THE IMPACT OF BOARD GOVERNANCE ON FINANCIAL PERFORMANCE WITH THE MEDIATING EFFECT OF CAPITAL STRUCTURE: EVIDENCE FROM NON-FINANCIAL LISTED COMPANIES IN SRI LANKA

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Abstract

The main objective of this research study is to empirically investigate the relationship between board governance mechanisms and firm financial performance with the mediating effect of capital structure. Additionally, this study aims to assess the degree of board governance, capital structure, and financial performance. The scope of the research is narrowed down to non-financial listed entities in Colombo Stock Exchange (CSE) from 2016-2018, and 100 companies were selected based on sector-wise stratified random sampling. Based on the results of the study, the degree of Board Governance is in line with the findings of the studies done by Sri-Lankan researchers in the recent past. It was also found that there is a significant positive correlation of board governance with ROE. However, no correlation was identified between Board Governance and ROA. Based on the regression analysis it was examined that there is no significant relationship between board governance and firm financial performance. Finally, the results of the Sobel-Goodman test conclude that a mediation effect of capital structure does not exist on the direct relationship between board governance and financial performance. This study will contribute to the extant literature by investigating the relationship between board governance, capital structure, and firm financial performance as empirical studies were silent about the mediating effect of Capital structure in the relationship between board governance and firm financial performance. The outcomes of this research would also offer assistance to corporate decision-makers and managers in establishing an optimal capital structure. On the other hand, this research study would assist the regulatory authorities in passing laws and developing institutional assistance to make board governance mechanisms work more efficiently in the country.

Keywords: Board Governance, Capital Structure, Firm Financial Performance, Mediating Effect

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1 INTRODUCTION

Good corporate governance practices assist firms in getting better access to finance at a lower cost. Investors will bear an extra cost if the company has good governance, which would, in return, increase performance. On the other hand, weak corporate governance mechanisms would lead companies to poor debt management. Firms lose billions of dollars due to poor corporate governance policies, which results in the decline of firm performance. Low levels of firm performance can be caused due to weak levels of corporate governance, but if the firm adopted and implemented corporate governance and the firm performance was still unsatisfactory and low, it could be due to unhealthy levels of the firm’s debt. Kassim, Ishak, and Manaf (2011) identified the capital structure as a vital predictor of firm financial performance. They recommended that leverage should be carefully examined as a possible mediator for the board characteristics of corporate governance.

According to Senaratne (2011), Sri Lanka is one of the emerging markets in the South Asian Region. However, in the recent past, it is observable that the Sri Lankan economy is underperforming, and there is a re-emerging trend of corporate failures and malpractices such as Golden Key Credit Company of the Ceylinco Group, Pramuka Bank, and ETI Finance (Pvt) Ltd. These failures affect various stakeholders in the economy and reduce investors trust in the stock market of a country. Therefore, attention has been drawn towards the examination of ways to identify and avoid further corporate failures and malpractices. Similarly, the collapse of multibillion entities in foreign nations such as Enron, WorldCom, and the Bank of Credit has stimulated the interest in Corporate Governance. The Asian economic crisis also has contributed to the importance of Corporate Governance. According to World Bank (2000), some of the reasons for these collapses are due to lack of corporate governance, weak legal and regulatory systems, inconsistent accounting and auditing standards, and poor banking practices. On the other hand, thin and poorly regulated capital markets, ineffective oversight by boards of directors, and no focus on the rights of minority shareholders have also created issues concerning Corporate Governance (World Bank 2000). Similarly, the adoption of corporate governance principles is a huge step towards creating safeguards against corruption and mismanagement, promoting transparency in the business, and attracting more domestic and foreign investment.

As stated by Detthamrong, Chancharat, and Vithessonthi (2017), addressing the question of whether the capital structure mediates the impact of corporate governance on financial performance is significant due to the following reasons. First, corporate governance may not have a direct impact on firm performance. If the influence of corporate governance on firm performance is indirect, investigating the mediating effect of financial leverage on firm performance could clarify the mixed outcomes regarding the effect of corporate governance on firm performance. Second, by viewing financial leverage as a prospective mediator, a better understanding could be identified on how changes in corporate governance may affect firm performance.

Therefore, based on the above facts, the problem statement of this study is, whether there is a relationship between board governance and firm financial performance and whether financial leverage mediates that relationship in terms of non-financial listed companies in Sri-Lanka. This study intends to achieve three main objectives in terms of non-financial public listed companies in Sri Lanka. The first objective of the study is to assess the degree of board governance, the degree of capital structure, and the degree of a firm’s financial performance. The second objective of the study is to examine the relationship between board governance and
firm financial performance. The final objective of the study is to investigate whether financial leverage mediates the relationship between board governance and firm financial performance.

The significance of this study is identified as empirical significance, methodological significance, and practical significance. As far as the researchers observe, “whether financial leverage is a mediating variable between board governance and firm financial performance” has not been addressed in the literature related to the Sri Lankan context. The extant literature focuses mainly on the effect of corporate governance on firm performance (Achchuthan & Kajananthan 2013) and the effect of corporate governance on financial leverage (Kajananthan 2012). Therefore, the empirical significance of the study is that it addresses the dearth of studies that merge the relationships between board governance, firm financial performance with the mediating effect of capital structure because most of the researchers have focused on the above three concepts individually rather than seeing them together. As far as the researchers observe, other similar studies such as ‘Corporate governance, capital structure and firm performance: Evidence from Thailand’ by Detthamrong, Chancharat and Vithessonthi (2017) have used Ordinary Least Square as their analytical method. However, this study tests the relationships using an advanced Panel Regression technique, which contributes to the methodological significance. In terms of practical significance, the outcomes of this research are expected to aid corporate decision-makers and managers in establishing an optimal capital structure. On the other hand, this research study would assist the regulatory authorities in passing laws and developing institutional assistance to make board governance mechanisms work more efficiently in the country. Moreover, this study will lay some foundation by revealing the significant relationships between board governance measures and financial leverage on which more comprehensive evaluation could be built.

The rest of the study is structured as follows: the second section discusses the theoretical and empirical findings of extant literature; the third section elaborates the methodology adopted in analyzing the data gathered; the fourth section discusses the findings based on the analyses; the final section states the conclusion.

2 LITERATURE REVIEW

This chapter mainly focuses on the concepts, theories, and relationships related to corporate governance in terms of board characteristics, capital structure, and firm financial performance. This section concludes by the identification of the gap in the extant literature.

2.1 Corporate Governance, Capital Structure, and Financial Performance

Cadbury (1992, p.14) defines corporate governance as ‘the system by which companies are directed and controlled’. Brealey (1996) defines capital structure as a combination of debt, equity, or hybrid securities issued by the company. Pandey (2002) found that the optimal capital structure could be derived by combining equity and debt in a way that maximizes the value of the firm. Elly (2012) states that performance is the capacity to do business in an efficient, profitable, can resist opportunities and threats in the business environment.
2.2 Broad Theories

Similar studies have based the agency theory on analyzing the relationship between corporate governance and firm financial performance. In this research study, free cash flow theory (capital structure theory) will be advanced to explain this relationship.

