The Role of Board Governance On Bank Performance

Zuriawati Zakaria

Corresponding Author : Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia.

ORCID ID: <https://orcid.org/0000-0002-0156-8787>

Noorfaiz Purhanudin

Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia.

ORCID ID: <https://orcid.org/0000-0002-3380-4238>

Ahmad Nazri Wahidudin

Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia.

ORCID ID: <https://orcid.org/0000-0001-6306-4085>

Abstract

This study uses a sample of 119 commercial banks in Asia (specifically China, Philippine, Indonesia, Japan, Malaysia and Thailand) to test the impact of board governance on the bank performance. The result reported based on OLS and within estimators. In addition, two step system estimator is employed in this study to solve endogeneity problem in corporate governance literature. The finding reported that bank with large board and more independent directors sit on board it help the bank to achieve higher performance. The result shows that bank can achieve better performance with younger directors. While CEO duality and female directors are insignificant to influence the bank performance. The result also reported that the higher loan losses provision leads to bank performance decline. This study employ various governance characteristics towards performance among banking sector in selected Asian countries. The result of this study highlight the effectiveness of the board as a functioning device in monitoring and advising manager.

Keywords: Board Size, Board Independence, Board Average Age, CEO Duality, Female Director

JEL classification: G21, G32

Introduction

Bank plays a crucial economic function as an intermediary to channel funds from savers and depositors to help economic growth. In banking sector, the effectiveness of corporate governance is critically needed to

maintain higher level of public trust and confidence in banking system. Ineffective corporate governance can lead to banks facing problem that can affect their performance and economy as a whole. Corporate governance has also caught the attention of the Basel Committee on Banking Supervision (BCBS) in furthering its understanding and improving corporate governance in the banking sector. This is essential to continue safeguard depositors' funds, to assurance soundness of financial system and for a better bank performance. One of the key elements of corporate governance highlighted by the Committee is efficient monitoring the actions of the directors, managers and supervisors of banks from both Basel Committee member or non-member countries even though each has unique legal and regulatory systems (Basel Committee, 2006). The ineffectiveness of corporate governance continues to surface around the world with numerous corporate scandals. Thus, many believe the existing corporate governance devices still unable to control the behavior of managers and board of directors. However, numerous studies about corporate governance mainly focus on non-financial companies (e.g., Bauer, Eicholtz, & Kok, 2010; Mahmood & Zaheer, 2011; Azeez, 2015; Buallay, Hamdan, & Zureigat, 2017; Laoworapong, Supattarakul, & Swierczek, 2018), only few papers emphasizes on banks (e.g., De Andres & Vallelado, 2008; Saeed, Murtaza, & Sohail, 2013; Belhaj & Mateus, 2016; Fidanoski, Mateska, & Simeonovski, 2017). The complexity of organizational structure makes corporate governance in banks is special compare to non-financial companies (Hermalin & Weisbach, 2003). Due to this complexity, it increases the asymmetry information and diminishes stakeholders' power to monitor bank managers' decision (Andres & Vallelado, 2008). Good corporate governance systems in bank can be seen if bank has highly performance (Tandelilin, Kaaro, Mahadwartha & Suprivatna, 2007). The regulators are also anxious on how corporate governance could hamper the bank performance since it could affect the health of economy (Adams & Mehra, 2003). Therefore, this study intends to evaluate the effectiveness of corporate governance on bank performance.

Board of directors is the internal governance mechanism that the bank could use to monitor and control the agency problem. Moreover, the appointed members elected by the shareholders has the ultimate responsibility as a decision making body including for formulating business strategy, making bank loan and imposing governance structure and risk management (Sumner & Webb, 2005). With the knowledge about the complexity of banking business, regulatory, and external environment, they can efficiently monitor and advise managers on decision making. Hence, this study mainly focuses on the role of board governance on the bank performance. We expect if board effectively functioning as a monitoring and advisory device to manager, banks are better governed and the performance will increase.

Literature reviews

The percentage of independent directors on the board of directors positively affects performance, measured by Tobin's Q and, alternatively, by ROA among 159 listed banks in nine countries (Canada, France, Germany, Italy, the Netherlands, Spain, Sweden, the UK, and the US) (García-Meca, García-Sánchez, & Martínez-Ferrero, 2015). When, independent directors have a better monitoring role, bringing their connection and expertise (Al-Najjar, 2014), the costs of monitoring managers are low (Pathan & Skully, 2010) and bank can have better achievement. However, Chou and Buchdadi (2017) reports that the independent board has a positive impact on net interest margin among the big scale bank. In small scale bank the independent board of directors has the positive impact on the market value, but they would have lack of information that could obstruct the accounting based profit of the bank. In addition, Handriani and Robiyanto (2019) examine the relationship between corporate governance and financial performance of 293 firms listed in the Indonesian Stock Exchange and make public that the independent board has significant positive effect on firm performance. The coefficient of independent board of director has a positive and significant impact on ROE and EPS (Rahman and Islam, 2019).

On the contrary, Pathan and Faff (2013) reveal that banks in which boards have more independent directors will perform worse. The impact is prevalent particularly for banks with low market power, exposed to external takeovers and/or of smaller size. Minton, Taillard, and Williamson (2014) find that a more independent board is associated with increases in the likelihood of receiving Troubled Asset Relief Program (TARP) funds. This suggests that board independence may not necessarily be beneficial for banks because independent directors may not have sufficient expertise to monitor complex banking firms and oversee the actions of the

Chief Executive Officer (CEO) (Adams, 2012). Further, board independence is found to be a significant negative predictor of firm performance among firms in MENA region (Mertzanis, Basuony, and Mohamed, 2019).

