

Structural Model of Opportunity Management (OM) towards Corporate Governance (CG) and Enterprise Risk Management (ERM)

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ABSTRACT

Historically, the study of Corporate Governance (CG) and Enterprise Risk Management (ERM) has focused on the business assurance aspect. The research question in the study was about if it could be possible to conceptualize CG and ERM in a proactive manner? There are two objectives in this study: 1) to study the relationship between CG and ERM and 2) to determine to what extent CG and ERM could be possible to improve long term growth by enhancing opportunity management (OM) for both financial and non-financial aspects. Approximately 700 Thai-listed companies were considered. A mixed-method approach through structural equation modelling (SEM) and interviews was employed. With 175 organizations and eight interviewees, it could be confirmed that CG and ERM have a significant relationship. The convergence between the quantitative and qualitative analyses displayed that systemic CG and ERM could enhance management for better decision making in new business arenas as seized opportunities. To be precise, CG, ERM and OP were themselves correlated. However, different experts interpreted and quantified OP in distinctive ways. From an empirical finding, CG and ERM were insignificantly associated with some financial indicators.

Keywords: Opportunity Management; Corporate Governance; Enterprise Risk Management; Structural Equation Modelling (SEM.)

1 RATIONALE OF STUDY

Corporate Governance (CG) is a multifaceted term depending on one's view of the world (Stuart, 2006: 382). Some theories focus CG on the view of laws, rules and factors that control operations at a company. Others defined CG as an organizational complex system given many indicators.

Systematic measurement of CG was initially undertaken by Ross et al. (2005) (Figure 1). They defined CG from compositions between internal and external governance. Other articles tried to explore similar related indicators under its framework. Stuart (2006) divided internal governance into five basic categories: 1) the Board of Directors (and their role, structure and incentives), 2) Managerial Incentives, 3) Capital Structure, 4) Bylaw and Charter and 5) Internal Control System, while the external governance was divided into two groups: law and markets.

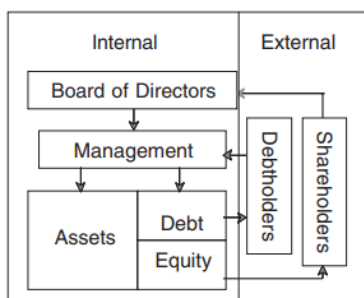


Figure 1: CG Dimensions (Ross et al., 2005)

CG was widely known from the bankruptcy of Enron, an American energy, commodities, and services company. It became a well-known example of corporate fraud and corruption due to artificial financial reports and accounting fraud. The concepts of CG were then derived after the enactment of the Sarbanes–Oxley Act of 2002 that guides and controls accounting practice as well as corporate activities including corporate governance directly measured from the leaders. Later on, the concept of Risk Management (RM) was popularized to prevent business losses as well as develop regulatory alignment (Fraser et al. 2010). Thus, CG was the driving factor for the birth of ERM, and this is one of the paths in this research.

Historically, the adoption of risk was about achieving business goals as well as preventing loss, while modern business theories try to propose the concept of “Enterprise Risk and Opportunity Management (EROM)” that refers to the approach adopted by corporates to manage risks and seize the opportunities related to the accomplishment of business objectives (Benjamin, 2017). Such a pioneer concept could be beneficial to enhance the level of participation from leaders, but the

problem is about obtaining the empirical data to test the concept of EROM. Furthermore, as ERM is derived somehow from CG, why do researchers not study both CG and ERM effects on corporate opportunity management (OM) the level of participation from leaders, but the problem is about obtaining the empirical data to test the concept of EROM.

Furthermore, as ERM is derived somehow from CG, why do researchers not study both CG and ERM effects on corporate opportunity management (OM).

To summarize, this study has two objectives: 1) confirm previous studies about the relationship between CG and ERM and 2) to empirically investigate/explore the relationship among CG, ERM and OM via a mixed method. Practically, the findings will be related to both CG and ERM in corporations and theoretically, and such path results could be used to create a new concept of EROM.