2.2.1 Agency theory

Jensen and Meckling (1976) stated that shareholders (i.e., principals) of the company delegate the business operations to the managers (i.e., agents). However, managers do not always act in the best interest of the shareholders when the ownership and control are separated (Jensen & Meckling 1976). This issue is known as the agency problem, and it results in agency costs. However, with good corporate governance mechanisms, agency costs can be reduced, and thereby the financial performance can be increased (Tricker 2012). Hence, it is the responsibility of the board of directors to ensure effective corporate governance takes place in the organization.

2.2.2 Free cash flow theory

According to the free cash flow theory (Jensen 1986), the capital structure itself can act as a monitoring device that reduces the agency problem hence increasing company performance by reducing the agency costs of free cash flow. According to Okiro, Aduda and Omoro (2015), there are some consequences derived if a company is employing higher leverage level and the directors of such companies will not be able to invest in nonprofitable new projects, as doing so the new projects might not be able to generate cash flows to the firm, hence managers might fail in settling the fixed amount of interest on debt and the principal when it is due. It will also cause the inability to generate profit in a certain financial year that may result in failing to pay dividends to firm shareholders. Leverage might not only be able to reduce the agency costs of free cash flow, but also can increase the efficiency of the board of directors. This is due to the debt market that might function as a more effective capital market monitoring mechanism. In addition, to obtain debt financing, directors must show their abilities and efficiencies in managing the firm. In essence, it has been established that leverage can be considered as a monitoring mechanism, especially when the corporate governance rate is at a lower level (Okiro, Aduda & Omoro 2015).

2.3 Level of Corporate Governance

Few local researchers have done extensive studies to investigate the degree of corporate governance practices in Sri Lanka. According to Dissabandara (n.d.) the mean value of overall corporate governance score (CGS) in terms of board adherence in Sri Lanka is 165 out of 296. Based on this CGS, he states that actual CG practices in Sri Lanka have considerably deviated from the expected standard since the average compliance percentage was only 56%. Manawaduge (2008) also provides a similar insight on the degree of corporate governance compliance where according to him, the mean value of overall CGS is 61.17, indicating a 68% compliance rate.

There is a broad variance in CG practices across the firms in Sri Lanka, where the CGS of the company with the lowest compliance rate (39%) is 115 and the CGS of the company with the highest compliance rate (69%) is 203, indicating a wide range of 88. A considerable variation appears in CG practices across different industries too, where highest compliance level (61%)}
from “Bank Finance and Insurance sector” and lowest compliance level (48%) from “Land & Property sector” (Dissabandara, n.d.).

It is visible that western countries have a better CG compliance rate than Asian countries where out of eight countries, the United States claimed the first rank scoring 7.2 and Japan ranked at last place with CGS of 2 indicating a significant gap of 5.20 (Dissabandara, n.d.). Empirical findings reveal that the level of corporate governance in Sri Lanka lies between the range of 39%-69%. Therefore, one of the key objectives of this study is to assess the degree of corporate governance in Sri Lankan listed companies using descriptive statistics and to examine whether the current degree of CG has changed from the values stated in previous literature discussed.

2.4 Level of Capital Structure

Singh and Hamid (1992) compared companies in developing with developed economies’ and concluded that, in developing economies, companies rely heavily on equity rather than debt capital. The leverage ratio of Sri Lankan companies based on the book value is considerably less than other countries in Asia. In other words, data specify average leverage ratios for companies in developing countries are significantly lower than developed economies (Wellalage & Locke 2014). According to Hsu and Hsu (2011), the market leverage value for Hong Kong is at 43%, Korea is at 69%, and Singapore is at 42%. Japanese companies’ book value of leverage is approximately 66%, Taiwan’s debt level is around 46% and for Sri Lanka, it is only 23% (Wellalage & Locke 2014). Colombage (2007) states that the book leverage is 44% and market leverage is 39% for Sri Lankan companies.

On the other hand, only 10% of total corporate debt in Sri Lanka is delivered by listed and unlisted debt and debt instruments; the remaining 90% is delivered by banks (Colombage 2007). Sri Lanka’s level of corporate debt is significantly less when observed with developed economies, although corporate leverage is 44% of book value and 39% of market value (Colombage 2007, Rajan & Zingales 1995). These figures are in contrast with figures provided by Rajan and Zingales study (1995) reporting G-7 countries’ corporate leverage ratios. Those range between 54% and 73% for book value and 40% to 70% for market value. Moreover, the finance cost is a key constraint to external finance approachability in emerging markets. The Sri Lankan economy is experiencing double-digit interest rates during the last few decades also discourages most of the companies from trying to access such debt with high interest rates (Colombage 2007). Similarly, high transaction costs also mitigate the debt usage of local companies. Thus, it can be concluded that local companies prefer equity over debt in their capital structure in the Sri Lankan context.

2.5 Board Governance and Firm Financial Performance

To date, there have been inconclusive outcomes on the relationship between board variables and financial performance. Certain studies (Pearce & Zahra 1992, Daily & Dalton 1993) identified a positive relationship between board variables and financial performance. Others, on the other hand, have found a negative relationship between firm performance and board composition (Bhagat & Black 1999, Dulewicz & Herbert 2004). Meanwhile, some researchers have not found any relationship between corporate governance and firm financial performance (Park & Shin 2004).
Positive Relationship

Board size
Ajanthan (2013) identified a positive association between board size, board composition, and CEO duality with ROE and ROA; likewise, Marn and Romuald (2012) identified that board size has a positive relationship with financial performance.

Independent directors
O’connel and Cramer (2010) suggested that independent on the board have a positive influence on firm financial performance, supporting the existing findings. Leung, Richardson and Jaggi (2014) also obtained similar results on board independence and identified a positive relationship with firm performance in the context of non-family businesses. Confirming these findings, Muchemwa, Padia and Callaghan (2016) identified evidence that ROE has a positive relationship with the proportion of independent directors.

Board meetings
There is also proof of the relationship between board meetings with financial performance. Research conducted by Hoque, Islam and Azam (2009) relating to Australia suggested that audit and remuneration committee meetings had a positive association with ROA and ROE.

Board gender diversity
Erhardt, Werbel and Shrader (2003) carried out research on the relationship between board diversity centered on ethnicity and gender with the performance, and it was concluded that those two variables have a positive relationship and may be used to reduce potential agency costs. Similar research on gender diversity done by Vafaei, Ahmed and Mather (2015) supported the argument that board diversity had a positive association with the financial performance of firms. In addition, studies of Ujunwa (2012) on gender diversity, nationality, and ethnicity revealed that board nationality and ethnicity are positively associated with performance. These studies also provide evidence that the board’s skills have a positive influence on a company’s financial performance.

