BOARD CHARACTERISTICS, OWNERSHIP STRUCTURES AND BANK PROFITABILITY: EVIDENCE FROM SRI LANKA

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Abstract

Despite theoretical literature stating that corporate governance mechanisms enhance the banking sector performance, empirical studies over the past decades have inconclusive evidence over the effectiveness of such mechanisms. Several studies argued that some mechanisms led to diminishing banking profitability. Hence, the scope of this study is to investigate the effectiveness of corporate governance mechanisms in driving the banking profitability. The evidence is based on 13 licensed commercial and specialized banks in Sri Lanka during the period from 2011 to 2020. It examines the relationship between profitability indicators such as return on assets (ROA) and return on equity (ROE) against seven variables related to board characteristics and ownership structures through a panel data regression model. Each regression model is initially estimated with pooled OLS method and then tested with fixed and random effects methods based on the Hausman test results. The findings suggest that board size, frequency of board meetings, representation of non-executive directors in boards, gender diversity, directors' share ownership and economic growth are significant determinants of ROA. In contrast, board size, frequency of board meetings, bank size and economic growth are associated with ROE, summarizing that the shareholders concentrate less on ownership structures in the Sri Lankan banking sector. This broadly supports the stakeholder theory where the corporate governance mechanisms ensure enhanced returns to all stakeholders rather than the shareholders' returns. The results also suggest that the existing corporate governance requirements for the Sri Lankan banks require careful revisits to further promote their effectiveness.

Keywords: Agency Theory, Banking profitability, Corporate Governance

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1. INTRODUCTION

Over recent decades, the growth in the number of registered companies has become a key driver of economic growth domestically as well as globally, primarily due to globalization, deregulation, cross-border mergers and technological advancement. These drivers require advanced business management capabilities from owners. As a result, they have hired executives to manage businesses and act as agents for maximizing the wealth of owners/shareholders (principals) that forms the foundation of the 'agency theory'. Ownership structure has become a powerful tool to control and improve corporate performance, thus becoming a fundamental element of corporate governance mechanisms (Kirimi, Kariuki, & Ocharo, 2022; Irawati, et al., 2019). However, such principal-agent relationship leads to some issues owing to the segregation of ownership and control. The foremost of these was that agents began to act in their personal interest by exploiting the information made available to the principals. Thus, investors introduced corporate governance frameworks to minimize this information gap and direct agents towards shareholders' wealth maximization (de Villiers & Dimes, 2021; Irawati, et al., 2019). Researchers argue that the board of directors, being the highest decision-making authority of corporate entities, can be controlled by a range of dynamic mechanisms (Fariha, Hossain, & Ghosh, 2022).

The financial system and the Sri Lankan banking sector

As the main drivers of the financial system of a country, banking institutions play a crucial role at the microeconomic as well as the macroeconomic scales (Kahn, et al., 2003). Their primary function is to channel funds between surplus units (savers/depositors) and deficit units (borrowers) to promote economic activity. Studies claim that the banking sector should take the interest of both shareholders and non-shareholding investors such as depositors and creditors, considering the financial structure and the magnitude of financial risks (Schachler, Juleff, & Paton, 2007). Banks also contribute to other stakeholders such as government, community and entrepreneurs in terms of tax revenue, employment creation and economic growth (Bøhren & Josefsen, 2013). Thus, banking profitability should be assessed from the point of view of both shareholders and other stakeholders.

In the Sri Lankan context, licensed banks play a vital role in the Sri Lankan economy. The financial sector of Sri Lanka, with total assets worth LKR 14,666.3 billion (Central Bank of Sri Lanka, 2020, p. 192), has become a driving force of the economy which is worth LKR 9,530.6 billion or US Dollars 80.7 billion in terms of the Gross Domestic Product (GDP), (Central Bank of Sri Lanka, 2020, pp. 1, 5). The Sri Lankan banking sector primarily includes Licensed Commercial Banks (LCBs) and Licensed Specialized Banks (LSBs). As presented in , LCBs dominate the financial sector representing 54.4% of total assets with 24 banks, while LSBs represent 7.8% with six banks in 2020 (Central Bank of Sri Lanka, 2020, pp. 190-192). The largest element of banking sector assets is the loan portfolio (62% of total assets) while deposits represent 76% of total funding (Central Bank of Sri Lanka, 2020, p. 192).
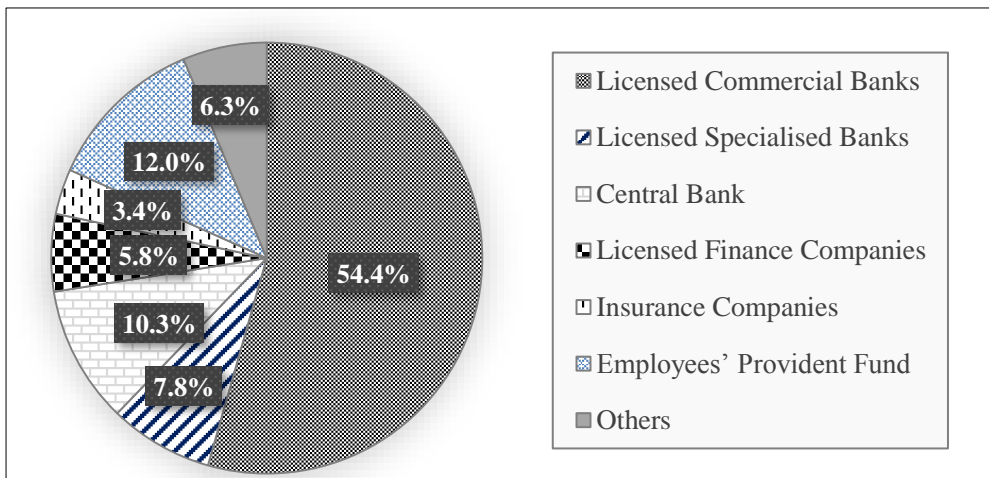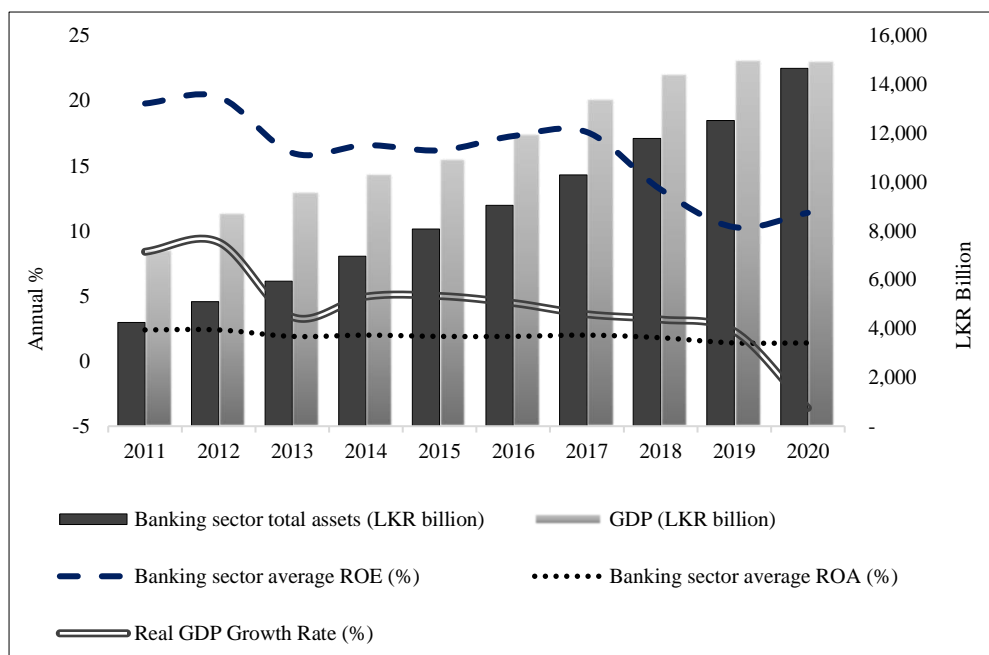
Source: Central Bank of Sri Lanka, 2020

Figure 1: Composition of the Sri Lankan Financial Sector - 2020 (%)

The sector was formally regulated with the Banking Act No.30 of 1988 under the supervision of the Central Bank of Sri Lanka, which is the primary regulator of the financial services sector of Sri Lanka (Central Bank of Sri Lanka, 1988). Past studies show that the expansion of banking activities in all parts of the country has improved the financial performance of banks since 2009, the post-civil war period, as depicted in **Error! Reference source not found.** (Ariyadasa, Selvanathan, Siddique, & Selvanathan, 2017). The consequences of global and domestic macroeconomic fluctuations caused destabilization in not only banking institutions, but also the political, social and economic systems in Sri Lanka (Central Bank of Sri Lanka, 2009).

