence of ERM implementation disclosure. The company's financial performance is the measurement on how successful is the ERM implementation. The financial performance is proxy by income volatility (measured by earning per share), net profit margin, return on assets, and market to book. The statistics test used is paired sample t-test because the data used is normally distributed. Paired sample t-test in this research is used to test whether there is a significant difference in company's financial performance during the period before implementing ERM with the period after implementing ERM. The result of comparative statistics test between company's financial performance before and after implementing ERM indicates that from those four company's financial performance indicator, income volatility is the only significant below 5% and the t value is greater than the t table. This explained that after ERM implemented by the company, it gives significant difference to income volatility.

Keywords: *enterprise risk management, risk, income volatility, net profit margin, return on asset, market to book*

INTRODUCTION

Economic crisis in 1997 have influenced the company's management or good corporate governance (GCG) in Asian region including Indonesia. Kaihatu (2006) explained that GCG became popular and important issues after the economic crisis occurred in 1997 in Asian region. The same things happened to enterprise risk management (ERM) that has become the trending topics after the global crisis in 2008. ERM is not a new model of risk management, but it started to be used by many companies after the global crisis. Liebenberg and Hovt (2003) explained that ERM was found for the first time in 1994 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) but not yet publicly informed and obliged to the companies. COSO formally announce the ERM model in 2004. The popularity of ERM has increased these couple of years due to global crisis, because ERM is perceived as a model that considered all the risk aspects that the company encounters. Keul (2009) added that ERM is relatively new and quickly developed as the best way to manage risk.

ERM is believed, by academician and practitioner, that a good risk management will

generate added value and income to the company. This thought is stated by Nocco and Stulz (2006) that ERM increases company's financial performance or value. This theory should be able to encourage all public companies in Indonesia to implement ERM. However, based on the data acquired in this research on the companies' annual report, it indicates that only a few numbers of public companies in Indonesia implement ERM. The number of companies that implement ERM are only 38 or 9.6% from 397 public companies in Indonesia in 2009. These numbers does not include companies from banking sectors because banking sectors have specific risk management system which is Basel Accord II.

These numbers is lower compare to the companies that implement ERM in Malaysia. Daud and Yazid (2009) explained that companies in Malaysia are in the process in implementing ERM, therefore the number of companies that implement ERM is only 30% from all public companies in Malaysia.

ERM still a trending topic that is interesting to be researched because there is yet differences in previous research results on the ERM implementation towards company's financial performance. This research has never been done in Indonesia, therefore it could not be figured the information about the tendencies of the ERM companies population characteristics in Indonesia. This research objective is to determine whether there is significant difference in company's financial performance that consist of earning per share volatility, interest coverage ratio, return on asset, total asset turnover, and market to book between the period before and after implementing ERM.

LITERATURE REVIEW AND HYPOTHESIS

Risk

The general understanding on risk is explained by Holton (2004) that stated risk consists of two important elements, such as exposure and uncertainty. Uncertainty is a statement of indefinite future problem that will occur or not. Exposure is defined as the magnitude of loss perceived when deviation occurs. Andersen (2005) stated that a risk in finance is perceived as market value standard deviation, the higher the standard deviation, the higher the uncertainty or risk.

Enterprise Risk Management

Economist Intelligence Unit (2005) described that ERM was first developed by the GE Capital Company's chief risk officer (CRO) role in 1993, James Lam. The present role of CRO in constructing risk management is to integrate and comprehensive with company's risk. Lam (2003) defines ERM as a comprehensive and integrated framework to manage credit risk, market risk, operational risk, economic capital, and risk transfer in maximizing company's value. The existence of the role of CRO by James Law has encourage COSO to develop the ERM model become much clearer, understandable and structured that the company able to implement ERM.

The ERM model that presented by COSO can be seen in figure 1. COSO (2004) explained that ERM is a process that formed by all line of directors, management, and other personnel, implemented in management strategy and company as a whole, designed to identify big events that may influence the company, and managing risk to suit with company's risk profile, to provide insurance that suit with company's goal.

