CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE OF SRI LANKAN LISTED COMPANIES 2006-2010

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ABSTRACT

This thesis investigates the effect of corporate governance practices have on the financial performance and agency costs of multinational subsidiaries and local public companies in Sri Lanka. In particular, this study examines (i) the relationship between corporate governance mechanisms of Sri Lankan listed companies, financial performance, principal-agent and principal-principal agency costs (ii) corporate governance practices and compliance differences of multinational company subsidiaries (MNCs) and local public companies (LPCs) in Sri Lanka, (iii) whether voluntary compliance with the new corporate code had an effect on firm financial performance and agency costs and (iv) corporate governance and firm financial performance differences across quantiles of performance proxies in MNCs and LPCs.

Corporate governance has become a major issue since the collapse of major companies around the world. Additionally, the Asian financial crisis in 1997 showed the need for legislative reforms to strengthen corporate governance practices in that region. Now, it is widely believed that good corporate governance is an important factor in improving firm financial performance in both developed and developing financial markets. Until the mid-1990s, corporate governance was popularly known in Sri Lanka as, the systems used to control and direct companies. A real effort to codify the principle of corporate governance in a structured manner in Sri Lanka was made in 1996. Since the financial year commencing April 2008, Sri Lankan listed firms have been subject to mandated rules on corporate governance by the Securities and Exchange Commission of Sri Lanka. The main purpose of this new mandatory corporate governance rule is promoting accountability, transparency and overall efficiency in corporate governance best practice.

This thesis makes a number of contributions to corporate governance and firm financial performance knowledge in several ways. First, it provides evidence of the relationship between corporate governance practices and firm financial performance and agency costs. Second, in contrast to most existing studies that use data from developed countries, this research considers how differences in institutional and governance systems between countries may impact firm financial performance, agency costs and corporate governance relationships. Third, this research is the first direct study of firm financial performance, agency costs and corporate governance practices for listed Sri Lankan companies.

Data needed to test various hypotheses are sourced from the Handbook of Listed Companies - 2007, Fact Book - 2008 and Data library CD issued by the Colombo Stock Exchange (CSE). Further data have been collected from companies listed on the (CSE) during 2006-2010 that published audited annual reports. For the LPCs and MNC subsidiary companies, the sampling period is 2006 through 2010. The focus of this thesis is on the governance variables that have been highlighted by the Sri Lankan Corporate governance best practice code (2008) and also other governance variables that are supported in the literature as providing an appropriate structure for the institutions in the environment in which they operate.

Statistical issues such as controlling the endogenity effect and reverse causality effect of corporate governance variables indicate is appropriate to employ dynamic panel generalised method of moment estimators to explore the relationship between corporate governance variables, financial performance and agency costs. Various other statistical techniques including as ANOVA test, panel tobit regression, difference-in-difference method, quantile regression are used to check hypotheses relevant in this study.

The findings indicate that there is positive relationship between corporate governance and firm financial performance and a negative relationship between corporate governance and firm agency costs. However, the process by which the firm financial performance and agency costs affect MNC subsidiaries and LPCs is different. These results also support the central argument in corporate governance that the institutional and cultural differences determine the effect of complying corporate governance and financial performance and agency costs.

Although Sri Lanka basically follows an Anglo-American model of corporate governance, country institutional and cultural differences create a unique corporate governance environment in Sri Lanka. It is important to further develop the corporate governance code incorporating country specific characteristics rather than inherit bundles of corporate governance mechanisms from other developed countries. However, as this study shows, some mandatory corporate governance mechanisms have negative impacts on firm financial performance and/or increase company agency conflicts. A corporate governance framework appropriate for each organisation structure as "one size does not fit all" seems preferable. Guidelines encompassing an "or explain" exemption clause may be particularly beneficial in emerging economies.

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1.0 Background of the study

The large number of corporate failures that occurred at the beginning of the 21st century may have damaged confidence in many economies. Fraud and bribery were seen as contributing to company of the collapses. As a consequence, corporate governance has been debated extensively with structures improved in several countries. Although there had been significant corporate failures in Europe, it was the Asian financial crisis in 1997 that led to the realisation of the need for investor protection and improved corporate governance practices in the Asian region (Balachandran & Bliss, 2004).

Corporate governance in part, is the mechanism to minimise the loss of forgone value from the separation of ownership and control. The Cadbury Report (1992) defines corporate governance as a mechanism to use for the direction and control of companies. Morin & Jarrell (2001) argue that corporate governance acts as a framework to safeguard and control the relevant players (managers, employees, customers, shareholders, executive directors/managers, suppliers and the board of directors) in the market. Becht *et al.* (2003) suggest that corporate governance definitions fall into two categories. The first represents the behavioural pattern. The second concerns the normative framework. Capital markets, laws and regulations and boards of directors fall into the first category of governance and the expertise of managers and large outside shareholders fall into the normative framework category. In studies considering a single country or firms within a country, the first type of definition is more logical, but comparative studies more toward the second type as more logical. Different national systems maintain different corporate governance mechanisms. The economic environment, national

legislation and social and cultural heritage may contribute to the actual form of corporate governance mechanisms developed in specific countries.

The importance of corporate governance for investors is reported in the "Global Investor Opinion Survey: Key Findings" (2002) released by McKinsey & Company. It was suggested that 63% of investors avoid companies with unreliable corporate governance and 57% of investors fluctuate according to corporate governance practices. This may be advanced corporate governance practices ensure quality of decision-making, strategic thinking for senior management and enhance the long-term success of companies and its sources of finance ("Corporate Governance", 2012).

The Cadbury Report (1992) is the principal document covering corporate governance best practice. This report seeks to address the financial aspects of corporate governance and to develop an appropriate industry code of practice. After Cadbury the Greenbury Report (1995) was released. It addressed the level of directors' remuneration. The significance of the Cadbury and Greenbury reports is that both identified transparency and independence as critical to the activities of board of directors. Furthermore, both reports identified that incentive mechanisms needed to be robust and transparent to reduce agency problems. The Hample Report (1998) addressed corporate governance as a distinct problem of agency and in 1999, ministers from the Organisation for Economic Co-operation and Development (OECD) endorsed guidelines for corporate governance. The OECD guidelines were subsequently updated in 2004 and 2007.

The United Nations Conference on Trade and Development "UNCTAD, World Investment Report" (2008) points out that a considerable amount of the world output and trade depends on the multinational company subsidiaries (MNCs). UNCTAD estimates there was a 21% increase of total sales by MNCs in 2007

compared to 2006, representing US$3 trillion. Also in 2007, the value added of worldwide foreign affiliates was estimated at 11% of global GDP, employing 82 million people. Multinational companies' sales and assets have been growing faster than the world gross domestic product, world exports and world gross fixed capital formations. The rapid growth in MNCs has encouraged researchers to investigate complex relationships between headquarters and subsidiaries. Headquarter-subsidiary relationships have a tremendous impact on a wide variety of issues, ranging from the competitiveness of multinationals to the amount and distribution of wealth created by them. Not surprisingly, the last decade has seen increases in both policy and research devoted to the corporate governance of MNCs.

The OECD guidelines for MNCs provide voluntary codes and principles for sustainable and responsible business behaviour in any location in the world, consistent with applicable domestic laws. These guidelines are approved by the 30 OECD member countries and non-member countries such as Argentina, Brazil, and Chile, etc. The guidelines ensure the basis of mutual understanding between business and societies in which they operate to help improve the foreign investment culture and to enhance the sustainability of MNC subsidiaries. These guidelines are a set of rules and procedures for responsible business and cover several areas, including human resource, environment, taxation, industrial relations, science and technology and information disclosures, etc. They are not rigid rules and regulations which control the business, but are internationally agreed guidelines to reduce misalignments and to increase mutual understanding of business, labour, country law and government. These new guidelines are

inherited from the OECD declaration on international investment and multinational enterprises introduced by OECD governments in 1976[1].

MNCs play a major role in the Sri Lankan economy and contribute significantly to gross domestic products (Athukorala, 2003). In Sri Lanka, where there is rapid rise in the size and number of institutional investors and global funds, the focus on good corporate practices is increasing correspondingly. The number and sophistication of investment managers, intermediaries and other specialists has also experienced dramatic increases. Concurrently, there is a need for the expansion of appropriate governance mechanisms reflecting the country culture, ethnicity and religion. A goal of this research is to help managers properly compare subsidiaries. All these factors have further fuelled the need for good corporate governance practices. Therefore, it is necessary to redefine and analyse corporate governance and cultural relationships by incorporating the factors relevant for businesses operating in the Sri Lankan market.

[1] The declaration comprises a political commitment, adopted by the governments of OECD member countries in 1976 with the aim of facilitating direct investment among OECD members. The other major parts of the declaration are aimed at: providing national treatment to foreign-owned enterprises, promoting co-operation among governments in relation to international investment incentives and disincentives and minimising the imposition of conflicting requirements on MNCs by governments of different countries.

1.1 The corporate governance environment in Sri Lanka

Sri Lanka

Figure 1.1. Location of Sri Lanka

Source: www.marinebuzz.com/.../image.png

Sri Lanka is a tiny, teardrop-shaped fragment in the Indian Ocean (65,610km^2) located off the southeastern coast of India. The island sits southwest of the Bay of Bengal and is separated from the Indian subcontinent by "Palk" Strait and the Gulf of Mannar. As a result of Sri Lanka's location in a major sea route, it has been a strategic naval link since ancient times.

Prior to colonisation, a tribal governance structure was practised in Sri Lanka, where each tribe was responsible for a kingdom. Due to it being an important port and trading post in the ancient world, Sri Lanka's contact with the outside world began early. A Portuguese colonial mission arrived on the island in 1505. The Dutch arrived in the 17th century and Dutch law remains an important part of Sri Lankan jurisprudence. In 1855, the country was taken by Britain which created the Crown Colony of Ceylon and established a plantation economy. This led to the establishment of the Colombo Share Market in 1986. Ceylon became independent in 1948 and while still having an aligned jurisprudence with Britain now looks to other Asian regional countries. Sri Lanka's population is about 21 million and the Sinhalese community forms the majority of the population. Tamils form the largest ethnic minority and other communities include Muslims,

Burghers and the aboriginal "Vedda" people. According to Worldstat.info (2009), the female population in Sri Lanka is 50.75%. Sri Lanka is a lower to middle income developing country with a gross domestic products of about US $41 billion (US Department of State, 2010). However, following the end of the three decades of civil war in 2009, the economy was estimated to have grown by 7% in the last year (Cabraal, 2011). According to the CSE chairperson "beating the world's emerging market price earnings ratio and frontier market price earnings ratio CSE makes a riskier market which gives out financially sound returns for investors" (Fernando, 2011). Now CSE which had been adjudged as the world's second best performing capital market for two consecutive years in 2010 and as of November 2011, 272 companies were listed on the CSE (CSE, 2011). Companies listed on the CSE have seen a large increase in foreign investment following the liberalising of foreign ownership regulations and the end of three decades of civil war.

1.1.1Corporate governance in Sri Lanka

Sri Lankan corporate governance initiatives began in 1997 with the Institute of Chartered Accountants in Sri Lanka publishing a voluntary code of best practices. In keeping with the growing shift towards introducing corporate governance through regulation through a circular issued by the CSE, it is now mandatory for companies to comply with the corporate governance rule that forms part of the listing rules of the CSE, with effect from the financial year commencing April 1, 2008. Another significant piece of legislation established in Sri Lanka in 2007 was the Companies Act No 7 of 2007, effective as of March 2007. The Act, which replaced the 25-year-old Companies Act 17 of 1982, is based on the New

Zealand Companies Act of 1993 and introduces far-reaching changes to the company law regime in Sri Lanka.

Similar to other Asian countries, the Sri Lankan corporate governance system includes features from the Anglo-American model. However, from an ownership perspective and a banking relationship perspective, the Sri Lankan corporate governance system is significantly different from the Anglo- American system. In many Sri Lankan companies ownership is highly concentrated; usually an individual or family members (Manawaduge *et al.*, 2008). Pyramid ownership, cross-shareholding, and dual class shares are common features of this concentrated ownership structure. These ownership features produce corporate issues different from the Anglo- American model. Another characteristic of the Sri Lankan corporate structure is a financial sector dominated by banks. Banks are the primary financial supporter of companies and often have complex and long relationships with individual companies. Due to a weak legal structure and an undeveloped micro-economic environment, Sri Lankan companies are highly dependent on the banks for capital funding and other sources of funds are seldom used. Most of the Sri Lankan listed companies exhibit a predominance of equity rather than debt in their capital structure. The level of corporate debt in Sri Lanka is significantly less than developed countries. Sri Lankan corporate leverage is 44% of book value and 39% of market value (Colombage, 2005; Rajan & Zingales, 1995b). However, G-7 countries' corporate leverage ratios range between 54% and 73% for book value and 40% to 70% for market value (Rajan & Zingales, 1995b). Furthermore, as a result of complex tax charges by the Sri Lankan government, secondary market trading in debt securities has been drastically reduced ("Nuisance Tax", 2009). Another distinguishing characteristic of Sri Lankan corporate governance is State intervention. It is relatively higher

than Anglo-American model countries ("Investment Climate Statement", 2009). Additionally, the Sri Lankan cultural norms and beliefs significantly influence corporate governance practices in Sri Lanka. Mainly gender issues and ethnic minority issues related to the Sri Lankan corporate governance practices differ from Anglo-American countries. These characteristics of ownership, banking relationship, debt, government intervention and cultural issues create a different structure for a micro-economic environment distinguishing the Sri Lankan model and creating a unique corporate governance environment.

The Foreign Investment Advisory Board Act in 1987 opened up investment policies in Sri Lanka and attracted foreign investment. Investment has been actively canvassed and the Board of Investment Report (2003) indicated there were more than 1000 companies from 55 countries operating in Sri Lanka. Furthermore, privatisation and deregulation of policies has helped to attract foreign direct investments (FDI) to the country. Various exemptions including tax holidays, duty free imports, and 100% foreign equity ownership are the major reasons for the presence of global giants and FDI in Sri Lanka during recent decades.

1.2 Objective of the study

This study investigates the relationship between governance, financial performance and agency costs in MNCs and LPCs in Sri Lanka. Multiple factors such as ownership structure, board composition, board leadership structure, firm characteristics and industry may contribute to differences in financial performance, level of principal-agent (PA) and principal-principal (PP) agency costs incorporations and these will be considered carefully in the modelling of governance, financial performance and agency costs. In emerging economies,

multinational companies represent an important component of gross domestic product. The extent to which MNCs provide enhanced management and governance learning that may be embraced and drawn upon by local companies is also of importance in terms of practical contribution to local economies. Moreover, the existing Sri Lankan corporate governance code was introduced in 2007 and was mandatory from 1st April 2008 for all listed companies in Sri Lanka. This study investigates the impact of compliance with the new corporate governance code on financial performance and agency costs of listed firms. In order to achieve this aim, the following eight specific objectives are established for this study:

1. To determine the relationship between corporate governance mechanisms of MNCs and financial performance measured by Tobin's Q, Return on Assets (ROA) and Return on Equity (ROE).
2. To determine the relationship between corporate governance mechanisms of LPCs and financial performance measured by Tobin's Q, Return on Assets (ROA) and Return on Equity (ROE).
3. To determine the relationship between corporate governance mechanisms of MNCs and PA and PP agency costs measured by assets utilisation ratio, dividend ratio and Q-dummy free cash flow.
4. To determine the relationship between corporate governance mechanisms of LPCs and PA and PP agency costs measured by assets utilisation ratio, dividend ratio and Q-dummy free cash flow.
5. To determine whether corporate governance practices differ between MNCs and LPCs in Sri Lanka.

6. To determine whether there is any significant differences in corporate governance compliance of MNCs and LPCs before and after the 2008 introduction of the mandatory code of best practice on corporate governance.

7. To determine whether voluntary compliance with the corporate governance code (2007) has an effect on financial performance and agency costs in Sri Lankan listed companies.

8. To determine whether corporate governance variables differ between quantiles of financial performance for Sri Lankan companies.

1.4 Significance of the study

The efficiency of corporate governance mechanisms associated with publicly listed companies is the subject of extensive ongoing research in the literature (McKnight & Weir, 2009; Singh & Davidson, 2003; Ward & Filatotchev, 2009). Prior literature evaluates the relationship between corporate governance and company performance as measured by valuation, operating performance and stock returns. Most studies find a positive relationship between corporate governance adoption and company financial performance. Bhagat & Black (2000), Gompers *et al.* (2003), and Beiner & Schmid (2005) observe that corporate governance plays an important role in improving the performance of a company.

The research in this thesis adds to the empirical evidence concerning the relationship of corporate governance practices and company financial performance. By studying a wider range of corporate governance variables than prior studies, it will enhance the understanding of how different corporate governance mechanisms collaborate with company financial performance.

Most existing studies use data from US, UK or other mature markets with high investor protection. It is important to consider how differences in institutional and

governance systems between countries may contribute to the differences in company financial performance and agency costs. Sri Lanka is a developing country with less investor protection and high insider ownership. There are differences in the nature, direction, magnitude and processes of operation between developed and emerging financial markets due to differences in their economic, social and regulatory frameworks and market behaviour. Numerous issues such as laws and regulations, maturity of the capital market, the market for corporate control, capital structure, disclosure requirements, boards of directors and internal control systems, may all significantly affect the governance practices in emerging economies.

Following Klapper & Love (2003), Gibson (2003) and Aguilera *et al.* (2011) this study provides empirical evidence concerning the relationship of corporate governance mechanisms and firm financial performance in an emerging market.

When management owns less than 100% of the firm's equity, shareholders incur PA agency costs resulting from management shirking and perquisite consumptions. It is the result of conflicting interests among managers and owners and asymmetric information (Chrisman *et al*., 2004). This is the common scenario for developed market listed companies with strong legal protection. Nevertheless, Young *et al.* (2008) identify PP agency conflict as more significant than PA agency costs in emerging economies. In emerging markets, which are characterised by concentrated ownership, family ownership and weak legal protection majority shareholders are able to engage in window-dressing, tunnelling and expropriate minority shareholders. The concentrated ownership is a root cause of PP agency conflict in emerging public listed corporations. According to Young *et al*.(2008) there are two main reasons for prevalent concentrated ownership in emerging economies. The first reason is that founder

managed firms are reluctant to share core competences and vital information with outsiders (Zahra & Filatotchev, 2004). Secondly, emerging economy firms rely on highly concentrated ownership for corporate governance reasons (Gedajlovic *et al.*, 2004). Gelb (2000) indicates that companies with low insider ownership tend to provide more extensive disclosures in their annual reports. In emerging markets, which are highly uncertain and sometimes corrupted, it is ineffective to rely on external corporate governance mechanisms. This study extends the current literature by providing an understanding of the nature of corporate governance practices in emerging economies (based on Sri Lanka) and the effect such practices have on company PA and PP agency costs. Based on agency theory, Manawaduge *et al*. (2008) analyse 45 Sri Lankan listed companies' ownership structure and firm financial performance variations. This study finds concentrated ownership has significant positive impact on Sri Lankan listed firms' financial performance. Their finding suggests concentrated ownership may ameliorate weaknesses in the institutional regulatory framework of the Sri Lankan market.

In recent literature, Sri Lankan scholars identify relationship between corporate governance practices and firm financial performance and agency costs. However, their findings are ambiguous. Heenetigala (2011) using a sample of 37 companies from the top 50 CSE listed companies analysed corporate governance practices and firm financial performance. Her study indicates a positive relationship between separate leadership, board composition, board committee and return on equity. However, the study uses descriptive analysis only. The finding is the opposite of Samarakoon (1999) who similarly uses descriptive statistics, showing a small number of shareholders with large shareholding controls creates concentrated ownership problem in corporate governance practices in Sri Lankan listed companies. Recent work by Coloambage (2007) analysed the debt to equity

ratio of Sri Lankan companies and found these were low compared to those in other markets. He suggested this was attributable to weak corporate governance practices and information asymmetry problems. These works pointed to the need to undertake the first robust empirical study of firm performance, agency costs and corporate governance mechanisms in listed Sri Lankan companies representing all industries except the financial sector. The financial sector is excluded because of the following reasons. I.e. nature of their liabilities that is different from those non-financial firms, applicable regulations (shareholding, profitability measures and liquidity assessment) from the financial sector are vastly different from firms in other industrial sectors.

A key conceptual, methodological and substantive contribution of this thesis is that it defines the concept of corporate governance mechanism as dynamic within a multicultural and ethnic diversity relationship in the company. In multicultural countries, specific community values may not reflect the value of the nation, because each racial group maintains its own ethnic identity and values. As such, it is important to acknowledge that the values may differ between the ethnic groups in a nation. In this thesis, ethnicity and gender diversity are an important explanatory factor, from the perspective of countries where there exists institutional positive discrimination, especially in terms of job offers and concessions such as grants and trade. The research findings may have implications for other developing countries that have a special interest in racial, gender and business polices, such as India, Malaysia, Pakistan, Fiji and Indonesia.

MNCs are powerful economic institutions in today's world. They make a major contribution to global production and to the distribution and flow of capital and resources. Since the mid 1980s, the Asia region and other emerging markets have

been good prospects for foreign direct investments (FDI) for large multinational companies.

"World Economic Situation and Prospects 2011" (2011) shows South Asia region experienced decline trend in FDI inflows since 2010. Therefore in South Asian countries, such as Sri Lanka, which are faced with the double challenge of restructuring for greater efficiency and creating a foreign investment-friendly environment, good corporate governance and a flourishing culture, are crucial for success. This study extends the current literature by providing an understanding of the nature of corporate governance practices in MNCs in Sri Lanka and the effect such practices have on company financial performance and agency costs.

In 2008, Sri Lanka reviewed the combined code of the UK, the NYSE code of the US, and codes of corporate governance of Singapore, Australia, Malaysia and India and introduced a new mandatory code of best practice on corporate governance. This is first empirical study to examine Sri Lankan listed companies' relationship between corporate governance practices and their financial performance after a new mandatory code of best practice on corporate governance was introduced in 2008 and the Companies Act No.17 from 2007. Since initial initiatives in the early 1990s, Sri Lanka has continued to progress in developing "best" corporate governance practices. This study analyses the relationship of corporate governance and company financial performance before and after corporate governance reforms in recent years. This is the first empirical study to provide clear evidence of the impact of corporate governance practices on financial performance in Sri Lanka before and since the reforms were introduced.

1.4 Limitations

Notwithstanding the findings, the current study does have limitations, which point to potentially fruitful further research opportunities. This thesis focuses on the corporate governance of Sri Lankan listed companies. Generalisations of these findings to other countries or other institutional forms need to done with caution. Moreover, this study excluded financial firms, because of their liabilities that are different from those of non-financial firms. Further studies could consider financial sector firms, corporate governance and agency costs relationship in Sri Lanka. Finally the current study used only some aspects of internal and external corporate governance mechanisms. Further studies could consider other aspects of emerging market corporate governance mechanisms, such as demographic factors of governance mechanisms.

1.5 Organisation of the thesis

The reminder of the thesis is organised as follows. Chapter 2 provides a review of the corporate governance literature that is relevant to the focus of this study. Based on prior literature, this chapter critically evaluates MNC subsidiaries' corporate governance mechanisms and LPCs' corporate governance mechanisms and their effect on financial performance and agency costs of companies. Chapter 3 provides an overview of the corporate governance environment in Sri Lanka with a discussion of corporate governance changes over time and the development of rules and regulations that have enhanced corporate governance practices in Sri Lanka. It also covers country institution characteristics and their effect on best practice governance, and the roles of various organisations which influence the standard of corporate governance practices in Sri Lanka.

Chapter 4 explains theory, hypotheses and empirical model development related in this study. First, it describes the research framework. Second, it describes the conceptual models used for hypotheses development. Third, the developments of hypotheses to be tested in this study in next chapter are discussed. Chapter 5 provides a methodological and econometric framework for this study. This chapter presents the data collection method, a definition of the variables used in the study, econometric methods and models for testing the corporate governance, financial performance and agency costs in Sri Lankan LPCs and MNCs.

Chapter 6 describes results of corporate governance practices, financial performance and agency costs in MNCs. This chapter provides a discussion on the empirical results for the governance practices in MNCs. Chapter 7 describes results of corporate governance practices, financial performance and agency costs in LPCs in Sri Lanka. Similar to chapter 6, this chapter also provides a discussion on the empirical results for the governance practices in LPCs and their effect on company financial performance and agency costs.

Chapter 8 provides the comparison of MNC subsidiaries and LPCs in Sri Lanka. Chapter 9 includes a summary and conclusion, and consideration of the implications of the findings. Finally a comment on further research opportunities completes this study.

1.6 Conclusion

Despite a wide-ranging corporate governance awareness programme being conducted by government and academic bodies in Sri Lanka as a response to the financial crisis that hit the emerging economies in recent times, the effectiveness of corporate governance practices in Sri Lanka remains unclear. Past studies indicate that the unsuccessful implementation of corporate governance

mechanisms is due to ignorance of country specific characteristics, organisational characteristics, legal, cultural and social factors of the country. Prior studies have focused only on specific features of corporate governance characteristics, which make it difficult to understand the actual relationship between corporate governance and company financial performance. The current study aims to extend prior research by adding evidence on corporate governance mechanisms, agency costs and company financial performance in emerging economies by including specific emerging economy characteristics. Furthermore, corporate governance mandatory principals (2008) and Companies Act changes are relatively new to Sri Lanka. Therefore, studies related to this field will help to enhance further development of corporate governance practices in Sri Lanka.

Chapter 2
Literature Review

2.0 Introduction

There is a considerable body of literature that relates to many aspects of corporate governance. This chapter provides a review of the corporate governance literature that is relevant to the focus of this study, beginning with an overview. The theories are fundamental to establishing the importance of investigating the firm financial performance/agency costs and corporate governance relationships. A review of the corporate governance literature emphasising different corporate governance mechanisms and corporate governance systems is provided. Furthermore, the literature review focuses on the impact of board size, board leadership, board composition, firm characteristics on corporate governance practices. Attention then focuses on MNCs and the rising importance of their corporate governance systems. Then, the focus turns to corporate governance in the Sri Lankan context, followed by the chapter conclusion.

To date, researchers have identified four different models of corporate governance; namely, outsider system (market-centric model), insider system (relationship-based model), transition model and emerging governance model. Countries such as the US and UK have market-centric corporate governance mechanisms. The main characteristic of the model is firm ownership structures that is highly dispersed and in developed capital market more legal protection of investors. In countries such as Japan and Germany where the relationship-based mechanisms are operating, there is less reliance on legal protection and higher reliance on large investors and banks. Russia and most of the Eastern European countries and other nations there are transitional corporate governance mechanisms and emerging mechanisms operating. The distinguishing features of

these economies are that ownership is highly concentrated, there is weak legal protection and capital markets are undeveloped. A number of studies address corporate governance and company performance in the US, UK and other developed markets (Mizruchi, 2004; Weir *et al.*, 2002). Very few studies address emerging economies. In developing economies firms are largely dependent on concentrated ownership and consistently suffer from low investor protection and weak legal rules and regulations. Corporate governance has been a central issue in developing countries due to the financial crisis and other corporate scandals around the world. Corporate governance and developing countries' economic development are fundamentally linked. Effective corporate governance systems promote foreign investors and the development of strong financial systems, which in turn have a positive effect on economic development and poverty reduction. Two major issues complicate empirical work on corporate governance. First, most corporate governance research suffers from endogeneity problems that are difficult to resolve (Love, 2010). The main problem is whether better governance leads to better performance or alternatively, that better performance leads to better governance. Secondly, many corporate governance empirical results can be interpreted as either equilibrium or out-of-equilibrium phenomena (Hermalin & Weisbach, 2003).

Multinational companies (MNCs) are becoming more important in the global economy as their foreign direct investments (FDI) have been remarkable in recent years. Recent studies find internationalisation strategies to be associated with information asymmetric, moral hazards and other systematic risks, especially when MNCs invest in emerging economies with weak legal protection, an uncertain business environment and cultural distances of the emerging economies (Carpenter & Fedrickso, 2001; Hokisson, *et al*., 2005). Therefore, the last

decade has seen increases in both policy and research devoted to corporate governance in MNCs. As a result of that, the OECD provides a guideline for multinational enterprises, a voluntary code (2010) for responsible business behaviour in a foreign country consistent with home country domestic laws. However, the bundle of efficient corporate governance mechanisms varies systematically with firm size and industry (Fama & Jensen, 1983). Moreover, many researchers find the efficiency of the bundle of governance mechanisms also varies systematically with the institutional structure at country level (Guillen, 2001; Guillen, 2000a; Suhomlinova, 2006).

The next section explains agency theory and other relevant economic and business management theories.

2.1 Theories related to the study

2.1.1 Agency Theory

Costs associated with a lack of goal congruence between two parties were brought to the fore by Ross (1973) and were further explored by Jensen & Meckling (1976). These costs are often referred to as agency costs and can occur between a principal and agent (PA) and also between principal and principal (PP). The majority of prior research has concentrated on the PA aspects of agency costs. An awareness of the PP component is relatively more recent.

Principal Agent Problem (PA)

A principal agent problem arises when agents pursue their own goals rather than the goals of the principal. It is the result of conflicting interests among managers and owners and asymmetric information (Chrisman *et al.*, 2004). In many instances, agents will possess more or better information than the principals about strategic and operational decisions and the results of those decisions (Ross, 1973). A consequence of this divergence of knowledge about the firm is the potential for

moral hazard and adverse selection to occur. The most significant problems which may arise from a principal-agent relationship in large firms can be categorised as information asymmetry, moral hazards and adverse selection.

Principal-Principal Problem (PP)

The PP cost has been articulated in the context of listed public companies in mature capital markets and has recently been tested in emerging markets. The PP problem is best described in a firm with one large shareholder and a fringe of small shareholders (Villalonga & Amit, 2006). In such a firm, the traditional PA agency conflict is alleviated due to the large shareholder's greater incentives to monitor the manager, but, a second type of conflict emerges as large shareholders exercise their substantial control and influence over firm matters and, as agency theory suggests, they have incentives to consume the firm's resources at the expense of the minority shareholders (Anderson & Reeb, 2004). It is important to note that the PP problem is more likely to overshadow the PA problem when the large shareholder is an individual or a family, as opposed to an institution. This is because an individual or a family will have incentives for both expropriation and monitoring, with a potentially greater incentive for expropriation. Families and individuals are capable of expropriating wealth from the firm through excessive compensation, related-party transactions, or special dividends (Anderson & Reeb, 2004). While families/individuals may pursue actions that satisfy their own personal goals and happiness, such actions may lead to poor firm performance relative to dispersedly owned firms and impact negatively on the firm's other owners, creating PP costs (Anderson & Reeb, 2004).

2.2 Stewardship Theory

Stewardship theory was developed by Davis *et al.* (1997) as a counter strategy to agency costs theory. This is a focused leadership philosophy adopted by the

owners of an organisation. A steward who improves the organisational performance generally satisfies most of the stakeholder group, because most stakeholders' interests are aligned with organisational performance. In the steward role, managers will make a decision in the best interests of the organisation and bring forward collective options rather than individualistic. The steward managers maximise the financial performance of the company and reduce the agency conflict. Hofstede & Hofstede (2004) posit that the relevance and application of management theories are different in developed and developing economies. Due to weak rules and regulations, weak organisational and institutional environment, an optimal 'steward' situation is hard to find in the Sri Lankan environment. On the other hand, more than 64% of Sri Lankan listed businesses are family businesses (Masulis *et al.*, 2009). Therefore, the possibility of CEO and managers behaving as" stewards" can exist.

2.3 Transaction Costs/Internationalisation Theory

"The transaction costs theory deals with the ideal transaction mode of corporations arguing that organisations choose this best possible mode between the extreme of market exchange and hierarchy, which leads to the lowest possible transaction and production costs" (Williamson, 1981, 1988, 1996). Transaction costs theory has been primarily introduced to developed economies where there are strong regulatory systems, social norms and mutual trust. However, emerging economies due to uncertainty and lower regulatory system increases transaction costs (La-Porta *et al.*, 1997). Moreover, transaction costs theory explains that a firm's environment is the main determinant of transaction costs (Williamson, 1996). Hoskisson *et al.* (2000) explain that where market transaction costs are high, the hierarchical governance model will enhance efficiency. Similar to other

emerging economies in uncertain environments and with an unstable institutional environment, Sri Lanka's transaction costs are high. However, a hierarchical governance model mitigates high transaction costs in Sri Lanka though they do have their own bureaucratic costs.

2.4 Institutional Theory

"Institutional theory emphasises that organisations, organisational field and nations are more than a means to produce goods and services - they are also social and cultural systems" (Judge *et al.*, 2008). Institutions can have a governance structure based on rules, norms, understandings and routings (March & Olsen, 1989) or as social patterns characterised by a standard sequence of interactions (Jepperson & Meyer, 1991). Institutional theory has risen in importance and popularity in late 1990s with the increase of MNCs and their subsidiaries. However, institutional theory is heterogeneous, and the core concept is related to organisations and their adoption of the institutional environment (Scott, 2001) .

2.5 Tokenism Theory

The effect of being a minority in a group is for the first time thoroughly discussed in Kanter (1977) who examined the workplace experiences of women working in a large industrial supply corporation. Kanter (1977) explains that "tokens" or members of a "token" group are likely to have negative experiences in the workplace as a result of their low numerical representation. She defines a token group (skew group) as a ratio of 85:15, where the majority members are labelled as dominants. Through observations and interviews with tokens, Kanter identified three consequences of being a few among the many. Assimilation, visibility, and contrast (Kanter, 1977). Assimilation implies that the tokens are forced into stereotypical categories defined by the dominants. In assimilation the tokens are

not seen for what they really are. Visibility implies that the tokens are highly visible and intensely scrutinised by others. Contrast implies that the dominant group feels threatened or uncomfortable around tokens and therefore boundary heightening and exaggeration by dominants emphasises the differences between tokens and themselves.

2.6 Resource Dependency Theory

This theory explains that firms acquire resources and capabilities, which enables them to achieve and uphold a competitive advantage (Barney, 1991; Barney *et al.*, 2001). Inside the firm, resource dependency theory suggests that units have different access to the resources and external environment. Units that control resources are critical for managing relationships between firms and their environments, and firm success depends on the efficiency of resource control strategies of units. Resource dependency theory gives three perspectives of why firms acquire other firms (Haleblian *et al.*, 2009). First, to reduce competition by joining well reputed organisations. Secondly, manage interdependence with either source of input and output. Thirdly, expand diversification and thereby reduce dependence on existing firm operations. The MNC is a scattered firm with subsidiaries; decentralised operations, and non-substitutable resources. In a developing country context, resource-based theory is important in internationalisation because, scholars have emphasised uncertainty, flexibility and the importance of knowledge acquisition in the uncertain environment in developing countries (Batjargal, 2003; Meyer & Lieb-Dóczy, 2003).

2.2 Corporate Governance mechanisms

Corporate governance has become a dominant policy issue in developed market economies and transitional economies. A fundamental plank for a corporate governance system is to address agency issues. The expansion of globalisation and MNCs gives rise to new challenges, in particular, how to deal with the many cross border issues. This section summarises empirical studies that have been based on agency costs and financial performance based on corporate governance mechanisms. Blair (1995) studies corporate governance systems in the US suggesting the term corporate governance is made-up of the role of the board of directors with concern for shareholders' rights and privileges, and executive decisions. An extension to this view is proposed by Morin & Jarrell (2001) who argue that corporate governance acts as a framework to safeguard and control the relevant players (managers, employees, customers, shareholders, executive directors/managers, suppliers and the board of directors) in the market. Similarly, Monks & Minow (2001) point out that corporate governance is the mechanism which is used by the board of directors to improve the value of the shareholders by controlling the managers' actions. The literature of corporate governance distinguishes between internal corporate governance mechanisms and institutions that are external to firms. Capital markets are external; an internal example would be the board of directors. Consequently, corporate governance mechanisms are an interaction between the institutional structures and individuals who immediately or ultimately impact on the decision making process of the companies. This should include an alignment of the interests of shareholders, managers and stakeholders. However, previous research has focused mainly on developed economies. There is very little literature available in emerging economies on corporate governance, agency costs and company financial performance. This

tends to imply that the findings from developed markets are automatically applicable to other environments. Therefore, most of the developing economies do not get the advantages of corporate governance practices. Governance practices and policies in South Asian countries especially need to address cultural and general norms, uncertain capital markets, the pyramid structure of companies and laws and regulations of individual countries. Despite the shortcomings, previous literature has come up with many possible governance mechanisms that companies can use to mitigate agency costs and increase financial performance. This thesis will discuss the alignment of each mechanism, external and internal, for local stakeholders and local managers, the overseas headquarters and shareholders.

2.2.1 The Board

The board is typically considered a shareholder resource and should be motivated to ensure managerial performance. Most firms are required to have a board that meets the requirements of state laws, regulations and stock exchange governance. Hermalin & Weisback (2003) explain that boards are a market solution to an organisational design problem and the board helps to reduce agency problems in large organisations. Zahra & Stanton (1988) argue that boards are the most important and valuable instrument of corporate governance as directors can maximise shareholder wealth through the effective control of managerial activities.

In the governance process, boards of directors play varying roles. According to Nikomborirak (2001), the first major function of boards of directors is bonding and monitoring performance. Using existing financial and accounting reports, internal directors can make decisions without concern for information asymmetry.

The board of directors ensures the "quality" of information. The second major function of the board of directors is to create the separation of decision making by management and decision control. Existing literature also suggests that highly diversified boards with different characteristics, qualities and experienced individuals tend to be more creative, innovative and have quality decision making processes. Other than a monitoring function, Coles *et al.* (2008) suggest that boards play an important role in advising top management. This is supported by Adams & Ferreira (2008) and Adams & Meharn (2005) who describe the advisory role of board. Most studies that examine board composition look cross-sectionally at firm level factors associated with boards. However, this cross-sectional analysis of board ignores endogeneity. Denis *et al.* (1999) show evidence that board size, board independence and insider ownership is jointly and endogenously determined. Numerous studies have examined the determinants of board composition, but these studies tend to focus on firm-specific characteristics and ignore important social, cultural, religious and ethnic factors that may also affect board composition. Moreover most existing literature on boards of directors and firm performance focuses on Europe and other developed markets. The purpose of this study is to examine the cultural, social, religious and ethnic factors that can affect the composition of board directors and is more related to the developing market.

Board size and financial performance

In late nineteen's the size and the structure of corporate boards has received much more attention in late nineteen's, fuelled by the financial crisis and business failures of large companies. Board monitoring and controlling activities can increase as more directors are added. However, some empirical studies show a robust negative relationship with board size and company financial performance.

Jensen, (1993) and Lipton & Lorsch (1992) suggest that larger boards can be less efficient and less effective than smaller boards. Further, they explain that when board size is increased the agency problem positively significantly increases within the board. Yermack (1996) studied 452 large US firms from 1984 to 1991 and found a negative relationship between board size and Tobin's Q value and presents evidence that smaller boards are more effective than larger boards. Furthermore, he explains smaller boards achieve higher market value. Grinstein & Hribar (2004) also show evidence for the superiority of smaller boards in their analysis of mergers and acquisition bonuses. However, Coles *et al*. (2008) find a positive relationship with board size and firm financial performance (Tobin's Q) ratio in complex environments. In complex environments, larger boards are usually more powerful than smaller boards and have necessary expertise in their composition. Furthermore, they explain that CEOs of diversified firms, larger firms and high debt firms need more advice and require larger boards with expertise managers. Larger boards usually help to create relationships between corporations and their environments, provide guidance in strategic decision making and play a crucial role in creating corporate identity (Pearce & Zahra, 1992). Carter *et al.* (2003), posit larger boards have a higher proportion of females and minority directors and those firms perform better as measured by Tobin's Q or ROA. When a company's board size is smaller than average, it is more likely to increase its size.

Prior studies provide evidence that the optimal board size for US firms is eight to nine directors (Denis *et al.*, 1999; Gertner & Kaplan, 1996; Holderness *et al.*, 1999; Jensen, 1993). According to Australia and New Zealand findings in top 50 companies, 86% have between 6 to 11 directors ("Board of Directors Study in Australia and New Zealand", 2007). Consistent with Lipton & Lorsch (1992) who

recommended optimal board size as seven or eight. Hewa-Wellalage & Locke (2011) find in Sri Lankan listed non-financial companies average board size is 7.6.

2.2.2 Non-executive directors

From a legal aspect, the responsibilities of executive and non-executive directors are the same. However, executive directors have an active role in leading the company and its affairs for the best interests of stakeholders. The non-executive directors play supervisory and balancing roles, controlling the activities of the executive directors and the board in general. Policy statements, namely the Cadbury Report (1992), the Greenbury Report (1995) and the Hampel Report (1998) emphasise the board monitoring responsibility of non-executive directors. Non-executive directors help to ensure managerial accountability of shareholders (Young, 2000). Therefore, increasing trends of non-executive directors can be observed in last ten years. As an example, UK board non-executive directors' percentage changed from 33% in 1990 to 45% in 1996. The relationship between company financial performance and non-executive directors is widely debated and controversial. It is preferable for a board to have a balance of executive and non executive directors. Non-executive directors' positions are usually part time; they often sit on more than one board, and are typically paid less than executive directors (Davies, 2002; Morack *et al.*, 1988). In last two decades regulation has emphasised the importance of board independence and non-executive directors on company boards. The Higgs Report (2003) suggests that non-executive directors should comprise the majority of a board. Holmstrom & Kaplan (2003) outline similar requirements for US boards. Australia and New Zealand also show strong support for non-executive directors' presence on boards. According to the 2007

data, Australian and New Zealand companies with revenue greater than $10 billion have 82.6% non-executive board members and companies with revenue less than $200 million have only 69.1% non-executive board members ("Board of Directors Study in Australia and New Zealand", 2007) . The investors' becoming more aware of non-executive directors on corporate boards has increased in recent years in Sri Lanka. According to the corporate governance survey in Sri Lanka, over 90% of participating companies had non-executive directors on their boards and among them 87% considered that the balance between executive and non-executive directors was appropriate (*Corporate Governance Survey in Sri Lanka 2007*, 2007). Sri Lanka's code of best practice on corporate governance (2008) has as its fifth mandatory principal the appointment of non-executive directors on the board. According to that code, a Sri Lankan listed companies' board should include at least two non-executive directors or such number of non-executive directors' equivalent to one third of total number of directors, whichever is higher. Further, to avoid individual or small groups of people dominating the board, the code states that when CEO duality is present on the board, non-executive directors should be in the majority.