Negative Relationship

Contrarily, some researchers have identified a negative relationship between some board characteristics and the firm financial performance. Rodríguez-Fernández (2015) discovered a significant negative relationship between firm size and financial performance, stating that the general belief of “one size fits all” does not apply to all cases and that there is an optimal fixed number of board members. Another conclusion derived is that board size depends on additional features such as company specifics. Ujunwa (2012) identified that CEO duality, gender diversity, and board size were negatively associated with performance. Tsogtbaatar (2014) also indicated that independent directors and board size display a significant negative relationship between hotel performance in non-family hotels and an insignificant relationship between board size and hotel performance in family hotels in Taiwan. Jermias and Gani (2014) conducted a research on board dependency and duality that generated similar results to those of the research done by Ujunwa (2012), which resulted in a negative of CEO relationship duality and board independence on financial performance.
No Relationship

However, certain studies concluded that there is no significant relationship between the two variables. The meta-analytical review of Dalton et al. (1998) on board composition, leadership structure, and financial performance indicates that there is no relationship at a meaningful level between board composition and financial performance. Leung, Richardson and Jaggi (2014) also identified that there is no systematic relationship between board independence and firm financial performance in family-owned firms. Similarly, research by Muchemwa, Padia and Callaghan (2016) identified that independent directors are not significantly associated with Tobin’s Q and ROA, and board size has only an insignificant associated with Tobin’s Q, ROE, and ROA. The discoveries of Chapple and Humphrey (2014) suggested that board gender diversity and financial performance show no correlation between having women on a board and performance, and the results indicated that firms that hire women tend to face lower risk, but there are no differences in the performance compared to the boards that have or do not have women.

The Sri Lankan Context

In the local context, Kumudini (2011) has pointed that CEO duality, the percentage of non-executive directors, and the board committees composed of audit, remuneration, and nomination committees promote better performance in Sri Lankan companies. In contrast, Azeez (2015) conducted a study on the relationship between corporate governance and firm performance in Sri Lanka that involved 100 listed companies and they have used EPS, ROA, and ROE as measures of firm performance. The results revealed that the mere existence of non-executive directors on corporate boards within the company would not enhance firm performance. Achchuthan and Kajananthan (2013) state that there is no substantial mean difference between the firm performance among corporate governance aspects in terms of board leadership structure, board committees, board meetings, and the proportion of non-executive directors.

In conclusion, empirical findings reveal that there are mixed results with positive, negative, and no relationship in terms of board governance and financial performance.

2.6. Corporate Governance and Capital Structure

Empirical evidence identified on the association between board governance and capital structure seems to be mixed and inconclusive, which is discussed below.

Positive Relationship

According to Graham and Harvey (2001), governance correlates with the financing decisions and the capital structure of a firm. Researchers in the foreign context find that inner and outer corporate governance mechanisms impact capital structure decisions (Crutchley, Jensen & Raymond 1999).

Board size

Abor (2007) identified that the association between corporate governance and capital structure is positive in terms of board size. Abor (2007) and Bokpin and Arko (2009) reported a significant positive association between board size and capital structure for Ghanaian companies. Similarly, Wen et al. (2002) also identified a positive relationship between board size and leverage.

CEO duality
Abor (2007) identified the relationship between corporate governance and capital structure is positively associated in terms of CEO duality. Fosberg (2004), in his research on US corporations, identified that CEO duality is effective in increasing the amount of debt in a company’s capital structure. However, the relationship was insignificant. Abor (2007) also identified a significant positive relationship between CEO duality and leverage.

Non-executive directors
Meanwhile, Abor (2007) also identified a positive relationship between leverage and independent directors. Bokpin and Arko (2009) reported a statistically insignificant relationship between board independence and the debt ratio.

Negative Relationship
Anderson et al. (2004) found a negative relationship between board independence and debt. Furthermore, they presented that the cost of debt is lesser for companies with more independent directors. Berger et al. (1997) identified a significant negative correlation between board size and leverage. Anderson et al. (2004) also identified a negative association between board size and cost of debt financing. Therefore, these findings suggest that large boards approve high debt policies to raise the value of the company. Kyereboah-Coleman and Biekpe (2006) also found a significant negative relationship between CEO duality and short-term leverage and the total leverage suggesting that when the CEO also serves as chairperson of the board, agency cost rises and this discourages the lenders to invest in such companies.

The Sri Lankan Context
Sri Lankan researchers namely, Somathilake and Udayakumara (2015) have found that corporate governance in terms of board composition has a significant effect on financial leverage. Achchuthan, Kajananthan and Sivathaasan (2013) discovered that board committee has a positive significant effect on the capital structure, while board size, leadership style, and board composition have a relationship on the capital structure. However, Peiris and Fernando (2013) stated that there’s no significant effect of corporate governance mechanisms on the capital structure choices of non-financial companies in Sri Lanka. Similarly, Ravivathan and Danoshana (2014) also stated that corporate governance mechanisms have no significant effect on the capital structure.

2.7 Capital Structure and Firm’s Financial Performance

Positive Relationship
Foreign researchers such as Taub (1975) studied the factors affecting the choice of debt-to-equity ratio for a set of American companies and identified that there is a statistically significant positive correlation between debt and profitability. Roden and Lewellen (1995) examined the capital structure of American companies between 1981 and 1990 and discovered a positive relationship between financial performance and capital structure. Similar results were generated by Champion (1999). Hadlock and James (2002) suggested that companies with higher profitability use a higher level of debt.

Negative Relationship
Additionally, some researchers have delivered empirical evidence supporting the negative relationship between financial performance and debt levels. Research workings conducted by Dawar (2014) was concentrated on the impact of debt levels on the performance of Indian listed companies for 10 years. Based on the statistical evidence, it was reasoned that there is a statistically significant negative relationship between debt levels and financial performance in
the Indian context. Similarly, Kester (1986) identified a negative association between capital structure and financial performance in America and Japan. Parallel results were reported by Titman and Wessels (1988) from the US corporations, Rajan and Zingales (1995) in the G-7 countries and Wald (1999) in the developed economies. Haung and Song (2006), too found a significant negative correlation between leverage and performance (earnings before interest and tax to total assets) in Chinese companies.

No Relationship

Surprisingly, some researchers have also witnessed no relationship between firm financial performance and capital structure variables. For instance, Phillips and Sipahioglu (2004) recognized an insignificant connection between capital structure and performance for publicly traded UK lodging firms. Ebaid (2009) investigated the impact of capital structure decisions on the performance of 64 firms from 1997-2005 in the Egyptian capital market. He employed three accounting-based measures, namely ROA, ROE, and gross profit margin, and concluded that capital structure choices generally have a minor or no impact on financial performance.

The Sri Lankan Context

On the other hand, in the local context, Nirajini and Priya (2013) performed a study to identify the extent of the capital structure has an impact on financial performance on listed trading companies in Sri Lanka. Results of their correlation analysis indicated that debt asset ratio, debt-equity ratio, and long-term debt correlated with gross profit margin, net profit margin, ROCE, ROA & ROE at the significant levels of 0.05 and 0.1, indicating that there is a significant positive relationship between capital structure and financial performance. On the other hand, Pratheepkanth (2011) conducted a study on the companies listed in Sri Lanka, considering the period from 2005 to 2009, and found that there is a negative relationship between capital structure and net profit.

In essence, the above discussion indicates that there is mixed evidence on the relationship between these two variables.

