World Business and Social Science Research Conference

PROGRAM

24 – 25 October 2013

Theme: “Research for Development”

Venue: Hotel Novotel Bangkok on Siam Square
392/44 Siam Square Soi 6 Rama I Road Pathumwan, 10330 BANGKOK, THAILAND

Dr. Mohammad Hoque  
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Journal of Islamic Finance and Business Research
Thursday 24 October 2013  9.00 AM – 10.45 AM  Moliere Room

Session: Finance

Session Chair: Dr. Zahiruddin Ghazali, Universiti Utara Malaysia, Malaysia


318: The Capital Structure And Firm's Financial Leverage In Indonesian Publicly Listed Cement Industry: Widy Ningalah and Neneng Djuarish, Swiss German University, Indonesia.

315: Code of Corporate Governance as a Catalyst to Companies' Performances: A Review of Malaysian Experience: Zahiruddin Ghazali and Norlida Abdul Manab, Universiti Utara Malaysia, Malaysia.

Thursday 24 October 2013  9.00 AM – 10.45 AM  Baudelaire Room

Session: Management

Session Chair: Dr. Noor Azman Ali, University Putra Malaysia, Malaysia


412: The Perception of International Tourists towards Iran’s Culture and Their Intentions to Visit Iran: Mehri Yasami, Assumption University, Thailand.

408: Managing the Media for Political Hegemony: Mahathir and the 1997 Financial Crisis: NA Aziz, University of Malaya, Malaysia and DA Bakar, Universiti Teknologi MARA, Malaysia.
Session: Economics

Session Chair: Prof. Catherine S F Ho, Universiti Teknologi MARA, Malaysia

211: Developing a Student Development Index: A Conceptual Paper: Zulhamri Abdullah, Mohd Fauzi Ramlan and Mohamad Shater Sabran, Universiti Putra Malaysia, Malaysia.

205: Spending Patterns of Food Insecure Households in a Low Income Neighbourhood in South Africa: Wynand C. J. Grobler, North West University South Africa.

223: Effects of Microfinance on Poverty Reduction in Vietnam: A Pseudo-Panel Data Analysis: Hoai An Duong, Griffith University, Australia and Hong Son Nghiem, The University of Queensland, Australia.

228: An Overlapping Generations Model of the Savings Rate Decline: The Case of Portugal: Maria Alberta Oliveira, ISMAI, Maia Institute of Higher Education, and Research Unit UNICES, Portugal and Carlos Santos, Faculdade de Economia e Gestão, Universidade Católica Portuguesa and CEGE, Portugal.

201: Foreign Direct Investment in Emerging Asian Countries: Catherine S F Ho, Universiti Teknologi MARA, Malaysia.

Session: Marketing

Session Chair: Prof. Stephen Carter, Heriot- Watt University, Scotland

501: Triangulated Approach to Student-as-Customers’ Satisfaction and Persistence: A Marketing Perspective; Amy Yeo Chu May, Tunku Abdul Rahman (TAR) University College, Malaysia.

503: Why Do Consumers Resist Innovations?: Chyi Jaw and Hsiao-Wan Liu, National Yunlin University of Science & Technology, Taiwan, R.O.C.


506: Influences of Acculturation to Global Consumer Culture and Ethnic Identification towards Western Culture Consumption Behaviors: Azaria Sophiani Nadhirah and Ir. Mustika Sufiatni Purwanegara, Institut Teknologi Bandung (ITB), Indonesia.

Thursday 24 October 2013 1.00 PM – 2.00 PM Square Restaurant

“Lunch Break”

Thursday 24 October 2013 2.00 PM – 3.30 PM Moliere Room

Session: Accounting

Session Chair: Assoc. Prof. Dr. Fauziah Mahat, Universiti Putra Malaysia, Malaysia

104: Unit Cost and Break-Even Point Analysis of Data Communication Company Case Study; PT XYZ: Muhammad Arif, Institut Teknologi Bandung, Indonesia.

