Does Board Structure in Banks Really Affect Their Efficiency?

Saseela Balagobei
Senior Lecturer, Faculty of Management Studies and Commerce,
University of Jaffna
saseelas@yahoo.com

Abstract

The purpose of this study is to identify the relationship between board Structure and efficiency of licensed domestic commercial banks in Sri Lanka for the period from 2009 to 2013. This study also examines the impact of board Structure on efficiency of licensed domestic commercial banks in Sri Lanka. In this study, 10 licensed domestic commercial banks are taken as sample for the purpose of data analysis and hypotheses are examined with help of Pearson’s correlation and regression analysis. Secondary data from the annual reports of banks and journals were used for the analysis purpose. The findings show that, smaller board size and greater board independence lead to better efficiency of licensed domestic commercial banks in Sri Lanka. Further, board meeting has a significant impact on efficiency of the licensed domestic commercial banks in Sri Lanka. This study would hopefully benefit the academicians, researchers, policy-makers and practitioners of Sri Lanka and other similar countries through exploring the impact of board Structure on efficiency.

Keywords: Corporate governance, Board Structure, Efficiency.

1. Introduction

Goverance has become an issue of interest ever since people began to organize themselves for a common purpose. A corporate form of entity is considered as one way of organizing people towards a common purpose, corporate governance has become a critical area of concern. It has also become a much discussed issue today owing to constant occurrence of corporate frauds, abuse of managerial power and social irresponsibility of corporate entities. Therefore, a quest for good corporate governance can be witnessed today. The term ‘corporate governance’ is usually defined as the system by which companies are directed and controlled (Cadbury Report). The contribution of corporate governance for the stability and equity of society is aptly captured by the following definition of Adrian Cadbury made in 2004: “Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations and society.”

Corporate Governance is an obligatory adherence function in the present turbulent business environment. Evidence reveal that non-compliance have resulted collapse of corporate giants around the world. Board as a corporate governance component, derived much attention consequently, practitioners and academia have tried to identify the most appropriate board structure by linking this with performance.

The soundness of the banking industry impacts on the stability of the financial system of a country and on most of the economic activities because banks do play a key role in managing the flow of funds of an economy. Therefore, continuous functioning of banks with a high level of efficiency is highly important. In general, efficiency is how a firm uses its cost or effort to obtain the maximum output and it finds the ratio of inputs to outputs. The importance of bank efficiency has been widely highlighted since the last few decades in the academic literature, especially since 1990s (Hamin, Syed & Naziruddin, 2006). The bank efficiency is given attention by the management since it will be able to trace the sources of inefficiency and it will help banks enhance the chance of survival in the competitive markets (Ihsan & M. Kabir, 2002).
The Central Bank of Sri Lanka (CBSL) has issued a mandatory code of corporate governance – the Banking Act Direction No. 01 of 2008 on Corporate Governance for Licensed Commercial Banks in Sri Lanka in April 2008, which banks were expected to comply fully by 1st January 2009. This has been designed as a series of rules based upon certain fundamental principles, which would promote a healthy and robust risk management framework for banks with accountability and transparency through policies and oversight by the board of directors.

Various studies have been conducted on corporate governance and bank efficiency in developed countries. However this study is very rare in context of developing countries. So, this paper is an endeavor to bridge the gaps in the research of relationship between board Structure and bank efficiency in Sri Lanka.

2. Statement Of The Problem

The appraisal of the efficiency of the banking industry is vital for an efficient and competitive financial system due to the role it plays in financial intermediation. The developing competition itself highlights the banks to operate efficiently in the market in order to survive huge competition while protecting their market share among them.

As per the Central Bank Annual Report of 2013 the quality of assets in the banking sector worsens as indicated by the increase in the Non Performing Loans ratio to 5.6 per cent by end 2013. Efficiency ratio that is cost to income ratio also recorded an increase from 49.4 in 2012 to 53.4 in 2013. The banking sector reported a profit after tax of Rs. 74.6 billion for 2013, compared to the profit after tax of Rs. 82.7 billion recorded for 2012.

The research was guided by the following research questions
- Is there any relationship between board Structure and efficiency of banks?
- To what extent the board Structure impact on efficiency of banks?

3. Objectives

This research aims to achieve the following objectives. The primary objective of this study is to find out the relationship between board Structure and efficiency of licensed domestic commercial banks over the six year period (2009-2013). The secondary objectives of the study are as follows,
- To examine the impact of board Structure on efficiency of licensed domestic commercial banks from the year 2009 to 2013.
- To suggest the recommendations to improve the efficiency of the bank.