H₁: There is positive relationship between board independence and bank performance.

Based on large US BHCs, Adams and Mehran (2012) support that there is positive relationship between bank board size and performance. Similarly, De Andres and Vallelado (2008) show that there is a positive but inverted U-shaped relation between bank and board size. Even though large board would create more value, but non-monotonic relationship exists. When the number of directors reaches 19, bank performance starts to decline due to problems of coordination, control, and decision making. This is consistent with the finding of García-Meca et al. (2015) and Aebi, Sabato, & Schmid (2012) where board size is positively associated with bank performance. Company with larger board size implies more resources in terms of providing counsel (Dallas, 2001), advising on companies' strategies (Pearce & Zahra, 1991), and more problem solving capabilities (Haleblian & Finkelstein, 1993). Corporate governance practices proved to have impact on the performance of bank. The performance of banking companies in Bangladesh is positively influence by its board size (Rahman & Islam, 2019). This finding is consistent with that of Mertzanis, Basuony, and Mohamed (2019) who also documents a significant positive relationship between board size and firm performance in MENA region.

This contradicts from earlier finding of Jensen (1993) where large board size would make less monitoring due to free rider problems and time consuming in process of decision making. Staikouras, Staikouras, & Agoraki (2007), Wang, Lu, & Lin (2012) (2012) and Pathan and Faff (2013) also observe a significant negative relationship between board size and bank performance. Bhattarai (2017) discover that board size has negative effect on financial performance of commercial banks in Nepal. The result also supported by study done by Lamichhane (2018) among Nepalese firms (seven commercial banks, seven development banks, five finance company, one trading company, two manufacturing, two hydropower, two hotels and four insurance companies) depict that board size is negatively related with ROA. This is according to organizational theory where boards with large number of members take comparatively longer time take to decisions (Steiner, 2007).

H₂: There is positive relationship between board size and bank performance.

The stock market returns are positively and significantly related to age (Nguyen, Hagendorff, & Eshraghi, 2015). Younger appointees have more incentive to raise their job security by engaging in risky and value-destroying activities. Therefore, market investors react less favorably to the appointment of a young appointee because they predict that this appointment will impose additional agency costs to the bank. Moreover, age diversity may improve the experiences, resources knowledge, networks of the board which in turn improves bank profitability (Ararat, Aksu, & Tansel, 2010; Kim & Lim, 2010; Mahadeo, Soobaroyen, & Hanuman, 2012). In addition, diversified representation of different generations in boards enhances the flexibility of the decision-making by balancing risks and ultimately leads to better firm performance (Ararat et al., 2010). By contrast, Grove, Patelli, Victoravich, and Xu (2011) find that average director age exhibits a concave relationship with financial performance. Variety of directors' views with respect to risk, prudence and wealth might harm bank performance (Talavera, Yin, & Zhang, 2017) since the old and the young director have conflicts in decision-making (Ali, Ng, & Kulik, 2014).

H₃: There is positive relationship between board average age and bank performance.

For board diversity, female on board has a positive significant on ROA and ROE (Mertzanis, Basuony, and Mohamed, 2019). García-Meca et al., (2015) results suggest that the presence of women on bank's board improves governance and bank profitable. This finding also suggests that women directors are not substitutes for traditional corporate directors with identical abilities but rather that qualified women directors have unique characteristics that create additional value in banks. Moreover, females bring forward new opinions and perspectives that would not be demonstrated if the board were to be homogeneous, and this may improve financial performance (De Cabo, Gimeno, & Nieto, 2012). Pathan and Faff (2013) study large US bank holding companies over the period 1997–2011 and find that gender diversity improves bank performance.

However, this positive effect declines after financial crisis periods respectively. Due to difference in culture, economic background and bank's size, Tu, Loi, & Yen (2015) find that percentage of women on boards of directors has a neutral effect on firm's performance in Malaysia. However, according to Adams and Ferreira (2009) and Gul, Srinidhi, and Ng (2011) gender diversity will only improve performance in weak corporate governance settings because firms will benefit from women directors that can provide additional monitoring on their boards of directors.

H₄: There is positive relationship between board gender and bank performance.

Rahman and Islam (2019) disclose there is a positive relationship of a CEO status on the profitability (ROA) of publicly traded banks in Bangladesh. However, CEO status has a negative impact on ROE. In line with their finding, Mertzanis, Basuony, and Mohamed (2019) state that CEO duality is a significant predictor for ROA and Tobin's Q as measures of performance. While the role of leadership factor in firm performance is controversial, it seems that in the MENA region countries separating the role of the CEO and the chairman exerts a positive role on performance of firms. On the other hand, the ROE model of CEO duality does not document a significant effect.

When independent directors account for a small proportion of a board's membership, CEO duality has negative and significant impacts on operating performance (Duru, Iyengar, & Zampelli, 2016). However, as the proportion of independent directors rises, these negative impacts are mitigated to an extent that they eventually disappear and turn positive as the proportion of independent director increases further. Grove et al., (2011) show that CEO duality is negatively associated with financial performance (measured by ROA and excess stock returns) in the pre-crisis period but not in the crisis period. Over-powerful CEO would lead banks into risky strategies and in turn bank poorly performance. As a result, several major banks separated the role. In addition, Pathan (2009) shows that CEO power (CEO's ability to control board decision, including CEO duality) negatively affects bank risk-taking because bank managers including CEOs may prefer lower risk due to their non-diversifiable wealth, including human capital invested in their banks, and comparatively fixed compensation (e.g., salary). Also, Wang et al., (2012) report a negative impact on BHCs performance from CEO duality.