101: An Exploratory Study on Information Technology adoption by SMEs in Brunei Darussalam: Chin Kang Chen and Mahani Hamdan, Universiti Brunei Darussalam, Brunei Darussalam.


105: Government Agencies Readiness to Change from Cash to Accrual Based Accounting: Fauziah Mahat and Noor Azman Ali, Universiti Putra Malaysia, Malaysia.
Thursday 24 October 2013  2.00 PM – 3.30 PM  Baudelaire Room

Session: Management

Session Chair: Dr. Darusalam Bakar, Universiti Teknologi MARA, Malaysia


429: Heritage Destination Revisititation: Malaysian Perspective: Sujana Adapa, University of New England, Australia and Tommi Laukkanen, University of Eastern Finland, Finland.

434: The Role of Affective Dimensions on Tourist Visit Experience: Basri Rashid, Universiti Utara Malaysia, Malaysia.

Thursday 24 October 2013  3.30 PM – 3.45 PM  Foyer

“Afternoon Tea Break”

Thursday 24 October 2013  3.45 PM – 5.30 PM  Moliere Room

Session: Banking & Economics

Session Chair: Dr. Zulhamri Abdullah, Universiti Putra Malaysia, Malaysia


604: Bank Competition In Emerging Asian Countries: Pre-Post the Global Financial Crisis: Hanh Thi My Phan and Kevin Daly, University of Western Sydney, Australia.

602: Foreign Banks in Vietnam: Determinants of Profitability and Comparison with Domestic Banks: Lien Dinh, Griffith University, Australia.

605: Corporate Governance of Thai Commercial Bank: BiBOR Misreporting: Jutamas Wongkantarakorn, Rajamangala University of Technology Rattanakosin, Thailand.
Session: Marketing

Session Chair: Dr. Sujana Adapa, University of New England, Australia


509: Twenty Years of Relationship Marketing Studies: Invisible Knowledge Network and Tag Cloud Analysis: Hui-Chun Huang, Yuan-Duen Lee, Ing-San Hwang and Yender Lee, Chang Jung Christian University Tainan City, Taiwan, R.O.C.


513: Value Based Attributes for Mobile Internet Provider: Ganjar M. Disastra and Heppy Miltanani, Telkom University, Indonesia.

516: Gender, Luxury Affection and Status Consumption in an Emerging Market: the Case of Turkey: Misra Gul, Isik University, Turkey.

515: An Investigate of Customer Behaviors to Acne’s Skin Products Buying Behaviors: the Case of Bangkok: Worakamol Wisetsri, King Mongkut’s University of Technology North Bangkok(KMUTNB), Thailand.

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Friday 25 October 2013  10.30 AM – 10.45 AM  Foyer

“Morning Tea Break”

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Friday 25 October 2013  10.45 AM – 12.30 PM  Renoir Room

Session: Finance

Session Chair: Dr. Ron Johnson, North Dakota State University, USA

308: Capital Structure and Firm performance: Empirical Evidence from Vietnamese Listed Firms: Thi Phuong Vy Le and Kathy Tannous, University of Western Sydney, Australia.
325: Corporate ownership and firm performance in emerging market: A study of Vietnamese listed firms: Duc Nam Phung and Thi Phuong Thao Hoang, University of Economics Ho Chi Minh City, Vietnam.

323: Internal Corporate Governance, Environmental Committee and Environmental Risks Information: Australian Evidence: Eswaran Velayutham and Chandrasekhar Krishnamurti, University of Southern Queensland, Australia and Ariful Hoque, Murdoch University, Australia.

317: Risk management practices for short-term insurance in Zimbabwe: Batsirai Winmore Mavionja, National University of Science and Technology, Zimbabwe.