4. Literature Review

Adnan, Rashid, Htay and Meera (2011) investigated the impact of corporate governance on efficiency of Malaysian listed banks by using a panel data analysis. Corporate governance variables are represented by board leadership structure, board composition, board size, director ownership, institutional ownership and block ownership. Efficiency is measured using two proxies; namely, ratio of non-performing loans to total loans and ratio of operating expenses to total assets. The findings show that smaller board size and higher percentage of block ownership lead to better efficiency of Malaysian banks.

Nyor and Mejabi (2013) examined the impact of Corporate Governance (CG) variables of Board Size (BS), Board Composition (BC), Composition of Audit Committee (CAC) and Power Separation (PS) on Non-performing Loans of Nigerian Deposit Money Banks; with a view to finding out whether these CG variables can be useful in curtailting the incidence of non-performing loans that have bedeviled Nigerian Money Deposit Banks. Secondary data was used from fourteen (14) quoted banks on Nigerian Stock Exchange from 2005-2011. Using multivariate regression analysis, the study finds that corporate governance variables of BS, BC, CAC and PS have no significant impact on non-performing loans of Nigerian Deposit Money Banks. Hence, the study concludes that BS, BC, CAC
and PS cannot be relied upon to check the rising figure of non-performing loans of Nigerian Deposit
Money Banks.

Poudel and Hovey (2013) investigated the impact of corporate governance on efficiency of
Nepalese commercial banks and cover 29 commercial banks out of 31 banks from the 2005-2011 time
spans. Corporate governance variables are represented by board size, independence and diligence,
Audit Committee size, independence and diligence and ownership structure. The non-performing loan
variable is used for bank’s efficiency. The regression analysis is used to examine the relationship
between corporate governance and efficiency of bank. The findings show that bigger board and audit
committee size and lower frequency of board meeting and lower proportion of institutional ownership
lead to better efficiency in the commercial banks.

Saseela and Velnampy (2011) evaluated efficiency and financial sustainability of Co-operative
Rural Banks in relates, with its interest rate, operating revenue, administrative expenditure, operating
expenditure, and its overheads. For the purpose of this research, 06 banks under two MPCS were
selected by using the convenient sampling method. Such as Chunnakam, Ellalai, Kupilan, Innuivil,
Kokuvil and Thirunelvelly under Chunnakam MPCS and Nallur MPCS.Data was collected and
analyzed by using the SPSS for the period of 2007-2009. In this study, correlation and regression
analysis were used. The result reveals that there is a strong positive relationship between administrative
efficiency and financial sustainability among Co-operative Rural Banks. There is no significant
relationship between staff efficiency and financial sustainability.

Priya and Nimalathasan (2013) examined the relation between board of directors’ Structure and
financial performance among selected hotels and restaurants in Sri Lanka which covered selected hotels
and restaurants in Sri Lanka over a period of past 5 years from 2008 to 2012. Correlation and
regression analysis were used in the analysis. The result revealed that there is a significant relationship
that exists between board of directors’ Structure and financial performance among selected hotels and
restaurants in Sri Lanka. The suggested Number of Women in Board (NWB) and Inside Directors
(ISD) are significantly correlated with Return on Asset (ROA) at 0.05 level of significance. NWB and
ISD are significantly correlated with Return on Equity (ROE) at 5 percent level of significance. At
the same time CEO Duality (CEO DUAL) is significantly correlated with ROE at 0.01 percent level of
significance. Finally the rest of other variables are not correlated. The results add insight on the relation
between monitoring mechanisms and financial performance of hotels in an emerging market

Velnampy (2013) conducted a study titled on corporate governance and firm performance with
the samples of 28 manufacturing companies using the data representing the periods of 2007 – 2011.
Board structure, board committee, board meeting and board size including executive directors,
independent non-executive directors, and non-executive directors were used as the determinants of
corporate governance whereas return on equity (ROE) and return on assets (ROA) were used as the
measures of firm performance. The study found that determinants of corporate governance are not
correlated to the performance measures of the organization. Regression model showed that corporate
governance don’t affect companies’ ROE and ROA.

Based on the above literature review the following hypotheses could be derived.

H1: There is a significant relationship between board Structure and banking efficiency.
    H1a: There is significant relationship between board size and efficiency of Banks.
    H1b: There is significant relationship between board independence and efficiency of Banks
    H1c: There is significant relationship between board meetings and efficiency of Banks.