H₅: There is negative relationship between CEO duality and bank performance.

Chimkono, Muturi, and Njeru (2016) reveal that non-performing loan ratio (NPLs) has a significant effect on the performance of commercial banks sector. NPLs had a negative influence on bank performance (Mausya, 2009; Qin & Pastory, 2012; Li & Zou, 2014; Lata, 2014; Roy, 2015). High percentages NPLs are often associated with performance problems of banks and financial crises in both developing and developed countries (Khemraj & Pasha, 2009). Evidence from Asia indicates that there was more than threefold increase in the volume of NPLs in Indonesian banks in the period leading up to the financial crisis. Besides, over 60 banks collapsed during the crisis due to their NPLs represented about 75% percent of its total loan portfolios (Cortavarria, Dziobek, Kanaya, & Song, 2000). Loan loss provision is negative and significant influence on bank profitability (Miller & Noulas, 1997; Vong, 2005; Ramlall, 2009; Sufian & Habibullah, 2009). It reveals that the major portion of banks operations are involves in borrowing and advancing activities due to banks face threats of high credit risk and they create a loan loss provisions to lessen the risk. This risk adverse policy of banks leads towards decrease in profitability. It could be due to firstly according to accounting principles the loan loss provisions are created from earnings of banks on annual basis. Secondly banks tends to be more profitable when they are able to undertake more lending activities if a higher level of provision is maintained then bank's ability to give loan will decrease and thus depresses banks' return on asset significantly (Vong & Chan, 2009). A well-managed bank is perceived to be of lower loan loss provision and such an advantage will be translated into higher profitability (Mustafa, Ansari, & Younis, 2012). Albertazzi & Gambacorta (2009) use five performance indicators (net interest income, non-interest income, operating cost, provisions, profit before tax, and ROE) to investigate the influence of stock market volatility on bank performance for main industrialized countries during the period 1981-2003. They report that net interest income, non-interest income, provision and ROE are positively related to stock market volatility, while the stock market volatility is negatively related to profit before tax. Further, no relationship between stock market volatility and provisions is reported. Due to the fluctuation of the

stock market volatility, consumers are more likely to deposit their money into banks than investing in the stock market which makes banks have better performance (Albertazzi & Gambacorta, 2010). Tan and Floros (2012) find that the more volatile the stock market, the better performance the Chinese banks have. A high market capitalization ratio means economic expansion, while the easy access for firms to finance through stock markets reduces bank's business opportunities which results in a deterioration of performance (Liu & Wilson, 2009).

Data and Empirical Method

This study examines the impact of board governance in banking sector over the period of 2011 to 2015. The initial sample of this study is 148 commercial bank in Asia (namely China, Philippine, Indonesia, Japan, Malaysia and Thailand). After excluding incomplete data during the period of the study, the final sample consists of 119 commercial bank (595 observations). Two alternative proxies of bank performance are employed to investigate the relationship between board governance and bank performance namely return on assets (ROA) and return on equity (ROE). As for board governance five variables are used (1) board size, (2) Board independent, (3) Board average age, (4) Female director on board and (5) CEO duality. While non-performing loan, loan loss provision and share price volatility representing as control variables for bank. The detail measure for each of variable is shown in Table 1.

Table 1: Variable and measurement

Notation	Variable Name	Description
<i>Dependent Variable</i>		
ROA	Return on Assets	Net Income to Average total assets
ROE	Return on Equity	Net income available for common shareholder to Average total common equity.
<i>Independent Variable</i>		
B_Ind	Board Independent	Independent directors to total number of directors
B_Size	Board Size	Log (total number of directors on the board)
BA_Age	Board Average Age	Log (Average Age of the member of the board)
B_Female	Female Directors	Percentage of women on the board of directors
C_Duality	CEO Duality	Dummy 1 if CEO is also Chairman, otherwise 0
<i>Control Variable</i>		
NPL	Non-Performing Loan	Non-Performing loan to Total loan
L_loss	Loan Loss Provision	Provision for loan losses to Total assets
Vol.	Volatility	Standard deviation of day to day logarithmic historical price changes.

The sample size for each country is select based on their number of bank listed in the exchange market and the availability of the data provided from Bloomberg database. The descriptive data for each country shown in Table 2. This study based on panel data analysis to examine the effect board governance on bank performance. Panel data analysis is based on the combination of two dimensions of data, which is cross-sections (indicated by subscript *i*) such as individual, companies, countries and time-series data (indicated by subscript *t*) collected information on a single unit over the duration of study.

Model 1

$$Performance = \alpha + \beta_1 * \text{Log}(B_Size) + \beta_2 * B_Indepen + \beta_3 * BA_Age + \beta_4 * B_Female + \beta_5 * C_Duality + \beta_5 * NPL + \beta_6 * L_loss + \beta_7 * Vol + \varepsilon_{it}$$

Model 2

$$\begin{aligned} \text{Performance} = & \alpha + \beta_1 * \text{Log}(\text{B_Size}) + \beta_2 * \text{B_Indepen} + \beta_3 * \text{BA_Age} + \beta_4 * \text{B_Female} + \\ & \beta_5 * \text{C_Duality} + \beta_5 * \text{NPL} + \beta_6 * \text{L_loss} + \beta_7 * \text{Vol} + \\ & \beta_7 * \text{year effect} + \beta_7 * \text{country effect} + \varepsilon_{it} \end{aligned}$$

Where; α = constant term; $\log(\text{B_Size})$ = logarithm board size; B_Indepen = Board Independence and BA_Age = Board average age; B_Female = Board Female director; C_Duality = CEO duality; NPL = Non-performing loan; L_loss = Loss loan provision; Vol = share price volatility.

