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ENHANCING BANKING PERFORMANCE THROUGH HOLISTIC RISK MANAGEMENT: THE COMPREHENSIVE STUDY OF DISCLOSURE APPROACH

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ABSTRACT

Enterprise risk management (ERM) concept received much attention from businesses and industries in Malaysia, in practice Bursa Malaysia introduced new guideline on voluntary risk disclosure practice in annual report which also known as 2013 Bursa Malaysia Guideline (effective on 1 January 2013). However, overall development and practical application of 2013 Bursa Malaysia guideline has been rather limited studies especially in banking area. Apparently, scholarly research activities in this particular area of interest are totally lacking hence lead to the essential need of this empirical study. In line with that statement, this paper aims to investigate the significant mean difference of ERM adoption among Malaysian Banking Institutions before and after a new guideline is in effect were based on voluntary disclosure practices in the annual report using common terms as a proxy for ERM adoption, and also investigate its effect onto banking performance. Content analysis was performed on the annual reports of 102 banking institutions; in addition return on Assets (ROA), return on Equity (ROE) and Non-Performing Loan (NPL) were used to determine the effect of ERM adoption towards banking performance. All in all, the findings show that the overall level of ERM disclosures among Malaysian banking institutions have improved significantly after and before the cut-off date the 2013 Bursa Malaysia Guideline is in effect. In conjunction, the findings also reveal that ERM disclosure is positively influenced the Return on Asset (ROA) and Return on Equity (ROE) in banking institutions whereas ERM disclosure do not influenced on Non-Performing Loan (NPL).

Keywords: *Content analysis, disclosure, keyword search, enterprise risk management, banking, performance*

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INTRODUCTION

The performance of banking institutions was destructed due to the world's great depression in 2007 to 2008 (Lang & Jagtiani, 2010; Tarraf, 2012). Many researchers believe that the wave of economy and financial crisis started in 1930s, and continued until the great depression in 2008 (Blundell-Wignall, Atkinson & Lee, 2009; Economist, 2013; Lang & Jagtiani, 2010; Tarraf, 2012). Financial institutions recorded the worst collapse due to high subprime mortgage, weak corporate governance, and poor risk management that finally caused the economic downturn in 2007 and 2008. Furthermore, the low underwriting standard from banks in the way to identify and recognize the risks had led to the Non-Performing Loan (NPL) issue (Lewis, Kay, Kelso & Larson 2010; Economist, 2013; Tarraf, 2012). The bank sector had failed to collect payments of principal and loan interest from debtors. Due to this, banks faced depletion of money resources which resulting in lacking of investments. Banking institutions are vital and essential sources for the center of government and public resource monetary, eventually still resulting in the depressed world economy.

The collapse of the financial institutions had attracted many researchers to investigate risk management practices and corporate governance structures. There are mixed empirical evidence towards corporate structure and risk management practice. Clearly, risk management is about internal affairs and a part of corporate governance structure. Scholars argue that one of the reasons in the financial failure is due to the weak corporate governance structure (Cheffin, 2009; Grosse, 2010; Kirkpatrick, 2009).

Therefore, the establishment of ERM is to ensure the process of identifying, assessing, controlling, reporting and monitoring risk events (unintended or intended) reaches the most relevant accuracy (ISO 31000, 2010). Moreover, the risk disclosure and meaningful risk information is essential to the stakeholder's decision making. Bursa Malaysia requires all public listed companies including banks listed under Bursa Malaysia to disclose their risk information in the annual report, by considering the requirement for corporate governance evolution and enforcement purposes. The revolution of corporate governance has resulted in high transparency and disclosure for the purpose of investor protection. As the matter of fact, Bursa Malaysia has enforced "The Statement of Risk and Internal Control"

(hereinafter referred as Bursa Malaysia Guideline 2013) as an instrument in order to ensure all the risk information are transparently disclosed to the public.

International researchers had carried out more research on ERM and financial disclosure in the United States of America (Linsmeier, Thornton, Venkatachalam & Welker, 2002; Roulstone, 1999; Venkatachalam, 1996). Canada intensified the need to voluntary the disclosure of ERM practices in annual reports (Lajili & Zeghal, 2005). Kajuter (2001) however found that there are shortcomings and lack of transparency in ERM's disclosure in annuals report due to lack of proper standards. In addition, Beasley Pagach & Warr (2008) stated that, the studies on ERM disclosure and its relationship towards financial performance especially banks are still in limited numbers.

