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Int. J Sup. Chain. Mgt   Vol. 8, No. 1, February 2019

Corporate Governance Reform in Banking: Risk Governance and Performance of Commercial Banks in Asia Emerging Markets

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Abstract— **The banking institutions worldwide, including banks in emerging Asia have been operating in more challenging and more uncertain environment after the 2007 financial calamity. In ensuring an optimal functioning of the banking sector, Basel Committee on Banking Supervision (BCBS) highlighted the importance of effective corporate governance in the banking sector. Observing from the suggestion for banks to reform their corporate governance, this study is conducted to examine the relationship between risk governance mechanism and bank performance. Using a sample of 109 banks with 545 observations in eight Asia emerging economies for a period of 2011-2015, it is evidenced that risk governance mechanism is significantly and positively related with bank performance represented by its liquidity. Therefore, risk governance is vital for banks betterment in Asia emerging market to weather future negative effects as well as to restore and maintain their resilience.**

Keywords— *Corporate Governance, Risk, Banking, Asia, Emerging Markets*

1.   Introduction

Financial services industry touches the lives of every individual, household and business within the economy of a country [1]. Apparently, banking performance of a country does have a major impact on the country's economic performance including countries in Asian emerging markets that have bank-based financial systems. A consultative document by Basel Committee on Banking Supervision (BCBS) (2014) underlined that banks'

well-being and soundness are key to financial stability, and the system in which they conduct their businesses, therefore, is fundamental to economic strength [2].

A statement from Chief Economist of the World Bank in June 2014 indicated that the recent 2007/2008 global financial turmoil is not completely over and banks worldwide must be more vigilant in years to come. It was also highlighted by BCBS (2014) [2] on the importance of corporate governance in ensuring an optimal functioning of the banking sector. The banks must not only improve its efficiencies compared to their competitors but must also be able to know which corporate governance practices will improve their performances as well as be able to weather the external conditions.

One of the main significant reforms that highlighted by BCBS emphasis on risk management. This governance mechanism was proposed by BCBS as one of the corporate governance principles. In view of that, the importance of the professed "risk governance" for banks in emerging markets given that the typical governance measures in most of the previous studies on corporate governance and its valuation effect in non-financial corporations, may be inadequate in describing the relevant governance structures of banks [3].

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2.   Literature Review
2.1   Risk Governance in Banking

In a report of OECD Steering Group on Corporate Governance emphasized that prime responsibility of board is to ensure the integrity of the corporation's systems for risk management [4]. It was concluded that the financial turmoil can be attributed to imperfections in corporate governance arrangements which did not serve their purpose to safeguard against excessive risk taking in several financial institutions. Referred to a private sector report of Institute of International Finance in 2008 which insisted for a need to re-emphasize the respective roles of the Chief Executive Officer (CEO) and the board in the risk management process, apart from a solid risk culture throughout the firm [4]. The report made several pertinent suggestions to reinforce board management of risk issues; the boards need to be educated on risk issues as well as to be given the means to understand risk appetite and the firm's performance against it. A few members in the risk committee (or equivalent) should be individuals with technical financial sophistications in risk disciplines or with solid business experience giving clear perspectives on risk issues.

The risk management or risk committee is vital in ensuring that the conflict of interest between the shareholders (with a diversified portfolio who are normally risk seeker) and the managers who are risk averse is managed through more efficient board monitoring [5]. This can make certain managers do not simply avoid profitable but risky projects that may improve shareholders' value and also certifies that risks from diversification or non-focused strategy are well-managed. This also in line with the goals of the international institutions such as BCBS, OECD and the European Union (EU) to specifically insert risk governance in their guidelines to improve bank corporate governance. In this regards, banks in Asia emerging countries must explore more applicable risk managements that are vital for them differs from for non-bank organizations. It is also consistent with Hasan and Dridi (2010) who concluded banks which did not have efficient risk management implementations during the 2007 financial crisis encountered poorer financial flaws after the financial disaster as against the banks with better risk management practices during the financial catastrophe [6].

