

Relationship between board structure and firm performance of listed plantation companies in Sri Lanka

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Abstract: The study, which will concentrate on twenty listed plantation companies on the Colombo Stock Exchange between 2017 and 2021, is to investigate the relationship between board structure and firm performance in Sri Lanka. The study looks at data from publicly available audited financial statements using regression analysis, correlation analysis, and descriptive statistics. The proportion of independent non-executive directors, CEO duality, board size, and gender diversity are examples of independent variables, whereas total assets and net equity are examples of control variables. The variable that is dependent is return on equity. The results show a strong correlation with CEO duality, board size, gender diversity, total assets, and net equity and the performance of the company. In particular, the analysis shows a favorable correlation between non-dual CEO structures, larger boards, and gender-diverse boards with firm performance. Furthermore, net equity and total assets show a strong correlation with company performance. The study concludes that there is a substantial relationship between board structure and listed plantation enterprises' performance on the Colombo Stock Exchange. The significance of taking into account financial variables, CEO structure, and board composition in improving firm performance in the Sri Lankan setting is shown by these findings. Subsequent investigations may go more deeply into certain processes by which board structure affects company performance and examine possible ramifications for corporate governance standards in the plantation industry of Sri Lanka.

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01. Introduction

According to Cadbury (1992), corporate governance is a framework that governs how businesses are run. This definition makes it easy for researchers to comprehend the various guidelines, practices, and connections that are related to the corporate governance setting. Due to the current globalized business climate and growing competitive pressure in emerging economies, the corporate management landscape has transformed (Arora & Sharma, 2015). Reducing agency costs was the primary motivation for the introduction of corporate governance (Eugene

F. & Fama, 1980). According to the agency theory, business managers are chosen with the intention of acting in the principals' best interest and advancing the objectives of the organization. But through investment revenues that were actually profits earned by the managers rather than the shareholders, the managers used their position of authority to rob the shareholders of their wealth (Eugene F. & Fama, 1980).

The finance literature addresses a wide range of topics that are relevant to corporate governance. Among the most important aspects of corporate governance is board structure. Any company's board of directors is in charge of managing the business's operations by making wise choices that will propel the enterprise towards success and raise shareholder value. The board of directors has the authority to resolve agency issues for the corporation in addition to giving direction (Fama & Jenses, 1983).

Establishing the framework, procedures, and controls necessary to ensure that the business is run well and is managed to maximize future shareholder value by holding managers accountable and improving organizational performance is known as corporate governance (Azeez, 2015). The board of directors is seen as a crucial governance structure that oversees and counsels' management as they carry out their responsibilities to safeguard the interests of shareholders. In order to provide regulators and researchers with a fresh viewpoint on the significance of board director attributes and company performance in Sri Lankan plantation companies, the directors should possess certain attributes, such as board size, CEO duality, gender diversity, and the percentage of independent non-executive directors. These explanations make it easy for scholars to comprehend the various guidelines, metrics, and connections that exist within the framework of corporate governance.

The number of equity owners, or shareholders, is enormous, with the average shareholder owning a very small percentage of the company's shares. The quantity of observable firm attributes to be connected with board structure, such as firm age, size, leverage, and industry affiliation. It is dependent on several unobserved variables, some of which may be related to the performance of the company.

However, a business only gains legal status upon formation under the laws of the nation in which it is based. The Companies Act No. 07 of 2007 applies in Sri Lanka. All companies that are registered under the Company Act are distinct legal entities from their owners. However, a person who can speak for the company will be present during daily operations. An incorporated firm is not regarded as a real person for this reason. In order for directors to represent the company, they must be present.

1.1 Statement of Research Problem

One of the main issues with corporate governance is the composition of the board (Horvath & Spirollari, 2012). Any company's board of directors is in charge of overseeing its operations and making important decisions that lead the business towards success and boost shareholder wealth. In addition to offering insightful guidance, the board of management plays a crucial role in resolving agency problems inside the company (Fama & Jensen, 1983). The idea of board structure includes discussion of board size, CEO duality, gender diversity on the board, and independent non-executive directors. Legal criticism has been levelled at boards of directors over the fall in shareholder wealth and business failure (Akbar, 2014). They have been made aware of fraud cases that have caused significant businesses to fail.

The same reasons for accounting irregularities have been noted in Sri Lanka. Certain members of the board delegated authority to managers who prioritized their personal interests, and the board exhibited negligence in its

responsibility to stakeholders. As a result, the study adds to and expands upon the corpus of research that examines the possible influence of board structure on business performance using data from Sri Lanka. Sri Lankan corporations are required to abide by its own set of rules and regulations pertaining to corporate governance. Examine the pertinent Sri Lankan laws, rules, and codes of behavior that relate to corporate governance. These records could emphasize how crucial board composition, responsibility, and openness are to guaranteeing sound corporate governance procedures.

1.2 Research Question

The problem statement for this study is: What is the relationship between the board structure and business performance of Sri Lankan listed plantation companies? It is based on the background research.

1.3 Objectives of the Study

The aim of this research is to investigate the potential correlation between the board structure and company performance of Sri Lankan listed plantation firms.

02. Literature Review

For a very long time, agency theory has helped a lot of researchers with their corporate governance study. This approach essentially asserts that the owners and management of the company should be kept apart (Eugene F. & Fama, 1980). According to agency theory, there are two primary parties: the principal and the agent. Here, "principal" refers to the business owners, and "agent" refers to the business managers. According to this view, only managers and shareholders are identified, despite the fact that numerous parties are involved in a firm's commercial activity. Furthermore, it takes into account the fact that people are inherently self-interested and dislike sacrificing their own interests at the expense of others (Dalton, et al., 2003).