The liquidation of Pramuka Savings and Development Bank (2002), which was the first failure of a licensed bank in Sri Lanka after becoming an independent country, emphasized the need for rigorous monitoring and supervision of banks' governance structures. Consequently, the Central Bank of Sri Lanka has implemented several mechanisms to safeguard the interest of investors (Central Bank of Sri Lanka, 2020; Ekanayake, 2018). **Error! Reference source not found.** shows selected financial soundness indicators in Sri Lankan banks from 2011 to 2020.

In the financial services sector, the traditional agency theory extends from shareholders to non-shareholder groups such as depositors and creditors (including bond and debenture holders) as they bear a greater financial risk in terms of funding volume (Schachler, Juleff, & Paton, 2007). For instance, approximately 87.5% of banking sector assets are financed by public deposits and borrowings while shareholders' funds represent only 8.6% in Sri Lanka (Central Bank of Sri Lanka, 2020). The transformation of global economies, developments and failures in financial markets, technological advancement and increased competition redefined the shape of banking institutions in terms of scope, efficiency, financial reporting, regulation, risk management and control systems (Jiang, Yao, & Feng, 2013).

3.1.1.1   Source: Central Bank of Sri Lanka, 2020

Figure 2. Sri Lankan economy and banking sector-size and performance

Over the past decades, stakeholders in the banking sector have focused their attention on agency problems and corporate governance mechanisms, primarily following the major collapses in financial institutions across the globe such as Barings Bank, Société Générale, UBS Bank etc. Studies argue that these failures are caused by the fundamental agency problem of misappropriation of investors' funds by managers or executives in the absence of rigorous governance frameworks (Orazalin, Mahmood, & Lee, 2016; Aebi, Sabato, & Schmid, 2012; Hagendorff, Collins, & Keasey, 2010). Similar to other parts of the world, many south and east Asian emerging economies such as India, Thailand, Malaysia, South Korea and Indonesia have faced several systematically important banking failures (Mayur & Saravanan, 2017). These suggest that management decisions and the transparency of financial reporting should be rigorously monitored through corporate governance mechanisms, including monitoring the performance of the board of directors and ownership controls, to minimize agency problems and ensure the protection of investors' wealth (Schachler, Juleff, & Paton, 2007; Kiel & Nicholson, 2003; Andres & Vallelado, 2008).

In contrast to the theoretical literature, prior empirical studies provide conflicting evidence across the world with reference to the effectiveness of boards and ownership structures. While some studies by Fariha, Hossain, & Ghosh (2022) and by Belkhir (2009) observe a positive relationship between large boards and banking profitability, studies of Altass (2022) and Ayadi, Ayadi, & Trabelsi (2018) observe that large boards cause financial inefficiencies, increasing the agency costs. Similarly, Ofori-Sasu, et al. (2022) supports for more gender balance in boards, Sila, Gonzalez, & Hagendorff (2016) found that a higher participation in boards

undermines the financial performance of banks. In terms of ownership structures, Trung (2022) argued for state ownership of banks in order to improve their financial performance, and Pennathur, Subrahmanyam, & Vishwasrao (2012) observed inefficiencies in terms of financial returns. Although Rashid et al. (2020) and Mangena, et al., (2012) evidenced that higher ownerhsip by directors enhances financial returns. Grove, et al., (2011), however, argued that such a stake can increase agency problems. This is in view of excessive regulations on governance practices and ownership concentration which can diminish the returns to shareholders and stakeholders (Kirimi, Kariuki, & Ocharo, 2022; Rashid et al., 2020; Nguyen & Nguyen, 2020; Titova, 2016; Salim, Arjomandi, & Seufert, 2016; Hagendorff, Collins, & Keasey, 2010; Andres & Vallelado, 2008).

However, only a few studies have been conducted to investigate the effectiveness of corporate governance mechanisms in the Sri Lankan context (Ajanthan, Balaputhiran, & Nimalathashan, 2013; Kajananthan, 2012). They have presented inconclusive results of the significance of corporate governance and ownership controls on banking profitability. Further, there has been no recent literature investigating the effect of board characteristics and ownership structures on the profitability of Sri Lankan banks. Accordingly, this paper intends to investigate the influence of board characteristics and ownership structures on the returns to both shareholders and debt holders of licenced banks in Sri Lanka in view of conflicting empirical evidence on corporate governance mechanisms. The study considers four variables of board characteristics and three variables representing ownership structures using a panel data sample of 13 licensed banks during the post-civil war period (after 2009) in Sri Lanka to address the following research questions:

Do board characteristics, such as board size, composition, frequency of meetings and gender diversity affect the returns to shareholders and stakeholders in the banking sector?

Do different ownership structures determine the returns to shareholders and stakeholders in the banking sector? In this study, the main ownership dimensions to be addressed are state-private ownership, insider-outsider ownership and domestic-foreign ownership.

The structure of this paper is as follows: Section 2 illustrates the literature review on theoretical and empirical evidence and hypothesis development. Section 3 explains the research methodology, research methods, data sources, sample selection and the econometric modelling techniques. Section 4 analyses the empirical findings of the Sri Lankan banking sector with statistical results from regression analysis. Section 5 summarizes the findings and conclusions of the study.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Theoretical considerations of corporate governance

According to the Cadbury Report (1992), corporate governance is defined as 'the mechanism in which companies are directed and controlled' (Schachler, Juleff, & Paton, 2007, p. 624). The concept of corporate governance originates from the

stakeholder theory, the stewardship theory, the resource dependence theory and the agency theory (Mallin, 2013).

The stakeholder theory, which relates to sociology, organizational behaviour and politics of special interests, suggests that the objective of firms is not merely to maximize the shareholder returns, but to provide benefits for all key stakeholder groups. These groups represent the interested parties in the firm who affect or are affected by corporate decisions such as creditors, customers, employees, the state sector and the community (Gitundu, et al., 2016; Jensen M. C., 2001). The stewardship theory assumes that executives perform in the best interests of shareholders and are trustworthy stewards of corporate resources. It does not expect any agency costs in securing managers' reputation and thus, executive directors are expected to manage the firm more efficiently than non-executive directors (Mallin, 2013; Kiel & Nicholson, 2003). The resource dependence theory assumes that the role of board's is to bridge the firm with its external environment by providing advice to the stakeholders and fulfilling their information needs (Ofori-Sasu, et al., 2022). Boards of directors also transform the corporate resources into performance results (Gitundu, et al., 2016). The agency theory addresses the fundamental relationship between shareholders and management. In response to increased business scale, principals began to separate control from ownership by delegating corporate decision-making authority to executive management. This concept predicates that managers, appointed by principals, act as agents to maximize the investors' wealth in return for performance-based remuneration (de Villiers & Dimes, 2021). Consequently, an asymmetry of information develops as the principals rely on the information reported by the executives. However, as shareholders may not fully trust the management, there is a need to introduce and enforce corporate governance mechanisms to ensure the transparency of such information and to reduce earnings management (Le & Nguyen, 2023; Berghe & Carchon, 2003).