Apart from the above-mentioned report that strongly suggested for a requirement to re-emphasise the respective roles of the CEO and for a solid background of risk committee (or equivalent) in risk management practices of banks, the suggestions for a Chief Risk Officer (CRO) who should be part of a bank's executive board and oversees all relevant risks within the bank are also raised [7-9]. Hence, the establishment of a separate risk committee together with the appointment of a specific officer-in-charge (preferably at director's level) of risk management in a bank is of utmost importance. Apparently, there are no earlier researches that examined the relationship between the appointment of CRO and performance of banks except dissertations by [10], [11] notwithstanding growing number of banks that appoint CRO or equivalent, in tandem with recommendations by BCBS. Most of the existing studies such as [12], [13] only took the establishment of risk committee without considering the risk committee's characteristics in their model specification.

2.2   Risk Governance Mechanisms and Bank Performance

Investigated the presence of a CRO in the executive board of a bank [10]. They employed buy-and-hold returns of banks' stocks, ROA as well as ROE as their measurements to gauge the performance of banks. Based on their empirical findings, throughout the financial calamity, the stock returns do not differ significantly between banks with and banks without a CRO in the executive Board. However, [11] discovered that the presence of CEO in banks was significantly related to better bank performance. The contribution of decisions and recommendations from risk committee is significant towards advancements of the banks' performances, particularly during financial meltdown. In addition, [12] discovered that the establishment of separate risk committee significantly influences performance and market valuation of banking institutions. Hence, CRO in banks who implemented stronger risk management mechanisms might contribute to banks better performance level. However, most of the existing studies such as [12], [13] only took the establishment of risk committee without considering the risk committee's characteristics in their model specification. The next section discusses the specific risk governance framework in relation to bank performance.

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2.2.1   Size of Risk Committee

[3] discovered that banks with larger risk committee achieved better profitability but in contrast, they revealed that size of risk committee was negatively associated with market valuation and the expected market growth of banks (Tobin's Q and price earnings ratio). This indicates that the market identifies a "really functioning risk committee" for banks should constitute small number of members but with frequent effective meetings. Correspondingly, [14] also concluded that control and risk committee which is responsible for internal control activities should be smaller so as to enhance performances of banks. The most recent study highlighted that a larger risk committee is desired for more effective control mechanism [15]. Furthermore, member of larger risk committee would consist of those with varied expertise for effective oversight. Therefore, it paves way for rising vigilance over board decisions as well as activities and consequently, leading to escalated banks' profitability. Accordingly, the following hypothesis is developed:

H1: There is a significant positive relationship between size of risk committee and bank performance.

2.2.2   CRO Gender

[16] discovered that the presence of women board and executives decreased bank risk during financial crisis. As for the full-time period of their sample, bank risk also declined as the percentage of women on the audit committee and corporate committee increased. [17] opined that since directors are obliged to make decisions in the best interest of their corporation while considering viewpoints of multiple stakeholders, having a significant portion of female directors may produce more effective decisions because they have highly developed Complex Moral Reasoning (CMR) skills than male directors. The above positive impact of CRO gender might also in agreement with [18] who suggests that female directors have more diligent approach to the monitoring role via membership on related corporate governance committee together with audit committee [18]. Based on those evidences, the hypothesis is constructed as follow:

H2: There is a significant positive relationship between female CRO and bank performance.

2.2.3   CRO Nationality

[19], [20] found that nationality diversity is positively related to firm performance. The presence of foreign board members promotes well-organized monitoring as well as reduces managerial entrenchment and agency costs in a company. In contrast, [21] discovered that local CROs contribute to better bottom lines of corporations under review. Instead of examining the impact of CRO appointment alone on bank performance, their background including their nationality are indeed vital to ensure their better contributions on better corporate governance practices and ultimately, banks' enhanced performance. Therefore, the following hypothesis is developed:

H3: There is a significant positive relationship between local CRO and bank performance.

