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The Influence of Enterprise Risk Management Implementation on Financial Performance and Firm Value in East Asia

Tiurma Natasha^{1*}, Rofikoh Rokhim²

¹ Program Studi Magister Manajemen, Fakultas Ekonomi dan Bisnis, Universitas Indonesia, Salemba, Indonesia, tiurma.natasha@ui.ac.id

² Program Studi Magister Manajemen, Fakultas Ekonomi dan Bisnis, Universitas Indonesia, Salemba, Indonesia, rofikoh.rokhim@ui.ac.id

*Corresponding Author: tiurma.natasha@ui.ac.id

Abstract: Risk management is critical for businesses since every organization is accountable for delivering value to stakeholders and developing corporate strategy through management decisions at all levels. As a result, a comprehensive strategy to risk management is required. A solid and effective risk management and internal control system must be implemented in conjunction with good corporate governance. Implementing effective and well-managed risk management will help company to reach the goals, increase the performance, and produce better work. The study examines the impact of Enterprise Risk Management on the financial performance and firm value of selected listed firms in East Asia for the period 2018 to 2022. This research was conducted using data from the Financial Statements of 151 companies that meet the specific criteria and are listed on the Exchange of five East Asian countries. The data was collected from 2018 through 2022. The Multiple Linear Regression model was employed. The research findings suggest that the financial performance of a corporation is positively correlated with the implementation of Enterprise Risk Management.

Keyword: *Enterprise Risk Management, Financial Performance, Firm Value, East Asia*

INTRODUCTION

Risk management is a series of procedures and methodologies that attempt to identify, measure, monitor, and control arising risks to anticipate, avoid, or minimize their impact (Hanggraeni, 2021). Additionally, according to Jureid, 2016, the stages of risk management consist of identifying, assessing, monitoring, and controlling potential risks arising from company activities. Risk management explains the relationship between the organization and mapping existing problems with a comprehensive and well-structured management approach due to its complex systematics.

According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2004, p. 2), Enterprise Risk Management (ERM) is a process influenced by the board of directors, management, and other personnel within an entity. It is applied in setting an entity's strategy and designed to identify potential risk events that could

affect the entity, and to manage risks within the entity's risk appetite, thereby ensuring the achievement of the entity's objectives.

Based on the International Standard Organization (ISO) 31000:2018 Risk Management Guidelines (RMG), the goal of risk management is to create and protect value by enhancing efficiency, introducing new innovations, and achieving business objectives.

Annamalah et al. (2017 and 2018) mention that optimal implementation of ERM enables top management to effectively face various types of risks. Radner and Shepp (1996) state that the implementation of risk management concepts and principles allows companies to formulate strategies to minimize potential losses and take advantage of opportunities.

LITERATURE REVIEW

Signalling Theory

Signalling theory was first introduced by Akerlof, 1970, stating that in a transaction, the parties involved possess varying levels of information. According to Spence (1973), the purpose of corporate reporting is to provide information (signals) regarding the company's value to stakeholders. A signal is an action taken by a company to give investors information about how management assesses the company's future. This signal represents information on what management has done to fulfill the owner's desires. Information is crucial for investors when making investment decisions in the company (Gumanti, 2009). Information is a tactical tool that can reduce risk (Oliveira et al., 2019) and increase sustainable profits and company success (Cabrilo and Leung, 2019; Etori and Alilah, 2020).

Agency Theory

Agency theory explains the relationship between owners as principals and management as agents. Management, acting as agents, is responsible for all actions taken to increase company value and meet stakeholder interests. This aligns with Jensen and Mechling (1976), who stated that agency relationships are contracts where one or more individuals (principals) hire another (agent) to perform a task on the principal's behalf, granting the agent authority to make decisions. According to O'Brien (2003), agency theory is a contract designed to align the interests of principals and agents in case of conflicting interests. Today, agency theory is widely used across various fields, including economics, management, marketing, information systems, organizational behavior, accounting, and finance (Hanggraeni, 2015). Additionally, according to Hanggraeni (2015), top management acts as agents on behalf of the shareholders' best interests, while middle management should act on behalf of top management's best interests.