Moreover, study made by Zainuddin, Togok and Isa (2015) has proved that Malaysia's business organizations have still not widely practiced the ERM adoption and disclosure. On the other hand, prior studies have proved that 49% of public listed organizations in Bursa Malaysia had unsuccessfully disclosed risk information in their annual report (Zainuddin, Togok & Isa, 2015).

Zeghal and El Aoun (2016) analyzed the determinants and document which taken effect of 2007-2008 financial crisis on the volume, and the quality of enterprise related to risk management (ERM) disclosure in the annual reports based on the large US banks sample. Their content analysis approach has found that ERM disclosure is significant and positively associated with the bank crisis and size, board independence and duality; while a negative effect were reported on profit, leverage, and board size.

Thus, this study is aimed to investigate the significant movement of effects of ERM disclosure towards banking performance in Malaysia. Prior study had proved that there were positive linkages between organization's performance (including bank) and risk disclosure (Chen & Lee, 2014). Moreover, a good disclosure may lead to the reduction of risk's value, which thus resulting in the enhancement of the performance (Chen & Lee, 2014). The result of this study would help in figuring out whether the ERM disclosure does provides significant effect towards the banking institutions. Other than that, the researchers intend to head this study as not

solely beneficial to banking institutions, but also capable to provide credible information to academicians and stakeholders. Banking institutions will also allowed of using this research in order to increase the level of compliance and acceptance towards ERM and voluntary disclosure to the public as well as improving their performance. Academicians could enhance the use of this study to the further level, and as an added value of literature review. Meanwhile, stakeholders will capable to gain awareness in regards to risk disclosure.

BURSA MALAYSIA GUIDELINE 2013: STATEMENT OF RISK & INTERNAL CONTROL

Bursa Malaysia in January 2013, had issued a new guidance of risk information disclosure for directors of Public Listed companies under Bursa Malaysia. The new guidance has been called the Statement on Risk and Internal Control, also referred to Bursa Malaysia Guideline 2013 (Bursa Malaysia, 2013). All public listed companies including financial institutions can voluntarily disclose their risk information. Unfortunately, the Statement on Internal Control which was introduced in the year of 2000 was superseded due to the introduction of Bursa Malaysia Guideline 2013. Even though Bursa Malaysia Guideline 2013 is on a voluntarily practice, Bursa Malaysia and corporate governance institutions believe that the guideline could enhance the disclosure and transparency of the organizations despite of improving the corporate governance practice. The guideline is effective for any audited account for financial year end on or after 31st December 2012. The Bursa Malaysia Guideline 2013 is an obligation to the Board of Director (BOD) as a protector of stakeholder committee in the organization and management as the preparer of the annual report. Therefore, management are obligated to disclose all risk information and risk management in the annual report. The Board of Director must ensure that the disclosure is made accordingly, while at the same time ensuring the effectiveness of the organization's performance.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Enterprise Risk Management (ERM) Disclosure Before and After Implementation of Bursa Malaysia Guideline 2013

The Securities Exchange Commission had amended the rule of disclosure among public listed companies. The purpose of the amendment is to increase the corporate governance, institutions image, structure, performance as well as gaining public trust. The meaningful disclosure of risk information and practice is very important to stakeholders as well as to firm's reputations. Approximately, there are linkages between firm size and adoption of ERM. Previous study has stated the trend of disclosure risk information in annual reports, which was significantly influenced by the size of industry (Elzahar & Hussainey, 2012). Firms with complex structure and risk models will tend to have sophisticated and comprehensive risk management. Undoubtedly, ERM is the comprehensive and sophisticated risk management after holistic operations. Therefore, a firm with a bigger size tends to become more transparent, with the tendency of voluntarily disclose upon their risk practices in order to show favorable reputation to stakeholders. Banking sector is a big industry with a strong reputation, together with the involvement of with many risks such as operational risk, market risk, credit risk, liquidity risk, and business risk.