2.2.4   Reporting Line of CRO

In the multivariate analysis, [10] discovered that banks in which the CRO reports directly to the board of directors performed significantly better during the credit crisis than other banks in which CRO did not report directly to their boards. This signifies that risk governance in general together with line of reporting of the CRO specifically, were vital to the banks' crisis performance. The empirical results is consistent with many earlier qualitative papers that emphasised the importance of an effective reporting line from CRO to the Board, namely [22], [8]. On the contrary, banks in which the CRO reports to the CEO instead, performed significantly worse which might conform to the argument by [10] that a CEO might have a different agenda than a CRO, which possibly neglecting the prominence of effective risk managements. Moreover, the CEO might also over emphasize the assets growth without a defined risk appetite strategy. Their findings were corresponding with [11] who discovered overall results that efficient and independent risk management functions including characteristics of CRO and risk committee, can restrain tail risk exposures at banks and possibly enhance value as well, predominantly during crisis years. Hence, the following hypothesis is developed:

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H4: There is a significant positive relationship between reporting line of CRO and bank performance.

3. Methodology
3.1 Data

The population for this study is derived from selected listed banks from emerging Asia countries. A number of eight countries are selected generalized from definitions of various organization such as IMF, Financial Times Stock Exchange (FTSE), Morgan Stanley Capital International (MSCI), Standard & Poor's (S&P) and Dow Jones. These include banks from China, India, Indonesia, Malaysia, South Korea, Philippines, Thailand and Taiwan. A total of 109 listed banks with 545 observations are chosen for data collection. Since this study intends to evaluate the impact of corporate governance post 2007 financial calamity, data collection encompasses 2011 until 2015. Data for bank performance (liquidity) and audit committee were taken from the banks' respective annual reports. In addition, BANKSCOPE database and the related central banks' websites are the sources of data for the control variables.

3.2 Dependent Variable

Bank's solvency and its ability to meet debt obligation can be measured by liquidity ratio. A higher liquidity ratio indicates an assured margin of safety for the debt coverage. According to [23], liquidity ratio is also an indicator of the ability of the bank to meet short-term withdrawal requirement of depositors. The ratio which includes the liquid assets over customer's short-term funding as a liquidity proxy is also accounts for deposits ran off.

3.3 Independent Variable

The risk management practices and risk monitoring of banks is largely depending on the effectiveness of its Chief Risk Officer and risk committee. Therefore, risk governance mechanism in this study is represented by four variables namely size of risk committee (SRC), gender of Chief Risk Officer (CROGEND), nationality of Chief Risk Officer (CRONAT) and reporting line of Chief Risk Officer (CROREPORT).

3.4 Control Variable

Evidently, the banks in Asian emerging economies must not only improve its competences and corporate governance practices over their competitors but they must also be able to weather the macroeconomic and other external conditions since banks are also affected by the outer factors. There is a consensus that macroeconomic stability is critical for the growth of banking institutions in reference to [24]. The variables are log of total assets (LnASSET), Consumer Price Index (CPI), volume of bond and sukuk (BONDSUK), money supply (MONEYSS) and stock exchange index (STOCKEXCHG). Consequently, bank-specific determinants together with external factors are essential to measure a bank's performance. The following Table 1 provides the compositions and definitions of measurements all variables:

Table 1. Definition of Variables

Variable	Definition	Source
Liquidity Ratio	Liquid assets over customer's short-term funding	Annual Report
Size of Risk Committee (SRC)	Total number of directors on the risk committee	Annual Report
CRO Gender (CROGEND)	A binary variable at value of one if a bank appointed a female CRO. A zero value given if a bank appointed a male CRO.	Annual Report
CRO Nationality (CRONAT)	A binary variable at value of one if a bank appointed a local CRO. A zero value given if a bank appointed a foreign CRO.	Annual Report
Reporting Line of CRO (CROREPORT)	A binary variable at value of one if the CRO or any person-in-charge of risk-related affairs in a bank, reported directly to the board. A zero value given if the CRO or the person-in-charge did not have direct access to the board but only reports to CEO	Annual Report
LnASSET Consumer Price Index	Log of Total Asset CPI as inflation proxy derived as percentage of annual change during the selected period	Bankscope
Volume of Bond and Sukuk	Total volume for new issuance of bond and sukuk during a particular year, in the respective	Bankscope