Panel data allow control for individual heterogeneity compared with cross sectional and time series data (Baltagi, 2005). Analysis of data without considering the heterogeneity could lead to bias results. According to Andres and Vallelado (2008) problem of simultaneity may exist because some of independent variables like board size and board independence might be determined simultaneously with dependent variables. To control for endogeneity and gather consistent estimation, the panel data analysis is applied, together with the Generalized Method of Moments (GMM). Therefore, this study apply two-step system estimator (SE) with adjusted standard errors as proposed by Arrelano and Bond (1998) to overcome heteroskedasticity.

Finding and Discussion

Descriptive statistic

In terms of board size, on average 15 directors sat on the board of banks in China and the smallest is only 6 members in Indonesia's banks. Further, banks in Malaysia and Indonesia have more than 50% of independent directors who have minimal or no business dealings with the banks compared to only 11.78% in banks located in Japan. For board average age, the members of the banks in these six countries are in the range of 55 to 65 years old. Banks in Thailand record the uppermost number of female director with 17.60% while the lowermost is banks in Japan with only 1.78%. Whereby the rest of the banks in China, Philippines and Malaysia is on average of 12%. Moreover, 3.38% of total outstanding loans is a non-performing loan in Thailand's banks, while only 1.01% recorded as a non-performing loan for the banks in China. The share price of the banks located at Indonesia, Philippines, Japan and China has a volatility more than 30% over a period of time, whereas banks in Malaysia have a lower volatility at 15.44% which means that a security's value changes at a steady pace. Additionally, banks in Indonesia have set aside 1.06% as an allowance for uncollected loans compared to banks in Japan with only 0.05%. At last, Indonesian banks have the highest ROA during the period of study with 2.09%, followed by banks in Philippines (1.56%), banks in Malaysia (1.20%), banks in Thailand (1.19%) and banks in China (1.17%). Yet, banks in Japan proven to report the lowest ROA (ROE) of 0.25% (5.35%).

Table 2: Descriptive statistic based on country used in this study.

Country	China	Philippines	Indonesia	Japan	Malaysia	Thailand
Obs.	85/17	45/9	30/6	370/74	30/6	35/7
B_Size	15.36	12.76	6.67	10.47	10.00	12.66
B_Ind	36.32	30	53.2	11.78	53.08	42.54
BA_Age	55.54	65.42	60.01	59.78	61.24	62.58
B_Female	12.73	13.11	7.67	1.78	11.26	17.6
NPL	1.01	1.99	2.1	1.33	2.12	3.38
Vol.	30.01	32.64	35.53	31.3	15.44	28.04
L_loss	0.4	0.29	1.06	0.05	0.15	0.67
ROA	1.17	1.56	2.09	0.25	1.2	1.19
ROE	19.01	12.94	17.04	5.35	14.88	13.54

Notes: $\log(\text{B_Size})$ = logarithm board size; B_Indepen = Board Independence and BA_Age = Board average age; B_Female = Board Female director; C_Duality = CEO duality; NPL = Non-performing loan; L_loss = Loss loan provision; Vol = share price volatility; ROA = Return on Assets; ROE = Return on Equity.

Regression result

The study presents exhaustive empirical findings from the application of Pooled OLS, FEM and system GMM. This is to validate the robustness of the GMM model as opposed to the other two aforementioned models. In a usual methodological approach, the study simultaneously deals with the possible endogeneity problem of governance variables and unobserved heterogeneity of individual banks in the sample countries. The Hansen statistics indicate the validity of the selected instruments. The AR (1) and AR (2) statistics do not reject the null hypothesis of no first and second degree of autocorrelation. Table 3 demonstrates the results of the POLS, FEM and System GMM employed with the ROA as the dependent variable which entailed for year effect and country effect in Model 2 and without as Model 1. Likewise Table 4 does with ROE and the results are almost identical.

The result reported that with a greater board independence the banks in all countries performed increasingly better. Both proxies (ROA and ROE) supported do not reject H_1 there is positive relationship between board independent and bank performance. Consistent with the previous finding of Garcia-Meca et al., (2015) on nine western countries namely Canada, France, Germany, Italy, the Netherlands, Spain, Sweden, the UK, and US. Robust result under system GMM also prove the similar result. This shows that the independent board directors efficiently utilizes their expertise and role in monitoring manager behavior to help bank increase performance (Al-Najjar, 2014; Pathan & Skully, 2010).

Pooled OLS and GMM models show that banks attain increasingly higher performance if board size grows in number. Therefore, H_2 is not rejected there is positive relationship between board size and bank performance. After controlling the year and countries effect (Model 2), under system-GMM, bank performance as measured by ROA and ROE does show that different year and country significantly influence the result. In theory, increasingly bigger board size promotes higher bank performance. It shows that the free rider problem as suggested by Jensen (1993) may not exist in this bank. All the directors on board may effectively functioning to help in problem solving (Hableblan & Finkelstein, 1993) and act as advisory to manager on companies' strategies (Pearce & Zahra, 1991; Dallas, 2001). However, in practical sense the positive correlation between board size and bank performance will not be true. Common sense dictates that there must be a limit to the size and beyond which the marginal benefit from increasing board size will decline. The relationship between the size and performance should be U-shaped as suggested by Andres and Vallelado (2008).