H2: There is a significant impact of board Structure on banking efficiency.
    H2a: There is a significant impact of board size on efficiency.
    H2b: There is a significant impact of board independence on efficiency
    H2c: There is a significant impact of board meetings on efficiency.

5. RESEARCH METHODOLOGY
5.1 Data Collection
The study used secondary data constituting the income statement and balance sheet sourced from the banks audited annual reports and financial statements for the five year period, from 2009 to 2013, available from the banks and CSE websites. The data and information required for the study were collected as secondary data from following sources:
- Annual reports of banks
- Annual reports of Central Bank of Sri Lanka
- Journals and magazines

5.2 Sample of the Study
In 24 commercial banks there are 12 Licensed Domestic Commercial Banks (LDCBs) and 12 Licensed Foreign Banks (LFBs). LDCBs consist of two public banks and ten private banks. Population of this study is 12 Licensed Domestic Commercial Banks. This study selected only 10 banks from the Licensed Domestic Commercial Banks. Two banks such as Amana and DFCC Vardhana bank PLC were excluded from the research. Because Amana bank is Islamic unconventional bank and annual reports of DFCC are not available for whole study period. The selected Licensed Domestic Commercial Banks are as follows:
1) Bank Of Ceylon
2) Commercial Bank of Ceylon PLC
3) Hatton National Bank PLC
4) National Development Bank PLC
5) Nations Trust Bank PLC
6) Peoples Bank
7) Pan Asia Banking Corporation PLC
8) Sampath Bank PLC
9) Seylan Bank PLC
10) Union bank of Colombo PLC

5.3 Conceptualization
Figure 1 illustrates the conceptual frame work of the study. Based on the literature survey and problem statement of the study, the following conceptual frame work has been constructed to show the relationship between board Structure and efficiency of the banks.

Figure 1: Conceptual Framework

Board Size

Board Independence

Board Meetings

Board Characteristics

Efficiency

Cost To Income

Non performing Loans

Source: Developed by researcher
5.4 Operationalization

Table 1: Operationalization

<table>
<thead>
<tr>
<th>Concept</th>
<th>Variable</th>
<th>Indicators</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Structure</td>
<td>Board Size (BS)</td>
<td>Directors of the board</td>
<td>Number of directors on the board of the firm</td>
</tr>
<tr>
<td></td>
<td>Board Independence (BI)</td>
<td>Independent directors of the board</td>
<td>Number of independent directors / total number of directors on board.</td>
</tr>
<tr>
<td></td>
<td>Board Meetings (BM)</td>
<td>Number of board Meetings</td>
<td>The number of board meeting held during the financial year</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Cost to Income (CI)</td>
<td>Cost to Income ratio</td>
<td>Non-interest expenses / Interest income plus non-interest income</td>
</tr>
<tr>
<td></td>
<td>Non Performing loans (NPL)</td>
<td>Non performing loan ratio</td>
<td>Non performing loans / total loans</td>
</tr>
<tr>
<td>Control Variable</td>
<td>Bank Size (BSI)</td>
<td>Total assets</td>
<td>Log of total assets</td>
</tr>
</tbody>
</table>

5.5 Model of the Study

Regression analysis is a statistical tool for the investigation of relationship between variables. This study involves more than one independent variable and is therefore a multiple regression analysis used to drive conclusion. This study uses the following regression specification:

\[
\text{EFF} = f (\text{BS}; \text{BI}; \text{BM}; \text{BSI})
\]

Model I

\[
\text{CI} = \beta_0 + \beta_1 \text{BS} + \beta_2 \text{BI} + \beta_3 \text{BM} + \beta_4 \text{BSI} + e
\]

Model II

\[
\text{NPL} = \beta_0 + \beta_1 \text{BS} + \beta_2 \text{BI} + \beta_3 \text{BM} + \beta_4 \text{BSI} + e
\]

Where,

- \(\beta_0, \beta_1, \beta_2, \beta_3, \beta_4\) - Regression co-efficient
- EFF - Efficiency of banks
- CI - Cost to Income
- NPL - Non performing loans
- BS - Board Size
- BI - Board Independence
- BM - Board Meeting
- BSI - Bank Size
- e - Error terms.

5.6 Method of Analysis

For the purpose of data analysis descriptive statistics are used to describe and summarize the behavior of the variables in a study. They refer to the ways in which a large number of observations are reduced to interpretable numbers such as averages and percentages. Inferential statistics are used to draw conclusions about the reliability. In order to test the research hypotheses; the inferential tests used include the correlation and regression analysis.