Friday 25 October 2013 12.30 PM – 2.00 PM Square Restaurant

“Lunch Break and Muslim Friday Prayers”

Friday 25 October 2013 2.00 PM – 4.00 PM Renoir Room

Session: Management & Marketing

Session Chair: Dr. Worakamol Wisetsri, King Mongut's University of Technology North Bangkok, Thailand

430: How Cultural Creative Propensity Promote the Industrial Innovation?: Mu-Yen Hsu, National Cheng-chi University, Taiwan.

413: Savings and Investment Behaviour of Bank Customers: Survey Findings: M. Nasser Katib, Nor Hayati Ahmad, AsishSaha, and Raj Yadav, Universiti Utara Malaysia, Malaysia.

425: A Model to Determine Household-Based Food Industry for Poverty Alleviation in Indonesia: Case of NTT Province: Ratih Dyah Kusumastuti, Fanny Martdianty, Rifelly Dewi Astuti and Nurulma, Universitas Indonesia, Indonesia.


514: Green Property Slogan As Marketing Communication Strategy (Case Study On Housing Developer In Bandung-Indonesia): Heppy Millanyani and Allia Pramiyanti, Telkom University, Indonesia.

511: Communication Effectiveness of the TAT’s Campaign Called “12 Months, 7 Stars and 9 Suns”: Saranyapong Thiangtam, Bangkok University, Thailand.
Session: Accounting & Economics

Session Chair: Dr. Shamim Shakur, Massey University, New Zealand


114: Going Private and Going Dark Strategies: Literature Review and Directions for Future Research: Tiziano Onesti and Valerio Pieri, Roma Tre University, Italy and Mauro Romano and Christian Favino, University of Foggia, Italy.

222: Perception of Food Inspectors and Traders on Trans-Boundary Food Control Measures of Myanmar: Wai Yee Lin and Masahiro Yamao, Hiroshima University, Japan.