The average age of board members shows an inverse relationship with bank performance (ROA and ROE). Thus, H_3 is rejected there is a positive relationship between board average age and bank performance. A younger set of board members promotes bank performance. From a human capital perspective, those at their prime age in productive employment will contribute effectively. However the pooled OLS models fail to reject the null hypothesis when the country differences taken into account. The results from FEM and GMM models provide the robust outputs. Bank would face high agency problem with young directors on board (Nguyen, 2015). Ararat et al., (2010) suggest bank should have diverse generation in board to make bank better perform. Pooled OLS indicates a positive finding between board gender and bank performance (ROA and ROE) at 10% significance level. Gender is an influencing deterministic factor in some countries. However, a reverse result, reported in all models across FEM and system GMM, provides a negative parameter sign and fails to reject the null hypothesis in the case of board gender. The board gender is not a significant influence on bank performance. Hence, H_4 there is positive relationship between board gender and bank performance is rejected. This contradicts with findings of Mateos de Cabo et al., (2012), Pathan and Faff (2013) and García-Meca et al., (2015) where women director is value added that can help bank to performance better.

For the variable CEO duality, almost all models across the three methods fail to reject the null hypothesis and show a negative parameter sign. Only, the results of pooled OLS in Table 3 (ROA) and system GMM in Table 4 (ROE) under Model 1 without country and year effect are negatively significant at 1% level. Therefore, H_5 there is negative relationship between CEO duality and bank performance is not rejected as measured by

ROE. Duality position makes CEO tend to be risk adverse in thinking about their non-diversified wealth (Pathan, 2010; Wang et al., 2012).

The bank credit risk factor as portrayed by NPL show insignificant influence on bank performance. For taking a higher risk banks will expect a higher return. Loans that are not performing as expected are covered by a provision for loan losses. Since NPL is only a footnoted item in the balance sheet, thus it does not impact bank profitability directly. The result is contradicting to Mausya, (2009), Qin & Pastory (2012), Li & Zou (2014), Lata (2014), Roy (2015) and Chimkono, et al., (2016) bank would face financial crisis due to increase in NPLs. The loan loss provision shows negative impact on the bank performance as the shown in Table 3 and Table 4. Banks charged their expected loan loss against reported profit and loss. It is obvious that the banks' profitability measure indicates an inverse correlation with the variable loan loss. Bank create a loan loss provisions to lessen the risk that can impact their performance (Miller & Noulas, 1997; Vong, 2005; Ramlall, 2009; Sufian & Habibullah, 2009). Investors digest the news of poor bank performance and then value the firm accordingly. The results of the models indicate so in which higher volatility of stock price has a negative correlation with the bank profitability measures.

Table 3: Regression result board governance and bank performance based on ROA.

VARIABLES	POLS		FEM		System GMM	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
B_Ind	0.0164*** (-0.0014)	0.0074*** (-0.0013)	0.0046*** (-0.0015)	0.0061*** (-0.0016)	0.0042*** (-0.0010)	0.0047*** (-0.0016)
B_Size	0.0235*** (-0.0059)	0.0179*** (-0.0049)	-0.0050 (-0.0083)	-0.0033 (-0.0083)	0.0091 (-0.0060)	0.0210** (-0.0088)
BA_Age	0.0113** (-0.0053)	-0.0066 (-0.0049)	-0.0150** (-0.0062)	-0.0142** (-0.0063)	-0.0081** (-0.0040)	-0.0144* (-0.0083)
B_Female	0.0052* (-0.0027)	-0.0035* (-0.0021)	-0.0021 (-0.0021)	-0.0016 (-0.0021)	-0.0009 (-0.0025)	-0.0010 (-0.0027)
C_Duality	-0.1224*** (-0.0460)	0.0332 (-0.0336)	-0.0112 (-0.0386)	-0.0158 (-0.0385)	-0.0521 (-0.0332)	-0.0026 (-0.0476)
NPL	-0.0106 (-0.0129)	-0.0066 (-0.0097)	0.0016 (-0.0148)	0.0002 (-0.0150)	0.0222* (-0.0126)	0.0107 (-0.0152)
L_loss	0.5360*** (-0.0669)	-0.3313*** (-0.0674)	-0.4084*** (-0.0573)	-0.3743*** (-0.0596)	-0.0382 (-0.0568)	-0.3115*** (-0.1078)
Vol.	-0.0010 (-0.0017)	-0.0038*** (-0.0013)	-0.0020* (-0.0010)	-0.0021* (-0.0011)	-0.0012 (-0.0008)	-0.0033** (-0.0013)
ROA _{t-1}					0.7342*** (-0.0586)	0.5042*** (-0.0823)
Constant	-0.6835** -0.3391	2.4896*** -0.3200	1.6873*** -0.3874	1.5619*** -0.3965	0.5023* -0.2607	1.7476*** -0.5500
Year Effect	No	Yes	No	Yes	No	Yes
Country Effect	No	Yes	No	Yes	No	Yes
R-squared	0.5601	0.7886	0.1292	0.1489		
AR(1)					-2.56***	-2.55***
AR(2)					0.41	0.68
Hansen J-Stat					114.75	107.66
No. of instruments	119	119	119	119	119	119
No. of observations	595	595	595	595	476	476

Notes: *log* (B_Size) = logarithm board size; B_Indepen = Board Independence and BA_Age = Board average age; B_Female = Board Female director; C_Duality = CEO duality; NPL = Non-performing loan; L_loss = Loss loan provision; Vol = share price volatility; ROA = Return on Assets. ***, **, * denote significance at 1%, 5%, and 10% level, respectively.

