CORPORATE GOVERNANCE PRACTICES AND EFFICIENCY OF COMMERCIAL BANKS IN SRI LANKA

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Abstract

In recent decades, many financial institutions have been caught for getting involved in accounting scandal, which leads to financial crisis and shocking investors' confidence on institutions' credibility. Specially, the economic crisis 2007-2008 highlighted the importance to discuss the emerging corporate governance issues within the context of Asia- Pacific region which attracted many researchers. Even though the corporate governance mechanisms are enacted by regulatory bodies, the way in which the governance is practiced differs among industries, countries depending on their economic, political and social contexts. In developing countries such as Sri Lanka, good governance of banks is crucial for the survival of the economy with high volatility of political and economic environment. The main purpose of this study is to examine the relationship between corporate governance practices and efficiency of Sri Lankan Commercial Banks. It covers the 18 Licensed Commercial banks in Sri Lanka from 2008 to 2017-time spans.

According to the comprehensive literature survey undertaken, many studies have used pooled data analysis to identify the relationship between corporate governance and bank efficiency, hence our study also focused on pooled data analysis as the most appropriate one. Corporate Governance variables are represented by board size, board leadership structure, board Meetings, board composition and audit committee meetings. We have decided to use CAMEL model used as an indicator for efficiency.. Firm size and age of the company are included as control variables. Secondary data of annual reports of 18 Licensed Commercial banks and Central Bank of Sri Lanka are used to collect the data.

Keywords: Capital Adequacy, Corporate Governance, Bank Efficiency, Non-performing Assets,

Introduction

Commercial banks perform a vital role in the process of financial intermediation of an economy. Since it deals with funds of nation, it is essential to be managed appropriately. For an instance, interest rates prevailing within money and capital markets are able to affect the gross domestic product of the country through aggregate investment factor. As a result of that, corporate governance has become one of the most prominent topics to be emphasized in performance of commercial banks context.

Corporate governance can be defined as managing the operations of business organization within both internally and externally favourable condition to all the stakeholders including society as a whole. This factor basically depends on the methodology the company is managed. Commercial banks are preliminary regulated by the Central Bank of Sri Lanka. At the same time, being one of the highly profitable business industries, it is mandatory for commercial banks to report its corporate governance practices. Corporate governance practices effectively assist to enhance the efficiency of commercial banks. Efficiency is fundamental, as it depicts the ratio between inputs and outputs; for banks it specifically takes the shape of deposits and loans. Bank efficiency can basically be measured by using CAMEL model which comprises Capital adequacy, Assets quality, and Management capability, Earnings, Liquidity.

The study, most prominently observes whether corporate governance practices assist to increase the overall efficiency in banking industry. Public limited companies are managed by the board of directors which is separated from its ownership. Due to that, the agents may act for their own benefit rather than for the betterment of company. Corporate governance practices are required to align the aims of agents to owners' objectives. Simultaneously, the activities performed by a firm can affect the desires of its stakeholders in manifold way. Because of that, it is required to implement corporate governance practices by the company in order to secure the rights of the stakeholders.

As a whole, all the above-mentioned factors lead to higher inspiration of stakeholders towards the company. It makes the image of the firm more popular and attractive. It assists the company to enhance the financial measurements such as ratios favourably. Ultimately, it will lead to a comparatively higher efficiency level while increasing the profitability as well.

Problem justification and problem statement

Given the historical evidence, the 2007-2008 global financial crises were mainly driven by bankruptcy of world giant banks of Lehman brothers, HBOS, Royal Bank of Scotland and Wall Street etc. US Federal Reserve and other Central Banks had to inject trillions of moneys into banking system to overcome the crucial situation, which could have been used to other economy development. Unlike other industries, the financial institutions maintain high level of cross sectional relationship with other industries. Hence the collapse of giant investment banks severely affected the survival of other corporations too. Though the failure of banking system took place in American and European region, the consequences of increasing unemployment, imbalance in financial credibility and the slowing down economic growth are experienced by other advanced and developing countries directly or indirectly

Corporate governance practices are initiated as a mechanism for good governance of organizations. Even highly regulated and developed countries such as United States, those in Europe and Japan recorded many corporate scandals and bank crises and took 8-10 years to build the investor confidence back. A country like Sri Lanka with such high volatile environment and political inducements, the compliance of good governance practices is so crucial. Some past incidents happened in Sri Lanka provide the necessity of having good governance practices. In 2002 Pramuka Bank has collapsed in which portfolio consist with 80 percent non-performing loans and it was followed by the crash of Golden Key in 2008. With the fall of Ceylinco group, causing a financial crisis as many depositors tried to withdraw funds from Seylan Bank. As a result of that it presented a potential danger to the stability of financial system in Sri Lanka. Another recent instance is ETI finance which collapse due to the lack of supervision by central bank and absence of proper management of depositor's money. As per the reports, only 10% of total deposits can be recovered at the liquidation of the company. As a result, most of the investors have lost their money and it blemishes the trust of investors about finance sector. Hence it is essential to understand the relationship between corporate governance and bank efficiency to maintain a financial stability domestically and internationally.

The absence of quality research in Sri Lankan context and the significance of the study induced to examine the relationship between corporate governance practices and bank efficiency.

Research Questions and Objectives

Research Questions

Given the various issues relating to the impact of corporate governance practices on efficiency of licensed commercial banks in Sri Lanka, a number of research questions can be raised as follows:

1. Is there any relationship between board size and bank's efficiency?
2. Is there any relationship between board leadership structure and bank's efficiency?
3. Is there any relationship between board meetings and bank's efficiency?
4. Is there any relationship between board composition and bank's efficiency?
5. Is there any relationship between audit committee meetings and bank's efficiency?