According to agency theory, there is a link between a company's management and its owners, who act as principals. In this scenario, the management is attempting to further their own interests at the expense of the principal (Forsyth, 2016). In order to serve the interests of the shareholders, the board of directors performs the corporate governance function of approving management decisions and overseeing their execution to optimize shareholder value. This is known as the agency role of the directors. Does engage in the company and pursues profits in his capacity as a primary shareholder (Eugene F. & Fama, 1980). According to Gun (2016), the agency theory aims to lower agency costs by reflecting issues that arise between agents and principals.

According to agency theory, there are two primary parties that can be distinguished: the principal and the agent. Firm owners are referred to as the principal, while firm managers are referred to as the agent. According to this view, only managers and shareholders are identified, despite the fact that numerous parties are involved in a firm's commercial activity. Furthermore, it takes into account the fact that people are inherently self-interested and dislike sacrificing their own interests at the expense of others (Dalton, et al., 2003).

The managers' motivation is to maximize their own wealth rather than that of the shareholders. The agency costs, such as those associated with keeping an eye on managerial activity and structuring the company to prevent inappropriate managerial behavior, ought to have been covered by shareholders (Heenetigala & Armstrong, 2007). Consequently, a board of directors serves as a crucial monitoring tool in corporate governance, helping to reduce issues resulting from the principal-agent relationship. (2011, Heenetigala).

According to stewardship theory, the manager is viewed as a steward who looks after the belongings and financial matters of others and is given the duty of making the best use possible of the resources available to the organization. Under this view, there are no agency costs nor principal-agent theory. Since the interests of the steward and the owner are the same (Eddleston & Kellermanns, 2007). Because a steward's goals align with those of the organization, his actions will help the latter achieve its goals. However, in situations when the wealth of the shareholders is maximized, the stewards' utilities are also maximized (Heenetigala, 2011). According to Heenetigala (2011), managers and firm performance are closely related. Steward, then, safeguards and optimizes shareholder money by means of business performance.

According to stewardship theory, managers and the firm's success are closely related, and managers work to safeguard and increase shareholder value through the operation of the company. Most stakeholder groups in an organization are satisfied when a steward successfully improves performance (Eugene F. & Fama, 1980).

This attempt explores the stakeholder notion in relation to businesses' obligations to the larger community. Owners of any group or individuals who may impact the company's operations and ability to meet its goals (Freeman, 1984). It further defines stakeholders as representatives of government and nongovernmental organizations, labor unions, academics, the church, indigenous peoples, human rights organizations, consumers/customers, suppliers, communities, and legislators (Heenetigala, 2011). The companies' success would be in resolving the divergent interests of all those parties. Thus, categorizing the stakeholders who are at risk from the organization's operations is a fundamental feature of neutral theory (Clarkson, 1995). Stakeholder theory improves financial performance; managers should run the company with the interests of all stakeholders in mind; and all stakeholders have a right to fair treatment by the organization (Eddleston & Kellermanns, 2007). Therefore, in order to handle a variety of interests, stakeholder theory encourages the adoption of appropriate risk management strategies (Freeman, 1984).

To put it simply, resource dependence theory examines how an organization's external resources impact its behavior. This paradigm acknowledges the impact of outside variables on organizational behavior. Managers have the power to lessen reliance on and uncertainty in the environment. The idea of power—the ability to exercise control over essential resources—is fundamental to these activities (Heenetigala, 2011). The corporate governance idea of resource dependency. They claim that efficient organizations have internal systems that adapt to their surroundings. (Barney & Ulrich, 1984)

Theories of the social compact that emphasize enforcing rules for both private and public life are insufficient. "The latter refers to a specific form of involvement, while the former refers to the communities and the expectation from the business to provide support to the local community" (Heenetigala, 2011). The implied agreements that individuals make when they join nations and uphold a social hierarchy are the focus of a vast class of philosophical theories that are referred to as the "social contract theory." According to Donaldson & Dunfee (1999), managers should consider the macrosocial and microsocial contracts while making moral decisions.

The relationship between a company's internal governance structures and the public's perception of the extent of corporate responsibility is the focus of corporate governance (Velnampy, 2013). This term implies that a company's ability to access the capital market is influenced by its corporate governance (Heenetigala, 2011). The corporate governance is typically the subject of the first-generation researcher's mashers. Two questions concerning a particular mechanism were resolved by the researchers. First, how does a mechanism impact a firm's success when profitability or relative market value are the typical metrics used to judge performance? Second, how will that

process affect the decisions made by businesses themselves, for instance, regarding issues like management, sales, and further investment strategy, as well as how they respond to outside offers of control? In Denis and McConnell (2001).

In the UK, the Cadbury Report in 1992 marked the beginning of modern corporate governance. The Cadbury committee was established in 1991 with the goals of enhancing global governance standards and reducing the risk of company failure. It has mostly concentrated on three areas: shareholders, auditing, and the board. Regarding the three categories mentioned above, the Cadbury study has made a number of suggestions. A few examples of the recommendations made by the Cadbury report under the Board category are: the board of directors is the most important and requires continuous monitoring and assessment; the board is composed of a combination of executive directors and non-executive directors who can bring a broader view of the company's activities under a chairman who accepts the duties and responsibilities which the post entails. All directors are equally responsible to the law for the board's actions and decisions. It further specifies that a chairman will lead the board and a CEO will lead the corporation, with each having distinct responsibilities. Additionally, it specifies that the company's internal audit department will carry out its duties on behalf of audit committees and that, in order to maintain the independence of their position, they must have unfettered access to the audit committee chairman. The responsibility of boards is to oversee management, remove underperforming CEOs, and express concerns about a scenario including a lack of independent leadership. Boards found it challenging to react to the senior management team's failure (Fama & Jensen, 1983).