Table 4: Regression result board governance and bank performance based on ROE.

VARIABLES	POLS		FEM		System GMM	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
B_Ind	0.2190*** (-0.0139)	0.1575*** (-0.0155)	0.0800*** (-0.0226)	0.1044*** (-0.0249)	0.1287*** (-0.0465)	0.1045*** (-0.0344)
B_Size	0.3198*** (-0.0593)	0.0884 (-0.0604)	-0.1142 (-0.1284)	-0.0825 (-0.1279)	0.4302** (-0.1940)	0.3347* (-0.2020)
BA_Age	-0.2664*** (-0.0527)	-0.0694 (-0.0598)	-0.1722* (-0.0962)	-0.1610* (-0.0977)	-0.4541*** (-0.1659)	-0.1853 (-0.2292)
B_Female	0.1104*** (-0.0272)	0.0491* (-0.0259)	-0.0479 (-0.0326)	-0.0416 (-0.0327)	0.0510 (-0.0673)	0.0403 (-0.0667)
C_Duality	-1.5189*** (-0.4599)	0.0219 (-0.4102)	-0.8062 (-0.5952)	-0.8614 (-0.5925)	-3.3514*** (-1.1359)	-1.1363 (-0.9701)
NPL	-0.4270*** (-0.1286)	-0.1628 (-0.1180)	0.1127 (-0.2274)	0.0997 (-0.2308)	-0.1020 (-0.3333)	-0.1546 (-0.4386)
L_loss	0.1842 (-0.6691)	-5.0993*** (-0.8235)	-6.9161*** (-0.8834)	-6.3871*** (-0.9168)	-0.4085 (-1.4252)	-5.9451** (-2.3108)
Vol.	-0.0359** (-0.0169)	-0.0643*** (-0.0164)	-0.0497*** (-0.0156)	-0.0570*** (-0.0174)	-0.0435 (-0.0296)	-0.0484 (-0.0305)
ROE _{t-1}					0.1719 (-0.1505)	-0.0222 (-0.1144)
Constant	18.5345*** -3.3938	20.0210*** -3.9115	22.6210*** -5.9721	20.8938*** -6.1037	29.8808*** -11.0348	25.8692* -15.3830
Year Effect	No	Yes	No	Yes	No	Yes
Country Effect	No	Yes	No	Yes	No	Yes
R-squared	0.5969	0.7110	0.1558	0.1772		
AR(1)					-1.66*	-1.65*
AR(2)					1.60	1.20
Hansen J-Stat					92.12	85.03
No. of instruments	119	119	119	119	119	119
No. of observations	595	595	595	595	476	476

Notes: $\log(B_Size)$ = logarithm board size; $B_Indepen$ = Board Independence and BA_Age = Board average age; B_Female = Board Female director; $C_Duality$ = CEO duality; NPL = Non-performing loan; L_loss = Loss loan provision; Vol = share price volatility; ROE = Return on Equity. ***, **, * denote significance at 1%, 5%, and 10% level, respectively.

Conclusions

This study empirically examine the impact of board governance on bank performance with a sample of 119 commercial bank in Asia (namely China, Philippine, Indonesia, Japan, Malaysia and Thailand) over the period 2011-2016. Board governance proxies used in this study are size of board, board independence, board average age, female director on board and CEO duality while the bank performance is measured based on ROA and ROE. Based on panel data analysis, the result of this study presented based on POLS, FEM and System GMM.

There is strong evidence that the more independent directors serve on board, the more the board is able to help banks to enhance their performance. The result suggests that bank with large board size can achieve better performance since it can effectively monitor manager decision. Other than that, this study reveal that young people serve on board would contribute more to the bank performance since they could bring more creative idea and high productivity. However, the result also shows that female director on board and CEO duality are insignificant to influence the bank performance.

References

- Adams, R. B. (2012). Governance and the financial crisis. *International Review of Finance*, 12(1), 7-38.
- Adams, R., & Ferreria, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309.

