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The Relationship between Board of Directors and Risk Management Committee in Malaysia

Suhaimi Ishak[1] and Mohamad Naimi Mohamad Nor[2]

[1] Tunku Puteri Intan Safinaz School of Accountancy (TISSA-UUM), College of Business, Universiti Utara Malaysia
[2] Accounting Building, UUM 06010 UUM Sintok, Kedah, Malaysia, E-mail: suhaimiishak@uum.edu.my

Abstract: The establishment of risk management committee (RMC) in non-banking and non-financial companies is seen as very important. They serve as the crucial elements in risk management process and as the corporate governance mechanism. This study investigates the relationship between the board of directors (BOD) and the establishment of RMC for the non-banking and non-financial companies listed on Bursa Malaysia. Data is collected from the annual reports of companies for the period of 2014 until 2015. Some characteristics of BOD and the establishment of RMC are tested in this study including some control variables. Both descriptive and multivariate analyses are employed to address the research objectives. The results indicate that the BOD size is positively related to the establishment of RMC. Meanwhile, the BOD outside directorship is negatively related to the establishment of RMC. Further, companies audited by big 4 audit firms are positively associated with the establishment of RMC. The findings provide empirical evidence on the development and importance of the BOD and the establishment of RMC for the non-banking and non-financial companies in Malaysia.

JEL Classification Code: M448

Keywords: board of directors; risk management committee; risk; Malaysia

INTRODUCTION

The main objective of this study is to examine the relationship between the board of directors (BOD) and the establishment of risk management committee (RMC) in Malaysia.The board of directors (BOD) is always become an important entity in a corporate organization. They serve as the indicator to the successful of the corporate organization. In Malaysia, the regulators frequently ask for the BOD to have the strong position and role in corporate activities. They have another job portfolio that relating to the risk management.The establishment of RMC is one of the company initiatives in risk management practises.

RMC is a board sub-committee and the establishment of this committee has a direct relationship with the BOD.The formation of RMC is still voluntary in most countries in the world including Malaysia (Subramaniam, McManus & Zhang, 2009). In Malaysia, based on the Malaysian Code on Corporate Governance (MCCG), (2007; 2012) clearly stated the role and responsibility of the BOD toward the risk management activities. The code highlighted for the BOD to have a system which effectively monitor and manage risks. This is an indicator of the importance of risk management and the oversight function of the BOD, even though there is no mandatory requirement for the establishment of the RMC.At international level, COSO (2012) introduced the Thought Leadership in ERM known as guideline for Understanding and Communicating Risk Appetite. This new guideline stresses the role of management and board oversight function in risk appetite activities for organisations; and the effectiveness of board oversight function is crucial. The Federation of European Accountants, Institute of Chartered Accountants Australia and the Centre for Audit Quality (2013) jointly sponsored the roundtable discussion in New York City, Brussels and Hong Kong, where it was agreed that specific aspects of risk oversight responsibility should be allocated to a specific board committee, such as a RMC. The participants in that discussion also suggested for the establishment of a separate RMC that could focus on the consideration and identification of 'unknown risks, since the existing audit committee may be only familiar with the 'known risks'.

Due to the voluntary establishment of RMC in the company, some companies have this board committee separately and the others still accompany the risks responsibility with audit committee (AC). However, there are more companies established the RMC but it combined with AC and known as audit and risk management committee. In this study, the researcher intends to examine what are the BOD factors or characteristics that associated to the establishment of RMC and separate RMC. More specifically, this study will examine whether BOD factors and the company characteristics are significantly associated with the establishment of RMC such as BODs independence, BOD size, BOD expertise, BOD diligence, BOD outside directorship, business segment, big 4 and leverage. The study on the association between BOD characteristics and the establishment of RMC is still scant limited (Subramaniam et al., 2009). Only few studies tested on that association such as Subramaniam et al. (2009), Yatim (2010), Liew, Mat Zain and Jaffar (2012) and the latest is Sekome and Lemma (2014).The increasing concern by the companies on risk management practices has reformed significant emphasis on the role of risk management. BOD as a key governance structure in an organization has a significant role for the implementation of risk management in a company. The establishment of RMC as a board committee is an example of the initiatives in risk management practices. This study intends to investigate which natures or features of BOD structures that established the RMC. Hence, the structure of BODs refers to the characteristics of BOD itself such as BOD independence, BOD size, BOD expertise, BOD diligence and BOD outside directorships. These characteristics are the indicators for effectiveness of BOD as a whole. This situation creates a motivation for the researcher to study on the relationship between the BOD characteristics and the establishment of RMC.