2.2.3 Insider ownership

It is now well understood that insider ownership has important implications for corporate governance. One solution for the moral-hazard problem is to give shareholders control of management, thereby helping to align managers and shareholders' interests (Fama & Jensen, 1983; Jensen & Meckling, 1976). However, an optimal level of insider ownership is determined by firm size, industry, investor protection levels and performance of the firm (Hu & Izumida, 2008). Previous studies have found mixed results on the relationship between

insider ownership and company financial performance. However, McConnell & Servaes (1990) identified an inverse U-shape relationship between insider ownership and Tobin's Q. Short & Keasey (1999) found a cubic relationship. Nevertheless, a number of studies failed to detect any evidence that insider ownership affects financial performance (Demsetz & Villalonga, 2001; Loderer & Martin, 1997). The possible explanation for these different results is that some studies were not controlled for the endogeneity of the insider ownership variable and for endogeneity due to fixed effects. Demsetz (1983) and Demsetz & Lehn (1985) argue that insider ownership and company financial value have endogenous effects and that there should be no systematic relationship. Controlling the endogenous effect of insider ownership and company financial performance, Beiner & Schmid (2005) find a positive relationship between insider ownership and firm value in a Swiss context. Using 648 German firms Kaserer & Moldenhauer (2008) also find a positive relationship between insider ownership and stock performance. Insider ownership may improve company performance because working owners are less inclined to divert resources away from firm value maximisation by decreasing monitoring costs based on the convergence of interest hypothesis (Fama & Jensen, 1983; Jensen & Meckling, 1976; Shleifer & Vishny, 1996). Recent studies by Ang *et al.* (2000) and Singh & Davidson (2003) confirm higher insider ownership reduces the misalignment between shareholders and managers and lower agency costs in firms. McKnight & Weir (2009) find some evidence that higher managerial ownership reduces company agency costs, consistent with Henry (2010). Further, they explain higher personal shareholding by directors bonds them to the company and acts as agency costs' mitigating method in listed companies.

2.2.4 Board diversity

There are two ways to describe board diversity: the observable diversity (tangible) and non-observable diversity (cognitive). Board directors' age, gender and ethnicity belong to the tangible diversity group and board directors' technical skills, experience, perceptions and education belong to the cognitive category. However, there is no single measure of board diversity ("Diversity on board of directors", 2009). There have been number of studies of aspects of board diversity on board membership and firm performance. Some of these studies suggest a positive relationship between board gender, racial diversity and firm financial performance (Carter *et al.*, 2003; Erhardt *et al.*, 2003). Watson *et al.* (1998) suggest diversity increases company innovation and creativity and therefore becomes a competitive advantage. Using cognitive diversification factors, Simons *et al.* (1999) argue that both educational level and cognitive diversification will positively affect organisational performance. Siciliano (1996) using 260 organisations found that occupational diversity of board members increases the social performance of companies. Moreover, board diversity can further explain using behavioural theory of the firm and signalling theory. Based on behavioural theory, a diversified board provides more comprehensive information and has quick decision making (Cyert & March, 1963). Amason (1996) found that heterogeneous groups have higher quality decision making than homogenous groups because the breadth of information availability in heterogeneous teams is higher than in homogenous groups. For example, Rodan & Galunic (2004) find that heterogeneous managerial knowledge from network structure significantly positively affects innovation and firm performance.

Based on signalling theory, board diversity signals to investors the robustness of its corporate governance practices and quality of the firm. This is confirmed by

Turban & Greening (1997) who said "diversity issues are silent messages about firms". In line with that, Fondas (2000) explains that gender and racial diversity on boards signals the company is well positioned to serve diverse markets. In recent research, Miller & Triana (2009) explain board diversity signals the following of cultural norms, hence boosts firm financial reputation and firm value. However, some studies find a significant negative relationship between board diversity and firm financial performance. Hambrick *et al.* (1996) find heterogenous top management group underperformance when compared with an homogenous group. They explain that due to the heterogenous group being slower in their communication and decision making processes; they negatively affect the company's competitive edge. This is consistent with Knight *et al.* (1999) who finds that demographic diversity to be negatively related to agreement in decision making. Hence diversity slows down the decision making process. Miller & Triana (2009) using Fortune 500 companies found there is negative relationship between demographic diversity in the boardroom and firm reputation and innovation. In conclusion, though some empirical studies find a positive relationship between board diversity and firm financial performance, high board diversity increases communication problems. Hence, diversity increases agency conflicts in companies. Moreover, when firms are operating in high uncertainty environments this communication problem worsens agency conflicts among managers and shareholders and loses a company's competitive edge.

2.2.5 Female directors

In recent years, board gender diversity has become the subject of number of empirical studies, though the results are mixed. Erhardt *et al*. (2003) find that the percentage of female directors is positively related to larger US firms' two

accounting measures; return on assets and return on investments. In addition, recent research in the UK finds that the presence of at least one female board director reduces company bankruptcy costs (Wilson & Altanlar, 2009). Jurkus *et al.* (2008) provide evidence that the proportion of female directors on boards is related to firm financial performance as measured by Tobin's Q, and agency cost measured as free cash flow. Their findings suggest that the positive effects of gender diversity exist only in women-exclusive work environments, suggesting that the benefit of gender diversity would be more effective in environments where this resource is relatively scarce. Similar to the above result, Adams & Ferreira (2008) posit gender diversity and firms' financial performance has a significant positive relationship when measured as Tobin's Q and ROA. However, they find gender diversity on a board of directors has a positive effect only when firms have a weak governance structure. Most of the non-US studies failed to find any significant relationship between the proportion of female board representation and company performance.

Marinova *et al.* (2010) observed 102 Dutch and 84 Danish firms and found a non significant relationship between firm financial performance and female board representation. This sample consisted of at least 40% of female directors in the boardroom. Their finding is in line with Rose (2007) who employed Danish listed firms and found female board directors had no impact on firm performance. Further, Smith *et al.* (2006) employed a large Danish data set and failed to find any significant relationship between female board directors and company accounting performance measures. In cross country analysis, Randoy *et al.* (2006) find no significant effect of gender diversity on stock market performance or on return on assets in Denmark, Norway and Sweden. Similar results were

found by Du-Rietz & Henrekson (2000) who posit no significant relationship between women board directors and Swedish listed firm performance.

While bringing benefits, female board members may also bring costs to a company. Jude (2003) suggests that companies with female directors tend to perform less well than companies with all male boards. Using an index compiled by the Cranfield School of Management, she reports that after female board directors were recruited, of the top ten companies in the index, six underperformed. But rather than the appointment of female board directors being responsible for the drop in company financial performance, it is equally possible that the company's poor performance could be reason for appointing women to the board. Therefore it is important to consider circumstances surrounding female directors' appointments and not to focus solely on female board directors' company performance. In addition, Adams & Meharn (2005) argue that when firms operate in a riskier environment, homogenous boards perform better than heterogeneous firms.

2.2.5 Minority directors

The competitive global market provides a compelling business argument for more diverse boards. The one main reason for a minority to have larger representation is because the homogeneity of corporate boards can raise significant ethical, economic and social issues. Board internationalisation is another reason for adding more non-national directors (minority directors). Due to globalisation, in 2009 European boards averaged 23% non-national directors, an increase of 11% since 2008 ("Corporate Governance Report 2009: Boards in Turbulent Times", 2009). Minority directors promote more effective global relationships. According to the Wang & Clift (2009), ethno-cultural diversity makes corporate leaders more

sensitive to other cultures especially in business internationalisation. Cultural differences, ethnicity and demography differences affect business practices, organisational structure, account disclosure and audit practices (Che-Ahmad & Houghton, 2001; Haniffa & Cooke, 2002; Yatim *et al.*, 2006). As an example, Johnson & Mitton (2003) and Gomez & Jomo (1997) explain Malaysian ethnic-favoured firms have poor corporate governance practices and higher agency costs. Carter *et al*. (2003) studied Fortune 1000 companies and found companies with two or more minority board directors perform better than companies with no minority directors. Crano & Chen (1998) posit ethnic diversity of board directors increases the decision-making quality of the company and strategic analysis. Further, they explain that the resource–based theory of competitive advantage and strategic analysis is another benefit for introducing ethnic diversity to a corporate board. Ethnic diversity increases board independence, because people with different cultural backgrounds raise more questions that would not come from homogenous group directors (Carter *et al*., 2003; Laughlin, 1992). Using Malaysian top 100 non-financial companies listed on stock exchange over a six years, Marimuthu (2008) explains that ethnic diversity enhances firm financial performance of companies. Furthermore, Nemeth (1992) finds that minority viewpoints improve the quality of thought, performance and decision making. Moreover, Cox (1994) posits culturally diverse groups make better decisions than their homogenous counterparts. Richard (2000) found ethnic diversity affects three different ways for determining firm performance, namely increased firm productivity, return on equity and market performance. Further, Cox (1994) posits women and racio-ethnic minorities bring insights and cultural sensitivity that assists in reaching different market segments as companies enter new markets.

2.2.6. CEO duality

Since 2000, hundreds of companies converted to a non-CEO duality structure, while few companies converted to CEO duality (Chen *et al.*, 2008). With the outbreak of large US corporate scandals, CEO duality received more attention, due to powerful CEOs abusing their terrific power by expropriating from the company assets and shareholders. Most of the corporations increased pressure on regulators to separate CEO and chairman roles. According to the Faleye (2007), the number of US shareholders calling for non-duality roles increased continuously from 3 in 2001 to 32 in 2004. Faleye (2007) also finds the proportion of firms switching from non-duality increased from 55% in 1999 to approximately 70% in 2003. Overall, 84% of European companies separated CEO and chairman roles. In Australia, Germany, Netherland, Sweden and the UK, the role was always distinguished ("Corporate Governance Report 2009: Boards in Turbulent Times", 2009). The Sri Lankan mandatory code of best practice, second principle, emphasises the importance of balance of power and authority in a company, so that no individual has unfettered powers of decision. Further, that code mentions that if there is CEO duality in a company, non-executive directors should comprise the majority of the board to provide better board balance.

There are two different theories on board leadership structure. Based on the agency theory, Fama & Jensen (1983) suggest that CEO duality hinders a board's ability to monitor management and therefore increase the agency problem. As a result, CEO duality increases management entrenchment and reduces board independence (Finkelstein & D'Alene, 1994; Rhoades *et al.*, 2001). Conversely, stewardship theory argues that managers are inherently good stewards of company resources (Donaldson & Davis, 1991a; Donaldson & Davis, 1994). They explain

that CEO duality creates strong leadership and a clear sense of strategic decision. Splitting roles may create high communication costs and decision making processes can be less effective and less efficient when there are two leaders. Evidence about the relationship between CEO duality and company financial performance is mixed and inconclusive. The empirical evidence shows there is no optimal board leadership structure, and company models depend on their own organisational characteristics and business environment (Finkelstein & D'Alene, 1994; Rhoades *et al.*, 2001). Further, Finkelstein & D'Alene (1994) explain that when the company shows low performance and CEO power is informal then CEO duality is ideal. Recent studies such as Aguilera *et al.* (2008) explain CEO duality and firm financial performance is related to institutional environments. Elsayed (2007) explains firm financial performance is related to the industry as well. On the other hand, board vigilance is negatively associated when CEO power is informal and company performance is high. Boyd (1995) explains CEO duality creates more advantages when a company operates in a complex and dynamic environment with resource scarcity. Further, Faleye (2004) explains that when companies operate in a complex environment, strong CEO reputation, higher managerial ownership and small board size are more likely to have a dual role CEO. In the Australian context, Kiel & Nicholson (2003) posit non-CEO duality is common in larger firms with larger boards and CEO duality exists in smaller companies. Therefore company size and environment has a huge impact on CEO duality structure.

2.2.7 Institutional Ownership

Traditionally, institutional investors are not directly involved in corporate governance; they exercise their power in terms of buying and selling in the

marketplace (Bathala *et al.*, 1994). In recent years, the role of institutional investors has changed significantly from inactive investors to effective monitors with collective capacity in the delivery of corporate governance (Tasi & Gu, 2007). Higher institutional ownership is always associated with higher board remuneration and incentive-related executive compensation, and it reduces the likelihood of CEO duality on the board (Henry, 2010). Unlike boards of directors, institutional investors have increasingly used their power to pressure managers to come into line the shareholders' interests (Cornett *et al.*, 2007). Also, Cornett *et al*. (2007) explain institutional shareholders have more opportunity, resources and ability to monitor and influence managers. Furthermore, in recent decades institutional ownership role has expanded in monitoring, disciplining and influencing managers from passive investors. The dramatic increase in institutional ownership and its influence on corporate governance can be observed by the growing volume of equity controlled by institutions. Hayashi (2003) shows that in 2003 US estimated institutional ownership was responsible for 60% of all outstanding equity in the country, compared to 8% in 1950.

Shleifer & Vishny (1997) provide an "efficient monitoring" hypothesis on the relationship between institutional ownership and company value. As shareholders of the company, the institutional owners' primary objective is profit maximisation. In contrast with family or individual owners, institutional owners are multiple owners and can themselves provide clear examples of good or bad corporate governance (Belev, 2003). Navissi & Naiker (2006) find institutional owners have greater incentive to monitor management in a New Zealand context. Using 1,914 US companies, Clay (2001) finds significant positive relationship with company performance and institutional ownership percentage, where a 1% increase in institutional ownership leads to 0.75% increase in company financial

performance. Similar results were found by Lin (2010) who posits that when the institutional ownership is higher than 81.2% in Taiwanese companies, firm values start to increase. Hartzell & Starks (2003) find that institutional ownership mitigates agency costs between shareholders and managers, because it increases the monitoring. In line with the above findings, Tasi & Gu (2007) posit a negative agency costs relationship between institutional ownership and agency costs in the North American casino industry. Similar to that Henry (2010) employed Australian listed companies' data and found significant negative relationship with agency costs and institutional ownership.

Conversely, Chaganti & Damanpour (1991) and Lowenstein (1991) find little evidence of positive institutional ownership and firm performance. In line with above findings, Seifert *et al.* (2005) fail to find significant relationship with institutional ownership and firm performance in a cross country study. Pound (1988) explains institutional ownership increases the conflict of interest in shareholders and managers. From an agency perspective, McKnight & Weir (2009) employed UK listed companies' data and suggest institutional ownership does not mitigate the agency problem in UK companies and is not effective in monitoring board actions. This finding is in line with Doukas & Pantzalis (2001) who find a negative relationship with institutional ownership percentage and the financial performance of the company. This may be when institutional investor shareholdings are high; shares are less liquid and therefore need to be held for long periods.

2.2.8 Foreign Managers

The growth of MNCs, particularly from 2006, has resulted in an increased awareness of the use of foreign managers in their foreign subsidiaries. According

to the latest research by Spencer Stuart, the percentage of foreign board members at the UK's largest companies has risen by one third in the 2010. Further, he shows that "foreign directors now make up 32% of boards in UK's 150 largest quoted groups, compared with 24% in 2010" (Smith, 2011). The most difficult situation is appointing foreign managers in developing countries because cross–cultural adjustment problems are likely to increase where there are high levels of cultural difference. Boyacigiller (1990) analysed the US nationals in overseas professional positions in a major US bank with 84 branches in 43 countries and posits the informal roles played by foreign managers in mechanism of control. Further, he suggests foreign success is determined by the cultural distances between home and host country, political risk and the uncertainty level of the home country. To reduce the foreign failure rates, it is required to plan effective selection criteria for foreign managers. This because, some foreign directors worked in UK companies are appointed solely, they represent investors. The second challenge is to provide professional counselling to foreign managers and their families, which should also address compensation and benefits issues, reassignment issues, legal issues, health, safety, and security issues.

2.3 Debt, corporate governance and firm financial performance

The literature recognises that debt plays a vital role in corporate governance and finance for mitigating agency conflict. Debt is considered one of the most effective governance mechanisms for a corporation because debt can be use for monitoring and evaluating managerial performance (Agrawal & Gort, 1996). According to the prior literature, debt can play two different roles in the governance of corporations. In one aspect, debt can be used to reduce agency costs by aligning the interests of shareholders and managers. This is known by

Jensen (1986) as "control hypothesis" for debt creation. The other aspect is called "expropriation hypothesis" (Bertrand *et al.*, 2002; Johnson *et al.*, 2000). A company's expropriation ability is increased with the increase in inside shareholders' voting rights, which increase through the proportion of debt relative to the equity in capital structure (Stulz, 1990). However, higher debt is always related to the increased threat of bankruptcy. However, Graham & Harvey (2001) and Bancel & Mittoo (2004), based on US and Europe data, posit the optimal mix of debt and equity financing is crucial to company success.

Previous empirical studies have mostly confirmed that the role of debt in corporate governance reduces agency costs in a company. Debt reduces the "over investment" problem in companies, which in turn reduces the market value of the company and negatively affects shareholders' value. Debt in a capital structure reduces managerial discretion over free cash flow, because a large part of the company cash flow is needed to pay back debt holders. Therefore debt tends to reduce the take up of projects with negative net present value (NPV) and reduces discretionary power of managers. Furthermore, debt is used as a self control mechanism by managers to create an in-built discipline mechanism to protect company reputation and tenure. Sarkar & Sarkar (2005) explain that debt acts as an indicator to the market that management is committed to profit maximisation which leads to higher market valuation of the firm. This creates further benefits for management by decreasing the profitability of takeover and reducing the costs of capital. Berger *et al.* (1997) posit management entrenchment and capital structure have a significant relationship. Further, they find higher levels of debt in companies where CEO entrenchment is low, have had short tenure, and companies' plans are tightly linked with company financial performance. However, some studies show negative aspects of debt as a corporate governance

mechanism in a company. Faccio *et al.* (2001) explain that higher debt is associated with higher bankruptcy costs for a company. Novaes & Zingales (1995) suggest the possibility of debt and higher agency costs. They further explain that conflict can arise between managers and shareholders because the choice of preferred debt differs between managers and shareholders. The next conflict arises when managers increase debt beyond the "optimal capital structure" to increase voting power which reduces the likelihood of takeovers (Stulz, 1990). Further, Myers (1977) explains that high levels of debt in the capital structure will prevent managers from taking up positive NPV projects in future and create underinvestment problems. However, Agrawal & Knoeber (1996) didn't find any significant relationship with debt and company financial performance in US context. Consistently, De-Jong (2002) finds similar results in Dutch corporations and Tian (2005) finds no evidence in Chinese corporations.

The effectiveness of debt as a disciplinary mechanism, or for mitigating the expropriating power of debt is dependent on the existence of a well developed capital market, financial intermediates and the legal protection offered by the country. In line with above statement, Day & Peter (2004) argue that the effectiveness of debt through governance depends on the costs and equity of enforcement debt contracts, the legal environment and an unbiased judiciary system.

2.4 Parent location, corporate governance and firm financial performance

Multinational corporations use a range of corporate strategies to manage international operations. These strategies include host country corporate governance mechanisms, cultural and general norms and the capabilities and knowledge of the subsidiary environment. According to Bartlett & Ghoshal

(1995), there are four types of international strategies MNCs can follow. These strategies may vary depending on where a MNC's headquarters are located. Using 283 subsidiaries, Ambos & Birkinshaw (2010) investigate the headquarters' influence in subsidiary performance. They suggest subsidiary performance is significantly related to the quality of strategic decision making ability of each MNC, and the attention it devotes to the subsidiary. They explain that performance and sub-unit independence have a positive relationship. MNC headquarters provide different degrees of freedom for fund allocation and decision making rights to their subsidiaries. Ciabuschi *et al.* (2010), using 141 companies, study knowledge transfer performance. They find a positive impact on performance and allocating decision making rights and funds to subsidiaries. In recent studies, Zeitun & Gary (2007) explain social, economic and cultural factors are reshaping the country corporate ownership and this unique structure will determine corporate governance mechanisms and corporate performance. Regardless of the home country environment, most MNC subsidiaries from market centric economies more or less follow the headquarters' corporate governance mechanism. However, this model leads to higher agency costs, because managers' interests are not in line with shareholders'.

If an MNC has cultural knowledge of the country where the subsidiary operates then the subsidiary is likely to be more effective. Li *et al.* (2001) employed 898 firms in China, including joint ventures established by overseas Chinese and firms from Western cultures, and found culture plays an important role in subsidiary performance. Further, they find differences between joint ventures from East Asian countries and Western countries. First, they explain East Asian collaborated Chinese firms are most likely to take first mover advantages than Western cultures collaborating with Chinese firms. Secondly, Western firms

invest more in technology equipment than East Asian firms. Therefore MNC subsidiaries form Western countries enjoy the advantage of pioneering technology adaptation more than Asian MNC subsidiaries. Thirdly, subsidiaries from East Asian countries have relatively higher debt to assets ratios than Western subsidiaries.

2.5 Firm size, corporate governance and firm financial performance

Based on the PA theory, larger firms have high agency costs because it is harder to align manager and shareholder interests. Henry (2010), using Australian company from 1992 to 2002, finds a positive relationship between free cash flow and firm size. This increases the PA agency costs in larger firms. Therefore, larger firms select stricter governance rules to avoid agency problems. Company resources and ability are other factors that influence the adoption of quality corporate governance mechanisms. Guillen (2000) suggests that in Korea, larger firms have more human resources and the financial capability to adopt advanced governance mechanisms and he also suggests firm size has a stronger positive effect on the corporate governance index. The effect of firm size on corporate governance is ambiguous (Klapper & Love, 2003). Based on emerging markets, Cho & Kim (2003) find a positive relationship between board independency and firm size. Additionally, they explain firm size and the percentage of outside directors on a board have a positive relationship in Korean companies. Using 3SLS regression, Beiner *et al.* (2004) show a positive relationship with firm size and corporate governance index value. Using the Standard & Poor's rating, Dunerv & Kim (2002) posit a positive relationship with firm size and S & P ratings. They also explain larger firms tend to attract more attention by governments and greater scrutiny by the public. Consistently, Black *et al.* (2003)

explain a positive relationship between corporate governance index and firm size. Malaysian evidence shows a significant positive relationship between corporate governance ratings and firm size, which indicates that larger firms have more apparent corporate governance mechanisms (Ariff *et al.*, 2007). They further explain that high resources and reputation in larger firms leads to adopting better governance mechanisms than smaller firms. This is in line with Guriev *et al.* (2003) who find a significant positive relationship between governance index and firm size, due to the existence of fixed costs and resources in implementing corporate governance mechanisms. Ettredge *et al.* (2010) study the effect of firm size and corporate governance quality and suggest smaller listed firms lack the accounting skills, resources and qualified personnel to deal with some disclosure requirements compared to their larger listed counterparts. This finding is in line with the final report of the US Securities and Exchange Commission (2006). Ho *et al.* (2006) study the relationship between firm research and development (R & D) investment and firm size. They find strong evidence that larger firms have comparatively high investments for R & D.

Conversely, Gompers *et al.* (2003) used 1500 firms to construct a governance index as proxy for shareholders' rights and argue larger firms have fewer shareholders' rights, higher capital expenditure, larger corporate acquisition and poor governance status. This study is in line with Brown & Caylor (2004) who find a negative relationship with firm size and corporate governance mechanisms. Acs *et al.* (1994) explain smaller firms' ability to benefit from R & D is relatively higher and more innovative than larger firms.

2.6 Firm age, corporate governance and firm financial performance and agency costs

Corporate governance is ultimately concerned with the decision making process, procedures, and attitudes that assist a business in achieving its objectives. Consequently, as the firm seeks to improve the professionalism and sustainability of its activities, it needs to give greater thought to issues of governance. Agrawal & Gort (1996, 2002) explain mature firms have more knowledge, more abilities and more skills. Mature firms acquire more knowledge and skills through their day to day activities and hire and train human capital. The maturity of businesses is negatively correlated with PP costs (Hewa-Wellalage & Locke, 2011). This suggests that longer-life businesses are not only profitable in a sustainability sense but also, exploitation by senior owner(s) is not so apparent.

However, maturity can have adverse effects on firm financial performance. The main disadvantages are the organisational rigidities and inertia that maturity can bring (Loderer & Waelchli, 2010). Tripasa & Gavetti (2000) posit mature firms will reduce flexibility of management adaptations and are reluctant to change. The behavioural aspects, such as seniority rules, rules of conduct and rigid hierarchy, also lessen performance in mature firms. According to Loderer & Waelchli (2010), one of the more prominent aging effects in high-tech firms is that they are more exposed to competitive threats. Old machinery and equipment and declining market share and market growth all lead to a decrease in productive efficiency and profitability compared with younger firms in a similar industry. Rent seeking behaviour is persistent in older firms because corporate governance allows it (Loderer & Waelchli, 2010). Yermack (1996) shows mature firms have larger boards which favour rent seeking behaviour or quasi-rents. In older firms, the manager-worker relationship is stronger and is maintained over a longer time

than in younger firms, therefore in mature firms labour growth is slower than in young firms (Bertrand & Mullainathan, 2003). All the above mentioned factors lead to reduced performance by mature firms. The relationship between PA agency costs and maturity of a firm is positively significant, indicating that agency costs increase with firm age (Hewa-Wellalage & Locke, 2010). However, recent studies by Ariff *et al*. (2007) find a non significant relationship between firm age and corporate governance ratings in Malaysia. This is in line with Ang *et al*., (2000), who find a non significant relationship with firm PA costs and firm maturity.

2.7 Firm operating industry and financial performance and agency costs

Firm financial performance can be evaluated by many parameters. However, firm financial performance is highly dependent on the nature of the market in which a firm competes. How the industrial structure impacts on firm financial performance has been extensively studied in prior literature (Froeb & Geweke, 1987). In early years, Bain (1951) explained that industry structure impacted on firm profitability and firm financial performance. Firms in high concentrated industries with high entry barriers have high profit, because restricting output increase prices and concentrated firms reduce coordination costs. Consistent with the theoretical argument of industry structure conduct performance Porter (1990) argues that a firm's competitive advantage is derived from the industry in which the firm operates and its position in the industry. Moreover, Schmalensee (1985) examined accounting profit of American manufacturing firms and found that the industry effect accounted for about 20% of variations in business-unit profits. Hence, he concludes, industry plays a significant role in determining firm profitability. Furthermore, Gibbs (1993) finds that industry conditions affect a

firm's investment opportunities and excessive returns are influenced by a firm's competitive advantage. Hence, firm financial performance can be determined by the firm's operating industry.

2.8 MNCs and rising importance

The role and importance of MNCs is now established as part of the global economy. MNCs are companies that operate through subsidiaries or have investments in more than two countries. This form of business has become more commonplace with the practice of globalisation and the global economy. As the number of MNCs increases, the connection of various practices among the companies and countries to include the functional integration of cross-border economic and financial activities has altered to accommodate the role of corporate cross-national connectedness. According to the various economic indicators, MNCs started to become an important economic power in the world during the early 1970s. At that time MNCs were graded as "new actors" in the world economy, and they have steadily become more significant (Keohane & Nye, 1975). As a result, many of the barriers to international movement of goods, services, capital and technology have been removed, particularly after the end of the cold war in 1990, and MNCs have become the most powerful institute in the world through booming growth and expansion. While MNC headquarters are mainly based in developed countries like the USA, UK, Canada and Australia, their resources, key markets and productive facilities are often domiciled in emerging markets. According to the International Finance Corporation (IFC), inflows of FDI to the emerging markets grew by an average of 23% a year between 1990 and 2000. As a result of increasing the number of multinational companies and their subsidiary activities, the parent-agent relationship is also

critical to firm success and minimizing the agency cost handling the firm operations is vital.

2.9 Corporate Governance in MNCs

The main inspiration behind the modern economy is MNCs, which account for a considerable amount of world GDP and trade. However, early this decade numerous company scandals appeared. MNCs collapsed due to poor governance. Therefore, re-established trust and confidence is needed to improve corporate governance and corporate law standards. This is vital for MNCs because they are no longer only bound to legal, ethical, cultural and economic regulations in their origin country. Similar to the shareholders and managers' corporate governance relationship, parent- subsidiary corporate governance relationships also occur with the separation of ownership and control of the parent company and their subsidiaries. When a parent company incorporates its wholly-owned subsidiaries, it needs to name its board of directors and officers, interfere in the subsidiary's business activities and decisions, adopt by-law provisions and preserve the parent's control of its subsidiary, etc. However, recent studies indicate that internationalisation creates high information asymmetry and moral hazards, especially when subsidiaries operate in emerging markets with weakly developed legal and business environments (Carpenter & Fedrickson, 2001; Hoskisson *et al.*, 2002). Corporate governance issues become increasingly important for investment decision in foreign investors. "Global Investor Opinion Survey: Key Findings" (2002) finds that long-term investors are willing to pay up to 25% of extra premium for good corporate governance practices. Therefore, compliance of international corporate governance standards is important for MNCs.

According to the OECD guidelines for multinational companies (2010), large scale corporations with high demand for capital need to be highly committed to international standards of good corporate governance. The guidelines also recommend following established policies of the home country, consider the stakeholders' view and provide reliable and timely disclosure of financial performance and taxation. These OECD guidelines for MNCs provide voluntary codes and principles for sustainable and responsible business behaviour in any location in the world, consistent with applicable domestic laws. These guidelines are approved by the 30 OECD member countries and non-member countries, such as Argentina, Brazil, and Chile. They ensure the basis of mutual understanding between business and societies in which they operate and help to improve the foreign investment culture and enhance the sustainability of MNCs. These OECD guidelines are set of rules and procedures for responsible business and cover several areas, including human resources, environment, taxation, industrial relations, science and technology and information disclosures, etc. These new guidelines are inherited from the OECD declaration on international investment and multilateral enterprises board political commitment adopted by OECD governments in 1976. Finally, the statement by the UK national contact point for the OECD guidelines for multinational enterprises (2008) report explains that since 2000, OECD guidelines for MNC represent several efforts to create a soft law framework for developing cultural and customary appropriate corporate behaviour. According to the Costello & Costello (2002), parent-subsidiary corporate governance mechanism depends on the international strategy of the parent company, subsidiary importance for the MNC, subsidiary dependency on the host country, subsidiary environment uncertainty level, the subsidiary product market competition level, and the size and age of the subsidiary. Moerke &

Dolles (2003) suggest the parent-subsidiary corporate governance bundle is dependent on the corporate governance system and legal framework of the host country, the demands and expectations of the parent company, market forces, new regulations and competitive advantage of the MNC. The different MNCs from different geographical locations follow different corporate governance models. These models are differentiated each other by the capitalism in which they are embedded. The most common and widely used MNC corporate governance model is the Anglo-American model (market-centric model) which is practised by MNCs from high investor protection countries like the US and UK. MNCs from Japan and European countries follow a relationship-based model (coordinated model) of corporate governance mechanisms. MNCs from emerging economies follow a model of corporate governance different from the market-centric model and relationship-based models. Due to weak legal protection and highly concentrated ownership, CEO duality and small boards are unique characteristics of the corporate governance model in MNCs in emerging economies.

2.10 Corporate governance in Sri Lanka

In the late 1980s and early 1990s, most of the large Sri Lankan companies collapsed. Many reasons were attributed to the crashes; many investors lost faith. Good corporate governance among listed companies is important to the country, and the Securities and Exchange Commission of Sri Lanka, Institute of Chartered Accountants of Sri Lanka and the Colombo Stock Exchange jointly formulated a standard of corporate governance. After publishing the voluntary Code of Best Practices on Corporate Governance in 1997, updates continue to ensure the standard of corporate governance in Sri Lanka continues to improve.

Until the mid 1990s corporate governance was popularly known in Sri Lanka as the systems used to control and direct other companies. The real effort to codify the principle of corporate governance in a structured manner in Sri Lanka was made in 1996 by the Institute of Chartered Accountants. It involved regulatory and semi regulatory organisations in Sri Lanka to set out the Code of Best Practices in order to help healthy evaluation of corporate governance principles and practices in Sri Lanka. In the financial year commencing April 2008, Sri Lankan listed firms have been subject to mandated rules on corporate governance by the Securities and Exchange Commission of Sri Lanka. The main purpose of this new mandatory corporate governance rule is promoting accountability, transparency and overall efficiency in corporate governance best practice. The most significant legislation enacted in Sri Lanka corporate governance was the Companies Act 7 of 2007, effective as of March 3, 2007. This replaced the 25-year-old Companies Act 17 of 1982 and introduced a solvency test and far-reaching changes to the company law regime prevalent in Sri Lanka. Actively trading companies were identified and clustered based on ownership, corporate culture and management. The results indicate that significant improvement should be made to corporate governance issues in Sri Lanka. According to the corporate governance survey in Sri Lanka (2007), over 80% of participants considered corporate governance contributed to the organisation's performance and shareholders' value. Furthermore, findings clearly explained several companies followed good corporate governance practices, displayed a higher price earnings ratio than their counterparts whose stated corporate governance practices ranked lower. Improved corporate governance practices in Sri Lanka are likely to give Sri Lanka's capital markets relatively more competitive advantages over other markets in the region.

The ownership structure and capital market structure create a unique environment for corporate governance practices in Sri Lankan. The ownership structure of Sri Lankan listed companies is characterised by extensive family ownership (Balasooriya *et al.*, 2008), pyramid structure and concentrated ownership (Senaratne & Gunarathne, 2007). Therefore, corporate control ends up with a few individuals or families. As a result of concentrated ownership most of the Sri Lankan listed companies prevent from PA agency costs. However, PP agency cost highly exists. Weak legal protection is one of the reasons for higher insider ownership in Sri Lanka. The banking sector is the major external finance provider in Sri Lanka. This is confirmed by Colombage (2007) who shows that, based on pecking order theory, Sri Lankan company managers' first choice for long-term financing is bank debt then equity. Moreover, Samarakoon (1999) examines listed companies in CSE and finds the use of debt finance by Sri Lankan listed firms is significantly low, especially in long-term debt. One major reason is the large number of family businesses listed on the CSE; they prefer quasi-equity than bank debts.

Additionally, this study discusses board effects, ownership effects, cultural effect, size and maturity effects on corporate governance practices on MNCs and LPCs' financial performance and agency costs. Sri Lanka's long civil war has ended, and FDI has started to increase dramatically while the recent global crisis that started in the US and spread across the world has shown good corporate governance practices are important to all economies. During the last few years the issue of corporate governance has received increasing attention in academic literature and in the popular press. The prior research findings relating to the corporate governance mechanisms and company financial performance are mixed. Also most of the research is based on developed countries and only a few studies

addressed emerging markets' issues. However, none of the research broadly discusses corporate governance for both local and foreign subsidiaries in a Sri Lankan context. This research aims to extend existing corporate governance literature by focusing on the effect good corporate governance practices recommend by Sri Lanka have had on LPCs and MNCs' financial performance in Sri Lanka. Furthermore, this study aims to extend the methodology that accounts for unobservable variables, endogeneity and robustness. This study also explores the effectiveness of the new rules and regulations for the corporate governance system in Sri Lanka.

2.11 Conclusion

This chapter examined existing literature pertaining to the relationship between corporate governance and corporate financial performance and also identified the contribution to be made in this research. This review critically evaluates, MNCs corporate governance mechanisms and LPCs' corporate governance mechanisms and their effect on agency costs and company financial performance. Institutional, financial and cultural factors are also presented with a concluding discussion on corporate governance developments and research relating to Sri Lanka and other emerging markets. Chapter 3 provides an overview of the corporate governance environment in Sri Lanka with discussion about corporate governance changers over time and development of rules and regulations that have enhanced corporate governance practices in Sri Lanka. It will also discuss country customary laws and their effect on the best practice of governance, and the roles of various organisations that influence the standard of corporate governance practices in Sri Lanka.

Chapter 3
Corporate governance in the Sri Lankan context

3.0 Introduction

This chapter provides background about corporate governance practices, company law and corporate governance codes, rules and regulations in Sri Lanka. It also includes discussion of corporate governance systems and practices adopted by MNCs in Sri Lanka. The aim of this review is to clarify the potential for the research in this thesis to contribute to understandings of corporate governance in Sri Lanka.

Prior research has shown that in the development of corporate governance systems, economic and political pressure, legal and regulatory systems, along with other environmental factors, have had substantial influence on the models of corporate governance that have evolved. Aside from the political and legal framework, the primary influence on a country's specific corporate governance system is culture. The level of accountability, the distribution of power, the protection of property rights and equity is not necessarily the same as all cultures. (Sison, 2000). The historical development of corporate governance practices in Sri Lanka is highly correlated with the history of corporation formulation and adaptation of commercial law. Prior to colonisation, a tribal governance structure existed in Sri Lanka, where each tribe was responsible for a kingdom. Although the Singhalese administration was strong in 1855, the country was taken over by the English. Despite gaining liberation from Britain in 1948, Sri Lanka still seeks jurisprudence from England and other regional countries like India and Malaysia. The best example is a new code of best practices (2008) for corporate governance in Sri Lanka. It is based on the UK combined code, the best practices recommendations of the Australia Stock Exchange and the Malaysian code on

corporate governance, and the corporate governance report of the Securities and Exchange Board of India (Code of Best Practices on Corporate Governance, 2008). The development of the institutional setting of any country is the first sign of sound corporate governance practices. Economic reforms, corporate reforms, financial sector reforms and capital market development have all positively affected Sri Lankan corporate governance practices in recent decades. Sri Lankan corporate governance initiatives commenced for the first time in 1997 with the Institute of Chartered Accountants in Sri Lanka publishing a voluntary code of best practices, whilst the Companies Act No 17 of 1982 deals with the regulations for companies. In keeping with the growing shift towards adopting corporate governance through regulation in terms of a circular issued by the CSE, it is now mandatory for companies to comply with the corporate governance rules that formed part of the listing rules of the CSE, with effect from the financial year commencing April 1 2008. Another significant piece of legislation established in Sri Lanka in 2007 was the Companies Act No 7 of 2007, effective as of March 2007. The Act, which replaced the 25 years old Companies Act 17 of 1982, is based on the New Zealand Companies Act of 1993 and introduced far-reaching changes to the company law regime which up until 2007 had been prevalent in Sri Lanka.

3.1 Institutional setting in Sri Lanka

3.1.1 Economic Reforms

Sri Lanka is a lower-middle income developing country with Gross Domestic Product (GDP) at about USD 43 billion (Wikipidea, 2011). Sri Lanka is recorded 8% GDP growth in 2011 in the conflict-free stable environment ("2012: Growth to slowdown, rupee to depreciate", 2011). This strong growth rate is ahead of its

other core south Asian peers including India, Bangladesh and Pakistan. Prior to economic liberalisation, Sri Lanka had followed inward economic policies, which had certain limitations for FDI during the period 1955-1977. In 1978, Sri Lanka shifted away from a socialist orientation and opened its economy to foreign investment. However, before the brutal civil war in 1983, economic growth averaged around 4.5%. From the early 1990s government progress its privatisation reform and export orientated growth taking GDP growth to 7% in 1993 and it maintained overall GDP growth of 5.2% per annum between 1990 and 2000.

However, in 2001 GDP growth was negative (-1.4%); the only contraction since independence is 1948. This lead Sri Lanka into bankruptcy with debt levels reaching 101% of GDP. This may have been due to global and local economic problems and severe terrorist attacks in Sri Lanka. These failures increased awareness of transparency and accountability of financial transactions and lead to policy changes. Following the 2002 ceasefire, economic and social sector reforms, deregulation, and private sector development, the economy grew rapidly. Recently Sri Lanka's economy has been affected by natural disasters, such as the December 2004 Indian Ocean tsunami which caused an estimated US 1 billion damage, though the economy still grew by 6% in 2005. Similar to other emerging economies, foreign remittances are an important source of external financing for Sri Lanka. In 2007, foreign remittance figure was much larger than the country's earning from exports, foreign aid, tourism and other capital inflows ("Impact of remittance's in Sri Lanka's Economical Development ", 2008).

3.1.2 Corporate Reforms

Almost all enterprises in Sri Lanka were state-owned in the early 1970s. The corporate reform process has brought about a shift from state-owned enterprises (SOE) and central planning to a market orientated economy. During this time, state activities were further expanded through employment training and regional development. As a result of an open economy policy introduced by 1977, Sri Lanka adopted privatisation and SOEs began to restructure. As a result of this liberalisation activity, public enterprise ownership switched to private ownership, though ultimately this private ownership ended up with ownership concentrated in a few families and political leaders. Sri Lanka corporate reforms can be explained in three phases. First, characterised as a random attempt, the government, in the early 1980s, commenced an unplanned project to privatise SOEs in order to attend foreign aid. Moreover, ownership changes and partial divestiture, liquidisation, management contracts and franchising methods were also adopted in Sri Lanka. Second, a systematic approach; that started in the late 1980s. Government privatised SOEs, using the concept of "peoplisation". Forty-three SOEs were either totally or partially privatised (Knight-John & Jayasinghe, 2004). Third, a structural approach. In 1996, the Sri Lankan government implemented an entire public sector reform programme with the establishment of the Public Enterprise Reform Commission (PERC). This commission was implemented to ensure more transparency and to give the privatisation process more structure. During this era, the majority of SOE shares were sold to the private sector through open tenders and competitive bidding.

3.1.2.1 Ownership structure in Sri Lankan companies

In spite of economic and legal differences, all most all Asian companies have concentrated stock ownership and predominantly family ownership (Chakrabarati,

2002). The literature indicates that highly concentrated ownership is more widespread in developing economies and developed countries outside Anglo-American countries (La-Porta *et al.*, 1999; Shleifer & Vishny, 1997). In Sri Lanka dominant family holdings are present in many listed companies and research confirms this. Manawaduge *et al.* (2008) employed Sri Lankan stock exchange data and found that in Sri Lankan listed companies' ownership is highly concentrated. This finding is in line with Balasooriya (2004) who argues Sri Lankan private companies are mainly held by a single owner or families. Using 226 companies, he also found that at least 48 companies in the sample had a single shareholder with a majority holding.