The pessimistic division of the agency theory claims that the trust of principal-agent relationship is impaired owing to the self-interested nature of humans. Opportunistic behaviour may lead the executives to expropriate corporate resources for their own rewards and manipulate the information reported to investors (Arnold & Lange, 2004). Agents also begin to take undue advantage of dispersed ownership structures which intended to protect minority shareholders, especially in Anglo-American economies. A lack of a strong voice from a dispersed shareholder base against executives is also an opportunity for unethical practices (Arun & Turner, 2004; Cernat, 2004). Studies argue that the weak functioning of boards became the main cause of agency problems in major banking failures (Vallelado & García-Olalla, 2020). Nick Leeson of Barings Bank (UK), Jérôme Kerviel of Société Générale (France) and Kweku M. Adoboli of UBS Bank (Switzerland) are some examples of imprudent risk-taking by executives aiming to maximise performance-related bonuses by falsifying financial statements with off-balance sheet transactions (Berger, Imbierowicz, & Rauch, 2016; Cuevas-Rodríguez, Gomez-Mejia, & Wiseman, 2012; Schachler, Juleff, & Paton, 2007).

This discussion describes that strong corporate governance mechanisms enhance an entity's financial performance, thereby promoting investor confidence, financial system stability and economic growth (Andres & Vallelado, 2008). Following corporate failures in the history, various international and domestic corporate governance frameworks, such as Sarbanes-Oxley Act (2002), Combined Code on Corporate Governance of UK (2018), Higgs Report (2003) and Greenbury Report (1995), were evolved in view of safeguarding the investors' funds through transparent financial reporting and minimised information asymmetry (Financial Reporting Council, 2018; Brennan, 2006; Kiel & Nicholson, 2005). With respect to the banking institutions, the Basel Committee on Banking Supervision issued a corporate governance framework in 1999, which was subsequently implemented by economies in the world, including Sri Lanka (Dharmadasa, Gamage, & Herath, 2014; Schachler, Juleff, & Paton, 2007). Yet, the impact of recent corporate collapses, including bank failures, which were extended to the political, social and macroeconomic levels, burden the national and international policy-making authorities to revisit the effectiveness of controlling mechanisms published in various corporate governance frameworks through monitoring the effectiveness of boards, ownership structures, and comprehensive disclosure on board performance. Board characteristics such as size, frequency of meetings, board composition, gender diversification and ownership structures are widely used in prior studies for the purpose of monitoring the effectiveness of corporate governance mechanisms (Altass, 2022).

2.2 Empirical findings on corporate governance

Despite the introduction of various international and domestic legislations, regulators across the globe have developed corporate governance frameworks based on a set of common principles (Grove, et al., 2011). For Sri Lankan banks, the Central Bank of Sri Lanka has implemented many governance mechanisms of the Basel Committee on Banking Supervision through its regulation 'Corporate Governance Direction No.11 of 2007' specifying areas such as setting a maximum age limit for board members (70 years), mandating to appoint separate individuals as the Chair of the board and the Chief Executive Officer (CEO), mandatory board appointed committees (Audit Committee, Human Resources and Remuneration Committee, Nomination Committee and Integrated Risk Management Committee), selection of individuals as key management personnel with satisfactory qualifications and experience, restrictions over related party transactions and minimum disclosure requirements (Central Bank of Sri Lanka, 2013). Further, certain bank-specific requirements have been enforced by the laws from which some state-owned banks were formed such as the Bank of Ceylon Ordinance No.53 of 1938 (Bank of Ceylon, 2011 to 2020), the People's Bank Act No. 29 of 1961 (People's Bank, 2011 to 2020) and the National Savings Bank Act No.38 of 1971 (National Savings Bank, 2011 to 2020). Notably, some unreconciled contradictions remain between the regulatory requirements issued by the Central Bank of Sri Lanka and the above laws. Hence, it is important to assess whether such mechanisms improve or diminish the banking profitability as the present regulatory mechanism has granted a certain degree of flexibility for corporate governance

mechanisms such as board characteristics and ownership structures considering the banks' operating scale, diversity, cost structures etc.

2.2.1. Board size

In general, the common law, statutes and country-specific corporate governance frameworks define the roles and responsibilities of the board of directors. The board is assigned with the overall responsibility and accountability for managing the bank's affairs, conducting business, implementing prudential risk management systems, and ensuring the safety and soundness of the bank (Central Bank of Sri Lanka, 2013, p. 230). Although a board of directors with common duties across the globe, certain territories have minor differences due to country-specific legislations (Brennan, 2006). One such discrepancy in Sri Lanka is that the Central Bank of Sri Lanka requires all licensed banks to appoint between 7 and 13 directors (Central Bank of Sri Lanka, 2013, p. 235). In contradiction, the Bank of Ceylon Ordinance No.53 of 1938 requires the Bank of Ceylon to appoint only 6 board members, in conflict with the generic regulations.

Despite Fariha et al., (2021) and Belkhir (2009), who claim that large boards facilitate better supervision and monitoring of banks and their financial performance, many academics argue for small boards. Studies observe a U-shaped effect as boards with members beyond a certain number become less cost efficient (Andres & Vallelado, 2008; Titova, 2016). This is because small boards exert more responsive decision making, improved coordination, less bureaucratic controls, and a lower cost of running the board (Altass, 2022; Ayadi, et al., 2018; Kick, et al., 2017; Liang, et al., 2013; Hagendorff, et al., 2010; Kaymak & Bektas, 2008). Accordingly, it is expected that a small board with diversified expertise can create more contributions for improved financial performance. Thus, the paper draws the following hypothesis:

Hypothesis 1: A large board is negatively associated with banking profitability.

2.2.2. Frequency of board meetings

Board meetings primarily facilitate the directors to build constructive discussions on strategic business decisions. The intensity of board functioning can be measured by the frequency and contents of such meetings (Mayur & Saravanan, 2017). Studies widely cite the frequency of board meetings to measure the intensity of board effectiveness as the contents of board minutes are not accessible to academics. In the context of Sri Lanka, the Central Bank of Sri Lanka promotes regular board meetings by mandating the banks to conduct a minimum of 12 meetings per year (on a monthly basis). It also encourages active participation by all members and imposes penalties for persistent failure to attend such meetings. The Central Bank of Sri Lanka determines that a board member ceases to be a director if such person failed to attend either a minimum of two-thirds of meetings in 12 months immediately preceding or three consecutive meetings held immediately preceding (Central Bank of Sri Lanka, 2013, p. 233).

Considering the past studies, Kajananthan (2012) finds that higher frequency of board meetings led to improved financial performance of listed banks in Sri Lanka from 200 to 2010. A study by Liang, et al., (2013) on the 50 largest Chinese banks from 2003 to 2010 also observes a positive effect as increased frequency of meetings promotes better interactions between board members. Equally, Fariha et al. (2021), Gafoor, et al. (2018), Baccouche, et al. (2014) and Chou, et al., (2013) find a positive association claiming that board members, who frequently coordinate and share their views, are better able to align their decisions with the interests of shareholders. Nevertheless, Altass (2022) and Mayur & Saravanan (2017), in their studies in Saudi Arabia and India, respectively, do not observe a positive association between the number of board meetings and profitability of banks. As both empirical studies and regulators argued for more frequent board meetings, the following hypothesis is drawn based on the above discussion:

Hypothesis 2: Frequency of board meetings is positively associated with banking profitability.

2.2.3. Board composition

Board composition is commonly measured by the proportion of non-executive/outside directors in a board (Andres & Vallelado, 2008). From a theoretical perspective, the agency theory states that a higher representation of non-executive directors minimizes the agency costs by efficient advising and oversight of managers' decisions (Kaymak & Bektas, 2008). Many academic papers widely demonstrate that non-executive directors help the board function better owing to greater experience from different industries and markets, and hence minimizing the likelihood of suboptimal decisions. Andres & Vallelado (2008) and Kaymak & Bektas (2008) claim that non-executive directors assist in maintaining greater independence in strategic business decisions and control the undue influence of executive members through functioning as board committee members.