The rest of this paper is organized as follows. The second section describes the past literature and hypotheses development. The third section provides the research methodology, followed by the fourth section on analysis of results and discussion. Last section presents the conclusion and recommendations.

PREVIOUS RESEARCH AND HYPOTHESES DEVELOPMENT

Previous study such as Yatim (2010) reveals that BODs with more independent willing to form or establish RMC. The researcher also argues that more independent BOD demonstrates good corporate governance. Meanwhile the result of study by Liew*et al.* (2012) reveals the different result. The BOD independence is not significant to the establishment of RMC. This result supported the findings of Carson (2002) which there is no relationship between the BOD independence and the establishment of other BOD committee such as AC, remuneration and nominating committee. However, after the amendment of MCCG in 2007 and 2012, especially on risk management issues, the independent BOD is expected to be more aware on risk profile of the company and the first hypothesis is generated as follow:

H1: The BODs independence is positively associated with the establishment of RMC.

Normally, the big size of BOD is easily to establish the other board sub-committee such as RMC since there are member with various skill and talent. This argument is supported by the study by Subramaniam *et al.* (2009) which larger BOD offers the resources to operate BOD committee. Further research also supported the findings whereby Liew *et al.* (2012) also find positive relationship between larger BOD and the establishment of RMC. Hence, larger BOD offer more experiences, skills and diversifications and this argument leading for the second hypothesis in this study.

H2: The BOD size is positively associated with the establishment of RMC.

The understanding on accounting and financial aspects is more crucial. BOD members with accounting and financial literate are more aware on activities related to financial and accounting performance (Liew *et al.,* 2012). This argument is supported by Yatim (2010) that BOD members with accounting and financial background have positive association to the establishment of RMC. They play active role in risk management activities and the next hypothesis is expected as follow:

H3: BODs expert is positively associated with the establishment of RMC.

Usually, BOD will discuss the matter pertaining to the company in BOD meeting. Frequent meeting encourage open discussion and improve communication among BOD members. Hence, the number of BOD meeting during the financial year is one of the initiatives by BODs itself. In term of risk management activities, Liew*et al.* (2012) find no relationship between BOD meeting and the establishment of RMC. However, the earlier study by Yatim (2010) finds positive relationship between BOD meeting and the establishment of RMC. Theoretically, if the BOD aware and diligent in discussing the risk issues, they intend to establish another board sub-committee to discuss more on the related issues such as the establishment of RMC. Hence, the following hypothesis is as follow:

H4: BOD diligence is positively associated with the establishment of RMC.

Multiple BOD is a common phenomenon in corporate world. More BOD members also become the BOD members in another companies at the same time even at different industry. This situation creates a broader range of knowledge, experiences and skills. The situation also brings them more sensitive and responsive to the company's issues including risk management. Fama and Jensen (1983) argue multiple directorships tend to have motivation to involve in risk management activities. This argument also supported by Liew *et al.* (2012) in the study that BOD outside directorships has positive and significant relationship between the voluntary establishments of RMC. Eventually, the last hypothesis is as follow:

H5: BOD outside directorships is positively associated with the establishment of RMC.

In this study, the researcher also includes the other factors or control variables that have influenced to the establishment of RMC such as business segment, big 4 and leverage. They are the control variables in the study framework.

RESEARCH METHODOLOGY

We use the logistic regression analysis to examine the relationship between BOD and the variables proposed for RMC.The model used to test the hypotheses is as follows:

$$RMC = \beta 0 + \beta 1\ BODINDE + \beta 2\ BODSIZE + \beta 3\ BODEXPERT + \beta 4\ BODDILI + \beta 5\ BODOUTSIDE + \beta 6\ BUSSEG + \beta 7\ BIG4 + \beta 8\ LEV + \varepsilon$$

The population frame for this study is all the PLCs, excluding banking and financial institutions, listed on BM's website from the period of financial year ended 2014 until 2015. Banking and financial institutions are omitted from the sample as the nature and regulations of these firms are significantly different from non-financial companies. The PLCs are chosen for this study. PLCs must publish their annual reports that are publicly available and can be accessed through the BM's website. The annual reports are presented in accordance to the requirement of BM's regulations and Malaysian Companies Act 1965. The data in the annual reports are credible. This study provides a theoretical framework based on the previous literature on the relationship between board structure and risk management committee. The research model is presented in Figure 3.1 which shows a hypothesized relationship between the characteristics of BOD, control variables and risk management committee.