According to Zeitun & Gary (2007), corporate ownership structure depends on a country's social, political, economical and cultural factors. Emerging market political, social and economical factors are likely to be entirely different to those of developed countries, which may limit the application of empirical models tested in mature markets. However, the ownership structure of Sri Lankan companies is characterised by peculiar features namely the controlling shareholder is usually from another corporate entity, with wide speed existence of family ownership, pyramid ownership structures and crossholdings (Senaratne & Gunarathne, 2007). Masulis *et al.* (2009) studied 45 countries and report that family business groups are dominant in emerging economies. Among that sample, Sri Lanka had the largest family ownership in listed companies at 64%.

Weak-legal protection of investors is one of the main reasons for the prevalence of family-ownership in developing countries including Sri Lanka (La-Porta *et al.*, 1997, 1998, 1999, 2000). Further, the underdeveloped financial markets restrict access to external financing and result in family dominant, highly concentrated ownership (La-Porta *et al.*, 1997, 1998). Moreover, consistent with the view of

Omran *et al.* (2008) the weak legal environment in Sri Lanka has resulted in companies moving to a high level of insider ownership which impacts the corporate governance mechanism. From a PA perspective, concentrated ownership may reduce the agency conflict (Jensen & Meckling, 1976). In contrast, the main agency problem related with this concentrated ownership is risk of expropriation by large shareholders at the expense of minority shareholders. Javid & Iqbal (2008) explain this PP agency problem is often the result of a complex pyramid structure, interlocking directorships and cross shareholdings in highly concentrated ownership firms. Implementation of a more developed stock market and ensuring investors' protection is one to this problem of the main solutions for concentrated ownership in Sri Lanka.

Institutional ownership is predominant in the Sri Lankan stock market. Manawaduge *et al*. (2008) suggest that a very high percentage of shares on the Sri Lankan stock market are owned by institutional investors. Lee (2010) explains that due to the undeveloped equity market and weak investor protection, domestic investors are reluctant to invest in emerging markets with low levels of corporate governance reform. This may be one reason why foreign institutional ownership is dominant in Sri Lanka. An, increase in institutional investor activities in the Sri Lankan share market is positively influenced through sound governance practices.

3.1.3 Financial sector reforms

The financial sector in Sri Lanka has been changing since the late 1980s, through deregulation and improved private sector involvement. Advice by the International Monetary Fund (IMF) and World Bank saw Sri Lanka remove restrictions on interest rates, loans and exchange rate relations which encouraged foreign and domestic competitors to invest in financial markets in Sri Lanka and

reduce government interference in the market. Edirisuriya (2007) says lack of financial literacy among Sri Lankan customers, state banks domination in the financial sector and the government's lack of a clear goal for the financial market has limited the benefits from financial sector reforms. The banking sector is the most important and dominant sector in the Sri Lanka financial system. As at 2008, the banking sector accounted for 94% of total deposits and more than 58% of total assets of the financial sector. Non-financial institutes hold only 6% of financial sector assets (Siriwardhana, 2008). Sri Lankan financial sector reform started with the banking industry. Later it extended to equity markets, capital markets, electronic finance and rural micro finance sectors. In Sri Lanka, financial sector reforms were mainly reflected by relaxing regulations and reducing state involvement of the financial sector (Edirisuriya, 2007). The regulations relaxed included interest rate deregulation, the introduction of market based credit policies, opportunities for foreign or private bank entries to invest in the financial sector and improved rules and regulations to enhance the security of the sector. This deregulation lead to significant changes in the financial sector in Sri Lanka, including wide spread implementation and use of ATM facilities, internet banking, telephone banking, and EFTPOS, etc. Moreover, due to the relaxation of financial market rules and regulations in 2007, there were 14 financial institutes doing commercial banking activities in Sri Lanka. In 2010, Sri Lanka has six banks among the 500 largest banks in Asia ("Country and Performance Topnotchers", 2010). However, state owned banks still dominate Sri Lanka's banking sector.

Another significant outcome of financial sector reform is the establishment of the Colombo Stock Exchange (CSE) in 1984. As at November 2011, 272 companies were listed on the CSE with more than US$20 billion market capitalisation (CSE,

2011). Another significant outcome is the level of liquidity in Sri Lankan commercial banks in line with international levels (Edirisuriya, 2007). However, further financial deregulation and monitory policy changes are required to improve the efficiency and effectiveness of Sri Lanka's financial sector.

3.1.4. Capital market in Sri Lanka

Based on the Central Bank of Sri Lanka disclosure , Sri Lanka achieved economic growth of well above 6 % for four consecutive years (2005-2008), and in 2008, for the first time in history, per-capita income exceeded US $ 2000 ("Central Bank of Sri Lanka Annual Report",2009). This raised the current status of the country from a lower-income to lower-middle income country. The Sri Lankan share market and corporate governance best practices played a leading role in achieving these extraordinary results.

Colombage (2007) explains that existing microeconomic policies impose constraints and discourage levered finance in the firm's capital structure. Only 10% of total corporate debt in Sri Lanka is provided by listed and unlisted debt and debt instruments; the remaining 90% is provided by banks (Colombage (2007).

To ensure a successful capital market, Abeysuria (2001) suggests both inside market development and around market development need to be considered. Inside market development includes increased market participants, and composed of local and foreign institutional investors, including pension funds, providence funds, insurance companies and financial institutions. Further intermediaries need to bring investors and issuers together to ensure fast and large financial market growth. Inside market development also includes government commitment to enhance and established capital market in the country. Considering market

development, capital market requires stabilised micro and political environments to retain and increase investors. Many markets in the South Asia region suffer political instability and high volatility of inflation and interest rates. These factors negatively affect capital market development in the South Asia region. Similar to other regional countries, Sri Lanka's taxation has hindered the performance of the capital market. Transaction taxes, stamp duties, and income taxes on the cost of issuing investment returns and intermediate profits hinder development.

3.1.4.1 Stock market in Sri Lanka

Share trading in Sri Lanka started in the 19th century, when British planters need to raise capital to establish tea plantations in Sri Lanka, which lead to the establishment of the Colombo Share Market in 1896. This share market maintained high levels of activity before independence, when shares of companies' registered in London, Bombay and Singapore were freely traded in the Colombo market, along with the local companies. However, nationalisation of public entities in 1958 had a negative effect on the stock market and the open economic policies of 1977 lead to a reversal of the situation pertaining to the stock market in Sri Lanka. After that, market showed volatility due to the highly uncertain political environment, a change of governments, and the breakdown of peace talks, highly volatile interest rates and decline in economic growth. Since 2008, the CSE has been Sri Lanka's only stock exchange and is one of the best performing in Asia. During recent years the CSE All Share Price Index (ASPI) has performed better than the Bombay Stock Exchange and the Karachi Stock Exchange.

The CSE reports of two major price indices; the All Share Price Index (ASPI) and Milanka Price index (MPI). The CSE introduced MPI on 4 January 1999. This

index consists of 25 selected companies (most liquid stocks weighted on market capitalisation) over the previous four quarters.

The CSE provides opportunities to foreign investors and individuals to trade shares in listed companies of up to 100% of the issued capital except for a few companies. As at 30 November 2011, the official list of companies on the CSE contained 272 companies representing 20 different sectors according to the core business activities of the companies. Due to the global financial crisis in 2008, the CSE ASPI index fell by 40.9%. However, according to a CSE media release (2010), during 2009, the performance of the CSE made it the second best performing stock market in the world. Therefore more and more companies tried to take advantage of the "bull" trend of the CSE. The performance of the equity market is highly correlated with the country's political and peace environment. Additionally, equity market performance depends highly on the profitability of key market institutions and the sound economic situation of the country.

3.1.4.2 The Bond market in Sri Lanka

In Sri Lanka, the bond market commenced activities in the 1990s with the issuing of medium-and long-term bonds from the government and corporate sector. Long-term tradable government bonds (treasury bills) began in 1997, to meet the government budgetary requirements. As a result of financial sector reforms and re-structuring, there was increased attention paid to the Sri Lanka bond market. The debt management policy restructure was done by shifting from issuing non-marketable instruments (Rupee loans) and short-term marketable instruments (Treasury bills) to medium- and long-term marketable instruments. Strengthening the legal and institutional framework, market infrastructure development and micro-economic policy changes positively affected the bond market and market-based debt management in Sri Lanka (Siriwardhana, 2008).

Bond market development brings significant advantages to a country. The first advantage is it strengthens the financial system of the country. The second advantage is that it reduces the instability problem due to foreign currency mismatches. Thirdly, it lessens the development of assets pricing bubbles. Fourthly, it expands opportunities for financial institutions to raise debt capital and finally, the development of the bond market helps the government to better structure and manages it best.

However, compared to other developed and developing countries, Sri Lankan corporate bonds represent a low 0.26% of GDP. According to the CSE (2000), corporate investments were mainly (70.7%) financed by retaining earnings, 23.7% by banks and development financial institutions via short term lending, 4.3% for FDI and only 1.2% by capital market finance. This is because in developing countries investors are more likely to rely on banks for external financing.

However, the CSE reports in 2008 that corporate debentures recorded an increase in turnover on the previous year. Colombage (2007) explains firm size is a significant factor for leverage accessibility in Sri Lanka, indicating larger firms tend to utilise higher leverage levels in their capital structure than their smaller counter parts.

Corporate debt in Sri Lanka is mainly supplied by the banking sector. Given evidence of the global financial crisis relating to curtailment of bank credit, the need to enhance fund diversification and develop the debt market is important to Sri Lanka. The government understands the importance of funds diversity after the collapse of major banks and the Asian financial crisis. As a result, in 2007 the Sri Lankan budget indicated that the government had formulated a ten-year plan to increase the awareness of capital markets and other financial entities to create more capital for investment. The Central Bank of Sri Lanka (2007)

indicated the importance of the bond market to the country. The CSE and SEC in Sri Lanka also identified the importance of the country's bond market. However, the success of the corporate bond market depends largely on the micro economic environment stability of the country.

3.2 Corporate governance in Sri Lanka

The evolution of corporate governance mechanisms depends on the political, cultural and historical characteristics of a country (Prowse, 1999). Pre-colonial Sri Lanka was a centralised kingship state. Rules of governance were centralised and despotic. Exchange, production and service providing was governance by various religious and social customs (Senevirathne, 1978). After the kingship regime, Sri Lanka was subjected to centuries of Portuguese, Dutch and British domination. From the time of independence in 1948, the legal system of Sri Lanka has developed into a complex mixture of English common law and Roman-Dutch, Sinhalese, Muslim, and customary law. In 1982, the Companies Act and later other corporate governance laws were passed regarding the functioning of joint-stock companies and protecting the investors' rights.

The legal system of a country plays an important role in shaping effective corporate governance while protecting shareholders and creditors. Corporate governance necessities may differ from corporation to corporation, but the protection offered in the law (de jure protection) and to what extent the laws are enforced in real life (de facto protection) affects all businesses within the country in a similar way. The legal system in Sri Lanka is built on the English common law system. Among 18 English-origin law countries, the Sri Lankan shareholders right index score to 3, which is the second lowest value of the 18. The other countries in this category are Zimbabwe, Nigeria and Kenya (La-Porta *et al.*,

2002). However, after introduced mandatory corporate governance rules for CSE listed companies from 1 April 2008, the World Bank rated investor protection in Sri Lanka as being slightly above the region, but still lower than the OECD averages. Corporate governance practice is particularly important for developing countries since corporate governance issues are central to financial and economic development.

As with several other South Asian regional countries, the Sri Lankan corporate governance system has features consistent with the Anglo-American model. However, from an ownership perspective and a banking relationship perspective, Sri Lanka's corporate governance system is very different from the Anglo-American system. From an agency perspective, Asian countries with concentrated ownership suffer more from PP agency costs, than PA agency costs (Lee, 2007). Most of the Anglo- American countries with scattered ownership suffer high PA agency costs. Another characteristic of Sri Lankan corporate structure is a financial sector dominated by banks (Lee, 2007). Banks are the primary financial supporter of companies and the two often have complex and long relationships. Due to a weak legal structure and undeveloped micro-economic environment, Sri Lankan companies highly depend on banks for capital funding. Sri Lanka's corporate debt level is significantly less than developed countries. Sri Lankan corporate leverage is 44% of book value and 39% of market value (Colombage, 2007). However, G-7 countries' corporate leverage ratio range between 54% and 73% for book value and 40% to 70 % for market value (Rajan & Zingales, 1995a). Furthermore, complex tax charges imposed by the Sri Lankan government drastically reduced the secondary market trading in debt securities ("Nuisance Tax ", 2009). Another distinguishing characteristic of Sri Lankan corporate governance is state intervention, which is relatively higher than

in Anglo-Saxon model countries. As an example, according to the "Investment Climate Report" (2009), state sector banks are dominant in the banking sector and comprise 40% of total banking sector assets. These characteristics of ownership - the bank-company relationship, debt, and government interventions all work to create a different structure of the micro economic environment. Therefore, the Sri Lankan model of corporate governance mechanism is distinguished from the Anglo- American model and creates a unique corporate governance environment.

The key finding of Corporate Governance Survey in Sri Lankan (2007) is indicated that senior executives have high awareness of good corporate governance practices and benefits. More than 80% of senior executives believe good corporate governance enhances organisational performance and shareholders' value. Ninety-six percent of senior executives believe the audit committee is the most important principal to ensure good corporate governance in Sri Lanka. Most Sri Lankan companies (more than 87%) maintain a sufficient number of non-executive directors. Further, many listed companies have unitary boards with mixed non-executive and executive directors (Waring & Pierce, 2005). Further, the above survey confirmed board involvement in strategy and goal setting in Sri Lankan companies is high, separation of ownership and control is an increasing trend and the survey confirmed as at 2002 only 38% of the companies had CEO duality (Waring & Pierce, 2005). However, the Institute of Policy Studies (IPS) (2009) finds that even though corporate governance rules and laws changed, corporate governance and risk management issues have still not received enough attention by the Sri Lankan government. Further, the IPS explains that to face the global financial scandals and control intra-country financial collapses, Sri Lanka needs to reduce financial market regulations. The report goes on to say that Sri Lanka's financial company collapses and internal

financial problems arise mainly due to 'pyramid structure' of companies rather than global financial disgraces.

3.3 Recent development in CG practice in Sri Lanka

The legal framework for corporate governance in Sri Lanka is primarily contained in the Companies Act, No. 17 of 1982. Sri Lankan public companies which were established under the Companies Act No.17 or any other statutory corporation, incorporated or established under the laws of Sri Lanka may apply to the exchange for admission to the official list. This Act, as amended by Act No. 13 of 1991, provides the main legal principles for Sri Lankan companies. However, the Companies Act, No.17 and Act No. 13 are not very effective in ensuring best corporate governance practices (Wickramasinghe, 2006). Recently, the Companies Act, No 7 of 2007 addressed shortfalls of old company Acts in an effort to ensure best practices in corporate governance in Sri Lanka.

3.3.1 Companies Act 7 – 2007

The most significant legislation enacted in Sri Lanka in 2007 was the Companies Act 7 of 2007. This became effective on 3 March 2007 and replaced the 25-year-old Companies Act 17 of 1982. This new company law significantly changed the old company law (1982) by moving away from its traditional affiliation to the company law in England and aligned itself to a legal system based on the New Zealand Companies Act of 1993. The following six significant developments and changes were introduced by the Sri Lanka new Companies Act 7 of 2007 i.e., stakeholders rights move from 'contract to' statute'; long existing concepts are eliminated; new concepts of company law, reduced restrictions and provisions for greater flexibility, new concepts introduced related to capital, distributions and

duties of directors, strengthened stakeholders rights and the provision of alternative dispute resolution procedures are introduced.

The Companies Act No. 7 of 2007 is a significant development in company law in Sri Lankan, but it still has the following shortfalls. First, it fails to recognise essential practices adopted by a company. E.g: the treatment of issuing bonus shares. Secondly, the new Act includes some compulsory responsibilities for directors that appear burdensome in the context of Sri Lanka's economic climate. Finally, the Sinhala version of the Act, which takes superiority, has inconsistencies with the English version.

Actual corporate governance reform started in Sri Lanka in 1997 with the publication of the "Voluntary Code of Corporate Governance" by the Chartered Accountants of Sri Lanka (ICASL). This fundamentally addressed the issues relating to financial aspects of corporate governance. This voluntary code was followed by the "Code of Best Practices on Audit Committee" issued by ICASL in 2002. Thereafter ICASL jointly with the Securities Exchange Commission (SEC) of Sri Lanka issued "Code of Best Practices on Corporate Governance" in 2003. However, Cabraal (2003) reports most of the companies in Sri Lanka do not actually follow this voluntary code. This is confirmed by Mudalige (2006) who posits more than half of the listed companies in Sri Lanka do not comply with the voluntary code, despite it being in existence for several years.

The corporate governance code (2003) was revised in 2005 jointly by ICASL and SEC. The draft standards were formulated based on a combination of codes from the UK, the New York Stock Exchange, the code of corporate governance of Singapore and principles for good governance and best practice recommendations from the Australian Stock Exchange, the Malaysian code of corporate governance and the corporate governance report of the securities and exchange board of India,

all with the view to formulate rules with practical application in Sri Lanka. This draft code expects openness, integrity and accountability of listed firms in Sri Lanka (Wickramasinghe, 2006). It focuses on the following factors; the board of directors, audit committee and remuneration committee.

Subsequently, in early January 2007, the Sri Lankan securities regulator introduced a revised corporate governance code for listed companies, and made it mandatory from 1 April 2008. This mandatory rule was implemented in two stages. The first phase, which started in the 2007 financial year, gave listed firms time to fall into line and created awareness in the business community of the need for best practices in corporate governance. Moreover, listed firms had to publish details of how far they complied with or deviated from the new mandatory corporate governance code. The second phase started on 1 April 2008. Listed firms have to include an "affirmative statement" and disclose they fully comply with corporate governance standards introduced by SEC, ICASL and CSE. This new mandatory corporate governance code precisely addressed the minimum number of non-executive directors and independent directors in the corporate board, the criteria for determining the 'independence', confessions required to be made by listed companies in respect of its directorate, audit committee and remuneration committee minimal requirements (De-Silva, 2007).

3.3.2 Code of best practice on corporate governance- 2008

A new corporate governance code was introduced in 2007 and made compulsory by 1 April 2008 for all listed companies in Sri Lanka. According to the president of ICASL in Sri Lanka the new corporate governance code key aspects of the new code are:

Ensure success of the company through a collectively responsible board - This is the main rule of the corporate governance mandatory code 2008. Every public company needs to be directed or controlled by a board of directors. The board should be responsible for implementing business strategies of the company, internal control of the company and risk management.

Ensure balance of the board - Board balance is mainly ensured through the following activities. First, there needs to be a clear division between chairman and CEO responsibilities to ensure balance of power and authority of the company. To avoid expropriation of company benefits and disperse corporate control among many individuals the company board should consist of at least two non-executive directors or the equivalent to one third of total number of directors, whichever is the higher. To ensure board balance, the company is required to establish an independent audit committee and a remuneration committee.

Ensure directors interest in the company - All the directors need to disclose their interest in the company. This ensures unbiased transaction by the company and transparency with regards financial decisions. Directors need to declare all their materials interests in contracts involving the company. Furthermore, they need to disclose other board related activities; whether they are on the boards of other companies and their roles on committees.

Enhance transparency of appointments and remunerations - Every company annual report should contain a statement of remuneration policy and detail remuneration. This should include remuneration committee details and aggregate remuneration for executive and non-executive directors. Appointment of directors should disclose, including a brief resume of each director, names of directorships and membership of board committees.

Enhance rights of the shareholders - The corporate governance new mandatory code states that a listed company should conduct regular communication with institutional shareholders to increase awareness of company activities. It also mentions that individual shareholders should be encouraged to participate in general meetings and present their views.

3.4 Corporate governance monitoring agencies in Sri Lanka

To obtain high investor protection and maximize the shareholder wealth the Sri Lankan government introduced improved corporate governance practices. Over the past two decades corporate governance has been continuously and constantly developing, responding, reacting and pro-acting. Some reactions and changes can be described as response to world financial climate changes, some initiatives can be categorised as proactive treatment to achieve the desired goal of an emerging country. This rapid change enhanced the decision making and investor protection of the country and strengthened financial markets and the micro-economic environment of the country. It involved regulatory and semi-regulatory organisations and authorities, such as Colombo Stock Exchange (CSE), Securities and Exchange Commission of Sri Lanka (SEC), Institute of Chartered Accountants of Sri Lanka (ICASL), and the Ceylon Chamber of Commerce (CCC). All were involved to ensure the corporate governance practices were introduced and implemented by Sri Lankan companies.

3.4.1 Institute of Chartered Accountants of Sri Lanka (ICASL)

The ICASL of Sri Lanka is the main professional accounting body of Sri Lanka. The ICASL is a member of the International Federation of Accountants (IFAC), The Confederation of Asian and Pacific Accountants (CAPA) and a founder member of the South Asian Federation of Accountants (SAFA). ICASL is the

pioneer institute which first introduced codifying corporate governance principles to the country. First, ICASL introduced the 'Code of Best Practice on matters related to financial aspects of corporate governance" in 1996 and updated it in 2003.

3.4.2 Securities Exchange Commission of Sri Lanka (SEC)

The SEC was established in 1987 in Sri Lanka, to obtain financial sector and capital market development in country. This was one of the first SECs set-ups in the South Asia region. It became more active in early 1990s after the collapse of many companies, especially financial institutions in Sri Lanka. This SEC plays a highly significant role developing Sri Lanka's capital market and works to improve corporate governance practices. This commission initiated a central depositary system, laws relating to insider trading and formulation of mergers and takeover codes, etc. Furthermore, the SEC is engaged to monitor and supervise the CSE, granting licence to the stock exchange, protecting the interest of investors, regulating the securities market and ensuring the professional standards of such markets. The SEC of Sri Lanka was actively involved in the 2002 edition of the corporate governance code for improving and promoting the use of capital market advantages via good corporate governance practices.

3.4.3 Colombo Stock Exchange (CSE)

The CSE was incorporated 2 December 1985. The CSE's primary objective is strengthening the security market by improving the infrastructure and regulatory framework. At the moment, the CSE focuses on market development and diversification (CSE, 2008). Additionally, at present the CSE provide facilities for the secondary trading of equity and debt instruments via the debt security trading system (DEX) which was implemented in 2003. The CSE operates as a

self-regulatory organisation under the supervision of the SEC. Presently, the CSE consists of 272 listed companies representing 20 business sectors. In terms of the contribution of sectors to the total market capitalization for the year 2008, the telecommunications sector was the largest contributor with 21.44%, followed by the banking, finance and insurance sector which contributed 16.97%. The CSE exchange has two main price indexes, the All Share Price Index (ASPI) and Milanka Price Index (MPI). Except for a few companies, foreign investors have no restrictions if they choose to participate in CSE activity.

3.4.4 Central bank of Sri Lanka (CBS)

In addition to the general and traditional function of the Central Bank of Sri Lanka, the bank provides regulatory functions. This is the supervisory bank to help improve corporate governance practices and credit delivery systems in other banks and financial institutes in Sri Lanka. To maintain the financial health of finance companies in Sri Lanka, the CBS introduced a draft mandatory rule on corporate governance for registered finance companies (2007). This document's preliminary focus is on the auditing and risk management of financial institutes. Secondly, it deals with information technology matters related to corporate governance. Thirdly, it has guidelines related to the financial institute or bank boards' responsibilities, CEO, chairman and other directors, committees and rights of minority shareholders, etc.

3.4.5 Ceylon Chamber of Commerce (CCC)

The Ceylon Chamber of Commerce was established on 25 March 1839, under British rule. In 2001/2002, the Ceylon Chamber of Commerce issued a "corporate governance" booklet with the key corporate governance principles desirable to Sri

Lanka. Moreover, the CCC promotes best practices on corporate governance among its members and affiliated institutes.

3.4.6 The Sri Lanka Institute of Directors (SLID)

This has brought together large number of company directors who are actively involved in administration and corporate governance issues in their companies. SLID holds regular meetings to discuss the corporate governance issues of the companies and to develop improvements to corporate governance practices. The CCC has launched several programmes to educate directors about corporate governance practices in the board room and in the company.

3.5 The limitations of existing corporate governance practices in Sri Lanka

Gunarathne & Saram (2009) argue that though the Companies Act No. 7 of 2007 addresses the shortfalls of treatment of capital, directors' duties and stakeholders' rights, listing rules have not been addressed. According to the Waduge (2010) one reason for weak company accountability is because of the requirement for a board to have one third independent directors. The second problem is limited transparency. Financial and annual reports require only limited basic information from the company accounts. This creates potential for information asymmetry problems. The third limitation of the new code of corporate governance relates to shareholders' rights and firm efficiency. Firm performance and accountability measures are missing from the rules. Moreover, the new code emphasises the promotion of board directors' independence rather than stakeholder rights and firm efficiency through the objectives of directors.

3.6 An overview of FDI in Sri Lanka

The Foreign Investment Act 1987 opens up investment in Sri Lanka to attract foreign investment. Investment has been actively canvassed and the BOI report (2002) indicates there were over 1000 companies from 55 countries operating in Sri Lanka (Athukorala, 2003). Privatisation and deregulation of policies helped to attract FDI to the country. Agrawal & Gort (2002) investigated the economic impact of FDI in south Asian countries i.e, India, Pakistan, Bangladesh, Sri Lanka and Nepal and found linkage effects between foreign and national investments. Moreover, they argue FDI inflows on GDP growth rate were negative before 1980, and then the early 1980s began to show a positive effect which became even stronger during the late '80s and early '90s.

Various exemptions, including tax holidays, duty free imports, and 100% foreign equity ownership are the major reasons that Sri Lanka attracted global giants and FDI in recent decades. According to the "FDI in Sri Lanka" (2010) Sri Lankan FDI inflows decreased after 2000, due to the downturn in world economic activities. Furthermore, the civil war and political uncertainty and the stagnation of the Japanese economy and Middle-east uncertainty adversely affected the FDI inflows in Sri Lanka in recent years.

After the end of the its civil war, Sri Lanka's FDI inflows in the first six months of 2010 reached US$425 million. The top five investing countries in 2010 were India, Malaysia, Britain, China and Mauritius. Multinational corporations play a significant role in FDI flows in Sri Lanka. As the number of MNCs increases and they continue to be more relevant and important, their corporate governance activities become essential in aligning the subsidiaries' and parent interests.

3.6.1 Free Trade Zones (FTZ) in Sri Lanka

FTZs are a key aspect of liberalisation and industrialisation in developing country economies. To attract new business and especially foreign inflows, the Sri Lankan government started free trade zones in the late1970s. Foreign ownership gradually increased from the early 1980s. Like other countries FTZs, Sri Lanka provides several incentives to the foreign investors. Comparing the South Asia region, the Sri Lanka offered more benefits than India to attract foreign investors. This included 100% foreign ownership, and the elimination of tariff and quotas. In addition, in the late 1990s the Sri Lankan government provided interest free loans of up to 20 million Sri Lankan rupees to start-up businesses in the rural free trade zone.

3.7 Conclusion

This chapter has reviewed of the overall corporate governance reforms in Sri Lanka from 1997 to 2010. Sri Lanka's institutional reforms process has brought about a shift away from state-owned companies and central planning to greater market orientation which started in the late 1970s. Since the commencement of the reform process and FDI inflows, Sri Lanka has achieved strong economic growth. Foreign investment has been actively promoted in Sri Lanka and there are now more than 1000 companies from 55 countries operating in Sri Lanka. An investor-friendly environment, including a tax holidays, duty free imports and 100% foreign equity ownership are the major factors that have attracting global investors to Sri Lanka. Furthermore, the end of almost three decaded of civil war is another reason for the boost in business opportunities and FDI inflows in Sri Lanka after 2009.

A significant driving force of the reform agenda is the Companies Act No 17, which was introduced in 1982. The recently introduced Companies Act No.7 of 2007 it makes a significant development to company law in Sri Lanka, making important and wide ranging changes. Meanwhile, the government took several steps to improve the operational and regulatory infrastructure to facilitate such development by encouraging the restructuring of the Colombo Stock Exchange, the founding of the Securities Exchange Commission and other complementary bodies such as the Sri Lankan Accounting and Auditing standards Board.

In addition to the changes made to the securities laws to align with the trading partners, there have also been changes made to improve the standard of corporate governance practiced in Sri Lanka. The actual corporate governance reforms started in 1997 with the publication of the "voluntary code of corporate governance". This fundamentally addresses the issues relating to financial aspects of corporate governance. To assist Sri Lankan companies to access global portfolio equity, Sri Lanka introduced the "corporate governance best practice mandatory code on 1 April 2008, expecting to achieve accountability and transparency as well as environmental and social sustainability. Since the new code was introduced, there are still problems of accountability, transparency and efficiency; therefore further opportunities for corporate governance reform remain.

Chapter 4 will provide the theory, hypotheses and empirical model development for this study.

Chapter 4
Hypotheses and Empirical Model Development

4.0 Introduction

Evidence concerning differences in the financial performance of MNCs and LPCs are mixed in the literature. Though some studies have been carried out in European countries, these studies' limitations suggest that corporate governance and firms' financial performance and agency costs are not defined adequately in the light of important factors affecting the financial performances in MNCs and LPCs. Furthermore, the process by which the value of the firm is affected by corporate governance factors differs between countries. These differences are due to legal, economic and socio-cultural factors in the individual countries. Within the prior literature, there is no study that examines issues in corporate governance and company (MNCs and LPCs) financial performance and agency costs in a Sri Lankan context. This is an interesting topic because since 2006 the number of MNCs arriving in Sri Lanka has dramatically increased. During the past few years, improving corporate governance has played a leading role in improving performance in Sri Lanka's listed companies. It is now compulsory for companies to comply with the corporate governance rules that form part of the listing rules of the CSE, effective from 1 April 2008.

In this study, financial performance is considered from three perspectives - the marketing based financial performance proxy (Tobin's Q), the accounting based financial performance proxy (ROA) and the shareholders value creation proxy (ROE). Moreover, agency costs are considered from three perspectives; i.e., PA agency costs measured as assets utilisation ratio, Q- dummy free cash flow and PP agency costs measured as dividend payout ratio. In terms of corporate governance attributes, the study uses corporate governance indicators like board

characteristics (board size, board composition and board leadership) and firm characteristics (firm size, firm age, leverage, etc.).

This chapter is structured as follows. Section 4.1 presents the research framework of this study. Section 4.2 presents the conceptual framework. Section 4.3 deals with the testable hypotheses development of the current study. Section 4.4 concludes the chapter.

4.1 Research Framework

Prior studies have focused only on specific features of corporate governance, which makes it difficult to understand the actual relationship between corporate governance and firm financial performance. A vast body of literature evaluates the relationship between corporate governance and firm performance as measured by market-based performance measures and accounting-based performance measures. Most of the evidence confirms a positive relationship between good corporate governance variables and financial performance proxies. However, Love (2010) explains that most of the corporate governance literature suffers endogeneity problems that are difficult to resolve.

In recent studies, Hermalin & Weisback (2003); Denis & Kruse (2000) and Wintoki *et al.* (2007) explain the effect of unobservable firm-specific factors, which simultaneously determine firm financial performance and firm corporate governance. They also explain the causal effect of corporate governance and firm financial performance. Wintoki *et al.* (2007) find that corporate governance and firm financial performance relationship may suffer from three possible sources of endogeneity; namely unobserved heterogeneity, simultaneity and dynamic endogeneity. Therefore results of studies ignoring possible endogeneity issues need to be interpreted with caution.

Most prior research is based on UK, US and other developed markets that have market centric economies with widely held ownership, high investor protection and highly liquid stock markets. That dispersed ownership structure gives more decision-making power to corporate managers and leads to higher PA agency cost. The rest of the corporate governance research has focused on Europe and Japanese markets where the relationship mechanism operates and where there is more reliance on large investors and banks. The research findings from market centric economies and relationship based economies may not be relevant to an emerging economy like Sri Lanka where there is predominantly concentrated ownership, low investor protection and a restricted capital market. This is in line with Miguel *et al.* (2004) who studied the corporate governance structure of six countries and concluded that corporate governance and financial performance is significantly determined by the nature of the existing governance system of the country; its general rules and regulations, cultural and other ethical issues. This unique structure creates an environment for a different corporate governance model. Moreover, though the market centric and relationship based models are widely discussed in literature, they have not been extensively examined in emerging economies. Furthermore, corporate governance mandatory principals (2008) and other rules and regulations are still new to the Sri Lanka. Therefore studies related to this field will help to enhance further development of corporate governance in Sri Lanka.

This study examines whether LPCs and MNCs subsidiaries do have different governance structures and studies the effects of those governance mechanisms on financial performance and the agency costs of the companies. This study makes a number of contributions to the literature. First, it is adds to the empirical evidence on the relationships between corporate governance mechanisms and firm financial

performance and agency costs. By studying a wide range of corporate governance variables, it enhances the understanding of how different corporate governance mechanisms collaborate with company financial performance and agency costs. Secondly, most existing studies use data from developed countries with western culture. Cultural, structural and legal differences influence individual behaviours, leadership and management activities. This study provides evidence from Sri Lanka, which is a developing country with pyramid ownership and a weak regulatory system, similar to other emerging economies. Thirdly, this research undertakes the first direct study of company financial performance, agency costs and corporate governance mechanisms in listed Sri Lankan companies (both MNC subsidiaries and LPCs) representing all industries except the financial sector. Fourthly, this study adopts a generalised method of moment dynamic panel technique to control the endogeneity effect of board characteristics and ownership structures and reverse causality on financial performance and agency costs. Most of the previous studies did not explore the endogeneity effect of board characteristics and ownership structure and they explored 2SLS or 3SLS regression technique for selected variables only.

4.2 Conceptual framework

In order to understand corporate governance and financial performance and agency conflicts variables in relation to MNCs in Sri Lanka, it is necessary to know the major corporate governance pillars that contribute to the home country corporate governance system and the host country corporate governance system. In addition, firm-specific factors, strategic, environmental and cultural factors may potentially play a significant role. For LPCs, corporate governance mechanisms are based on the Sri Lanka corporate governance system.

Corporate governance mechanisms of LPCs can be categorised as internal corporate governance mechanisms and external corporate governance mechanisms.

MNCs' corporate governance mechanisms are influenced by both host country and home country corporate governance systems. Depending on legal and regulatory frameworks, MNCs' corporate governance models can be categorised into three broad categories; the Anglo-US model, German model and Japanese model. Therefore, this study considers MNCs' parent company location to be an important variable to determine corporate governance mechanisms in subsidiaries. Another distinguishing variable in MNC subsidiaries is the foreign manager. However, a foreign manager's contribution to a subsidiary's financial performance has not been established yet. Therefore, this study includes foreign managers as an independent variable to check the effect of Sri Lankan firms' performance. Figure 4.1 depicts the conceptual framework below.

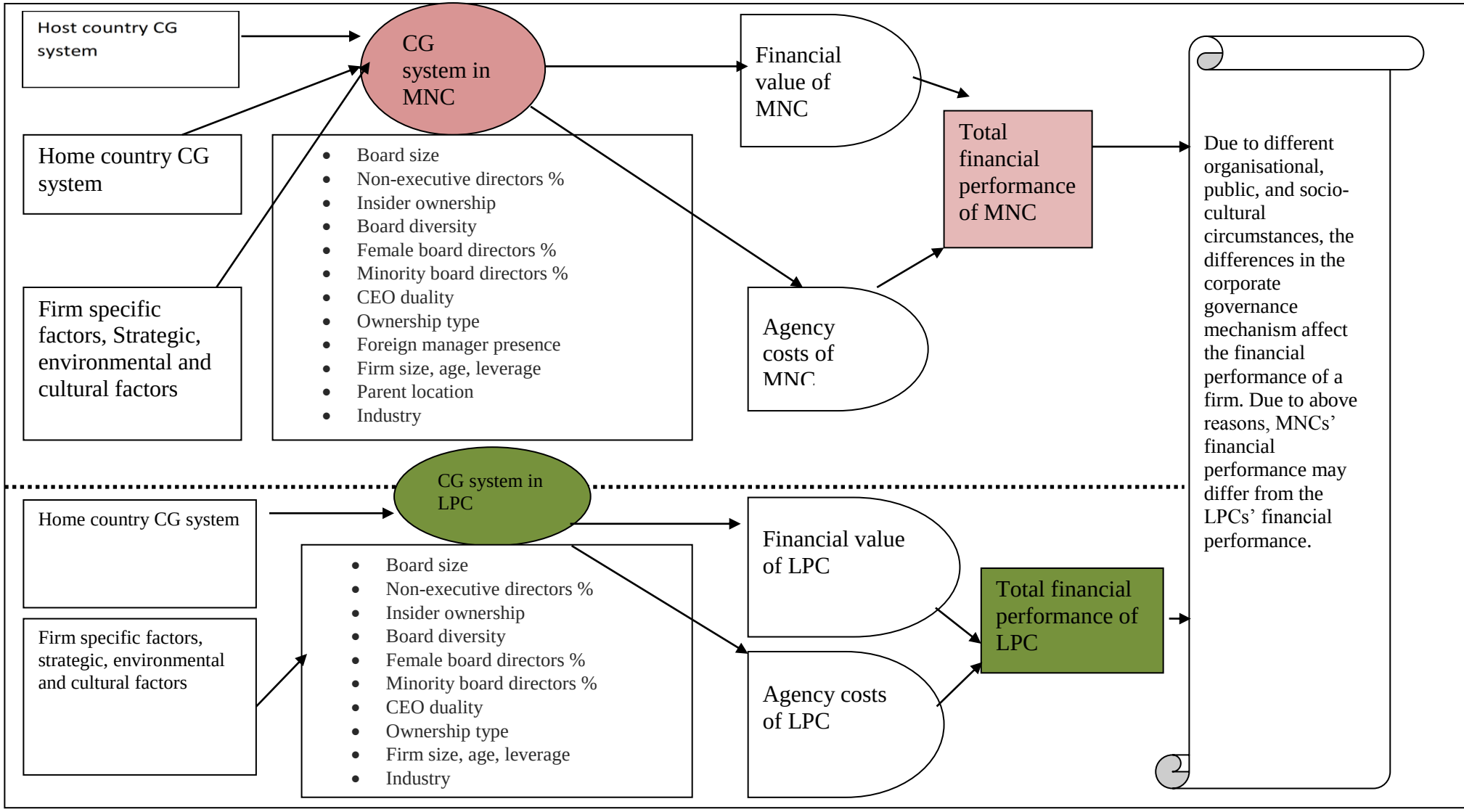

Figure 4.1 Conceptual framework: Financial performance of LPCs and MNCs in Sri Lanka

4.3 Hypotheses development

The hypotheses presented in this study will be tested in different firms in the context of social, economic and political factors important to the LPCs and MNCs in Sri Lanka.

4.3.1 Description of hypotheses

This section provides theoretical and empirical links between research questions and develops the research hypotheses. The first hypotheses concern the board size and financial performances and agency costs of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 1:

The issue of board size became more prominent in the 1990s when more emphasis was placed on governance mechanisms; however the impact of board size and firm financial performance is still inconclusive. Optimal board size differs depending on country, firm and industry. According to Ning *et al.*,(2010), optimal board size for US public listed companies ranges from 8 to 11 board members. "Corporate Governance Report 2009: Boards in Turbulent Times" (2009) states European companies' average board size is 11.8. How board size is determined can be explained by two major theories; agency costs theory and resource dependency theory. When a firm's board size is smaller than the optimal, it is likely board size will be increased. This is aligning with resource dependency theory. On the other hand, when firms have larger boards, they are more likely to reduce board numbers. This reduces the free-rider problem and conflict inheritance in larger boards and aligns with agency costs theory.

Yermack (1996), using 797 small firms across eight years, provides empirical evidence of a negative relationship between board size and firm financial performance. Further, Hermalin & Weisbach (2003a) argue that larger boards

increase agency costs and free-rider problems with directors. They also explain that larger boards can often move into a more figurative role, rather than fulfilling the intended function as part of management. Compared with larger boards, a smaller board may be less burdened with bureaucratic problems and may be more functional.

In a meta-analysis of 131 studies drawn from an aggregate of 20,620 companies, Dalton *et al.* (1999) find larger boards are associated with better financial performance. They explain that larger boards have more relevant expertise and therefore in the case of earnings management, large boards consist of more independent directors with finance and corporate experience. However, corporate board size is influenced by other environmental and firm specific factors. Generally, large and complicated firms require large boards with a lot of expertise and high accessibly to market resources. This is in line with Coles *et al.* (2008) who argue that when firms switch from simple to complex, board size increases to the optimal board size to achieve higher financial performance.

After controlling for a possible endogeneity effect, Drakos & Bekiris (2010) find a significant negative relationship with board size and company financial performance. There is very little prior research addressing endogeneity of board size and company financial performance. Board size, is known to be correlated with observable and unobservable firm characteristics that are potentially correlated with firm financial performance (Bennedsen *et al.*, 2007). Considering this endogenous effect Jong *et al.* (2000) and Black *et al*. (2003) find significant relationship of firm financial performance and board size in Dutch and Korean firms, respectively. This study will address possible endogeneity of board size collectively with other board structure variables.

Therefore, the following hypotheses are postulated regarding the board size and corporate governance relationship in MNCs and LPCs in Sri Lanka.

H_{1a1} : There is no significant association between firm board size and financial performance of MNCs in Sri Lanka.
H_{1a2} : There is no significant association between firm board size and PA agency costs of MNCs in Sri Lanka.
H_{1a3} : There is no significant association between firm board size and PP agency costs of MNCs in Sri Lanka.
H_{1b1}: There is no significant association between firm board size and financial performance of LPC in Sri Lanka.
H_{1b2} : There is no significant association between firm board size and PA agency costs of LPC in Sri Lanka.
H_{1b3} : There is no significant association between firm board size and PP agency costs of LPC in Sri Lanka.

The next hypotheses concern the non-executive directors' percentage and financial performances and agency costs of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 2:
The code of best practice on corporate governance (2008) in Sri Lanka recommended that all publicly listed companies' boards should include sufficient calibre of non-executive directors. According to the corporate governance survey in Sri Lanka (2007), 87% of respondents consider that balance between non-executive directors and executive directors are appropriate in Sri Lankan listed companies. The Cadbury Report (1992), Hampel report (1998) and Higgs report (2003) recommended more non-executive directors for UK boards.