According to the research questions following research objectives were identified.

Research Objectives

The introduction of corporate governance practices in Sri Lanka aimed to provide a mechanism to improve investor confidence and trust in management and promote economic development of the country .In this study we examine how corporate governance practices are exercised and how those practices affect the bank efficiency. In order to understand the governance practices that contribute to enhance the efficiency of commercial banks in Sri Lanka, this study aims to:

1. Examine the development of corporate governance practices in the context of the Sri Lankan commercial banking sector.

2. Investigate the extent to which commercial banks have adopted corporate governance practices.

3. Examines the impact of corporate governance mechanism i.e. board size, audit committee meetings, board meetings, board composition and leadership structure in the performance of commercial banking industry in Sri Lanka.

4. Determine the relationships between corporate governance practices (such as board size, board leadership structure, board meetings, board composition, and audit committees), and efficiency of licensed commercial banks in Sri Lanka.

5. Try to bridge the gaps in the research of relationship between corporate governance mechanism and commercial banks efficiency in Sri Lanka.

Literature Review

Introduction

Corporate governance has attracted much attention in recent decades among public and regulators partly, due to financial crisis and numerous corporate scandals all over the world Claessens & Fan (2002). It is important to have sound corporate governance practices as it has the significant implications on the prospects of economy, especially to achieve the highest sustainable economic growth and employment and rising standard of living, while maintaining financial stability to contribute to the word economy OECD (2004). In order to understand the corporate governance and practices in Sri Lanka broadly, a review of relevant literature is needed.

Corporate Governance

Corporate governance is the determination of the broad uses to which organizational resources will be deployed and the resolution of conflicts that exist among the myriad participants in organization, Daily, Dalton & Cannella (2003, p 372). In that study, researchers found that the definitions of corporate governance stand for many decades in governance researches with some contrast, in which researchers have fundamentally focused on the protection of shareholder interest and the separation between ownership and control.

According to Shleifer & Vishney (1997) Corporate governance is the way in which suppliers of finance to corporations assure themselves of getting a return on their investment and a set of mechanisms which ensures that potential providers of external capital receive a fair return on their investment, because the ownership of firms is separated from their control. Their observation highlights that the subject of corporate governance have extensive practical importance than it meant in theories. Though researches have the exclusive opportunity to influence practices through theory and empirical evidence, it is not clear that, there is a concordance between guidelines provided by the theory and the practices employed by the organizations.

Importance of Corporate Governance

Financial Institutions

Dinc(2006) finds the importance of corporate governance in banks in his study, **The Corporate Governance in Japanese Banks and Their Real Estate Lending in the 1980s'** that the bank usually acts as a primary bank for its shareholders and they maintain a relationship among themselves. Also, they have cross shareholding, when the bank itself is the major shareholder for its own shareholders. Further the source of power and control of shareholders is not limited over the lending and cross shareholding. Hence the existence of unlimited power and complex cross relationship among the stakeholders of banks, corporate governance must be taken into account.

Furthermore, he mentions that banks play a fundamental role in the governance and financing of larger companies. The failure of a bank can adversely affect the biggest non- financial companies through the cross-shareholding loss. Not only to the nation, the impacts of failure likely to be transmitted to other countries as well. The corporate governance problems in banks are also likely to have a significant role in financial crisis.

Efficiency of Commercial Banks

Throughout the past few decades it was observed that the licensed commercial banks are facing an intensive competition within its industry specifically from non-bank organizations. In order to face the competition, it is required for these organizations to enhance the operating efficiency and performance. The efficiency can be measured based on whether the inputs are consumed and output is generated efficiently. Generally, comparatively large proportion of nonperforming loans indicates a lower efficiency in operations of commercial banks. (Mester, 1996). Efficiency of financial institutions can be measured by nonparametric and parametric approaches. There are number of reasons which can lead commercial banks into a lower efficiency level such as higher level of nonperforming loans, low capital position, weak negative cash flows and lower quality in management and statistical measurements such as efficient frontier, median, inter quartile ranges, standard deviation, range and variance. There are some methods used to curb the efficiencies in commercial banks. For instance, informing government policy for deregulation can be emphasized. In this scenario efficient resource allocation leads to price reduction or quality improvement. (Berger & Humphrey, 1997).

Efficient financial institutions can be recognized by analysing the factor such as greater profitability, improved financial intermediation, better price, service quality, greater safety and soundness towards capital buffers that absorb risk. However, global banking industry is tend to switch into consolidations and merges in order to increase the efficiency. (Berger, et al., 1993). Throughout the process of efficiency enhancement, commercial banks are required to manage the risk of operations in terms of risk assessment, risk monitoring and risk diversification. It is required to concern the risk factors in measuring the efficiency of financial institutions. Commercial banks are required to focus on credit risk, operational risk and market risk. Credit risk can be defined as the risk which takes place due to the non-payment of credits by debtors. Operational risk arises due to the lower level of quality in the process of executing organizational operations. This can be further classified into legal risk, fraud risk and environment risk etc. Market risk incurred due market value of investments decreases due to the changes of market factors and it includes equity risk, interest rate risk and currency risk. Due to these risk factors the efficiency of commercial banks is affected. (Sun & Chang c, 2011).