232: New Zealand - India Free Trade Agreement: A Numerical Analysis: Shamim Shakur, Massey University, New Zealand and BRAC University, Bangladesh.

~~~ End of Conference ~~~
Corporate Governance and Enterprize Risk Management: An Empirical Evidence from The Unique Two-Tier Boards System of Indonesian Public Listed Companies

Dr. Husaini, Dr. Saiful, Dr. Fadli, Abdullah and Siti Aisyah

The implementation of effective enterprise risk management system in some companies around the world will enhance the ability of management to manage properly risk faced by the companies by using various strategic measures. As a result the companies will be able to reduce their business risk to the low level and at the end of the day, the companies will be avoided the bankruptcy. However, the bankruptcy of some leading companies such as Enron, Tyco, WorldCom, and Farmalit indicated that the enterprise risk management (ERM) principles has not been effectively implemented by some companies in developed and emerging markets as well including Indonesia. Some accounting and finance scholars have explained that several strategic variables such as company size, industry group, earnings volatility, stock price volatility, leverage, the average market to book value ratio, opacity, institutional ownership, enterprise branch origin, independent directors, management commitment, and the type of company auditors influence the adoption of ERM.

The purpose of this research is to examine the affect of corporate governance mechanism on the implementation of enterprise risk management of Indonesian public listed companies. By exploring the purposive sampling method, the 118 Indonesian public listed companies were selected as a sample of this study. This study found that the board size positively influence the level of enterprise risk management system. This finding indicates that the companies with more persons sit as board members will more effective in implementing enterprise risk management systems. This finding implies that the Indonesian capital market regulation should propose the regular on the minimum number who sitting as board members in order to encourage management of Indonesian listed companies to effectively apply enterprise risk management system. Meanwhile, this study could not find an empirical evidence on the influencing of independence board and audit committee on the level of enterprise risk management implementation.

Key Words: enterprise risk management, corporate governance, audit committee, firm performance

1. Introduction

The purpose of founding a company is to enhance shareholders value. To achieve this goal, shareholders hire the professional persons (management) to manage the company. Management will be able to fulfill their responsibility to effectively manage daily operation of the company when they have the required competencies in the managing of the company. In order to enhance shareholders value, management should consider business risk which is the most important aspect that influence the performance of the company.
This because of the growing complexity of business activities lead to a variety of business risks that will be faced by the company, even technological developments, globalization, and the development of business transactions such as hedging led to the increasing challenges companies face in managing the risks that must be faced (Beasley et al., 2005).

Because of the various business risk that affect on the shareholders value, one of the core competencies that should be possessed by management in order to achieve company goals is the ability to manage risk. When management is able to manage risk properly, then the risk would be faced by the company can be reduced with various strategic measures (enterprize risk management system). Some studies showed that the companies with implementation of more effective enterprise risk management system were getting better performance and dealing lower risk. Therefore, management should apply the principles of effective enterprise risk management system in the managing of the company.

However, the facts say that the enterprise risk management (ERM) principles has not been effectively implemented by some companies especially in emerging markets including Indonesia. Those eidents were also supported by the indication of a number of companies experiencing financial problems which ended in bankruptcy such as Enron, Farmalet, Tyco, and WorldCom. In addition when the global financial crisis in 2008, many companies are not able to deal with the crisis, it is pointed out that the company has yet to establish a reliable ERM system.

Liebenberg and Hoyt (2003) identified that company size, industry group, earnings volatility, stock price volatility, leverage, the average market to book value ratio, opacity, institutional ownership, and enterprise branch origin are strategic variables that affect the adoption of ERM in the United States. Meanwhile, Beasley, Clune, and Hermanson (2005) examined the effect of firm size, industry group, the branch companies, CRO existence, independent directors, management commitment, and the type of company auditors to the adoption of ERM. Furthermore Golshan and Rasid (2012) examined the factors that influence the adoption of ERM by Bursa Malaysia listed companies, including firm size, firm complexity, industry groups, country of residence, leverage, auditor type, independent directors, asset opacity, price volatility shares and institutional ownership. In context of Indonesia, Meizaroh and Lucyanda (2011) examined the effect of corporate governance and ownership concentration on ERM disclosures, and Husaini (2012) examined the effect of audit committee characteristics of ERM implementation in banking companies listed in Indonesia Stock Exchange. Those studies suggest that corporate governance mechanism intern of board size, independent board, and audit committee are the important factors that can be explained the level of ERM implementation around the world.