Figure 1. ERM Framework

Source: *COSO Enterprise Risk Management — Integrated Framework, 2004*

To differentiate the Traditional Risk Management (TRM) model with ERM can be seen in Rao and Marie's (2007) research which describes the differences of TRM with ERM, table 1, where it is divided into three parts. Liebenberg and Hoyt (2003) added that traditional risk management is managing the risks individually in parts, nonintegrated, and incomprehensive.

Table 1:   The Differences of TRM and ERM Approach

Traditional Risk Management	Enterprise Risk Management
1. *Fragmented*: every division in a company manage risks individually and independently.	1. *Integrated*: every division manages risks by coordinating with the management together; every person in the organization runs risk management as daily activity.
2. *Ad hoc*: manager not continuously or only in desired moment managing the risk.	2. *Continuous*: manager continuously and has become daily obligation in managing risk.
3. *Narrowly Focused*: focus only to the risks that can be insured and only financial risks.	3. *Broadly Focused*: not only to financial risk but covers all the risks.

Source: Rao and Marie (2007)

The reason a company implement ERM is the intangible advantage gain by the company other than the tangible advantage. Lai et al (2009) explained that the advantages of ERM implementation is to optimize risks, reduce income volatility, strengthen company's business operation, creates a good manageable procedure, enrich the company's reputation, encourage company's entrepreneurship, and generate the growth of company's profitability. In identifying whether the company implement ERM or not, based on previous researches there are three important points can be found such as the availability of CRO, risk committee, and explanations or statements in the annual report (disclosure) of a company about ERM implementation. Several theories that support this argument are as follow:

Chief Risk Officer

The company's approach in managing a risk or all risks as a whole is by having CRO as the senior executive that runs the company's risk management (Nocco and Stulz, 2006). Desender (2009), explained that a company which have independent executive and detached from CEO shows high level of seriousness in implementing the ERM. Liebenberg and Hoyt (2003) stated that appointing CRO is a sign that a company implements ERM.

Risk Committee

Lienbenberg and Hoyt (2003) explained that there are similar objectives, methods, and programs between having CRO and risk committee where the risk policy plays an important role. The use of ERM term is similar to strategic risk management, corporate risk management, integrated risk management, risk management committee, risk committee, and comprehensive risk management. Lam (2003) added that the involvement of risk management committee (commissioner) will determine the risk management program to run integrative with comprehensive approach.

Disclosure

Tseng (2007) explained that ERM company can be identified by the availability of ERM implementation disclosure in the company's annual report. The terms used in the annual report of every company are different such as corporate risk management, integrated risk management, and strategic risk management. Liebenberg and Hoyt (2008) were searching the company's data that implement ERM from information media, where one of them is the annual report.

Company's Financial Performance

Several research uses financial performance to identify the management performance in managing the company. Aydin et al (2007) uses financial ratios such as return on asset and operating profit margin to test whether there is a difference in company's financial performance between foreign ownership and domestic firms. Kajola (2008) conduct a research using return on equity and profit margin as a proxy to financial performance in relation with GCG. Pagach and Warr (2008) uses financial performance which proxy by financial ratios such as earning per share, return on asset, total assets turnover, financial leverage, and market to book to test the effect of ERM implementation in the company. Keul (2009) uses market characteristics such as price earning ratio, market to book ratio, and price to sales ratio in his research on ERM. Liebenberg and Hoyt (2008) use market to book as a proxy to financial ratio in their research on ERM. Based on those previous researches, the financial performance can be proxy based on several classifications as follow:

Earning Per Share Volatility (Risk Aspect)

Pagach and Warr (2008) explained the main purpose of implementing ERM is to reduce the income volatility and the probability of financial distress to occur. This thought is supported by Liebenberg and Hoyt (2003) that describe the benefit of implementing ERM is to reduce the income volatility. The income volatility used is earning per share standard deviation quarterly (Pagach and Warr, 2008). Hanafi (2009) uses standard deviation formula as follow:

$$E(R) = \sum R_i / n$$

$$\sigma^2 = \frac{\sum (R_i - E(R))^2}{n - 1}$$

$$\sigma = \sqrt{\sigma^2}$$

Explanation:
Ri   : Earning Per Share i^{th} quarterly
E(R)   : Earning Per Share Average
σ^2 : Variance
σ : Standard Deviation

n   : Number of Periods

Based on the findings and descriptions above, the researcher proposes the following hypothesis:

H1   :   There is a significant difference between earning per share volatility before implementing ERM and after implementing ERM.