Jensen & Fama (1983) It was further said that "the board's efficacy in overseeing top management is reduced when decision management and decision control are given equal attention by a single person. The one-tier and two-tier board structure typologies are so shown by the literature. The Chief Executive Officer (CEO) chairs the board under a one-tier system, but in a two-tier system, the CEO and board chairman are not the same individual. However, it has been seen that a one-tier board structure type causes agency issues and conflicts of interest for the leadership, favoring a two-tier system. When an individual occupies two positions, agency issues are typically more prevalent.

knowledge this link is crucial to our knowledge of company governance, as boards of administrators play a major role in the corporate governance of modern enterprises (Anon., 2009). The unique formal setting of the UK is driven by the fact that UK boards, in comparison to US corporations, debatably have a significantly weaker observance duty. Therefore, any unfavorable relationship of a large board structure is more likely to reflect problems in completing the duty of admonition rather than observation. Consequently, we prefer to allow the U.S.A. outcomes to be placed in an extremely bigger framework by offering substantial sample proof on this nation (Guest, 2008). The board of directors has two primary responsibilities. They are supervising and offering advice (Raheja, 2005). According to Fama and Jensen (1983), the advising job entails the CEO providing expert assistance as well as access to relevant information and resources.

Performance of the company may have an impact on the board of directors (Jackling & Johl, 2009). It suggests that board members are generally more eager to take on risk and are less hesitant to implement structural changes. Remarkably, our findings imply that the performance of the company and independent directors are negatively correlated (Horváth & Spirollari, 2012). Since they have the authority to administer the business, the board size of any corporation reveals the number of directors, who actively manipulate it to attain performance or profitability (Guest, 2008). The ability to make strategic decisions rises with board size (Dalton, et al., 2003). Raheja (2005)

claims that when a board grows in size, so do the related expenses, such as those related to coordination and communication. A board's size and composition are positively correlated (Alabede, 2016). "The board diversity result is intriguing as it dispels any doubt regarding the beneficial influence on women's participation on corporate boards" (Alabede, 2016).

However, Yermack (1996) found a persistent negative association between board size and company value in his analysis of a sample of 452 big US industrial businesses from 1984 to 1991. According to Fama and Jensen (1983), the large board's passing off of the results in a decline in the firm's value and effectiveness. Board size and firm value are negatively correlated (Yermack, 1996). Additionally, it has been shown that there is a negative correlation between board size and profitability and operating efficiency metrics (Eisenberg et al., 1998). Eisenberg et al. (1998) attempt to investigate the relationship between small- and medium-sized businesses' profitability and board size in their nation. They claimed that there was a bad correlation between profitability and board size based on the evidence that was available. Furthermore, they discovered that, in comparison to larger firms, the board size effect persists even in situations where ownership and control are less segregated, and that, in the event that a perfect board size does exist, the board size effect on observed firms implies that it fluctuates with company value.

Based on the aforementioned considerations, the majority of earlier studies offer proof of a negative correlation between board size and profitability. The additional data is consistent with the conclusion that businesses function best with small boards. Over time, there is a negative correlation between some metrics of operational effectiveness and profitability and the size of a company's board. CEOs are more likely to be fired by smaller boards after periods of subpar performance. Similarly, data indicate that CEO duality is more sensitive to performance in businesses with smaller boards (Yermack, 1996). According to Yermack (1996), the CEO and chairman of the board of directors are not the same person in companies that are worth more money.

The most of women work as directors in the US; they held 13.6% of 500 boards there. "The percentage of female directors in Australia, Canada, Japan, and Europe is estimated to be 8.7%, 10.6%, 0.4%, and 8%, respectively" (Nguyen, et al., 2015). Board diversity and company performance are positively correlated (Nguyen, et al., 2015). According to Brickley and Coles (1997), the appointment of the Chairman of the Board to the role of CEO is contingent upon advancement and succession. According to Dalton et al. (2003), there is no connection between CEO dualism and company performance. It has a frequent presumption as a result. Performance of the company and CEO duality are significantly correlated. Non-executive directors merely offer new perspectives and more impartial support to the management team; they are not involved in the day-to-day operations of the company. Non-executive directors are exempt from reporting to the board chairman, although having the same general legal obligations to the corporation as executive directors (Higgs, 2003).

Previous studies that were carried out in industrialized nations demonstrated consistency between the agency theory and the results. The researchers verify that the size of the board and the performance of the company are negatively correlated (Florackis, 2005). Using data from 2004 to 2008, examine the impact of board size on the performance of Pakistan's tobacco industry. The statistical method of multiple regression was employed to assess the correlations between the independent and dependent variables. The research findings indicate that corporate governance has a significant and favorable impact on a firm's performance, with return on assets (ROA) and return on equity (ROE) serving as dependent variables together with ownership concentration (Azam, et al., 2011).