Subsequently, the risk of commercial banks can be further classified into default risk and liquidity risk. Default risk can be defined as the inability of debtors to repay their debts and the interests are accrued. Liquidity risk is the inability of banks to maintain an enough level of funds to meet the loan requirements of customers. At the same time, the return on investment can be nominated as one of the determinants of efficiency of financial institutions. If the ratio reflects a favourable effect, the efficiency of commercial bank is comparatively higher. (Sun & Chang c, 2011).

The average practice cost function can be used to measure the efficiency. Apart from that, data envelopment analysis, thick frontier analysis, stochastic econometric cost frontier analyses are consumed to calculate the level of efficiency. The data envelopment analysis investigates the organization which provides the best service combination at the least price level. (Mester, 1996).

Corporate governance practices in Sri Lanka

In early 1970 an almost all enterprises in Sri Lanka were State Owned enterprises. The open economy policy was introduced in 1977 and privatization system was incorporated. To attract new business and more investments Sri Lanka government introduced free trade zones in 1970s, it leads to invite foreign investments. In the late 1990s, the Sri Lankan government introduced up to LKR 20 million interest free loans to start business in the rural free trade

zones. Resulted on these activities were the multinational companies in Sri Lanka and Foreign ownership. The corporate governance initiatives are commenced in Sri Lanka in 1990s with the introduction of the voluntary code of best practices on matters relating to the financial aspects of corporate governance. (Kalainathan, 2014)

Mandatory rules of corporate governance

The rules of corporate governance have been made mandatory for listed companies from April 2008 by incorporating them in to CSE listing rules. These mandatory rules have been developed through a joint initiative of ICASL and SEC in consultation with the CSE.
On the other hand, the Central bank of Sri Lanka (CBSL) has also issued a mandatory code of corporate governance. (Senarathne, 2011)

Challenges and issues of corporate governance in Sri Lanka

Common issue of corporate governance is the concentrate ownership. Very small percentage of equity holders control large number of shares. This ownership structure motivates private benefit of control and shares benefits of control in the capital market. Investors' protection in Sri Lanka ranked as 52 out of 187 countries. It is not provided confidence to investors to make more and more capital in Sri Lanka. (Kalainathan, 2014) Political influence affects the implementation of rules and regulations in a proper way in Sri Lanka. Country economy shifted to market –oriented policies in 1977 as a result of this market-oriented policies and privatization public enterprise ownership has switched to private ownership, though ultimately this private ownership has ended up with a few concentrated family owners, individuals, institutions and political leaders. Still there is no proper governance system to reduce this influence. (Weerakoon, 1995)

Significance of the Study

Corporate governance of banks seems to be more important than other industries since the banking sector plays a crucial financial intermediary role in any economy, particularly in developing countries. (Adnan, et al. 2011). Among different types of banks, commercial banks hold important position in financial services. The main role of commercial banks is mobilizing funds from investors scattered over the country and providing short and long-term loans for enterprises. In addition to this, commercial banks provide assistance to

organizations in various ways to smooth the business activities. In Sri Lankan, banking sector has been growing tremendously and contributes more to the GDP of Sri Lanka.

A failure of one bank may collapse the entire financial system in the country thereby negatively affect the stability of country's economy. Since banks involve with many industries, failure of bank influencing several bankruptcies of other sectors in the economy. As a result of a bank failure, people withdraw money from bank and it adversely impact the liquidity of the bank. Many transactions with in the economy decreases as investors sell their investments; investors cannot take loans to expand the business and new investors are reluctant to invest.

Banking industry is a highly regulated sector in every economy in order to keep the financial stability. In Sri Lanka the main governing body of banking sector is Central Bank of Sri Lanka. The Central Bank of Sri Lanka issue directions, determinations, orders, guidelines, conduct continues supervision of banks and enforces regulatory actions in order to protect the banks from threats. In addition, corporate governance mechanism is a system of rules, practices and process by which a company is directed. As a high-risk industry, mechanism like corporate governance must be there to control the activities.

Many studies have cited the failure of corporate governance as one of the main causes of the Asian financial crisis (see Johnson et al., 2000 and Becht et al., 2002), and the current global crisis in the USA and around the world further underscores the importance of corporate governance. (Bokpin, 2013). Many of the prior studies are focus on corporate governance and firm performances in commercial banks. Firm performances are relating with the financial measures and it addresses only the shareholders of the bank in contrast efficiency addresses all the stakeholders. Since banking industry is a service industry, its efficiency is a very important factor for competitive positioning and long-term sustainability of the bank (Adnan, et al., 2011).

Research Design and Methods

Overview

This research is designed and the research methodologies are implemented in order to investigate the success or the failure of this within the banking sector. This chapter examines facts in relation to research approach, population and study sample, conceptual diagram, hypotheses, operationalization, sample size and selection of sample, sources and collection of data, data analysis strategies.