Interest Coverage Ratio (Leverage Aspect)

The company uses ERM to avoid bankruptcy by reducing the probability of financial distress to occur (Liebenberg and Hoyt, 2008). Almilia and Kristijadi (2003) added that financial leverage is the most dominant factor in determining the company's financial distress. The company with higher financial leverage will suffer more financial distress compare to the company that has lower financial leverage. Asquith et al (1994) in Almalia and Kristijadi (2003) uses interest coverage ratio as the measurement of financial leverage to determine the level (high) financial distress. Brigham and Houston (2004) described the failure in fulfilling the liability to pay the interest will cause the law suit from the company's creditor that will cause company's bankruptcy. The formula of interest coverage ratio is as follows:

$$\text{Interest Coverage Ratio} = \frac{\text{Earning Before Interest and Tax}}{\text{Beban Bunga}}$$

Based on the findings and description above, the researcher proposes the following hypothesis:

H2   :   There is a significant difference between interest coverage ratio before implementing ERM and after implementing ERM.

Return on Asset (Profitability Aspect)

The profitability ratio as a proxy of financial performance is widely used in several researches. The increase in profitability ratio indicates the company success in implementing the company's strategy and method by relating it with the profit gained from sales and investment (Van Horne and Wachowicz, 2005). Liebenberg and Hoyt (2008) and Pagach and Warr (2008) included return on asset as the proxy of profitability ratio in terms of ERM. The return on asset's calculation is as follow:

$$\text{Return on Asset} =$$

Based on the findings and descriptions above, the researcher proposes the following hypothesis:

H3   :   There is a significant difference between return on asset before implementing ERM and after implementing ERM.

Total Assets Turnover (Activity Aspect)

COSO (2004) stated that the purpose of implementing ERM is to gain the targeted operation which is to achieve the effectiveness and efficiency of using the resources. Pagach and Warr (2008) uses total assets turnover to indicate the level of success of implementing ERM in the company. The formula of total assets turnover is as follow:

Total Assets Turnover   =

Based from the findings and description above, the researcher proposes the following hypothesis:

      H4   :   There is a significant difference between total assets turnover before implementing ERM and after implementing ERM.

Market to Book (Market Aspect)

Nocco and Stulz (2006) stated that implementing ERM can raise the company's value. The raise of the company's value indicates the investors responded or values positively towards ERM implementation. Brigham and Houston (2004) explained that the way the investor valued the company can be seen from the market to book ratio. The formula to calculate the market to book ratio is as follow:

Market to book   =

Based on the findings and description above, the researcher proposes the following hypothesis:

      H5   :   There is a significant difference between market to book   before implementing ERM and after implementing ERM.

Previous Researches

The previous researches provide different results on ERM implementation with company's financial performance. The research made by Tseng (2007), Mackay and Moeller (2007), Liebenberg and Hoyt (2008) indicates that implementing ERM can affects the level of market to book ratio. Tseng (2007) explained that the respond of share holder towards the ERM implementation is signed by the increase in market value. Mackay and Moeller (2007) explained that the company's value, which measured by market to book ratio, shows an increase due to performing corporate risk management by the company. Liebenberg and Hoyt (2008) explained that there is positive relationship between market to book and ERM implementation.

Pagach and Warr (2008) stated otherwise that there is no increase in market to book but there is a decrease in market to book ratio due to ERM implementation. This decrease is caused by the decrease in market share so that affects the market to book. The other research done by Beasley et al (2007) stated that there is no reaction to share price to the company that implement ERM. Therefore ERM does not provide different market to book to the company before and after implementing ERM.

Different research result also showed in profitability ratio that uses return on asset as the proxy of profitability ratio. Pagach and Warr (2008) stated that there is no significant difference on company's profitability ratio when the implementation of risk management is on the level of ERM. Liebenberg and Hoyt (2008) provide different results which is ERM able to affect the company's profitability ratio to increase.The use of total asset turnover is only conducted by Pagach and Warr (2008) where the results indicates that there is no significant difference between the period before implementing ERM and after implementing ERM.