Numerous research conducted in developing nations shown a negative correlation between the size of the board and the performance of the company (Akbar, 2014). Using the resource dependence hypothesis, several researchers discovered that, in the context of industrialized nations, board size and business performance are positively correlated (Uadiale, 2010). According to agency and resource dependence theory and other data, there is no correlation between board size and business performance in industrialized and developing nations (Matar et al., 2014).

Akbar (2014) examined a same phenomenon in Pakistan's textile industry. The 12 textile companies listed on the Karachi stock exchange between 2007 and 2011 served as the basis for the data values. He discovered that whereas board size had a negligible effect on ROE, it had a favorable and significant link with ROA. The CEO's dual position and how it greatly and favorably impacted ROE and ROA That being said, this isn't always accurate. Since the director's intentions won't always be successful (Azeez, 2015). According to Velnampy (2013), an extensive board of directors can effectively direct and influence the administration of a company due to the intricate business environment and organizational culture.

According to certain research, there is a bigger negative correlation for larger companies, which typically have larger boards. Their data also lends credence to the thesis that issues stemming from subpar decision-making and communication undermine the efficacy of large boards (Heenetigala, 2011). Board size and company performance are negatively correlated (Heenetigala, 2011). Additionally, the mansion saw a decline in firm performance when the board size increased. The rationale behind his Board size will not be as advantageous as the effective structure of the board and its members' capacities, abilities, skills, knowledge, and experience.

According to some academics, there is no meaningful correlation between the performance of the company and the composition of the board. After examining 228 small private companies in China, Liang and Li (1999) came to the conclusion that there is no correlation between board size and business performance. Topak (2001) conducted a study to determine the relationship between board size and business performance in 122 Turkish companies between 2004 and 2009. In Turkey, there's no correlation between the size of the board and the success of the company. CEO duality and non-independence have little bearing on the success of the company (Abdullah, 2004).

As a result of using various sample types for testing and resources to make sure there are a variety of factors, different researchers have come to different conclusions about the relationship between board size and business success (Guest, 2008). In essence, it was a noteworthy fact that earlier researchers had found both a good and a negative association between board structure and firm success. However, several researchers have failed to find a connection between these two characteristics. In keeping with this, the researcher believes that having more directors benefits the company in terms of oversight, resource provision, and representation of various stakeholders. However, the Asian Development Bank (2005) stated that ensuring equal rights for women in labor, education, health, and economic involvement is a top goal.

When scholars presume that there is a relationship between factors and that CEO duality has an impact on company governance (Horváth & Spirollari, 2012). In the context of CEO-Chairman Duality, the company's CEO also serves as the board of directors' chairman. There are essentially two points of view regarding a company's CEO duality. Some academics think that having a CEO and chairman in the same position is beneficial for the company,

while others think that this will lead to prejudice when the company is making decisions (Horváth & Spirollari, 2012). According to Azam et al. (2011), CEO and chairman roles ought to be held by separate individuals unless companies are having trouble improving their performance. The balance of power within a company is emphasized by the Sri Lankan code of best practices for corporate governance in order to reduce the impact of any one person on the decision-making process. According to these guidelines, a majority of independent directors on a board should be present when there is distinct duality in a company in order to maintain balance and ensure the board operates effectively and efficiently (Wellalage & Locke, 2011).

According to Velnampy (2013), there is no relationship between non-executive directors and ROE or ROA. According to Higgs (2003), non-executive directors also have an ongoing responsibility to build and preserve their own trust in the company's operations, the management team's performance, the strategy's development, the effectiveness of financial controls and risk management, the appropriateness of compensation, the hiring and firing of key personnel, and the succession and management development plans. The non-executive director's job is to oversee and monitor the behavior of executives while providing them with support in leading the company.

The Institute of Chartered Accountants of Sri Lanka (ICASL) initiated the first corporate governance in 1997. The Institute of Chartered Accountancy Sri Lanka (ICASL) established the country's first voluntary code of best practices for corporate governance in 1997. It deals with issues pertaining to the financial aspects of corporate governance (Azeez, 2015). The Cadbury Code's (1992) guidelines served as the primary foundation for this code. Sri Lanka was a state with centralized authority. Feudal governance replaced civil state, political state, and economic systems. The territory belonged to the monarch in the end. A clearly established caste system served as the foundation for the governing framework. Every caste had a distinct profession or line of work.

The hierarchical governing structures were established on the basis of castes. The aristocracy, or landlord class, and the king constituted the highest ranks, while laborers made up the lowest. The general welfare of society was the government's priority, not the business. This resulted from the economic operations being structured around the caste system, which was a continuation of the family unit (Heenetigala, 2011). In order to better understand the relationship between corporate governance and firm performance in Sri Lanka's political and economic context, Heenetigala & Armstrong (2007) performed a study. From 2003 to 2007, 37 listed companies are included in the data set.

Prior research generally indicated that small and medium-sized firm owners operate inside the larger national capital market. Conversely, a number of working papers featuring small- and medium-sized business owners in national contexts have been released by the International Labor Organization (Wijewardena, et al., 2004). The degree of planning and control procedures and their relationship to the business performance of manufacturing SMEs were also identified by Wijewardena et al. (2004). This was accomplished by looking at the budgeting, budgetary control, and operational performance of 168 manufacturing SMEs in Sri Lanka's Greater Colombo area. Their research has shown that the sales performance of manufacturing SMEs is significantly influenced by the sophistication of planning and control.