Findings about the relationship between the inclusion of independent non-executive directors and the financial performance of a firm provide mixed evidence. Schellenger *et al.* (1989) posit a positive relationship between the non-executive proportion of the board and corporate financial performance. Based on a series of semi structured interviews, Long *et al.* (2005) compare the role of non-executive directors between listed and unlisted UK companies by studying

strategy involvement, financial monitoring, and overall board contribution perspectives. They find that non-executive directors in listed firms create high levels of transparency, shareholder perception, information asymmetry, and the impact of corporate governance regulation.

Many researchers have identified that non-executive directors may provide effective monitoring, but the following evidence suggests the opposite. First, the Higgs Report (2003) finds the recruitment process for non-executive directors' is highly prejudiced. The report says 95% of non-executive appointments are based on personal contacts and only 4% of non-executive directors had formal interviews. Secondly, Jensen (1993) finds that non-executive directors are often lacking expertise in the field which is meant to be there are of expertise. Therefore monitoring effectiveness is reduced. Moreover, Young (2000) explains that non-executive directors' board monitoring can be irrelevant, costly and can be a threat to board unity. Further, Harris & Raviv (2008) suggest that board structure depend on the firm's characteristics and its contracting environment. Therefore the effects of non-executive directors percentage is remain an open question on which this study seeks to shed light.

Therefore the following hypotheses are formulated in regard to non-executive directors in Sri Lankan companies.

H_{2a1} : There is no significant association between percentage of non-executive directors and financial performance of MNCs in Sri Lanka.
H_{2a2} : There is no significant association between percentage of non-executive directors and PA agency costs of MNCs in Sri Lanka.
H_{2a3} : There is no significant association between percentage of non-executive directors and PP agency costs of MNCs in Sri Lanka.
H_{2b1} : There is no significant association between percentage of non-executive directors and financial performance of LPCs in Sri Lanka.
H_{2b2} : There is no significant association between percentage of non-executive directors and PA agency costs of LPCs in Sri Lanka.
H_{2b3} : There is no significant association between percentage of non-executive directors and PP agency costs of LPCs in Sri Lanka.

The next hypotheses concern insider ownership, financial performance and agency costs of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows:

Hypothesis 3:

In corporate finance, the relationship between insider ownership and firm financial performance is an important and contested area. Morack *et al.* (1988) and McConnell & Servaes (1990) investigate the relationship between top management ownership, known as insider ownership, and company financial performance. They find a significant non-linear relationship.

Sheu & Yang (2005) analyse Taiwan's electronic industry and posit stock ownership of top managers in high-tech companies positively affects company financial performance. Chen *et al.* (2003) find similar results between insider ownership and firm performance if they control for fixed effects. Their result is stable after the treatment of insider ownership and performance proxy (Tobin's Q) as causality in a simultaneous equation system. McKnight & Weir (2009) examine the impact of governance and managerial ownership variable on agency costs using UK quoted companies. They find insider ownership and agency costs have a negative significant relationship, which indicates that increasing insider ownership positively affects overall firm performance. While previous research is predominantly derived from market-centric models and relationship-based models, there is also some emerging market model evidence. Zeitun & Gary (2007) examine the Jordan Stock Exchange and find that there is a significant relationship between ownership concentration and ROA. Abor & Nicholas (2007) examine Ghana SME's and found insider ownership has significant positive impacts on profitability. Manawaduge *et al.* (2008) find positive relationships between insider ownership and ROA in a Sri Lankan context.

Recently, Demsetz & Villalonga (2001) examined the insider ownership proportion and firm financial performance, while considering insider ownership as an endogeneity effect. However, they cannot find any significant relationship between insider ownership percentage and corporate financial performance. Therefore, the following hypotheses are postulated regarding insider ownership, financial performance and corporate governance relationship in MNCs and LPCs in Sri Lanka.

H_{3a1} : There is no significant association between percentage of insider ownership and financial performance of MNC subsidiaries in Sri Lanka.
H_{3a2} : There is no significant association between percentage of insider ownership and PA agency costs of MNC subsidiaries in Sri Lanka.
H_{3a3} : There is no significant association between percentage of insider ownership and PP agency costs of MNC subsidiaries in Sri Lanka.
H_{3b1} : There is no significant association between percentage of insider ownership and financial performance of LPCs in Sri Lanka.
H_{3b2} : There is no significant association between percentage of insider ownership and PA agency costs of LPCs in Sri Lanka.
H_{3b3} : There is no significant association between percentage of insider ownership and PP agency costs of LPCs in Sri Lanka.

The next hypothesis concerns the board diversity and financial performances and agency costs of MNC subsidiaries in Sri Lanka. The hypothesis is as follows.

Hypothesis 4:
Board diversity has been a growing area of research in recent years. There are two major reasons why board diversity could lead to superior performance in a company. The first reason is that board diversity is seen as part of good corporate governance practice, and prior research suggests a diversified board increases company financial performance (Carter *et al.*, 2003). The second reason is that a diversified board reduces agency conflict between managers and shareholders. Carter *et al*. (2003) argue that board diversity increases board independence, hence it reduces misalignment of manager and shareholder interests. Barnhart *et*

al. (1994) explain that through discussion, the exchange of ideas on a diversified board improves board performance by providing new insights and perspectives.

However, some studies find a negative relationship between board diversity and firm financial performance or a non-significant relationship. Ancona & Caldwell (1992) explain that if diversity increases financial performance, the high costs of coordination and communication among a diverse top management team can ultimately increase company costs. Further, Hambrick *et al.* (1996) explain heterogeneous group decision making is less efficient than homogenous board decision making, and this affects a firm's competitive behaviour. Consistent with that, Pelled *et al.* (1999), Amason (1996) and Carpenter (2002) suggest that a heterogeneity group can negatively affect communication in a top management team. Moreover, from an agency perspective, Jensen (1993) explains that largely diversified boards are less effective in controlling management. Hence, diversified boards have more agency problems than non-diversified boards.

Finally, there are some studies who found no significant relationship between board diversity and firm financial performance/agency costs. Farrell & Hersch (2005) founds that board gender diversity does not result in any value creation or deduction. Rose (2007) found no significant relationship between board gender, nationality and educational diversity and firm financial performance in Danish firms. Moreover, Walt *et al.* (2006) investigated the level of board diversity in board composition. They also fail to find any significant relationship between board diversity and firm financial performance in New Zealand context.

Thus, the following hypotheses are formulated regarding board diversity and firm financial performance and agency costs in MNCs and LPCs in Sri Lanka.

H_{4a1} : There is no significant association between board diversity and financial performance of MNC subsidiaries in Sri Lanka.
H_{4a2} : There is no significant association between board diversity and PA agency costs of MNC subsidiaries in Sri Lanka.
H_{4a3} : There is no significant association between board diversity and PP agency costs of MNC subsidiaries in Sri Lanka.
H_{4b1} : There is no significant association between board diversity and financial performance of LPCs in Sri Lanka.
H_{4b2} : There is no significant association between board diversity and PA agency costs of LPCs in Sri Lanka.
H_{4b3} : There is no significant association between board diversity and PP agency costs of LPCs in Sri Lanka.

The next hypotheses concern female board director percentage on boards and financial performance of MNCs and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 5:
Corporate boardrooms around the world are still not very diverse as far as gender is concerned. The situation has started to change. The existing literature reveals a slow but steady rise in female presence on boards of directors in companies across the globe. The German Institute for Economic Research pointed to legislation as being the key factor in attracting women to board membership. For example, in Norway, federal legislation requires all boards to have at least 40 % female representation on the company board. Before Norway's law, only 7% of publicly listed Norwegian companies' board members were female. But by 2009, Norway had the highest proportion of women on corporate boards in the world with an average of 44.2%. Similar laws have been passed in Spain and the Netherlands.

The issue of women on corporate boards of directors has received considerable attention in past decades, thus the central question within this area is whether or not the presence of women on boards contributes to board performance and corporate performance. Social identity theory explains that women with minority status may face specific social barriers in the context of corporate boards (Singh &

Vinnicombe, 2004). On the other hand, the concept of "tokenism" has been used widely to explain the difficulties that women face when they enter traditionally male occupations (Kanter, 1987). Recent empirical studies show positive relationships with gender diversity and firm financial performance (Campbell & Vera, 2010; Carter *et al*., 2003; Erhardt *et al.*, 2003) while other studies show negative relationships or non significant relationships (Adams & Ferreira, 2008; Marinova *et al*., 2010). Using a large panel of publicly-traded UK firms from 1996-2003, Adams & Ferreira (2008) find gender diversity only has a positive effect on weak corporate governance firms in the UK.

Marinova *et al.* (2010) observed 102 Dutch and 84 Danish firms, and found a non significant relationship with firm financial performance and female board representation. This sample consisted of at least 40% female directors in the boardroom. Their finding is in line with Rose (2007) who employed Danish listed firms and found female board directors had no impact on firm performance. Further, Smith *et al.* (2006) employed a large Danish data set and failed to find any significant relationship between female board directors and company accounting performance measures. In cross country analysis Randoy *et al.* (2006) found no significant effect of gender diversity on stock market performance or return on assets in Denmark, Norway and Sweden.

The objective of these hypotheses is to examine gender diversity impacts for both agency costs and financial performance in Sri Lankan MNCs and LPCs.

H_{5a1} : There is no significant association between percentage of female board directors and financial performance in MNCs in Sri Lanka.
H_{5a2} : There is no significant association between percentage of female board directors and PA agency cost in MNCs in Sri Lanka.
H_{5a3} : There is no significant association between percentage of female board directors and PP agency cost in MNCs in Sri Lanka.
H_{5b1}: There is no significant association between percentage of female board directors and financial performance in LPCs in Sri Lanka.

H_{5b2}: There is no significant association between percentage of female board directors and PA agency cost in LPCs in Sri Lanka
H_{5b3}: There is no significant association between percentage of female board directors and PP agency cost in LPCs in Sri Lanka

The next hypotheses concern the minority percentage representation on the board and financial performance of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 6:
Discussion and representation of ethnic minorities on company boards rose rapidly in the 1990s and early 2000s, but considering US figures from the last four years, the number of companies that have at least one minority director has only slightly increased from 75% to 78% ("34th Annual Board Directors Study", 2007).

Hillman *et al.* (1998) employed S & P 500 companies and found that companies with more women and more minority directors had better stock returns and less risk of loss of shareholders. Carter *et al*. (2003) explain there is a positive relationship with minority representation and firm financial performance using Fortune 1000 firms. In an Asian context, Marimuthu (2008), using Malaysian listed firms, finds a significant positive relationship with ethnic diversity and firm financial performance using return on assets as a performance measure variable.

On the other hand, ethnic diversity can decrease company financial performance. Although a mixed relationship between ethnic diversity in the boardroom and firm financial performance is often cited in the previous literature and popular press, most early studies are not robust in addressing the endogeneity of ethnic diversity. Therefore, the actual relationship between ethnic diversity and financial performance is still unsolved.

Therefore, the following hypotheses are postulated regarding the minority board directors' percentage and corporate governance relationship in MNCs and LPCs in Sri Lanka.

H_{6a1} : There is no significant association between the percentage of ethnic minority directors serving on the board and the financial performance in MNCs in Sri Lanka.
H_{6a2} : There is no significant association between the percentage of ethnic minority directors serving on the board and the PA agency cost in MNCs in Sri Lanka.
H_{6a3} : There is no significant association between the percentage of ethnic minority directors serving on the board and the PP agency cost in MNCs in Sri Lanka.
H_{6b1}: There is no significant association between the percentage of ethnic minority directors serving on the board and the financial performance in LPCs in Sri Lanka.
H_{6b2}: There is no significant association between the percentage of ethnic minority directors serving on the board and the PA agency cost in LPCs in Sri Lanka.
H_{6b3}: There is no significant association between the percentage of ethnic minority directors serving on the board and the PP agency cost in LPCs in Sri Lanka.

The next hypotheses concern the ownership type of the company and financial performance and agency costs of MNCs and LPCs in Sri Lanka. The hypotheses are as follows

Hypothesis 7:
According to the "Board of Directors Study in Australia and New Zealand ", (2007), there is considerable discrepancy among geographic regions of the world with regard to CEO duality. In the US, the CEO is most often also the chairman of the board, in Europe and the United Kingdom the CEO and chairman roles are separated and the chair is generally non-executive. In recent years corporations have been facing strong pressure from regulatory bodies and shareholders to separate CEO and chairman roles in organisations. In the US, the fraction of firms converting to non-duality from duality increased by 55% in 1999 to approximately 70% in 2003 (Chen et al., 2008b).

In early literature, Fama & Jensen (1983), Westphal & Zajac (1995), Pi & Timme (1993) find CEO duality leads to more agency conflict and ultimately poor financial performance of a firm. In contrast, Donaldson & Davis (1991b) explain, based on stewardship theory, that CEO duality creates a necessary and important unity of command at the top of an organisation. Furthermore, Finkelstein & D'Alene (1994) explain CEO duality helps to avoid confusion among managers, employees and stakeholders, with timely decision making. Supporting the above discussion, Brickley *et al.* (1997) explain separation of CEO and chairman roles conflicts with top management, reduces decision making speed and effectiveness of the firm and leads to poor firm performance.

Faleye (2004) posits that CEO duality is preferable in firms with small boards, ones with large insider ownership and highly complex operations. To avoid one person having unfettered powers of decision making, the code of best practice on corporate governance in Sri Lanka (2008) includes their second principle, which states there should be a clear separation of responsibilities between chairman and CEO of the company to ensure balance of power and authority. The board leadership structure is contingent on the ownership structure of the company. Consequently, OLS estimations are biased and inconsistent; most prior studies fail to control for such potential control biases.

However, according to empirical evidence there is no universal optimal board leadership structure and companies need to adopt the best structure that fits with the institutional structure and business environment. Palmon & Wald (2002) in line with above statement provide evidence that the optimal leadership structure depends on firm size.

However, some studies do not detect any significant relationship between board leadership role and financial performance (Baliga *et al.*, 1996; Dalton *et al.*,

1998). Consequently, most of the early studies used ordinary least square (OLS) estimations to evaluate the relationship between CEO duality and financial performance of a company. OLS estimates are biased and inconsistent. Therefore, most of the early studies fail to control potential selection bias. Chen *et al.,* (2008) control this potential bias and use the Heckman two-step procedure and a fixed effect model to control for unobservable factors. However, their study does not show any significant relationship between firm financial performance and CEO duality.

Therefore the following hypotheses are formulated regarding corporate governance and CEO duality in Sri Lankan LPCs and MNC subsidiaries.

H_{7a1} : There is no significant association for firms that practise separate leadership (CEO position) with financial performance in MNCs on Sri Lanka.
H_{7a2} : There is no significant association for firms that practise separate leadership (CEO position) with PA agency costs in MNCs on Sri Lanka.
H_{7a3} : There is no significant association for firms that practise separate leadership (CEO position) with PP agency costs in MNCs on Sri Lanka.
H_{7b1} : There is no significant association for firms that practise separate leadership (CEO position) with financial performance in LPCs in Sri Lanka.
H_{7b2} : There is no significant association for firms that practise separate leadership (CEO position) with PA agency costs in LPCs in Sri Lanka.
H_{7b3} : There is no significant association for firms that practise separate leadership (CEO position) with PP agency costs in LPCs in Sri Lanka.

The next hypotheses concern the company ownership type and financial performance and agency costs of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 8:
The effect on firm financial performance of the percentage of shares owned by institutional investors and the percentage of shares owned by individual or board members is tested out by this hypothesis. Institutional ownership has increased and has also been highly debated in recent years. The expectation is that institutional ownership positively and significantly affects shareholders value and

corporate governance in public companies (Hellman, 2005). Furthermore, the institutional investor role has dramatically changed during the past few years as passive investors become active monitors. Previous empirical studies find that the preferences, behaviours, and dividend pay-outs are different for individual investors and institutional investors (Griffin *et al.*, 2003; Jain, 2007; Ng & Wu, 2007). Gillan & Starks (2003) explain foreign institutional ownership has a positive effect on quality corporate governance practices. Ferreira & Matos (2008) find a positive relationship with foreign institutional ownership and financial value of the companies. Allen *et al.* (2000) suggest that institutional ownership companies have better information gathering, higher dividend payouts and better monitoring, which reduces the agency conflicts.

Conversely, Henry (2010) finds institutional ownership creates greater potential for agency costs because independent monitoring is less effective in institutional ownership firms compared with individually owned firms. He also explains that institutional ownership has a positive relationship with greater board independence, higher remuneration and reduced likelihood of CEO duality.

The inclusive results of previous studies on the ownership type (institutional or individual/board) may stem from inconsistency in unobservable biases. There are very few studies that consider endogeneity of the ownership type. Considering endogeneity effect of ownership type, Clay (2001) finds a significant positive relationship between institutional ownership and Tobin's Q. This is confirmed by Tasi & Gu (2007) who find a positive significant relationship between Tobin's Q and institutional ownership after controlling the endogeneity issue of ownership type.

Nevertheless, Based on 300 Fortune 800 firms, Agrawal & Knoeber (1996) find a non significant relationship with institutional ownership and corporate financial

performance. This is consistent with Craswell *et al.* (1997) who find non-significant results after analysing an Australian sample of companies.

Therefore the following hypotheses are formulated in regard to ownership type and company financial performance and agency costs in LPCs and MNCs in Sri Lanka.

H_{8a1}: There is no significant association of ownership type (individual/board or institution) and financial performance in MNCs in Sri Lanka.
H_{8a2}: There is no significant association of ownership type (individual/board or institution) and PA agency costs in MNCs in Sri Lanka.
H_{8a3}: There is no significant association of ownership type (individual/board or institution) and PP agency costs in MNCs in Sri Lanka.
H_{8b1}: There is no significant association of ownership type (individual/board or institution) and financial performance in LPCs in Sri Lanka.
H_{8b2}: There is no significant association of ownership type (individual/board or institution) and PA agency costs in LPCs in Sri Lanka.
H_{8b3}: There is no significant association of ownership type (individual/board or institution) and PP agency costs in LPCs in Sri Lanka.

The next hypotheses concern the foreign manager presence and financial performance and agency costs of MNCs and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 9:
Foreign managers can be defined as those "employees of business organisations..... who are sent overseas on a temporary basis to complete a time based task or accomplish an organisational goal" (Harrison *et al.*, 2004). In the early 1990s MNCs depended heavily on foreign managers (Meuse *et al.*, 2010). It was quite common for foreign subsidiaries in developing countries to be headed by foreign managers from the parent company country. International assignments were viewed as playing an important role in fostering global talent in the subsidiary organisation. However, later, companies discovered that foreign managers were expensive and had significant failure rates. Therefore MNCs started to employ local managers who were knowledgeable about local culture and

local market trends. But these local managers were often detached from the culture of corporate headquarters.

Foreign managers are used to transfer technology skills, to provide international experience to local staff, to test high-potential managers in a general management position and provide staff with management development experience, etc. (Peterson *et al.*, 1996). Similar to the technology and other assets transferring through foreign managers, the parent company can use foreign managers to transfer company culture and organisational behaviour to the subsidiary company (Harrison, 1994). Harvey & Moeller (2009) explain that a qualified foreign manager needs the following managerial competences; cultural awareness, which includes communication and learning adoptability, cross cultural skills, emotional energy and physiological maturity. In line with the above statement Culpan & Wright (2002) and Harvey & Novicevic (2002c) explain foreign managers need soft skills to develop effective local strategies in a subsidiary environment. Soft skills embody in depth ideas about local government relations, cultural leadership, social networking, team work, a deep understanding of local consumers and competitors and high levels of local social knowledge.

Not every foreign manager is successful. According to Shay & Bruce (1997), 70% of all US managers assigned as foreign managers in developing countries were unable to simply survive their assignment. There are three main reasons why they were unsuccessful: The manager's inability to adjust to the different physical and cultural environment; the inability of the manager's spouse to adjust to a different physical or cultural environment; and other family related problems (Anderson, 2005; Tung, 1987). "GMAC/SHRM Global Forum" (2006) found that 65% of MNCs were expecting an increase in foreign managers in the next decade. Foreign companies invested in Sri Lanka need to consider the country's

institutional and legal framework, social network and cultural factors when selecting and appointing foreign managers in Sri Lanka.

Therefore, the following hypotheses are formulated in regard to foreign managers, corporate governance and MNC subsidiaries' firm value.

H_{9a1} : There is no significant association between foreign managers' presence and financial performance of MNCs in Sri Lanka.
H_{9a2} : There is no significant association between foreign managers' presence and PA agency costs of MNCs in Sri Lanka.
H_{9a3} : There is no significant association between foreign managers' presence and PP agency costs of MNCs in Sri Lanka.

The next hypotheses concern firm size and financial performance of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 10:
Firm size is considered to be one of the important variables in organisational studies. Factors such as more expertise in the field, more layers of managers and greater bureaucracy lead to higher financial performance in larger firms but not in smaller firms.

According to the early literature, firm size has a positive relationship with firm performance. Previous scholars explain that firm size may lead to an increase in net economies of scale, greater control over external stakeholders and resources, and attraction and retention of better employees (Gooding & Wagner, 1985; Stanford, 1980). In recent research undertaking meta-analysis, Orlitzky (2001) proves a positive path between firm size and firm financial performance. In contrast, Ibrahim *et al.*(2008), using Malaysian family and non-family businesses, find a negative relationship with firm size and firm financial performance.

However, Wan & Bullard (2008) empirically investigated the US wood household furniture industry and found no significant impact on firm size and firm overall performance.

Therefore, the following hypotheses are postulated in regard to firm size and firm financial performance and agency costs in MNCs and LPCs in Sri Lanka.

H_{10a1} : There is no significant association between firm size and financial performance of MNCs in Sri Lanka.
H_{10a2} : There is no significant association between firm size and PA agency costs of MNCs in Sri Lanka.
H_{10a3} : There is no significant association between firm size and PP agency costs of MNCs in Sri Lanka.
H_{10b1} : There is no significant association between firm size and financial performance of LPCs in Sri Lanka.
H_{10b2} : There is no significant association between firm size and PA agency costs of LPCs in Sri Lanka.
H_{10b3} : There is no significant association between firm size and PP agency costs of LPCs in Sri Lanka.

The next hypotheses concern the firm age and financial performances and agency costs of MNCs and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 11:
Storey (1994) posits younger firms have higher death rates and faster growth rate than mature firms. "For young firms, probably the most powerful influence on their survival is whether or not they grow within a short period after start-up"(Storey, 1994). However, it is still unclear whether maturity helps a company prosper or dooms it. As the firm matures, technology adoption, degree of diversification and expertise in the management team gradually increases (Campa & Kedia, 2002; Villalonga & Amit, 2004). These factors may increase firm financial performance. Moreover, firms operating for several years with established systems and reputation should have better governance practices. Age should help firms to become more efficient. Due to the development of human-capital, employee training and established social networks, mature firms can generate more profit than young firms. This is in line with Hopenhayn (1992) who shows that individual productivity increases as firms mature; hence mature firms are profitable than young firms. Agrawal & Gort (2002) explain a similar

idea and suggest old firms have more knowledge, abilities and skills than new firms.

Thus, the following hypotheses are formulated regarding firm age and firm financial performance and agency costs in MNCs and LPCs in Sri Lanka.

H_{11a1} : There is no significant association between firm maturity and financial performance of MNCs in Sri Lanka.
H_{11a2} : There is no significant association between firm maturity and PA agency costs of MNCs in Sri Lanka.
H_{11a3} : There is no significant association between firm maturity and PP agency costs of MNCs in Sri Lanka.
H_{11b1} : There is no significant association between firm maturity and financial performance of LPCs in Sri Lanka.
H_{11b2} : There is no significant association between firm maturity and PA agency costs of LPCs in Sri Lanka.
H_{11b3} : There is no significant association between firm maturity and PP agency costs of LPCs in Sri Lanka.

The next hypotheses concern firm leverage and financial performance and agency costs of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 12:
The decision regarding the optimal mix of debt and equity financing is critical to company success (Bancel & Mittoo, 2004; Graham & Harvey, 2001). However, the literature seems to present a unanimous position on the role of debt. Some scholars point to debt allocated to large creditors, such as banks, being a useful tool for reducing the agency problem. Ang *et al.* (2000) and Florackis (2008) explain that debt can be used as an external monitoring variable to control the agency problem in a firm. Diamond (1991) explains that the bank is an efficient method for monitoring. Alternatively, direct monitoring is inefficient, because of its high cost. Furthermore, Faccio *et al.* (2001) explain debt can work as a control for insiders, as a mechanism for expropriation of minority shareholders and other outside shareholders. However, the effectiveness of debt, either as a monitoring mechanism or as an expropriation control mechanism depends on institutional and

capital market qualities. Well developed capital market, exhibiting efficient banking systems, strong of bankruptcy laws, active take-over market and transparency and accountability of auditing positively affect a firm's debt level (Berglof, 1995; Day & Peter, 2004a).

Colombage (2007) explains that due to under development of the bond market Sri Lankan companies rely heavily on bank debt when raising external capital. However, the Sri Lankan government and regulatory bodies have been striving to develop a solid capital market in recent years. As an emerging economy, less security, higher interest rates and weak rules and regulations may be the reason for lower leverage ratios of companies. As a country with a large proportion of small and medium size enterprises most of the owners depend on loans to the business from the owners, known in smaller business as quasi-debt, distort debt to equity and debt to assets ratios.

Thus, the following hypotheses are formulated regarding firm leverage level and firm financial performance and agency costs in MNCs and LPCs in Sri Lanka.

H_{12a1} : There is no significant association between firm leverage and financial performance of MNCs in Sri Lanka.
H_{12a2} : There is no significant association between firm leverage and PA agency costs of MNCs in Sri Lanka.
H_{12a3} : There is no significant association between firm leverage and PP agency costs of MNCs in Sri Lanka.
H_{12b1} : There is no significant association between firm leverage and financial performance of LPCs in Sri Lanka.
H_{12b2} : There is no significant association between firm leverage and PA agency costs of LPCs in Sri Lanka.
H_{12b3} : There is no significant association between firm leverage and PP agency costs of LPCs in Sri Lanka.

The next hypotheses concern MNC parent location and financial performances and agency costs of MNC subsidiaries and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 13:

Headquarters can affect MNC subsidiaries performance in several ways. Ambos & Birkinshaw (2010) argue that the level of autonomy and sub-unit power of subsidiaries designated by headquarters positively affects subsidiary performance. The next influential factor is headquarters' knowledge of the transfer process. Ciabuschi *et al.* (2010) examine the knowledge transfer process and find allocating decision-making rights and providing necessary funds positively affects subsidiaries' performance. The tasks include handling basic governance functions in the subsidiaries, fulfilling legal requirements (preparing annual reports, health and safety or environmental legislation) and undertaking the budgeting process. Asma (1996) explains many foreign subsidiary companies 'values, technologies, systems and procedures derive from their parent companies. Further, he explains US companies emphasise individual rewards rather than a group rewards system while Japanese based companies follow collectivism.

According to Luo (2001), the distance between host country and home country, culture, rules and regulatory stringency, and industrial growth all affect the financial performance of MNC subsidiaries. Subsidiaries' agency costs can be determined by the MNC headquarters' geographical location. The main reason for that is a dividend payments difference. Dividend policy is highly influenced by the host country's tax scheme. MNCs from emerging economies like India, Malaysia, and MNCs from developed markets like UK and US may have different dividend payment policies for shareholders. Due to the above reasons, it can be assumed that geographical location of MNC headquarters where different cultural values are practised can significantly affect subsidiaries' financial performance and agency costs.

Therefore the following hypotheses are formulated in regard to MNC parent location, corporate governance and MNC subsidiaries' firm value.

H_{13a1} : There is no significant association between MNCs' parent company location or region and financial performance of MNCs in Sri Lanka.
H_{13a2} : There is no significant association between MNCs' parent company location or region and agency costs of MNCs in Sri Lanka.

The next hypotheses concern firm operating industry and financial performances and agency costs of MNCs and LPCs in Sri Lanka. The hypotheses are as follows.

Hypothesis 14:
Prior studies argue that the firm's operating industry affects corporate financial performance and agency costs (Hewa-Wellalage & Locke, 2010; Waddock & Graves, 1997). Hovey *et al.* (2003) find the industry in which a firm operates has significant effect on financial performance. This may arise due to differences in company ownership structure, capital structure and technology from industry to industry. As an example, a high tech company's technology know-how and assets structure is different from a firm that operates in the financial sector. Government rules and regulation may also vary between industries. When considering foreign ownership of Sri Lankan companies, Sri Lanka allows 100% foreign ownership except in a few industries, including money lending, pawn broking, coastal fishing and education. These ownership structure differences can affect financial performance and agency costs of firms. Moreover, firms operating in monopoly and oligopoly industries can have different leverage ratios, assets structure and bankruptcy probability. Hence, industry differences can determine the firm financial performance and agency costs.

In contrast to the above findings, Hawawini *et al.* (2003) find that industry factors have little impact on firm financial performance. They conclude industry factors

have no impact on the highest profitability group and lowest profitability group of companies. In line with above findings, Brush *et al.* (1999) and Mauri & Michaels (1998) find corporate factors have a larger impact on firm profitability determinants than industrial factors.

Therefore, the following hypotheses are formulated in regard to company operating industry, corporate governance and firm financial performance and agency costs as follows:

H_{14a1} : There is no significant association between company operating industry and financial performance of MNCs in Sri Lanka.
H_{14a2} : There is no significant association between company operating industry and PA agency costs of MNCs in Sri Lanka.
H_{14a3} : There is no significant association between company operating industry and PP agency costs of MNCs in Sri Lanka.
H_{14b1} : There is no significant association between company operating industry and financial performance of LPCs in Sri Lanka.
H_{14b2} : There is no significant association between company operating industry and PA agency costs of LPCs in Sri Lanka.
H_{14b3} : There is no significant association between company operating industry and PP agency costs of LPCs in Sri Lanka.

The next hypothesis (H_{15}) is about the type of governance mechanism of MNCs and LPCs. The hypothesis is as follows.

Hypothesis 15:
All the companies listed on the CSE need to adopt the corporate governance mandatory code of best practices on corporate governance effective from 1 April 2008. The key aspects of this code are to create effective, balanced and independent boards, enhance transparency of recruitment and auditing, enhance shareholders' rights and increase sustainability and profitability of business.

In addition to LPCs' governance, firm level governance characteristics, the national institutional environment and internationalisation activities need to be considered in the governance of MNC subsidiaries. MNCs corporate governance mechanisms cannot go against existing national law of the home country and governance norms cannot conflict with the institutional environment of the

company. From 2000, OECD corporate governance practices guidelines for MNCs have existed. These voluntary guidelines are an attempt to create a soft-law framework for customary compromise and culturally appropriate corporate behaviour in MNC subsidiaries. This OECD voluntary code includes a set of recommendations for industrial relations, human resource management, environment and information discourse, etc. Further, this hypothesis empirically tests adoption of specific corporate governance mechanisms, in particular, adherence to an overall code of governance practice, which is associated with agency costs benefits for LPCs and MNCs in Sri Lanka. The proposed conceptual framework suggests that the bundle of corporate governance mechanisms of each MNC subsidiary is based on the host country's corporate governance system, home country's corporate governance system and firm-specific characteristics, strategic, economic, cultural and environmental characteristics. LPCs' corporate governance systems are only based on home country's corporate governance systems, firm-specific characteristics, and strategic, economic, cultural and environmental characteristics of the country.

Therefore, the following hypothesis is postulated regarding the corporate governance mechanisms in MNCs and LPCs in Sri Lanka.

H_{15} : There is no significant difference between the governance mechanism of MNC subsidiaries and the governance mechanism of LPCs.

The next hypothesis concerns the financial performance of MNC subsidiaries and LPCs in Sri Lanka regarding complying best practice on corporate governance code. The hypothesis is as follows.

Hypothesis 16:
Believing that transparency and openness (achieved through higher corporate governance standards) would enhance Sri Lankan investors and shareholders it is

required to follow code of best practice on corporate governance mandatory code all listed companies in CSE from 1st April 2008. Before that, since 1997 Sri Lankan government bodies, CSE and SEC jointly introduced voluntary corporate governance code ensure transparency and accountability. This is confirmed by corporate governance survey (2007) results, which find over 80% of listed companies already adhered to corporate governance practices. Therefore, this study may not find any significance difference of firms' compliance corporate governance before and after introduce code of best practice on corporate governance. On the other hand, Cabraal (2003) explains that companies do not actually do what they disclose in their annual reports relating to corporate governance practices. Therefore, this study may find significant compliance differences before and after introduce code of best practice on corporate governance.

Therefore, the following hypotheses are postulated regarding corporate governance code compliance and financial performance in MNCs and LPCs in Sri Lanka.

H_{16a}: There is significant difference in corporate governance of MNCs in Sri Lankan before and after introduced code of best practice on corporate governance in 2008.
H_{16b}: There is no significant difference in corporate governance of LPCs in Sri Lankan before and after introduced code of best practice on corporate governance in 2008.

The next hypothesis concerns the financial performances of MNCs and LPCs in Sri Lanka. The hypothesis is as follows.

Hypothesis 17:
The relationship between corporate governance mechanisms and a firm's financial performances are mixed. Sunday-O (2008) employed Nigerian listed firms to analyse the relationship of four corporate governance mechanisms (board size,

board composition, CEO status and committee) and firm financial performance using an ANOVA test and found a strong relationship between corporate governance mechanisms and firm financial performance There are a large number of similar studies that align with the above results, finding a positive association between quality of corporate governance and company financial performance (Black & Kim, 2008; Gompers *et al.*, 2003). While most studies considered individual countries, a number of studies covered cross-countries and found a positive relationship with country-level corporate governance mechanisms and corporate financial performance (Bruno *et al.*, 2007; Kaplan, 1997). In cross country analysis, Kaplan (1997) finds selected corporate governance mechanisms (executive compensation, board of directors, ownership, capital markets, takeovers and banking systems) affect German, Japanese and US company performance in different degrees. Henry (2010) suggests there is a significant positive relationship between corporate governance adoption and agency cost in Australian companies. Conversely, Aman & Nguyen (2007) analysed Japanese firms and find a significant negative relationship with corporate governance quality and market returns. Consistent with the above results, Suchard *et al.* (2007) find a negative relationship with corporate governance and stock return in Australia.

However, in recent decades, a growing literature argues that the relationship between corporate governance and company financial performance is not robust (Core *et al.*, 2006; Yen, 2005). The effects of endogeneity and the causal effect of governance variables are unexplored in most of the previous studies. Governance variables are not strictly orthogonal to the error term, and may lead to biased coefficients. Therefore it is difficult and complex to understand the separate effect of each and every factor.

Therefore, the following hypotheses are postulated regarding the performance and corporate governance relationship in MNCs and LPCs in Sri Lanka.

H_{17a1} : There is no significant effect of corporate governance mechanisms on financial performance of MNCs.
H_{17a2} : There is no significant effect of corporate governance mechanisms on PA agency costs of MNCs.
H_{17a3} : There is no significant effect of corporate governance mechanisms on PP agency costs of MNCs.
H_{17b1} : There is no significant effect of corporate governance mechanisms on financial performance of LPCs.
H_{17b2} : There is no significant effect of corporate governance mechanisms on PA agency costs of LPCs.
H_{17b3} : There is no significant effect of corporate governance mechanisms on PP agency costs on LPCs.

The next hypothesis concerns the corporate governance mechanisms and their impact on MNC subsidiaries and LPCs in different financial performance quantiles.

Hypothesis 18:
Prior research mostly uses OLS regression and concludes effects of corporate governance variables and their effect on financial performance of selected market. However, corporate governance and firm financial performance might differ across different quantiles of performance proxies. Moreover, corporate governance variables may have different effect on same financial performance quantiles in MNCs and LPCs. Ramdani & Witteloostuij (2010) using four Asian markets find the proportion of independent directors and CEO duality are different across financial performance quantiles.

Therefore, the following hypotheses are postulated in regarding the corporate governance variables across the quantiles of firm financial performance in MNCs and LPCs in Sri Lanka.

H_{18a}: Corporate governance practices impact differently in low performance MNC subsidiaries and high performance MNCs.
H_{18b}: Corporate governance practices impact differently in low performance LPCs and high performance LPCs.

4.4 Conclusion

This chapter provides description of the conceptual models used for hypotheses development. It then developed and explained hypotheses to be tested in the next chapter. These hypotheses facilitated an understanding of corporate governance mechanisms in LPCs and MNC subsidiaries in Sri Lanka. The next chapter will present the data collection method, definitions of the variables used in the study, econometric methods and models for testing the corporate governance and financial performance and agency costs in Sri Lankan LPCs and MNCs.

Chapter 5
Methodology and Econometric Framework

5.0 Introduction

This chapter discusses the methodological aspect of this study. This includes the data collection methods and the sample size used to conduct this study and the method used to quantify the variables used in developing the hypotheses. The chapter is structured as follows. Section 5.1 presents the data collection method. Section 5.2 presents measurement, conceptualisation and operationalisation of variables and provides explanation of both dependent and independent variables used in this study. Section 5.3 presents method; separated in two sub sections, financial performance measure and agency costs measure. Section 5.4 presents Quantile regression. Section 5.5 presents specification tests including auto-correlation tests, over identification tests and estimation of standard errors. Section 5.6 concludes the chapter.

5.1 Data Collection

This study collected the data needed to tests hypotheses from the Handbook of Listed Companies - 2007, Fact Book - 2008 and Data library CD issued by the CSE. Further data has been collected from firms listed on the CSE during 2006-2010 that published audited annual reports. For the LPCs and MNCs, the sampling period is 2006 through 2010. There are several reasons for selecting the time period between 2006-2010 (inclusive both years). The first reason is that Sri Lankan corporate governance practices have been mandatory in CSE listed firms since April 2008. To establish the best practice effect on Sri Lankan listed firms, the study sample covered company details from before and after regulatory changes to corporate governance practices in Sri Lanka. The second reason is that in the year 2006 there was a boom in FDI inwards in Sri Lanka and other Asian

countries. Consequently, the number of MNCs and their activities increased throughout the region following the year 2006. Sri Lankan corporate governance practices and adaptation levels have increased in recent years due to the high number of MNCs attracted to Sri Lanka. This supports commencing data collection from 2006. The third reason is, Sri Lankan listed company data availability is very poor. Most of the listed companies provide their annual reports online after year 2005. Data collection from 2006 is relating more sample and reliable. As at 30 September 2010, the CSE had 238 listed companies representing 20 business sectors. There were 20 business sectors: the banking, finance and insurance sector, beverage, food and tobacco, chemicals and pharmaceuticals, construction and engineering, diversified holdings, footwear and textile, healthcare, hotels and travel, information technology, investment trusts, land and property, manufacturing, motors, palm oil, plantation, power and engineering, services, stores and suppliers, telecommunications and trading.

Information on corporate governance mechanisms, such as board size, percentage of insider ownership, non-executive directors' percentage, board diversity, female director percentage, minority director percentage and CEO duality were gathered from the companies' audited annual reports and each and every company website. This information was obtained manually by calculating the number of directors on the board, the number of shares owned by directors, the number of non-executive directors on the board, board diversity variables i.e. gender, ethnicity, age, education level and experience of board members, the number of females on the board, the number of minority directors on the board and determining duality role of CEO and chairman of the company for the years 2006 to 2010. Furthermore, firm leverage, firm age and firm size are calculated by using each and every company's annual report data and cross checked with DataStream database.

Moreover, ownership type, foreign manager presence or not and MNCs parent location is directly collected from company annual reports.

In order to test hypotheses, sample data covers a representative sample of Sri Lanka's non financial companies listed on the CSE. According to Manawaduge *et al.* (2008) the banking, finance and insurance sector should be excluded from the study sample because applicable regulations from the finance sector are vastly different from firms in the other industrial sectors. They explain that especially in shareholdings, profitability measurements and liquidity assessment there is a huge difference between the financial sector in Sri Lanka and other industrial sectors. To avoid this bias, the study sample consists of only 19 sectors from the CSE.

At the end of 2010, a total of 203 companies belonging to 19 trading sectors were identified as meeting this criterion. Of the 203 companies, 7 did not provide their annual reports for all years in the range 2006-2010, so it was decided to include the remaining 196 companies in the data collection instead of choosing a random sample. The final sample consists of 83 MNC subsidiaries and 113 LPCs. It is unbalanced panel data because the shortest observation for a firm is one year and the longest is five years. Furthermore, this dataset consists of many panels and few periods. The following table lists the companies which observed separately for each year.

Table 5.1 Number of firms included in the dataset for each year

Year	Total number of firms listed	Study sample
2006	237	195
2007	235	196
2008	234	195
2009	237	195
2010	238	196

5.2 Measurement, conceptualisation and operationalisation of the variables

This section presents the dependent and independent variables used in this study.

5.2.1Dependent Variables

Financial performance will be calculated using several methods, including Tobin's Q, return on assets (ROA) and rerun on equity (ROE). These have gained wide acceptance for governance research in mature markets (Reddy et al., 2008). Tobin's Q serves as a proxy for company performance in a financial market. The higher the Q value indicates that the market's perception that the company performance is good (Weir *et al.,* 2002). It also signifies that the higher the Q value, the more effective governance mechanisms of the company. Also Tobin's Q (market measure) is used as a dependent variable in the studies about the corporate governance and firm performance relationship by Agrawal & Knoeber (1996) and Beiner & Schmid (2005) in developing and developed financial markets. A ratio devised by Tobin in 1969 is calculated as the market value of a firm divided by the replacement costs of the firm's assets. In this research, followed by McConnell & Servaes (1990) and McKnight & Weir (2009), the Tobin's Q ratio is defined as market capitalization plus total debt divided by total assets.

$$Tobin's\ Q = \frac{(Equity\ Market\ Value + Liabilites\ Book\ Value)}{(Equity\ Book\ Value + Liabilities\ Book\ Value)}$$

If Tobin's Q is greater than 1, it reflects market value is greater than the value of the company's recorded assets. Also, if Tobin's Q is above 1, it indicates the firm is earning rates of return higher than that justified by the costs of its assets. This proposes that market value reflects some unmeasured or unrecorded assets of the company. However, if Tobin's Q is less than 1, the market value is less than

the recorded value of the assets of the company. This suggests that the market may be undervaluing the company or alternatively that an acceptable return is not being achieved and a break-up (asset sales) may be appropriate. Lang & Stulz (1993), explain that diversified companies have a lower Tobin's Q ratio compared to niche market firms, due to markets penalising the value of the firm's assets. Based on this argument, comparing LPCs and MNCs, MNCs can have low Tobin's Q values. Jonathan & Bichler (2009) explain that Tobin's Q does not consider the intellectual assets of the company, such as goodwill, knowledge, technology and other intangible assets. Therefore Tobin's Q only partially represents the company value. They further argue that market hype and speculation can affect the value of Q. However, many empirical studies use Tobin's Q as a performance matrix. In recent studies Dybvig & Warachka (2010) show evidence that the relationship between firm performance and Tobin's Q is confounded by endogeneity.