- Adams, R. & Mehran, H. (2003). Is Corporate Governance Different for Bank Holding Companies? *Working Paper*, Federal Reserve Bank of New York.
- Adams, R. B., & Mehran, H. (2012). Bank board structure and performance: Evidence for large bank holding companies. *Journal of financial Intermediation*, 21(2), 243-267.
- Aebi, V., Sabato, G., & Schmid, M. (2012). Risk management, corporate governance, and bank performance in the financial crisis. *Journal of Banking & Finance*, 36(12), 3213-3226.
- Albertazzi, U., & Gambacorta, L. (2009). Bank profitability and the business cycle. *Journal of Financial Stability*, 5(4), 393-409.
- Albertazzi, U., & Gambacorta, L. (2010). Bank profitability and taxation. *Journal of Banking & Finance*, 34(11), 2801-2810.
- Ali, M., Ng, Y. L., & Kulik, C. T. (2014). Board age and gender diversity: A test of competing linear and curvilinear predictions. *Journal of Business Ethics*, 125(3), 497-512.
- Al-Najjar, B. (2014). Corporate governance, tourism growth and firm performance: Evidence from publicly listed tourism firms in five Middle Eastern countries. *Tourism Management*, 42, 342-351.
- Ararat, M., Aksu, M. H., & Tansel Cetin, A. (2010). The impact of board diversity on boards' monitoring intensity and firm performance: evidence from the Istanbul Stock Exchange.
- Arellano, M., & Bond, S. (1998). Dynamic panel data estimation using DPD98 for GAUSS: A guide for users. Working Paper, Institute for Fiscal Studies.
- Azeez, A. A. (2015). Corporate governance and firm performance: Evidence from Sri Lanka. *Journal of Finance*, 3(1), 180-189.
- Baltagi, B. H. (2005). *Econometric analysis of panel data* (3rd ed.). New York: John Wiley.
- Bhattra, H. (2017). Effect of corporate governance on financial performance of bank in Nepal. *ZENITH International Journal of Multidisciplinary Research*, 7(3), 97-110.
- Bauer, R., Eichholtz, P., & Kok, N. (2010). Corporate governance and performance: The REIT effect. *Real Estate Economics*, 38(1), 1-29.
- Belhaj, S., & Mateus, C. (2016). Corporate Governance Impact on Bank Performance Evidence from Europe. *Corporate Ownership & Control*, 583.
- Buallay, A., Hamdan, A., & Zureigat, Q. (2017). Corporate governance and firm performance: evidence from Saudi Arabia. *Australasian Accounting Business & Finance Journal*, 11(1), 78.
- Chimkono, E. E., Muturi, W., & Njeru, A. (2016). Effect of non-performing loans and other factors on performance of commercial banks in Malawi. *International Journal of Economics, Commerce and Management*, IV, 1-15.
- Chou, T. K., & Buchdadi, A. D. (2017). Independent Board, Audit Committee, Risk Committee, the Meeting Attendance level and Its Impact on the Performance: A Study of Listed Banks in Indonesia. *International Journal of Business Administration*, 8(3), 24.
- Cortavarria, L., Dziobek, C., & Kanaya, A. S. I., 2000. *Loan review, provisioning, and macroeconomic linkages*. IMF, Working Paper, 00/195.
- Dallas, L. L. (2001). Development in U.S. boards of directors and the multiple roles of corporate boards. *The San Diego Law Review*, 40(3), 781-820.
- De Andres, P., & Vallengado, E. (2008). Corporate governance in banking: The role of the board of directors. *Journal of banking & finance*, 32(12), 2570-2580.
- De Cabo, R. M., Gimeno, R., & Nieto, M. J. (2012). Gender diversity on European banks' boards of directors. *Journal of Business Ethics*, 109(2), 145-162.

- Duru, A., Iyengar, R. J., & Zampelli, E. M. (2016). The dynamic relationship between CEO duality and firm performance: The moderating role of board independence. *Journal of Business Research*, 69(10), 4269-4277.
- Fidanoski, F., Mateska, V., & Simeonovski, K. (2017). Corporate governance and bank performance: Evidence from Macedonia. *Economic analysis*, 47(1-2), 76-99.
- García-Meca, E., García-Sánchez, I. M., & Martínez-Ferrero, J. (2015). Board diversity and its effects on bank performance: An international analysis. *Journal of Banking & Finance*, 53, 202-214.
- Grove, H., Patelli, L., Victoravich, L. M., & Xu, P. T. (2011). Corporate governance and performance in the wake of the financial crisis: Evidence from US commercial banks. *Corporate Governance: An International Review*, 19(5), 418-436.
- Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve informativeness of stock prices? *Journal of Accounting and Economics*, 51, 314-338.
- Haleblian, J., & Finkelstein, S. (1993). Top management team size, CEO dominance, and company performance: The moderating roles of environmental turbulence and discretion. *Academy of Management Journal*, 36(4), 844-863.
- Handriani, E., & Robiyanto, R. (2019). Institutional ownership, independent board, board size, and firm performance: evidence from Indonesia. *Contaduría y Administración*, 64(3), 118.
- Hermalin, B. E. and Weisback, M. S. (2003). Board of directors as an endogenously determined institution: A survey of the economic literature. *Federal Reserve Bank of New York Economic Policy Review*, 9(1), 7-26.
- Jensen, M. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance*, 48(3), 831-880.
- Khemraj, T. and Pasha, S. (2009). The Determinants of Non-Performing Loans: An Econometric Case Study of Guyana. Paper Presented At The Caribbean Centre For Banking And Finance Bi-Annual Conference On Banking And Finance, St. Augustine, Trinidad.
- Kim, H., & Lim, C. (2010). Diversity, outside directors and firm valuation: Korean evidence. *Journal of Business Research*, 63(3), 284-291.
- Lamichhane, P. (2018). Corporate Governance and Financial Performance in Nepal. *NCC Journal*, 3(1), 108-120.
- Lata, R. S. (2014, December). Non-Performing Loan and Its Impact on Profitability of State Owned Commercial Banks in Bangladesh: An Empirical Study. In *Proceedings of 11th Asian Business Research Conference* (pp. 26-27).
- Laoworapong, M., Supattarakul, S., & Swierczek, F. W. (2018). Corporate Governance, Board Effectiveness, and Performance of Thai Listed Firms. *AU Journal of Management*, 13(1), 25-40.
- Li, F., & Zou, Y. (2014). The Impact of credit risk management on profitability of commercial banks: A study of Europe. *Unpublished MBA Thesis. Sweden: UMEA University*.
- Liu, H., & Wilson, J. O. S. (2009). *The Profitability of Banks in Japan. The Road to Recovery?*, Centre for Banking Research, Cass Business School, City University London. Working Paper Series, Number: WP 06/09.
- Mahadeo, J. D., Soobaroyen, T., & Hanuman, V. O. (2012). Board composition and financial performance: Uncovering the effects of diversity in an emerging economy. *Journal of Business Ethics*, 105(3), 375-388.
- Mahmood, I., & Abbas, Z. (2011). Impact of corporate governance on financial performance of banks in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 2(12), 217-228.