Essentially, the study's conclusions imply that sales growth increases with process sophistication—both planning and control (Pushpanathan, 2008). The same reasons for accounting irregularities have been noted in Sri Lanka. A portion of the board delegated authority to self-serving managers, and the board acted irresponsibly in terms of its responsibility to stakeholders. collapse of specific financial entities. Adopting good governance concepts has

been emphasized by Pramuka and Golden Key, among others (Azeez, 2015). In the land industry, social control abilities and sound governance practices are few. Thus, it is well known that researchers make great efforts to draw in this kind of funding, and that they are also the biggest obstacles to corporate governance (Ismail & Tarofder, 2015).

03. Research Hypothesis

Based on the objectives of the study, the researcher developed the following statement of hypothesis.

H0: There is a no relationship between board structure and firm performance.

H1: There is a relationship between board Structure and firm performance.

04. Methodology

4.1 Sample and Data Collection

Out of 26 firms, the sample consisted of 20 plantation companies that were listed on the Colombo Stock Exchange between 2017 and 2021. The secondary data served as the basis for this investigation. Data was gathered from the Colombo Stock Exchange website, and company annual reports. Regression analysis was used to identify relationships between independent and dependent variables, and equations were created for hypothesis to assess the impact of each independent variable on the dependent variable.

4.2 Data Analysis

Using the sample data, relationship between board composition and company performance is examined. Data testing was employed to comprehend the relationship. For the duration of the sample period, descriptive statistics were employed to determine the significance of the variations between the variables. ANOVA provides information about the research hypothesis that is discussed in Chapter 3, while Pearson correlation analysis evaluates the relationship between variables. The entire analysis of the many variables in this study is done using SPSS software.

4.3 Research Models

$$\bar{x} = \sum_{i=1}^n x_i$$

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

$$ROE = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e_i$$

\bar{x} = Sample Mean

N = Number of observations

$\sum_{i=1}^n x_i$ = Sum of all observations

n = Number of values or elements

$\sum x$ = Sum of 1st values list

$\sum y$ = Sum of 2nd values list

$\sum xy$ = Sum of the product of 1st and 2nd values

$\sum x^2$ = Sum of squares of 1st values

$\sum y^2$ = Sum of squares of 2nd values β_0 = Constant

$\beta_1, \beta_2, \beta_3$ and β_4 = Coefficients of Independent Variables

β_5 and β_6 = Coefficients of Control Variables

e_i = Error Term

4.4 Theoretical Framework

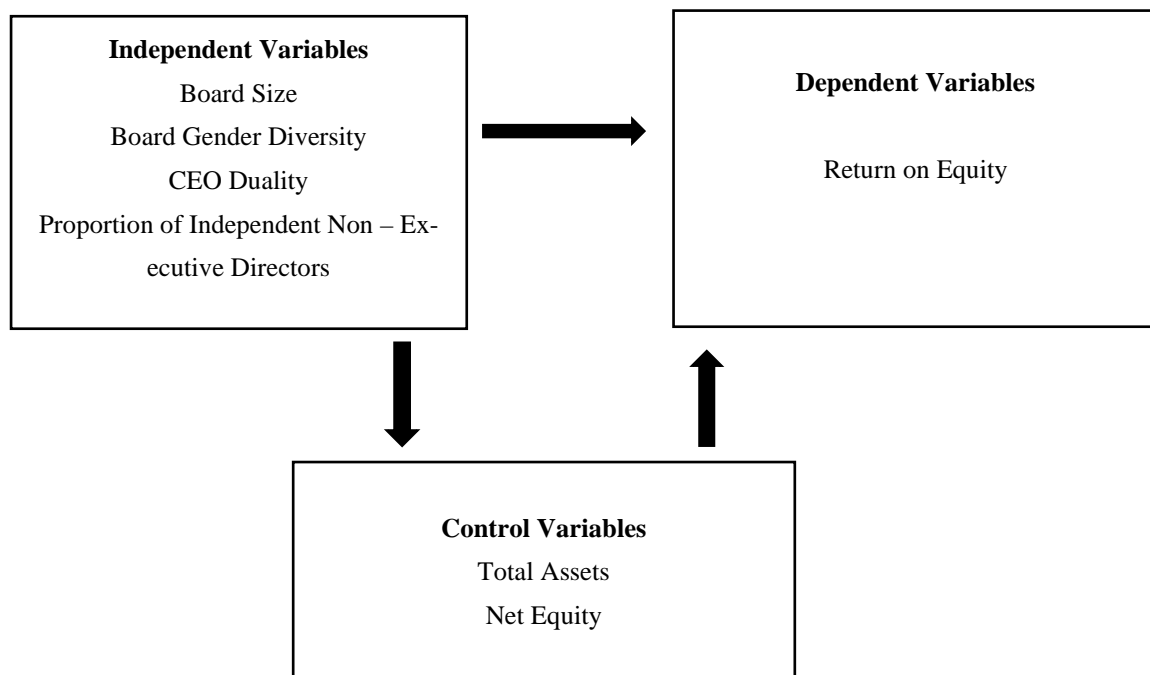


Fig.1: Conceptual Framework

05. Results and Discussion

5.1 Descriptive Statistics

The average and standard deviation of the various study variables are displayed through descriptive analysis. In order to better visualize the highest and lowest values a variable can reach; it additionally displays the minimum and maximum values.