As a second financial performance proxy, the accounting-based performance measure, return on assets (ROA), is used in this study. This is an indicator of how profitable a company is relative to its total assets. In other words, ROA gives a measure of the operating efficiency of the total business. A company without higher ROA finds it almost impossible to generate high return on equity. For public companies, ROA can vary substantially and is highly dependent on the industry. ROA gives investors an idea of how effectively company management is at using its assets to generate earnings or what earnings were generated from invested capital. Higher ROA shows the company uses its assets effectively in serving shareholders' economic interests. Lower ROA numbers indicate the company is earning less money on high investment. If a company has no debts, ROA and return on equity (ROE) will be the same. Although ROA is widely used

in evaluating company performance, it is not a perfect tool. This accounting based performance measure only partially estimates future events in the form of depreciation and amortisation. Furthermore, this accounting based profit measure is criticised as being a backward looking measurement. The formula for ROA is:

$$ROA = \frac{EBIT}{Total\ Assets}$$

An earnings before interest and tax (EBIT) is the amount remaining when total operating costs are deducted from total revenue, but before either interest or tax expenses have been deducted. Total operating costs include direct factory costs, administration, selling and distribution overheads.

As a third financial performance proxy, the return on equity (ROE), is used in this study. This is also known as return on net worth (RONW). This is the second complementary approach to return on investment (the first one is ROA). ROA indicates the operating efficiency of the company, while ROE considers how that operating efficiency is translated into benefits to the owners of the specific company. The ROE is defined as: Net income is for the full fiscal year and considered earnings after tax (EAT). Shareholders' equity does not include preferential shares.

$$ROE = \frac{Net\ Income}{Shareholder's\ equity}$$

Following Ang *et al.* (2000) and Singh & Davidson (2003), the assets utilisation ratio is used as a first PA agency proxy for this study. The assets utilisation is defined as:

$$ASSETS\ UTILISATION = \frac{Total\ Sales}{Total\ Assets}$$

The asset utilisation ratio mentioned above measures how efficiently the firm is using its invested capital. Agency cost is inversely related with the assets utilisation ratio. This ratio provides the quantitative measure of management's ability to employ the assets efficiently. The poor assets utlisation ratio expresses

management's poor investment decisions, such as negative net present-value projects, management shrinking, or using funds to purchase unproductive assets and creating higher agency costs for shareholders. A higher assets turnover ratio shows that management is making optimal investment decisions and value-creating ventures. Further, it indicates that large amounts of cash flow are generated for a given level of assets. The assets utilisation ratio can associate with measurement errors. A source of measurement errors includes differences in accounting methods chosen with respect to the recognition and timing of the revenue and costs and poor record keeping (Frederikslust *et al.*, 2008).

The second PA agency costs proxy is represented as a measure of free cash flow into Q dummy (QFCF) of the company. Free cash flow (FCF) represents the cash that the company is able to generate after laying out the all positive net percent value projects when discounted at the relevant cost of capital. Jensen (1986) explains that when the company generates a considerable amount of free cash flow, it increases the conflict between managers and shareholders because managers tend to invest money, not maximize shareholder value. Managers with considerable free cash flow can increase the dividend payment or repurchase stocks rather than investing in negative or low return projects. Following Doukas *et al.* (2000) and McKnight & Weir (2009), FCF is calculated as follows:

$$FCF = Operating\ income\ before\ depreciation - sum\ of\ taxes + interest\ expenses + dividends$$

year growth opportunities are measured by Tobin's Q dummy. Growth dummy takes 1 if the firm's Tobin's Q is less than 1 (indicating poorly managed firms) and 0 otherwise. Creating dummy variables for growth prospect is consistent with Doukas *et al.* (2000).

$$QFCF = \left(\frac{FCF}{Total\ Assests}\right) * Qdummy$$

John & Knyazeva (2006) explain when firms have poor governance they may have a higher dividend payment policy. Moreover, DeAngelo *et al.* (2004) find that firms with high agency conflicts are more likely to pay dividends than firms with fewer agency conflicts. Therefore, this study employed dividend payout ratio as proxy for the PP agency cost. Similar to Faccio *et al.* (2001) dividend payout ratio is defined as follows.

$$DIVIDEND = \frac{Total\ dividend\ payment}{Net\ sales}$$

This ratio indicates the proportion of earnings that are used to pay a dividend to shareholders. Most high growth firms have zero dividend payment and instead use their profits to reinvest in firm activities. This may be because corporate rates of return on reinvested capital are high. However, in some circumstances dividends are doubly taxed. Further, dividend payout ratios can vary from country to country.

5.2.2 Explanatory variables

The explanatory variables used in this study are found in the literature to have either positive or negative influence on company financial performance and agency costs. These variables can be categorised as board composition, leadership structure, board size and control variables. Hovey *et al.* (2003) recognise firm size as a control variable that has illustrative power when examining company financial performance and corporate governance. Therefore, this study uses firm size as first control variable. The size of the reporting company is a major variable for previous studies, and has been approximated by annual sales, total assets, fixed assets, paid up capital, shareholder equity, capital employed, and the market value of the firm (Karim, 2007). In this study, natural

log of sales (LNSALES) is used as the proxies for the size of the company. This is the most commonly used measure in prior research. The next control variable is firm maturity (AGE). AGE is calculated by the number of years operating in the industry.

The third control variable is industry type (INDUSTRY). The study sample of approximately 196 firms belongs to 19 industry sectors. However, due to a limited number of companies in certain industries (e.g., the information technology industry sector had only one listed company on the CSE as at December 2010) this study combines some similar industries to create 7 industry dummy variables.

The external monitoring independent variable is the debt to assets ratio (DEBT), calculated by the book value of debt divided by the book value of assets. This is an excellent way to check a company's long-term solvency. The higher the ratio, the greater risk will be associated with the company's operation. Furthermore, Ang *et al*. (2000) propose that with more debt there is increased external monitoring from banks or restrictions on free cash flow to management, thus lowering agency costs. Therefore, it is rational to include debt to assets ratio as an independent variable in this study as a corporate governance mechanism (external monitoring ability).

As well as the variables discussed above, for best practice recommendations and/or good corporate governance in Sri Lanka, the following independent variables will also be considered in this study.

Board size (BOARD) is measured as the natural logarithm of the total number of board directors on board. The Companies Act No. 17 of 1982 in Sri Lanka allows public companies to have at least two directors. This is a fundamental recommendation in the "code of best practices on corporate governance" new

version, 2008. Previous research ranked this variable highly when measuring company performance (Cheng *et al.*, 2008; Yermack, 1996).

The next explanatory variable is the percentage of non-executive directors (NONE) on a board. This is measured as a percentage of the total number of non-executive directors divided by the total number of board directors. The expected coefficients are positive for financial performance measures and negative for agency cost proxies. According to the best practice recommendation principle A.5 in Sri Lanka,

> *It was decided that the board of directors of a listed company should be comprised of both executive and non-executive directors. Taking into consideration companies with only two directors and comments received from listed companies it was decided to mandate that a board should comprise of "two non-executive directors or such number of non-executive directors equivalent to one third of the total number of directors, whichever is higher." Provision has also been made with respect to calculating this number and the procedure for filling casual vacancies which may occur.*

Prior empirical studies mostly report a significant impact with non-executive directors and a firm's financial report (Mura, 2007).

Insider ownership percentage (INSIDE) is a measure of the total number of shares owned by company directors divided by the total ordinary shares outstanding. This is one of the most widely used internal corporate governance mechanisms to reduce the misalignment of manager and shareholders' interests. Previous studies by Singh & Davidson (2003) posit that higher insider ownership aligns managerial and shareholders' interest and lowers agency costs. Family ownership is prevalent in Sri Lanka and therefore higher insider ownership is prominent in Sri Lankan listed firms. Furthermore, weak institutional environment leads to high reliance on internal corporate governance mechanisms. Therefore, it is important

to analyse insider ownership percentage and firm financial performance and agency costs in Sri Lankan companies.

To capture CEO duality a CEO variable is created. CEO is equal to 1 if CEO duality is present; otherwise it is set equal to zero. Recently, an increasing number of firms have converted to a non-duality CEO structure. Therefore, CEO duality is expected to be negatively correlated with financial performance and to positively affect agency cost proxies in this study. However, according to the stewardship perspective, CEO duality facilitates clear and strong leadership. On the other hand, some studies find evidence that supports agency theory, so no convincing conclusion can be drawn from prior studies on the impact of board leadership and firm performance. Therefore, it is reasonable to include CEO duality as an independent variable in this study.

The next explanatory variable used in this study is board diversity (DIVERSITY). This measures board diversity using Blau index, a measure widely used in ecology, genetics, linguistics and economics. This index quantifies the diversity of a group with regard to nominal features, such as ethnicity, gender, or education. (Blau, 1977). The Blau index is calculated by $1 - \sum_{i=1}^{n} P_i^2$ where p is the proportion of board members in each category and n is the total number of board members. However, this different diversified category results cannot correlated due to difference in the categories. Therefore, study correct the Balu index by multiplies by $p/(p-1)$ vector. The Blau index value range for diversity is 0 from 1.0, which can be achieved only when a board has fully diversified directors. This measure is used by Campbell & Minguez-Vera (2007) and others when studying gender diversity in the boardroom.

The percentage of female directors on a board (FEMALE) is measured as a percentage of the number of female directors divided by total board size. This

measure is also used by Campbell & Minguez-Vera (2007). Although female representation on boards has increased in recent years, the link between female board members and corporate board performance is unclear, especially in emerging market contexts. Therefore, it is rational to include a FEMALE variable in this study to check female directors' percentage influence in Sri Lankan LPCs' and MNCs' financial performance and agency costs. A variable minority director's percentage (MINORITY) is calculated by the percentage of the number of minority directors divided by the total number of board directors. Minority composition on boards has attracted more research interest in recent years. For Sri Lanka, a multinational country with minimal and limited minority representation on its boards, investigating the links between minority representation and financial performance of the company is important.

Ownership type (OWNER) is set equal to 1 if company ownership is institutional; otherwise it is set to equal 0. Manawaduge *et al*. (2008) suggest that a very high percentage of shares on the Sri Lankan stock market are owned by institutional investors. Lee (2010) explains that due to the undeveloped equity market and weak investor protection, domestic investors are reluctant to invest in emerging markets with low levels of corporate governance reform. This may be one reason why institutional ownership is dominant in Sri Lanka.

The following two explanatory variables are only acceptable for MNCs. The first is the foreign manager (FOREIGN). If a company has a foreign manager (FOREIGN) it is set equal to 1, otherwise zero. However, in different cultural and institutional environments, a foreign manager's contribution to local firm performance is so far inconclusive. To check the influence of foreign managers in Sri Lankan subsidiaries, this study included foreign managers as a dummy variable in regression models. The second variable is MNC parent company

original location. This study classifies all MNC subsidiaries into five regions according to their parent company's location (REGION). Using these classifications, five region dummy variables are introduced.

Table 5.2 provides the description of the research variables.

Table 5.2 Description of the Research Variables

Variable	Acronym	Description
Dependent variables: Tobin's Q	TOBINSQ	Value of the firm's assets (as measured by the market value of its outstanding stock and debt)
Return On Assets	ROA	An indicator ratio of how profitable a company is relative to its total assets. Measured by net profit before taxes / total assets
Return On Equity	ROE	An indicator ratio of how that operating efficiency is translated into benefits to the owner. Measured by earn after taxes / owners fund
Dividend payout ratio	DIVIDEND	The amount of total dividend payment is divided by net sales
Assets utilisation ratio	ASSETS	The proportion of Total sales/ Total assets
Growth opportunity	QFCF	Free cash flow multiplied by the Tobin's Q dummy
Explanatory variables: *Control variables* Sales(proxy for size)	LNSALES	Natural log of the sales
Leverage	DEBT	This ratio is calculated as total debt divided by total assets
Maturity of the firm	AGE	Number of years operating in the industry
Board size: Board size	BOARD	Number of board directors on board
Board composition: Non-executive directors	NONE	Percentage of non-executive directors serving on the board
Inside ownership	INSIDE	Proportion of general ownership on the board
Board diversity	DIVERSITY	The Blau index is calculated. This index value range for diversity is 0 from 1.0
Female directors on the board	FEMALE	Percentage of the female directors serving on the board
Minority directors on the board	MINORITY	Percentage of the minority directors serving on the board
Leadership structure: CEO duality	CEO	Dummy variable, 1 if CEO duality on the board and 0 otherwise
Ownership type	OWNER	Dummy variable,1 if the company ownership is institutional and 0 otherwise
Foreign manager	FOREIGN	Dummy variable,1 if the board have foreign manager and 0 otherwise

Industry	INDUSTRY	Effect of seven identified industries
	INDUSTRY1	Dummy variable,1 if the firm from Beverage, food, drug and tobacco and 0 otherwise
	INDUSTRY2	Dummy variable,1 if the firm from chemicals and pharmaceuticals and 0 otherwise
	INDUSTRY3	Dummy variable,1 if the firm from construction and engineering and power and engineering and industrial transport and industrial mining and 0 otherwise
	INDUSTRY4	Dummy variable,1 if the firm from diversified holding and healthcare, hotels and travel and 0 otherwise
	INDUSTRY5	Dummy variable,1 if the firm from Land and property and 0 otherwise
	INDUSTRY6	Dummy variable,1 if the firm from manufacturing, forestry and paper, general industries and motors industries and 0 otherwise
	INDUSTRY7	Dummy variable,1 if the firm from palm oil and plantation and 0 otherwise
Parent company region	REGION	Effect of five identified regions of MNC parent
	REGION1	Dummy variable,1 if the MNC parent from Europe and 0 otherwise
	REGION2	Dummy variable,1 if the MNC parent from Scandinavia and 0 otherwise
	REGION3	Dummy variable,1 if the MNC parent from America and 0 otherwise
	REGION4	Dummy variable,1 if the MNC parent from Australasia and 0 otherwise
	REGION5	Dummy variable,1 if the MNC parent from Asia and 0 otherwise

5.3 Method

This section includes the models used to test the relationship between corporate governance and firm financial performances, and corporate governance and agency costs in LPCs and MNC subsidiaries. The econometric tests discussed in this chapter include panel OLS regression analysis, dynamic panel GMM regression tests for the complementarities of corporate governance instruments and Tobit regression, ANOVA test and difference-in-difference model. Further investigate of corporate governance mechanisms and its impact used quantile regression analysis. Figure 5.1 shows concept map of methodology used in this study.

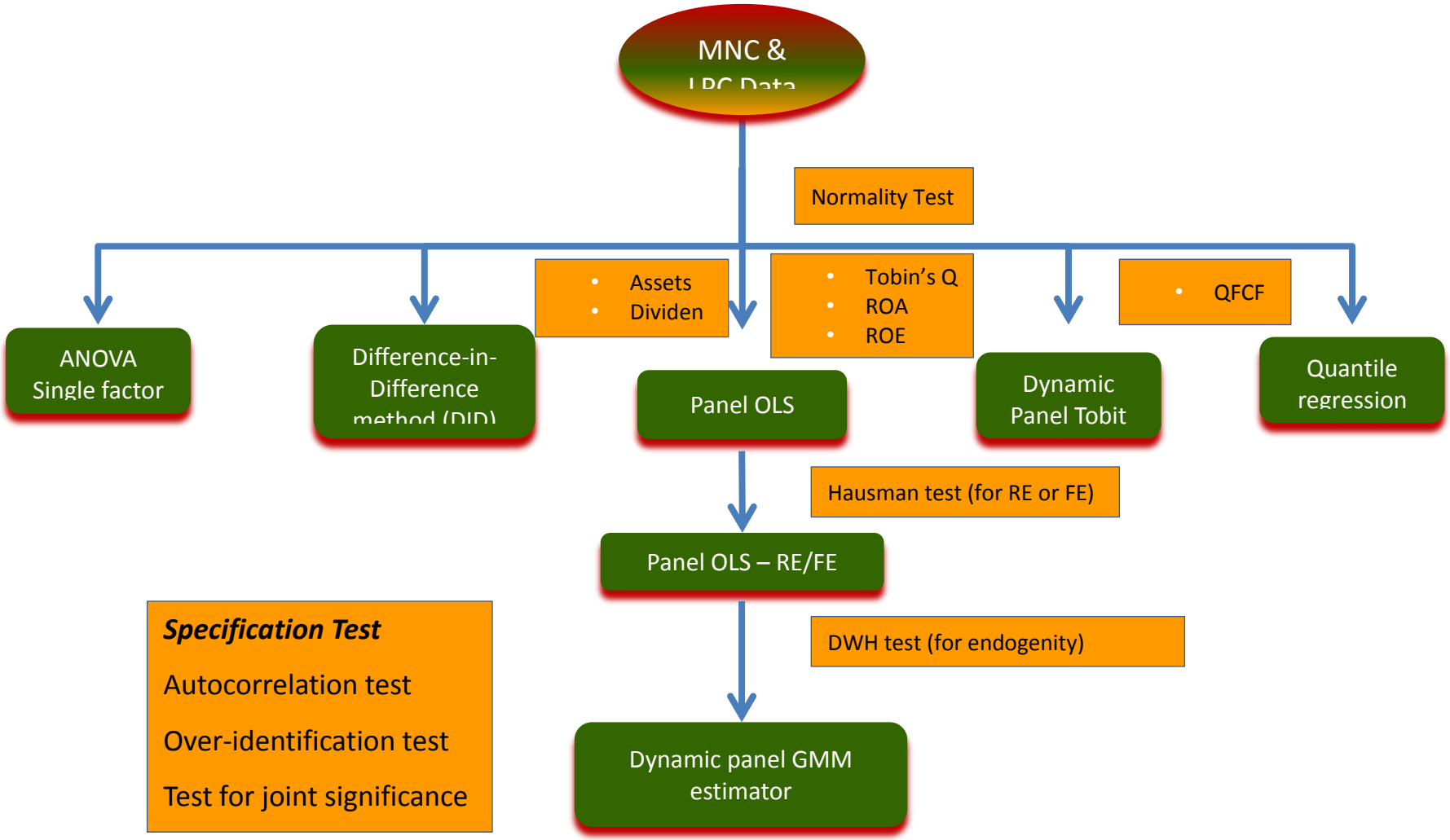

Figure 5.1 Concept map of the methodology

5.3.1 Model specification for MNCs' and LPCs' financial performance

This study sample consists of cross sectional and time series data. The probability of using a panel dataset, which typically provides a larger number of observations and allows the exploitation of dynamic effects that are difficult to detect with cross-sectional data appears appropriate. Before setting up the panel it is imporatant to testing for various homogeneity restrictions. A Chow test was used to investigate the poolability of the data. The null hypothesis is:

The null hypothesis of the poolability test is

$$H_0: \beta_{i,k} = \beta_k$$

Suggesting the slopes remain constant in fixed and random effect models and only intercepts and error variances matter.

The poolability test is undertaken under the assumption of

$$\mu \sim N\ (0, s^2 I_{NT})$$

This test uses the F statistic:

$$F_{obs} = \frac{(e'e - \sum e_i'e_i)/(n-1)K}{\sum e_i'e_i / n(T-K)} \sim F\left[(n-1)K, n(T-K)\right]$$

where e'e is the SSE of the pooled OLS and e'e_i is the SSE of the OLS regression for group i. If the null hypothesis is rejected, the panel data are not poolable.

5.3.1.1 Panel data OLS regression

Panel data analysis is the most efficient statistical method, widely used in econometrics, social science and epidemiology (Madalla, 2001). The panel data sample consists of cross sectional and time series data. The panel data structure allows for taking into account the unobservable and consistent heterogeneity, which are specific features of each selected company. Another reason is that it

may be possible to use the panel data to exploit dynamics that are difficult to detect with cross-sectional data. A third attraction for using panel data sets is that they typically provide large number of observations.

Previous studies consider board structure, board composition and leadership structure as exogenous variables (Bauer *et al.*, 2009; Bozec & Bozec, 2007; Ibrahim *et al*., 2008). Based on these assumptions, an ordinary least squares regression (OLS) is employed to establish if governance and control mechanisms have an effect on company financial performance and agency costs. Thus, the above thoughts form the base for the following equations system:

$$PERFORMANCE/AC = \beta_0 + \beta_{11}INSIDE_{i,t} + \beta_{12}NONE_{i,t} + \beta_{13}CEO_{i,t} + \beta_{14}DIVERSITY_{i,t} + \beta_{15}FEMALE_{i,t} + \beta_{16}MINORITY_{i,t} + \beta_{17}BOARD_{i,t} + \beta_{18}OWNER_{i,t} + \beta_{19}FOREIGN_{i,t} + \beta_{110}LNSALES_{i,t} + \beta_{111}DEBT_{i,t} + \beta_{112}AGE_{i,t} + \beta_{113}INDUSTRY_{i,t} + \beta_{114}REGION_{i,t} + \varepsilon \quad \text{----------(1)}$$

$$PERFORMANCE/AC = \beta_1 + \beta_{21}INSIDE_{i,t} + \beta_{22}NONE_{i,t} + \beta_{23}CEO_{i,t} + \beta_{24}DIVERSITY_{i,t} + \beta_{25}FEMALE_{i,t} + \beta_{26}MINORITY_{i,t} + \beta_{27}BOARD_{i,t} + \beta_{28}OWNER_{i,t} + \beta_{29}LNSALES_{i,t} + {}_{i,t} \beta_{210}DEBT_{i,t} + \beta_{211}AGE_{i,t} + \beta_{212}INDUSTRY_{i,t} + \varepsilon \quad \text{----------(2)}$$

Equation (1) determines the relationship between financial performance, agency costs and governance mechanisms of MNCs in Sri Lanka during 2006-2010. Equation (2) determines the relationship between financial performance, agency costs and governance mechanisms of LPCs in Sri Lanka 2006-2010.

Where *i* goes from company 1- n and *t* takes the values of the year from 2006 to 2010. The β parameters are the estimated coefficients for the constant and each of the explanatory variables included in the model. The dependent variables are Tobin's Q (TOBINSQ) and ROA and ROE is used as proxy for company financial performance. The dependent variable is assets utilisation ratio (ASSET) and dividend pay-out ratio (DIVIDEND) is used as proxy for agency costs.

The dataset does have random missing observations. An unbalanced data analysis method appears to be appropriate. Before proceeding with an unbalanced panel data analysis, the individual and time effects (two-way error components), are considered. A test for unbalanced panel two-way error components using the Breush- Pagan LM test for unbalanced two-way error components based on the modelling of Baltagi & Li (1990) was run.

Random or fixed effect model in Panel data OLS regression

An advantage of panel data is that it permits analysis which might otherwise have been precluded due to insufficient observation over time (time-series). Another benefit is the more powerful properties in its testing procedures compared to standard time-series methods. However, panel data can also give rise to statistical problems in regression analysis. In particular, it is important to determine whether there are fixed effects present in the variables. Hausman's specification test or *m*-statistic differentiates between random and fixed effects models by testing for correlation between the variables (x) and the individual random effects (ε_i). The Fixed effects model (FE) explores the relationship between predictor and outcome variables within an entity. The FE model assumes that something within the individual can impact or bias the outcome variables and this need to be controlled. The fixed effects model may be written: $Y_{it} = \beta_1 X_{it} + \alpha_{i+}\mu_{it}$

Where, α_i(i=1…,n) is the unknown intercept for each entity (n entity - specific intercepts), Y_{it} is the dependent variable where i= entity and t=time,X_{it} represents independent variable. $\beta_1$is the coefficient for X_{it},μ_{it} is the error term.

Unlike the fixed effects model, random effects model assumes the variation across entities is to be random and uncorrelated with the independent variables included in the model. The general random effects model may be written:

$$Y_{it} = \beta X_{it} + \alpha + u_{it} + \varepsilon_{it}$$

Where i= 1,……., N firms, t= 1,….. T time period with k regressors in X_{it} and u_{it} there is a normal error term and Y_{it} is agency cost.

Hausman Tests

Hausman's specification test, or *m*-statistic, can be used to test the significance of estimators. Consider the linear model, Hausman's *m*-statistic is as follows

$$Y = \beta X + \varepsilon$$

Where Y is univariate and X is vector of repressors, β is a vector of coefficients and ε is the error term. β can have two estimates as follows. β: β_0 and $\beta_{1,}$ where under null hypothesis both estimators are consistent and only β_0 is efficient. Under the alternative hypothesis only $\beta_{1,}$ is constant, the m-statistic is:

$$H = \left(\beta_1 - \beta_2\right)' \left(Var\left(\beta_1\right) - Var\left(\beta_{01}\right)\right)'' \left(\beta_1 - \beta_{21}\right)$$

Studies undertaken by Carter *et al.* (2003), Campbell & Minguez-Vera (2007) and Marinova *et al.* (2010a), show that problems arise with OLS regression if two or more variables are jointly endogenous. The direction of causality can go both ways - meaning either that board size, board composition and leadership lead to high financial performance or that high financial performance firms tend to have more diversity, large board and high freedom of leadership. To control the effect of inverse causality there needs to be an econometric method that can deal with endogeneity and also with the presence of unobservable fixed effects that are associated with each company and correlated with the rest of the explanatory variables. When the unobservable effect is correlated with independent variables, pool OLS estimation produces estimators that are biased and inconsistent (Andres

& Vallelado, 2008). According to Hermalin & Weisbach (2003b), it is rational to consider that the board is determined endogenously. Further, Drakos & Bekiris (2010) explain board composition, leadership structure and board size are strongly endogenous. If the strict exogeneity condition fails, then OLS is inconsistent and will have a different probability limit. Wintoki *et al.* (2007) explain most empirical research has identified corporate governance research to be explicitly affected by two major types of endogeneity, namely unobservable heterogeneity (arising when unobservable factors affect both dependent and explanatory variables) and determination of independent and dependent variable (arising when independent variables are a function of the dependent variable or expected value of the dependent variable). Further, they include a third type of endogeneity issue arising in corporate governance where this firm's current action will be effect its future environment and future performance, which they call dynamic endogenity. Ignoring these three types of endogeneity can lead to biased inference about the relationship between governance and firm financial performance. To overcome this econometric problem most previous studies use a two stage least squares (2SLS) regression technique (Anderson & Reeb, 2003; Bartholomeusez & Tanewski, 2006; Ready, 2010). However, 2SLS requires the identification of instruments that are correlated with the endogenous variables and uncorrelated with the error term of the model. Researchers sometimes resist identifying possible instruments that are uncorrelated with error term and correlated with the endogenous variable. This weak instrument leads to misinterpretation of coefficients. According to McFadden (1999), when the sample is finite the 2SLS estimator is not behaving properly and if the sample is large enough, the asymptotic approximation is reliable.

As an alternative approach, Arellano (2003), and Wooldridge (2006) introduce a dynamic panel data routine to estimate unbiased coefficients. The dynamic panel data estimator is capable of modelling a relationship through the lag of instrument variables, without the subsequent violation of the assumption that the error term and independent variables are uncorrelated. First differencing will control for unobservable heterogeneity and eliminates potential omitted variables' bias. Using company history (lag variable) as an instrumental variable provides two major benefits. First, it avoids inconsistency of endogenity through instrumental (lag) variables and it provides instruments that allow for controlling potential simultaneous and reversing causality. The second major advantage is the dynamic estimation procedure which allows an entire set of explanatory variables (here all the governance variables) to be treated as endogenous (Wintoki *et al.*, 2007).

5.3.1.2 Durbin-Wu-Hausman Test (DWH)

The DWH test is applied to check the endogeneity of financial and agency costs proxies and other variables.

Let d= $b_{IV} - b_{OLS}$ Then a test can be based on

$H = d'\{E_{st.}A_{sy.}V_{ar}[d]\} - 1\mathrm{d};$

The result of the DWH test for endogeneity indicates that it is appropriate to use dynamic panel GMM estimation.

5.3.1.3 Dynamic panel generalised method of moment (GMM) estimation

To obtain robust estimates, a GMM panel estimator is used to estimate the relationship between board composition, board size, leadership structure and financial performance. The dynamic GMM method allows for building up instrumental variables for potential endogenous variables. Hermalin & Weisback (2003) posit there is increased interest in the characteristics of the board as

endogenously to determine firm performances. Dynamic dimensions of panel data allow for checking response processes across time and identifying the effect of board directors' characteristics and their effects on company financial performance (Andres & Vallelado, 2008). The dynamic GMM panel estimator was first introduced by Holtz-Eakin *et al.* (1988) and further developed by Arellano & Bond (1991) Arellano & Bover (1995) and Blundell & Bond (1998). The basic GMM estimation consists of two steps. First, the dynamic model with first differenced form: $Y_t - Y_{t-1} = \beta (X_t - X_{t-1}) + \varepsilon_t - \varepsilon_{t-1}$

Where X includes lag performance for explanatory variables, (y_{t-1}) as well as dependent variables. This first-differencing eliminates potential bias that arises from unobservable heterogeneity. After first-differencing, GMM estimation uses lagged values as instruments for ($X_t - X_{t-1}$):

$$\Delta Y_{it} = \propto + k_p \sum_{p} \Delta Y_{it-p} + \beta \Delta X_{it} + \gamma \Delta Z_{it} + \Delta \varepsilon_{it} \quad p > 0 \qquad (1)$$

An important aspect of the dynamic panel estimator is its use of company history as an instruments for explanatory variables. If the exogeneity assumptions are valid, then the right following orthogonality conditions are required:

$$E(X_{it-s}\varepsilon_{it}) = E(Z_{it-s}\varepsilon_{it}) = E(Y_{it-s}\varepsilon_{it}) = 0 \ \forall \ s > p \qquad (2)$$

Researchers have found econometric shortcomings for the above GMM estimator. Beck *et al.* (2000) argue that if the original model is in levels, differencing may increase the signal to noise ratio and reduce the power of the test. Another short coming pointed out by Arellano & Bover (1995) is that the variables in levels may be weak instruments for first-differenced equations. Griliches & Hausman (1986) also explain differencing may worsen the impact of measurement errors in the dependent variables.

Arellano & Bover (1995) and Blundell & Bond (1998) further develop the GMM estimator using first-differenced variables as instruments for the equations in a stacked system of equations that includes the equations in levels and differences. However, the equations in the stacks may include unobservable heterogeneity. To deal with this problem, it is assumed that the ownership and other control variables exhibit a constant correlation over time. This assumption leads to an additional set of orthogonality conditions.

According to Wintoki *et al*. (2007), this assumption is rational for relatively short periods of time. This system of dynamic GMM estimator enables efficient estimators to be obtained while maintaining all the essential elements for controlling unobserved heterogeneity and simultaneous and dynamic endogeneity. Therefore, the above assumption leads to an additional orthogonality condition as follows:

$$E[\Delta X_{it-s}(n_i + \varepsilon_{it})] = E[\Delta Z_{it-s}(n_i + \varepsilon_{it})] = E[\Delta Y_{it-s}(n_i + \varepsilon_{it})] = 0 \quad \forall\, s > p \quad (3)$$

This study carried out dynamic GMM panel estimation using the orthogonal conditions of (2) and (3) equations under the assumption that there is no serial correlation in the error term, ε.

After model estimation, this study checks linearity assumption as well.

5.3.1.4 Tobit model

Most of the literature uses the Tobit model as an econometric model to describe the relationship between non-negative dependent variables and independent variables. The cross–sectional non-dynamic Tobit model can be represented as follows (Tobin, 1958):

$$Y_i^* = \beta x_i + \in_i$$

$$Y_i = max\{Y_i^*, r\}$$

Where Y_i^* is a latent variable, this latent dependent variable has a linear relationship with x_i via a parameter β which determines the relationship between the dependent variable and independent latent variable. Y represents an observed dependent variable, and r is a known constant. The normally distributed error term is denoted by U_i.

According to Drakos & Bekiris (2010), it is rational to treat board composition, board size and leadership structure as endogenous. Therefore, a dynamic panel Tobit model is used as regression analysis to test the relationship between corporate governance factors and company Q dummy free cash flow (QFCF) agency proxy, where the Q dummy takes the value 1 if the firm's Tobin's Q is less than 1 and 0 otherwise. Free cash flow is scaled by market capitalisation based on Lehn & Paulsen's model (1989). The cross-sectional non-dynamic Tobit model introduced by Tobin (1958) can be represented as follows.

$$Y_i^* = x_i\beta + \epsilon_i \qquad (1)$$
$$Y_i = max\{Y_i^*, r\}$$

Where Y^* is a latent dependent variable, x is a vector of exogenous variables, Y represents an observed dependent variable, r is a known constant and can be recalled as zero even. In a dynamic panel data set, the Tobit model can be explained as follows:

$$Y_{it}^* = x_{it}\beta + y_{i,t-1}^*\lambda + \varepsilon_{it} \qquad (2)$$
$$Y_{it} = max\{Y_i^*, 0\}$$
$$\varepsilon_{it} = d_i + u_{it,}\ t = 1, \ldots., T \quad i = 1, \ldots. N$$

Model (2) is characterised by lagged latent dependent variables. The component d_i is an unobserved individual specific random disturbance which is constant over time, and $u_{it,}$ is an idiosyncratic error which varies across time and individuals. Chang (2002) assumes that d_i and $u_{it,}$ are Gaussian conditional on $x_{i1\ldots\ldots}x_{i,T}$. The

one common approach for estimating the dynamic panel Tobit model is the fixed effect. Honore (1993) posits that although a fixed effect Tobit model is valid under weak restrictions on the unobservable heterogeneity, it has major limitations; the model with the time-dummies' variables cannot be estimated consistently. Further, Hu (2003) explains that a dynamic panel Tobit with lagged latent dependent variables and fixed effects estimator creates more problems. The second possible method for estimating the dynamic panel Tobit model is the random effects approach. By specifying the distribution of the error conditional on the regressors, the random effects estimators can be obtained through maximising the corresponding likelihood functions (Geweke & Keane, 2000; Lillard & Willis, 1978). A random effects Tobit estimator has the following advantages. First, time-invariant, time-varying, and time-dummies' variables can be incorporated in the model and they can be estimated constantly using the simulation estimator. Secondly, this method allows for complicated dynamic panels, possibly with more than one lag variable. Thirdly, it is a straightforward and easy way to accommodate serial correlations errors (Chang, 2002).

5.3.1.5 Analysis of variance test (ANOVA)

An ANOVA test is used to investigate whether the corporate governance variables have a significant relationship with MNCs' and LPCs' financial performance. ANOVA, in terms of linear models, make the following three assumptions about the probability distribution. First, it is assumed the model simplifies the statistical analysis (independence of cases). Secondly, the variance of data in the group is equality (homoscedasticty). Finally, it assumes that the errors are independently, identically, and normally distributed for fixed effect models (normality); that is, that the errors are independent and: $\epsilon \approx N(0\ \sigma 2)$

5.3.1.6 Difference-in-difference method (DID)

This study uses a DID method to test whether the financial performance and agency conflicts of MNCs and LPCs, after complying corporate governance voluntary code differ. The major short-falls of ANOVA test to check the mean differences of two variables is that it is unable to isolate the impact of corporate governance code compliance on firm financial performance from concurrent effects of other internal and external economic factors. Therefore, to evaluate the impact of corporate governance compliance with the financial performance of firms it is necessary to separate the impact of corporate governance compliance itself from other factors. There are two dimensions for comparison. The first comparison is to compare the difference across two groups i.e. compliance and non-compliance groups (difference across category). The second is to compare the difference before and after the compliance of code (difference across time). This estimator (D1) is calculated as the difference between pre and post estimates. Next the control group's estimator

(D_2), is subtracted from D1, capturing the time trend γ form the treatment group's estimator is then calculated as:

$\hat{\delta_1} = Y_1^T - Y_0^T$

(D_1)

Taking the expectation of this estimator:

$E[\hat{\delta_1}] = E[Y_1^T] - E[Y_0^T]$

$= [\propto + \beta + \gamma + \delta] - [\propto + \beta]$

$= \gamma + \beta$

$\hat{\delta_2} = Y_1^T - Y_0^C$

(D_2)

Taking the expectation of this estimator:

$E[\hat{\delta_1}] = E[Y_1^T] - E[Y_0^C]$

$= [\propto + \beta + \gamma + \delta] - [\propto + \gamma]$

$= \beta + \delta$

$\delta DD = Y_1^T - Y_0^T - (Y_1^C - Y_0^C)$

(DD)

Taking the expectation of this estimator:

$\delta DD = E[Y_1^T] - E[Y_{10}^T] - (E[Y_1^{CT}] - E[Y_0^T])$

$= \propto + \beta + \gamma + \delta - (\alpha + \beta) - (\alpha + \gamma - \gamma)$

$= (\gamma + \delta) - \gamma$

$= \delta$

5.4. Quantile regression

In order to investigate the corporate governance and firm financial performance relationship further, financial performance is subjected to testing of 0.05, 0.25,0.50,0.75 and 0.90 quantiles in this study. Quantile regression is designed to estimate the relationship of explanatory variables at different points (i.e quantiles) in conditional distribution of the dependent variables. By using this regression model, a complete picture can be derived of how corporate governance mechanisms relates to firm performance at different conditional quantiles. By applying quantile regression, this study addresses the question of whether the sign and/or magnitude of corporate governance variables and firm financial performance are different for different levels of financial performance. The OLS regression only estimates the relationship between variables for the conditional mean of firm financial performance and agency costs. However, quantile regression is more powerful than OLS regression, because it produces separate estimates for all conditional quantiles of a response variable's distribution (Ramdani & Witteloostuijn, 2010). Further, they explain quantile regression works better than OLS regression, especially with skewed data, unequal variance (heteroscedasticity) and the existence of outliers. Quantile regression as introduced by Koenker & Bassett (1978) seeks to complement classical linear regression analysis. Quantile regression essentially transforms a conditional distribution function into a conditional quantile function by splitting it into segments. In OLS, modelling a conditional distribution function of a random sample ($y_1,\ldots\ldots y_n$) with a parametric function $\mu(x_i,\beta)$ where x_i represents the independent variables, β the corresponding estimates and μ the conditional mean, can present the following minimization problem:

$$\min \beta \in R \sum_{i=1}^{n} (y_i - \mu(x_i, \beta))2$$

Obtains the conditional expectation function E[Y | x_i] can proceed in quantile regression. The central feature thereby becomes ρτ, which serves as a check functio

$$\rho_\tau = \begin{cases} \tau * x & if\ x \geq 0 \\ (\tau - 1) * x & if\ x < 0 \end{cases}$$

In Quantile regression one now minimises the following function:

$$\min \beta \in r \sum_{i=1}^{n} \rho_\tau (y_i - \epsilon(x_{i,\beta}))$$

Here, in contrast to OLS, the minimisation is done for each subsection defined by ρτ, where the estimate of the τth-quantile function is achieved with the parametric function ξ(xi,β) (Koenker & Hallock, 2001).

5.5 Specification tests

5.5.1 Autocorrelation test

The serial correlation (i.e. successive residuals appear to be correlated with each other) is often encountered in econometric models (Jung, 2005). However, previous literature addressed this issue in a time-series based context (Taylor & Wilson, 1964) and very few addressed it in a panel context (Ahn & Schmidt, 1997; Jung, 2005). For consistent estimation, the panel data estimators require that the error ε_{it} be serially uncorrelated. If ε_{it} are uncorrelated, then $\Delta\varepsilon_{it}$ are correlated with $\Delta\varepsilon_{i,t-1}$, because Cov($\Delta\varepsilon_{it}, \Delta\varepsilon_{i,t-1}$) =Cov($\varepsilon_{it}, \varepsilon_{i,t-1}, \varepsilon_{i,t-1} - \varepsilon_{i,t-2}$)=-Cov($\varepsilon_{i,t-1}, \varepsilon_{i,t-1}$) ≠ 0. However, $\Delta\varepsilon_{it}$ will not be correlated with $\Delta\varepsilon_{i,t-k}$ for k ≥ 2.

5.5.2 Tests of over identifying restrictions

This research uses the Hansen-Sargan test which is a heteroskedasticity-consistent test for over identifying restrictions. The standard test for over identifying restrictions associated with Sargan (1958) and Hansen (1982) is the test given by the minimised value of the GMM criterion function under the continuous updating procedure (Hansen *et al.*, 1996). In a GMM context, when there are more moment conditions than parameters to be estimated, a chi-square test can be used to test the over-identifying restrictions. The test statistic can be called the J statistic. The GMM method has solved the problem of solving the equation $\acute{n}(\theta) = 0$ with the minimisation of a certain quadratic form. Such minimisation can always be carried over, even when no θ_0 such that $\acute{n}(\theta) = 0$ exists or closer to zero. The testable hypotheses for the proposed J tests are

H0: $\acute{n}(\theta) = 0$ *(model is "valid"), and*
H0: $\acute{n}(\theta) \neq 0, \forall\theta \in \theta$ $(model\ is\ "invalid")$

5.5.3 Test for joint significance

One of the universal methods for hypothesis testing and obtaining confidence intervals is the Wald method. Polit (1996) and Agresti (1990) identify the Wald test as one of a number of ways of testing parameters associated the with a group of explanatory variables to determine whether the explanatory variables jointly contribute zero explanatory power. If the Wald test is significant then, the group of explanatory variables (in this study, board size, board composition, board leadership and control variables), have parameters that are not zero. Hence, all the explanatory variables can be included in the models. If the Wald test is not significant then the model formulation needs to be redesigned, excluding variables with zero parameters. The Wald test statistic compares the maximum likelihood

estimate $\theta^{\wedge}$ with the proposed valueθ_0, assuming the difference between the two will be normal. In the univariant case, the Wald statistic is $\frac{(\theta^{\wedge} - \theta_0)^{\wedge}2}{Var\ (\theta^{\wedge})}$

Alternatively, the difference can be compared to a normal distribution. In this case, the test statistic is:

$$\frac{(\theta^{\wedge} - \theta_0)}{SE(\theta^{\wedge})}$$

Where $SE(\theta^{\wedge})$ is the standard error of the maximum likelihood estimate.