2 THEORIES CONSTRUCTION AND CONCEPTUAL FRAMEWORK

2.1 Defined Opportunity Management

Risk is multifaceted; however, most theories define risk as a negative event. Fraser et al. (2010) [WU3] defined risk as “the possibility of future performance shortfalls with respect to reach explicitly stated objectives thru organizations”; while, opportunity is “the possibility of future performance improvement with respect to reach explicitly stated objectives thru organizations”.

To measure OM, it depends on the organizational views. Based on interviewing people in executive management positions in Thai-listed companies, it became clear that they view OM in two dimensions. First of all, they interpret OM as the ability to incline shareholder values throughout the growth of revenue and earnings, the growth of capital and reducing loss. Secondly, based on expert views, OM is about the ability to promote better decision making opportunities.

2.2 Process of Enterprise Risk and Opportunity Management (EROM)

Historically, the adoption of Enterprise Risk Management (ERM) aimed to prevent loss via an early warning when negative events disrupt the corporate goals. Alternatively, today, ERM can be employed as a strategic tool. COSO (2004) encompassed ERM as 1) an aligning of risk appetite and strategy, 2) enhancing risk response decisions, 3) reducing operational surprises and losses, 4) identifying and managing multiple and cross enterprise risks, 5) seizing opportunity and 6) improving deployment of capital.

As mentioned above, COSO initially defined the more proactive benefits of ERM, but there was a lack of empirical analysis of proactive ERM. Benjamin (2017) defined EROM as a process of “seeking an

optimal balance between minimizing the potential for loss (risk) while maximizing the potential for gain (opportunity) with the respect to organizational mission". Achievement of this optimization implies the agility to make a new decision to the maximum tolerable levels for risk, minimum desirable levels for opportunity and trade-offs between them.

For conceptualization, the paradigm of RM had shifted from a quantitative method in traditional RM to the new definition of ERM. Traditional RM has focused on the risk management process: identification of risk, assessment of risk, response to risk and monitoring of risk. With these steps, it lacks a role in the internal environment, and that is why ERM -a new paradigm of RM- now tries to consolidate the readiness of the internal environment as part of the process of implementing RM.



Figure 2: Risk Management (RM) Paradigm's shift

For conceptualization, ERM divides as follows:

- Internal Environment
- Risk Identification
- Risk Assessment
- Risk Response
- Risk Monitoring



Figure 3: ERM Conceptualization

2.3 Corporate Governance Indicators

Many articles try to quantify the indicators of CG and they depend on the theories and contexts. However, as this study focused on Thai listed companies, it considered the context of CG in the Thai industrial environment.

This article triangulates research findings with secondary data from the Thai Institute of Directors (IOD) about CG indicators (CRG report, 2017). The CRG report presented the CG score with five bands: pass, satisfactory, good, very good and excellence. The indicators used to categorize the five bands came from: Rights of Shareholders, Equitable Treatment of Shareholders, Role of Stakeholders, Disclosure and Transparency and Board Responsibilities. Moreover, each mentioned indicators has several questions for the management of Thai-listed companies. The descriptive statistics for the CGR 2017 are shown in table 1.

This research used five bands for CG indicators for each respondent company in the process of the structural equation analysis. CG was the exogenous variable in the model presented in figure 4.

2.4 Relationship between Corporate Governance and Enterprise Risk Management

Prior to the development of ERM, it is significant to completely understand the relationship between CG and ERM (Marchetti, 2012). The relationship between them has historically been mentioned since the tragedy of Enron (Robert, 2003). Due to a lack of a governance system as well as accountability for Enron, a RM system has since then been required by the Security Exchange Commission (SEC), which directly regulates listed-companies.