Table 5.1:
Descriptive Statistics

	Descriptive Statistics						
	N	Range	Mini- mum	Maxi- mum	Mean	Std. Devi- ation	Vari- ance
ROE	100	1.15	-.81	.34	-.0050	.17961	.032
BS	100	9	5	14	7.83	2.010	4.042
BGD	100	1	0	1	.40	.492	.242
CEOD	100	1	0	1	.62	.488	.238
PINED	100	5	1	6	2.75	1.140	1.301
TA	100	1.99	5.67	7.66	6.6135	.38291	.147
NE	100	2.45	5.49	7.94	6.3297	.43814	.192
Valid N (list- wise)	100						

Table 5.1 provides five years of descriptive statistics (a total of 100 observations) for twenty listed plantation firms on the Colombo Stock Exchange.

The study's most significant variable is board size. Board Size: According to descriptive statistics, a board's minimum size is five and its maximum size is fourteen. Nine is listed as the range of board sizes. The majority of earlier studies have shown that smaller boards work better than larger ones. The Cabdury (1992) report states that a board with eight to ten members is preferable. Table 5.1 illustrates that the average number of directors on the board is 7.83, with a range of 5 to 14. For the five years, the standard deviation for Sri Lanka's twenty listed plantation businesses is 2.010.

According to descriptive statistics, there is a minimum of 0 and a maximum of 1 board size for gender diversity. There is a single board size range mentioned. Table 5.1 illustrates that the average number of female directors on the board is 0.40, with a range of 0 to 1. For the five years, the 20 listed plantation businesses in Sri Lanka have a standard deviation of 0.492.

The CEO and chairman's roles in corporate governance should be distinct in order to maximize performance. Making ensuring that such a corporation has excellent power delegation with its employees is quite important. This survey found that 50% of the 20 plantation firms still had CEO dualities.

When thinking about the board of directors' balance, independent non-executive directors are crucial. There must be independent, executive, and non-executive directors on the board in order for it to be well-balanced. The Institute of Chartered Accountants of Sri Lanka and the Securities Exchange Commission (SEC) have published a code of best practices that states that the minimum number of independent non-executive directors should be one-third of the total number of directors, whichever is higher. Table 5.1 above indicates that there are between 6 and 1 independent non-executive directors. Their standard deviation is 1.140 and their average is 2.75.

Moreover, the descriptive statistics report for the control variable total asset indicates a minimum value of 5.67 and a maximum value of 7.66. The overall asset range is given as 1.99. Table 5.1 illustrates that the overall asset has an average of 6.6135 and ranges from 5.67 to 7.66. For the five years, the 20 listed plantation businesses in

Sri Lanka have a standard deviation of 0.38291. Similarly, the minimum and highest values of net equity as stated in descriptive statistics are 5.49 and 7.49, respectively. Net equity range is given as 2.45. Table 5.1 illustrates that the net equity ranges from 5.49 to 7.94, with an average of 6.3297. For the five years, the standard deviation for Sri Lanka's twenty listed plantation businesses is 0.43814.

5.2 Correlation Analysis

To determine the association between the study's variables, Pearson's correlation analysis was performed at a 5% significance level. The correlation matrix is shown in the following table 5.2:

Table 5.2:

Correlation Matrix

		Correlations						
		ROE	BS	BGD	CEOD	PINED	TA	NE
ROE	Pearson Correlation	1	.052	-.083	-.199*	.088	.076	.350**
	Sig. (2-tailed)		.608	.410	.047	.384	.450	.000
	N	100	100	100	100	100	100	100
BS	Pearson Correlation	.052	1	.355**	.335**	.739**	-.304**	-.244*
	Sig. (2-tailed)	.608		.000	.001	.000	.002	.014
	N	100	100	100	100	100	100	100
BGD	Pearson Correlation	-.083	.355**	1	.093	.180	.377**	.368**
	Sig. (2-tailed)	.410	.000		.360	.073	.000	.000
	N	100	100	100	100	100	100	100
CEOD	Pearson Correlation	-.199*	.335**	.093	1	.336**	-.040	-.080
	Sig. (2-tailed)	.047	.001	.360		.001	.690	.426
	N	100	100	100	100	100	100	100
PINED	Pearson Correlation	.088	.739**	.180	.336**	1	-.162	-.101
	Sig. (2-tailed)	.384	.000	.073	.001		.108	.316
	N	100	100	100	100	100	100	100
TA	Pearson Correlation	.076	-.304**	.377**	-.040	-.162	1	.810**
	Sig. (2-tailed)	.450	.002	.000	.690	.108		.000
	N	100	100	100	100	100	100	100
NE	Pearson Correlation	.350**	-.244*	.368**	-.080	-.101	.810**	1
	Sig. (2-tailed)	.000	.014	.000	.426	.316	.000	
	N	100	100	100	100	100	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The statistical method for determining the degree of link between two variables is correlation analysis. In statistical modelling, this study can be thought of as the initial step towards establishing the link between the independent and dependent variables. There is a positive, perfect relationship if the correlation is +1.00. Conversely, when correlation equals -1.00, it indicates a negative perfect link, and when correlation equals 0, it indicates no relationship at all between the variables. The Pearson link between ROE, board size, gender diversity, CEO duality proportion of independent non-executive directors, total assets, and net equity is discussed by scholars in Table 5.2.

With the exception of CEO duality and board gender diversity, statistical results show a positive association between the dependent variable, independent variables, and control variables. Based on the data, there is a 0.052 (5.2%) correlation between board size and ROE, -0.083 (-8.3%) between board gender diversity and ROE, -0.199 (-19.9%) between CEO duality and ROE, 0.088 (8.8%) between the proportion of independent non-executive directors and ROE, 0.076 (7.6%) between total asset and ROA, and 0.350 (35%) between net equity and ROE.