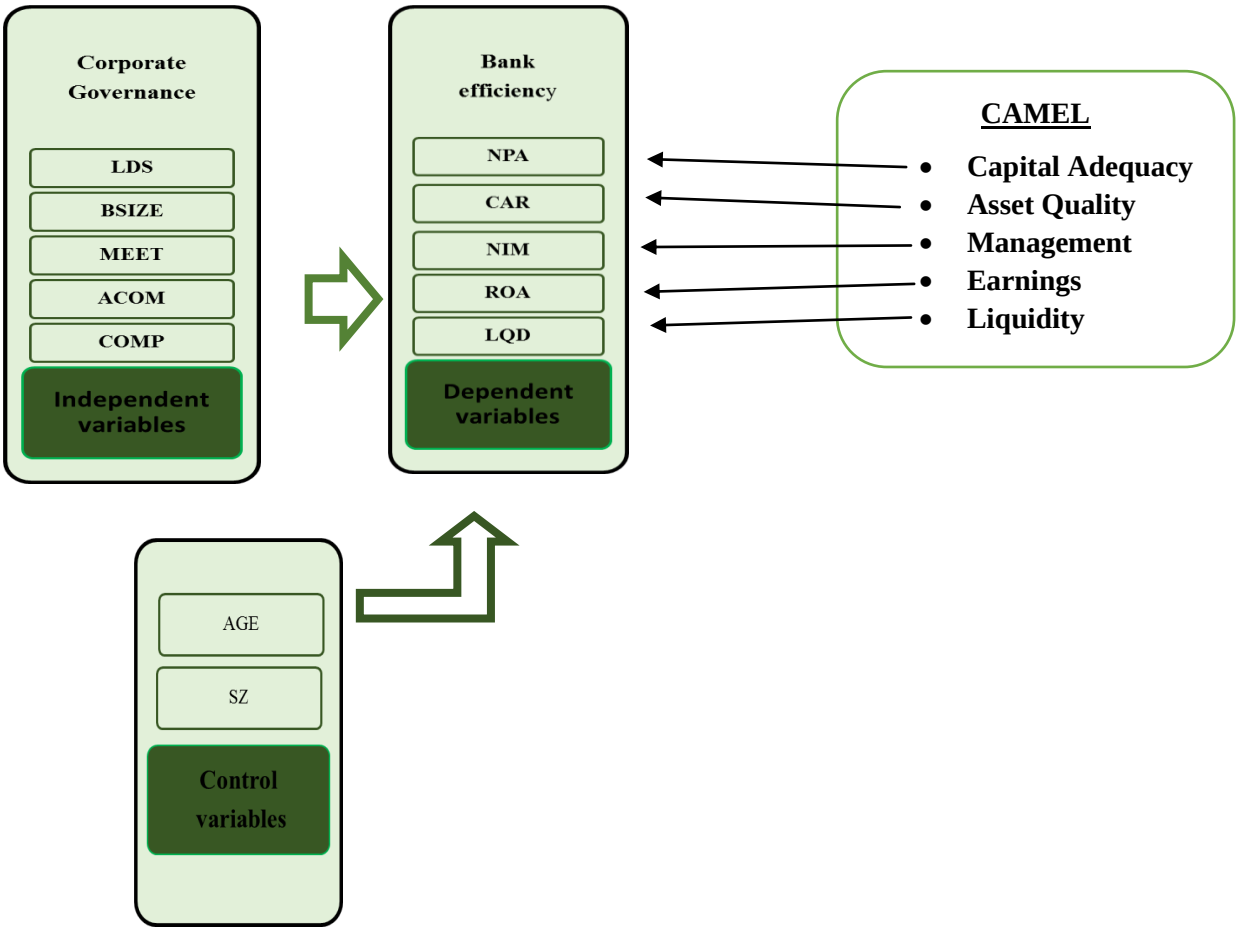
Research Approach

The approach, used in the process of evaluating the efficiency of commercial banks under corporate governance practices, is the deductive approach. Under the process of testing hypotheses, conclusions are made and if the hypotheses are true the conclusion is true as well.

Population and Study Sample

According to the Central Bank Report issued by the Central Bank of Sri Lanka there are 26 licensed commercial banks operating within the country. Due to the data unavailability only 18 licensed commercial banks are taken into account.

Conceptual Diagram



Hypotheses

As discussed earlier, we are going to analyze whether good corporate governance practices lead to maximize the bank efficiency or not. In our research, it is expected to examine the impact of corporate governance practices such as Board leadership structure, board size, board meetings, board composition and audit committee meetings on efficiency in Sri Lankan licensed commercial banks.

1) Board leadership structure and bank efficiency.

According to the Lam & Lee, (2008), combining the roles of the CEO and the chairperson, will result in a dominant CEO which will lead to ineffective monitoring of the management by the board. The finding of Abdul Rahman and Mohd Haniffa (2005) is a positive relationship between separate leadership structure and performance.

H1: Bank efficiency is positively related to separate leadership structure.

2) Board size and bank efficiency.

According to the Yoshikawa and Phan (2003) a CEO will purposely create a larger board size to make sure that he or she alone is the most powerful person and the board will be difficult to coordinate effectively due to the larger size.

H2: Bank efficiency is negatively related to board size.

3) Board Meetings and bank Efficiency.

There is an argument that high number of board meetings may positively affect bank efficiency. Code of best practice recommends firms to have at least 12 annual board meetings.

H3: Bank efficiency is positively related to Board meetings.

4) Audit committee meetings and bank efficiency.

One of the roles of the audit committee is to monitor the financial discretion of management by maintaining the financial statements credibility (Kang et al. 2013). There is an argument that high number of audit committee meetings may positively affect bank efficiency.

H4: Bank efficiency is positively related to audit committee meetings.

5) Board composition and bank efficiency.

The studies conducted by Prevost et al. (2002), Bozec and Dia (2005), Krivogorsky (2006), and Rebeiz and Salameh (2006) highlight the importance of non-executive

directors. This study hypothesized a positive relationship between banks' efficiency and proportion of independent non-executive directors.

H5: Bank efficiency is positively related to higher proportion of independent non-executive directors.

Operationalization

Following variables are used to operationalize the construct discussion regarding the corporate governance and bank efficiency. The main independent variables are corporate governance: board leadership structure, board size, board meetings, audit committee meetings and board composition. The dependent variable is bank efficiency which is measured using CAMEL model. It refers to five components of bank which help to assess the efficiency of the bank: Capital Adequacy, Asset quality, Management, Earnings, and Liquidity.