5.5.4 Estimate of standard errors

When estimating the governance relationship and firm financial performance and agency costs, variance-covariance matrix of the estimator (VCE) is reported. VCE (robust) uses the robust estimator. This study uses the two step estimator; the Windmeijer (2004) WC-robust estimator. For the one-step estimator, the Arellano-Bond robust VCE estimator is used. When the residuals are independent and identically distributed, OLS standard errors are unbiased. But when using the panel data, standard errors can be biased, either over or underestimating the true variability of the coefficient estimates. In literature that includes panel data, 42% of the papers did not adjust the standard errors for possible dependence in the residuals (Petersen, 2009). He further explains, even though literature has used different methods to observe standard errors in panel data, those chosen methods are not appropriate in all instances. There are two types of residual errors that can be occurring in a panel data set. According to Wooldridge (2007), the first type of error is the unobserved firm effect; that is, the residual of a given company may be correlated across a year. The second type of error is introduced by Petersen (2009); that is, a time effect when the residual of a given year may be correlated across different companies (cross-sectional dependence).

This study uses Arellano-Bover/Blundell-Bond linear dynamic panel data estimation. This estimator is apposite for many panels and limited time period datasets (Cameron & Trivedi, 2009). Furthermore, this method assumes that there is no autocorrelation in the idiosyncratic errors and requires the initial condition that the panel level effects be uncorrelated with the first difference of the first observation of the dependent variable.

5.6 Conclusion

This chapter presents the econometric analysis used for hypothesis testing and highlights the role of the variables in relation to corporate governance. Variable definitions and a summary of variables are given. Panel OLS regression, dynamic panel GMM estimation, Tobit model, ANOVA, DID, Quantile regression, Durbin-Wu-Hausman test and specification tests are described. This chapter also discussed data collection methods and sample selection of this study. The next chapter will describe the findings and examine the important corporate governance variables and models for MNCs on the basis of the econometric results obtained by applying the methods discussed in this chapter.

Chapter 6
Econometric results and discussion of corporate governance practices, financial performance and agency costs in MNC subsidiaries

6.0 Introduction

This chapter presents the results of the empirical study and analyses the information about the relationship between corporate governance mechanisms, financial performance and agency costs in Sri Lanka's MNCs.

This chapter is organised as follows. Section 6.1 provides descriptive statistic of the sample data. This is followed by presentation of pair-wise correlation of variables (section 6.2). Section 6.3 provides financial performance analysis and discussion. Section 6.4 provides agency costs analysis and discussion. Thereafter, section 6.5 provides panel Tobit regression results. Section 6.6 is about the specification tests for this study. Finally, section 6.7 concludes the chapter.

6.1 Descriptive statistics for MNC subsidiaries

The sample consists of 86 MNC subsidiaries listed on the CSE for the period of 2006 to 2010. Table 6.1 provides descriptive statistics of the dependent and independent variables used in this study. The table depicts the number of observations, mean, median, standard deviation, minimum and maximum value of each variable. There are four categories for independent variables. First category is board size. The second category is board composition. The third category is board leadership. The fourth category is control variables.

Table 6.1 Descriptive statistics of MNCs

Variables	Obs	Mean	Median	Std. Dev.	Min	Max
Dependent variables						
TOBIN'S Q	424	.9539069	1.000997	0.41299	-3.6541	2.517831
ROA	424	0.015289	3.92E-06	0.04882	-0.26401	0.227802
ROE	402	8.857214	8.625	3.293844	-294.85	148.54
ASSETS	424	0.962075	0.828652	0.815175	0	3.914783
DIVIDEND	420	0.013639	0.005429	0.615057	0	6.238527
QFCF	424	133233	0	608044.1	-397163	6913873
Independent variables						
Board size						
BOARD	408	7.615196	8	1.976885	3	14
Board composition						
NONE	381	.6135439	0.6666666	.2552809	0	1
INSIDE	430	0.065959	0.000203	0.148441	0	1
DIVERSITY	430	.4240208	.44849	.1164966	0	0.6875
FEMALE	426	0.020579	0	0.045417	0	0.5
MINORITY	424	0.312792	0.333333	0.278424	0	1
Leadership structure						
CEO	430	0.155814	0	0.363101	0	1
OWNER	430	0.953488	1	0.210836	0	1
FOREIGN	430	0.760465	1	0.427297	0	1
Control variables						
LNSALES	420	13.60088	13.86738	2.440985	6.369901	17.6787
AGE	430	42.88372	42	30.3136	4	104
LNAGE	430	3.507893	3.332205	0.725386	1.386294	4.644391
DEBT	331	.2307946	2.155547	.1909195	0	.8288749
REGION1	430	0.337209	0	0.473308	0	1
REGION 2	430	0.046512	0	0.210836	0	1
REGION3	430	0.05814	0	0.23428	0	1
REGION 4	430	0.55814	0	0.497187	0	1
INDUS1	430	0.05814	0	0.23428	0	1
INDUS2	430	0.011628	0	0.107329	0	1
INDUS3	430	0.104651	0	0.30646	0	1
INDUS4	430	0.244186	0	0.430104	0	1
INDUS5	430	0.127907	0	0.334375	0	1
INDUS6	430	0.011628	0	0.107329	0	1
INDUS7	430	0.44186	0	0.497187	0	1

Note: For the detail description of above variables (2006-2010), refer to Table 5.2 in Chapter 5

1) **Tobin's Q**:-The mean Tobin's Q value is 0.95. This is much closer to value 1.0, and indicates MNCs create value for their shareholders. This is consistent with Pantzalis (2001) who finds that MNCs in developing markets have significantly higher excess Tobin's Q value. The maximum Tobin's Q value is 2.52 and minimum is -3.65. This is consistent with Doukas & Kan (2006) who explain that due to global diversification MNCs destroy their company value.

2) **ROA:-**The maximum value of ROA is 0.23 and the minimum is -0.26. The mean value of ROA is 0.015. Though the mean ROA is small, this positive value indicates that the sample MNCs create shareholder value over the sampling period. This positive value indicates effective utilisation of company assets in business to generate an operating surplus.

3) ROE:-The ROE mean is 8.86%. This positive mean value indicates MNCs create value for their shareholders. This indicates operating efficiency is positively translated into benefits to the owners.

4) ASSETS:-The mean assets utilisation ratio is 0.96 with a median 0.83 for the sample companies. The average assets utilisation is closer to one and a positive figure, which means that companies efficiently utilise invested capital. The maximum value for assets utilisation for companies in this sample is 3.91 and the minimum value is 0.

5) **DIVIDEND**:-The minimum value for dividend payout ratio for MNCs is 0 and maximum value is 6.24. The mean dividend payout ratio is 0.0136. It is clearly visible that more than fifty percent of firms have less than a 0.005% dividend payout ratio. Overall, this finding indicates MNCs' earnings do not well support dividend payments.

6) QFCF:-The median value zero indicates fifty percent of companies are highly managed firms (Tobin's Q is greater than 1).

7) BOARD:-The mean value of board size is 7.61. This size is smaller than the average European board size of 11.8 average as at 2009 ("Corporate Governance Report 2009: Boards in Turbulent Times", 2009). Table 6.1 indicates that the minimum value for board size is 3 and the maximum value is 14. This average

board size of Sri Lankan MNCs is consistent with the recommendations of the European and US code for ideal board size of between 5 and 15 members.

8) NONE:-The minimum percentage of non-executive directors on MNC subsidiary boards is zero and the maximum percentage is 100. The mean value of non-executive directors is 61%. The high number of non-executive directors may be due to the fact that the new listing rules require one third of a board to be non-executive directors.

9) **INSIDE:** - In the sample period 2006-2010, fifty percent of companies have zero insider shareholdings. The average insider shareholding is 6.59% only. However, minimum and maximum range varies between zero insider holdings to 100% insider shareholdings.

10) **DIVERSITY:-**The minimum value for diversity of MNC subsidiaries is 0 and maximum value is 0.6875. The value zero indicates non-diversified board (homogenous board) and 1.0 indicates fully diversified board. According to the descriptive statistics, more than fifty percent of firms have non diversified boards.

11) **FEMALE:-**The sample mean percentage of female directors is 2.0. This is lower than the female board numbers reported from the European average (10%) in 2009 ("Corporate Governance Report 2009: Boards in Turbulent Times", 2009). Further, findings shows fifty percent of MNCs have no female directors on their boards.

11) **MINORITY**:-The mean proportion of ethnic minority directors is 31%. The minimum minority directors' percentage on a board is zero and the maximum is 100%. This suggests total minority board do exists in Sri Lankan MNCs. The minority directors' representation in Sri Lankan MNCs is approximately three times higher than US listed companies in the sample used by Carter *et al.* (2008).

12) **CEO**:-The mean proportion of CEO duality in subsidiaries is 15.6%. Hence, in this sample 84.4% of MNCs separate the CEO and chairman roles. This is consistent with European findings; "Corporate Governance Report 2009: Boards in Turbulent Times" (2009) states more than 84% of European firms split the functions of chairman and CEO. This may be multinational companies try to maintain balance between the board and CEO.

13) **OWNER**:-The mean proportion of institutional ownership is 0.95. Due to weak legal protection, individual investors are reluctant to invest in Sri Lanka. Therefore, institutional ownership is high.

14) **FORIGN:**-The mean proportion of foreign managers in Sri Lankan subsidiaries is 76%. This indicates more than two thirds of MNCs operating in Sri Lanka would like to have foreign managers from their parent companies.

15) **LNSALES**:-The first company size measure is log of total sales. The mean Log of total sales is 13.06.

17) **AGE**:-The minimum value of age for MNCs is 4 years and maximum value is 104 years. The mean value is 42.88 years. The median value indicates fifty percent of the sample consists of young firms with an age less than 42.

18) **DEBT**:-This variable indicates MNCs' debt to assets ratio. The average debt to assets ratio is 23.07. This descriptive statistic highlights Sri Lankan MNCs are not highly leveraged. This figure is less than the G7 countries' sample use by Rajan & Zingales (1995a). The minimum value of debt to assets ratio is zero, indicating there is existence of total equity companies in Sri Lanka listed MNCs. The maximum leverage ratio is 82.88. The median value indicates fifty percent of companies have less than 21.55% debt to assets ratio.

19) **LOCATION**:-These variables indicate MNCs' parent locations. A third or 33.7% of MNC subsidiaries are from Europe (LOC1), 4.6% of the sample is from

Scandinavia (LOC2) and 5.8% operating in Sri Lanka come from the American region (LOC3). Finally, 5.58% of subsidiaries are from Asia (LOC4).

20) **INDUSTRIES**:-Seven industry dummies are used to represent all industries in Sri Lanka (except the financial sector): 5.8% of companies operate in INDUS1; 1% of the sample of MNC subsidiaries are from INDSU2; 10% of companies are from industry 3; Industry 4 represents 24% of the sample; 12% of firms are from industry 5 and 1% of firms from industry 6; Industry 7 represents 44% of total sample.

The distribution of each variable was checked to determine if it was approximately a normal variant. The Jarque-Bera test results indicated that all data are normally distributed. Accordingly, a conditional mean estimator (OLS) is appropriate for the sample data set.

6.2 Pair wise correlation

The correlation matrix shown as Table 6.2 indicates that explanatory variables are positively and significantly correlated with the level of Tobin's Q, ROA, ROE, ASSETS, DIVIDEND and QFCF, which offers tentative support for the claim that board size, board composition, leadership structure and control variables interact with MNCs' financial performance and agency costs. Further, highly correlated board size, board composition and leadership variables indicate a need for further attention to these variables.

Table 6.2 Correlation matrix

	TOBIN'S Q	ROA	ROE	ASSETS	DIVIDENT	QFCF	BOARD
TOBIN'S Q	1.0000						
ROA	0.0241 (0.6201)	1.0000					
ROE	0.0152 (0.7612)	0.1672*** (0.0008)	1.0000				
ASSETS	0.1051** (0.0304)	0.0269 (0.5807)	0.2409*** (0.0000)	1.0000			
DIVIDEND	-0.1495** (0.0021)	-0.0310 (0.5270)	-0.0106 (0.8327)	-0.2095*** (0.0000)	1.0000		
QFCF	-0.1463** (0.0025)	-0.0377 (0.4390)	0.3855*** (0.0000)	0.1950*** (0.0001)	-0.0282 (0.5638)	1.0000	
BOARD	0.0427 (0.3931)	-0.0998** (0.0455)	-0.0008 (0.9876)	0.0608 (0.2240)	-0.0651 (0.1946)	0.0283 (0.5712)	1.0000
NONE	0.3132*** (0.0000)	-0.2066*** (0.0000)	-0.2230*** (0.0000)	0.0513 (0.3181)	-0.0196 (0.7045)	-0.3008*** (0.0000)	0.3276*** (0.0000)
INSIDE	0.1461** (0.0026)	0.2179*** (0.0000)	-0.0714 (0.1529)	-0.1280** (0.0083)	-0.0007 (0.9879)	-0.0753 (0.1217)	-0.1333*** (0.0000)
FEMALE	-0.5258*** (0.0000)	0.1221* (0.0119)	0.1297*** (0.0092)	-0.2509 (0.0000)	0.2290*** (0.0000)	0.2191 (0.0000)	-0.2352*** (0.0000)
DIVERSITY	-0.4047*** (0.0000)	0.1559*** (0.0013)	0.1687*** (0.0007)	-0.2375*** (0.0000)	0.2051*** (0.0000)	0.2375*** (0.0000)	-0.2678*** (0.0000)
MINORITY	0.3019*** (0.0000)	-0.1566*** (0.0012)	-0.1756*** (0.0004)	0.1048* (0.0310)	-0.0003 (0.9947)	-0.2260*** (0.0000)	0.3040*** (0.0000)
CEO	0.1889 *** (0.0001)	-0.1232* (0.0111)	-0.0429 (0.3910)	-0.0582 (0.2316)	0.0989** (0.0428)	-0.0899* (0.0643)	0.1245** (0.0118)
OWNER	-0.0425 (0.3823)	0.0697 (0.1517)	0.0062 (0.9022)	0.0361 (0.4587)	0.0405 (0.4078)	0.0451 (0.3542)	-0.1017** (0.0400)
FOREIGN	-0.1821*** (0.0002)	0.1200** (0.0134)	0.1167* (0.0193)	0.0097 (0.8414)	-0.0398 (0.4163)	0.1195 (0.0138)	-0.2258*** (0.0000)
LNSALES	0.1363*** (0.0051)	0.0045 (0.9260)	0.2316*** (0.0000)	0.4601*** (0.0000)	-0.3220*** (0.0000)	0.2388*** (0.0000)	0.2519*** (0.0000)
LNAGE	-0.1437*** (0.0030)	0.1421** (0.0034)	-0.0960** (0.0544)	-0.2151*** (0.0000)	0.2235*** (0.0000)	-0.1033** (0.0335)	-0.0681 (0.1701)
DEBT	0.0333 (0.5472)	-0.0498 (0.3681)	-0.0519 (0.3627)	0.2893*** (0.0000)	-0.2111*** (0.0001)	-0.1141** (0.0386)	0.1873*** (0.0009)
REG1	0.0450 (0.3554)	0.0061 (0.8998)	-0.0883* (0.0769)	-0.1209** (0.0127)	-0.0688 (0.1591)	0.0586 (0.2285)	0.1599*** (0.0012)
REG2	0.0227 (0.6416)	0.0574 (0.2383)	0.3011*** (0.0000)	0.5214*** (0.0000)	-0.0347 (0.4783)	0.2514*** (0.0000)	0.0660 (0.1830)
REG3	0.0189 (0.6980)	-0.0784 (0.1068)	0.0741 (0.1379)	0.2971*** (0.0000)	-0.0482 (0.3241)	-0.0007 (0.9881)	-0.0779 (0.1162)
	TOBIN'S Q	ROA	ROE	ASSETS	DIVIDENT	QFCF	BOARD
REG4	-0.0614 (0.2072)	0.0069 (0.8874)	-0.0839* (0.0928)	-0.2490*** (0.0000)	0.1032** (0.0345)	-0.1627*** (0.0008)	-0.1433** (0.0037)
INDS1	-0.0316 (0.5165)	-0.0785 (0.1066)	-0.0478 (0.3391)	0.0794 (0.1025)	-0.0489 (0.3176)	0.1930*** (0.0001)	0.1964*** (0.0001)
INDS2	0.0081 (0.8674)	-0.0342 (0.4819)	0.1827*** (0.0002)	0.2435*** (0.0000)	-0.0115 (0.8135)	0.0930** (0.0557)	-0.0347 (0.4845)
INDS3	0.0222 (0.6487)	0.3739*** (0.0000)	-0.0361 (0.4709)	-0.1989*** (0.0000)	0.0093 (0.8497)	-0.0282 (0.5627)	-0.2689*** (0.0000)
INDS4	0.0761 (0.1178)	-0.2617*** (0.0000)	-0.1412*** (0.0046)	-0.0469 (0.3357)	-0.1002** (0.0401)	-0.1136** (0.0193)	0.0390 (0.4325)
INDS5	0.0572 (0.2395)	0.3677*** (0.0000)	0.1415*** (0.0045)	0.1995*** (0.0000)	-0.0574 (0.2404)	0.1089** (0.0249)	0.1424*** (0.0040)
INDS6	0.0203 (0.6770)	-0.0342 (0.4818)	0.0497 (0.3201)	-0.0507 (0.2975)	0.0440 (0.3687)	-0.0240 (0.6227)	0.1120** (0.0237)
INDS7	-0.1093** (0.0244)	-0.1973*** (0.0000)	0.0286 (0.5673)	-0.0484 (0.3203)	0.1357*** (0.0053)	-0.0629 (0.1961)	-0.0779 (0.1161)
	NONE	INSIDER	FEMALE	DIVERSITY	MINORITY	CEO	OWNER
NONE	1.0000						
INSIDER	-0.0503 (0.3278)	1.0000					
FEMALE	-0.8334*** (0.0000)	0.0916* (0.0589)	1.0000				
DIVERSITY	-0.8371*** (0.0000)	0.1168** (0.0154)	0.9801*** (0.0000)	1.0000			
MINORITY	0.9625*** (0.0000)	0.0359 (0.4612)	-0.6827*** (0.0000)	-0.7397*** (0.0000)	1.0000		
CEO	0.6178*** (0.0000)	0.1175** (0.0148)	-0.2567*** (0.0000)	-0.2861*** (0.0000)	0.6956*** (0.0000)	1.0000	
OWNER	-0.0480 (0.3496)	-0.0668 (0.1668)	0.0821* (0.0904)	0.0796* (0.0994)	-0.0852* (0.0796)	-0.0269 (0.5779)	1.0000
FOREIGN	-0.7082*** (0.0000)	-0.0561 (0.2455)	0.3390*** (0.0000)	0.3738*** (0.0000)	-0.7648*** (0.0000)	-0.7655*** (0.0000)	0.0313 (0.5176)

LNSALES	0.1677*** (0.0011)	-0.2941*** (0.0000)	-0.3561*** (0.0000)	-0.3590*** (0.0000)	0.1953*** (0.0001)	-0.0618 (0.2063)	-0.0356 (0.4665)
LNAGE	-0.1605*** (0.0017)	0.2461*** (0.0000)	0.3739*** (0.0000)	0.3715*** (0.0000)	-0.1759*** (0.0003)	0.0352 (0.4669)	0.2371*** (0.0000)
DEBT	0.2163*** (0.0002)	-0.1427*** (0.0093)	-0.4166*** (0.0000)	-0.4674*** (0.0000)	0.1426*** (0.0096)	-0.2146*** (0.0001)	-0.0817 (0.1380)
REG1	-0.0263 (0.6086)	0.0553 (0.2524)	-0.0478 (0.3250)	-0.0382 (0.4289)	0.0055 (0.9105)	0.0462 (0.3391)	0.0407 (0.3994)
REG2	-0.0943* (0.0659)	-0.0982 (0.0418)	0.0110 (0.8215)	0.0279 (0.5636)	-0.0450 (0.3553)	-0.0340 (0.4821)	0.0488 (0.3129)
REG3	-0.0555 (0.2800)	0.0169 (0.7264)	0.0095 (0.8450)	0.0232 (0.6314)	-0.0531 (0.2755	-0.0519 (0.2826)	0.0549 (0.2562)
REG4	0.0939* (0.0672)	-0.0190 (0.6946)	0.0362 (0.4565)	0.0136 (0.7781)	0.0392 (0.4205)	-0.0051 (0.9159)	-0.0853* (0.0771)
INDS1	0.0485 (0.3448)	-0.0980** (0.0422)	-0.0487 (0.3162)	-0.0526 (0.2762)	0.0564 (0.2463)	0.0303 (0.5313)	-0.1811*** (0.0002)
INDS2	-0.1550*** (0.0024)	-0.0483 (0.3182)	0.0853* (0.0786)	0.1158** (0.0163)	-0.1229** (0.0113)	-0.0466 (0.3350)	0.0240 (0.6203)
INDS3	-0.2816*** (0.0000)	0.1270*** (0.0084)	0.1953*** (0.0000)	0.2583*** (0.0000)	-0.2089*** (0.0000)	-0.0212 (0.6612)	0.0755 (0.1179)
INDS4	0.2021*** (0.0001)	0.0707 (0.1433)	-0.1745*** (0.0003)	-0.1751*** (0.0003)	0.2067*** (0.0000)	0.1439*** (0.0028)	-0.0030 (0.9507)
INDS5	-0.0321 (0.5328)	0.1248*** (0.0096)	-0.1126** (0.0201)	-0.1028** (0.0330)	0.0223 (0.6469)	-0.0493 (0.3074)	0.0846 (0.0798)
INDS6	0.1438*** (0.0049)	-0.0482 (0.3182)	-0.0672 (0.1665)	-0.0722 (0.1348)	0.1588*** (0.0010)	0.1328*** (0.0058)	0.0240 (0.6203)
INDS7	-0.0022 (0.9653)	-0.1563*** (0.0011)	0.1258*** (0.0093)	0.0769 (0.1115)	-0.0996** (0.0404)	-0.1111** (0.0212)	-0.0259 (0.5928)

	FOREIGNISE	LNSALES	LNAGE	DEBT	REG1	REG2	REG3
FOREIGN	1.0000						
LNSALES	-0.0230 (0.6390)	1.0000					
LNAGE	0.0487 (0.3133)	-0.4400*** (0.0000)	1.0000				
DEBT	0.1154** (0.0359)	0.3443*** (0.0000)	-0.3086*** (0.0000)	1.0000			
REG1	-0.0146 (0.7626)	-0.0170 (0.7281)	-0.0861* (0.0744)	0.0733 (0.1834)	1.0000		
REG2	0.0722 (0.1349)	0.2044*** (0.0000)	0.0999** (0.0383)	0.0209 (0.7052)	-0.1575*** (0.0010)	1.0000	
REG3	0.0230 (0.6341)	0.0456 (0.3516)	-0.0371 (0.4426)	-0.0211 (0.7017)	-0.1772*** (0.0002)	-0.0549 (0.2562)	1.0000
REG4	-0.0276 (0.5687)	-0.0933 (0.0560)	0.0571 (0.2374)	-0.0678 (0.2188)	-0.8017*** (0.0000)	-0.2482*** (0.0000)	-0.2792*** (0.0000)
INDS1	-0.0934* (0.0529)	0.1144** (0.0190)	-0.1080** (0.0251)	0.1700*** (0.0019)	0.1381*** (0.0041)	-0.0549 (0.2562)	0.1506*** (0.0017)
INDS2	0.0609 (0.2077)	0.1004 (0.0398)	-0.1107** (0.0217)	-0.1191** (0.0303)	-0.0774 (0.1091)	-0.0240 (0.6203)	0.4366*** (0.0000)
INDS3	0.0495 (0.3061)	-0.3285*** (0.0000)	0.1905*** (0.0000)	-0.3091*** (0.0000)	0.1579*** (0.0000)	-0.0755 (0.1179)	-0.0849* (0.0785)
INDS4	-0.1630*** (0.0007)	-0.0028 (0.9541)	-0.1065** (0.0272)	0.0482 (0.3824)	0.0526 (0.2765)	-0.1255*** (0.0092)	0.2058*** (0.0000)
INDS5	0.0518 (0.2839)	0.1631*** (0.0008)	0.2367*** (0.0000)	0.1089 (0.0477)	0.0951** (0.0489)	0.2461*** (0.0000)	-0.0951** (0.0486)
INDS6	-0.1424 (0.2839)	0.1631*** (0.0008)	0.2367*** (0.0000)	0.1089** (0.0477)	0.0951** (0.0489)	0.2461*** (0.0000)	-0.0951** (0.0486)
INDS7	0.1373*** (0.0043)	-0.0167 (0.7323)	-0.0838* (0.0828)	0.0178 (0.7472)	-0.2384*** (0.0000)	0.0259 (0.5928)	-0.2211*** (0.0000)

	REG4	INDS1	INDS2	INDS3	INDS4	INDS5	INDS6	INDS7
REG4	1.0000							
INDS1	-0.1792*** (0.0002)	1.0000						
INDS2	-0.1219** (0.0114)	-0.0269 (0.5773)	1.0000					
INDS3	-0.0783 (0.1051)	-0.0849 (0.0785)	-0.0371 (0.4431)	1.0000				
INDS4	-0.0938* (0.0519)	-0.1412 ** (0.0033)	-0.0617 (0.2020)	-0.1943 (0.0000)	1.0000			
INDS5	-0.1500*** (0.0018)	-0.0951** (0.0486)	-0.0415 (0.3902)	-0.1309*** (0.0066)	-0.2177*** (0.0000)	1.0000		
INDS6	0.0965** (0.0455)	-0.0269 (0.5773)	-0.0118 (0.8078)	-0.0371 (0.4431)	-0.0617 (0.2020)	-0.0415 (0.3902)	1.0000	
INDS7	0.3202*** (0.0000)	-0.2211*** (0.0000)	-0.2211** (0.0455)	-0.3042*** (0.0000)	-0.5057*** (0.0000)	-0.3408*** (0.0000)	-0.0965** (0.0455)	1.0000

*denotes correlation is significant at 10% level, ** denotes correlation is significant at 5% level, ** * denotes correlation is significant at 1% level

6.3 Dynamic panel GMM regression of financial performance variables and explanatory variables

Most prior studies ignore the endogeneity between corporate governance variables and firm financial performance. However, some recent studies have pointed out the possibility of endogeinety between corporate governance variables and financial performance (Kaserer & Moldenhauer, 2008). Drakos & Bekiris (2010) explain board composition, leadership structure and board size are strongly endogenous for financial performance, measured as Tobin's Q and ROA. The DWH test analyses the endogenous relationship between corporate governance variables and financial performance proxies. The results presented in Table 6.3 indicate that following listed corporate governance variables (denoted by*) and company financial performance proxies have significant endogeneity problems, suggesting a need to address the issue of potential endogeneity.

H_0: Regressors are exogeneous

Table 6.3 The DWH test for endogeneity of regressors

	TOBIN'S Q	ROA	ROE
BOARD	0.01392	9.7565**	5.971465**
NONE	3.75198**	6.346766***	7.28494**
INSDIE	34.6979***	4.21823**	9.806593***
DIVERSITY	4.34673**	8.89710***	8.39373***
FEMALE	12.7163***	8.208247**	6.6318***
MINORITY	4.292530*	4.08247**	4.771548**
CEO	7.59600*	7.839177*	5.05485***
OWNER	0.08764	0.07865	3.71133
FOREIGN	1.1257*	5.63559**	2.175521*

To overcome the endogeneity problem, previous studies used a two stage least square (2SLS) method. However, 2SLS requires the identification of instruments that are correlated with endogenous variables and uncorrelated with the error term of the model. In this study almost all the corporate governance variables (except the board size variable) have an endogeneity effect on TOBIN'S Q, ROA and ROE. Therefore, finding instrumental variables are difficult and if weak instrumental variables are used, it can lead to misinterpretation of coefficients.

Therefore, as an alternative approach, dynamic panel GMM estimation is used to model the relationship between explanatory and dependent variables. There are two major advantages gained from using the dynamic panel model. First, it avoids inconsistency of endogeneity through instrumental variables (lag variables) and it provides instruments that allow for controlling potential simultaneously and reversing causality. The second major advantage is the dynamic estimation procedure allows an entire set of explanatory variables to be treated as endogenous. Furthermore, this study sample covers a short time period (t=5) and has a considerably larger number of companies (N=86). The Arellano-Bond dynamic panel GMM model is appropriate for short *T* panel (Mileva, 2007). Moreover, "generalised method of moment (GMM) estimator minimises an objective function that is a quadratic form in sums" (Cameron & Trivedi, 2009). The models for the company financial performance are selected on the basis of strong diagnostics and the valid relationship between the MNC's financial performance and corporate governance mechanisms. The model is adjusted for first order autocorrelation (AR1) and second order autocorrelation (AR2). Further, Wald-chi test results and Hansan-Sargan J statistic are also reported. Table 6.4 presents the results for the corporate governance and firm financial performance. Columns 2-4 of Table 6.4 present OLS Fixed effect[2] results and columns 5-7 present dynamic panel GMM results. An examination of the results

[2] Hausman's specification test is used to differentiate between random and fixed effects models. The test statistics have $p<0.05$ for all three ratios, so the null hypothesis of no correlation is rejected and the fixed-effects model is appropriate for all three performance measures.

in Table 6.4 reveals that endogenity is a significant concern of corporate governance variables.

Table 6.4 Panel data OLS regression/ Dynamic Panel GMM regression results for financial performance proxies

Variable (1)	TOBINS-OLS (2)	ROA- OLS (3)	ROE-OLS (4)	TOBINS-GMM (5)	ROA-GMM (6)	ROE-GMM (7)
Number of obs= 430a Number of groups=86 L1				-.0730925*** (.0163197)	.4425396*** (.017722)	-.5147529*** (.0683444)
Board size: BOARD	-.0085306** (.0043625)	.0021643 (.0022669)	-.0418827 (.0496227)	.0103922*** (.0015568)	-.0013244*** (.0005014)	.0551413*** (.02007)
Board composition: NONE	-.0110885*** (.0014408)	.0001355 (.0007487)	-.0430931** (.017562)	-.0097725*** (.0007286)	-.0011731*** (.0001929)	-.0298117*** (.0110343)
INSIDE	.7500542*** (.0538054)	-.0223098 (.0279586)	-1.144666** (.5469543)	.3290994*** (.0902603)	.0038877 (.0037864)	-.1904204 (.3478029)
DIVERSITY	7.1917*** (.9136947)	-.77545 (.4747782)	9.693124 (10.32313)	1.833623*** (.4931071)	.0601965 (.258039)	.4683476*** (5.296905)
FEMALE	-12.4006*** (1.423267)	1.116675 (.7395644)	-18.49544 (16.01109)	-4.693139*** (.7967541)	-.1630557 (.393001)	-.5681247*** (8.615909)
MINORITY	1.040705*** (.1161454)	-.0693758 (.060352)	2.194771 (1.420334)	.9442358*** (.0708175)	.1061856*** (.0150734)	4.9244*** (.6182049)
Leadership structure: CEO	.005269 (.0230765)	-.0127563 (.0119911)	.742467*** (8.816669)	-.0664613*** (.009175)	-.0460121*** (.0101812)	.7434564*** (.1015918)
OWNER				.274065 (.4125424)	.1280665*** (.0426648)	-.2622281 (.8520767)
FOREIGN	-.0253554 (.0237483)	-.024226** (.0123402)	-.0108841 (.3288676)	.0090492 (.0056599)	-.0186327*** (.0027837)	-.0348564 (.1323851)
Control Variables: LNSALES	.0553662*** (.0153114)	.0135136** (.0079562)	.1506745 (.1890663)	.0286753*** (.0070749)	.0003327 (.0016381)	.4455688*** (.0824376)
LNAGE	.0280258 (.0803259)	-.0078649 (.0417393)	-1.353969 (.8913668)	.2468977*** (.0354831)	.0076202 (.0066498)	-1.186633*** (.3269011)
DEBT	.0013661*** (.0005732)	.0006217** (.0002978)	.0078882 (.0075655)	.0002908 (.0001873)	-.0000646 (.0001312)	.0096766*** (.0036922)
REG1				-.0422167 (1.602108)	-.1131202*** (.00991)	.0017232 (.4848864)
REG2						
REG3				-.1123719 (1.669601)	-.114077*** (.0371485)	2.802728*** (.7395459)
REG4				.3414344 (1.5622)	-.0119967 (.0084121)	-1.195787* (.6503429)
INDUS1				2.299357 (1.723984)	.6492148*** (.1361653)	3.731774*** (1.217118)
INDUS2				1.457893* (0.01347)	4.431664 (1.788118)	8.975866** (1.253969)
INDUS3				1.259332 (1.439663)	.4258478*** (.0896351)	1.88957** (.9840089)
INDUS4				.9359713 (1.455707)	.4020085*** (.096192)	2.604189** (1.229509)
INDUS5				.7761583 (1.377776)	.3610299*** (.0895569)	2.033771** (1.237247)

INDUS6						
INDUS7				.5019726 (1.351674)	.3143*** (.0871628)	3.899435*** (1.307481)
Regression summary statistics R2 AR(1) AR (2)	0.1345	0.0125	0.2355	 0.7127 0.1562	 0.1075 0.1832	 0.1401 0.1090
J-statistics Chi2(21)				49.40164 1.5e+05	40.6552 5.7e+07	22.27743 2.4e+05

[a] unbalanced panel; * Significant at 10% level; **Significant at 5% level; ***Significant at 1% level; This model provides standard errors which are in parentheses

Board size and the MNCs' financial performance

The independent variable BOARD is positively related to MNCs Tobin's Q value and ROE, at the 1% significant level, indicating board size positively affects company financial performance and shareholders' value generation. This phenomenon can be better explained by resource dependency theory. According to prior literature large boards provide a firm with greater expertise managers and accessibility to scarce resources (Dalton *et al.*, 1999). Therefore, larger MNCs may provide companies with easy access to foreign markets, new technology and raw materials. As a developing country, Sri Lanka's political and economic uncertainty is high. Therefore, MNCs with larger, diversified boards are positively related to company financial performance. However, board size is negatively related to MNCs' ROA at the 5% significant level, indicating larger boards reduce company return on assets. This may be because board size decreases effective communication and coordination among shareholders, thereby decreasing the financial performance of companies. This finding is in line with Yermack (1996) who finds a negative relationship between board size and firm financial ratios. Overall, the finding indicates that if an extra board member is included on an MNC board, there is a potential trade-off between diversity and coordination.

Non-executive directors and the MNCs' financial performance

Consideration of the NONE variable in Table 6.4 reveals it is negatively related to all three financial performance proxies at the 1% significance level, indicating non-executive directors have a negative impact on MNCs' financial performance. It may be that non-executive directors serving on MNC boards are not independent, have less information availability and lack of business knowledge. The Higgs report (2003) indicates that most non-executive directors are recruited via personal contacts rather than through formal interviews. Therefore, there is a high possibility for non-executive directors not to be independent in decision making processes and less efficient in board monitoring. Jensen (1993) explains another two reasons for a negative relationship between the proportion of non-executive board directors and company financial performance. The first reason is non-executive directors lack an ability to monitor managers. The second reason is that on larger boards with many non-executive directors the CEO's influence may swamp that of the outside directors. Presumably, due to the above reasons, the proportion of non-executive directors on the boards of MNCs can hinder company financial performance and shareholders' value creation.

Insider ownership and the MNCs' financial performance

The coefficient of INSIDE variable is positively and statistically significant at a 1% level for Tobin's Q, indicating that working owners increase MNCs' financial performance. This may be due to weak investor protection and the absence of well-developed markets for corporate control, which in turn leads to internal control mechanisms being more vigilant in Sri Lankan MNCs. Conceptually, the result is consistent with Jensen & Meckling (1976) who proposed 'convergence of interests' hypothesis, which explains that the managers' value maximisation is an

increasing function of insider ownership. When insider ownership is increased, control cannot easily be disputed and the resulting concentration of ownership might increase company financial performance.

Diversity and the MNCs' financial performance

Board diversity has a positive effect on Tobin's Q and ROE at a 1% significance level, indicating highly diversified boards have higher financial performance. This finding is consistent with Barnhart *et al.* (1994) explain that through discussion, the exchange of ideas on a diversified board improve firm financial performance. Apparently, diversification adds a new perspective that is value enhancing and it has become more prevalent on boards and is associated with enhanced company shareholder value. Further, board diversity promotes more effective global relationships for MNCs. Cultural sensitivity prior experience and knowledge are critical factor for MNCs survival. Therefore, board diversification has a positive effect on MNCs financial performance.

Female board directors and the MNCs' financial performance

The coefficient of FEMALE variable is negative and statistically significant at the 1% level for Tobin's Q and ROE, indicating female directors reduce MNCs' financial performance and destroy shareholder value. This finding is consistent with Adams & Ferreira (2008) who suggest a strong negative relationship between female representation on the board and stock return. Based on their argument, it may be that Sri Lanka's high uncertainty environment means female board directors are not an effective factor for the performance of MNCs. Further, personal qualities and behaviours as well as cultural influences may also affect women directors' effectiveness in Sri Lankan MNCs.

Ethnic minority directors and the MNCs' financial performance

Ethnic minority board directors have positive effects on all three financial performance proxies at a 1% significant level. These results indicate that ethnic minority board directors increase MNCs' accounting and market based financial performance and generate shareholder value. This may be because ethnic diversity increases a company's external networking, human capital and information availability, all of which are critical to corporate financial performance and for generating value for shareholders. This finding is consistent with Dwyer *et al.* (2003) who argue that minority directors positively affect firm strategic decision and organisational cultural developments and positively influence company financial performance.

CEO duality and the MNCs' financial performance

This study indicates company financial performance (Tobin's Q and ROA) have significant negative correlation with CEO duality, which is consistent with Pi & Timme (1993) who propose that CEO duality decreases board independence and vigilance, leading to poor financial performance. Moreover, this finding is in line with corporate governance best practices, which promote separate CEO and chairman roles. In contrast, this finding suggests CEO duality has a positive effect on shareholders' value creation. This is consistent with stewardship theory, because duality presents unity of command and avoids potential conflicts between CEO and board chair. This finding is consistent with Peng *et al.* (2007) who argue CEO duality is appropriate for resource scarcity and environmental dynamism.

Institute ownership and the MNCs' financial performance

Consideration of the OWNER variable in Table 6.4 reveals it is positively related with ROA at the 1% significance level, indicating institutional ownership has a positive impact upon MNCs' financial performance. This finding is consistent with Gürbüz *et al.* (2010) who analyse 164 firms from the Istanbul Stock Exchange and demonstrate a positive relationship between institutional ownership and financial performance. It is apparent that institutional owners have a greater incentive to monitor management in companies and that has a positive effect on company financial performance.

Foreign managers and the MNCs' financial performance

The coefficient of FOREIGN variable is negatively and statistically significant at 1% level for MNC subsidiaries ROA. This indicates that foreign managers decrease firm financial performance. This may be because foreign managers find it difficult to maintain productive and satisfying social relationships with local people in Sri Lanka. As an Asian country with traditional culture and norms, foreign managers from Western countries may have difficulty making cultural adjustments in Sri Lanka. Furthermore, foreign managers may lack knowledge about local markets and local businesses functions which can also affect negatively on MNCs' financial performance. This finding is consistent with earlier findings about many foreign managers experience serious problems on their international assignment (Banai, 1992; Stening & Hammer, 1992).

Company size and the MNCs' financial performance

Though the coefficient of LNSALES (firm size) variable is not significantly related with ROA, it is statistically significant at 1% level for ROE and Tobin's Q , indicating MNC size positively affects financial performance. It also indicates

large MNCs create more value for their shareholders than their smaller counterparts. This finding is consistent with Klapper & Love (2003) who use sales as proxy for firm size and find a positive relationship between firm size and financial performance. This may be because larger firms have optimal capital structure, less probability of bankruptcy and their diversified workforce leads to better financial performance.

Company age and the MNCs' financial performance

The independent variable LNAGE is positively related to company Tobin's Q value at the 1% significant level indicating older MNCs are more efficient than younger ones. This may be due to companies operating for many years in industries that are supposed to already have well-established systems and operations, and are equipped with enough resources in a well-established in market. These factors would lead to an increase in financial performance for mature MNCs operating in the Sri Lankan market. This finding is consistent with Hopenhayn (1992) who finds that individual firm productivity increases with the age of the firm; hence older firms have higher profit and value. Further, this study results reveal that MNCs age is significant at 1% and negatively affects shareholders' value creation. This indicates mature MNCs hinder their shareholders' value.

Leverage ratio and the MNCs' financial performance

This finding indicates debt is a non-significant factor for MNC financial performance (TOBIN'S Q and ROA). This result is consistent with Sarkar *et al.* (2006) who find a non-significant relationship between Tobin's Q and leverage level in listed manufacturing firms in India. However, DEBT is positively and statistically significant at 1% level for MNCs' ROE, indicating higher leverage

firms generate higher values for shareholders. The core reason may be that debt reduces a manager's commitment to pay out excess cash flows and curbs overinvestment. Therefore, debt reduces the overinvestment problem which reduces the market value of the firm and thereby impacts shareholders' value positively. This leads to better value generation for shareholders while reducing managerial expropriation.

Parent location and MNCs' financial performance

The significant relationship between MNCs' financial performance and their location indicates that MNC parent location has significant effect on MNC performance. The results clearly indicate REG1 and REG3 (MNCs from European region and American region) are 1% negatively significantly related with subsidiaries' ROA value. This may be due to discrepancies between rule-based expectations of a Western MNC culture and relationship-based expectations of Sri Lankan culture which then hinders financial performance of MNCs from European and American regions. However, compared to other locations, MNCs from the American region (LOC3) generate more value for their shareholders. Further, it is noted that MNC parent location plays an important role, which is similar to the observations of Ambos & Birkinshaw (2010).