Furthermore, 0.608, 0.410, 0.047, 0.384, 0.450, and 0.000 are the significant values (P-values) that were determined in accordance with the given Pearson Correlation values. The Pearson Correlations between board size, gender diversity, proportion of independent non-executive directors, and total assets are statistically significant, while the Pearson Correlations between CEO duality, net equity, and ROE are not statistically significant, according to a comparison of the obtained significant values with the study's significance level of 0.05. It can therefore be inferred.

5.3 Multiple Linear Regression

Multivariate regression analysis was utilized to determine whether the Board Structure had an impact on the Firm's performance. It is noteworthy that the study aimed to ascertain the extent to which the board structure explains the fluctuations in the company's performance. Utilizing the coefficient of determination (R²) found in the model summary table, this was ascertained. The percentage of the dependent variable's variance that the independent variables alone or in combination can account for is known as the coefficient of determination (R²). Table 5.3 below presents the findings:

Table 5.3.1:
Model Summary

Model	Model Summary					Change Statistics			
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.606 ^a	.367	.327	.14740	.367	9.000	6	93	.000

a. Predictors: (Constant), NE, CEOD, PINED, BGD, TA, BS

The percentage of the dependent variable's variance that the independent variables can account for is expressed as R-square. The degree to which any one independent variable is connected with the dependent variable is not reflected in this measure, which is an overall measure of the strength of association. The models' R-squared value of 0.367 indicates that variations in the independent and control variables account for 36.7% of the performance variability that has been observed. Because they are not included in the model, the remaining 63.3% of the variance in performance is attributable to a different variable that cannot be explained.

Table 5.3.2:

ANOVA Results

		ANOVA ^a				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.173	6	.196	9.000	.000 ^b
	Residual	2.020	93	.022		
	Total	3.194	99			
a. Dependent Variable: ROE						

a. Dependent Variable: ROE

b. Predictors: (Constant), NE, CEOD, PINED, BGD, TA, BS

The researcher will look at the following categories when examining the breakdown of variance in the result variable: regression, residual, and total. Total, Residual, and Regression. The variance that can be described by the independent variables (the model) and the variance that cannot be explained by the independent variables (the error) make up the total variance.

the levels of freedom connected to the variance's origins. The degrees of freedom for regression are equivalent to the predicted number of coefficients minus 1. The model has $7-1=6$ degrees of freedom since there are 6 coefficients total, including the intercept. The DF total less the DF model equals the error degrees of freedom, or $99-6=93$.

The tables F and sig. display the results of the ANOVA analysis and indicate if there is a statistically significant difference between the means of our groups. The significance threshold for these variables is 0.000 ($p=0.000$), which is less than 0.05, as the researcher can observe. There is a statistically significant association, the study found.

Lastly, table 5.3.3 below presents the results and the regression model coefficients:

Table 5.3.3:*Regression Coefficients*

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-1.169		-3.189	.002
	BS	.032	.353	2.333	.022
	BGD	-.130	-.357	-3.268	.002
	CEOD	-.084	-.228	-2.561	.012
	PINED	-.001	-.009	-.068	.946
	TA	-.187	-.399	-2.653	.009
	NE	.357	.872	6.076	.000

a. Dependent Variable: ROE

The resulting regression model is,

$$Y = -1.169 + 0.032X_1 - 0.130X_2 - 0.084X_3 - 0.001X_4 - 0.187X_5 + 0.357X_6$$

where X1 is the size of the board, X2 is the gender diversity of the board, X3 is the CEO duality, X4 is the percentage of independent non-executive directors, X5 is the total assets, and X6 is the net equity. According to table 5.3.3's findings, ROE would be -1.169 units if all other parameters remained constant. Moreover, keeping other variables unchanged. ROE would vary by 0.130 units for every unit change in board size. An increase in board gender diversity of one-unit results in a 0.130 unit drop in ROE while all other conditions remain constant. The ROE would vary by 0.084 units for every unit change in CEO duality, 0.001 units for every unit increase in the proportion of non-executive directors, 0.187 units for every unit increase in total assets, and 0.357 units for every unit increase in net equity.

Therefore, as all of the p values were less than 0.05, the results showed that board size (p=0.022), board gender diversity (p=0.002), CEO duality (p=0.012), total assets (p=0.009), and net equity (p=0.000) are significant in predicting company performance. The percentage of independent non-executive directors, however, was found to be negligible (p=0.946).

06. Hypothesis Testing

The hypothesis can be tested using an existing statistical model. This part will use a considerable level of regression model to evaluate the hypotheses.

A model can be deemed significant if the computed significant value is smaller than the significant value ($P < 0.05$). This implies that hypothesis H0 must be disproved and hypothesis H1 must be accepted. However, a model cannot be deemed significant if the computed significant value is higher than the significant value ($P > 0.05$). This implies that one must accept H0 and reject H1, the alternative hypothesis.

Table 6:*Hypothesis test for Board Structure and Firm Performance*

In between	Al- ph a val ue	Significant level	H 0		H 1	
			Ac- cepted	re- jected	Ac- cepted	Rejected
Board struc- ture and firm performance	0.05	0.002		✓	✓	

Given that the alpha value ($p=0.002 < 0.05$) is greater than the computed significant value ($p=0.002$). It is appropriate to reject the null hypothesis (H0) and accept the alternative hypothesis (H1). Acceptance of the alternate hypothesis demonstrates that "board structure and firm performance are related."