C – Capital Adequacy

This can be defined as the mandatory capital requirement level imposed by the financial regulator; Central Bank of Sri Lanka. The mandate requirement of capital is imposed to avoid commercial banks being abnormally levered and being insolvent.

A – Assets Quality

The quality of the assets indicates the efficiency of the bank. Normally the loans reflect the assets basis of the bank. The loans provided to individual clients represent the assets which carry higher risk and ultimately lead to non-performing loans which affects bank efficiency.

M – Management Capability

The strategies of the organization must be successfully implemented in order to increase the efficiency of the operations. The strategies are designed and implemented by the management. Capabilities of management highly affect the efficiency and it must be concerned when evaluating the efficiency of banks.

E – Earnings

Earning can basically be taken as the net benefit generated through the operations of the bank. The profit can either be considered as Earnings before Interest and Taxes or Earnings before Interest, Tax, Depreciation and Amortization. However, the performance of the organization is depicted through earnings for the period.

L – Liquidity

This can be introduced as the ability of a financial institution to meet the complex liability requirements by using the assets owned. Liquidity is most preliminary

considered when the assets and liability basis mismatches. This is a part of risk management and strategic planning. Simultaneously, risk can be classified as interest risk and credit risk. The both should be carefully managed to accomplish the efficiency.

Table 1: Definition of variables

Variable Symbol	Variable Definition	Measurement
LDS	leadership structure	Take the value '1', if the chairman and CEO are separate individuals & take the value '0', if the chairman and CEO is same individual.
BSIZE	board size	Number of directors
MEET	Required number of board meeting per annum	Take the value '1', if company conducted at least 12 meetings per annum, if not take the value'0'.
ACOM	Audit committee Meetings	No of audit committee meetings conducted per annum.
COMP	Board composition	No of executive directors/Total No of directors
CAR	Capital Adequacy Ratio	CAR will be measured by dividing Core capital (tier one capital) by Risk weighted assets of LCB.
NPA	Non-performing Assets	NPL will be measured by dividing gross non-performing loans by total loans of LCB
NIM	Net Interest Margin	NIM will be measured by net interest income (interest returns from loans – interest paid to deposits) divided by average earning assets of LCB.
ROA	Return On Assets	ROA will be calculated by dividing earnings after tax by total assets of LCB.
LQD	Ratio of Liquidity asset to total assets	This ratio will be measures by dividing sum of liquid asset by total asset of LCB.
AGE	Age from incorporation	Number of years from incorporation to 2017
SZ	Bank size	Natural log of total assets of the LCB.

The complete empirical model is as follows,

$$\text{Efficiency} = \beta_0 + \beta_1 \text{LDS} - \beta_2 \text{BSIZE} + \beta_3 \text{MEET} + \beta_4 \text{ACOM} + \beta_5 \text{COMP} + \beta_6 \text{AG} + \beta_7 \text{SZ} + e_{it}$$

Sample Size and Selection of Sample

According to the Central Bank Report of Sri Lanka it can be identified 26 commercial banks which are operating within Sri Lanka. Due to the unavailability of data only 18 banks are selected as sample for the analysis.

Sources and Collection of Data

The following sources are used in collecting data for research purpose. Annual report issued by the Central bank of Sri Lanka which possesses the list of licensed commercial banks of Sri Lanka is used to identify the commercial banks operating within the country. At the same time the annual reports issued by the selected commercial banks for the last 18 years and code of best practice recommendations issued by ICASL used for analysis.

Data Analysis Strategies

Data analysis is basically done with the assistance of data analysis software called SPSS. Pooled data analysis is used since the financial information of 18 commercial banks for last 10 years should be critically analysed. Hypothesis testing is done by using ANOVA. Descriptive statistics and Pearson correlation are also used to analysis data. In order to evaluate the relationship among variable regression analysis is consumed.

Statistical Results and Analysis

The analysis of the relationship between corporate governance variables and bank efficiency variables is discussed in this chapter using the data extracted from sample. The analysis uses descriptive statistics to compare the changes with compliance of corporate governance from 2008 to 2017 and Pearson Correlation analysis assess the association between variables. The linear regression is used to indicate the explanatory power and validity of model and finally an analysis of variance (ANOVA) assess the suggested relationships in the research hypotheses.

Descriptive Statistics

Descriptive statistics were calculated for the corporate governance variables, bank efficiency variables and control variables. These statistics compared the compliance by banks with corporate governance recommended best practices and described the prevailing corporate governance practices. A summary of descriptive statistics is presented in below table.

Table 2: Descriptive statistics for dependent and independent variable

Variables	N	Mean	Median	Std. Deviation	Skewness	Minimum	Maximum
CAR	180	12.23	11.61	3.52	0.39	0.17	24.40
NPA	180	4.03	2.97	3.68	3.51	0.09	29.29
NIM	180	4.17	3.90	1.33	1.06	1.94	8.43
ROA	180	0.61	0.04	0.74	0.71	-0.01	2.50
LIQ	180	31.96	25.10	19.07	3.26	4.00	165.00
LDS	180	0.72	1.00	0.45	-1.00	0.00	1.00
BSIZE	180	10.32	10.00	1.80	0.15	6.00	15.00
MEET	180	0.91	1.00	0.29	-2.80	0.00	1.00
ACOM	180	8.22	8.00	3.34	0.58	3.00	17.00
COMP	180	78.40	77.78	8.36	0.84	60.00	100.00
AGE	180	50.67	42.00	32.92	0.71	10.00	129.00
SZ	180	25.32	25.54	1.46	-0.79	21.51	28.01

Analysis of leadership structure reported that 72% of the firms separated the leadership roles. Over 70% of the banks in the sample identified the importance of separating the position of chairman and CEO and are complying with the code of best practice recommendations issued in 2003 and ICASL and SEC. Less than 30% of the banks are still combining the post of CEO and Chairman. Board size is denoted by the number of directors in the board. In descriptive statistics, maximum board size is 15 and minimum is 6. The average board size is 10.3. The mean value of board size shows the existence of quite an unreasonable board size, for an example Bokpin (2013) suggests that board size of not more than 7 or 8 directors is considered reasonable in ensuring the effectiveness.