However, the effectiveness of corporate governance mechanism to influence management in implementing ERM depend on the corporate governance structure and composition each country. The purpose of this research is to examine the affect of corporate governance mechanism on the implementation of enterprise risk management of Indonesian public listed companies.
2. Literature Review and Hypothesis Development

2.1 Enterprise Risk Management (ERM)

According to Committee of Sponsoring Organizations of the Treadway Commission (COSO) Enterprise Risk Management in the Integrated Framework (2004), Enterprise Risk Management is a process that influenced by the company’s management and other members that are implemented in each companies’ strategy and designed to provide reasonable assurance to achieve the company goals, and aims to identify the risks the company on each activity, as well as measure and overcome certain tolerance level. Furthermore COSO (2004), explains that the effectiveness of an organization’s ERM must be judged from four ERM objectives: (1) Strategy, is a high-level goals, aligned and support the mission of the organization, (2) operation, which is related to the effective use of resources and efficient, (3) reporting, which focuses on the reliability of financial reporting, and (4) Compliance, including obeying the law draft regulations. Further implementation of ERM is based on eight components developed COSO (2004), namely: internal environment, goal setting, event identification, risk assessment, risk response, control activities, information and communication, and monitoring. ERM implementation enables companies to better inform their risk profile and also serves as a signal of their commitment to risk management, along with the increasing openness of risk management, so that ERM is likely to reduce the cost of monitoring and external capital (Meulbroek, 2002). Some previous studies used the voluntary disclosure of those ERM indicators in measuring the level of ERM implementation.

2.2 Corporate Governance

Economic efficiency perspective suggests that corporate form business that separate owners and management plays an important role on economic efficiency achievement. Because business will be managed by professional persons. The common practice in some companies around the world that separate between owners (principal) and management (agent) of the companies is the indication of the implementation of that perspective. However, Jensen and Meckling (1976) argued that the owners-management separation will deal with agency cost that arise because of the problems of management-owners relationship following a divergent interest opportunism by the management. Some corporate scandals in some leading companies such as Bank Dutia, Bank Summa, Bank Pikko, Bank Bali, and Bank BNI in Indonesia, BBCI and Maxall in UK, Enron, Worldcom, Adelphia and Tyco in US are some evidences on divergent interest opportunism by the management. These evidences lead some scholars to define corporate governance based on corporate affairs perspective.

Solomon and Solomon (2003) conclude that most scholars define corporate governance as the supervision and control process to make sure that management act in the best interest of shareholders. However, Organization for Economic Co-operation and Development (OECD) defines corporate governance as a set of relationship between management, board of director, shareholder, and stakeholders of a company with a structure as a medium to set the objectives of a company and to determine the way to achieve objectives and monitoring performance process. Meanwhile, Denis and McConnell (2003) define corporate governance as the set of internal and external mechanisms that induce management and other controllers of the company to make decisions that maximize the value of that company. Moreover, they stated that internal governance mechanism involves board of
director and ownership structure, while, external governance mechanism refers to the takeover market and the legal system.

Corporate governance system varies among countries. Weimer and Pape (1999) argued that corporate governance around the world could be classified into (1) Anglo-Saxon System (US, UK, Canada, and Australia), (2) Germany System (German, Netherlands, Switzerland, Sweden, Austria, Denmark, Norway, and Finland), (3) Latin System (France, Italy, Spain, and Belgium), and (4) Japanese System.

Anglo-Saxon Corporate governance system applies the one-tier board of director as the main internal institution that consists of executive and non-executive director with management and control function. The executive directors are managers of the corporations, whereas non-executive directors represent shareholders to monitor the managers in their day-to-day business (Toksal, 2004). Meanwhile, Germanic companies run the two-tier board system comprising supervisory board and managing board. The main functions of supervisory board are to appoint and dismiss managing board and to evaluate management performance. Weimer and Pape (1999) argued that legally, the supervisory board has duty to monitor the competence of management board, but practically; it gives advice on major policy decision. The composition of the supervisory board reflects that employees and shareholders are salient stakeholders that can exert substantial influence on managerial decision making. The German corporation with 2,000 employees or more are required by law to have equal number of shareholders’ representative and employees’ representative. Employees’ representative board members are appointed by workforce (employee and labor union). However, the shareholders’ representative board members are appointed by the general assembly of shareholders. In addition, shareholders’ representative board members have the right to elect the chairman of supervisory board in the case of decision making deadlock (Moerland, 1995).