The trend of disclosing the information of risk management has positively increased around the world. According to Chen and Lee (2014), many public listed firms and organizations began to disclose the risk practice in the annual report on 2007 and the trend continuously increased until 2011. Ismail and Rahman (2011) reported 53% firms listed in Bursa Malaysia began to disclose their risk information to the public. Furthermore, study by Chen and Lee (2014) reported that there is an increasing trend of risk disclosure within public listed banks around the world after the catastrophic event. The post-event became as a debate among regulators, practitioners, professionals and academicians. The debate has turns to be a platform that helps to stimulate and shaping the old silo of ineffective practices towards a new and comprehensive practice. The goal of the new practice whether in corporate governance or even in risk management is purposely to rebuild corporate governance structure as well as to regain public trust. In line with

the statement, Bursa Malaysia had announced and implemented the new risk statement which is called the Statement on Risk and Internal Control effective in the year of 2013 which overrode the Statement of Internal Control implemented in 2000. Therefore, by relating all the statements above, the following hypothesis is proposed:

H_1: There is a significant mean between ERM disclosure before and after implementation the statement (Bursa Malaysia Guideline 2013) in banking institutions.

Return on Assets (ROA)

Michiels, Vandemaele and Vergauwen (2009) in their study agreed that the volume of sales, profitability and beta (risk level) were found significantly related to the extent of risk reporting. However, Helbok and Wagner (2003) emphasized about the less well-capitalized and less profitable banks, which tend to disclose more on operational risks in order to gather public confident and better transparency.

Return on Assets (ROA) can be defined as the percentage of profit that a company earns in relation to overall resources. ROA is a vital measurement that helps to indicate the profitability and efficiency of a firm (Cheng & Mckinley, 1983). ROA will indicates how efficient a firm uses its assets in generating good performance. ROA was used in previous research which purposely acted in investigating the organization's performance, either in public listed or non-public listed organizations (Jurns & Hinson, 2008). The argument by previous researcher regarding ROA is by considering that as the powerful measurement in organization performance (Jursn & Hinson, 2008; Antle & Smith, 1986). Apart from that, Shosha (1989) has stated ROA as the best way to measure bank performance. According to a survey by European Central Bank (2010), ROA is commonly used by consultants even though it has been considered as a traditional measurement in investigating performance.

Due to limited study on ERM disclosure and organizations' performance, corporate social disclosure and the effect to organization performance are used as a benchmark to develop a hypothesis. According to Griffin and Mahon (1997), there is a positive relationship between

Corporate Social responsibility's (CSR) disclosure and ROA. Meanwhile, in another empirical study on CSR and ROA, high correlation is noted between variables (Ortlizky, 2003; Tsoutsoura 2004). Besides, in an empirical study conducted by Jitaree (2015), there is positive relationship between CSR disclosure and organization's performance. By referring to the discussion at the above paragraph, the second hypothesis is proposed:

H_2: There is a positive and significant relationship between enterprise risk management (ERM) disclosure and Return on Assets (ROA).

Return on Equity (ROE)

The Return on Equity (ROE) is used in order to measure the value of shareholder and organization's performance. This had to be proposed direct financial return assessment of shareholder investment within the organization. Shareholders can be considered as the benchmark of value performance for one particular organization. ROE is the simplest ratio that has to be understood by the stakeholder and yet has become as a very significant item in presenting the annual report. ROE allows a comparison between industries. Just like ROA, ROE has been widely used to measure organization's performance (Jurns & Hinson, 2008). ROE is also said as a good measurement tool in determining organization's performance (Jurns & Hinson, 2008; Antle & Smith, 1986). Moreover, according to survey made by European Central Bank (2010), ROE is commonly used by bank analysts in order to determine organization's performance and allows comparison between industries. Consequently, it may be argued that those banks with higher risk levels will disclose more risk information in comparison to those with lower risk levels (Linsley, Shrives & Crumpton, 2006). Previous studies did found a positive association between the level of risk and the extent of risk reporting (Abraham & Cox, 2007; Hassan, 2008; Michiels, Vandemaele & Vergauwen, 2009). Previous study stated that ROE was affected by the implementation of CSR disclosure. CSR disclosure does provides a significant and positive relationship towards ROE (Griffin & Mahon 1997; Jitaree, 2015). As stated in the discussion above, the third hypothesis developed is as follows:

H_3: There is a positive and significant relationship between Enterprise Risk Management (ERM) and Return on Equity (ROE).