Regarding the board meetings conducted per annum more than 90% of the banks conducting 12 or above board meetings per annum, ensuring the compliance of code of best practice recommendation. The minimum audit committee meetings conducted per annum is 3 and maximum is 17. It indicates that, some banks pay more attention in auditing and ensuring the credibility of financial statements while other banks do not consider the importance of audit committee. The mean value of audit committee meetings is 8.22. Board Composition, which

is the proportion of non- executive directors in the board. The maximum value of board composition is 100% and minimum is 60%. The mean value is 78.4% describes that most of the banks maintain higher number of non-executive directors to the total directors in the board

Analysis of Variance (ANOVA)

In order to test the hypotheses, analysis of variance was employed. Analysis of variance investigated the interaction between board leadership structure, board size, no of board meetings, audit committee meetings, board composition and bank efficiency. Analysis undertaken using F statistics indicated that the relationship between corporate governance variables and bank efficiency was statistically significant. These are described in detail below.

Leadership Structure and Bank Efficiency

The results of the analysis of variance conducted to identify the interaction between board leadership structure and bank efficiency reported mix results (Table 2). The separate leadership structure was significant for NPA with F- Statistics 4.676($p=0.032<0.05$), NIM with F- Statistics 29.513 ($p=0.000<0.05$) and for ROA with F- Statistics 58.891 ($p=0.000<0.05$). Neither CAR nor LIQ was significant for separate leadership structure. However, based on the significant relationship between NPA, NIM, ROA and leadership structure, null hypothesis is rejected and it can be concluded that there is a positive relationship between separate leadership structure and bank efficiency.

Table 2: Analysis of variance for Board Leadership Structure and Bank Efficiency

Bank Efficiency Variable	**Corporate Governance Variable**	**F**	**Sig.**
CAR (Capital Adequacy Ratio)	LDS (Leadership Structure)	.684	.409
NPA (Non-Performing Assets)	LDS (Leadership Structure)	4.676	**.032**
NIM (Net Interest Margin)	LDS (Leadership Structure)	29.513	**.000**
ROA (Return on Assets)	LDS (Leadership Structure)	58.891	**.000**
LIQ (Liquidity Ratio)	LDS (Leadership Structure)	2.230	.137

Board Size and Bank Efficiency

Analysis of variance was also performed to find the relationship between board size and bank efficiency (Table 3). F-Statistics reported that, board size was significantly related to CAR with F-Statistics 6.343 ($p=0.00<0.05$) and to ROA with F-Statistics 3.153 ($p=0.002<0.05$). NPA, NIM and LIQ were not significant for board size. However based on the significant relationship between CAR, ROA to board size, we rejected the null hypothesis and concluded that there is a negative relationship between board size and bank efficiency.

Table 3: Analysis of variance for Board Size and Bank Efficiency

Bank Efficiency Variable	**Corporate Governance Variable**	**F**	**Sig.**
CAR (Capital Adequacy Ratio)	BSIZE (Board Size)	6.343	**.000**
NPA (Non-Performing Assets)	BSIZE (Board Size)	1.280	.251
NIM (Net Interest Margin)	BSIZE (Board Size)	1.598	.119
ROA (Return on Assets)	BSIZE (Board Size)	3.153	**.002**
LIQ (Liquidity Ratio)	BSIZE (Board Size)	1.070	.388

Board Meeting and Bank Efficiency

Analysis of variance was also indicated an interaction between number of board meetings undertaken per annum and bank efficiency (Table 4). The results showed a significant relationship for NIM with F- Statistics 5.821 ($p=0.017<0.05$), for ROA with F- Statistics 8.577 ($p=0.004<0.05$) and for LIQ with F- Statistics 53.578($p=0.000<0.05$). Neither CAR nor NPA was significant to higher no of board meetings per annum. Hence, we rejected the null hypothesis and concluded that there is a positive relationship between number of board meetings per annum and bank efficiency, accepting the alternative hypothesis.

Table 4: Analysis of Variance for Board meetings and Bank Efficiency

Bank Efficiency Variable	Corporate Governance Variable	F	Sig.
CAR (Capital Adequacy Ratio)	MEET (No of Board Meetings)	.146	.703
NPA (Non-Performing Assets)	MEET (No of Board Meetings)	2.398	.123
NIM (Net Interest Margin)	MEET (No of Board Meetings)	5.821	**.017**
ROA (Return on Assets)	MEET (No of Board Meetings)	8.577	**.004**
LIQ (Liquidity Ratio)	MEET (No of Board Meetings)	53.578	**.000**

Audit Committee Meetings and Bank Efficiency

Analysis of variance also reported an interaction between audit committee meetings and bank efficiency (Table 5). The results showed a significant relationship for all bank efficiency variables, which are CAR with F-Statistics 1.954 ($p=0.028<0.05$), NPA with F-Statistics 1.818($p=0.044<0.05$), NIM with F-Statistics 2.001($p=0.023<0.05$), ROA with F-Statistics 5.529 ($p=0.000<0.05$) and LIQ with F-Statistics 2.852 ($p=0.001<0.05$). All bank efficiency variables have a strong relationship with audit committee meetings conducted per annum. Therefore, we rejected the null hypothesis and concluded that there is a positive relationship between audit committee meetings and bank efficiency.