- Mausya, W. B. (2009). The impact of non-performing loans on the performance of the banking sector in Kenya. *An MBA project submitted to the University of Nairobi*.
- Mertzanis, C., Basuony, M. A., & Mohamed, E. K. (2019). Social institutions, corporate governance and firm-performance in the MENA region. *Research in International Business and Finance*, 48, 75-96.
- Miller, S. M., & Noulas, A. G. (1997). Portfolio mix and large-bank profitability in the USA. *Applied Economics*, 29(4), 505-512.
- Minton, B. A., Taillard, J. P., & Williamson, R. (2014). Financial expertise of the board, risk taking, and performance: Evidence from bank holding companies. *Journal of Financial and Quantitative Analysis*, 49(2), 351-380.
- Nguyen, D. D. L., Hagendorff, J., & Eshraghi, A. (2015). Which executive characteristics create value in banking? Evidence from appointment announcements. *Corporate Governance: An International Review*, 23(2), 112-128.
- Pathan, S. (2009). Strong boards, CEO power and bank risk-taking. *Journal of Banking & Finance*, 33(7), 1340-1350.
- Pathan, S., & Skully, M. (2010). Endogenously structured boards of directors in banks. *Journal of Banking & Finance*, 34(7), 1590-1606.
- Pathan, S., & Faff, R. (2013). Does board structure in banks really affect their performance?. *Journal of Banking & Finance*, 37(5), 1573-1589.
- Pearce, J. A., & Zahra, S. A. (1991). The relative power of CEOs and board of directors: associations with corporate performance. *Strategic Management Journal*, 12(2), 135-53.
- Qin, X., & Pastory, D. (2012). Comparative Analysis of Commercial Banks Liquidity Position: The Case of Tanzania. *International Journal of business and Management*, 7(10), 134.
- Rahman, M. A., & Islam, J. (2019). The Impact of Corporate Governance on Bank Performance: Empirical Evidence from Bangladesh. *Global Journal of Management And Business Research*.
- Ramlall, I. (2009). Bank-specific, industry-specific and macroeconomic determinants of profitability in Taiwanese banking system: under panel data estimation. *International Research Journal of Finance and Economics*, 34(2), 1450-2887.
- Roy, J. K. (2015). Non-Performing Loan on Profitability: Evidence from Banking Sector of Dhaka Stock Exchange.
- Saeed, M. B., Murtaza, Z., & Sohail, I. (2013). Corporate Governance and Firm Performance: A Study on Moderating Effects of Firm Size and Leverage on the Relationship between Corporate Governance and Firm Performance in Banking Sector of Pakistan.
- Staikouras, P. K., Staikouras, C. K., & Agoraki, M. E. K. (2007). The effect of board size and composition on European bank performance. *European Journal of Law and Economics*, 23(1), 1-27.
- Steiner, I. D. (2007). Group process and productivity (social psychological monograph).
- Sufian, F., & Habibullah, M. S. (2009). Bank specific and macroeconomic determinants of bank profitability: Empirical evidence from the China banking sector. *Frontiers of Economics in China*, 4(2), 274-291.
- Sumner, S. W., & Webb, E. (2005). Does corporate governance determine bank loan portfolio choice. *Journal of Academy of Business and Economics*, 5(2), 1-15.
- Talavera, O., Yin, S., & Zhang, M. (2017). Age diversity, directors' personal values, and bank performance. *International Review of Financial Analysis*.
- Tan, Y., & Floros, C. (2012). Stock market volatility and bank performance in China. *Studies in Economics and Finance*, 29(3), 211-228.

- Tandelilin, E., Kaaro, H., Mahadwartha, P. A., & Supriyatna, S. (2007). Corporate governance, risk management and bank performance: Does type of ownership matter. *EADN individual research grant project*, 34, 115-118.
- Tu, T. T. T., Loi, H. H., & Yen, T. T. H. (2015). Relationship between Gender Diversity on Boards and Firm's Performance-Case Study about ASEAN Banking Sector. *International Journal of Financial Research*, 6(2), 150.
- ul Mustafa, A. R., Ansari, R. H., & Younis, M. U. (2012). Does the Loan Loss Provision Affect the Banking Profitability in Case of Pakistan?. *Asian Economic and Financial Review*, 2(7), 772.
- Vong, L. K. (2005). Loans and profitability of banks in Macao. *AMCM Quarterly Bulletin*, 2, 91-107.
- Vong, P. I., & Chan, H. S. (2009). Determinants of bank profitability in Macao. *Macau Monetary Research Bulletin*, 12(6), 93-113.
- Wang, W. K., Lu, W. M., & Lin, Y. L. (2012). Does corporate governance play an important role in BHC performance? Evidence from the US. *Economic Modelling*, 29(3), 751-760.