Beside the regulatory base, CG is an indispensable component of ERM. It supplies the top-down monitoring and management of risk in organizations. Therefore, in terms of the correlation, they are both closely related. Both focus on strategy and support the strategy direction of the organization. Some empirical studies disclosed that good governance by the Board of Directors (BOD) should be developed and implement comprehensively in a RM policy, used when determining the

risk appetite and establishing the overall corporate culture that supports RM.

To confirm the relationship between CG and ERM, the Organization for Economic Co-operation and Development (OECD) (2014) reviewed the corporate governance frameworks and practices in the 27 jurisdictions that participated in the OECD Corporate Governance Committee. This article found a strong relationship between the CG and ERM systems. Moreover, the OECD revealed that the cost of ERM failure is still underestimated both internally and externally, including the cost in terms of management time needed to rectify the situation. Therefore, good CG thru the role of the BOD should include the maturity level of the ERM.

Table 1: Descriptive Statistics of CGR 2017

Survey Category	Average	Median	Maximum	Minimum
Right of Shareholders	93	95	100	43
Equitable Treatment of Shareholders	92	96	100	59
Role of Stakeholder	78	82	98	19
Disclosure & Transparency	84	86	100	35
Board Responsibility	71	71	95	37
Overall Scores	80	81	97	48

Source: Thai Institute of Directors (IOD) of CG indicators (CRG report, 2017)

2.5 Proposed Path of Conceptual Framework and Hypothesis Testing

As described in a previous literature review, the author proposed a path conceptual framework and three hypotheses as in figure 4.

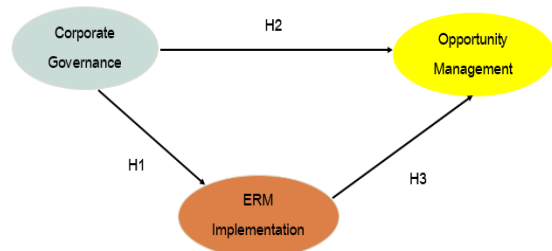


Figure 4: Conceptual Framework

3 RESEARCH METHODOLOGY

3.1 Quantitative Methodology

3.1.1 Research Design

In Thailand, CG and ERM are not at a high maturity level. However, corporations or listed companies have been required to embed CG and ERM, due to the SEC as a compulsory system of intentionally disclosed company information to shareholders. The unit of analysis thus accounted for approximately 749 Thai-listed corporations in both SET and MAI (referred to in May 2018). The portions of each sector are shown in figure 5.

A survey was employed as a generalization process (Babbie, 2007) to gather respondent preference on ERM and EROM. Validity and reliability testing were both verify philosophically. As the population is quite small, all the population was selected to rectify the problem of a low respondent rate.

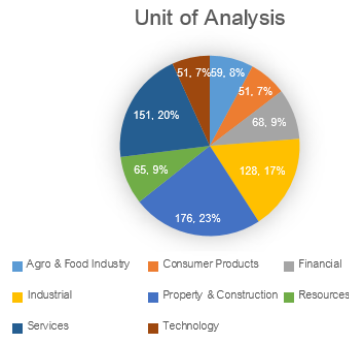


Figure 5: Unit of Analysis

3.1.2 Data Management and Measurement Items

Both primary and secondary data were adopted for triangulation with qualitative data. The survey instrument was used as the primary data while the secondary data was gathered from reliable reports: financial statements, CG and so on. As the majority of the analysis tool was multivariate analysis thru Structural Equation Modeling (SEM), the data violation of the assumptions was verified via normality, multicollinearity, homoscedasticity and sample size.

For the measurement items, there were three latent variables: CG, ERM and OP, and their observed variables are presented in Table 2.