Table 05: Analysis of variance for Audit Committee meetings and Bank Efficiency

Bank Efficiency Variable	Corporate Governance Variable	F	Sig.
CAR (Capital Adequacy Ratio)	ACOM (Audit Committee Meetings)	1.954	**.028**
NPA (Non-Performing Assets)	ACOM (Audit Committee Meetings)	1.818	**.044**
NIM (Net Interest Margin)	ACOM (Audit Committee Meetings)	2.001	**.023**
ROA (Return on Assets)	ACOM (Audit Committee Meetings)	5.529	**.000**
LIQ (Liquidity Ratio)	ACOM (Audit Committee Meetings)	2.852	**.001**

Board Composition and Bank Efficiency

Finally, the analysis of variance reported an interaction between board composition and bank efficiency (Table 6). F- Statistics reported that the board composition was significantly

related to CAR with F- Statistics 4.162(p=0.000<0.005), NPA with F- Statistics 1.994(p=0.008<0.05), NIM with F- Statistics 2.901(p= 0.000<0.05) and ROA with F- Statistics 4.614(p=0.000<0.05). LIQ did not have a significant relationship with board composition. However, based on the significant relationship between CAR, NPA, NIM, ROA and board composition, null hypothesis was rejected and concluded that boards dominated by higher non- executive directors result in higher bank efficiency, accepting the alternative hypothesis.

Table 06: Analysis of variance for Audit Committee meetings and Bank Efficiency

Bank Efficiency Variable	**Corporate Governance Variable**	**F**	**Sig.**
CAR (Capital Adequacy Ratio)	COMP (Board Composition)	4.162	**.000**
NPA (Non-Performing Assets)	COMP (Board Composition)	1.994	**.008**
NIM (Net Interest Margin)	COMP (Board Composition)	2.901	**.000**
ROA (Return on Assets)	COMP (Board Composition)	4.614	**.000**
LIQ (Liquidity Ratio)	COMP (Board Composition)	.942	.541

Pearson Correlations

Table 07: Pearson Correlation

Variables	CAR	NPA	NIM	ROA	LIQ	LDS	BSIZE	MEET	ACOM	COMP	AGE	SZ
CAR	1											
NPA	0.046	1										
NIM	-0.003	.329**	1									
ROA	-0.063	0.085	.256**	1								
LIQ	0.045	-0.143	-0.011	-.337**	1							
LDS	0.062	.160*	.377**	.499**	-0.111	1						
BSIZE	.243**	-0.063	-0.098	-.184*	0.039	-.290**	1					
MEET	0.029	0.115	.178*	.214**	-.481**	.478**	-.196**	1				
ACOM	0.116	.205**	.162*	.365**	-.280**	0.06	.281**	0.13	1			
COMP	-0.129	0.086	0.116	.438**	-.194**	.224**	-.432**	.247**	.217**	1		
AGE	-0.018	-0.027	-.176*	-.413**	-0.079	-.148*	-.388**	0.127	-.270**	-0.04	1	
SZ	0.02	0.083	.208**	0.08	-.209**	-0.05	-0.087	0.02	0.094	0.082	.418**	1

Table presents the Pearson correlation for all the variables in the study. It examines the association between corporate governance variables and bank efficiency variables. According to the results there are number of statistical significant relationships. Separate leadership structure is positively and significantly correlated with the Non-Performing Loans (NPA), Net Interest Margin (NIM) and Return on Assets (ROA). The Board Leadership Structure is positively and significantly correlated with the Board Composition and that suggested that board independence is associated with the separate leadership structure.

Results suggest that board size is significantly correlate with the with Capital adequacy Ratio (CAR), Return on Assets (ROA) and separate leadership structure. Even though board size was positively correlated with Capital adequacy Ratio, it is negatively correlated with Return on Asset Ratio. Board Size is negatively and insignificantly correlates with the Return on Assets and Net Interest Margin. Number of Board Meetings held per annum was positively and significantly correlated with the Return on Assets (ROA) and Net Interest Margin (NIM) while Board Meetings held per annum was negatively and significantly correlated with Liquidity Ratio (LIQ). Number Board committee meetings were insignificantly correlated Non-Performing Assets (NPA) and Capital Adequacy Ratio (CAR). Number of Audit Committee meetings held per annum is significantly correlated with other independent variables except Capital Adequacy Ratio (CAR) while Board Composition was significantly correlated with Return on Assets (ROA), Liquidity Ratio (LOQ).

Multivariate Analysis for Variables

This table indicates the regression between selected financial ratios and company related variables for the sample of 18 licensed commercial banks in Sri Lanka. R^2 and adjusted R^2 values are calculated for every ratio.