Industry and the MNCs' financial performance

Results indicate that the industry in which a subsidiary finds itself is another significant determinant of financial performance. Similar to subsidiary parent location, some industries are more prone to subsidiary financial performance than others. This finding is consistent with Erhardt *et al.* (2003) who find industry has a significant affect on company financial performance, measured as ROI (Return on Investment). As per this study's findings, INDUS1 significantly positively

affects ROA and ROE financial performance proxies. Furthermore, INDUS1, INDUS3, INDUS4, INDUS5 and INDUS7 have positive impacts on shareholders' value generation and company ROA. Regression summary statistics, i.e. serial correlation in order 1 and serial correlation in order 2, overidentification restriction statistics (J-statistic) and joint-significance (Chi2) also reported separately for each financial performance regressions.

6.4 Dynamic panel GMM regression of agency costs variables and explanatory variables

Prior empirical research in corporate governance has explicitly recognised potential endogeneity that may bias corporate governance results (Florackis, 2008; Ward & Filatotchev, 2009). To check the endogeneity of all agency proxies and to correlate them with the rest of the variables, this study uses the Durbin-Wu-Hausman test (DWH). Table 6.5 shows the DWH test results for agency proxies. This study indicates, except for the CEO and OWNER variables, all other variables have an endogeneity effect on PA agency costs proxy (ASSETS). Further, this study reveals all the corporate governance variables have an endogeneity effect on PP agency costs proxy (DIVIDEND).

H_0: Regressors are exogeneous

Table 6.5 The DWH test for endogeneity of regressors

	ASSETS	DIVIDEND
BOARD	.035689*	1.48484*
NONE	5.7082***	5.3871**
INSDIE	7.2903*	72.0978***
DIVERSITY	6.9925***	4.37106**
FEMALE	2.19204*	6.38047***
MINORITY	9.87764**	10.8856***
CEO	.00648	2.65783*
OWNER	.05815	.93558*
FOREIGN	2.09407*	1.58897*

Therefore, this study uses dynamic panel GMM estimator to build instruments for those variables identified as endogeneous. To test model specification validity,

this study calculates the Hansen-Sargen test of overidentification of restrictions. Further robustness check AR (1) and AR (2) depict there is no serial correlation. Explanatory variables' joint significance results are also reported as Wald-Chi tests statistic.

Table 6.6 presents the results for the corporate governance and ASSETS (assets utilisation and DIVIDEND (dividend payout ratio). Columns 2-3 of Table 6.6 present OLS Fixed effect[3] results and columns 4-5 present dynamic panel GMM results.

Board size and MNCs' agency costs

This study finds a significant negative relationship between MNCS' board size and their PA agency costs proxy. This finding is consistent with Pearce & Zahra (1992) who identify that larger corporate boards are one of the most important governance mechanisms that align shareholders' interests by monitoring managerial activities. Hence it reduces PA conflicts. In contrast, most prior literature suggests smaller boards are less susceptible to PA and PP agency problems (Henry, 2010; Ning *et al.*, 2010). Moreover, this study finds a non-significant relationship between subsidiary board size and PP agency costs, indicating board size is not an important determinant of subsidiaries' PP agency costs.

[3] Hausman's specification test is used to differentiate between random and fixed effects models. The test statistics have $p<0.05$ for all three ratios, so the null hypothesis of no correlation is rejected and the fixed-effects model is appropriate for all three performance measures.

Non-executive directors and MNCs' agency costs

Though Sri Lanka's mandatory corporate governance best practices (2008) recommended non-executive directors should make up at least one-third of the board, this study indicates company PA agency costs have no significant impact on non-executive director proportion on MNC boards. This finding is consistent with McKnight & Weir (2009) who find a non-significant relationship between non-executive directors' proportion and company agency costs in a UK context. The coefficient of NONE variable is negatively and statistically significant at 1% level for DIVIDEND and indicates non-executive directors reduce conflicts between minority and majority shareholders. This finding is in line with corporate governance best practices recommendations of Sri Lanka and other countries, because non-executive directors prevent expropriation of minority shareholders.

Insider ownership and the MNCs' agency costs

The coefficient of INSIDE variable is positively and statistically significant at 1% level for ASSETS and indicates working owners increase a firm's assets utilisation ratio. This finding is consistent with Jensen & Meckling (1976) who argue that there is a convergence of interest between managers and shareholders and this increases when managerial share ownership increases. Further, Kern & Kerr (1997) explain insider ownership increases monitoring efforts of managers and reduces agency costs. A similar conclusion is drawn by McKnight & Weir (2009) in a UK context. Hence, this study indicates MNCs with higher insider ownership have fewer PA agency problems, and furthermore, this study indicates a negative and statistically significant relationship for INSIDE and DIVIDEND

variables. It may be higher insider ownership leads to less conflict between minority and majority shareholders.

Board diversity and MNCs' agency costs

Consideration of the DIVERSITY variable in Table 6.6 reveals it has a non-significant relationship with assets utilisation ratio (ASSETS) and is 1% negatively significant with dividend payout ratio (DIVIDEND). This indicates board diversity has no impact upon MNC subsidiary companies' PA problem and has a negative impact on PP problems by reducing conflicts between minority and majority shareholders. Diversified boards reduce conflict between controlling shareholders and minority shareholders because diversity increases effective relationships and communication. Diversity also increases board independence because diversified board members may ask questions different from those in an homogenous group Carter *et al.* (2008). This leads to increased effective monitoring of board members. Hence, board diversity negatively affects PP agency costs.

Female board members and MNCs' agency costs

The coefficient of FEMALE variable is non-significantly related with ASSETS and indicates that female directors have no impact on PA agency costs. This finding is consistent with most European studies which find an insignificant relationship with female board directors and firm financial performance (Marinova et al., 2010; Rose, 2007). Moreover, this study finds the coefficient of FEMALE variable is positively and statistically significant at the 1% level of DIVIDEND, indicating that female directors increase MNC subsidiaries' PP agency costs.

Ethnic minority directors and MNCs' agency costs

This study finds ethnic minority board directors have a non-significant effect on PA agency proxy, indicating ethnic minority directors are a non significant factor for determining MNCs' PA agency costs. However, ethnic minority directors have positive and 1% statistically significant relationship with PP agency proxies, indicating minority directors increase MNCs' PP agency costs.

CEO duality and MNCs' agency costs

This study's finding indicates company PA and PP agency costs have significant correlation with CEO duality. The coefficient of CEO variable is negative and statistically significant at the 1% level for assets utilisation, indicating that CEO duality reduces MNCs' assets utilisation. This may be due to CEO duality mitigating board independency in decision making and increasing misalignment of interests between managers and shareholders. This leads to poor assets utilisation. Hence, CEO duality increases PA agency costs for MNCs. Furthermore, from a PP agency costs' perspective, this study indicates a significant positive relationship between CEO duality and dividend payout ratio. This indicates CEO duality increases MNCs' majority and minority shareholder conflicts. This finding is consistent with Jensen (1993) who proposes that CEO duality gives too much power and control over others to one person in the decision making process.

Institutional ownership and MNCs' agency costs

Consideration of the OWNER (institutional ownership or not) variable in Table 6.6 reveals it is negatively related with DIVIDEND ratio at the 1% significance level, indicating institutional ownership negatively impacts upon MNCs' PP agency costs. This finding is consistent with Brickley *et al.* (1988) and Pound

(1988) who argues, based on efficient monitoring hypothesis, that institutional owners have greater expertise managers and resources and can monitor management at lower cost. Further, Brickley *et al.* (1988) explain that institutional investors are quicker than non institutional shareholders at responding to anti-takeover amendments and they are more likely to react to proposals that appear to be harmful to shareholders. On the other hand, this study finds no evidence that institutional ownership affects PA agency costs, measured by assets utilisation. This finding is consistent with Singh & Davidson (2003) who find a non-significant relationship between assets utilisation ratio and institutional ownership in an Australian context.

Foreign managers and MNCs' agency costs

This study finds no evidence that foreign managers affect PP agency costs when measured by dividend payout ratio. Nevertheless, the coefficient of FOREIGN variable is negatively and statistically significant at 1% level for ASSETS, indicating that foreign manager increase PA agency costs. Differences in behavioural patterns, social norms and interpersonal relationships between foreign managers and local managers may be the reason for lower assets utilisation ratio or high PA agency conflicts.

Company size and MNCs' agency costs

The coefficient of LNSALES (logarithm of total sales) variable is positively and statistically significant at 1% level for ASSETS and negatively and statistically significant at 1% level for DIVIDEND. This finding indicates that large firms have higher assets utilisation ratio than small firms. Hence, larger firms have fewer PA agency costs problems. This finding is consistent with Henry (2010) who explains that due to larger firms having better utilised assets, their PA agency

problem is considerably less than small firms. Further, these findings show larger firms have fewer PP agency conflicts as well. This may be because compared to smaller firms, larger firms' ownership is more scattered. Therefore, the existence of one larger shareholder is not prevalent in large firms. Hence, large MNCs have fewer PP agency problems than their smaller counterparts.

Company age and MNCs' agency costs

The coefficient of LNAGE is positively and statistically significant at 1% level for dividend payout ratio agency costs proxy, indicating older firms have high PP agency costs. An explanation for this might be that when the MNC's age, the influence of controlling shareholders increase. Nevertheless, this study finds the coefficient of LNAGE is non-significantly related with PA agency costs proxy, measured as assets utilisation ratio. This indicates firm maturity has no impact on PA agency costs in MNC subsidiaries. This finding is inconsistent with Ibrahim *et al.* (2008a) who find a significant positive relationship between firm age and assets utilisation agency proxy in Malaysian family and non-family businesses.

Leverage ratio and the MNCs' agency costs

DEBT is negatively and statistically significant at 1% level for dividend pay-out ratio, indicating highly leveraged MNCs have fewer PP agency problems. This finding is consistent with Hewa-Wellalage & Locke (2010) who find significant negative relationship between firm debt level and PP agency costs in New Zealand firms. This control function of debt may be more important in MNCs with larger cash flows and low growth rates. Further, this study finds debt has a significant positive impact on MNCs' PA agency costs, indicating higher leveraged MNCs have lower assets utilisation ratio. This finding is consistent

with Singh & Davidson (2003) who find significant positive relationship between leverage and firm PA agency costs, measured as assets utilisation ratio.

Parent location and the MNCs' agency costs

This study confirms MNC parent location is an important determinant of MNC subsidiaries' agency costs. The finding indicates MNC parent location 1 (REG1) and location 4 (REG4) have significant positive impacts on MNC subsidiaries' PA agency costs. However, MNC parent location has no significant impact on subsidiaries' PP agency costs.

Industry and impact on MNCs' agency costs

The findings show industry is a significant factor for MNC PP agency costs. This indicates MNCs operating in INDUS3, INDUS4, INDUS5 and INDUS7 have fewer PP agency problems than other industries. However, the study indicates industry has no impact on PA agency costs, measured as assets utilisation ratio.

Table 6.6 Panel data OLS regression/ Dynamic Panel GMM regression results for agency costs proxies

Variables (1)	ASSETS-OLS (2)	DIVIDEND-OLS (3)	ASSETS-GMM (4)	DIVIDEND-GMM (5)
Number of obs= 232a Number of groups=86 L_1			-.1013298*** (.0172063)	.1090023*** (.0108514)
Board size: BOARD	.0226297 (.0151774)	-.0034352 (.026671)	.0308295*** (.0064207)	.005083 (.0107055)
Board composition: NONE	.0100614** (.0050127)	.0187062** (.0088088)	-.0032145 (.0026988)	-.0074872*** (.0020324)
INSIDE	.1029126 (.1871906)	-4.262743*** (.328947)	.1547562*** (.0384212)	-3.471596*** (.4782899)
DIVERSITY	-6.5082** (3.178773)	-20.36043*** (5.586004)	-2.768251 (2.256458)	-11.32977*** (2.737968)
FEMALE	9.532776** (4.95159)	34.13813*** (8.701347)	3.397803 (3.315498)	18.13365*** (4.073969)
MINORITY	-1.138607*** (.4040737)	-1.629816** (.710072)	.1071227 (.2125674)	.580281*** (.1608486)
Leadership structure: CEO	-.2126068*** (.0802838)	-.0044975 (.1410814)	-.3702357*** (.0629008)	.2066679*** (.0552377)
OWNER			.6265713 (.629944)	-.9317777*** (.2042271)
FOREIGN	-.0784407 (.0826212)	.1086261 (.1451888)	-.0931171*** (.0318854)	.0161947 (.0283107)
Control Variables: LNSALES	.5693586*** (.0532689)	-.2471096*** (.0936085)	.5128188*** (.0258353)	-.5228692*** (.0290162)
LNAGE	.7154492** (.2794563)	.4180338 (.491084)	.0462991 (.0764118)	.5251771*** (.1500031)
DEBT	-.0024472 (.0019942)	-.0036471 (.0035043)	-.0042328*** (.0008824)	-.0085802*** (.0015613)
REG1			-1.179329*** (.1997288)	.0732931 (.1629738)
REG2			-.7702354 (.315798)	.0458974 (.1005312)
REG3			-.8811642 (.8430978)	-1.307876 (.9773128)
REG4			-.8251884*** (.1283967)	.0562196 (.1889126)
INDUS1			3.534113 (3.015594)	-.314093 (.8167881)
INDUS2			.45695396 (1.014324)	.75639588 (1.875967)
INDUS3			.9165246 (1.123014)	-2.621236*** (.6596955)
INDUS4			.4446342 (1.21729)	-1.084229*** (.3235665)
INDUS5			.5639574 (1.083137)	-.8693281** (.4605794)
INDUS6				
INDUS7			.4693003 (.9821346)	-.7619869* (.4551493)
Regression summary R2 AR(1) AR (2)	0.3664	0.0534	 0.9134 0.1577	 0.1920 0.1008
J-statistics Chi2 (21)			58.35108 3.3e+06	52.80985 9.9e+05

[a] unbalanced panel; * Significant at 10% level; **Significant at 5% level; ***Significant at 1% level; This model provides standard errors which are in parentheses

6.5 Panel Tobit regression of agency costs variable and explanatory variables

Panel datasets provide a very rich source of information for empirical economists, providing the scope to control for individual heterogeneity. Panel data Tobit model is used in this study to identify the relationship between Q-dummy free cash flow and explanatory variable. This Q-dummy free cash flow dependent variable is a discrete non-negative censored variable. Therefore, Tobit regression is ideal for this model. Table 6.7 presents the results for the Q-dummy free cash flow measure of agency costs. The positive coefficients indicate higher agency costs and the negative coefficients indicate lower agency costs.

Board size and MNCs' agency costs

This finding indicates board size of a MNC has no impact on agency costs. However, based on resource based theory and agency costs theory, most of the prior studies find a significant relationship between board size and company agency costs (Hermalin & Weisbach, 2003b; Ning et al., 2010).

Non-executive directors and MNCs' agency costs

NONE is negatively and statistically significant at 10% level for Q-dummy free cash flow and indicates non-executive board directors on MNCs have a negative impact on MNCs' agency costs. This finding is consistent with Fama & Jensen (1983) who explain non-executive directors are an effective resolution for agency problems between managers and shareholders. This is consistent with Sri Lanka's corporate governance best practice mandatory code (2008) which requires boards of listed companies to have at least two thirds non-executive directors.

Insider ownership and the MNCs' agency costs

Though the coefficient of INSIDE variable is positively related with Q-dummy free cash flow dependent variable, it is non-significant. Therefore, as shown in Table 6.7, insider ownership does not have a significant impact of MNCs' free cash flow which is a proxy for PA agency costs.

Board diversity and the MNCs' agency costs

Table 6.7 indicates DIVERSITY is statistically significant at 1% level for Q-dummy free cash flow, indicating highly diversified boards increase MNCs' agency costs, presumably because diversification increases communication and monitoring costs for MNCs. This finding is consistent with the argument that when MNCs operate in a high uncertainty environment like Sri Lanka, heterogeneous boards increase agency costs (Adams & Ferreira, 2008).

Female board directors and MNCs' agency costs

The coefficient of FEMALE variable is negatively and statistically significant at 1% level for Q-dummy free cash flow dependent variable. This indicates that female board directors reduce MNCs' agency costs. This finding is consistent with Adams & Ferreira (2008) who find female board directors reduce agency conflicts because they are always tough monitors of boards compared with their male counterparts.

Ethnic minority directors and MNCs' agency costs

Results indicate that ethnic minority directors have a positive impact on agency costs in MNCs. This result is consistent with Adams & Ferreira (2008) who suggest that when uncertainty is high, group homogeneity is more valuable.

Therefore, Sri Lankan high uncertain environment is suggested ethnic diversity is not an effective factor for the Sri Lankan MNCs.

CEO duality and MNCs' agency costs

Similar to board size findings, this study's results indicate CEO duality has no impact on agency costs, as measured by Q-dummy free cash flow. However, based on agency theory, most prior studies identify a significant positive impact on CEO duality and agency costs. This may be because CEO duality increases potential conflict of interest between managers and shareholders and decreases board independence (Arlman, 2004).

Institutional ownership and MNCs' agency costs

The coefficient of OWNER variable is positively and statistically significant at 10% level for Q-dummy free cash flow dependent variable. This indicates institutional ownership has a positive impact on MNCs' PA agency costs. This finding is consistent with McKnight & Weir (2009) who finds a significant positive relationship between institutional ownership and firm agency costs, as measured by Q-dummy free cash flow. Further, Doukas *et al.* (2000) have similar findings and they further explain that due to institutional owners being less effective in monitoring board activities, institutional ownership increases company agency costs.

Foreign managers and MNCs' agency costs

This study indicates Q-dummy free cash flow agency proxy and foreign managers have no significant relationship with MNCs' agency costs.

Company size and MNCs' agency costs

This study uses logarithm of total sales (LNSALES) as proxies for company size. Though firm size proxy indicate a positive relationship with the Q-dummy free cash flow agency costs proxy, it is insignificant. Hence, according to this finding, MNC subsidiary size is not an important factor for determining agency costs.

Company age and MNCs' agency costs

Consideration of the LNAGE (logarithm of company age) variable in Table 6.7 reveals it is negatively related with Q-dummy free cash flow at the 5% significance level, indicating company age has a negative impact upon MNCs' agency costs. This may be due to old firms having more established monitoring and controlling systems than young firms where they can align managers and shareholders' interests and mitigate PA agency costs. Moreover, according to Niskanen *et al.* (2007), firm age and firm leverage accessibility have a positive relationship. Therefore this high leverage in old firms increases monitoring and controlling and leads to low agency costs.

Leverage ratio and MNCs' agency costs

Consistent with the findings of McKnight & Weir (2009) regarding firm leverage level and Q-dummy free cash flow agency costs findings, this study finds a non-significant relationship between MNCs' debt level and agency costs. However, Ang *et al.* (2000) find a significant negative relationship between firm debt and agency costs indicating debt is an external monitoring mechanism for firms.

Parent location and MNCs' agency costs

This study confirms that MNC parent location has no significant impact on subsidiaries agency costs, measure as Q-dummy free cash flow.

Industries and MNCs' agency costs

Table 6.7 reveals that industry factors play a significant role in determining MNC subsidiaries' agency costs. It shows INDUS1 is 1% significantly positively related in Q-dummy free cash flow proxy, indicating INDUS1 (industrial engineering, industrial mining and industrial transport) have higher impact on their agency costs than other industries. This finding is consistent with Chrisman *et al* .(2004), they conclude Industry difference determines the PA agency cost.

Table 6.7 Panel-data Tobit regression of corporate governance variables and agency cost (Q-dummy free cash flow)

	Cof.	Std.Err
Number of obs= 279a Number of groups=86		
Board size: BOARD	-.5242801	.7703827
Board composition: *NONE*	-.4692292*	.2582863
INSIDE	.1240566	.5547437
DIVERSITY	.5700782***	.1450776
FEMALE	-.8270777***	.223e0778
MINORITY	.5002360**	.2263816
Leadership structure*:* CEO	-.5402737	.2500862
OWNER	.9258613*	.4990664
FOREIGN	.3062709	.2270887
Control Variables: LNSALES	.8378952	.1038567
LNAGE	-.4909265**	.2126701
DEBT	-.2188895	.1517713
LOC1	-.6645319	.5672537
LOC2		
LOC3	-.4724786	.8155236
LOC4	-.661103.3	.5144604
INDUS1	.1965903***	.7567639
INDUS2		
INDUS3	.3363286	.8740494
INDUS4	.7919128	.8041518
INDUS5	.1069563	.8155822
INDUS6		
INDUS7	.6333483	.8740148
Regression summary statistics Log likelihood Chi2 (21)	-.802.65521 109.57***	

[a] unbalanced panel; * Significant at 10% level; **Significant at 5% level; ***Significant at 1% level; This model provides standard error which are in parentheses.

6.6 Specification tests results

Serial correlation test- To test the model specification validity, this study examines autoregressive level 1 AR (1) and autoregressive level 2 AR (2) statistics to measure first and second order serial correlation. Table 6.4 depicts first order and second order serial correlation for TOBIN'S Q, ROA and ROE respectively. AR (1) and AR (2) for TOBIN's Q and explanatory variables are 0.7127 and 0.1562. Therefore, this results rejects order 1 and order 2 serial correlation, because p=0.7127 > 0.05 and p=0.1562> 0.05. Moreover, AR (1) and AR (2) for ROA ratio also greater than 0.05, indicate there is no evidence of serial correlation in order 1 and order 2. (p=0.1075 and p= 0.1832). Finally, ROE and AR (1) and AR (2) show 0.1401 and 0.1090 respectively. The null hypothesis of serial correlation existing between ROE and explanatory variables is also rejected. Hence, there is no serial correlation in the original error of financial performance proxies ε_{it} as desired. Table 6.6 indicates first order and second order serial correlation levels for agency costs proxies. Column 2 indicates AR (1) and AR (2) figures as 0.9134 and 0.1577. The null hypothesis that $Cov(\Delta\varepsilon_{it,}\Delta\varepsilon_{i,t-k}) = 0$ for k=1, 2 is rejected at a level of 0.05 if p>0.05. Therefore, this study finds assets utilisation ratio (ASSETS) and explanatory variables are serially uncorrelated at both levels. There is no serial correlation in the original error $\varepsilon_{it,}$ as desired. Similarly column 3 reports AR (1) and AR (2) figures as 0.1920 and 0.1008. At orders 1 and 2 there is no evidence of serial correlation between DIVIDEND and explanatory variables (p=0.1920 > 0.05 and p=0.1008 > 0.05).

Test of overidentification restrictions- A second specification test is a test for over-identifying restrictions. This test examines the lack of correlation between

instruments and the error term. Table 6.4 indicates J statistics (49.40164, 40.6552 and 22.27743) are not significant at the 5% significance level for financial performance metrics, which means that the instruments are valid. Further, all independent variables and agency costs proxies (ASSETS and DIVIDEND) J statistic is reported in Table 6.6. Hasna-Sargan J statistics for ASSETS and DIVIDEND proxies are 58.35108 and 52.80985 respectively. Moreover, Table 6.6 indicates J statistics are not significant at the 5% significance level for agency costs proxies, which means that the instruments are valid.

Test for joint significance- This study reports the Wald test of overall significance for all independent variables. The Wald test is a popular method of testing the significance of particular explanatory variables in statistical models. Table 6.4 and Table 6.6 report jointly significance values for all independent variables. The Wald test figure for TOBIN'S Q, ROA and ROE are reported as chi2 (21) = 1.5e+05, 5.7e+07 and 2.4e+05 in Table 6.6 and further indicates significance at 1% level. It is indicating groups of all explanatory variables' parameters associated with these variables are not zero, so that all independent variables can be included in the model. Table 6.6 indicates agency costs proxies Wald-Chi test results as follows. ASSETS regression Chi (21) is 3.3e+06. DIVIDEND regression Chi (21) value is 9.9e+05. For both regressions the Wald test is significant at 1% level, and then this study can concludes as that the parameters associated with these variables are not zero. Hence, all selected explanatory variables can be included in agency costs models. Further, in panel Tobit regression analysis, chi2 (21) value = 109.57 and the Wald-chi test is significant at 1% level. Consequently, the group of all explanatory variables can be included in the panel Tobit regression model.

Table 6.8 Summary of MNC findings

Variable	Issue 1			Interpretation
Board Size BOARD	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Reject Confirm	• Large boards' increase MNCs market based financial performance and shareholders wealth. • Large boards reduce MNCs accounting based financial performance
Non-executive directors NONE	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Reject Reject Reject	• Non-exécutive directors reduces MNCs financial performance
Insider ownership INSIDE	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Non significant Non significant	• High insider ownership increase MNCs market based financial performance
Board diversity DIVERSITY	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Non significant Confirm	• Board diversity increase MNCs market based financial performance and shareholders wealth.
Female board directors FEMALE	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Reject Non significant Reject	• Female directors' decrease MNCs market based financial performance and shareholders wealth.
Minority board directors MINORITY	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Confirm Confirm	• Minority board directors increase MNCs financial performance
CEO duality CEO	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Reject Reject Confirm	• CEO duality decrease MNCs market based and accounting based financial performance. • CEO duality increase MNCs shareholders value creation
Ownership type OWNER	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Non significant Confirm Non significant	• Institutional ownership increase MNCs accounting based financial performance
Foreign manager FOREIGN	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Non significant Reject Non significant	• Foreign managers reduce MNCs accounting based financial performance
Firms size LNSALES	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Non significant Confirm	• Large MNCs increase their market based financial performance and shareholders wealth
Firm age AGE	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Non significant Reject	• Mature MNCs increase their market base financial performance. • Mature MNCs decrease their shareholders value
Firm leverage DEBT	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Non significant Non significant Confirm	• Highly levered MNCs increase their shareholders value

Firm parent location REGION	Positively effect in firm financial performance	Significantly effect in firm Tobin's Q Significantly effect in firm ROA Significantly effect in firm ROE	Rejects Confirm Confirm	• MNCs parent location is significantly impact on their accounting based financial performance and shareholders value
Firm operating industry INDUSTRY	Positively effect in firm financial performance	Significantly effect in firm Tobin's Q Significantly effect in firm ROA Significantly effect in firm ROE	Confirm Confirm Confirm	• MNCs operating industry has significant impact on their financial performance.
Variable	**Issue 2**			**Interpretation**
Board Size BOARD	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	confirm Non significant	• Large boards' decrease MNCs PA agency conflicts.
Non-executive directors NONE	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Reject	• Non-executive directors decrease MNCs PA agency costs
Insider ownership INSIDE	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Confirm Non significant	• High insider ownership decrease MNCs PA agency costs
Board diversity DIVERSITY	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Confirm	• Board diversity increase MNCs PA agency costs.
Female board directors FEMALE	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Reject	• Female directors' decrease MNCs PA agency conflicts.
Minority board directors MINORITY	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Confirm	• Minority board directors increase MNCs PA agency conflicts.
CEO duality CEO	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Reject Not significant	• CEO duality increase MNCs PA agency conflicts.
Ownership type OWNER	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Confirm	• Institutional ownership increase MNCs PA agency costs.
Expatriate manager FOREIGN	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Reject Non significant	• Expatriate managers increase MNCs PA agency costs.
Firms size LNSALES	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Confirm Reject	• Large MNCs decrease their PA agency costs
Firm age (AGE)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Not significant Reject	• Mature MNCs decrease their PA agency conflicts.
Firm leverage (DEBT)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Reject Non significant	• Highly levered MNCs increase PA agency conflicts.
Firm parent location	Positively effect in firm PA	Significantly effect in firm assets utilisation ratio	Rejects Confirm	• MNCs parent location is significantly impact on PA

(REGION)	agency conflict	Significantly effect in firm Q dummy free cash flow	Confirm	agency conflicts
Firm operating industry INDUSTRY	Positively effect in firm PA agency conflict	Significantly effect in firm assets utilisation ratio Significantly effect in firm Q dummy free cash flow	Confirm Confirm Confirm	• MNCs operating industry has significant impact on their PA agency conflicts.
Variable	**Issue 3**			**Interpretation**
Board Size BOARD	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Non significant	• MNC board size has no significant impact on their PP agency conflicts.
Non-executive directors NONE	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	• Non-executive directors decrease MNCs PP agency costs
Insider ownership INSIDE	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	• High insider ownership decrease MNCs PP agency costs
Board diversity DIVERSITY	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	• Board diversity decrease MNCs PP agency costs.
Female board directors FEMALE	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	• Female directors increase MNCs PP agency conflicts.
Minority board directors MINORITY	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	• Minority board directors increase MNCs PP agency conflicts.
CEO duality CEO	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	• CEO duality increase MNCs PP agency conflicts.
Ownership type OWNER	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	• Institutional ownership decrease MNCs PP agency costs.
Foreign manager FOREIGN	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Non significant	• An foreign manager has no significant effect on MNCs PP agency costs.
Firms size LNSALES	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	• Large MNCs decrease their PP agency costs
Firm age AGE	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	• Mature MNCs increase their PP agency conflicts.
Firm leverage DEBT	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	• Highly levered MNCs decrease PP agency conflicts.
Firm parent location REGION	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Not significant	• MNCs parent location is not significantly impact on PP agency conflicts
Firm operating industry INDUSTRY	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	• MNCs operating industry has significant impact on their PP agency conflicts.

6.7 Conclusion

This chapter has analysed and explored the results of the corporate governance mechanisms and MNCs' financial performance and agency costs relationship. Overall, this study finds large boards positively affect MNCs' financial performance. However, that MNC board size has a negative impact on PA agency costs and no impact for PP agency costs.

This study finds non-executive directors negatively affect all three financial performance metrics. This may be due to selection biases or lack of information availability. Moreover, finding indicates non-executive directors mitigate both PA and PP agency conflicts in MNCs. Results indicate insider ownership is an appropriate corporate governance mechanism in MNCs in Sri Lanka. Insider ownership reduces MNCs' PA and PP agency conflicts as well.

Board diversity has both positive and negative impacts on MNCs' financial performance and agency costs. First, board diversity negatively contributes to shareholder value and MNCs' Tobin's Q. Though board diversification decrease PA agency costs, but it increases PP agency conflicts between majority and minority shareholders of MNCs. The results indicate that careful consideration should be taken before selecting female directors on corporate boards.

Results show that ethnic minority directors increase subsidiaries' financial performance. Further, minority directors have a positive effect on subsidiaries' PA and PP agency costs. Overall, the result indicates that from an agency costs perspective, ethnic minority directors are not an effective governance mechanism in MNCs in Sri Lanka.

CEO duality negatively affects Tobin's Q and ROA financial performance and has a positive effect on ROE, which indicates to some extent CEO duality increases MNCs' shareholders value. Further, results indicate CEO duality increases MNCs' PA and PP agency costs. The finding reveals that institutional ownership is contributing positively towards MNC financial performance. However, institutional ownership significantly increases PA agency conflicts between shareholders and managers and significantly decreases company PP agency costs. Overall finding suggests institutional ownership is more effective than board or individual ownership in MNCs. This may be because institutional investors are more active monitors than passive investors in MNCs in Sri Lanka. This study finds foreign managers have a negative effect on ROA. This may be due to high cultural and institutional differences that create a high probability of failure rates among foreign managers. Therefore, foreign managers are not an effective governance mechanism for MNCs in Sri Lanka. Results show that, foreign managers positively affect subsidiaries' PA agency costs and have no impact on PP agency costs. This includes that foreign managers are not an optimal mechanism for agency costs in MNCs in Sri Lanka.

Large MNCs have high financial performance and low PA and PP agency costs. This may be because larger businesses have high resource availability, technology and well developed corporate governance systems that mitigate agency costs and increase financial performance. Mature firms show higher financial performance. This may be because when a firm grows, it's monitoring efficiency between managers and shareholders increases. Further results indicate that when a firm matures it decreases shareholders' value creation. However, results depict that

lower PA agency costs and higher PP agency cost of mature firms. This may be due to large shareholders having more incentive to control minority shareholders.

The results find that firm leverage variable is significantly positively related with ROE. Further study shows subsidiary leverage ratio is one of the best external control mechanisms for PP agency costs for MNCs in Sri Lanka. This indicates bank based external monitoring mechanisms positively affect MNCs in Sri Lanka. This study also indicates that MNC parent locations determine the MNC subsidiaries' financial performance and agency costs. Due to parent companies' financial support, technology know-how and information availability for subsidiaries can vary according to the parent company location. This can have an effect on financial performance and agency costs in MNCs. Further, this finding indicates there is an industry effect on financial performance and agency costs in MNCs.

Finally, three financial performance models (TOBIN'SQ, ROA and ROE) and three agency costs models (ASSETS, DIVIDEND and Q-dummy free cash flow) are statistically robust. First, testing serial correlation of order 1 and order 2 indicates there is no serial correlation of all models. Second, the Hansen-Sargan J statistic accepts the over-identification restriction which means instruments are valid. Third, joint significance test results suggest the significance of explanatory variables in all financial performance and agency costs models.

The next chapter reports econometric results, discussion of corporate governance practices, financial performance and agency costs in LPCs.

Chapter 7
Econometric results and discussion of corporate governance practices, financial performance and agency costs in LPCs

7.0 Introduction

This chapter presents the results of empirical study and analyses the information about the relationship between corporate governance mechanisms and Sri Lankan local public companies' (LPCs) financial performance, PA and PP agency conflicts. Further, it discusses the tests for complementarities of corporate governance instruments that affect firm financial performance and agency conflicts, and incremental tests are also carried out for the importance of each variable in the corporate governance model for LPCs, Econometric treatment regarding serial correlation, over-identification restriction and joint significance are also presented.

This chapter is organised as follows. Section 7.1 provides descriptive statistics for the sample data. This is followed by a presentation of pair-wise correlation of variables (section 7.2). Section 7.3 provides financial performance analysis. Section 7.4 provides agency costs analysis. Thereafter, section 7.5 provides panel Tobit regression results. Section 7.6 is about the specification tests of this study. Finally, section 7.7 concludes the chapter.

7.1 Descriptive statistics for LPCs in Sri Lanka

The sample consists of 113 LPCs listed on the CSE for the period 2006-2010. As discussed in chapter 5, the descriptive statistics for the dependent proxies and explanatory variables are calculated to ascertain the general characteristics of the LPC firms in the Sri Lankan market. Table 7.1 provides descriptive statistics of variables used in this study. Table 7.1 depicts a number of observations, mean,

median, standard deviation, minimum and maximum value for each variable. All explanatory variables belong into four categories. Board size, board composition, board leadership structure and control variable category.

1) TOBIN'S Q: - Table 7.1 shows mean Tobin's Q value as 1.003821, with a median of 1.000832. This greater than 1 Tobin's Q value indicates that the market value of assets is greater than their replacement cost. It also indicates that LPCs create value for their shareholders.

2) ROA: - This study sample mean ROA value is 0.032. This less than one ROA value indicates less efficiency of earnings generated by LPCs. This study sample mean ROA value is less than Sri Lankan listed public companies sample ROA, used by Manawaduge *et al.* (2008). This low ROA figure indicates LPCs are not very profitable relative to their total assets.

3) ROE: - Table 7.1 reports the mean value of LPCs' ROE is 7.05 with a median of 9.24. This higher than one mean value suggests LPCs create value for their shareholders. The mean value of sample LPCs' ROE is less than the sample of MNC subsidiaries' ROE mean value (8.86) used in this study.

4) ASSETS: - The mean asset utilisation ratio is 0.77 which indicates that assets utilisation in LPCs is closer to 1 and it is significantly at a high level. Table 7.1 shows LPC assets utilisation varies between zero and 4.035.

5) DIVIDEND: - This ratio suggests how well earnings support the dividend payments. The mean dividend payment for LPCs is 0.062 and varies between zero and 1.99 in dividend payment range.

6) QFCF: - The median value zero indicates fifty percent of companies are highly managed firms (Tobin's Q is greater than 1).

7) BOARD: - Sample LPC board size for this study varies between three and 13. The mean value of board size is 7.1. This study's sample mean board size is consistent with Lipton & Lorsch (1992) who recommend optimal board size as seven or eight.

8) NONE: - Table 7.1 shows the mean value of non-executive directors is 61.15%. Furthermore, the study indicates the maximum percentage of non-executive directors on boards is 100% and the minimum is zero percent. The high existence of non-executive directors indicates Sri Lankan LPCs rely on the new mandatory code of best practice on corporate governance (2008) which states that one third of non-executive directors are required to be on a board.

9) INSIDE: - The minimum value for insider ownership for LPCs is zero and the maximum value is 100%. This is consistent with the view that insider ownership of listed companies in Sri Lanka is relatively high. The study reports mean insider ownership is 13.85%.

10) DIVERSITY:- Board diversity in the LPCs ranges from zero to 0.5125, indicating fully diversified board do not exist in the LPC sample (full diversity is indicated by 1.0). The mean value of diversity is 0.21073 and the median is 0.20. However, the MNC study sample used in this study shows high board diversity than LPCs.

11) FEMALE: - The minimum value for female board directors' representation is zero percent for LPCs and maximum value is 50%. This suggests total female board do not exist in Sri Lankan LPCs. The mean value of female percentage is 6.7. This is significantly less than European countries average female representation (10%) on boards (Boards in turbulent times: Corporate Governance Report, 2009). The one possible explanation is that more than 50% of Sri Lankan LPCs are family firms.

12) MINORITY:-The minimum value for ethnic minority board representation is zero for LPCs and maximum value is 100%. This indicates total minority director boards exist in Sri Lanka. The mean minority representation is 34.68%. This is significantly higher than the USA sample mean minority representation value (10.47%) used by Carter *et al.* (2008). Nevertheless, Haniffa & Cooke (2005) report minority directors' presence in Malaysian listed firms at 47%.

13) CEO:-Average CEO duality firm percentage is only 29.64%. This may be as a result of companies coming into line of the best practices on corporate governance mandatory code (2008). LPCs prefer to separate the two leadership roles to ensure balance of power and authority in a company.

14) OWNER:-The mean value 0.8 indicates 80% of sample LPCs have institutional ownership. This high existence of institutional ownership may be due to the undeveloped equity market and weak investor protection in Sri Lanka with individual investors reluctant to invest in emerging markets. Therefore, institutional ownership is dominant in Sri Lanka.

15) LNSALES:-This is proxy for LPC firm size. The mean value of LNSALES is 13.46 and the median value is 13.69. This indicates fifty percent of LPCs are smaller than 13.69. Furthermore, results show the size of the LPCs ranges from 6.54 and 22.57.

16) AGE:-The age of LPCs ranges from three to 97 years, indicating mean value for age is 27.68 years. Moreover, median value indicates fifty percent of LPCs are less than 24 years' old. This suggests the LPC sample consists of relatively young firms.

17) DEBT:-The minimum value for debt to assets ratio of LPC is 0 and the maximum value is 96.09. The mean value of debt ratio is 22.54. The median value of 21.33 indicates fifty percent of LPCs have less than 21.33 debts to assets

ratio. This indicates most of the LPCs prefer internal generate cash flows than external debt. Furthermore, this is in line with Colombage (2007) he explains that only about one third of Sri Lankan listed firms claimed to have target debt ratio.

18) INDUSTRIES:-Seven industry dummies are used to represent all industries (except the financial sector) in Sri Lankan LPCs. Table 7.1 shows 0.8% of companies operate in INDUS1; 14.16% of sample LPCs are from INDSU2; 13.27% of companies are from industry 3; industry 4 represents 24.78% of sample; 15.92% of firms are from industry 5; 2.65% of firms are from industry 6 and industry 7 represents 44% of the total sample.

The distribution of each variable was checked to determine if it was approximately a normal variant. The Jarque-Bera test results indicated that all data are normally distributed. Accordingly, a conditional mean estimator (OLS) is appropriate for the sample data set.

Table 7.1 Descriptive statistics of LPCs in Sri Lanka

Variables	Obs	Mean	Median	Std. Dev.	Min	Max
Dependent variables TOBIN'S Q	546	1.003821	1.000832	.0943042	.4997591	2.652893
ROA	548	.0321316	2.13E-05	.0782406	-.1240458	.7346142
ROE	529	7.05242	7.24	5.304081	-894.9	350.27
ASSETS	548	0.771517	0.733306	.5873418	0	4.035737
ASSETS	541	-0.5915715	-0.29535	1.197116	-5.638669	7.382873
DIVIDEND	542	.062074	0.005459	.2082891	0	1.98955
QFCF	550	3.08e+07	0	4.19e+08	-125329	6.64e+09
Independent variables ***Board size*** BOARD	532	7.12594	7	1.906754	3	13
Board composition NONE	532	.6114741	0.6	.2822366	0	1
INSIDE	517	.1365018	0.09171	0.010008	0	1
DIVERSITY	535	.2107391	0.20	.0018513	0	0.51250
FEMALE	532	.0670822	0	.1063078	0	.5
MINORITY	536	.3467586	0.285714	.2861164	0	1
Leadership structure CEO	560	.2964286	0	.4570905	0	1
OWNER	560	.8	1	.4003576	0	1
Control variables LNSALES	542	13.45541	13.68787	1.976383	6.536692	22.5656
AGE	565	27.68142	24	17.40489	3	97
LNAGE	565	3.133499	3.178054	.6292439	1.098612	4.574711
DEBT	435	22.54317	21.33167	19.6647	0	96.09035
LNDEBT	405	2.535112	3.121151	1.682633	-7.293418	4.565289
INDUS1	565	.0088496	0	.0937379	0	1
INDUS2	565	.1415929	0	.3489411	0	1
INDUS3	565	.1327434	0	.3395978	0	1
INDUS4	565	.2477876	0	.4321104	0	1
INDUS5	565	.159292	0	.3662725	0	1
INDUS6	565	.0265487	0	.1609027	0	1
INDUS7	565	.2831858	0	.4509452	0	1

Note: For the detailed description of the above variables, refer to Table 5.2 in Chapter 5.

7.2 Pair-wise correlation

A pair-wise correlation matrix for the dependent variables and independent variables is provided in Table 7.2. The significance of correlation between financial performance dependent variables, agency costs dependent variables, board size, board composition, board leadership structure and control variables offers tentative support for the claim that selected independent variables interacts with LPCs' financial performance and agency costs. Moreover, high correlation of corporate governance variables and dependent variables indicate a requirement for further attention of these variables.