Non-Performing Loan (NPL)

Basel Committee on Banking Supervision defines loan as a Non-Performing Loan (NPL) when the loan is obligated for more than 90 days on material credit obligation to the bank. According to European Central Bank (2010) survey, the NPL is considered as one of the measurement items that have been used in order to investigate bank performance. In their survey, NPL is commonly used by banking analysts and rating agencies. Logically, high NPL would lead to greater financial and performance issues due to shortage source of reinvestment and cash flow. Too much NPL would effects financial performance for any organization especially the bank sector. In China, there are 40% - 60% of outstanding total loans within the banking sector and this has showed into the result of poor banking performance (Economist Intelligence, 2001; Bottelier, 2002; Ma & Fung, 2002).

According to OECD (2002) the major factor of poor performance in China's banks is due to the lack of 'true credit culture'. Another previous study stated than NPL shows weak profitability (Jassaud & Kang, 2015). High NPL may contribute to poor performance. In addition, US and World Government Policy have encourages people to own a house, which yet had increased the demand of housing loans from banks, and thus making the policy as the major factor that contribute to the destruction of financial institutions. The low underwriting standard from banks in identifying and recognizing the risks had led to the non-performing loan (NPL) issue (Lewis, Kay, Kelso & Larson 2010; Economist, 2013; Tarraf, 2012). The bank sector had failed to collect payments of principal and loan interest from debtors. Due to this, banks faced depletion of money resources resulting in lacking of investments. Despite of the banking institutions are considered as the vital and essential sources for the center of government and public resource monetary, that has eventually resulting in the depressed world economy due to high non-performing loan. Therefore, the fourth hypothesis developed is as follows:

H_4: There is a negative and significant relationship between Enterprise Risk Management (ERM) disclosure and Non-performing Loan

RESEARCH METHOD

This study is conducted among the banks that registered under Bank Negara Malaysia (BNM) and listed in Bursa Malaysia. The list was retrieved on 29th January 2016 in BNM website. The total sample of bank institutions comprise of Commercial Banks, Islamic Banks, Investment Banks, International Banks and Other Banks, which comprises of 50 banks instead of the target population of 59 banks in Bursa Malaysia (BM). The exemption of the 9 banks is due to the limitation in collecting the annual reports since they were either unpublished or some of the annual reports were not in Malaysian (Ringgit) currency. According to Sekaran and Bougie (2013), a research should have at least minimum sample size of 30 and not more than 500, in which the accepted minimum size is according to the number of variables for the study (Sekaran & Bougie, 2013). The data analysis focused on 102 annual reports from 51 banking institutions in 2012 (before the Bursa Malaysia Guideline 2013), and 51 annual reports of 2013 from the total sample (after the implementation of 2013 Bursa Malaysia Guideline) which consisting of 84% as the target population.

VARIABLE MEASUREMENT

Enterprise Risk Management (ERM) Keywords Disclosure

The examining of significant mean difference of ERM disclosure will be implemented by using content analysis in bank's annual report. The keywords used in the analysis which are closely related to ERM characteristics will be used as the proxy in the process of analyzing ERM disclosure before (pre) and after (post) the implementation of Bursa Malaysia Guideline 2013. Referring to Gordon, Loeb and Tseng (2009); Hoyt and Liebenberg (2011); Lin, Wen and Yu (2012) and Zainuddin, Togok and Isa (2015) keywords can be used in order to identify the ERM adoption within the organization. The keywords that are usually used in the previous study as according to the evidence of the ERM adoption would be "Enterprise Risk Management, "Corporate Risk Management", "Consolidated Risk Management", "Holistic Risk Management", "Integrated Risk Management", "Risk Management Committee", "Risk Committee" and "Chief Risk Officer" in the companies Audited Report and Annual Report. In line with the statement, this study will also use the same keyword in

the content analysis in order to ensure the significant mean before (pre) and after (post) the Bursa Malaysia Guideline 2013. Table 1 show the list of keywords used in the statistical analysis for finding and comparing the significant mean within banks.

Table 1: ERM Adoption Keywords

No	Name of the Items	Code
1	Enterprise Risk Management	ERM
2	Corporate Risk Management	CRM
3	Consolidated Risk Management	CORM
4	Holistic Risk Management	HRM
5	Integrate Risk Management	IRM
6	Risk Management Committee	RMC
7	Risk Committee	RC
8	Chief Risk Officer	CRO

(***Sources***: Gordon, Loeb & Tseng, 2009; Hoyt & Liebenberg, 2011; Lin, Wen & Yu, 2012; Zainuddin, Togok & Isa, 2015).