2.8 Hypotheses

Based on the broad theoretical and experimental literature on board governance, capital structure, and financial performance, this study intends to explore the influence of board governance mechanisms on financial performance with the mediating effect of capital structure. Accordingly, two hypotheses will be developed and tested.

Accordingly, as the extant literature on the effects of board governance mechanisms on the firm financial performance is identified as mixed and inconclusive, neither a positive nor a negative association is identified. Hence, hypotheses are established on board governance variables and firm financial performance as follows.

H1: Board governance mechanisms are associated with firm financial performance

Due to the mixed empirical evidence, it can be viewed that board governance does not exert its effect on firm performance directly but may affect the firm performance indirectly through capital structure. As discussed in Section 2.6, board governance is expected to affect the capital structure and, as discussed in Section 2.7, capital structure has been found to be associated with firm performance. Therefore, it can be theoretically inferred whether the mixed results regarding the relationship between board governance and firm performance could be mediated by the
capital structure of firms. Accordingly, the following set of hypotheses are established and tested in this study.

H₂: Effect of board governance mechanisms on firm financial performance is mediated by financial leverage

3 METHODOLOGY

3.1 Research Approach

This section discusses the research approach, population, study sample, operationalization of variables, and analytical strategies proposed.

<table>
<thead>
<tr>
<th>Sector</th>
<th>No of Firms</th>
<th>No. of companies in the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1   Beverage Food and Tobacco</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>2   Chemicals and Pharmaceuticals</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>3   Construction and Engineering</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>4   Diversified Holdings</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>5   Footwear and Textile</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6   Health care</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>7   Hotels and Travels</td>
<td>38</td>
<td>16</td>
</tr>
<tr>
<td>8   Investment Trust</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>9   Land and Property</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>10  Manufacturing</td>
<td>39</td>
<td>16</td>
</tr>
<tr>
<td>11  Motors</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>12  Oil Palms</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>13  Plantation</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>14  Power and Energy</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>15  Services</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>16  Stores Supplies</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>17  Trading</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>235</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

This research intends to measure the levels and the relationship between board governance and firm performance with the mediating effect of capital structure; therefore, a positivistic paradigm and a quantitative methodology will be used as the research approach. On the other hand, related studies such as Detthamrong, Chancharat and Vithessonthi (2017) and Sheikh and Wang (2012) have used a similar approach. As far as the researcher observes, similar studies have used Ordinary Least Square as the research methodology. However, in this study, research objectives will be tested using the Panel Regression Analysis.

The population is companies listed in the CSE of Sri Lanka. The companies listed under the banking & finance and insurance sectors are excluded due to their inherent nature of being highly regulated and use of financial statements that are different from that of other companies. The sample size is 100 listed companies based on stratified random sampling applied to 17 business sectors of CSE whose financial year ending on 31st March (Table 1). The source of data collection is from the published annual reports related to 2017/18, 2016/2017, and 2015/2016 accounting periods (see Appendix 1).
3.2 Conceptual Framework

Figure 1 represents the basic overall research framework that is established based on the comprehensive literature review performed, which includes the direct relationship between Board Governance Index (explained in Section 3.4 below) and financial performance, the mediation effect of capital structure, and control variables such as firm size, firm age, current ratio, and fixed assets ratio.

![Figure 1: Conceptual framework](image)

**Source:** Author Constructed

The hypotheses on the direct and mediating relationships were established and indicated in Section 2.8 above.

3.3 Operationalization

Table 2 depicts the operationalizations of the selected independent, dependent, and control variables used in this study.

**Table 2: Operationalization Table**

<table>
<thead>
<tr>
<th>Denotation</th>
<th>Variable Name</th>
<th>Measurement</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$BGI_{it}$</td>
<td>Board Governance Index</td>
<td>Board Governance Index</td>
<td>Refer Note 1 below this table</td>
</tr>
<tr>
<td><strong>Mediating Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$CS_{it}$</td>
<td>Financial Leverage</td>
<td>Total Debt$<em>{it}$ / Total Assets$</em>{it}$ (of firm $i$ and period $t$)</td>
<td>Detthamrong, Chancharat and Vithessonthi (2017)</td>
</tr>
<tr>
<td><strong>Dependent Variables – Financial Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ROE_{it}$</td>
<td>Return on equity</td>
<td>Profit after Tax$<em>{it}$ / Equity$</em>{it}$ (of firm $i$ and period $t$)</td>
<td>Detthamrong, Chancharat and Vithessonthi (2017)</td>
</tr>
</tbody>
</table>
Note 1: Development of Board Governance Index

A Board Governance Index (BGI) was constructed to capture the extent of board governance practices considering the prior extant literature (Shahwan 2015, Elloumi & Gueyié 2001). In addition, The Code of Best Practice on Corporate Governance 2017, issued by The Institute of Chartered Accountants of Sri Lanka, and the listing rules of the Colombo Stock Exchange were used to ensure compatibility of the index in the Sri Lankan environment.

The BGI will be constructed to cover 12 board governance characteristics. Scoring is based on the existence of variables and each dimension is equally weighted. If a variable in the checklist is disclosed, a score of 1 is awarded, and if not, a 0 is awarded. Then the number of variables disclosed is divided by the maximum possible score to get the Board Governance Index.

\[ BGI_{it} = \frac{\sum c_i}{n_{it}} \]

Where, \( c_i \) is the score granted for an item if disclosed (1) or not (0), \( n_{it} \) is the maximum possible score for a particular firm. If some variable was not disclosed, it was kept as missing data without mentioning “0” and the values were assigned depending on the interpretation of the variable. Finally, to get a company’s score, the scores for each item are added and the total is divided by the maximum likely scores, which are multiplied by 100 to gather the percentage scores. Variables obtained in the preparation of BGI are given in Table 3.
Table 3: Board governance variables considered under $BGI_t$