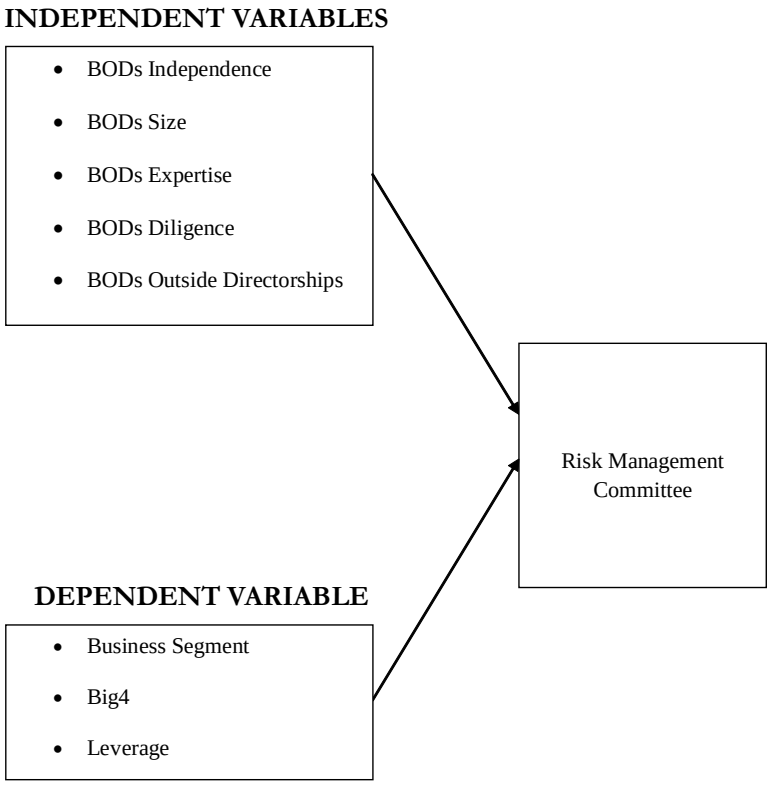

Figure 3.1: Theoretical Framework for BOD Characteristics and Risk Management Committee

ANALYSIS OF RESULT AND DISCUSSION

Descriptive Statistics for Samples

Table 4.1 presents the descriptive statistics result for all the variables (continuous variables) in the study, including independent and control variables. Descriptive statistics present the characteristics of the samples in the study, including mean, minimum, maximum and standard deviation with 150 samples. For variable of BODINDE (BOD Independence), the result reports a minimum of 17 per cent of total BOD members are independent non-executives status while 83 per cent of total BOD members are independent non-executives status for a maximum. The result also shows an average of 50 per cent of total BOD members are independent non-executives status. However, there are companies still with lower percentage of BOD members with status of independent non-executive members.

For variable of BODSIZE (BOD Size), the result shows a minimum number of BOD size is 4 members while 13 members recorded as a maximum number of BOD size. For average or mean, the result records at 7 BOD members. This result indicates that the number of BOD members is at reasonable figure. In term of variable of BODEXPERT (BOD Expert) the result reports 10 per cent as a minimum of BOD members having accounting or finance academic background. Meanwhile for a maximum number of BOD members with such qualification is 100 per cent. The result also shows an average of 40 per cent of BOD members having accounting and finance academic background.

The Table 4.1 also presents that there are companies only with 1 BOD meeting (for variable of BODDILI) recorded as a minimum while there are 12 BOD meetings recorded as a maximum. For variable of BODOUTSIDE (BOD outside directorship) there are companies that do not have any BOD members with more than one outside directorships as reported as a minimum. However the maximum number of BOD members with such status is 5 members and the average of BOD members with the same status at 60 per cent from the total number of BOD members. Lastly, the result shows only 30 per cent of total debts for total assets recorded as an average amount for leverage (variable of LEV). This situation indicates that the companies do not have huge debts compared to their total assets.