Measuring Performance of Banks

The second objective and research question of this study is to find the significant influences of ERM on the Return of Assets (ROA) of the banking sector. In order to answer the research question and to ensure this investigation does not discriminate the objective of the study, the variable measurement need to be managed accordingly. First of all, the definition of the performance needs to be provided in order to ensure a better understanding on the term of performance in thorough perspective. Second, the method of measurement for the performance will be depending on Return on Equity (ROE), Return on Asset (ROA) and Non-performing loan (NPL). According to Kaplan and Norton (1992), ROA, ROE, and turnover have always been used as performance indicators in a financial perspective. Referring to the Kaplan and Norton's statement, ROA, ROE, and NPL were used as measurement in evaluating bank performance, while bank size be used as a proxy of the measurement.

Return on Assets (ROA)

ROA = Net after Tax Income/ Total Assets

Many past studies had used ROA as their measurement in order to investigate firm performance. According to Jurns and Hinson (2008), ROA is used as the measurement for bank performance as ROA is considered as a comprehensive and powerful tool that capable to investigate bank profitability. In the past literature review, previous researchers managed to pinpoint the importance of ROA in a firm's performance measurement (Antle & Smith, 1986). Some of emphasize ROA as a vital option in order to investigate governance and operating performance. In the past study, results also show that ROA is associated with corporate governance and firm's performance.

Return on Equity (ROE)

ROE = Net after Tax Income / Equity Capital

Meanwhile, Jurn and Smith (2008) also agreed that ROE is an attribute that used in order to identify and investigate firm performance. ROE has been pinpointed as an important tool that measures the profitability as well as the ROE's definition. The collected statements also been anonymously agreed by many past researchers. Based on the previous studies, ROE has been used as a measurement mechanism of performance, which relatively focuses onto performance evaluation (Antle & Smith 1986; Gibson & Murphy, 1990; Janakiraman, Lambert & Larcker, 1992).

Non-Performing Loan (NPL)

NPL ratio = Non-performing loan/ Total loan (gross)

Each country would vary in terms of the use terms for NPL. For example, NPL in Italy covers four categories of identification. Some countries would use different the terms of NPL with 'Bad debt', 'Substandard', 'Past due' and 'Restructured'. Some countries would cover five terms to define NPL, namely 'Standard watch', 'Doubtful debt', 'Loss loan', 'Substandard' and 'Standard'. No matter how much variety of definition is provided, there is one most common definition used to define NPL, by according to the Basel

Committee on Banking Supervision (ibid Paragraph 452). This common definition has become a reference to financial institutions and capital world market. Banks consider for NPL when an obligor is unable to repay credit obligation to the bank in full payment, or bank will consider the loan as NPL when obligor is past due for more than 90 days on any material credit obligation to the bank involved.

According to Jassaud and Kang (2015), NPL reflects weak profitability. The higher the NPL is within a bank, the lower the valuation. NPL will cause credit loss because banks cannot receive cash interest revenue, as a result the bank will have revenue loss and experience the reduction of bank performance. Therefore, NPL has been decided as one of measurements in order to investigate bank performance.

Table 2: The Summaries of Measurement

Construct	Item	Coding	References
Disclosure	Enterprise Risk Management	ERM	(Gordon, Loeb & Tseng, 2009; Hoyt and Liebenberg, 2011; Lin, Wen & Yu, 2012 and Zainuddin, Togok & Isa, 2015)
	Corporate Risk Management	CRM	
	Consolidated Risk Management	CORM	
	Holistic Risk Management	HRM	
	Integrate Risk Management	IRM	
	Risk Management Committee	RMC	
	Risk Committee	RC	
	Chief Risk Officer	CRO	
Performance	Return on Asset	ROA	(Griffin & Mahon 1997, Jitaree, 2015) Jassaud & Kang (2015)
	Return on Equity	ROE	
	Non-Performing Loan	NPL	

FINDINGS

The function of correlation is to find out whether a relationship between one variable to another variable does exists, and determines its magnitude and direction of the correlation. This is a way of measuring the extent to which two variables are related, and also the way to measure the pattern of responses across variables. The result of correlation analysis is important before regression analysis is taking place. In this study, correlation coefficient analysis is used to determine the relationship between ERM keywords disclosure and the performance of the banking sector. This study adapts the guideline which is based on interpretation of correlation

coefficient of Hinkle, Wiersma and Jurs (1998), by indicates .90 to 1.00 as very high correlation, .70 to .90 as strong correlation, 0.50 to 0.70 as moderate correlation, 0.30 to 0.50 is low correlation and .00 to 0.30 as little if any correlation.