In context of board of directors, Latin corporations have an option to choose either one-tier board as in Anglo-Saxon corporate governance or two-tier board as in Germanic system. However, majority of Latin public listed companies (98%) have adopted one-tier boards (Weimer and Pape, 1999). Moreover, Weimer and Pape (1999) state that corporate law does not distinguish between executive and non-executive on management board of one-tier Latin system.

The board system of Japanese firms comprises a board of director, an office of representative directors, and an office of auditors. However, in practice Japanese companies apply one-tier board of director consists of large number of directors with no separation of management and control function with an informal substructure (Weimer and Pape, 1999). The managing directors are elected by shareholders and the most important managing director is the president who rarely at the same time as a chairman of the board. Reaz and Hossain (2007) conclude that employee and institutional shareholder such as bank and insurance companies exert much influence on managerial decision. It is the consequence of the concentrated ownership structure on financial institutions such as bank and insurance companies (Moerland, 1995) and employees are the most important stakeholders of the firms.

Indonesian corporate governance system is closer to Germanic system. However, some characteristics of Indonesian corporate governance system are different from Germanic system especially with regards to two-tier board system. According to Indonesian company law 2007, both members of supervisory and managing board are elected, expelled, and held
responsible to shareholders through general meeting of shareholders (GMOS). In contrast, in
the Germanic system members of managing board are appointed by supervisory board. Different from Germanic law which requires an equal employees and shareholders representative, there is no legal enforcement in placing any employee representative in the supervisory board in Indonesia. Indonesian company law 2007 also states that one person can not be a member of both boards of the same company. Similar to Germanic system, supervisory board of Indonesian corporations play a supervising and advising role, meanwhile managing board manage day to day operation of the company.

For public listed companies, capital market law and regulations issued by the BAPEPAM⁷ are the essential guiding principles for their corporate governance practice beside corporate law. Jakarta Stock Exchange (JSX) regulations require that 30 percent of the commissioners must be independent of the company (no affiliation with controlling shareholder, board of director, other commissioners). Moreover, the JSX rules specifically require listed companies to establish audit committees. Meanwhile, the JSX regulations now require listed companies to fill at least one-third of the board of commissioner with independent commissioners.

2.3 Independent Board and ERM

The presence of independent directors to improve the quality of supervision because it is not affiliated with the company so freely in decision-making. This theory is often referred to as the monitoring effect theory (Fama and Jensen 1983). Beasley (1998) showed an inverse relationship between the proportion of independent directors with a level of fraudulent financial reporting. Companies with a high proportion of independent directors tend to pay more attention to risk than firms lower proportion of independent directors (O'Sullivan, 1997). In contrast to previous studies, Thouraya and Dionne (2004) showed that the presence of independent directors has no effect on the level of ERM adoption. Meizaroh and Lucynda (2011) also found that the independent commissioner did not affect the disclosure of ERM. However, Beasley et al. (2005) showed that the presence of independent directors improve the quality of supervision over the implementation of risk management and quality audit so as to reduce fraud and opportunistic behavior of managers.

H1: The proportion of independent board positively influence the level enterprise risk management (ERM) implementation

2.6 Board Size and ERM

Commissioners serve to oversee the implementation of risk management and ensure the company has an effective risk management program. Number of members of the board of commissioners that adds opportunities to exchange information and expertise to improve the quality of ERM (Desender, 2007). Although risk management is the responsibility of management, the board must create a conducive environment for the implementation of risk management. However, Meizaroh and Lucynda (2011) suggests that board size has no effect on the disclosure of ERM. This is because the larger the size of the board, the greater the chances of a member of the board of internal conflict.
H2: board size positively influence the level enterprise risk management (ERM) implementation

2.7 Audit Committee size and ERM