On the leverage ratio, Liebenberg and Hoyt (2008) found that there is a significant difference in company's leverage ratio on the period before implementing ERM with after implementing ERM. The mean of company's leverage on the implementation period indicate a decline compare to the period before implementing ERM. Pagach and Warr (2008) argued that there is a significant difference in the level of company's leverage and there is an increase in the leverage means.

Several previous research results on ERM implementation to income volatility shows similar results such as the result shown by Liebenberg and Hoyt (2003), Beasley el al (2007), and Pagach and Warr (2008). Based on the previous research results, it indicates that there is a decrease in company's income volatility after implementing ERM. This research result is in

line with the main purpose of ERM which is to reduce the income volatility and avoid the bankruptcy to occur (Pagach and Warr, 2008).

RESEARCH METHODOLOGY

Sampling Method

This research uses all the non-bank companies that implement ERM and listed in Indonesia Stock Exchange in 2004 to 2008 as the population. Banks are not included in the population because several previous researches excluded the banks from the research samples and banks have their own risk management on its own which is Basel II. The result from sampling shows that only 18 samples from 38 companies which fulfill the requirement. The sampling method uses purposive sampling with several sampling criteria as follow:

The companies implement ERM in 2004 to 2008. In determining the interval time is based on the description that ERM model by COSO version is introduced in 2004 and latest report is in 2010. The researcher uses the research period for two years on before and after implementing ERM, because ERM implementation can be observed for its benefit after a year process of ERM implementation.

1. The companies that have a complete financial data set for two years before and after implementing ERM. These data are earning per share for quarterly, interest coverage ratio, net profit margin, return on asset, and market to book from the annual financial report on every companies, Indonesia Capital Market Directory, and IDX Statistics.

Data Analysis Method

Normality Test for Data

Normality test is used to test whether the data used in the research are normally distributed or not. The explanation of normal data distribution is that the data follow the normal distribution curve where the data converge to mean and median. The normality test for data in this research uses Kolmogrov Smirnov, to test the two directions by comparing the probability (p) acquired that have significant level (α) of 5%. If the p value > α then the data can be considered to be normally distributed and if p value > α then the data are not normally distributed.

Hypotheses Testing

If the normality test is conducted and the result of the data test shows that the data are normally distributed, then the next step is to use parametric test which is paired sample t-test. Krisnawan (2003), Wardhani (2004), and Pazarskis et al (2006) research uses paired sample t-test to find the disparity of financial performance between the two related samples. If the result of the normality test indicates the data is not distributed normally, then it requires non-parametric test which uses wilcoxon's signed ranks test. Santoso (2010) described that paired sample t-test is a set of samples with the same subject but treated or measured in two different ways.

In this research, the researcher would like to test that the result of the means of each company's financial performance proxy in the period after ERM implementation significantly different compare to the means of each company's financial performance before ERM is implemented. Therefore, the sample groups taken are the companies that implement ERM where it is given the ERM measurement which is two years before implementing ERM and another two years after implementing ERM.

The Result of Hypothesis Testing

Normality Test

The purpose of normality test is to test whether the data is normally distributed or not. In testing the data normality, this research uses kolmogorov smirnov test. The decision to determine whether to use parametric or non-parametric test is based on the probability value. The decision is determined if the probability value > 0.05, then it fulfill the normality assumption.

Based on the normality test in table 2, the kolmogorov smirnov test above indicates that the probability value for every company's financial performance before and after ERM > 0.05. This result indicates that all data are normally distributed, therefore the next test used is paired sample t-test. The result of normality test using kolmogorov smirnov test is as follow:

Table 2:   The Result of Normality Test With Kolmogorov Smirnov Test

Variabel	Sig.	Sig. Value	Remarks
STDEV Before ERM	0,508	0,05	Normal
STDEV After ERM	0,597	0,05	Normal
ICR Before ERM	0,160	0,05	Normal
ICR After ERM	0,066	0,05	Normal
ROA Before ERM	0,138	0,05	Normal
ROA After ERM	0,193	0,05	Normal
TATO Before ERM	0,391	0,05	Normal
TATO After ERM	0,329	0,05	Normal
MB Before ERM	0,097	0,05	Normal
MB After ERM	0,272	0,05	Normal

Source: Processed Data.