Model Summary						
MODEL		**CAR**	**NPA**	**NIM**	**ROA**	**LIQ**
R Square		.099	.092	.266	.585	.329
Adjusted R Square		.062	.055	.237	.569	.302
F		2.686	2.502	8.921	34.70024	12.071
Sig.		**.012**[b]	**.018**[b]	**.000**[b]	**.000**[b]	**.000**[b]

According to the table provided Capital Adequacy Ratio and Non-Performing Assets are not able to explain the variability of dependent variables properly because the R^2 value is below

1%. Net Interest Margin and Liquidity ratios weakly explain the variability obtaining R^2 values below 50%. Return on Assets provides a R^2 value which is above 50% it is able to describe the more than half of the variability of dependent variables. Adjusted R^2 value often provides a value below the R^2 since it is adjusted by the number of independent variables.

According to the calculations performed based on sample data every ratio except the return on assets present comparatively lower F values which indicates that the null hypothesis is not supported by the data gathered. The level of significance of Net Interest Margin, Return on Assets and Liquidity are below 0.05. Due to that it is required to reject the null hypotheses because there is a significant difference between means. Alternatively, for Capital Adequacy and Non-Performing Assets significant values more than 0.05 are generated stating that it cannot be concluded that there is a significant difference between mean values.

Model	CAR		NPA		NIM		ROA		LIQ	
	t	Sig.	T	Sig.	t	Sig.	T	Sig.	t	Sig.
(Constant)	.889	.375	-.173	.863	-.859	.391	-3.309	.001	4.566	.000
Leadership Style	2.092	**.038**	1.591	.113	3.484	**.001**	4.979	**.000**	2.072	**.040**
Board Size	3.109	**.002**	-1.064	.289	-1.791	.075	-3.696	**.000**	.292	.771
Number of Board Meetings	-.227	.821	.021	.983	.697	.487	.089	.929	-6.910	**.000**
Number of Audit Committee Meetings	.822	.412	2.703	**.008**	1.094	.275	3.869	**.000**	-2.625	**.009**
Board Composition	-.402	.689	-.092	.927	-1.139	.256	2.728	**.007**	-.386	.700
Age of the Company	1.602	.111	.329	.743	-3.680	**.000**	-7.509	**.000**	.554	.580
Size of the company	-.153	.878	.861	.390	4.582	**.000**	4.423	**.000**	-2.607	**.010**

The above table presents the T values and significant level of each dependent and independent variables.

This independent variable describes that there are significant relationships between CAR and leadership model (0.038) and board size (0.002). For the other dependent variables, the independent variable which represents the efficiency of commercial banks is not significantly influenced. According to the table the T values are negative for number of board meeting, board composition and size of the company. It indicates that the regression coefficient is less than the hypothesis value in regression model.

There is a significant relationship between non-performing assets and number of audit committee meeting since there is a significant coefficient of 0.008. The other dependent variables do not provide clues for influential relationships because the significant coefficient is generated in comparatively higher values. NPA only affects the number of audit committee meetings severely. The audit committee meetings have co-operated in fluctuating non-

performing assets. Negative T values are generated for board size and board composition meaning that the regression coefficient is less than hypotheses values.

Leadership style, age of the company and the size of the company are significantly affected by the net interest margin. Three of the dependent variables possesses significant values less than 0.05. T values for the board size, board composition and age of the company bear negative values which indicate that the regression coefficients are less than the hypotheses values,

There is a strong relationship between ROA and dependent variables except number of board meetings. ROA assists to describe the variability of all other dependent variables because the significant levels are less than 0.05. In most cases except board composition (Sign-0.007), significant level is .000 indicating that the dependent variables are extremely significant. Board size and age of the company hold negative T values which provide a definition that the regression coefficients are less than hypothesis value.

Leadership style, number of board meetings, number of audit committee meetings and size of the company present significant values less than 0.05. Due to that it can be concluded that there is a significant relationship between liquidity ratio and above mentioned dependent variables. Number of board meetings, number of audit committee meetings, board composition and size of the company carry negative T values which provide a broad concept that the regression coefficient is less than the hypotheses values.

LIMITATIONS OF THE STUDY

- Among wide banking industry in Sri Lanka, the scope of the study is focused only on commercial banking sector in Sri Lanka.
- This study heavily depends on secondary data and limited to one way of data collection method, as data is collected through annual reports of selected companies. Therefore, it depends on other party data which have been collected for their purposes rather than for our specific purpose.
- This study is focused on examining the impact of corporate governance practices such as Board size, Board position, audit committee meetings and board composition on bank efficiency. However, there are other corporate governance aspects that affect bank efficiency which will not be addressed through our research.
- Difficulty of obtaining internal information hence had to choose the CAMEL model instead of DEA approach in determining bank efficiency

Summary and Conclusion

In recently global as well as local large-scale banks that collapsed due to poor corporate governance practices. Therefore, this study examined whether certain corporate governance characteristics are related with bank efficiency. This study have analyzed corporate governance practices influencing financial efficiency of licensed commercial banks in Sri Lanka using manifold research methodologies for the study period 2008/2017.

By using descriptive statistic, correlation, ANOVA, multivariate and panel regression models to examined the relationship between these selected corporate governance characteristics and the efficiency of licensed commercial banks in Sri Lanka

The study exposure that bank efficiency positively related with overall corporate governance index (separate leadership structure, Audit committee, audit committee meeting per annum and Board composition) except Board size. Hence higher level of corporate governance of banks increase financial efficiency in Sri Lankan licensed commercial banks. Further, result of this paper has found size of bank have negative effect but age of the bank has positive relationship with financial efficiency. Finally, result of this study concludes that corporate governance variables strong explaining power of financial efficiency of Sri Lankan commercial banks. Thus, it can be seen that the role of corporate governance practices in enhancing the extent of the level of efficiency in Sri Lankan commercial banks are vital.

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