In contrast, some literature challenges that outside board members do not have sufficient time to analyze complex internal business matters, which supports the role of executive directors under the stewardship theory (Kiel & Nicholson, 2003; Salim, et al., 2016). A higher composition of non-executive directors may even discourage the appointment of executive directors and hamper the advisory role of boards as the executive directors possess an advantage over access to sensitive corporate information (Andres & Vallelado, 2008). Meanwhile, Altass (2022) and Sohail, et al. (2017) do not observe a strong association between board composition and the shareholder returns (ROE) of Saudi Arabia and Pakistan.

In the Sri Lankan banking sector, a unitary board structure exists as both management and supervisory functions are assigned to all board members. The policy makers have reinforced a balanced board composition in licensed banks mandating that the maximum proportion of executive board members should not exceed one-third of the board size (Central Bank of Sri Lanka, 2013, pp. 231, 235). Considering the empirical findings and regulatory developments for diversified boards, this paper draws the following hypothesis:

Hypothesis 3: Board composition is positively associated with banking profitability.

2.2.4. Gender diversity

Over the past decades, many academics have begun a constructive debate on the relationship between a firm's performance and gender diversity among senior corporate positions (Arvanitis, Varouchas, & Agiomirgianakis, 2022; Pathan & Faff, 2013; Gul, et al., 2011). In terms of industries, Pathan & Faff (2013) observe a substantially lower female board representation in banks compared to the non-banking sector. Despite the increasing trend as illustrated in Table A: i of Appendices, the overall female representation of board and executive positions in the global context still remains relatively low. Gould, et al., (2018) supports that the overall female board participation ratios are 16.8% and 19.2% in the EU and the US Standard & Poor's 500 listed firms, respectively, while the same ratios further fall to 5.6% and 14.2%, in terms of female participation at the executive level.

In response, domestic policy makers in France, Norway, Iceland, Italy, Finland and Belgium have legally enforced firms to employ women at senior management positions to address the gender imbalance. For example, the listed firms in Norway and France were required to achieve a minimum female board representation of 40% by 2008 and 2017, respectively (Gould, et al., 2018, p. 931). Yet, some firms have failed to comply with such regulatory gender quotas, which in turn influence the policy makers to impose strict deadlines and penalties on non-compliance such as delisting firms in Norway and restrictions on director fee payment in France. These regulatory actions are also expected to promote succession planning among women with potential capabilities to hold senior executive roles, both inside and outside of their firms (Gould, et al., 2018). However, the Sri Lankan policy makers have thus far not legally imposed any gender balancing quotas for the banking sector.

The findings of prior studies on the effect of female board members on banks' financial performance are inconclusive. Some show evidence that female directors contribute to a superior financial performance due to their distinct skills in terms of communication, coordination, work ethics, problem-solving and decision making (Gul, et al., 2011; Pathan & Faff, 2013). Arvanitis, Varouchas, & Agiomirgianakis (2022) find that the optimum ratio of female participation in boards at 33% maximizes the firm performance. Equally, Bennouri, et al. (2018) observe a positive contribution of female directors to financial performance in France from 2001 to 2010. Ofori-Sasu, et al., (2022) argue that gender diversity improves the corporate disclosures and reduces a banking crisis in Africa. Liu, et al., (2014) also observe a similar result in Chinese listed firms from 1999 to 2011.

Conversely, Ahern & Dittmar (2012) and Adams & Ferreira (2009) argue that boards with greater gender diversity experience a negative effect on profitability as female board members are likely to exert more rigorous monitoring of executives, which may hinder the returns to investors. Sila, et al., (2016) support the economic and psychological theories that female directors are more risk-averse than men in

making investment decisions. Besides, Kusi, et al. (2018) find a weak effect of gender diversity on profitability from 267 African banks. Ajanthan, et al. (2013) also support a similar result on ROE in Sri Lankan banks from 2002 to 2011.

Considering the proposed global movements on enhancing gender diversity, the following hypothesis is expected:

Hypothesis 4: A board's gender diversity is positively associated with banking profitability.

2.2.5. Directors' share ownership

Directors' share ownership or insider ownership represents a corporate governance mechanism to align the interest of directors with that of investors. The agency theory states that executives may not act in the best interest of shareholders due to a conflict of ownership and control (de Villiers & Dimes, 2021; Irawati, et al., 2019). In response, share-based compensation schemes being offered to directors and executives aim to ensure long-term shareholder wealth optimization (Mangena, et al., 2012) by controlling aggressive risk taking (Crawford, et al., 1995). Insider ownership also helps reduce employee-management conflicts, lessens the uneven distribution of the fruits of corporate success and facilitates social cohesion. In the absence of an equitable share of wealth distribution, managers may attempt to maximise their personal rewards at the expense of shareholders (Ongore & Authority, 2011).

Previous literature exhibits inconclusive findings in this regard. Rashid, et al. (2020) revealed that the directors of Bangladesh banks expect improved financial returns as possible for their self-interest, by holding the largest part of the banks' shares. Mangena, et al., (2012) find that directors' share ownership creates a positive effect under a stable political and economic environment, prior to 2002, but turns negative during the hostile political and economic period from 2003 to 2005 in Zimbabwe. Further, studies find that higher insider ownership in banks may not promote outside directors to represent the boards. Belkhir (2009) argues that directors' share ownership is weakly associated with stakeholder returns (ROA) in 174 US banks and savings and loan institutions from 1995 to 2002.

Conversely, Bokpin (2013) presents that directors' shareholdings do not always positively affect corporate performance as shareholders may limit the management's ability to gain excessive control over voting rights. Amidst the complex nature of bank operations, executives may deliberately create information asymmetries with the aim of manipulating performance results hence, magnifying agency problems (Grove, et al., 2011).

In Sri Lanka, regulatory restrictions exist over a substantial interest in voting rights of a licenced bank by a single person or an entity, other than the government, to minimise the ownership concentration risk (Central Bank of Sri Lanka, 2013, p. 91). Therefore, individual directors with large shareholdings are unlikely in Sri Lankan banks. Nevertheless, it is expected that directors' share ownership is likely to

resolve weak governance practices and improve profitability considering the common empirical findings.

Hypothesis 5: Directors' share ownership is positively associated with banking profitability.

2.2.6. Foreign ownership

Studies widely define foreign banks in which foreign or non-resident investors acquire over 51% of shares with voting rights (Micco, et al., 2007). The scale of foreign ownership versus domestic ownership of firms is a broadly discussed subject under the 'Home-field advantage theory' and the 'Global advantage theory'. The home-field advantage theory emphasizes that domestic firms are more efficient than foreign-owned firms because foreign investors incur additional agency problems owing to asymmetric information in different business environments. By managing from remote locations, they may confront operational inefficiencies arising from their unfamiliarity with economic, cultural and social, language, legal and regulatory structures of local countries (Berger, et al., 2000). Hence, they may not be interested in investing in firms that operate under considerable political, economic and legal risks.

On another note, the global advantage theory suggests that foreign-owned institutions gain cross-border economies compared to firms owned by domestic investors. It believes that foreign investors can extend their better technical, financial and management skills, risk management policies and sound business practices to gain operating efficiency. Investors from mature economies can acquire funds at relatively lower costs and yield higher returns by investing in developing countries. They can also minimize the investment risk through diversification strategies (Berger, et al., 2016).

The empirical findings on the association of foreign ownership and banking profitability support both theories. Some studies observe that foreign-owned banks are more profitable than domestic banks in developing countries while the opposite applies in developed countries (Lensink & Naaborg, 2007; Micco, et al., 2007). In agreement with the global advantage theory, Micco, et al. (2007) observe that foreign-owned banks report a premium of ROA by 0.37% over domestic banks in developing countries based on a sample in 179 countries from 1995 to 2002. Al Manaseer, et al., (2012), Choi & Hasan (2005) and Sarkar, et al. (1998) also find a similar result in the Indian, Korean and Jordan banking sectors, respectively.