Table 3 shows the correlation between all independent variables which are Risk Management Committee (RMC), Risk Committee (RC), Chief Risk Officer (CRO) and others toward dependent variables which are Return on Assets (ROA), Return on Equity (ROE) and Non-Performing Loan (NPL). The results show mixed relationship between all independent variables, and the first dependent variable is ROA. The highest value of correlation coefficient of all independent variables and ROA is .233, while the lowest correlation coefficient is .090, which indicates little if any relationship (.00 to 0.30). Meanwhile, the relationship of all independent variables and second dependent variable which is ROE shows mixed sign. The highest correlation coefficient is .484, which indicates low correlation between CRO and ROE (.30 to 0.50 correlation). Approximately, the relationship between all independent variable and NPL presents low correlation, with .411 correlation co-efficiency. On the other hand, the control variable (size of the bank) shows low correlation, which the highest correlation coefficient is .453 and the lowest correlation coefficient is .033 (little if any). For overall results, each independent variable has a relationship with all dependent variables, even though the results are experiencing the mixed sign or direction. However, overall result indicates low correlation between independent variables and dependent variables.

Table 3: Pearson Correlation

	RMC	RC	CRO	Others	NPL	ROA	ROE	Size
RMC	1	.493**	.002	.082	-.001	.170	.109	.033
RC		1	.390**	-.096	.141	.090	.233*	.235*
CRO			1	.361	.286*	.233*	.484**	.453**
Others				1	.411*	-.268	-.142	.250
NPL					1	.093	-.039	.260**
ROA						1	.418**	-.016
ROE							1	.518**
Size								1

*Significant at .10, **significant at .05
Dependent variables: ROA, ROE, NPL

Paired T-Test

Table 4 shows the result of content analysis by searching the number of appearance of ERM keywords in the annual report of 2012 (pre) and 2013 (post). Risk Committee and Chief Risk Officer's keywords show an increasing trend which each of them does increased by 10% in the number of appearance. The number of appearance right before the implementation of Bursa Malaysia Guidelines 2013 was 315. However, after the implementation of the guidelines, the number of appearance increased to 483. Meanwhile, CRO also presents an increasing trend, where the number of appearance is 105 and continues to increase to 133 in 2012. The trending is due to the enforcement of the guidelines which is acts to disclose the risk practice in annual report. Unfortunately, Risk Management Committee, Integrated Risk Management and others keywords had shown a declining trend. In 2012, Risk Management Committee presents a high number of appearances, which amounted of 650, but decreased to 603 in 2013. Integrated Risk Management has decreased from 71 to 70, while others have decreased from 29 to 27 according to the number of appearances. The words Risk Management Committee, Integrated Risk Management, Enterprise Risk Management, Holistic Risk management, and Consolidated Risk Management are considered as the unfamiliar words, which are not widely used to describe the risk management practice in Malaysia's public listed organizations and banking sector, as compared to Risk Committee (Zainuddin, Togok & Isa, 2015). Risk Committee keywords are enough to represent risk management functions and committees that related to risk. Meanwhile, the keyword Chief Risk Officer has increased after banks do realized about the importance of CROs in managing the ERM activities, together with the increment of employable talent in ERM area (Zainuddin, Togok & Isa, 2015). CRO is a signal of ERM association because Chief Risk Officer is specifically appointed on duty in order to manage ERM program (Hoyt & Liebenberg, 2003).

Table 4: The Intensity of Disclosure on ERM in the Annual Report of Banking Sector

	Number of Appearance				% Increase
	Pre (2012)		Post (2013)		
	No of Appearance	%	No of Appearance	%	
RMC	650	56	604	46	-10
RC	315	27	483	37	10
CRO	105	9	133	10	1
Others	100	9	97	7	2
TOTAL	**1,170**	**100**	**1,317**	**100**	

Note: Others included 'Enterprise Risk Management', 'Holistic Risk Management', 'Integrated Risk Management', 'Corporate Risk Management' and 'Consolidated Risk Management'.