The audit committee is one important element in good corporate governance mechanism. The audit committee has a very important role and strategic in terms of maintaining the credibility of the process of preparation of the financial statements as well as keeping the company's creation of an adequate supervisory system and the implementation of good corporate governance (Rachmawati and Triatmoko, 2007). The audit committee should be formed to have certain characteristics such as independence, financial and accounting expertise, size and so diligent monitoring functions can be carried out effectively. Audit committee characteristics most often cited in the literature of corporate governance as a prerequisite for an effective monitoring function is independence, which the audit committee comprising non-executive from outside (independent) can be assumed to be better monitors of management (Sarbane-Oxley Act, 2002; Blue Ribbon Committee, 1998). Some research on the relationship of the committee and the implementation of risk management, among others, performed by Dionne and Triki (2005) which proved that the requirements on the number and independence of the audit committee encourages companies to pay more attention to risk management. The results also prove that the audit committee is entirely educational background in finance and the board of commissioners that manyoritas educational background in finance is more active in risk management. Further Husaini (2012) concluded that the audit committee of four characteristics only affect the independence of the audit committee on the implementation of ERM in banking company in Indonesia. Therefore hypothesized three to six hypotheses of this study as follows:

H3: audit committee size positively influence the level enterprise risk management (ERM) implementation

3. Research Methods

3.1. Population and Sample

The population in this study are all Indonesian public listed companies. While the sample of this study is selected using purposive sampling method based on following criteria:

a. The Company has issued an annual report and audited financial statements as at December 31, 2010, as a form of corporate information that has been verified by an independent auditing process and been officially published to shareholders.

b. The Company has published its annual report by December 31, 2010 on the website or on the website of the Indonesia Stock Exchange. Consideration used is an annual report published extensively on the website reflect the disclosure of corporate information disclosure to stakeholders.

c. The financial statements are presented in Indonesian currency and all the data required for this research available to complete.
3.2. Definition and Measurement of Variables

In this study, the dependent variable is Enterprise risk management (ERM). While the independent variable is corporate governance mechanisms (independent directors, board size, and the audit committee).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>Enterprise Risk Management (ERM)</td>
<td>Measured by using ERM disclosure index with formula as follow: ERM index = Numbers ERM items that disclosed / Total ERM items should be disclosed</td>
</tr>
<tr>
<td>Independent board</td>
<td>Proportion of independent commissioner to total board of commissioner members.</td>
</tr>
<tr>
<td>Board size</td>
<td>The total of the board of commissioner members</td>
</tr>
<tr>
<td>Audit Committee size</td>
<td>The total of audit committee members</td>
</tr>
</tbody>
</table>

3.3. Data Analysis Techniques

In general, the study consisted of two parts: to find out how the description of the ERM and the key factors that are considered relevant to public companies in Indonesia and to determine the effect of these factors on the implementation of ERM. In the first part will be descriptive analysis based on empirical data obtained from the source, then in the second part of this study will be conducted quantitative analysis performed using multiple regression analysis to determine the effect of several key factors that are relevant, i.e., corporate governance mechanisms (independent directors, board size, and characteristics of the audit committee), the complexity of the company, the type of auditor, asset opacity, and some control variables (firm size, leverage and profitability) ERM implementation. Here for bergabda regression analysis of this study used two equation model functions as follows:

\[ ERM_{Index} = \alpha + \beta_1 IB + \beta_2 BS + \beta_3 AC + \varepsilon \]

- \( \alpha \) = constant
- \( \beta_1, \beta_2 \) = regression coefficient
- \( IB \) = independent Board
- \( BS \) = Board Size
- \( AC \) = Audit Committee Size
- \( \varepsilon \) = error term

4. Research Findings and Discussion

4.1. Sample selection

Sample of this study was selected based on purposive sampling method with some criteria that stated in section 3. Based on those criteria, 116 Indonesian public listed companies were selected as a sample of this study. Meanwhile, the sample selection process were described in Table 2. Indonesian public listed companies that classified as manufacture company are
totalled for 156 companies. 28 of those companies were excluded from this study because they did not provide information enough on ERM index. This also excluded 12 additional companies that did not present their financial statement in Indonesian currency.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Total</th>
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<tr>
<td>Total manufacturing firms listed in Indonesia stock exchange</td>
<td>156</td>
</tr>
<tr>
<td>Companies with incomplete data or not providing financial statement</td>
<td>(28)</td>
</tr>
<tr>
<td>Companies which providing financial not in Indonesia Rupiah</td>