On the flip side, Lensink & Naaborg (2007) argue for the home-field advantage theory due to the inverse relationship between the foreign share ownership and banking profitability in their study of over 500 banks in 73 countries from 1998 to 2001. Kirimi, Kariuki, & Ocharo (2022) similarly observe a negative relationship between foreign ownership and banking profitability in Kenyan banks from 2009 to 2020. Meanwhile, Nyamongo & Temesgen (2013) and Heffernan & Fu (2010) find a weak effect of foreign ownership on the banking profitability in Kenya and China, respectively.

Considering the Sri Lankan context, the policy makers encourage a high share ownership by foreign investors in the banking sector, subject to the regulatory restriction that single investor's maximum share ownership is 10% regardless of domestic or foreign source. Hence, the following hypothesis is drawn:

Hypothesis 6: Foreign ownership is positively associated with banking profitability supporting the global advantage theory.

2.2.7. State ownership

According to social and agency theories, the ultimate goal of state-owned banks is to maximize the welfare to society rather than merely earning profits (Shen & Lin, 2012). This partially supports the Sri Lankan case as the government promotes state banks to lend to some neglected market segments such as entrepreneurs and micro customers. Subject to strict monitoring by the Central Bank of Sri Lanka, they have been encouraged to finance some State-Owned Enterprises (SOEs) that provide essential public utilities such as fuel and electricity even if the financial conditions of such firms are imperfect (Central Bank of Sri Lanka, 2013, p. 109).

On the contrary, the political interference hypothesis suggests that state-banking profitability weakens when they do not control political interference. Besides, the financial performance varies considerably even between different state-owned banks depending on the degree of political interference. This supports the political theory claiming that state-owned banks become the modes for politicians to pursue their personal or political goals (Shen & Lin, 2012; Ang & Ding, 2006; Haw, et al., 2010).

In support of the above theory, several empirical studies find that state-ownership impairs banking profitability. Micco, et al. (2007) explored 179 developing and industrial countries from 1995 to 2002 and posit that government ownership causes inefficiencies in state-owned banks at the expense of shareholders and creditors, particularly in less developed economies. Pennathur, et al. (2012) and Sánchez-Ballesta & García-Meca (2011) emphasize that state-owned banks are unlikely to generate higher returns due to risk-averse investment policies. Otchere (2005) claims that overly bureaucratic systems in state banks result in cost inefficiencies. Despite this, Trung (2022) suggests that state-owned banks tend to earn better profits over private banks since depositors assume that government ownership provides a cushion in terms of security of their deposits. Dietrich & Wanzenried (2011) observe that state-owned banks are not less profitable than private banks before and after the financial crisis. Talavera, et al. (2018), Bonin, et al. (2005) and Barth, et al., (2003) also find a similar effect.

Considering the empirical evidence above and the Sri Lankan political and social cultural environment, the following hypothesis is expected:

Hypothesis 7: State-ownership is negatively associated with banking profitability.

3. RESEARCH METHODS AND DATA COLLECTION

3.1. Research philosophy and methodology

The research philosophy and methodology are conducted as per the research onion model suggested by Saunders, et al., (2009). This study is conducted based on the positivism concept that facilitates academics with different assumptions, opinions and beliefs to examine the credibility of theories and concepts (Antwi & Kasim, 2015). The paper develops hypotheses primarily based on stewardship, stakeholder and agency theories and the concepts relating to the corporate governance and bank profitability and tests them to generalize the empirical findings. Thus, it adopts the deductive approach to develop or test the theories following five sequential phases: i) drawing testable hypotheses about a potential association between concepts based on a theoretical framework; ii) interrogating the hypothesis in measurable terms by collecting and analyzing numerical and categorical data; iii) testing the hypothesis using econometric models; iv) analyzing the results to assess whether the empirical findings validate the underlying theories; and v) suggesting new concepts if they do not validate the theories. The research technique follows the longitudinal or panel nature as the study covers the characteristics of different cross-section units (banks) over a common period (Smith, 2015; Hagendorff, et al., 2010; Saunders, et al., 2009).

3.2. Sampling and data sources

In view of generalizing the results, a sample of 13 licensed banks is selected, using the random sampling technique to represent 87.7% of the total assets of the Sri Lankan banking sector (Central Bank of Sri Lanka, 2020). The sample also consists of four state-owned banks, in which the Sri Lankan government holds a majority stake (over 50%), and one foreign bank, in which the non-residents hold a majority stake (over 50%). Further, the 17 banks, which were not selected for the sample, did not have publicly accessible data or adequate details in their annual reports regarding the variables selected by the author.

The study is conducted using secondary data to draw conclusions based on the statistical results derived from running multiple regression analyze on variables. Annual reports are used to gather all bank specific data for the selected sample for 10 years from 2011 to 2020. Further, macroeconomic and national-level statistics published by the Central Bank of Sri Lanka are also considered for analysis purposes.

3.3. Variables

This study analyzes the regression results of a balanced panel data model for 130 observations in terms of cross-sectional units (banks) for 13 licensed banks from 2011 to 2020 representing 87.7% of the total assets of all banks. Prior studies on corporate governance widely consider profitability indicators to measure the banks' profitability. In line with the stakeholder theory, this study employs ROA to assess the efficiency of the board of directors and management in generating returns to all stakeholders, including depositors and creditors of banks.

Table 1: Definition of variables

Acronym	Variable	Proxy/ Operationalization	Citation	Expected Relationship	Source of Data
Dependent variables					
ROA i, t	Return on Assets	% of profit before tax over total assets of bank i at time t	Altass (2022)		Annual reports of the banks
ROE i, t	Return on Equity	% of profit after tax over total equity of bank i at time t	Altass (2022)		Annual reports of the banks
Independent variables					
Board Size i, t	Board of directors	Number of board members of bank i for the time t	Ayadi, Ayadi, & Trabelsi (2018)	Negative	Annual reports of the banks
Board Meetings i, t	Frequency of board meetings	Absolute number of board meetings of bank i held in financial year t	Mayur & Saravanan (2017)	Positive	Annual reports of the banks
Non-Executive Directors i, t	Board composition	% of non-executive directors to total number of board members of bank i for the time t	Sohail, Rasul, & Fatima (2017)	Positive	Annual reports of the banks
Female Directors i, t	Gender diversity of board	% of female board members to total number of board of directors of bank i for the time t	Bennouri, Chtioui, Nagati, & Nekhili (2018)	Positive	Annual reports of the banks
Directors' Shareholding i, t	Share ownership of directors	% of shares owned by directors to total outstanding common stocks of bank i for the time t	Bokpin (2013)	Positive	Annual reports of the banks
Foreign Shareholding i, t	Foreign ownership	% of shares owned by foreign/non-resident investors to total outstanding common stocks of bank i for the time t	Kirimi, Kariuki, & Ocharo (2022)	Positive	Annual reports of the banks
Government Shareholding i, t	State ownership	% of shares owned by government and SOEs of bank i at time t	Talavera, Yin, & Zhang (2018)	Negative	Annual reports of the banks
Control variables					
Bank Size i, t	Total assets of banks	LN value of total assets of the bank of bank i for the time t	Sohail, Rasul, & Fatima (2017)	Positive	Annual reports of the banks
GDP Growth i, t	Economic growth rate	% growth in real GDP for the time t	Kick, Nehring, & Schertler (2017)	Positive	Central Bank Annual Repor

Source: Compiled by author

Moreover, ROE is considered as a proxy to reflect the distributable earnings for shareholders that evaluates the efficiency of management under the agency

relationship (Choi & Hasan, 2005; Bennouri, et al., 2013). The study employs seven independent variables namely board size, frequency of board meetings, board composition, gender diversity of boards, directors' shareholding, foreign shareholding and government shareholding to capture the corporate governance mechanisms and ownership structures of the banks included in the sample as described in Table 1.