Table 2: Details of Variables

Latent Variable	Observed Variable
CG	1. Rights of Shareholders,
	2. Equitable Treatment of Shareholders,
	3. Role of Stakeholders,
	4. Disclosure and Transparency,
	5. Board Responsibilities
ERM	1. Internal Environment
	2. Risk Identification
	3. Risk Assessment
	4. Risk Mitigation
	5. Risk Monitoring
OP	1. Non-Financial OP (Deducing a better decision making in new business arena, proactive strategy)
	2. Financial OP (Return of Equity)

3.1.3 Statistical Model

Both descriptive and inferential statistics were used to analyze the data. For inferential statistics, SEM is suitable as this research looks at the relationship between the observed and the latent variables (Foster et al., 2006: 103). The latent variables were CG, ERM and OM. To determine the path of the conceptual framework, the SEM model used in this research was as follows:

$$CG = \beta_0 + \beta_1 ERM \tag{1}$$

$$CG = \gamma_0 + \gamma_1 OM \tag{2}$$

$$ERM = \partial_0 + \partial_1 OM \tag{3}$$

where

β_0 = intercept between CG and ERM

β_1 = regression of coefficient between CG and ERM

γ_0 = intercept between CG and OM

γ_1 = regression of coefficient between CG and OM

∂_0 = intercept between ERM and OM

∂_1 = regression of coefficient between ERM and OM

3.2 Qualitative Methodology

In-depth interviews were employed as a qualitative data collection process. Thru path analysis was used for the qualitative part of this study to determine which factors were related to each other. The in-person interview was selected as the method of data gathering to build a stronger rapport and trust with the participants. This method has potential benefits as the researcher considered both verbal and non-verbal communication (Aurini, Heath and Howells, 2016). The qualitative result will triangulate and support the research implications later.

4 FINDINGS

4.1 Descriptive Statistics

There were 175 organizations that responded to the research questionnaire from 749 Thai listed-companies (23.4%). The respondent rate was not very high as some Thai-listed companies had not implement ERM formally and its maturity level seemed quite low. Fortunately, nearly 90 percent of the respondents are currently working in the ERM field (RM Committee and ERM Department), which suggest high accuracy in the research findings (figure 6). Furthermore, 80% of the respondents have adopted COSO as an ERM standard and principle. Most of the sectors returned the questionnaires at a rate of approximately 10%, except the financial sector that had a higher respondent rate (24%), due to the higher maturity level compared to the other sectors. The greater the sample size the better the inferential statistics. (Kumar[p4], 2005) (Foster et al., 2006 :105)

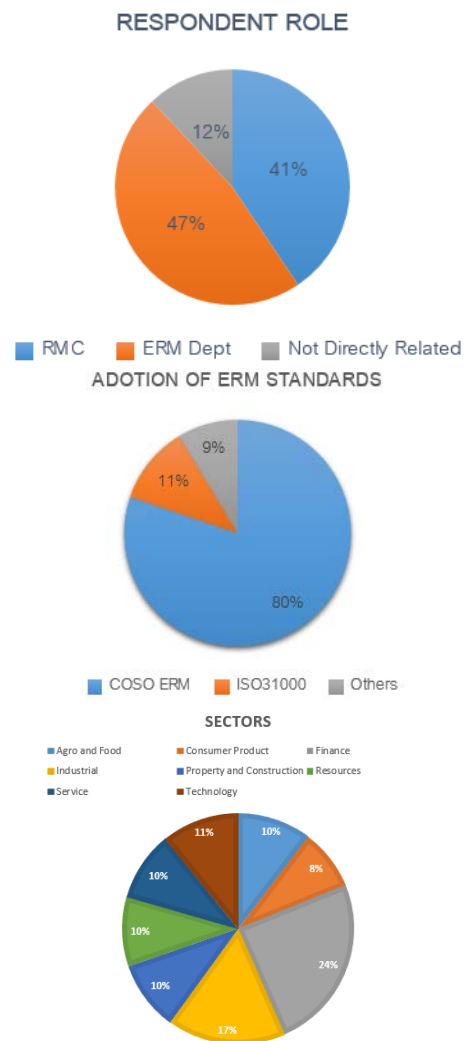


Figure 6: Descriptive Statistics

4.2 Data Violation of Assumption Testing

Starting with the reliability and validity construction, all primary data from the questionnaires had high reliability in the range 0.78 to

0.87. The construct validity accounted for above 0.80. The greater the sampling size the better, in terms of inferential statistics. Kumar (2005) stated that a large sample size should be employed, but it depends on the number of observed variables. The sample size of 175 in this study was suitable ($12 \times (13/2) = 78$).