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>$BoardSize_{it}$</td>
<td>Board Size: No. of board of directors for firm $i$ and period $t$.</td>
<td>Obtained the median value of the variable for the sample of companies. “1” was indicated to those which are on and above the median, otherwise “0”.</td>
</tr>
<tr>
<td>$BIndependence_{it}$</td>
<td>Board Independence: Ratio between no. of independent directors to the total no. of directors for firm $i$ and period $t$.</td>
<td>“1” was indicated to those which operated according to the 2017 - Sri Lankan Corporate Governance Code (CG Code), otherwise “0”. CG Code suggests having 2/3 of non-executive directors as independent or at least 3 independent directors.</td>
</tr>
<tr>
<td>$FinExpertise_{it}$</td>
<td>Financial Expertise: No. of directors with MBA or higher qualifications and professional qualifications related to Accounting and Finance for the firm $i$ and period $t$.</td>
<td>Obtained the percentage of directors with Financial Expertise against the total directors. Then obtained the median value for the sample, “1” was indicated to those which are on and above the median, otherwise “0”.</td>
</tr>
<tr>
<td>$GenderDiversity_{it}$</td>
<td>Gender Diversity - No. of female directors for firm $i$ and period $t$.</td>
<td>Indicated “1” if at least one female director operated in the Board, otherwise “0”.</td>
</tr>
<tr>
<td>$CEOduality_{it}$</td>
<td>CEO Duality - whether CEO is also the chairperson of the board of directors for firm $i$ and period $t$.</td>
<td>Indicated “1” if the CEO and Chairperson of the board are separated, otherwise “0”.</td>
</tr>
<tr>
<td>$BoardMeetings_{it}$</td>
<td>Board Meetings - No. of board meetings for firm $i$ and period $t$.</td>
<td>“1” was indicated to those which operated according to the CG Code, otherwise “0”. CG Code suggests conducting at least 4 Board meetings annually.</td>
</tr>
<tr>
<td>$AuditCom_{it}$</td>
<td>Audit Committee - Existence of Audit Committee for firm $i$ and period $t$.</td>
<td>Indicated as ‘1’ if there is an audit committee or else ‘0’.</td>
</tr>
<tr>
<td>$ACSize_{it}$</td>
<td>Audit Committee Size - No. of audit committee members on the board for firm $i$ and period $t$.</td>
<td>“1” was indicated to those which operated according to the CG Code, otherwise “0”. CG Code suggests establishing the Audit Committee with at least 3 non-executive directors whom at least 2 should be independent.</td>
</tr>
<tr>
<td>$ACMeetings_{it}$</td>
<td>Audit Committee Meetings – No. of audit committee meetings for firm $i$ and period $t$.</td>
<td>“1” was indicated to those which operated according to the CG Code, otherwise “0”. CG Code suggests conducting at least 4 Audit Committee meetings annually.</td>
</tr>
<tr>
<td>$ACExpertise_{it}$</td>
<td>Audit Committee Expertise – No. of members with Finance/Obtained the percentage of directors with Financial Expertise against the</td>
<td></td>
</tr>
</tbody>
</table>
3.4 Data Analysis Strategies with Justification

Data was collected from the annual reports of the public listed companies and analyzed using the IBM Statistical Package of Social Sciences (SPSS 23). After performing a data screening and cleaning, descriptive statistics and inferential statistics were used mostly in describing data.

To assess the degree of board governance, degree of financial leverage, and the degree of firm’s financial performance
Measures of Central Tendency - under Descriptive Statistics, Measures of central tendency such as Mean and Median were computed for further analysis of data.

To examine the relationship between board governance and firm financial performance
Bivariate Correlation Analysis and Panel regression analysis - under Inferential Statistics, measures such as regression analysis were used.

To investigate whether financial leverage mediates the relationship between board governance and firm financial performance
Panel Regression Analysis and Sobel-Goodman Test were performed.

To identify the mediating effect between the variables Sobel-Goodman test will be performed. A study that was conducted by Chang, Yu and Hung (2015) states that in mediation analysis, the Sobel test (Sobel 1982) is generally used to compute the degree to which the mediator carries the relation between the independent variable and the dependent variable. It also states that this method is a commonly used method to analyze the mediating effect.

4 ANALYSIS AND DISCUSSION

This section describes the results of the descriptive statistics, correlation analysis, and regression analysis, and assesses mediating effect Sobel-Goodman test was carried out.

4.1 Descriptive Statistics

This section elaborates the descriptive statistics of the main variables considered in this study.

4.1.1 Descriptive statistics for the level of board governance
Board governance is the key independent variable of the study. As discussed in Section 3, the main indicator used to measure the level of board governance is created using the board governance index (BGI). The following table presents the measures such as minimum, maximum, mean, median, standard deviation, skewness, and kurtosis pertaining to the level of board governance in Sri Lanka (Table 4).

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGI</td>
<td>300</td>
<td>.250</td>
<td>1</td>
<td>.676</td>
<td>.667</td>
<td>.132</td>
<td>-.245</td>
<td>-.007</td>
</tr>
<tr>
<td>BoardSize</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.583</td>
<td>.494</td>
<td>.340</td>
<td>-1.897</td>
<td>-1.685</td>
</tr>
<tr>
<td>BIndependence</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.363</td>
<td>0</td>
<td>.571</td>
<td>-1.897</td>
<td>-1.685</td>
</tr>
<tr>
<td>FinExpertise</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.507</td>
<td>.501</td>
<td>.027</td>
<td>-1.685</td>
<td>-2.013</td>
</tr>
<tr>
<td>GenderDiversity</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.467</td>
<td>.500</td>
<td>.134</td>
<td>-1.995</td>
<td>-1.993</td>
</tr>
<tr>
<td>CEODuality</td>
<td>297</td>
<td>0</td>
<td>1</td>
<td>.724</td>
<td>1</td>
<td>1.448</td>
<td>-1.007</td>
<td>-.993</td>
</tr>
<tr>
<td>BoardMeetings</td>
<td>249</td>
<td>0</td>
<td>1</td>
<td>.884</td>
<td>1</td>
<td>.321</td>
<td>-2.406</td>
<td>3.818</td>
</tr>
<tr>
<td>AuditCom</td>
<td>300</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACSR</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.850</td>
<td>1</td>
<td>.358</td>
<td>-1.970</td>
<td>1.894</td>
</tr>
<tr>
<td>ACMMeetings</td>
<td>284</td>
<td>0</td>
<td>1</td>
<td>.919</td>
<td>1</td>
<td>.273</td>
<td>-3.088</td>
<td>7.590</td>
</tr>
<tr>
<td>ACExpertise</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.566</td>
<td>1</td>
<td>.497</td>
<td>-.266</td>
<td>-1.942</td>
</tr>
<tr>
<td>NominationCom</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.347</td>
<td>0</td>
<td>.477</td>
<td>.648</td>
<td>-1.591</td>
</tr>
<tr>
<td>RemCom</td>
<td>300</td>
<td>0</td>
<td>1</td>
<td>.950</td>
<td>1</td>
<td>.218</td>
<td>-4.150</td>
<td>15.327</td>
</tr>
</tbody>
</table>

As per the study, the board governance index was prepared to cover the board variables given above. The mean value of the index amounts to 67.6%, while the median value amounts to 66.7%. However, there is a standard deviation of 13.4% regarding the BG practices across quoted public companies in Sri Lanka, where the lowest compliance rate is 25% while the maximum compliance rate is 100%. When creating this BGI, as mentioned in the above table, 12 areas have been taken into consideration, and out of the existence of an Audit Committee (100%) has the highest compliance (mean value) while the existence of a nomination committee has the lowest compliance mean value (34.7%). However, from all these 12 areas, the Financial Expertise of the BOD consists of the highest standard deviation (50.1%), while the lowest standard deviation is recorded by the existence of an Audit committee (0%).

4.1.2 Descriptive statistics for the level of capital structure

To measure the level of capital structure, the financial leverage ratio was used. Table 5 presents the measures such as Mean, Median, Maximum, Minimum, Standard Deviation, Skewness, and Kurtosis pertaining to the level of capital structure in Sri Lanka.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>300</td>
<td>.001</td>
<td>.879</td>
<td>.324</td>
<td>.303</td>
<td>.233</td>
<td>.396</td>
<td>-.705</td>
</tr>
</tbody>
</table>

In analyzing the level of capital structure in Sri Lanka, the mean value is at 32.4%, while the median value is at 30.3%. The standard deviation of 23.3% of the financial leverage shows that
the capital structure rate is subjected to a variation where the highest rate is 87.9% while the minimum is 0.1%.