Table 4.2 presents the results of the frequency distribution for categorical or dichotomous variables, such as RMC, SEPRMC, BUSSEG and BIG4 used in this study. For the variable of RMC (risk management committee), only 53 companies or 35 per cent from the total of 150 samples have the risk management committee. The rest of 65 per cent of companies or samples do not have such committee. This result shows that most companies still less awareness on the aspect of risk especially to form risk management committee. From the above figure, only 42 companies or 28 per cent from the total number of samples of 150 companies have the separate risk management committee (SEPRMC). This figure is really lower because even the combined risk management committee is also lower.

For the variable of BUSSEG (business segment), 110 companies or samples have two or more business segments or 73 per cent from the total number of samples in this study. Most companies nowadays have more than one business streams. Lastly, for the variable of BIG4 (big4), only 34 per cent of the companies or samples audited by big 4 audit firms or 51 companies from the total of 150 samples.The rest or 66 per cent of the companies audited by non-big 4 audit firms.

Table 4.1
Result of the Descriptive Statistics for Continuous Variables

	Min	*Max*	*Mean*	*Std Deviation*
BODINDE	.17	.83	.4911	.12629
BODSIZE	4.00	13.00	6.8667	1.76721
BODEXPERT	.10	6.00	.3936	.53468
BODDILI	1.00	12.00	5.3400	1.94153
BODOUTSIDE	.00	5.00	.5975	.44856
LEV	.00	5.88	.3167	.51684

Variable Definition

BODINDE = proportion of independent non-executive members on the BOD
BODSIZE = number of BOD members at financial year-end
BODEXPERT = proportion of BOD members with accounting or finance qualification
BODDILI = number of BOD meetings during the financial year
BODOUTSIDE = proportion of BOD members with more than one different company's BOD members
LEV = total debt/total asset

Table 4.2
Result of the Frequency Distribution for Categorical/Dichotomous Variables

RMC		
Non-existence RMC	97	64.7
Existence RMC	53	35.3
Total	150	100.0
SEPRMC		
Non-existence Separate RMC	108	72.0
Existence Separate RMC	42	28.0
Total	150	100.0
BUSSEG		
Only One Business Segment	40	26.7
Two or More Bus Segments	110	73.3
Total	150	100.0
BIG 4		
Non-Big4 Auditor	99	66.0
Big4 Auditor	51	34.0
Total	150	100.0

Variable Definition

RMC = 1, if the existence of RMC, otherwise 0
SEPRMC = 1, if the existence of separate RMC, otherwise 0
BUSSEG = 1, if the company has two or more business segments, otherwise 0
BIG4 = 1, if the auditor of the BIG 4, otherwise 0

Correlation Analysis (Pearson Correlation Matrix) for Variables

Table 4.3 reports the result of correlation among the variables. The correlations are quite low, except for variables of RMC and SEPRMC which are correlated by construction. Some variables are significant, whether at 0.01 or 0.05 levels. The highest correlation is also between RMC and SEPRMC with level of significance at 0.01 with positive sign. This situation indicates that the existence of separate risk management committee has related with the establishment of risk management committee in a company. If the company is giving concentration on risk management aspects whether in combination with audit committee, it has intention to separate the risk management profile at board level known as separate risk management committee.

For the variable of BODSIZE, it correlated with variable of RMC at 5 per cent level of significance and correlated at 18 per cent (positive sign). It means that the larger size of BOD members probably influencing them to form risk management committee. They have the enough human capacity to focus on risk management issues. For control variable of BIG4, it correlated with variable of RMC and SEPRMC at 1 per cent level of significance (positive sign) and correlated at 29 per cent and 30 per cent respectively. This result shows the influence of type of audit firms to the establishment of risk management committee and separate risk management committee. The larger audit firm such as Big 4 audit firms looking the larger scope of audit and the focus on risk management aspect is one of their tasks with clients.