HYPOTHESIS DEVELOPMENT

Risk management is crucial for companies as they must be responsible for delivering value to stakeholders and planning corporate strategies through management decisions at all levels. Risk has become one of the most important aspects affecting business objectives worldwide (Selamat and Ibrahim, 2018). The implementation of risk management has become common in organizations to mitigate potential risks that could hinder the achievement of corporate goals. According to McKinsey (2014), the targets of implementing risk management are to:

- a. Protect corporate value by ensuring the success of achieving goals, avoiding significant losses or mistakes, and preventing profit and loss volatility.
- b. Enhance company profitability growth.
- c. Ensure compliance with regulations to avoid claims of non-compliance.
- d. Create stability, continuity, and independence for the company.

Effective risk assessment is one strategic approach to achieving high performance and a competitive advantage. According to Andales, 2023; and Chan et al., 2021, risk assessment is the process of determining the qualitative or quantitative value of risk in relation to the achievement of an organization's objectives. Risk assessment is a dynamic and interactive technique that evaluates the risks associated with achieving objectives in relation to predetermined risk tolerances. A sound risk assessment framework enables an organization to investigate the opportunities that are inherent in prudent risk management and to protect itself from unfavorable outcomes, which are also referred to as "downside risks," as per Hu et al. (2021). Lastly, Najah and Omar (2018) contend that risk assessment is a continuous and dynamic process that evaluates risks that arise during the completion of objectives. This process encompasses a wide range of strategic financial and information risks, with a particular emphasis on the cost-benefit analysis of establishing an internal control system and automation systems.

The emergence of the term Integrated Risk Management or Enterprise Risk Management (ERM) has been driven by the development of more complex risk management perspectives (Misbah, 2017). The differences between ERM and traditional risk management are:

- a. Traditional risk management is managed in a silo-based manner, while ERM processes and systems are generally comprehensive, integrative, and cross-divisional.
- b. ERM is strategic, aiming to achieve better corporate objectives, ultimately creating, enhancing, and/or protecting company value. Traditional risk management aims to mitigate risks within specific activities or business units.

Thus, the expectation from ERM implementation is that companies can improve decision-making quality regarding various risks through alignment of corporate policies, strategies, and predetermined risk appetites. Additionally, ERM aims to mitigate potential risks and reduce the likelihood of losses. Implementing ERM is a process of enforcing good corporate governance (Soetedjo & Sugianto, 2018).

In this research there are two types of hypotheses outlined in econometric models or equations.

- H.1. Enterprise Risk Management implementation has a positive impact on the financial performance.
- H.2. Enterprise Risk Management implementation has a beneficial impact on the value of firms.

METHOD

This research was conducted using data from the Financial Statements of 165 companies that meet the specific criteria and are listed on the Exchange of five East Asian countries. The data was collected from 2018 through 2022. The Multiple Linear Regression model was employed.

RESULTS AND DISCUSSION

Descriptive Statistic

This study used a sample of 755 observations, chosen based on the completeness of data for all units observed. The dataset are for the period from 2018 to 2022.

Table 1. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Tobin's Q	755	0,475	0,57	-0,446	6,081
ROA	755	0,029	0,039	-0,168	0,258
ERM	755	2,853	1,252	0,14	7,136
BODSize	.	.	.	.	.