6. Results And Discussions
6.1 Descriptive Statistics

Descriptive statistics measure the central tendency and dispersion. The mean is the most important measure of central tendency (Veal, 2005). The descriptive statistics used in this study consist of minimum, maximum, mean, and standard deviation. The mean is calculated to measure the central tendency of the variables from 2009 to 2013. Output of the descriptive statistics is presented in Table 2.

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>50</td>
<td>5.00</td>
<td>13.00</td>
<td>9.6600</td>
<td>1.92311</td>
</tr>
<tr>
<td>BI</td>
<td>50</td>
<td>.15</td>
<td>1.00</td>
<td>.5013</td>
<td>.22390</td>
</tr>
<tr>
<td>BM</td>
<td>50</td>
<td>12.00</td>
<td>30.00</td>
<td>16.3000</td>
<td>4.72618</td>
</tr>
<tr>
<td>BSI</td>
<td>50</td>
<td>10.15</td>
<td>12.08</td>
<td>11.2697</td>
<td>.50107</td>
</tr>
<tr>
<td>CI</td>
<td>50</td>
<td>31.16</td>
<td>82.02</td>
<td>57.8020</td>
<td>9.95962</td>
</tr>
<tr>
<td>NPL</td>
<td>50</td>
<td>1.31</td>
<td>33.61</td>
<td>6.2216</td>
<td>5.89788</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean board size is about nine (9.66) suggesting that licensed domestic commercial bankshave complied with the corporate governance rules as rule says that the number of directors on the board shall not be less than 7 and not more than 13. The mean of board independence is 0.5013. While theproportion of the independent directors sittingon the board is 50%, the average boardmeeting of the banks used in this study is16.3. The descriptive statistics show that over the period under study, the efficiency ratios measured by cost to income ratio and Nonperforming loans averaged 57.80% and 6.22% respectively.

6.2 Correlation Analysis

Table 3: Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>Board Size</th>
<th>Board Independence</th>
<th>Board Meetings</th>
<th>Bank Size</th>
<th>Cost To Income</th>
<th>Non Performing Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Size</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Independence</td>
<td>-.290**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Meetings</td>
<td>-.307</td>
<td>.053</td>
<td>.712</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Size</td>
<td>-.497**</td>
<td>.331*</td>
<td>.488**</td>
<td>.000</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cost To Income</td>
<td>.392**</td>
<td>.298*</td>
<td>-.187</td>
<td>-.452**</td>
<td>.001</td>
<td>1</td>
</tr>
<tr>
<td>Non Performing Loans</td>
<td>.024</td>
<td>-.249</td>
<td>.174</td>
<td>-.194</td>
<td>.481**</td>
<td>1</td>
</tr>
</tbody>
</table>

* Correlation is significant at 0.05 level (2 tailed)
** Correlation is significant at 0.01 level (2 tailed)

Table 3 describes the correlation between Board Structure and efficiency. The value of correlation between Board size and Cost to income is .392** which is significant at 0.01 levels reveals, a moderate positive relationship between Board Size and Cost to Income. The result is consistent with the findings of Adnan, Htay, Rashid & Meera(2011) who found significant association between board
size and Cost to Income. Correlation value between Board Independence and Cost To income is -.298* which is significant at 0.05 level represents, a weak negative relationship between Board Independence and Cost to income. There is no any significant relationship between board Structure and nonperforming loans as per the correlation matrix.

6.3 Multiple Regression Analysis

Regression analysis is used to test the impact of corporate governance variables on efficiency. The table 4 presents the multiple regression summaries. In this model the specification of four variables (board size, board independence, board meetings and bank size) revealed the ability to predict the Cost to Income. Respective $R^2$ value of 0.260 denotes that 26.0 % of the observed variability in Cost to Income can be explained by the differences in variables namely board size, board independence, board meetings and bank size. The remaining 74 % is not explained which means that the remaining 78.7% of the variance in Cost to Income is related to other variables not depicted in this model. Further, this model reveals that the coefficient for all four variables such as board size, board independence, board meeting and bank size are not significant. t values for all five variables of board of director’s Structure are insignificant at 5% level. It means that these variables are not contributing to the efficiency measure of Cost to Income.