Table 4.3
Result of Correlation (Pearson Correlation Matrix). N = 150

	RMC	*SEPRMC*	*BODINDE*	*BODSIZE*	*BODEXPERT*	*BODDILI*	*BODOUTSIDE*	*BUSSEG*	*BIG4*	*LEV*
RMC	1	.813**	-.004	.183*	.040	.108	-.063	.099	.294**	.021
SEPRMC	.813**	1	-.002	.157	.069	.082	-.095	.040	.305**	.036
BODINDE	-.004	-.002	1	-.218**	.240**	.164*	-.056	-.053	-.047	.136
BODSIZE	.183*	.157	-.218**	1	-.185*	.164*	.019	.083	.062	.047
BODEXPERT	.040	.069	.240**	-.185*	1	.017	-.082	-.105	.047	-.007
BODDILI	.108	.082	.164*	.164*	.017	1	-.036	.145	.005	-.084
BODOUTSIDE	-.063	-.095	-.056	.019	-.082	-.036	1	.035	.185*	-.034
BUSSEG	.099	.040	-.053	.083	-.105	.145	.035	1	.083	-.117
BIG4	.294**	.305**	-.047	.062	.047	.005	.185*	.083	1	-.023
LEV	.021	.036	.136	.047	-.007	-.084	-.034	-.117	-.023	1

Variable Definition

RMC = 1, if the existence of RMC, otherwise 0
SEPRMC = 1, if the existence of separate RMC, otherwise 0
BODINDE = proportion of independent non-executive members on the BOD
BODSIZE = number of BOD members at financial year-end
BODEXPERT = proportion of BOD members with accounting or finance qualification
BODDILI = number of BOD meetings during the financial year
BODOUTSIDE = proportion of BOD members with more than one different company's BOD members
BUSSEG = 1, if the company has two or more business segments, otherwise 0
BIG4 = 1, if the auditor of the BIG 4, otherwise 0
LEV = total debt/total asset

One of the interesting results is about the correlation between variable of BODSIZE and BODINDE whereby they are correlated at 22 per cent with level of significance at 1 per cent and with negative sign. This result indicates that the larger number of BOD size is reducing the level of BOD independence in a company. The increasing number of BOD members perhaps with status of non-independence members causing the reducing rate of BOD independence level. Lastly, the variable of BODINDE and BODEXPERT are correlated at 24 per cent (positive sign) with significant level of 1 per cent. The result presents that the increasing number of BOD independence status at the same time increasing the BOD qualification of accounting and finance. They are not only having the independence status but also have the accounting and finance academic qualification.

Logistic Regression Analysis

Table 4.4 reports the result of logistic regression for this study and specifically on the dependent variable of the existence of risk management committee. The model reports the level of correct classification (the percentage of correct predictions) at 67 per cent while Cox & Snell R Square and Nagelkerke R Square are reported at 14 per cent and 20 per cent, respectively. The Chi-square test is reported at 23.062 and the model is significant at level of 0.00 ($p< 0.10$). Meanwhile the Table 4.5 reports the result of logistic regression specifically on the dependent variable of the existence of separate risk management committee. The model the level of correct classification (the percentage of correct predictions) at 75 per cent while Cox & Snell R Square and Nagelkerke R Square are reported at 15 per cent and 21 per cent, respectively. The Chi-square test is reported at 24.023 and the model is significant at level of 0.00 ($p< 0.05$).

Based on the Table 4.4 only the variable of BODSIZE and BIG4 are statistically significant to the dependent variable (existence of risk management committee). The rests of the variables are statistically not significant. For variable of BODSIZE (BOD Size), it statistically significant to dependent variable at level of 10 per cent with positive sign. The beta coefficient stated at more than 200 per cent. This result indicates that the larger the size of BOD, it probability has intention to set up the risk management committee at board level. It has an enough human capital to set up the committee that also focusing on risk issues. This result also supported the study done by Liew*et al.* (2012) that there was positive relationship between larger BOD and the establishment of RMC.

For the variable of BIG4, it statistically significant at level of 5 per cent with positive sign. This result reveals that if the companies audited by larger audit firms, it has probability to form the board risk management committee. The larger audit firms may have the broader scope of audits including risk management issues. They look outside the boundaries of the companies' businesses. They may have approaching the clients to have a committee that also focusing on the risk management matters.

However, the result of Table 4.5 reveals a little bit difference where not only the variables of BODSIZE and BIG4 are significant but the variable of BODOUTSIDE is also statistically significant to the dependent variable (the existence of separate risk management committee). It significant at level of 10 per cent with negative sign. This result shows that the multiple of BOD members do not like to form the existence of separate risk management committee. The result contradicts with some previous studies that outside directorships have positive relationship with risk management issues.