For the multivariate normality, it was difficult to test; fortunately, the author then tested the univariate normality thru a normality plot. The result displayed that the observed value for each variable against the expected value was located on a straight line; hence, it suggested a normal distribution (Pallant, 2005). In terms of the relationship among the independent variables themselves -multicollinearity- the variance inflation factors (VIF) ranged from 1.8 to 7.1, which were less than 10. Therefore, the multicollinearity was marginal. Lastly, the empirical data did not violate homoscedasticity (figure 7).

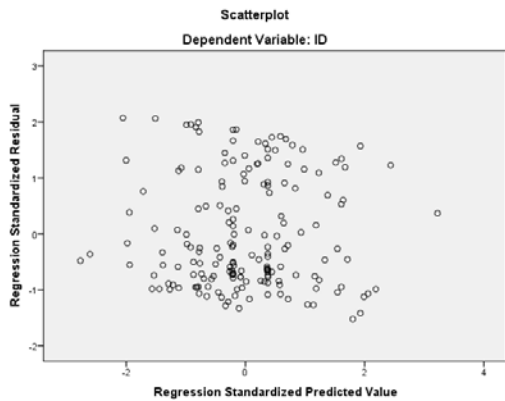
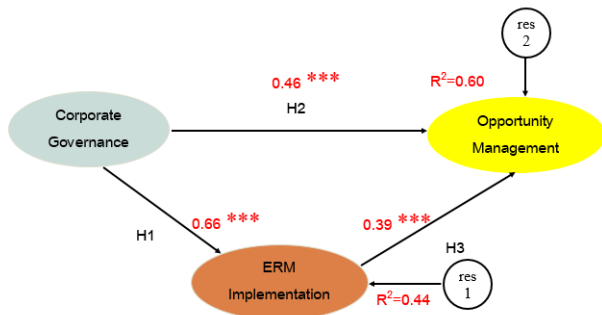


Figure 7: Homoscedasticity Testing

4.3 Hypothesis Testing Result

SEM is composed of two types of model: measurement and structural. Both models had high values for the regression weigh, as shown in the appendix. The hypothesis fixing is shown in figure 8.



Chi square =32.787, df =18 p =0.02,
CMIN/df =1.822, GFI =0.956, CFI =0.986 and RMSEA =0.07
*p<.05, **p<.01, ***p<.001

Figure 8: Hypothesis Testing Result

Table 3: Hypothesis Result

Research Hypothesis	Standardized Regression Weights	p-Value	Interpretation) Compared to Sig 0.05 (
Corporate Governance → ERM Implementation	.66	<.001	Support Hypothesis
Corporate Governance → Opportunity Management	.46	<.001	Support Hypothesis
ERM Implementation → Opportunity Management	.39	<.001	Support Hypothesis

4.4 Qualitative Findings

Apart from quantitative analysis, qualitative analysis was conducted with interviews from eight managers across the industries with nine in-depth questions. Based on the findings, they all agreed that CG is a driving factor to implement ERM successfully. To be precise, a high maturity in CG could be brought about by high maturity in ERM. Interviewees interpreted “Opportunity Management (OP)” in different ways but converged on the theme of OP: to their point of view, it is about seizing the opportunity not only for the investment aspect, but it also concerns new business arenas. Some interviewees from banking agreed that successfully implementing ERM could lead to a high rate of ROE. Finally, unfortunately, other interviewees from other industries suggested that a good ERM system significantly increases good management decisions. Therefore, the majority of interviewees interpreted the direct relationship between ERM and OP in terms of non-financial op. To CG, most of the interviewees concluded that CG is not directly linked to good OP, but CG can lead to better business assurance. Finally, they agreed that both CG and ERM are both partial improvements for good OP. OP, as well as seizing opportunities, in business needs multidisciplinary teams with a high level of cooperation.