Hypothesis Testing

Hypothesis 1: Earning Per Share Volatility

Table 3 shows that the mean of standard deviation of the companies before implementing ERM is 41.5256 higher than the companies' standard deviation mean after implementing ERM 24.5178. This shows that the earning per share volatility or company's risk after implementing ERM became lower compare to before implementing ERM. The correlation number is 0.768 and the probability value is 0.000 (<0.05), which means that the relation of the average standard deviation before and after implementing ERM is quite strong.

The standard statistic table for t distribution with degree of freedom (df) = n-1 = 17 and α = 0.05, the t table is = 2.109. The SPSS calculation shows that the t value = 2.164, which means that the t value > t table, therefore Ho1 rejected and Ha1 accepted. The other determinant can be acquired from the output of two-tail test from SPSS where the value is 0.045. The significant value of two-tailed test is 0.045 lower (<) than α = 0.05, then Ho1 rejected and Ha1 accepted. These results indicates that the earning per share volatility measured by standard deviation before and after is not the same, or in other word there is significant difference in earning per share volatility.

Tabel 3:   The Result of Paired Sample t-test Standard Deviation Before and After ERM
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	STDEV Before ERM	41.5256	18	46.96808	11.07048
	STDEV After ERM	24.5178	18	21.64318	5.10135

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	STDEV Before ERM & STDEV After ERM	18	0.768	0.000

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	STDEV Before - STDEV After	17.00778	33.34714	7.86000	0.42464	33.59092	2.164	17	0.045

Source: Processed Data.

Hypothesis 2: Interest Coverage Ratio

Table 4 shows that the mean value of the company's interest coverage ratio before ERM implementation is 24.6872 higher than the mean value of company's interest coverage ratio after ERM implementation 6.01117. This result indicates the tendency of a company after implementing ERM faces higher financial distress. The correlation value is 0.124 and the probability value is 0.023 (<0.05), which indicates that there is strong relationship of the mean of interest coverage ratio before and after implementing ERM.

From the standard statistic table for t distribution with the value of degree of freedom (df) = n-1 = 17 and α = 0.05, the value of t table = 2.109. from the SPSS calculation the t value = 1.553, which means that the t value < t table, therefore Ho2 accepted and Ha2 rejected. The other determinants can be seen from the significant level of two-tailed from SPSS output, where the significant value is 0.139. The significant value of two-tailed is 0.139 which is above (>) α = 0.05, then Ho2 accepted and Ha2 rejected. These results indicate that the average of interest coverage ratio before and after ERM implementation is the same, or it can be said that there is no difference in interest coverage ratio.

Tabel 4: The Result of Paired Sample t-test Interest Coverage Ratio Before and After ERM

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ICR Before	24.6872	18	49.07230	11.56645
	ICR After	6.0117	18	9.08934	2.14238

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ICR Before ERM & ICR After ERM	18	0.124	0.023

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	ICR Before - ICR After	18.67556	51.00568	12.02215	-6.68897	44.04008	1.553	17	0.139

Source: Processed Data.

Hypothesis 3: Return on Asset

Table 5 shows that the mean of return on asset of the companies before implementing ERM is 0.0694 lower than the companies' return on asset's mean after implementing ERM 0.0828. This shows that in average the companies are able to increase the return on asset after implementing ERM method. The correlation number is 0.543 and the probability value is 0.020 (<0.05), which indicate that the relation of the return on asset mean before and after implementing ERM is quite strong.

The standard statistic table for t distribution with degree of freedom (df) = n-1 = 17 and $α$ = 0.05, the t table is = 2.109. The SPSS calculation shows that the t value = 0.542, which means that the t value < t table, therefore Ho3 accepted and Ha3 rejected. The other determinant can be seen from the output of two-tail test from SPSS where the value is 0.594. The significant value of two-tailed test is 0.594 more than $α$ = 0.05, then Ho3 accepted and Ha1 rejected. These results indicate that the mean of return on asset before and after are the same, or there is no significant difference in return on asset.