Money Supply	banks' operating countries. Annual percentage changes of national money supply, which comprises currency in circulation and demand deposits of the private sector, plus other deposits of the private sector placed with commercial banks, Islamic banks and other banking institutions	Bankscope
Stock Exchange Index	Annual changes of stock market returns (in percentage) for an economy	Bankscope

3.5 Empirical Model

The model in this study is constructed to test the impact of risk governance mechanisms on bank performance measured by its liquidity. The model is specified as follow:

$$Y_{it} = \beta_0 + \beta_1 SRC_{it} + \beta_2 CROGEND_{it} + \beta_3 CRONAT_{it} + \beta_4 REPORTCRO_{it} + \beta_5 BLnASSET_{it} + \beta_6 CPI_{it} + \beta_7 BONDSUK_{it} + \beta_8 MONEY_{it} + \beta_9 STOCKEXCHG_{it} + \varepsilon_{it}$$

Where;

Y_{it}	Bank performance
SRC	Size of Risk Committee
CROGEND	CRO Gender
CRONAT	CRO Nationality
CROREPORT	Reporting Line of CRO
LnASSET	Log of Total Assets
CPI	Price Index
BONDSUK	Total volume for issuance of bond and sukuk
MONEY	Money supply

STOCKEXCHG Stock exchange index

Pooled panel data analysis involve with cross sections (refers to different banks) and time series [25-27]. Panel data models scrutinize individual-specific effects, time effects or both in order to deal with heterogeneity or individual effect (cross-sectional or time-specific effect) that might be or might not be observed. The analysis is conducted on the premise of a balanced panel due to constant and repeated number of years for all the cross-sectional data. Using this method has advantages in dealing with heterogeneity of variables with less collinearity, reduced bias and better degree of freedom. According to [28], longitudinal or pooled data analysis is effective in studying change.

4. Findings

The number of selected banks from eight Asia emerging economies for this thesis is 109 of which details are as per Table 2. India and Indonesia are represented among the highest numbers of banks of 27 and 25 respectively based on data availabilities.

Table 2. The demographics of nominated banks in Asia emerging markets

Country	Num. of selected banks
Malaysia	12
Taiwan	25
India	27
Philippine	11
Thailand	9
China	13
South Korea	5
Total	**109**

4.1 Descriptive Statistics

Table 2 and 3 summarizes the descriptive statistics of this study. It is observed that majority of the banks in emerging Asia had five members in their risk committees whilst the minimum number of committee was nil given that all banks in Taiwan did not form such committee. Based on the data collected for this study, majority of banks in the selected nations prefer male and local CROs with 92.11% are male. The tendency in appointing local CROs is quite high at 73.21%. Corporate governance practices in terms of reporting line of the CRO in the selected banks are satisfactory judging by almost 60% of their CROs report directly to the board of directors rather than to their CEOs. Concerning the banking performance measures, the mean of liquidity ratio for the banks under review was 0.44. Regarding total assets of the banks, the mean size was USD139 billion whilst the median was USD25 billion. The asset of the largest bank during period under review was USD3.35 trillion whereas the size of the smallest banks was USD0.0038 billion.