The study considers two control variables to capture the size of each bank and the impact of macroeconomic changes. The natural logarithmic form of total assets of each bank is employed to factor in the diversity of economies of scale that is expected to enhance the banking profitability through large scale operations (Kaymak & Bektas, 2008). Besides, Sohail, et al., (2017) observe that bank size has a statistically significant positive effect on ROE, but a weak effect on ROA. The real GDP growth rate represents the changes in business cycles (Vallascas, et al., 2017). The overall level of economic activity drives corporate strategic plans to be in line with macroeconomic fluctuations. Several studies claim that the GDP growth rate favourably affects banking profitability across the world as economic expansions facilitate increased lending and yield better returns (Kick, et al., 2017; Vallascas, et al., 2017; Tan, 2016).

3.4. Empirical research model

The author conducts the statistical data analysis of the multiple linear regression models using the Stata software package (version 15.1). The basic econometric model is exhibited in equation (i). In order to examine the impact of corporate governance mechanisms on the banking profitability, empirical models given in equations (ii) and (iii) are estimated as per the past studies (Orazalin, et al., 2016; Kusi, et al., 2018).

$$Profitability = \beta1 \, (Bank \, Specific \, Corporate \, Governance \, Variables) + \beta2 \, (Control \, Variables) + \varepsilon \, i,t \quad \text{(i)}$$
$(ROAi,t \, and \, ROEi,t)$

$$ROAi,t = \alpha \, i + \beta1(Board \, Size \, i,t) + \beta2(Board \, Meetings \, i,t) + \beta3(Nonexecutive \, Directors \, i,t) + \beta4(Female \, Directors \, i,t) + \beta5(Directors' \, Shareholding \, i,t) + \beta6(Foreign \, Shareholding \, i,t) + \beta7(Government \, Shareholding \, i,t) + \beta8(Bank \, Size \, i,t) + \beta9(GDP \, Growth \, t) + \varepsilon \, i,t \quad \text{(ii)}$$

$$ROEi,t = \alpha \, i + \beta1(Board \, Size \, i,t) + \beta2(Board \, Meetings \, i,t) + \beta3(Non \, executive \, Directors \, i,t) + \beta4(Female \, Directors \, i,t) + \beta5(Directors' \, Shareholding \, i,t) + \beta6(Foreign \, Shareholding \, i,t) + \beta7(Government \, Shareholding \, i,t) + \beta8(Bank \, Size \, i,t) + \beta9(GDP \, Growth \, t) + \varepsilon \, i,t \quad \text{(iii)}$$

4. RESULTS AND ANALYSIS

4.1. Descriptive statistics

The summaries of statistical observations for the period from 2011 to 2020 are exhibited in Table 2. The profitability indicators of the Sri Lankan banking sector, ROA and ROE, are reported at an average of 1.4% and 15.35%, respectively, for the

period of the study (2011-2020). The lowest ROA and ROE are 0.12% and 0.1%, respectively, while the highest ROA and ROE ratios are 5.64% and 49.2%, respectively.

The average board size in Sri Lankan banks is 9.73 (rounded to 10 members) while the largest is 13, which is within the maximum stipulated by the Central Bank of Sri Lanka. However, the smallest board size is five members, which is below the minimum regulatory requirement of seven. This is due to conflicting legislation in the Bank of Ceylon Ordinance No.53 of 1938 that restricts the maximum number of directors to six. Hence, the bank has failed to meet the generic regulation on board size from 2013 to 2020 (Bank of Ceylon, 2011-2020).

Considering the board composition, the average representation of non-executive directors is 90.64% with the lowest 63.64% and the highest 100%. This denotes that many board members in Sri Lankan banks are outside directors. The average frequency of board meetings is 15.95 (rounded to 16 meetings) ranging from a minimum of nine to a maximum of 31 meetings within a financial year. There are three banks which fail to meet the regulatory requirement at monthly board meetings.

The average gender diversity is 15.16% of female directors in boards, with a maximum of 40%. Meanwhile, there are several private and state banks without any female board members. This highlights the uneven distribution of senior corporate positions among females compared to the Sri Lankan female labour force participation ratio of 33% in 2022 (The World bank, n.d.). The average ratio of directors' share ownership is 0.71% with a maximum of 15%, while there are some banks without any shares being owned by directors. Foreign investors hold 17.72% average stake in Sri Lankan banks with a maximum of 79.8%.

Table 2: Descriptive statistics

Variable	No. of observations	Mean	Standard Deviation	Minimum	Maximum
ROA	130	1.40	0.67	0.12	5.64
ROE	130	15.35	8.47	0.10	49.20
Board Size	130	9.73	2.07	5.00	13.00
Board Meetings	130	15.95	4.69	9.00	31.00
Nonexecutive Directors	130	90.64	7.64	63.64	100.00
Female Directors	130	15.16	11.73	0.00	40.00
Directors' Shareholding	130	0.71	2.16	0.00	15.00
Government Shareholding	130	39.67	36.07	0.00	100.00
Foreign Shareholding	130	17.72	18.22	0.00	79.80
Bank Size	130	19.65	1.19	16.81	21.82
GDP Growth	130	4.09	3.32	-3.57	9.14

Source: Compiled by author

The government holds shares in banks directly as well as indirectly through the investments by SOEs. The average state ownership in Sri Lankan banks is 39.67%

indicating that the government is a significant investor. Yet, there are private banks with no government stake during the period under consideration. The GDP growth rate is at an average of 4.09% with the highest and the lowest rates of 9.14% (2012) and -3.57% (2020), respectively. The negative economic growth in 2020 is mainly attributable to the deceleration of economic activities following the Easter Sunday attack experienced in 2019.

4.2. Diagnostic/Robustness tests

Several statistical tests are employed to assess the robustness of data to ensure the validity of fundamental assumptions that should be satisfied in linear regression models such as stationarity, normality, heteroskedasticity, autocorrelation, regression model specification errors and multicollinearity of data (Kusi, et al., 2018).

Firstly, the Jarque-Bera (JB) test is conducted to ensure the normality of data with the null hypothesis that data does not follow normal distributions (Bateni, et al., 2014). The JB test results, as given in Table A: ii of Appendices, reject the null hypothesis at a 5% significance for both models concluding that the variables are normally distributed and do not suffer from outliers.

Secondly, the presence of autocorrelation is tested using the Wooldridge model to verify if the residual term is correlated across periods. The test assumes that the errors are independently and identically distributed with the first-order autocorrelation as exhibited in equation (iv) below (Khediri & Ben-Khedhiri, 2000). The test rejects the null hypothesis as reflected in Table A: ii of Appendices and hence, the residual terms of the variables do not suffer from autocorrelation at a 5% significance level.

$$\varepsilon i, t = \varepsilon i, t - 1 + z i, t \qquad \textbf{(iv)}$$

Thirdly, the study assesses the existence of heteroskedasticity and cross-sectional dependence of variables using the Breusch-Pagan test for panel data (Herwartz, 2006). The null hypothesis states that variables suffer from heteroskedasticity where the residuals/errors are not constant over time. Table A: ii of Appendices stated that the null hypothesis is not rejected for both models at a 5% significance concluding that heteroskedasticity is observed in the models. Hence, the two models were re-estimated with a robust standard error method to rectify the heteroskedasticity problem. The error corrected regression results are given in Table 3.

Fifthly, the regression models are assessed using Ramsey's RESET test to identify whether any important variables have been omitted from the model specification. The results exhibited in Table A: ii of Appendices reject the null hypothesis that the models have omitted variables (Peters, 2000) at a 5% significance level concluding that there are no regression specification errors in the models.

The study assessed the existence of multicollinearity through estimating the correlation coefficients between the variables with their statistical significance. The test results given in Table A: iii of Appendices revealed that the variables do not

suffer from the problem of multicollinearity as the correlation coefficient between two variables stood below the rule of thumb of 0.8 (Kiganda, 2014). It is, therefore, concluded that the statistical data used in the regression analysis are consistent, efficient and unbiased estimates (Kusi, et al., 2018).