Tabel 5: The Result of Paired Sample t-test Return on Asset Before and After ERM

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ROA Before	0.0694	18	0.11106	0.02618
	ROA After	0.0828	18	0.10659	0.02512

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ROA Before ERM & ROA After ERM	18	0.543	0.020

Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	ROA Before - ROA After	-0.01333	0.10409	0.02453	-0.06510	0.03843	-0.543	17	0.594

Source: Processed Data.

Hypothesis 4: Total Assets Turnover

Table 6 shows that the mean value of the company's total assets turnover before ERM implementation is 66.5250 higher than the mean value of company's total assets turnover after ERM implementation 64.6189. This result indicates that ERM methodology is not able to increase the company's income instead it reduces the company's income. The correlation value is 0.970 and the probability value is 0.000 (<0.05), which indicates that there is strong relationship of the total assets turnover mean before and after implementing ERM.

From the standard statistic table for t distribution with the value of degree of freedom (df) = n-1 = 17 and α = 0.05, the value of t table = 2.109. From the SPSS calculation the t value = 0.397, which means that the t value < t table, therefore Ho4 accepted and Ha4 rejected. The other determinants can be seen from the significant level of two-tailed from SPSS output, where the significant value is 0.696. The significant value of two-tailed is 0.696 which is above (>) α = 0.05, then Ho4 accepted and Ha4 rejected. These results indicate that the total assets turnover's mean before and after ERM implementation is the same, or it can be said that there is no difference in total assets turnover.

Tabel 6: The Result of Paired   Sample t-test   Total Assets Turnover Before dan After ERM

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	TATO Before	66.5250	18	81.48259	19.20563
	TATO After	64.6189	18	74.03189	17.44948

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	TATO Before ERM & TATO After ERM	18	0.970	0.000

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	TATO Before - TATO After	1.90611	20.35143	4.79688	-8.21442	12.02664	0.397	17	0.696

Source: Processed Data.

Hypothesis 5: Market to Book

Table 7 shows that the mean of market to book of the companies before implementing ERM is 2.6467 higher than the companies' market to book's mean after implementing ERM 1.8033. This shows that the companies after implementing ERM have negative sentiments by the shareholders. The correlation number is 0.488 and the probability value is 0.040 (<0.05), which indicate that the relation of the market to book mean before and after implementing ERM is quite strong.

The standard statistic table for t distribution with degree of freedom (df) = n-1 = 17 and α = 0.05, the t table is = 2.109. The SPSS calculation shows that the t value = 1.637, which means that the t value < t table, therefore Ho5 accepted and Ha5 rejected. The other determinant can be seen from the output of two-tail test from SPSS where the value is 0.120. The significant value of two-tailed test is 0.120 more than (>) α value = 0.05, then Ho5 accepted and Ha5 rejected. These results indicate that the mean of market to book before and after are the same, or there is no significant difference in return on asset.

Tabel 7: The Result of Paired Sample t-test   market to book Before and After ERM

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MB Before ERM	2,6467	18	2.47734	0.58391
	MB After ERM	1.8033	18	1.52172	0.35867

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	MB Before ERM & MB After ERM	18	0.488	0.040

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MB Before - MB After	0.84333	2.18503	0.51502	-0.24326	1.92993	1.637	17	0.120

Source: Processed Data.

CONCLUSIONS

The research objective is to provide answer whether ERM presents significant differences to company's financial performance or not. This research uses samples from non-bank companies listed on Indonesia Stock Exchange that implement ERM. The results indicate that ERM only effect the risk aspects, this is shown by the significant differences on earning per share volatility between the time before implementing ERM and after implementing ERM. Other results indicate that by implementing ERM, companies able to reduce risk which is indicated by the decrease in standard deviation means. This findings support the theory that stated ERM only changes the risk aspects, not to other aspects such as profitability, market, and others.

Investors can use this research results as a consideration in determining the appropriate investment that suit the investors risk preference. This research result can be used as the information to the manager the benefit of implementing ERM. This research only provides information whether there is any difference in implementing ERM or not. This research does not provide the positive or negative relationship between ERM and its variables. Therefore, the future research is advised to use regression model to determine the impact of independent variable to dependent variable.

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