### 4.1.3 Descriptive statistics for the level of firm financial performance

As described in the methodology section, ROE and ROA were used in measuring the level of firm financial performance. The following table presents the measures such as Mean, Median, Standard Deviation, Minimum, Maximum, skewness, and kurtosis pertaining to the level of firm financial performance in Sri Lanka (Table 6).

**Table 6: Descriptive statistics for firm financial performance**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE(^b)</td>
<td>300</td>
<td>-0.509</td>
<td>0.86</td>
<td>0.096</td>
<td>0.0875</td>
<td>0.180</td>
<td>0.658</td>
<td>6.471</td>
</tr>
<tr>
<td>ROA(^b)</td>
<td>300</td>
<td>-0.069</td>
<td>0.565</td>
<td>0.089</td>
<td>0.0725</td>
<td>0.099</td>
<td>1.993</td>
<td>6.567</td>
</tr>
</tbody>
</table>

\(^a\)Definitions of these variables are indicated in Table 2.
\(^b\)Winsorized at 10% due to the presence of outliers.

As per the above table, the mean value of the ROE is 9.6% while the median value is 8.75%. The standard deviation figure of ROE is at 18%, while the minimum ROE is -50.9% and the maximum is at 88.6%. On the other hand, ROA the mean value is at 8.9% while the median value is 7.25%. The standard deviation figure of ROA is at 9.9%, while the minimum ROE is -6.9% and the maximum is at 56.5%.

### 4.1.4 Descriptive statistics for the control variables

Four control variables have been identified in this study and they are Firm Size, Firm Age, Current Ratio, and Fixed Asset. It is important to understand the descriptive nature of these variables as they cause an impact in many circumstances when measuring the relationships among the core variables of this study: Board Governance, Capital Structure, and Financial Performance. The following table presents the measures such as Mean, Median, Standard Deviation, Minimum, Maximum, Skewness, and Kurtosis pertaining to the control variables (Table 7).

**Table 7: Descriptive statistics for control variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>FirmSize(_t)</td>
<td>300</td>
<td>11.211</td>
<td>18.056</td>
<td>15.221</td>
<td>15.354</td>
<td>1.348</td>
<td>-.690</td>
<td>.578</td>
</tr>
<tr>
<td>FirmAge(_t)</td>
<td>300</td>
<td>1.792</td>
<td>4.828</td>
<td>3.608</td>
<td>3.584</td>
<td>.603</td>
<td>-.288</td>
<td>.446</td>
</tr>
<tr>
<td>CurrentRatio(_t)</td>
<td>300</td>
<td>.174</td>
<td>366.807</td>
<td>10.633</td>
<td>1.539</td>
<td>44.435</td>
<td>7.200</td>
<td>54.100</td>
</tr>
<tr>
<td>FARatio(_t)</td>
<td>267</td>
<td>0.000</td>
<td>.871</td>
<td>.223</td>
<td>.140</td>
<td>.237</td>
<td>1.112</td>
<td>.352</td>
</tr>
</tbody>
</table>

\(^a\)Definitions of these variables are indicated in Table 2.

As per the above table, the mean and median values for the control variables can be identified. In addition, it has also mentioned what kind of a variation is each control variable subjected to as it is denoted by the measure standard deviation. It is noted that the current ratio has the highest standard deviation.

### 4.2. Correlation Analysis

As shown in Table 8, the correlation coefficient between ROE and BGI depicts a significant weak positive correlation. However, there is no significant correlation between ROA and BGI
as per the results. Similarly, the correlation between Capital Structure and Board Governance is also insignificant. Therefore, it is observed that board governance does not correlate with capital structure.

Firm Size shows a highly significant positive correlation with ROE and a significant positive correlation with ROA. However, Firm Age does not show any significant correlation between ROE and ROA. The current Ratio doesn’t show any correlation with ROE however there is a significant negative correlation between the Current Ratio and ROA. Finally, the Fixed Assets Ratio shows no correlation with ROE and ROA.

Table 8: Correlation analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. BGIit</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. CSit</td>
<td>-.015</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ROEit</td>
<td>.119*</td>
<td>-.011</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ROAit</td>
<td>.100</td>
<td>.032</td>
<td>.914**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. FirmSizeit</td>
<td>.384**</td>
<td>.202**</td>
<td>.150**</td>
<td>.148*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. FirmAgeit</td>
<td>0.015</td>
<td>-.098</td>
<td>.013</td>
<td>.001</td>
<td>-.024</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. CurrentRatioit</td>
<td>-.006</td>
<td>-.653**</td>
<td>-.094</td>
<td>-.161**</td>
<td>-.072</td>
<td>.048</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8. FARatioit</td>
<td>.139*</td>
<td>.195**</td>
<td>.011</td>
<td>.095</td>
<td>-.033</td>
<td>-.099</td>
<td>-.351**</td>
<td>1</td>
</tr>
</tbody>
</table>

*a Definitions of these variables are indicated in Table 2.

4.3 Regression Analysis

This section elaborates the findings of the regression analysis on a multivariate basis.

4.3.2 Panel regression analysis

As mentioned in Section 3.1, this study considers data of 100 companies for three years, 2015/16, 2016/17, and 2017/18, which resembles a panel data structure, and thus, a panel regression analysis is performed. First, to determine the proper model specification, the Hausman test was performed (Table 9).

Table 9: Hausman Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROE</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed</td>
<td>Random</td>
</tr>
<tr>
<td>BGIit</td>
<td>-.004</td>
<td>.050</td>
</tr>
<tr>
<td>FirmSizeit</td>
<td>-.049</td>
<td>.008</td>
</tr>
<tr>
<td>FirmAgeit</td>
<td>.303</td>
<td>.002</td>
</tr>
<tr>
<td>CurrentRatioit</td>
<td>-.001</td>
<td>-.002</td>
</tr>
<tr>
<td>FARatioit</td>
<td>-.247</td>
<td>-.046</td>
</tr>
<tr>
<td>Chi2 Value</td>
<td>13.36</td>
<td>19.65</td>
</tr>
<tr>
<td>Sig</td>
<td>0.020</td>
<td>0.002</td>
</tr>
</tbody>
</table>

*a Definitions of these variables are indicated in Table 2.