Variable	Obs	Mean	Std. Dev.	Min	Max
1	755	0,106	0,308	0	1
2	755	0,423	0,494	0	1
3	755	0,472	0,5	0	1
BODMeeting	.	.	.	.	.
1	755	0,015	0,12	0	1
2	755	0,114	0,318	0	1
3	755	0,872	0,335	0	1
BODIndependet	755	38,305	15,776	6,061	92,308
Lsize	755	24,244	2,062	20,26	29,379
Leverage	755	0,663	0,244	0,03	0,969

Source : Researcher (2024)

Table 2 Variable Comparison by Country

	N	Mean	Std. Dev.	Min	Max
China					
ROA	55	.008	.002	.005	.014
Tobin's Q	55	.012	.073	-.114	.154
ERM	55	2.972	.451	2.38	3.31
Hongkong					
ROA	145	.046	.045	-.079	.258
Tobin's Q	145	.629	.747	-.165	6.081
ERM	145	3.534	1.913	.396	7.136
Japan					
ROA	345	0,026	0,034	-0,1	0,225
Tobin's Q	345	0,474	0,556	-0,446	3,654
ERM	345	2,597	1,007	0,175	4,89
SouthKorea					
ROA	110	0,029	0,05	-0,168	0,242
Tobin's Q	110	0,472	0,357	0	2,427
ERM	110	2,993	0,962	0,14	4,89
Taiwan					
ROA	100	0,027	0,035	-0,043	0,148
Tobin's Q	100	0,516	0,542	0,023	2,371
ERM	100	2,526	0,958	0,14	3,31

Source : Researcher (2024)

In table 2 above, it explains the comparative value of the research variables, where it is known that there are negative ROA and Tobin's Q values due to Global Pandemic Covid-19 in 2020 – 2021.

REGRESSION RESULTS

Classic Assumption Testing

The Classical Assumption Tests conducted in this study are the normality test, heteroscedasticity test, multicollinearity test, and autocorrelation test.

Table 3. Classical Assumption Testing

Normalitas			Heterokedastisity		Autocorelation		Multikolinearity
>0.05 Normal			>0.05 Non Heter		>0.05 Non Autokol		>10 Multikolinearity
Model	chi	Prob	chi	Prob	chi	Prob	Rata-rata VIF
H.1	118.36	0.000	296.84	0.000	19.769	0.000	3.94

	Not Normal		Heterokedastisity		Autocorelation		No Multikolinearity
H.2	582.19	0.000	228.38	0.000	7.254	0.0079	3.94
	Not Normal		Heterokedastisity		Autocorelation		No Multikolinearity

Source : Researcher (2024)

Panel Data Model Selection Test

Although there are three tests to select the best estimation model for panel data, namely the Lagrange Multiplier Test, the Chow Test, and the Hausman Test, this study will only conduct the Lagrange Multiplier Test. This test will be used to choose between the Pooling Least Squares model and the Random Effects model.

Tabel 4. Pemilihan Model Panel Data

LM BP				
	>0.05 PLS		Conclusion	Solutions
Model	chi	prob		
H.1	96.13	0.000	Random	FGLS
H.2	808.52	0.000	Random	

Source: Researcher (2024)

Statistical Test

The next stages, after conducting descriptive statistics tests, classical assumption tests, and panel data model selection tests, are statistical tests consisting of the t-test (Influence Validity), the F-test, and the coefficient of determination, followed by interpretation and discussion of the results.

Table 5 Estimation Results for Model No 1 and 2

	(1) ROA	(2) Tobin's Q
ERM	0.0017*** (0.0005)	0.0007 (0.0045)
BODSize2	0.0001 (0.0003)	-0.0055 (0.0036)
BODSize3	0.0011* (0.0006)	-0.0220*** (0.0073)
BODMeeting2	0.0078 (0.0062)	-0.3353*** (0.1199)
BODMeeting3	0.0072 (0.0061)	-0.3602*** (0.1195)
BODIndependet	-0.0000*** (0.0000)	-0.0000 (0.0002)
Lsize	0.0006** (0.0003)	-0.0371*** (0.0028)
Leverage	-0.1030*** (0.0050)	-0.0388 (0.0599)

	(1) ROA	(2) Tobin's Q
_cons	0.0752*** (0.0094)	1.3378*** (0.1465)
N	755.0000	755.0000
p	0.000	0.000

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Source : Researcher (2024)

Table 5 illustrates that the ERM has a substantial positive impact on ROA in model 1, column (1); however, the positive effect on Tobin's Q is not statistically significant. This implies that ERM has had a substantial and advantageous effect on financial performance, as evidenced by a substantial number of prior studies, such as those conducted by Olayinka, E. et al. (2017), Iswajuni et al. (2018), and Hoyt and Liebenberg (2011).