Paired T-test was conducted in order to compare mean before and after the implementation of Bursa Malaysia Guidelines 2013. On the other hand, Paired T-test also used in order to find the significant mean which in line with the first objective of the study and (H1) hypothesis since the data is considered as normally distributed. Thus, as per stated in Table 5, Risk Committee indicates .069, and CRO indicates .091 which is significant at .10 percent. However, Enterprise Risk Management (ERM), Holistic Risk Management (HRM), Integrated Risk Management (IRM), Consolidated Risk Management (CORM) and Risk Management Committee (RMC) do not indicate significant mean before and after the implementation of Bursa Malaysia Guidelines 2013. Therefore, the hypothesis H1 of whether there is significant mean before and after implementation of 2013 Bursa Malaysia Guideline is supported.

Table 5: Significant Mean Different the Number of Times the Terms Appeared in the Annual Reports Before and After 2013 Bursa Malaysia Guideline

	Mean	SD	t	P-value
Risk Management Committee (RMC) 2012 and 2013	.902	9.377	.687	.495
Risk Committee (RC) 2012 and 2013	-3.294	12.654	-1.859	.069*
Chief Risk Officer (CRO) 2012 and 2013	-.549	2.274	-1.724	.091*
Others 2012 and 2013	.059	.785	.535	.595

*Significant at level 0.1

Another aims of this study is to examine the relationship between ERM disclosure and ROA. Table 6 depicts that there is a positive relationship between Risk Management Committee (Coefficient = .008, t = 2.131, p = .036), Chief Risk Officer (Coefficient = .049, t = 2.937, p = .004) and others (Coefficient = .088, t = -1.899, p = .061). Since the p-value for Risk Management Committee and others are below .010, Risk Committee's p-value is below .005, therefore Hypothesis 1 is accepted. The disclosure of ERM before and after the implementation of Bursa Malaysia Guidelines 2013 has a significant positive relationship. The more a bank institution complies with ERM, the more efficient is the bank's performance. ROA is functioned in which to interpret and present the efficiency of the organizations.

Table 6: The Table of Correlation Coefficient Model for 2012-2013 of Annual Report

Model	ROA	ROE	NPL
Constant	.354 (.857)	23.690 (-3.768)***	-.393 (-1.181)
Size	-.067 (-1.104)	4.609 (5.006)***	.043 (.875)
RMC	.008 (2.131)**	.059 (.320)	.001 (.434)
RC	-.005 (-1.553)	-0.31 (-.640)	-.001 (-.338)
CRO	.049 (2.937)***	.396 (1.550)	.019 (1.369)
Others	.088 (1.899)*	1.196 (1.698)**	.078 (2.099)**

***Significant at 1%;** Significant at 5%; *Significant at 10%

According to Table 6, only one ERM disclosure of before and after the implementation of Bursa Malaysia Guidelines 2013 is registered as significant, which amounted with 5% (Coefficient = 1.196, t = 1.698, p =.039). However, the size does gives a big impact onto the ROE due to the regression result which shows (Coefficient = .484, t = 5.006, p = .000) a very significant and positive relationship, with the p-value is less than .001. Thus, there is positive and significant relationship in ERM disclosure before and after the implementation of Bursa Malaysia Guidelines 2013, which hence lead Hypothesis 3 as to be accepted.

The aim of this study is to examine the relationship between ERM disclosure and NPL. Table 6 shows that there is only one independent variable is significant at the p-value of .5 percent (Coefficient = .247, t = 2.099, p = .039). Since there is an independent variable showing significant and positive relationship, therefore Hypothesis 4 is rejected. The hypothesis development has proposed Hypothesis 4 to be presenting as the result of negative relationship.

Table 7 shows the result of ANOVA for all independent variables towards dependent variables. The independent variable applied in this study which includes the series of ERM disclosure that comprising before and after the implementation of Bursa Malaysia Guidelines 2013 (Statement of Risk and Internal Control) has shown the significance. For the first dependent variable which is ROA, the p-value is recorded to be significant at 0.010 (p = 0.056). Meanwhile, second dependent variable namely ROE represents as the most significant which indicates the p-value less than .001. In addition, the third independent variable which is NPL is recorded as significant relationship at .005 (p = .005). Therefore, ROA and ROE hypothesis is accepted in this study. Unfortunately, the last hypothesis (NPL) is rejected due to contrary direction even though the ANOVA table does show the significant p value at 5%.