Based on the Hausman test, as the significance value is less than 5% (for both ROE and ROA), the Fixed Effect Model specification is selected. The following table shows the derived results from the Fixed Effect Model (Table 10).
Table 10: Panel regression - fixed effect model

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROE</th>
<th></th>
<th></th>
<th>ROA</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bi</td>
<td>T</td>
<td>Sig</td>
<td>Bi</td>
<td>t</td>
<td>Sig</td>
</tr>
<tr>
<td>BGI*</td>
<td>-.004</td>
<td>-0.05</td>
<td>0.958</td>
<td>-.004</td>
<td>-0.09</td>
<td>0.925</td>
</tr>
<tr>
<td>FirmSize</td>
<td>-.049</td>
<td>-1.62</td>
<td>0.107</td>
<td>-.029</td>
<td>-1.57</td>
<td>0.117</td>
</tr>
<tr>
<td>FirmAge</td>
<td>.303</td>
<td>1.85</td>
<td>0.065</td>
<td>.220*</td>
<td>2.20</td>
<td>0.029</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>-.001</td>
<td>-0.26</td>
<td>0.798</td>
<td>.0001</td>
<td>0.06</td>
<td>0.955</td>
</tr>
<tr>
<td>FARatio</td>
<td>-.247**</td>
<td>-3.03</td>
<td>0.003</td>
<td>-.164**</td>
<td>-3.28</td>
<td>0.001</td>
</tr>
<tr>
<td>Constant</td>
<td>-.199</td>
<td>-0.31</td>
<td>0.765</td>
<td>-.244</td>
<td>-0.62</td>
<td>0.534</td>
</tr>
<tr>
<td>Overall R²</td>
<td>0.001</td>
<td></td>
<td></td>
<td>0.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig</td>
<td>0.000**</td>
<td></td>
<td></td>
<td>0.000**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05, **p<.01

Definitions of these variables are indicated in Table 2.

The regression results show a significance of 0.00% of the overall model, and this emphasizes that none of the coefficients are zero. Furthermore, it is indicated that there is no significant relationship between BGI with the dependent variables of ROE and ROA.

The above table also depicts a significant negative association between the control variable Fixed Asset Ratio with ROE and ROA. Firm Age shows a significant positive relationship between ROA. The rest of the control variables show insignificant relationships with ROE and ROA.

4.4 Mediating Effect of Capital Structure in the Relationship Between Board Governance and Firm Financial Performance

The final objective of this study was to examine the mediation effect of capital structure on the direct relationship between board governance and firm financial performance. To identify the mediating effect between the variables Sobel-Goodman test was performed using the Stata package.

**Sobel product of Coefficients Approach**

\[
BBGI_{it} \rightarrow CS_{it} \rightarrow FFP_{it} (ROE & ROA)
\]

\[
FFP_{it} = \beta_0 + \beta_1 BGI_{it} + \varepsilon \quad \text{Model 1}
\]

\[
FFP_{it} = \beta_0 + \beta_1 BGI_{it} + \beta_2 CS_{it} + \varepsilon \quad \text{Model 2}
\]

The overall model summary performed for the whole dataset is shown in Table 11.
Table 11: Mediating effect of capital structure

<table>
<thead>
<tr>
<th></th>
<th>ROE</th>
<th></th>
<th>ROA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>βi</td>
<td>z</td>
<td>Sig</td>
<td>βi</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>.0001</td>
<td>0.14</td>
<td>0.891</td>
<td>-.0002</td>
</tr>
<tr>
<td>Direct Effect</td>
<td>.080*</td>
<td>2.07</td>
<td>0.039</td>
<td>.0442</td>
</tr>
<tr>
<td>Total Effect</td>
<td>.080*</td>
<td>2.07</td>
<td>0.038</td>
<td>0.439</td>
</tr>
<tr>
<td>Proportion of total effect that is mediated</td>
<td>.014</td>
<td></td>
<td>.0103</td>
<td></td>
</tr>
</tbody>
</table>

Here the direct effect means the impact of Board Governance on ROE and ROA, whereas the indirect effect depicts the impact of both Board Governance and Capital Structure on ROE and ROA. Total effect denotes the combination of both direct and indirect effects. As per the above table, it could be identified that the indirect effect, i.e., the mediating effect of Capital Structure performs an insignificant role in the relationship between Board Governance and Firm Financial Performance. However, when it comes to the direct effect that means the relationship between Board Governance and Firm Financial Performance in terms of ROE, it shows a significant positive relationship which would ultimately create a positive association between Board Governance and Firm Financial Performance. However, there’s only an insignificant relationship between ROA and BGI. Also, there is a negative insignificant mediation effect of financial leverage on the above relationship. Therefore, it is possible to conclude that no mediating effect of Capital Structure exists between the relationship between Board Governance and Firm Financial Performance.

Based on the correlation, regression analysis, and Sobel-Goodman test, summary of the results are as follows (Table 12),

Table 12: Summary

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Correlation Analysis</th>
<th>Panel Regression</th>
<th>Sobel-Goodman Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>The hypothesis is supported for ROE</td>
<td>The hypothesis is not supported</td>
<td></td>
</tr>
<tr>
<td>H2</td>
<td>The hypothesis is not supported for ROA</td>
<td>The hypothesis is not supported</td>
<td></td>
</tr>
</tbody>
</table>

H1: Board governance is associated with firm financial performance (ROE and ROA)
H2: Effect of board governance on firm financial performance is mediated by financial leverage

4.5 Discussion

The first objective of the research was to measure the degree of board governance, degree of capital structure, and degree of financial performance. When it comes to the assessment of the degree of board governance in Sri Lanka, results showed a mean compliance rate of 66.7%, which represents 100 quoted companies coming from 17 sectors. When compared to previous researchers' findings, it can be said that the mean compliance rate of corporate governance is moreover the same. Manawaduge (2008) provides a similar insight on the degree of corporate governance where according to him, the mean value of overall CGS is 67.6% compliance rate. However, in some situations, it is clear that the compliance rate has improved with time.
According to Dissabandara (n.d.) the mean value of overall corporate governance compliance percentage was only 56%. Results of the research under consideration depict a compliance rate of 66.7%. On the other hand, the mean value of capital structure obtained by the researcher amounts to 32.4%, whereas according to Wellage and Locke (2014) Sri Lanka’s capital structure is at 23%. It could be identified that there is a considerable increase in this ratio in Sri Lanka.

The second objective of the research was to identify whether there is a direct relationship between board governance mechanisms and firm financial performance, which was tested under hypothesis 1 (H1) of this study. In the literature survey, all three possible outcomes namely, a positive relationship, a negative relationship, and no relationship between board governance and performance were identified. In this research, it was identified that there is a significant positive correlation between board governance and ROE, which is based on correlation analysis. This is in line with the results of Kumudini (2011). However, no significant relationship between board governance and ROA was identified. Similarly, regression results of the research under consideration concluded no significant relationship between firm financial performance and board governance. The results were consistent with the local studies of Achchuthan and Kajananthan (2013), who identified that just the mere existence of board governance within a company would not enhance firm financial performance. However, this is inconsistent with the research conducted by Hoque, Islam and Azam (2009), where a positive association is identified with both ROA and ROE.

The third objective of this study was to identify whether the capital structure mediates the relationship between board governance and the firm financial performance, which was the second hypothesis of the study. When it comes to prior local and foreign studies, there has been a dearth of studies examining the mediating role of Capital structure in between the relationship of corporate governance and performance. However, Detthamrong, Chancharat and Vithessonthi (2017) have identified that the financial leverage partially mediates the relationship between corporate governance and firm performance for the large firm subsample. When it comes to this study, it was identified that there is no mediation effect of capital structure exists on the above relationship.