Table 3. Descriptive Statistics for Continuous Variables

Variables	Mean	Median	Minimum	Maximum
Liquidity	0.44	0.41	0.16	1.17
SRC	5	5	0	14
Ln(Asset)	139	25	0.0038	3350
CPI	4.03	4.00	-0.90	9.90
MONEY	11.46	12.00	0.00	18.30
BONDSUK	277.52	40.75	17.10	2316.63
STOCKEXCHG	5.68	4.1	-27.10	55.07

Pertaining to the external and macroeconomic variables of the banks in Asia emerging countries, the mean and median of CPI were both 4% respectively. Meanwhile, the mean for new issuance of bond and sukuk in the selected eight economies was USD277.52 billion which was substantially different from the median which was only USD40.75 billion. This figure encompassed both government and private bond issuances. Furthermore, the mean for annual changes of money supply was 11.46%. Regarding capital market measures, the mean for annual changes of stock market index for the eight countries was 5.68%.

4.2 Regression

Table 4 summarizes the regression results between Risk Governance mechanisms and liquidity. All four corporate governance mechanisms under the category have significant and positive relationship with liquidity. Concerning size of risk committee, this model disclosed that performance of bank improved with more members of risk committee. [3] Battaglia and Gallo (2015) also discovered that banks with larger risk committee achieved better profitability. In contrast, this finding is inconsistent with Romano et al. (2012) [14] which reported significant negative association between size of risk committee and bank performance.

It is noteworthy that CRO gender is positively associated with liquidity, signifying that banks which had female CROs performed better than their counterparts that employed male CROs. This might indicate that female CROs were better in strategizing and implementing corporate governance in the banks.

Regarding CRO nationality, the result of this study indicates that the appointment of local CROs in the emerging Asia banks contributed to their better

bottom lines. This might be attributed by the more familiarity of local CROs with the local industry situations and structures as against the foreign CROs.

Table 4. Regression of Risk Governance on Liquidity

SRC	0.006657***
	(0.0000)
CROGEND	0.040439*
	(0.0547)
CRONAT	0.076406***
	(0.0000)
REPORTCRO	0.013312**
	(0.0373)
Ln(Asset)	-0.026071
	(0.0308)
CPI	-0.001490
	(0.2877)
Ln(Bondsukuk)	0.041384
	(0.0016)
ln(MoneySS)	0.028080
	(0.0000)
StockExc	0.001532
	(0.0228)
Constant	0.167248
	(0.0378)
Obs	545
Adjusted R^2	0.137297

***, **, * denote significance of 1%, 5% and 10% significant level respectively.

As for reporting line of CRO, this result is also in line [10], [22], [8] that discovered banks in which the CRO reports directly to the board of directors performed significantly better than other banks, in which CRO did not report directly to their boards.

5. Discussion and conclusion

All four corporate governance mechanisms under risk governance in this study are significantly and positively related with liquidity. This is in agreement with the most contemporary requirements or suggestions for banks to reform their risk governance implementations to enhance the banks' achievements. Based on the evidence from this study, the banks in Asia emerging economies must reform their corporate governance practices, particularly on risk governance. The banking institutions worldwide, including banks in emerging Asia have been operating in more challenging and more uncertain environment after the 2007 financial calamity. Such measure is vital for banks betterment in Asia emerging market to

weather future negative effects as well as to restore and maintain their resilience.

There are several limitations pertaining to the methodology of this study. Firstly, the sample of this study only covers public listed banks in Asia emerging countries. The number of selected banks or banking groups is only 109 since this sample excludes the purely Islamic banks or Islamic banking groups as well as listed banks with unavailable information. Secondly, this study has adopted BCBS' Principles for enhancing corporate governance (2010) together with preceding relevant literatures for the main guidelines. Therefore, these guidelines may not be the only applicable sources and there could be other relevant sources that may add, support or contradict the base of this research.

This study proposes for future study to expand the population samples, including global samples with a longer period. In fact, future research could use similar model to compare bank performance in emerging countries against performance of banks in developed economies. Secondly, similar model and approach could also be employed to compare performance of the conventional banks with Islamic banks in the same eight countries. Following the importance of diversity in the structure of governance, future study may also consider CRO's education, experience, tenure and risk committee's independence level in the model specification.

Acknowledgements

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