The panel data models are widely assessed using pooled Ordinary Least Squared (OLS), fixed effects or random effects methods. Each regression model is initially estimated with the pooled OLS method (Belkhir, 2009). Secondly, they are tested with fixed and random effects methods (Mayur & Saravanan, 2017). Thirdly, the Hausman test is evaluated to decide between fixed effects and random effects methods (Sohail, et al., 2017). The fixed effects method considers that the intercept of each cross-section (bank) is time invariant, but such intercept may vary across different banks (Damodar, 2004). The random effect method assumes that bank-specific effects and independent variables are not correlated with each other, while the Hausman test verifies the validity of such assumption (Mayur & Saravanan, 2017). The results of the Hausman test recommend the fixed effects method for ROA and the random effects method for ROE as depicted in Table A: ii of Appendices.

4.3. Empirical results

The regression results for ROA and ROE are exhibited in Table 3. The explanatory variables collectively explain 34.47% of variation in ROA and 29.65% of variation in ROE. The significance level of both models show that the models are statistically significant at 1%. Hence, both models demonstrate that the selected independent and control variables explain the variations in the dependent variables moderately.

The results demonstrate that board size is negatively associated with ROA and ROE, explaining that the inclusion of new directors increases board running costs. Large sized boards tend to cause coordination and decision-making inefficiencies outweighing the benefits from increased monitoring (Liang, et al., 2013). This complies with the findings of Altass (2022), Ayadi, et al. (2018), Kick, et al., (2017), Liang, et al., (2013); Hagendorff, et al. (2010) and Kaymak & Bektas (2008), who observe a similar effect in the USA, Europe, Middle East and Asia. Hence, this supports the expected hypothesis and the existing regulations in Sri Lanka that allows banks to determine the appropriate board size at their discretion within a range of seven to 13 members.

The study observes that the frequency of board meetings is a strong corporate governance mechanism that improves both ROA and ROE. The findings confirm the past studies in Asian countries such as China, Sri Lanka, Pakistan and India by Liang, et al., (2013), Kajananthan (2012), Fariha et al., (2021) and Gafoor, et al. (2018), respectively. Hence, the findings support the hypothesis that frequent board meetings facilitate active monitoring of executives, provide better coordination and interactions among directors, give an opportunity to share and challenge different views and focus on stakeholders' interests (Gafoor, et al., 2018; Baccouche, et al., 2014; Liang, et al., 2013; Chou, et al., 2013; Grove, et al., 2011). Equally, this confirms the existing regulations of the Central Bank of Sri Lanka that mandate

licensed banks to hold at least monthly board meetings (Central Bank of Sri Lanka, 2013, p. 233).

Table 3: Regression results on ROA and ROE

Variable	Expected Relationship	ROA *Fixed Effects)*	ROE *Random Effects)*
Constant		1.9973 (3.6387)	-43.4023*** (16.2877)
Board Size (%)	Negative	-0.1474** (0.0559)	-0.7115** (0.3435)
Non-Executive Directors (%)	Positive	0.0189** (0.0084)	0.0716 (0.0809)
Female Directors (%)	Positive	-0.0106** (0.0048)	0.0147 (0.0711)
Board Meetings	Positive	0.0289** (0.0127)	0.4970*** (0.1645)
Directors' Shareholding (%)	Positive	0.0579** (0.0224)	0.0795 (0.2032)
Foreign Shareholding (%)	Positive	0.0043 (0.0046)	-0.0030 (0.0351)
Government Shareholding (%)	Negative	-0.0165 (0.0230)	0.0003 (0.0478)
GDP Growth (%)	Positive	0.0642*** (3.6387)	0.9929*** (0.2093)
Bank Size (Ln)	Positive	-0.0456 (0.1865)	2.3899*** (0.6467)
No. of observations		130	130
R-squared		0.3447	0.2965
P-value of the overall model		0.0001	0.0000
F-statistic		12.71	N/A
Wald chi squared (□2) statistic		N/A	148.60

Notes: Robust Standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Source: Compiled by author

The empirical results support the hypothesis that a balanced board composition boosts stakeholder return. The proportion of non-executive directors favourably affects ROA, corresponding to the findings of Kajananthan (2012) and Andres & Vallelado (2008). Considering the complex nature of banking operations and the unitary board structure of the Sri Lankan banks, more outside directors strengthen the boards' monitoring and advisory capacity due to their experience from different industries, markets and firms. They also help control any undue influence of executives such as the CEO, minimize conflicts of interests of board members and facilitate effective board decisions. However, board composition does not significantly determine ROE, as observed by Sohail, et al., (2017). Hence, outside

board members pay more attention to enhancing the stakeholder returns, rather than merely maximizing shareholders' returns, due to the funding structure of banks.

The findings do not support the hypothesis on gender diversity as it observes a significant negative association between ROA and female board representation. However, this confirms the findings in economics and psychology that female members have a tendency to be more risk averse than men in business decisions and cause banks to become less competitive (Sila, et al., 2016). This also corresponds to the observations of Ahern & Dittmar (2012) and Adams & Ferreira (2009), who emphasize that regulatory gender quotas for board members deteriorate the financial performance in firms with formal governance structures. This is possibly because their rigid nature of monitoring can discourage flexible business decision making. Gender diversity shows a weak effect on ROE, confirming the findings of Ajanthan, et al., (2013) in Sri Lankan banks.

The results show that directors' share ownership strongly promotes only ROA of the Sri Lankan banks, which is in line with the findings of Rashid et al. (2020) and Mangena, et al. (2012). However, it does not promote ROE, as observed by Belkhir (2009) and Krivogorsky (2006), considering the regulatory restrictions over maximum share ownership by single investors. Hence, the study partially supports the hypothesis that directors' share ownership is a strong monetary incentive for board members to perform monitoring and advisory functions and to minimize agency problems arising from the separation of ownership and control (Krivogorsky, 2006).

Foreign ownership displays a weak effect on ROA and ROE as observed by Nyamongo & Temesgen (2013) and Heffernan & Fu (2010) denoting that the foreign investors have no advantage over controlling banking profitability. Thus, the findings do not support the hypothesis that foreign investors promote long-term banking returns despite that higher foreign investment supports resolving the structural issues of the Sri Lankan balance of payment.

The effect of state ownership on the banking profitability does not support this study's hypothesis. Government ownership indicates insignificant effects on both ROA and ROE as observed by Talavera, et al. (2018) and Barth, et al. (2003). Hence, the results illustrate that state ownership would not cause substantial agency problems in Sri Lankan banks.

In consideration of control variables, both models reveal a strong positive association between economic growth rate and profitability indicators at a 1% significance level. The results of the ROA model state that each 1% increase in GDP boosts the Sri Lankan banks' ROA by 0.06% and ROE by 0.99% demonstrating that economic expansion is a key driver of banking profitability. Although the size of banks shows an insignificant effect on ROA, it has a strong positive association with ROE at a 1% significance level. This draws the conclusion that economies of scale, stemming from the relative size of banks, is a key determinant of shareholder returns.

In summary, the overall findings of this study exhibit that the effect of corporate governance mechanisms and ownership structures are more sensitive with stakeholder returns (ROA) compared to shareholder returns (ROE).

5. CONCLUSION

Empirical studies have widely investigated the agency relationship between principals and agents in maximizing returns to shareholders. The stewardship theory assumes that executives are trustworthy and would focus on maximizing shareholder wealth. As per the agency theory, shareholders and other stakeholders enforce corporate governance mechanisms to safeguard their investment from being expropriated by management for their personal gains. Contrarily, some have claimed that excessive governance controls may hamper financial performance. Given the inconclusiveness of past empirical findings, this paper extends the existing literature by assessing the validity of the theories which state that corporate governance mechanisms minimize agency costs and improve banking profitability. The study evaluates the impact of corporate governance mechanisms and ownership structures on stakeholder returns (ROA) and equity holder returns (ROE) using a balanced panel of 13 Sri Lankan banks from 2011 to 2020.