5 CONCLUSION

Without good corporate governance or board governance, a corporation might face a downfall and on the other hand, when firms are too geared or having a high level of short-term financing (due to weak corporate governance practices), a financial crisis may occur (Emmers & Ravenhill, 2011). In the recent past, it is observed that the Sri Lankan economy is underperforming and there is a re-emerging trend of corporate failures and malpractices. These failures affect various stakeholders in the economy and reduce investors' trust in the stock market of a country. Therefore, attention has been drawn towards the examination of ways to identify and avoid further corporate failures and malpractices.

Accordingly, the first objective was to identify the level of board governance, capital structure, and financial performance. It was identified that the level of board governance was at a level of 67.6%; the capital structure was at a level of 32.4%, and firm financial performance was measured by both ROE and ROA, and the respective mean values were at the level of 8.75% and 7.25%. These were identified to be consistent with the extant studies. The second objective of this study was to measure the relationship between board governance and firm financial performance. As per the results of the correlation analysis, the correlation coefficient between
ROE and Board Governance depicts a significant but weak positive correlation. However, the results indicated that there is no significant correlation between ROA and Board Governance. As per the results of the Panel Regression analysis, no significant relationship was identified between board governance and financial performance variables. The third objective of this study was to measure the mediating effect of capital structure on the relationship of board governance and firm financial performance. As per the results of the Sobel-Goodman test, it was identified that the capital structure does not mediate the relationship between board governance and firm financial performance.

When analyzing national and international context, it was found that there is a dearth of studies that emphasizes the relationship between board governance and financial performance with the mediating effect of the capital structure. Therefore, considering this as an opportunity, this study is conducted with the pioneering effort in understanding the above-mentioned relationship. Therefore, the findings of this study are expected to fill the dearth identified in the related extant literature.

Empirical studies suggest that corporate governance mechanisms have a significant impact on firm financial performance. However, the findings of this study provide evidence otherwise in the Sri Lankan context. Therefore, the outcomes of this research would offer insights to corporate decision-makers and managers in Sri Lanka in establishing an optimal capital structure, and also policymakers and regulatory authorities for passing laws and developing institutional assistance to make board governance mechanisms work more efficiently in enhancing corporate performance. The findings of this research could stimulate future research in several areas. Future researchers can investigate more on this area as the findings of this study have unexpected results, and possible reasons could be examined in future research endeavours.

This study has some limitations and the findings should be interpreted subject to these limitations. First, in this study, the sample consisted of 100 listed companies in the CSE that excluded banking, finance, insurance, and investment trust companies. Therefore, the selected sample does not represent the entire population of companies in Sri Lanka. Further, the required data was collected from the published annual reports, and the reliability may be less as the data were gathered through secondary sources. However, the annual reports used to gather data were subjected to statutory audits. These limitations together with the findings of the study, provide future research directions such as reasoning out of why capital structure does not mediate the relationship between board governance and financial performance, and also the expansion of the scope of the sample.

REFERENCES


APPENDIX

Appendix 1: Sample Examined

CARGILLS (CEYLON) PLC
CEYLON BEVERAGE HOLDINGS PLC
DISTILLERIES COMPANY OF SRI LANKA PLC
HARISCHANDRA MILLS PLC
BAIRAHA FARMS PLC
KEELLS FOOD PRODUCTS PLC
LANKA MILK FOODS (CWE) PLC
CEYLON COLD STORES PLC
KOTMALE HOLDINGS PLC
DILMAH CEYLON TEA COMPANY PLC
HAYCARB PLC
INDUSTRIAL ASPHALTS (CEYLON) PLC
CHEMANEX PLC
CIC HOLDINGS PLC
LANKEH CEYLON PLC
LANKEH DEVELOPMENTS PLC
ACCESS ENGINEERING PLC
HAYLEYS PLC
HEMAS HOLDINGS PLC
JOHN KEELLS HOLDINGS PLC
AITKEN SPENCE PLC
VALLIBEL ONE PLC
RICHARD PIERIS AND COMPANY PLC
SOFTLOGIC HOLDINGS PLC
EXPOLANKA HOLDINGS PLC
ODEL PLC
ASIRI HOSPITAL HOLDINGS PLC
ASIRI SURGICAL HOSPITAL PLC
NAWALOKA HOSPITALS PLC
BROWNS BEACH HOTELS PLC
SERENDIB HOTELS PLC
HUNAS FALLS HOTELS PLC
THE NUWARA ELIYA HOTELS COMPANY PLC
AMAYA LEISURE PLC
AITKEN SPENCE HOTEL HOLDINGS PLC
THE FORTRESS RESORTS PLC
ROYAL PALMS BEACH HOTELS PLC
JOHN KEELLS HOTELS PLC
RENUKA CITY HOTEL PLC
SERENDIB LAND PLC
ON’ALLY HOLDINGS PLC
C T LAND DEVELOPMENT PLC
MILLENNIUM HOUSING DEVELOPERS PLC
SERENDIB ENGINEERING GROUP PLC
CARGO BOAT DEVELOPMENT COMPANY PLC
EAST WEST PROPERTIES PLC
PRINTCARE PLC
LANKA TILES PLC
SAMSON INTERNATIONAL PLC
SWADESHI INDUSTRIAL WORKS PLC
ALUMEX PLC
DIPPED PRODUCTS PLC
ACL CABLES PLC
PIRAMAL GLASS CEYLON PLC
TOKYO CEMENT COMPANY (LANKA) PLC
SWISSTEK (CEYLON) PLC
SIERRA CABLES PLC
RICHARD PIERIS EXPORTS PLC
KELANI TYRES PLC
ROYAL CERAMICS LANKA PLC
LANKA WALLTILES PLC
TEEJAY LANKA PLC
SATHOSA MOTORS PLC
DIESEL & MOTOR ENGINEERING PLC
LANKA ASHOK LEYLAND PLC
BUKIT DARAH PLC
SHALIMAR (MALAY) PLC
WATAWALA PLANTATIONS PLC
KELANI VALLEY PLANTATIONS PLC
ELPITIYA PLANTATIONS PLC
TALAWAKELLE TEA ESTATES PLC
KOTAGALA PLANTATIONS PLC
BOGAWANTALAWA TEA ESTATES PLC
KEGALLE PLANTATIONS PLC
MASKELIYA PLANTATIONS PLC
NAMUNUKULA PLANTATIONS PLC
VIDULLANKA PLC
VALLIBEL POWER ERATHNA PLC
<table>
<thead>
<tr>
<th>THE KANDY HOTELS COMPANY (1938) PLC</th>
<th>LAUGFS GAS PLC</th>
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<tbody>
<tr>
<td>EDEN HOTEL LANKA PLC</td>
<td>LANKA IOC PLC</td>
</tr>
<tr>
<td>THE KINGSBURY PLC</td>
<td>JOHN KEELLS PLC</td>
</tr>
<tr>
<td>HIKKADUWA BEACH RESORT PLC</td>
<td>LAKE HOUSE PRINTERS AND PUBLISHERS PLC</td>
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<td>COLOMBO FORT INVESTMENTS PLC</td>
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<tr>
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