The financial performance is substantially and positively influenced by Enterprise Risk Management (ERM), as concluded by Olayinka et al. (2017) in their research. Additionally, the size, ROA, and ERM of the company have a substantial positive impact on the firm value, as per Iswajuni et al. (2018). Despite the fact that managerial ownership significantly reduces the value of the firm. In addition, Hoyt and Liebenberg (2011) discovered a positive correlation between the use of ERM and firm value for a variety of alternative specifications of our treatments effects model.

For the control variables, BODSize2 has a negative relationship to Tobin's Q (models 2). Meanwhile, the BODSize3 variable has a significant negative relationship with Tobin's Q in model 2, which means that companies with 5 - 10 BOD members and 11 - 15 BOD members have a lower value (Tobin's Q) compared to companies with more than 15 or less than 5 BOD members. Meanwhile, BODSize 2 and BODSize 3 in model 1 (column 1) have positive and significant positive relationships, respectively. The coefficients of the BODSize2 and BODSize 3 variables in model 1 (column 1) are 0.0001 and 0.0011, respectively, which means that the ROA of companies that have 11 - 15 BOD members and 5 - 10 people, respectively, have higher ROA than companies that have more than 15 BOD members and less than 5 people.

Meanwhile, the control variables BODMeeting2 and BODMeeting3 have a positive relationship with ROA and have a significant negative relationship to Tobin's Q. This shows that companies that conduct BODMeeting more than and equal to 4 times have a lower Tobin's Q compared to companies that conduct BODMeeting less than 4 times. The coefficient of the BODMeeting2 variable in model 2 (column 2) is -0.3353, which means that the Tobin's Q of companies that conduct BODMeeting between 4-6 times is 0.3353 percentage points lower than that of companies that conduct BODMeeting less than 4 times. Likewise, with BODMeeting3 which conducts meetings more than 6 times, ROA in model 2 (column 2) is 0.3602 percentage points lower than companies that conduct meetings less than 4 times. This condition is in line with Hanggraeni, 2015, top management is an agent who should be on behalf of the best interests of shareholders, or in the position of middle management being an agent, it should be on behalf of the best interests of top management.

The next control variable is LSize which also has a significant positive effect on ROA. Every 1 percent increase in SIZE (total assets) will increase ROA by 0.0006 in model 1 (column 1). Meanwhile, the control variable Leverage also has a significant positive effect on ROA, where every 1 percent increase in Leverage will increase ROA by 0.1030 percentage points in model 1 (column 1). This condition inline with the research result of some researchers, such as Hindasah and Harsono (2021), have defined the firm's performance as a

metric of its efficiency and productivity, which is the management's ability to leverage extant resources to generate shareholder value. According to Khalil et al. (2022a), businesses are obligated to enhance their performance by increasing shareholder wealth. Businesses strive to replicate the systematic techniques and processes of their competitors in order to gain a competitive advantage.

CONCLUSION

The study examines the impact of Enterprise Risk Management on the financial performance and firm value of selected listed firms in East Asia for the period 2018 to 2022. The study used return on assets (ROA) as a proxy for financial performance while value at BOD size, BOD meeting, BOD Independent, firm size, leverage, was used as explanatory variables in this study. The findings show that almost all the explanatory variables (BODSize3, BODIndependent, Lsize, LEV) have a positive and significant effect on financial performance except BODMeeting which has a positive relationship but not significant. This study reveals that Enterprise Risk Management has contributed significantly to financial performance in East Asia. This study concludes that Enterprise Risk Management (ERM) has a significant and positive impact on the financial performance of selected listed firms in the East Asia.

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