5 CONCLUSION

Based on multivariate analysis, the collected empirical data could be fitted to a model with acceptable statistical indices that gives high explanatory power. The first objective in this study was to confirm the relationship between CG and ERM. In Thai-listed companies across industries, there was a convergence finding for both quantitative and qualitative analyses that accounted for the strong relationship between CG and ERM. For the empirical data, the factor loading (standardized regression weight) between CG and ERM was significantly high (0.66 with p-value <0.001). All eight interviewees agreed that CG is a driving factor for high ERM.

The second objective related to the causality among CG, ERM and OP while ERM was a mediate variable. Based on the second & third hypotheses, for the quantitative data, both ERM and CG were found to be significantly associated with OP. Therefore, both ERM and CG are strategic tools to identify and capitalize on opportunity in business. Even CG and ERM both have positive relationships with OP, from the quantitative analysis, they are significantly improved only for non-financial OP, while the empirical data displayed an insignificant correlation with the financial OP (p-value=0.145>0.05) (appendix2). Fortunately, this finding is similar to the qualitative analysis that ERM and CG are associated with OP in terms of non-financial OP.

6 DISCUSSION AND POLICY RECOMMENDATION

Thai-listed companies aim to enhance managerial and shareholder performance as well as overcoming their competitors, while other sources of funds could be derived from creating new business arenas and inclining ROE to develop new shareholder OP. There are many strategic tools to improve OP, yet, often, business assurance aspects, like CG and ERM, are ignored. Previous studies quantified the tangible benefits of CG and ERM in terms of preventative tools, while this article tried to challenge the previous finding that CG and ERM

could significantly improve the OP by promoting good decisions in new business arenas via a proactive strategy.

However, based on a mixed-method, both CG and ERM were perceived to have a low correlation in terms of stimulating organizations for long term growth due to an insignificant correlation to ROE. Importantly, the low correlations among CG, ERM and financial OP were derived from the low maturity level in CG and ERM in Thai-listed companies. Some organizations only conducted CG and ERM to comply with standards and regulations without understanding the other prospective benefits of them. Thai-listed companies then conducted CG and ERM only to align with regulators so they had low quality, low staff cooperation and low support from leaders. Therefore, it could be possible that if listed-companies undertook ERM and CG as an end-to-end process, they could generate long term growth by inclining ROE.

Moreover, this research identified the same finding as in prior studies about a strong correlation between CG and ERM. This means that board responsibility, disclosure and transparency are significantly associated with the implementation of ERM. Therefore, the role of the governance system from the management to the BOD can determine the successful implementation of ERM.

For policy recommendations, the author will propose organizational strategies from the research findings as follows:

- One tangible benefit of ERM and CG is to manage opportunities by balancing risk versus opportunity. Hence, management should communicate and display such tangible benefits to related staff and the BOD to increase the level of cooperation as well as participation.
- Nowadays, most Thai-listed companies undertake CG and ERM in a piece-meal way: without coverage throughout organization or an end-to-end process while being conducted as individual projects, and this is why the empirical data showed a low level of correlation among CG, ERM and financial indicators. Accordingly, to stimulate growth and develop the maturity of CG and ERM, organizations should conduct CG and ERM following a top-down approach, as an end-to-end process and in a regular system.
- A strong correlation between CG and ERM displays that organizations should integrate these two systems to utilize resources, reduce silos and make a strong governance system.

7 LIMITATION AND FUTURE RESEARCH

This research empirically studied only two concepts relating to improving OM: CG and ERM, while other factors can also lead to better managing opportunities. Future research should find other theories related to improving opportunity management. This research also found that risk management can somehow seize opportunity; therefore, how to determine an appropriate risk appetite for firms where they need to balance taking risks and seizing opportunity? Therefore, future research should focus on these two areas.

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APPENDIX