<td>(12)</td>
</tr>
<tr>
<td>Total selected companies</td>
<td>116</td>
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</tbody>
</table>

4.2. Statistic Descriptive

A statistic description of variables that included in this study is presented in table 3. Table 3 shows that on average ERM index score is 0.48 (48%) with maximum score is 0.73 (73%) and the minimum score is 0.24 (24%). It indicates that some Indonesian listed companies have no effectively implemented ERM system. The mean percentage of independent members on board of directors is 41% with the range from the highest 75% and the lowest 25%. This indicated that all Indonesian public listed companies have complained to NCCG regulation (the minimum independent members on board is 20%), but there some companies have no complained to Jakarta stock exchange regulation (the minimum independent members on board is 33%). The mean of board size is 4.05 and the number range between 2 persons as smallest and 11 persons as largest of this board size. Meanwhile, the mean of audit committee size is 3.08 and the number range between 3 persons as smallest and 5 persons as largest of this audit committee size. This finding indicates that most of Indonesian public listed companies complianced on Indonesian stock exchange regulation.

<table>
<thead>
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<th>Table 3: Statistic Descriptive</th>
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<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>ERM</td>
<td>0.24</td>
</tr>
<tr>
<td>IB</td>
<td>0.25</td>
</tr>
<tr>
<td>BS</td>
<td>2</td>
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<tr>
<td>AC</td>
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</table>

4.3: Corelation Analysis

Firstly, this study analyzed the correlation among independent variables in order to detect multicollinearity problem. Hair, Black, Babin, Anderson, and Tatham (2006) stated that multicollinearity problem occurs since the correlation among independent variables is 0.90 and higher. Table 4 presents the correlation matrix among independent variables and between independent and dependent variables. Independent board is negatively not significant correlated to Board size ($r = -0.0202$, $p$ value>0.05) and audit committee size ($r = -0.0102$, $p$ value>0.05) but board size positively significant related to audit committee size ($r = 0.3158$, $p$ value < 0.01). This result indicated that there is no multicollinearity problem occurred in this study.

Secondly, this study analyzed the correlation between independent and dependent variables in order to determine the relationship between independent and dependent variables individually. This found that ERM index is positively significant associated with board size ($r = 0.2442$, $p$ value < 0.01). However, this study did not find the positively significant relationship between ERM index
and independent board ($r = 0.0796$, p value $>$ 0.05) and audit committee size ($r = 0.1379$, p value $>$ 0.05).

<table>
<thead>
<tr>
<th>Table 4: Corelation</th>
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<tr>
<td>ERM</td>
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<tr>
<td>IB</td>
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<td>BS</td>
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<td>AC</td>
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4.4. Hypothesis Testing and Conclusion

This section presents the testing hypothesis 1, 2, and 3. This study tests those hypotheses by employing the multivariate regression method. The multiple regressions results (see table 5) showed that board size positively influence the level of ERM system implementation. While, proportion independent members on board of directors and total audit committee member are positively not significant related to the level of ERM system implementation. Hence, the hypothesis number 3 was supported, but hypothesis number 1 and 2 were not supported. The explanation power of regression is 7.1%.

In term of independent board-ERM relationship, the findings of this study is not alignment with monitoring effect theory (Fama and Jensen 1983) and Beasley et al. (2005) who found that the presence of independent directors improve the quality of supervision over the implementation of risk management and quality audit so as to reduce fraud and opportunistic behavior of manager. However, the results of this study is consisten with Thouraya and Dionne (2004) and Meizaroh and Lusynda (2011) who found that the presence of independent directors has no effect on the level of ERM adoption. Meanwhile, on board size-ERM relationship, the findings of this study is consisten with Desender (2007) who found that board size will improve the quality of ERM. Husaini (2012) concluded that the audit committee of four characteristics only affect the independence of the audit committee on the implementation of ERM in banking company in Indonesia.

<table>
<thead>
<tr>
<th>Table 5: The Results Of Hypothesis Testing</th>
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<tbody>
<tr>
<td>Independent variables</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
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<td>(Constant)</td>
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<tr>
<td>IB</td>
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<tr>
<td>BS</td>
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<tr>
<td>AC</td>
</tr>
<tr>
<td>F-Stat</td>
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<tr>
<td>Sig-F</td>
</tr>
<tr>
<td>R-square</td>
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Reference