Table 7: ANNOVA

	ROA	ROE	NPL
Sum of Square	2.085	1890.942	1.940
Df	5	5	5
Mean Square	.417	378.188	3.88
F	8.201	8.201	3.609
p-value	0.056*	.000***	.005***

Dependent Variables: ROA, ROE, NPL
Predictors: (Constant), RMC, RC, CRO, Others

CONCLUSION

This study is aimed to explore and investigate the significant mean of ERM disclosure by conducting content analysis of ERM keywords from the annual

report of pre (2012) and post (2013) through the implementation of the Bursa Malaysia Guideline 2013. In addition, this study also aims to investigate the relationship between ERM disclosure and banking performance by using ROA, ROE and NPL.

Finding shows a significant different of mean for ERM adoption before and after the introduction of Bursa Malaysia Guideline 2013 within the banking sector. Paired T-Test indicates only two (2) keywords out of nine (9), which are related to ERM keywords search and the test managed to find the result as to be significant. The keywords would be Risk Committee (RC) and Chief Risk Officer (CRM). Risk Committee is widely used since the stakeholders find Risk Committee (RC) as the keyword that seems to be more convenient, as compared to Risk Management Committee (RMC). RC has been widely utilized in annual report for consecutive years. Meanwhile, banks tend to use Chief Risk Officer (CRO) after the implementation of Bursa Malaysia Guideline 2013. This is due to CRO's function itself, which is to ensure the ERM program and progress are put into practice accordingly. The establishment of CRO has been believed to be as a good indicator in informing the public about the current banking institution, which is religiously be in the ERM adoption progress. Meanwhile, other keywords are insignificant as they are not culturally applied in Malaysian environment. However, the objective of determining whether there is a significant mean of ERM disclosure, before and after implementation of Bursa Malaysia Guideline 2013 is successfully achieved.

The second, third and fourth objectives are respectively aim to examine the relationship between the ERM disclosure and banking performance. ROA, ROE and NPL were used in order to examine the performance since their wide utilization in many prior studies. Based on prior study, CSR disclosure has mentioned to give a positive impact to ROA and ROE. Unfortunately, not many articles are available regarding the relationship between ERM disclosures and banking performance. Therefore, the development of hypothesis is inspired from CSR disclosure and organization performance (Jitaree, 2015). In line with that statement, this study has proven that the ERM disclosure is having a significant influence onto banking performance. Initially, ROA's establishment is to determine the efficiency of organization (or bank), while ROE's establishment is to determine the shareholder investment. In the real world, performance is considered

as a good mechanism whenever the high efficiency of organization is simultaneously portray the capability in managing the resources accordingly, with the low possibility of resource shortage. Meanwhile, shareholders can be classified as an institution or a group that provide resources in terms of monetary and capital to an organization (or bank). The value of a shareholder does help to increase the confidence of the shareholder to reinvest, which hence resulting in the performance increment of the bank or any related institution. Therefore, the regression analysis has proven that Hypothesis 2 and 3, which is the ERM disclosure has a positive and significant relationship to ROA and ROE; and the hypotheses are dominantly supported by previous studies (Jitaree, 2015; Griffin & Mahon, 1997).

A small sample might be one of the reasons that contribute towards the rejection of Hypothesis 4. To be precise, this study is only reviews two consecutive years of annual reports, which are 2012 (pre) and 2013 (post) of the introduction of Bursa Malaysia Guideline 2013. The researchers believed that a sample of two or more consecutive years capable to produce positive and significant results, where Hypothesis 4 could be accepted. The rejection of the last hypothesis is due to differences of financial facilities and culture. The prior study results have proposed a negative relationship between ERM and bank organization (Liebenberg & Hoyt, 2003; Beasley, Clune, & Hermanson, 2005). Apparently, Malaysia is not been included in their research sample, which thus making the results as to irrelevant to be used in Malaysian financial and facilities' culture. Malaysia might have fewer restrictions pertaining to loan facilities, which therefore turns the possibility to have NPL as to be higher within the banking sector in Malaysia, together with the introduction ERM. Hypothesis 4 might be rejected because of fewer restrictions of loan facilities, and the combination of adoption's level is still in its beginning stage.

All in all, the implementation of Bursa Malaysia Guideline 2013 has caused a significant difference on the improvement of ERM disclosure. Moreover, ERM disclosure has a significant and positive relationship with banking performance in terms of ROA and ROE. Surprisingly, ERM disclosure rejects the NPL's significant and negative relationship.

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