The findings illustrate that large boards do not necessarily improve profitability, but rather hamper the banking profitability. Hence, smaller boards are more appropriate in banks due to efficient coordination and decision making (Belkhir, 2009; Liang, et al., 2013). Board composition is also a key determinant of stakeholder returns as non-executive directors promote board independence and minimize agency problems caused by dominant executives (Andres & Vallelado, 2008; Kaymak & Bektas, 2008). Boards that hold frequent board meetings to discuss corporate matters are likely to result in better profitability due to the effective monitoring of executives. Nevertheless, higher gender diversity undermines stakeholder returns as female directors cause banks to be less competitive due to risk-averse decision making and excessive monitoring (Kusi, et al., 2018). It also claims that countries, which imposed minimum gender quotas, have envisaged social influences without fully realising the economic consequences (Sila, et al., 2016).

Considering the ownership dimensions, this study finds that foreign shareholders promote stakeholder returns using their better monitoring skills and experience in integrated business strategies. Although the directors' share ownership does not promote financial performance, agency problems caused by dominant executives should be controlled by non-executive directors. The state ownership does not significantly differentiate returns in private and state banks in Sri Lanka. On shareholder returns, this paper finds that only the board meeting frequency, economic growth and bank size are the key variables that significantly affect ROE.

In conclusion, this paper seeks to add value to the existing literature suggesting that the present corporate governance framework in the Sri Lankan banking sector supports the stakeholder theory as it broadly intends to improve stakeholder returns, rather than maximizing only the shareholder returns. Considering the financial risk exposed by non-shareholding investors, this highlights the importance of

safeguarding the interest of all stakeholders to ensure the stability of both financial institutions and the economy of a country (Andres & Vallelado, 2008).

6.1. Limitations of the study

One limitation of this paper is non-consideration of other forms of corporate governance mechanisms such as board remuneration, directors' age, and their experience etc., which may also affect the banking profitability. This study emphasizes on internal corporate governance frameworks only, while the results can be influenced by the external governance frameworks such as political, regulatory, and legal systems, financial market structures and financial reporting guidelines. Another limitation is the coverage of only 13 banks over 10 years due to the lack of publicly available details. Accordingly, the banks, which were not selected for the sample, did not have publicly accessible data or adequate details in their annual reports regarding the variables selected by the author, i.e., board size and composition, board meetings, directors' share ownership, gender diversity, the degree of share ownership by foreign investors and the government. In addition, the data sources retained the relevant data only for the most recent 10 years, restricting the access to more historical data.

6.2. Implications for future studies

The study presents several practical implications for further studies. Firstly, it exhibits the need for policy development on the role of directors to facilitate appropriate succession planning for non-executive board members in the directors' labour market. The existing regulations applicable for the Sri Lankan banking sector, regarding corporate governance, require careful revisits, specially for areas such as determining the minimum number of directors to the boards and board meetings. Secondly, revisions to existing policies are suggested to promote the active contribution of foreign investors in the banking sector. Thirdly, more qualitative disclosures related to board performance and contribution should be included in annual reports to measure the effectiveness of the existing corporate governance mechanisms. Fourthly, the profitability of banks with high gender diversity should be comprehensively assessed with those having low diversity in view of verifying the association between female board members and risk aversion. Finally, further relaxations of regulations should be assessed to facilitate foreign investments to benefit the global advantage theory.

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APPENDICES

Table A: i. Share of women on boards of listed companies in selected countries (%)

Country	2014	2017	2020
Norway	37.0	41.0	42.1
Sweden	17.0	36.0	36.3
Italy	8.0	30.0	34.0
Finland	14.0	30.0	32.8
New Zealand	7.0	22.5	30.0
Australia	7.0	23.1	28.7
UK	7.0	27.0	27.2
Canada	6.0	19.4	25.8
USA	10.0	16.4	21.7
South Africa	13.0	19.0	21.4
Switzerland	8.0	36.0	21.3
India	7.0	11.4	13.8
Turkey	8.0	12.0	13.4
Greece	11.0	9.0	11.3
Mexico	7.0	5.2	7.5
Japan	4.0	3.4	5.3

Source: World Economic Forum, compiled by author

Table A: ii. Diagnostic tests for normality, heteroskedasticity, autocorrelation and regression specification errors

Criteria/ Hypothesis	Test	ROA Model	ROE Model
Normality	**Jarque-Bera test**		
	χ^2 statistic	2.47	0.13
	P value	*0.2902*	*0.9386*
	Null hypothesis: Data are not normal	Reject	Reject
Heteroskedasticity	**Breusch-Pagan test**		
	χ^2 statistic	105.14	94.51
	P value	*0.0000*	*0.0002*
	Null hypothesis: Variance of errors/residuals is not constant[1]	Do not reject	Do not reject
Autocorrelation	**Wooldridge test**		
	F Statistic	2.68	6.29
	P value	*0.1278*	*0.0275*
	Null hypothesis: Errors are correlated across period	Reject	Reject
Regression specification errors	**Ramsey RESET test**		
	F Statistic	0.52	1.49
	P value	*0.6665*	*0.2230*
	Null hypothesis: There are omitted variables in the model	Reject	Reject
Panel data model selection	**Hausman test**		
	χ^2 statistic	27.30	3.02
	P value	*0.0012*	*0.9633*
	Null hypothesis: Difference in coeffects is not systematic	Do not reject	Reject

Source: Compiled by author

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[1] The problem of the heteroskedasticity was rectified by re-estimating the two regression models using robust standard error method.

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Table A: iii. Correlation matrix

	ROA	ROE	Board Size	Board Meetings	Non-Ex. Directors	Female Directors	Directors' Shareholding	Government Shareholding	Foreign Shareholding	Bank Size	GDP Growth
ROA	1.0000										
ROE	0.6849*	1.0000									
	0.0000)										
Board Size	0.1723*	3823*	1.0000								
	0.0499)	0.0000)									
Board Meetings	0.2265*	0.4253*	0.4457*	1.0000							
	0.0096)	0.0000)	0.0000)								
Non Executive Directors	-0.0818	0.2051*	0.3244*	0.2351*	1.0000						
	(0.3547)	(0.0192)	(0.0002)	(0.0071)							
Female Directors	0.1404	0.0615	0.0761	0.1280	0.1033	1.0000					
	(0.1110)	(0.4873)	(0.3895)	(0.1468)	(0.2421)						
Directors' Shareholding	0.2067*	-0.0419	0.2766*	-0.0588	-0.1570	-0.0422	1.0000				
	(0.0183)	(0.6363)	(0.0014)	(0.5066)	(0.0745)	(0.6338)					
Government Shareholding	0.1105	0.4851*	0.7601*	0.5393*	0.5562*	0.0131	-0.2370*	1.0000			
	(0.2109)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.8827)	(0.0066)				
Foreign Shareholding	-0.1525	-0.4158*	0.4080*	-0.3621*	.3363*	-0.0603	-0.0384	).6097*	1.0000		
	(0.0833)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.4958)	(0.6648)	(0.0000)			
Bank Size	0.2366*	0.4203*	0.3902*	0.4481*	-0.0489	0.0560	-0.2464*	0.5044*	).2506*	1.0000	
	(0.0067)	(0.0000)	(0.0000)	(0.0000)	(0.5806)	(0.5265)	(0.0047)	(0.0000)	(0.0040)		
GDP Growth	0.3765*	0.3070*	0.0300	0.0471	0.0101	-0.0005	0.2726*	0.0057	-0.0911	.2875*	1.0000
	(0.0000)	(0.0004)	(0.7347)	(0.5947)	(0.9090)	(0.9953)	(0.0017)	(0.9483)	(0.3026)	(0.0009)	

* $p < 0.05$

Source: Compiled by author