07. Findings and Conclusions

7.1 Key Findings

The study focuses on board size, with a minimum of five and maximum of fourteen. Previous studies suggest smaller boards work better, and a board with eight to ten members is preferred. The average number of directors is 7.83. The average number of female directors on a board in 20 listed plantation businesses in Sri Lanka is 0.40, with a standard deviation of 0.492. The CEO and chairman roles should be distinct for maximum performance, but 50% of the firms still have CEO dualities. The board of directors must have independent non-executive directors for a well-balanced board. The Institute of Chartered Accountants of Sri Lanka and SEC recommend a minimum of one-third of the total directors. Table 5.1 shows 6-1 independent non-executive directors. The descriptive statistics report for total asset in Sri Lanka shows a range of 5.67 to 7.66, with an average of 6.6135. Net equity ranges from 5.49 to 7.94, with an average of 6.3297. The standard deviation for the 20 listed plantation businesses is 0.43814.

Correlation analysis is a statistical method used to determine the degree of link between variables. A positive correlation indicates a perfect relationship, while a negative correlation indicates a negative or no relationship. Scholars discuss the Pearson link between ROE, board size, gender diversity, and total assets. The study found a positive association between board size, gender diversity, CEO duality, proportion of independent non-executive directors, total assets, and net equity (ROE). However, CEO duality, net equity, and ROE were not statistically significant. The Pearson correlations were 0.608, 0.410, 0.047, 0.384, 0.450, and 0.000, indicating a correlation between board size, gender diversity, and total assets.

The R-square measure measures the strength of association between independent and control variables. The model's R-squared value of 0.367 shows that independent and control variables account for 36.7% of performance variability, while 63.3% is due to unaccounted for variables.

The researcher examines variance breakdown in the result variable using regression, residual, and total categories. Total variance is the variance explained by the model and the variance unaccounted for by the error. The levels

of freedom for regression are calculated using the predicted number of coefficients minus 1. The ANOVA analysis results show a statistically significant association, with a significance threshold of 0.000.

The study found that ROE (Return on Equity) is -1.169 units if all other parameters remained constant. Board size, gender diversity, CEO duality, total assets, and net equity are significant predictors of company performance. However, the percentage of independent non-executive directors is negligible ($p=0.946$). The results suggest that these factors can significantly impact company performance.

The hypothesis can be tested using a statistical model, with a significant model indicating that hypothesis H0 must be disproved and hypothesis H1 accepted, and a significant model indicating that hypothesis H0 must be rejected. Given that the alpha value ($p=0.002 < 0.05$) is greater than the computed significant value ($p=0.002$). It is appropriate to reject the null hypothesis (H0) and accept the alternative hypothesis (H1). Acceptance of the alternate hypothesis demonstrates that "board structure and firm performance are related."

7.2 Conclusion

This study sought to objectively investigate the relationship between board structure and business performance in Sri Lankan listed plantation enterprises. In order to accomplish this goal, the study collected information on variables that were thought to be related to board composition and company performance. Return on Equity, board size, gender diversity, CEO duality, percentage of independent non-executive directors, total assets, and net equity were some of these characteristics. Hypotheses were developed based on these variables. In business contexts, board structure was thought to be crucial for efficient management and enhancing firm performance.

The study's findings show that board size and firm performance are positively correlated. This study examines the connection between Board Size and Firm Performance for a sample of twenty Sri Lankan plantation companies that are publicly traded. The following are the main statistically significant findings: The first finding indicates a negative correlation between board size and company performance (ROE). Therefore, the current study demonstrates that there is a positive correlation between board size and firm performance in the Sri Lankan market. The results are consistent with those of Akbar (2014), Dalton et al (2003), Jackling & Johl (2009), and Uadiale (2010).

In a different study, we discover that the quantity of female directors in the boardroom also matters. Boards with two or more female directors seem to have a greater impact on firm performance than those with just one, and boards with at least one female director seem to do better than those with none. We also provide documentation on the type of relationship that exists between business success and gender diversity on the board. The study's conclusion is that there is a connection between company performance and the gender diversity of the board, and that association is significant with ROE because the P value is less than 0.05.

Some companies' annual reports do not explicitly address the process of board and CEO performance appraisals, and the majority of these companies lack appraisal performance records (Hewathenna, et al, 2015). Despite the study's finding that CEO dualism and business performance are positively correlated, several issues emerged from the research. Furthermore, the analysis shows that there is no correlation between ROE and the percentage of independent non-executive directors.

7.3 Recommendation

Secondary data have been the main focus of this investigation. Future studies could use primary data to determine how managers behave in relation to the choice of board structure. Interviews with the company's managers could be used to accomplish this. Therefore, qualitative data should be taken into account in future research investigations in order to assess the qualitative characteristics of the variables being studied.

This study exclusively looked at Sri Lankan plantation companies that are listed on the Colombo Stock Exchange. Therefore, it is advised that more study be done, taking into account both public and unlisted plantation enterprises in Sri Lanka.

Return on Equity (ROE) indicates that an R-squared value of 0.367 in the models indicates that variations in the independent and control variables account for 36.7% of the observed performance variability. Because they are not included in the model, the remaining 63.3% of the variance in performance is attributable to a different variable that cannot be explained. Consequently, an investigator suggests conducting additional research to determine the critical components that comprise the study's residuals.

08. References

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