Table 4: Coefficients for predictors of Cost to Income

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>122.459</td>
<td>1.057</td>
<td>.090</td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>-5.908</td>
<td>6.185</td>
<td>.314</td>
<td></td>
</tr>
<tr>
<td>BM</td>
<td>.090</td>
<td>.314</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSI</td>
<td>-6.511</td>
<td>3.333</td>
<td>-3.328</td>
<td></td>
</tr>
</tbody>
</table>

$R^2 = .260$

Dependent Variable: Cost to Income

BS-Board Size, BI- Board Independence, BM- Board Meeting, BSI- Bank size

Table 5: Coefficients for predictors of Non Performing Loans

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>50.083</td>
<td>-3.07</td>
<td>.490</td>
<td>-1.240</td>
</tr>
<tr>
<td>BI</td>
<td>-4.824</td>
<td>3.891</td>
<td>-.183</td>
<td></td>
</tr>
<tr>
<td>BM</td>
<td>.397</td>
<td>.198</td>
<td>.318</td>
<td></td>
</tr>
<tr>
<td>BSI</td>
<td>-3.989</td>
<td>2.097</td>
<td>-.339</td>
<td></td>
</tr>
</tbody>
</table>

$R^2 = .164$

Dependent Variable: Non Performing Loans

BS- Board Size, BI- Board Independence, BM- Board Meeting, BSI- Bank Size

The table 5 presents the multiple regression summaries. The $R^2$ value is computed to identify the impact of independent variables on dependent variable. The $R^2$ value is .164 which denotes that 16.4% of the observed variability in Non performing loans ratio can be explained by differences in
independent variables namely Board Size, Board Independence, Board Meeting and Bank size. The Remaining 83.6% is not explained which means that the remaining 83.6% of the variance in non performing loans ratio is related to other variables not depicted in this model. R² values of 16.4% indicate that there may be number of variables which can have an impact on efficiency that need to be studied. Hence this area is indicated as a scope for future research.

According to these results the coefficient of board meeting is 0.397 which is significant at 5% level. Further, this model reveals that the coefficient for other three variables such as board size, board independence and bank size are not significant. t values for these variables of board of director’s Structure are insignificant at 5% level. It means that these variables are not contributing to the efficiency measure of Non Performing Loans.

### 7. Hypothesis Testing

Hypothesis testing is a form of statistical inference that uses data from a sample to draw conclusion about a population parameter or a population probability distribution.

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>There is significant relationship between board size and efficiency.</td>
<td>Partially Accepted.</td>
</tr>
<tr>
<td>H1b</td>
<td>There is significant relationship between board independence and efficiency.</td>
<td>Partially Accepted.</td>
</tr>
<tr>
<td>H1c</td>
<td>There is significant relationship between board meetings and efficiency.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2a</td>
<td>Board Size has significant impact on efficiency</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2b</td>
<td>Board independence has significant impact on efficiency</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2c</td>
<td>Board meeting has significant impact on efficiency</td>
<td>Partially Accepted.</td>
</tr>
</tbody>
</table>

### 8. Conclusion

The objectives of this paper to identify the relationship between corporate governance mechanism i.e. board size, board independence, and efficiency of banking industry in Sri Lanka. The study contributes to the existing literature from different perspective as this paper is trying to bridge the gaps in the research of relationship between corporate governance mechanism and efficiency in Sri Lanka. Moreover, the study covers 10 licensed domestic commercial banks operated in Sri Lanka out of 12 commercial banks. The study covered more recent period, the year 2009-2013, when most of the regulatory decisions were taken by the central bank of Sri Lanka for the corporate governance.

The findings of this study have important implication for bank in Sri Lanka since it is found that smaller board size and higher proportion of independent director in board, leads to better efficiency in banks.

### 9. Recommendations and Suggestions

The Board of the banks strives to add value in addition to achieving the basic compliance requirements and hence discharge its oversight responsibilities very effectively and efficiently to meet the objectives of all its shareholders. The board members should possess a wide range of knowledge, skills and personal attributes which includes sound judgment, integrity and high ethical standards and more so the ability and willingness to challenge and probe into the day to day operational decisions of the bank. Further, to fulfill the governance responsibilities, the board should also have clear lines sight into management’s decision-making and risk management processes.
According the results of this study it can be suggested that the proportion of independent directors on the board should be increased, not one third as stated in the code and Small Board Size is recommended to enhance the efficiency of licensed domestic commercial banks.

There are some suggestions for future research. Mainly three independent variables namely Board Size, Board Independence, Board Meetings are used as the measures of corporate governance among numerous variables of corporate governance. Audit Committee Size, Audit committee Independence, Board diversity, No of Audit Committee Meetings, Number of non executive directors can be used in the future researches. And Cost to Income Ratio and Non performing loans are used for measuring the efficiency of licensed domestic commercial banks in SriLanka. Data Envelopment Analysis can be used to measure the efficiency in banking sector.

10. References
Central Bank of SriLanka Annual Report 2013