Table 4.4
Result of the Logistic Regressions

RMC = β0 + β1 BODINDE + β2 BODSIZE + β3 BODEXPERT + β4 BODDILI + β5 BODOUTSIDE + β6 BUSSEG + β7 BIG4 + β8 LEV + ε

Variables	*Expected Sign*	*IV + CV*		
Independent Variables		*Coefficient*	*Wald test*	*p-value*
BODINDE	+	.858	.271	.602
BODSIZE	+	.220	3.766	.052
BODEXPERT	+	.197	.339	.560
BODDILI	+	.068	.461	.497
BODOUTSIDE	+	-.715	1.45	8.227
Control Variables				
BUSSEG	+	.327	.543	.461
BIG4	+	1.346	11.886	.001
LEV	+	.129	.127	.721
Constant		-3.577	6.691	.010
Chi-square(sig)		23.062 (.006)		
Cox & Snell R Square		.143		
Nagelkerke R Square		.196		
Classification		67.3%		

Variable Definition:

RMC = 1, if the existence of RMC, otherwise 0
BODINDE = proportion of independent non-executive members on the BOD
BODSIZE = number of BOD members at financial year-end
BODEXPERT = proportion of BOD members with accounting or finance qualification
BODDILI = number of BOD meetings during the financial year
BODOUTSIDE = proportion of BOD members with more than one different company's BOD members
BUSSEG = 1, if the company has two or more business segments, otherwise 0
BIG4 = 1, if the auditor of the BIG 4, otherwise 0
LEV = total debt/total asse

CONCLUSION AND LIMITATIONS

The result from the logistic regression analysis presents BOD size is statistically significant to risk management committee. It means that the larger number of BOD size it probably to form the risk management committee in the company. It has enough human capital to form the kind of committee. However, the extra analysis by logistic regression reveals that BOD size and BOD outside directorship are significant to the formation of separate risk management committee. The larger number of BOD size not only to have risk management committee but to have a separate risk management committee. Traditionally risk management committee is combined together with audit committee because of till to day no mandatory requirement to have the separate risk management committee in the company. For BOD outside directorship, the results reports that the larger number of outside or multiple directorship, probably the company to form separate risk

Table 4.5
Result of the Logistic Regressions

SEPRMC = β0 + β1 BODINDE + β2 BODSIZE + β3 BODEXPERT + β4 BODDILI + β5 BODOUTSIDE + β6 BUSSEG + β7 BIG4 + β8 LEV + ε

Variables	*Expected Sign*	*IV + CV*		
Independent Variables		*Coefficient*	*Wald test*	*p-value*
BODINDE	+	.894	.255	.614
BODSIZE	+	.211	3.075	.080
BODEXPERT	+	.254	.567	.451
BODDILI	+	.041	.159	.690
BODOUTSIDE	+	-1.375	3.081	.079
Control Variables				
BUSSEG	+	.007	.000	.988
BIG4	+	1.554	13.661	.000
LEV	+	.162	.201	.654
Constant		-3.314	5.114	.024
Chi-square(sig)		24.023 (.004)		
Cox & Snell R Square		.148		
Nagelkerke R Square		.213		
Classification		75.3%		

Variable Definition

SEPRMC = 1, if the existence of separate RMC, otherwise 0
BODINDE = proportion of independent non-executive members on the BOD
BODSIZE = number of BOD members at financial year-end
BODEXPERT = proportion of BOD members with accounting or finance qualification
BODDILI = number of BOD meetings during the financial year
BODOUTSIDE = proportion of BOD members with more than one different company's BOD members
BUSSEG = 1, if the company has two or more business segments, otherwise 0
BIG4 = 1, if the auditor of the BIG 4, otherwise 0
LEV = total debt/total asset

management committee is less. They prefer to combine the risk management portfolio with audit committee or directly responsible by main BOD committee. Lastly, the result also shows that the company audited by big 4 audit firms are prefer to have risk management committee either as combined or separate. They advise to their client companies on the importance of risk management issue as they have broader scope of audit rather than the audit on financial statement.

This study refers to and uses the companies' annual reports and financial statements as the secondary documents. All the data are retrieved from these documents. The researcher suggests for the future study to have the primary data through interviews and questionnaires with other stakeholders such as audit

committee members, shareholders and regulators in order to get their perception about the variables that the researcher studying.

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