Table 7.2 Correlation matrix

	TOBIN'S Q	ROA	ROE	ASSETS	DIVIDENT	QFCF	BOARD
TOBIN'S Q	1.0000						
ROA	-0.0557 (0.1941)	1.0000					
ROE	0.0123 (0.8010)	0.3625 (0.0000)	1.0000				
ASSETS	-0.0584 (0.1757)	0.0941** (0.0286)	0.3213*** (0.0000)	1.0000			
DIVIDEND	-0.0148 (0.7309)	0.1489*** (0.0005)	-0.0177 (0.7172)	-0.2546*** (0.0000)	1.0000		
QFCF	-0.0139 (0.7453)	-0.0175 (0.6830)	0.0967** (0.0469)	0.2866*** (0.0000)	-0.0181 (0.6741)	1.0000	
BOARD	-0.0660 (0.1333)	-0.0609 (0.1655)	0.0404 (0.4201)	0.0365 (0.4085)	-0.0047 (0.9151)	0.0102 (0.8157)	1.0000
NONE	0.2899*** (0.0000)	-0.1177** (0.0068)	-0.0759 (0.1263)	-0.0947** (0.0304)	-0.1409*** (0.0012)	-0.0969** (0.0259)	0.0185 (0.6796)
INSIDE	-0.0287 (0.5182)	0.2030*** (0.0000)	0.0506 (0.3167)	0.0886** (0.0461)	0.0035 (0.9369)	-0.0344 (0.4375)	0.2645*** (0.0000)
FEMALE	0.0250 (0.5696)	-0.1143*** (0.0090)	-0.1024** (0.0403)	-0.1062** (0.0160)	0.0336 (0.4471)	-0.0393 (0.3707)	0.0250 (0.5650)
DIVERSITY	-0.6921*** (0.0000)	0.1816*** (0.0000)	-0.0867* (0.0783)	-0.1390*** (0.0014)	0.2197*** (0.0000)	0.0544 (0.2093)	-0.0357 (0.4217)
MINORITY	0.3719*** (0.0000)	-0.1250** (0.0037)	-0.0772 (0.1162)	-0.1285** (0.0031)	-0.1271** (0.0034)	-0.1173*** (0.0066)	0.0073 (0.8704)
CEO	0.2788*** (0.0000)	-0.0346 (0.4183)	-0.0836* (0.0859)	-0.1761*** (0.0000)	-0.0300 (0.4856)	-0.0399 (0.3508)	-0.0077 (0.8593)
OWNER	0.2771*** (0.0000)	-0.1361*** (0.0014)	0.0940* (0.0534)	0.0321 (0.4562)	-0.1894*** (0.0000)	-0.1268*** (0.0029)	0.0263 (0.5465)
LNSALES	-0.0336 (0.4360)	-0.0484 (0.2611)	0.2157*** (0.0000)	0.6157*** (0.0000)	-0.1708**** (0.0001)	0.2743*** (0.0000)	0.2877*** (0.0000)
LNAGE	0.0163 (0.7043)	-0.1512*** (0.0004)	-0.1049** (0.0311)	0.1501*** (0.0005)	-0.2680*** (0.0000)	0.0264 (0.5359)	-0.0399 (0.3587)
LNDEBT	0.0692 (0.1678)	-0.1502** (0.0026)	0.0433 (0.4404)	0.2188*** (0.0000)	-0.3406*** (0.0000)	0.0349 (0.4858)	0.0014 (0.9783)
INDS1	-0.0017 (0.9677)	-0.0394 (0.3567)	-0.0956** (0.0493)	0.1299** (0.0025)	-0.0264 (0.5390)	-0.0070 (0.8690)	-0.0780* (0.0722)
INDS2	-0.0642 (0.1342)	0.2560*** (0.0000)	0.0035 (0.9435)	0.0607 (0.1584)	0.1986*** (0.0000)	-0.0290 (0.4978)	0.1616*** (0.0002)
INDS3	0.0704 (0.1003)	0.1001** (0.0191)	-0.0337 (0.4895)	-0.4210 (0.0000)	0.2167*** (0.0000)	0.0288 (0.5008)	-0.1333** (0.0021)
INDS4	-0.0167 (0.6969)	-0.2315*** (0.0000)	-0.1456** (0.0027)	-0.0780* (0.0697)	-0.0986** (0.0217)	0.1264** (0.0030)	-0.0309 (0.4767)
INDS5	-0.0002 (0.9961)	0.1071** (0.0121)	0.0377 (0.4397)	0.1481*** (0.0006)	-0.0954** (0.0264)	-0.0319 (0.4555)	-0.0346 (0.4262)
INDS6	0.0041 (0.9236)	-0.0235 (0.5832)	-0.0194 (0.6905)	0.0550 (0.2017)	-0.0348 (0.4183)	-0.0114 (0.7888)	-0.0552 (0.2037)
INDS7	0.0106 (0.8043)	-0.1191*** (0.0053)	0.1449*** (0.0028)	0.1777*** (0.0000)	-0.1229*** (0.0042)	-0.0464 (0.2772)	0.0700 (0.1068)

	NONE	INSIDER	FEMALE	DIVERSITY	MINORITY	CEO	OWNER
NONE	1.0000						
INSIDER	0.1468*** (0.0011)	1.0000					
FEMALE	-0.0198 (0.6585)	0.0068 (0.8778)	1.0000				
DIVERSITY	-0.7633*** (0.0000)	-0.0763* (0.0891)	0.0990** (0.0257)	1.0000			
MINORITY	0.9710*** (0.0000)	0.1362*** (0.0023)	0.0259 (0.5594)	-0.6628*** (0.0000)	1.0000		
CEO	0.7923*** (0.0000)	0.1223*** (0.0053)	0.0794* (0.0678)	-0.3701*** (0.0000)	0.8377*** (0.0000)	1.0000	
OWNER	0.6322*** (0.0000)	0.0497 (0.2590)	0.0026 (0.9532)	-0.8730*** (0.0000)	0.5376*** (0.0000)	0.3245*** (0.0000)	1.0000
LNSALES	-0.0538 (0.2196)	-0.1204*** (0.0066)	-0.1332*** (0.0025)	-0.2645*** (0.0000)	-0.0854** (0.0496	-0.1752*** (0.0000)	0.1586*** (0.0002)
LNAGE	0.1279*** (0.0031)	0.1766*** (0.0001)	0.0661 (0.1278)	-0.1058** (0.0143)	0.1232*** (0.0043)	0.0700* (0.0979)	0.1358*** (0.0013)
DEBT	0.1816*** (0.0003)	0.0265 (0.6124)	-0.2211*** (0.0000)	-0.3547*** (0.0000)	0.1209* (0.0162)	-0.0567 (0.2562)	0.2754*** (0.0000)
INDUS1	-0.0569 (0.1898)	0.0173 (0.6939)	0.1036** (0.0169)	-0.0309 (0.4763)	-0.0234 (0.5894)	-0.0200 (0.6360)	0.0000 (1.0000)
INDUS2	0.0585 (0.1778)	0.1231*** (0.0051)	0.0373 (0.3902)	0.0396 (0.3610)	0.0372 (0.3904)	0.0702 ** (0.0968)	-0.0510 (0.2279)
INDUS3	-0.0451 (0.2995)	-0.0755** (0.0862)	0.1713*** (0.0001)	0.1148*** (0.0079)	-0.0172 (0.6903)	0.0318 0.4529)	-0.0918** (0.0299)
INDUS4	0.1315*** (0.0024)	-0.0425 (0.3352)	-0.0835* (0.0543)	-0.0832* (0.0545)	0.1348*** (0.0018)	0.0525 (0.2151)	0.0599 (0.1566)
INDUS5	-0.1011*	-0.0598	-0.1084**	0.0952**	-0.1220***	-0.0392	-0.0486

	(0.0196)	(0.1744)	(0.0124)	(0.0277)	(0.0047)	(0.3549)	(0.2507)
INDUS6	0.0575	0.1096*	0.0570	-0.0952**	0.1088**	0.0298	0.0771*
	(0.1854)	(0.0127)	(0.1895)	(0.0277)	(0.0117)	(0.4820)	(0.0683)
INDUS7	-0.0603	0.0222	-0.0309	-0.0727*	-0.0745*	-0.1028*	0.0655
	(0.1649)	(0.6142)	(0.4775)	(0.0930)	(0.0850)	(0.0149)	(0.1217)
	LNSALES	LNASSET	LNAGE	DEBT	INDS1	INDS2	INDS3
LNSALES	1.0000						
LNAGE	0.0955**	0.1501***	1.0000				
	(0.0263)	(0.0005)					
DEBT	0.2493***	0.2188***	0.0812	1.0000			
	(0.0000)	(0.0000)	(0.1029)				
INDUS1	0.0215	0.1299***	-0.0548	-0.0295	1.0000		
	(0.6178)	(0.0025)	(0.1931)	(0.5535)			
INDUS2	0.0599	0.0607	-0.2258***	-0.0714	-0.0384	1.0000	
	(0.1639)	(0.1584)	(0.0000)	(0.1513)	(0.3626)		
INDUS3	-0.3214***	-0.4210***	-0.0967**	-0.1855***	-0.0370	-0.1589***	1.0000
	(0.0000)	(0.0000)	(0.0215)	(0.0002)	(0.3804)	(0.0001)	
INDUS4	-0.0978**	-0.0780**	0.1760***	-0.0304	-0.0542	-0.2331***	-0.2245***
	(0.0227)	(0.0697)	(0.0000)	(0.5423)	(0.1980)	(0.0000)	(0.0000)
INDUS5	0.1072**	0.1481***	0.1928***	0.0094	-0.0411	-0.1768***	-0.1703***
	(0.0125)	(0.0006)	(0.0000)	(0.8506)	(0.3291)	(0.0000)	(0.0000)
INDUS6	0.1652***	0.0550	0.1068**	0.0985**	-0.0156	-0.0671	-0.0646
	(0.0001)	(0.2017)	(0.0111)	(0.0477)	(0.7113)	(0.1113)	(0.1250)
INDUS7	0.1415***	0.1777***	-0.1043**	0.1782***	-0.0594	-0.2553***	-0.2459***
	(0.0010)	(0.0000)	(0.0131)	(0.0003)	(0.1586)	(0.0000)	(0.0000)

*denotes correlation is significant at 10% level, ** denotes correlation is significant at 5% level, ** * denotes correlation is significant at 1% level

7.3 Dynamic panel GMM regression of financial performance variables and explanatory variables

In recent studies Hermalin & Weisbach (2003a) and Harris & Raviv (2008) suggest that board structure is dynamically endogenous. Further, they explain that at any time in a firm life cycle, board structure will be related to past performance and reflect the operating and contracting environment the firm faced in the past. Further, Wintoki *et al.* (2007) find observable and unobservable heterogeneity is another major endogenity problem that arises between firm financial performance and board structure as determined by panel OLS regression. Therefore, it is within reason to suspect non-orthogonality between regressors and errors. This study employed the Durbin-Wu-Hausman (DWH) econometric test to identify the endogeneity effect of corporate governance variables used in this study.

H_0: Regressors are exogeneous

Table 7.3 The DWH test for endogeneity of regressors

Variables	TOBIN'S Q	ROA	ROE
BOARD SIZE	.832211	.147371	1.07157*
NONE	7.14238***	1.11576*	.086732
INSIDE	8.8057**	1.95107*	.000642
DIVERSITY	19.6327***	2.21562**	.504091
FEMALE	.011345	.016231	2.70907**
MINORITY	6.62661***	1.5733**	5.8e-07
CEO	6.14752***	1.23757*	8.80527*
OWNER	6.98343***	1.29534*	9.83943*

DWH tests results indicate (Table 7.3) NONE, INSIDE, DIVERSITY, MINORITY, CEO and OWNER have a significant endogenity effect on TOBIN'S Q. Moreover, NONE, INSIDE, DIVERSITY, MINORITY, CEO and OWNER have an endogeneity effect on LPCs' ROA. Finally, BOARD SIZE, FEMALE, CEO and OWNER have an endogeneity effect on the ROE variable. In order to empirically examine the possible relationship between corporate governance variables and LPC financial performance, this study employed the dynamic panel generalised method of moment (GMM) estimator.

Table 7.4 presents the results for the corporate governance and firm financial performance. Columns 2-4 of Table 7.4 present OLS Fixed effect[4] results and columns 5-7 present dynamic panel GMM results. An examination of the results in Table 7.4 reveals that endogenity is a significant concern of corporate governance variables.

[4] Hausman's specification test is used to differentiate between random and fixed effects models. The test statistics have $p<0.05$ for all three ratios, so the null hypothesis of no correlation is rejected and the fixed-effects model is appropriate for all three performance measures.

Positive coefficients denote a positive relationship between explanatory variables and dependent variables, and negative coefficients denote a negative relationship between explanatory and dependent financial performance proxies. Each financial performance regression model reports order 1 and order 2 auto correlation, over-identification restriction (J-statistcs) and joint significance values (Chi) under regression summary statistics.

Board size and LPCs' financial performance

Table 7.4 reveals that board size has no significant relationship with LPCs' financial performance proxies, indicating that board size is not an important corporate governance determinant of LPCs' financial performance. This finding is in line with Chaganti *et al.* (1985) and Van-Ees *et al.* (2003), who find a non-significant relationship between board size and firm financial performance.

Non-executive directors and LPCs' financial performance

The coefficient of NONE variable is positively and statistically significant at 1% level for Tobin's Q and indicates that non-executive directors increase LPCs' market-based financial performance. This may be based on the "effective-monitoring" concept; outside directors are an effective resolution for PA agency costs (Fama & Jensen, 1983). This finding is in line with Yermack (1996) who also finds a positive relationship between non-executive directors and firm financial performance measured as Tobin's Q.

Inside ownership and LPCs' financial performance

The independent variable INSIDE is positively related to company ROA value at the 10% significant level, indicating higher insider ownership increases LPCs' financial performance. The one possible explanation for that is based on the

"convergence-of-interest" hypothesis that PA agency costs reduce as insider ownership increases since insider interests' converge with shareholders (Jensen & Meckling, 1976).

Board diversity and LPCs' financial performance

The DIVERSITY variable is negatively and statistically significant at 1% level for LPC Tobin's Q value and indicates that highly diversified company boards destroy LPCs' financial performance. This is consistent with Hambrick *et al.* (1996) and Knight *et al.* (1999) who find a significant negative impact on board diversity and company financial performance. Furthermore, Table 7.4 shows board diversity has a positive impact on LPCs' ROA and shareholders' value creation. This is consistent with Carter *et al.* (2003), who find a positive relationship between board diversity and firm ROA in a USA context.

Female board directors and LPCs' financial performance

The coefficient of FEMALE variable is positive and statistically significant at the 1% level for LPCs Tobin's Q and indicates that female board directors' increase LPCs' market-based financial performance. This may be female directors' moderate firm strategic orientation and organisational culture. Hence, they increase firm financial performance. Nevertheless, the FEMALE variable is negatively and statistically significant at 5% level for LPCs' ROA and shareholders' value, which indicates female board directors have a negative impact on LPCs' accounting-based financial performance and shareholders' value creation. According to Andreoni & Vesterlund (2001), this may be due to female board directors are less altruistic than male board directors.

Ethnic minority directors and LPCs' financial performance

The coefficient of MINORITY is positive and statistically significant at the 5% level for LPCs' ROE indicating that minority directors on boards increase shareholders' wealth. In line with above findings, Haniffa & Cooke (2005) find in a Malaysian context that minority directors have a positive relationship of adopting corporate governance disclosures.

CEO duality and LPCs' financial performance

This study indicates LPCs' Tobin's Q has a significant negative correlation with CEO duality, indicating unitary leadership negatively impacts on LPCs' financial performance. This is consistent with Sri Lanka's mandatory code of best practice on corporate governance (2008), principal 2, which promotes separation of chairman and CEO roles.

Institutional ownership and LPCs' financial performance

Consideration of the OWNER variable, as shown in Table 7.4, reveals it is negatively related with TOBIN'S Q at the 1% significance level, indicating institutional owners have a negative impact on LPCs' market based financial performance. This study indicates that in Sri Lankan LPCs' institutional ownership is less aligned with the efficient monitoring hypothesis.

Company size and LPCs' financial performance

LNSALES is positively and statistically significant at 1% level for firm ROE and indicates that large firms generate more value for their shareholders. This finding is consistent with Kakani & Kaul (2002) who find larger firms can access cheaper sources of finance and create shareholder value in an Indian context. This may be due to firm size and corporate governance practices have a positive relationship, firm size increase leads to increase LPCs financial performance.

Company age and LPCs' financial performance

The independent variable LNAGE is negatively related to company Tobin's Q value at the 1% significant level, and to company ROE value at 5% significance level, indicating mature firms destroy company financial performance and shareholders' value. This may be because when a firm matures, profitability drops, costs rise, growth slows, assets become obsolete and R & D investments decline (Loderer & Waelchli, 2010).

Leverage ratio and LPCs' financial performance

The coefficient of DEBT (debt to assets ratio) variable is negatively and statistically significant at 1% level for LPCs' Tobin's Q value, indicating high leveraged LPCs have lower financial performance than low leveraged LPCs. This may be based on finance gap theory; Sri Lankan LPCs find external financing is more costly and less available. This finding is consistent with Rao *et al.* (2007) who find similar results in an Oman context, which also has an undeveloped capital market.

Industry and LPCs' financial performance

As this study finds, INDUSTRY has a significant influence on LPCs' financial performance proxies. This finding is in line with McGuire *et al.* (1988) who find financial risk and financial performances vary between industries.

Regression summary statistics, i.e auto-correlation in order (1) and auto-correlation in order (2), over-identification restriction statistic (J-statistics), and joint significance (Chi 2) also report separately for each financial performance regression.

Table 7.4 Panel data OLS regression/ Dynamic Panel GMM regression results for financial performance

Variable (1)	TOBINS-OLS (2)	ROA- OLS (3)	ROE-OLS (4)	TOBINS-GMM (5)	ROA-GMM (6)	ROE-GMM (7)
Number of obs= 565[a] Number of groups=113 L_1				.006095*** (.0013147)	-.0071885 (.0118424)	-.0599115 (.0515118)
Board size: BOARD	.0006544 (.0013256)	-.0123468** (.0053347)	.0509045 (.0493075)	-.0003185 (.0002724)	-.0017817 (.0015183)	.0806252 (.0572612)
Board composition NONE	.0551458 (.0237821)	-.1996372** (.0957085)	-3.299571*** (1.186171)	.0537091*** (.0100043)	-.0690184 (.0507994)	-1.49532 (1.099468)
INSIDE	.0139428 (0163182)	-.0106519 (.0656711)	.1791648 (.3841493)	-.0087844 (.0053601)	.0523482* (.0318396)	1.385185 (.9046111)
DIVERSITY	-4.26322** (2.252906)	-25.67365*** (9.066594)	-142.0226 (96.43432)	-8.759412*** (.7757314)	13.11671*** (3.719678)	207.7911** (92.98711)
FEMALE	-.0085696 (.0332509)	.0269543 (.1338149)	-1.14612 (.8324551)	.0594215*** (.0164253)	-.0962293** (.0446596)	-2.384986** (1.158603)
MINORITY	-.0063649 (.020891)	.1879446** (.0840736)	2.208779** (1.016975)	-.0102162 (.0078934)	.0600567 (.0461938)	1.707525** (.8191319)
Leadership structure: CEO	.0070724 (.0043471)	-.0087774 (.0174946)	.3288386 (.2240813)	-.0039598*** (.0014284)	.0004559 (.0027802)	.0819878 (.1551256)
OWNER	-.0015566 (.0066474)	-.1356234*** (.0267518)	-.1687808 (.2919003)	-.0201595*** (.0017641)	.0225083 (.0185108)	.5002072 (.3810189)
Control Variables: LNSALES	-.0005546 (.0027633)	.0271902** (.0111207)	.658314*** (.1116738)	.0009675 (.0008892)	.0025218 (.0042059)	.9035826*** (.1192046)
LNAGE	.0131627 (.0152413)	.0223727 (.0613372)	-.3248949** (.1692952)	-.0083704*** (.0028265)	-.0006867 (.0155376)	-.9362365** (.4097415)
DEBT	-.0000189 (.0011803)	-.0190555*** (.00475)	-.0467143 (.0401436)	-.0033178*** (.0007276)	.0012549 (.0028224)	-.0247086 (.0421623)
INDUS1			-2.113168** (.9429545)			
INDUS2			-.075809 (.2984087)	-.007726* (.0319725)	.0614196 (.0658209)	2.456419 (1.498544)
INDUS3			.6616491* (.3540534)	-.0048448 (.0330159)	-.025901* (.1069791)	3.690527** (1.588423)
INDUS4			-.2932566 (.2831321)	-.0205989 (.0326055)	.0062903 (.1021276)	-.4826192 (2.377012)
INDUS5			-.1061996 (.2944239)	-.0191805 (.0343853)	.0286379 (.1403252)	1.91579 (1.791325)
INDUS6			-.0497814 (.6734428)	-.0610168 (.0504601)	-.0317339 (.0966175)	1.376964 (1.884347)
INDUS7				-.0184758 (.0316387)	-.0136178 (.0710458)	3.143535** (1.471905)
Regression summary statistics R2 AR(1) AR (2)	0.3273	0.0041	0.2120	0.3361 0.3129	0.7234 0.2751	0.1078 0.3294
J-statistics Chi2(21)	-.0006544 (.0013256)	-.0123468** (.0053347)	.0509045 (.0493075)	7351.86 38.97241***	1719.94 35.39037***	1830.51 40.38474***

This model provides standard errors which are in parentheses. a unbalanced panel. * significant at 10% level, ** significant at 5% level, ***significant at 1% level

7.4 Dynamic panel GMM regression of agency costs variables and explanatory variables

A DWH test (Table 7.5) is used as a diagnostic test for endogeneity of agency costs proxies and corporate governance variables. Table 7.6 presents the results for the corporate governance and ASSETS (assets utilisation and DIVIDEND (dividend payout ratio). Results show NONE, INSIDE, DIVERSITY, FEMALE, MINORITY, CEO and OWNER variables have significant endogenous effect in ASSETS or/and DIVIDEND agency costs proxies.

Columns 2-3 of Table 7.6 present OLS Fixed effect results and columns 4-5 present dynamic panel GMM results.

H_0: Regressors are exogeneous

Table 7.5 The DWH test for endogeneity of regressors

	ASSETS	DIVIDEND
BOARD	.211435	.001622
NONE	7.42598***	2.5232*
INSDIE	.00327	-.000138
DIVERSITY	.493372	1.81101*
FEMALE	.004317	2.43413*
MINORITY	4.35842**	1.61681*
CEO	.029435	1.7034*
OWNER	5.26092**	.349376

Positive coefficients between ASSETS and explanatory variables denote high assets utilisation by LPCs. Hence, positive coefficients of ASSETS regression indicate a negative impact on PA agency costs proxy. A positive coefficient of DIVIDEND regression indicates explanatory variables have a positive impact on PP agency cots proxy. Regression summary statistics, i.e., auto-correlation order (1) and order (2), joint significance (J-statistcs) and over-identification restriction statistics (Chi) are reported separately at the end of each regression.

Table 7.6 Panel data OLS regression/ Dynamic Panel GMM regression results for agency costs

Variables (1)	ASSETS-OLS (2)	DIVIDEND-OLS (3)	ASSETS-GMM (4)	DIVIDEND-GMM (5)
Number of obs= 565a Number of groups=113 L1			1.034548*** (.0656997)	.6721373*** (.0678646)
Board size: BOARD	.017524 (.01311)	-.0064952 (.0109641)	.0287677* (.0172652)	.0004004 (.0072941)
Board composition: NONE	-.0526267 (.2782639)	.3271881 (.2327158)	-.2359395 (.315794)	-.2272482*** (.0752629)
INSIDE	-33.59054 (80.3473)	2.833002 (67.19551)	26.00027 (53.44376)	-16.38039 (44.31115)
DIVERSITY	-39.29078 (24.59474)	55.02452*** (20.56891)	66.94676** (35.74063)	-64.69949*** (16.52911)
FEMALE	-.1664773 (.3534527)	.2606248 (.2955972)	-.3956137 (.4897412)	.3825861** (.1840538)
MINORITY	-.0879322 (.2397527)	.005392 (.2005084)	.3558392 (.2722931)	.1347058** (.0626393)
Leadership structure: CEO	.034546 (.0523288)	.0209516 (.0437633)	.0634949 (.0879488)	.0535883** (.0212361)
OWNER	-.0795042 (.0606427)	-.078405 (.0507163)	.1208603** (.0676927)	-.2141024*** (.0551242)
Control Variables: LNSALES	.3063921*** (.0305744)	-.0190953 (.0255698)	.2480172*** (.0540272)	-.0401031 (.0266672)
LNAGE	.2020228 (.1487015)	.643929*** (.124361)	-.179347 (.2101701)	-.0214882 (.1236868)
DEBT	.0016184 (.0014297)	-.0033237*** (.0011957)	.0063285*** (.0018135)	-.0003667 (.0008944)
INDUS1			-.7140378 (1.245997)	-2.97193 (4.51511)
INDUS2			-.6553129* (.815192)	.6097598** (.3145414)
INDUS3			-.8517332 (.8230184)	.4321763 (.4330995)
INDUS4			.8082733 (.6785891)	.0756773 (.2351522)
INDUS5			-.4084027 (1.038718)	.3617427 (.3922977)
INDUS6			-.4912728 (.8127645)	1.169976 (1.168671)
INDUS7				
Regression summary statistics R2 AR(1) AR (2)	0.1120	0.0336	0.3085 0.8772	0.2323 0.3255
J-statistics Chi2 (21)			1480.98 20.31856***	18.73737 8321.05***

[a] unbalanced panel; * Significant at 10% level; **Significant at 5% level; ***Significant at 1% level; This model provides standard errors which are in parentheses

Board size and LPCs' agency costs

The coefficient of BOARD (board size) variable is positively and statistically significant at 10% level for LPCs' ASSETS proxy, which indicates large boards increase LPCs' assets utilisation ratio. Hence, large boards have fewer PA agency costs. The one possible explanation for this is Sri Lanka's environmental uncertainty, which leads to large boards, and apparently large boards have expert managers and more diversified human resources. This leads to fewer agency conflicts between managers and shareholders. Nevertheless, this study finds no significant relationship between LPC board size and dividend pay-out ratio. This indicates LPCs' board size has no significant impact on LPCs' PP agency conflicts.

Non-executive directors and LPCs' agency costs

Consideration of the NONE variable in Table 7.6 reveals it is 1% negatively and significant with the DIVIDEND. This indicates non-executive directors' reduce LPCs' PP agency conflict. This finding is consistent with policy statements such as the Cadbury Report (1992), Higgs Report (2003), and the code of best practice on corporate governance in Sri Lanka (2008) has focused attention on non-executive directors' special contribution to board monitoring and independence. Nevertheless, this study couldn't find any significant relationship between non-executive directors on LPC boards and PA agency costs. This finding is consistent with McKnight & Weir (2009) who find a non-significant relationship between non-executive directors and assets utilisation ratio in a UK context.

Insider ownership percentage and LPCs' agency costs

Though the coefficient of INSIDE variable is positively related with LPCs' assets utilisation ratio, it is insignificant. Moreover, similar to PA agency costs, the

INSIDE variable is negatively related with dividend pay-out ratio and is also insignificant. This finding indicates insider ownership has no impact on LPCs' PA and PP agency costs.

Board diversity and LPCs' agency costs

Consideration of the DIVERSITY variable in Table 7.6 reveals it is 5% positively significant with assets utilisation ratio. This indicates that highly diversified boards have a higher assets utilisation ratio. Mace (1971) explains an agency rationale for diversity is that board diversity may increase board independence, which leads to reduction of potential conflicts between managers and shareholders. Further, this study finds the coefficient of DIVERSITY variable is negatively and statistically significant at 1% level for LPCs' DIVIDEND ratio, indicating board diversity reduces LPCs' PP agency conflicts. This finding is consistent with the argument that board diversity enhances the monitoring function of directors for the benefit of shareholders. These PA and PP findings are consistent with behavioural theory of the firm. Based on behavioural theory, diversified boards provide more comprehensive information and have quick decision making (Cyert & March, 1963).

Female board members and LPCs' agency costs

The coefficient of FEMALE variable is positively and statistically significant at 5% level for DIVIDEND, which indicates female board directors increase LPCs' PP agency conflicts. This is consistent with Jurkus *et al.* (2008) who explain that increasing the number of women on a board does not reduce agency costs in all markets. In a highly competitive and uncertain environment like Sri Lanka shareholder conflicts may increase when boards have a high proportion of female directors. Nevertheless, this study finds female board directors have no significant

impact on LPCs' PA agency costs, measuring assets utilisation ratio as proxy. This is consistent with Mohan & Chen (2004) and Wolfers (2006) who find female board directors have no effect on board and agency costs.

Ethnic minority board members and LPCs' agency costs

The coefficient of MINORITY variable is positively and statistically significant at 5% level for LPCs' DIVIDEND; the agency costs proxy indicates ethnic minority board directors increase LPCs' PP agency conflicts. This is consistent with Adams & Ferreira (2008) who report that boards of directors need to be more homogeneous when firms operate in riskier environments. This finding also indicates minority board directors have no significant effect on LPCs' PA agency costs.

CEO duality and LPCs' agency costs

Consideration of the CEO variable in Table 7.6 reveals it is positively related with DIVIDEND at the 5% significance level, indicating unitary leadership increases PP agency conflicts in Sri Lankan LPCs. This is in line with Fama & Jensen (1983) who argue that CEO duality increases agency costs because duality leadership decreases board monitoring. The finding is consistent with the Cadbury committee report (1992) that CEO duality gives too much decision-making power and control to one person, hence, increased CEO entrenchment. Notwithstanding, this study finds CEO duality has no impact on LPCs' PA agency proxy.

Institute ownership and LPCs' agency costs

The results for LPCs' and MNC subsidiaries' PA and PP agency costs are the same, with a 5% significant positive relationship between institutional ownership

and assets utilisation agency proxy and 1% significant negative relationship between institutional ownership and dividend payout ratio. This indicates institutional ownership decreases LPCs' PA and PP agency conflicts. This finding is in line with the efficient monitoring hypothesis introduced by Shleifer & Vishny (1997). Further this is confirmed by Aggarwal *et al.* (2009) who explain firms located in weak legal regimes have benefit more from institutional ownership than firms located in strong legal regimes.

Company size and LPCs' agency costs

The coefficient of LNSALES variable is positively and statistically significant at 1% level for LPCs' ASSETS and indicates large companies have a high assets utilisation ratio. Hence, company size has a negative effect on LPCs' PA agency conflicts. This may be because the size of the firm has a positive effect on the quality of corporate governance as larger firms have comprehensive resources to adopt quality governance systems (Guillen, 2000a). Therefore, larger firms suffer fewer agency conflicts. Furthermore, Jurkus *et al*. (2008) use fortune 500 firms and find that firm size is negatively correlated with the agency costs of the firm. Notwithstanding, this study finds firm size (LNSALES) has no impact on LPCs' PP agency costs.

Company age and LPCs' agency costs

Though the coefficients of LNAGE are negatively related with both PA and PP agency costs proxies they are not significant. This finding indicates LPC age has no significant impact on LPCs' PA and PP agency costs, measured as assets utilisation ratio and divided pay-out ratio as proxies. This is consistent with Ang *et al.* (2000) who find a non-significant relationship between firm age and PA agency costs in a small firms' context.

Leverage ratio and LPCs' agency costs

Consideration of the DEBT variable in Table 7.6 reveals it is positively related with ASSETS at the 1% significance level, indicating high leveraged LPCs have high assets utilisation ratio. Hence, high leveraged LPCs have fewer PA agency conflicts. This finding is consistent with Ang *et al.* (2000). This may be because in order to safeguard their loans, companies with high debt ratios find their investment decisions are closely and extensively monitored by their banks. (Anderson & Makhija, 1999). Furthermore, this study could not find any significant relationship between LPCs' debt level and their dividend-payout ratio agency costs proxy, indicating LPCs' leverage ratio has no impact on their PP agency costs.

Industry and LPCs' agency costs

This study finds that industry factors play an important role in agency perspective, with some industries being more prone to PA and PP agency costs than others. This is similar to the observations of Chrisman *et al.* (2004) and Hewa-Wellalage & Locke (2010a). This study confirms INDUS2 has a significant positive effect on both PA and PP agency costs.

7.6 Panel Tobit regression of agency costs variable and explanatory variables

The Tobit model is also known as a censored model. This study constructs QFCF as a proxy for agency costs. First, this study measured free cash flow following Doukas *et al.* (2000) and McKnight & Weir (2009). Poor growth opportunities were then constructed by multiplying free cash flows with a growth dummy of 1, when the firm's Tobin's Q is less than one, otherwise 0. The positive coefficients of variables indicate a positive effect on agency costs and variables, and negative

coefficients indicate a negative effect on agency costs and variables. This leads to the conclusion, that poorly governanced LPCs have higher free cash flows and high agency costs. Table 7.7 reveals the relationship between QFCF agency costs' dependent and explanatory variables.

Board size and LPCs' agency costs

This study finds a non-significant relationship between LPC board size and Q-dummy free cash flow agency proxy. This indicates board size has no impact on LPCs' PA agency costs.

Non-executive directors and LPCs' agency costs

The coefficient of NONE variable is negatively and statistically significant at 1% level for Q-dummy free cash flow and indicates non-executive directors on LPC boards have a negative impact on LPCs' PA agency costs. This may be because companies with a high proportion of non-executive directors are more effective in monitoring management and reducing managerial discretion. However, using panel data Tobit regression, McKnight & Weir (2009) could not find any significant relationship between Q-dummy free cash flow and non-executive directors on boards in UK context.

Inside ownership and LPCs' agency costs

INSIDE is positively and statistically significant at 1% level for Q-dummy free cash flow, indicating insider ownership on LPC boards has a positive impact on LPC agency costs. This is consistent with entrenchment theory and suggests that higher levels of insider ownership increase the likelihood of expropriation of business profit for personal use (McConnell & Servaes, 1990).

Board diversity and LPCs' agency costs

Though the DIVERSITY variable is positively related with LPCs' Q-dummy free cash flow agency costs, the DIVERSITY variable is not significant. This indicates board diversity has no impact on LPCs' agency costs.

Female board directors and LPCs' agency costs

Though the FEMALE variable is negatively related with LPCs' Q-dummy free cash flow agency costs proxy, the FEMALE variable is not significant. This indicates female directors on LPC boards have no impact on LPC agency costs. After controlling for the endogeneity effect of female board directors in firm agency costs, Jurkus *et al*. (2008) find there is no significant relationship between female officers' presence on a board and company agency costs using Q-dummy free cash flow as agency costs proxy.

Ethnic minority board directors and LPCs' agency costs

Similar to diversity and female board member findings, this study finds a non-significant relationship between the MINORITY variable and Q-dummy free cash flow agency proxy.

CEO duality and LPCs' agency costs

Though coefficient of CEO is negatively related with LPCs' Q-dummy free cash flow agency costs, CEO is not significant. This indicates CEO duality has no impact on LPCs' agency costs. This finding is consistent with McKnight & Weir (2009) who find an insignificant relationship between CEO duality and Q-dummy free cash flow agency costs in a UK context.

Institutional ownership and the LPCs' agency costs

Though the coefficient of OWNER is negatively related with Q-dummy free cash flow, the OWNER variable is not significant. This indicates ownership type has no impact on LPCs' agency costs as measured by Q-dummy free cash flow. Conversely, McKnight & Weir (2009) find a significant positive relationship between institutional ownership and agency costs.

Company size and LPCs' agency costs

LNSALES is negatively and statistically significant at 5% level for Q-dummy free cash flow and indicates large firms have less PA agency conflict than their smaller counterparts. This may be due to higher rates of adoption of recommended governance structure by large companies. This finding is consistent with Singh & Davidson (2003) who find a negative relationship between firm size and agency costs. Moreover, Jurkus *et al*. (2008) also find a similar negative relationship between firm size and agency costs using Q-dummy free cash flow as agency costs proxy.

Company age and LPCs' agency costs

Coefficient of LNAGE is negatively related with LPCs' agency costs, measured as Q-dummy free cash flow. However, the coefficient is not significant. This indicates LPCs' age has no impact on LPCs' agency costs.

Leverage ratio and LPCs' agency costs

Table 7.7 reveals the coefficient of DEBT variable is negatively and 5% significantly related to LPCs' agency costs, measured as Q-dummy free cash flow. This finding is consistent with Ang *et al*. (2000) who explain debt increases external monitoring of a company. Therefore, in high leveraged firms, managerial

expropriation and asymmetry information problems are less. This debt monitoring advantage reduces PA agency conflicts. However, McKnight & Weir (2009) find a non-significant relationship between company debt and agency costs, measured as Q-dummy free cash flow for agency proxy.

Industry and LPCs' agency costs

Table 7.7 indicates industry factors have a significant impact on LPCs' agency costs determinant, measured as Q-dummy free cash flow. It may be concluded that industry factors play an important role in LPCs' PA and PP agency conflicts.

Table 7.7 Panel-data Tobit regression of corporate governance variables and agency cost

	Cof.	Std.Err
Number of obs= 565a Number of groups=113		
Board size: BOARD	 -.549013	 344568
Board composition: NONE	 -.295328***	 822963
INSIDE	.2.50069***	780068
DIVERSITY	.295067	.336075
FEMALE	-.391345	.394017
MINORITY	-.552759	.765852
Leadership structure: CEO	 -.8420202	 -.842020
OWNER	-.513843	.995179
Control Variables: LNSALES	 -.128683**	 .577970
LNAGE	-.560314	.116555
DEBT	-.638954***	.192577
INDUS1	.236242	.1521797
INDUS2	-.815804***	.266329
INDUS3	-.131098***	.237989
INDUS4	-.1334507***	.254683
INDUS5		
INDUS6	-.6.57072***	.7728176
INDUS7	-.1474315***	.202786.9
Regression summary statistics Log likelihood Chi2 (21)	 -1237.7091 106.23***	

[a] unbalanced panel; * Significant at 10% level; **Significant at 5% level; ***Significant at 1% level; This model provides standard errors which are in parentheses.

7.8 Specification tests results

Serial correlation test- Serial correlation in panel data models biases the standard errors and leads to less efficient results. Therefore, this study reports serial correlation in order 1 AR (1) and serial correlation in order 2 AR (2) which require identifying serial correlation in the idiosyncratic error term in the panel-data model. Table 7.4 reports first order and second order serial correlation for all three financial performance proxies used in this study. Table 7.4 column 5 reports AR (1) and AR (2) for TOBIN'S Q as 0.3361 and 0.3129. Both order (1) and order (2) p values are greater than 0.05. I.e. (p=0.3361>0.05 and p= 0.3129>0.05). Therefore, this study rejects first order and second order serial correlation of TOBIN'S Q regression. Table 7.4 column 6 reports AR (1) as 0.7234 and AR (2) as 0.2751. There is no serial correlation existing in ROA regression for both order (1) and order (2) because 0.7234 is greater than 0.05 and 0.2751 is greater than 0.05. A third financial performance proxy (ROE) regression result is reported in Table 7.4 column 7. It shows AR (1) as 0.1078 and AR (2) as 0.3294. These regression AR (1) and AR (2) values are greater than 0.05(i.e p=0.1078>0.05 and p=0.3294>0.05). Therefore, serial correlation does not exist in ROE regression. Hence, there is no serial correlation in the original error of all three financial performance proxies ε_{it} as desired.

Table 7.6 column 4 shows regression results for ASSETS proxy and column 5 shows regression results for DIVIDEND proxy. The null hypothesis that $Cov(\Delta\varepsilon_{it,}\Delta\varepsilon_{i,t-k}) = 0$ for k=1, 2 is rejected at a level of 0.05 if p>0.05, because the AR (1) and AR (2) values for ASSETS regression are reported as 0.3085 and 0.8772 respectively. Moreover, AR (1) for DIVIDEND is reported in Table 7.6 as 0.2323, which is greater than 0.05 and AR (2) reported as 0.3255. This value is

also greater than 0.05. These results indicate serial correlation does not exist in agency costs proxies in order 1 and order 2. Therefore in conclusion, LPCs' financial performance regression results and LPC agency costs regression results show there is no evidence of order 1 and order 2 serial correlations between dependent variables and explanatory variables.

Test for over-identification restrictions- In a GMM dynamic panel context, a Hansen-Sargan J-statistic test is used to identify over-identifying restrictions in financial proxies and agency costs proxies regressions. Table 7.4 indicates J statistic for TOBIN'S Q regression as 7351.86, J statistic for ROA is 1719.94 and J statistic for ROE as 1830.51. However, the J-statistic value is not significant at 5% level. This indicates the instruments are valid. Table 7.6 reports dynamic panel GMM PA and PP agency costs regression J-statistics. Table 7.6 column 4 reports ASSETS and explanatory variable J-statistic value as 1480.98 and column 5 reports DIVIDEND and explanatory variable J-statistic value as 18.73737. Nevertheless, these J-statistics values are not significant at 5% level indicating agency proxy regressions instruments are valid.

Test for joint significance- A test for joint significance is used to test significance of subsets of regression coefficients in the regression model. Table 7.4 reports joint significance for explanatory variables and financial performance proxies. Table 7.6, column 4 reports joint significance value is 38.97241 for TOBIN'S Q regression. This is significant at 1% significance level indicating groups of all explanatory variables' parameters associated with these variables are not zero, so that all independent variables can be included in model. Column 5 reports the joint significance value is 35.39037 for ROA regression and in column 4 the joint significance value is 40.38474 for LNROE regression. Moreover two

other financial performance proxies have joint significant values significant at the 1% significance level, indicating that group of explanatory variables associated with these independent variables are not zero. Accordingly, all independent variables can be included in the model.

Table 7.6 reports agency costs and explanatory variable regressions Chi test results. In Table 7.6, column 4 the joint significance value for ASSETS regression is 20.31856 and it is denoted 1% significant. Furthermore, Table 7.6 column 5 reports joint significant value as 8321.05 for DIVIDEND regression. This value is also significant at 1% significance level for DIVIDEND proxy. For both regressions, the Chi test is significant at 1% level, leading to the conclusion that the parameters associated with these variables are not zero. Hence, all selected explanatory variables can be included in agency costs models. Table 7.7 reports Q-dummy free cash flow agency costs proxy, Tobit regression Chi test value. Table 7.7, column 2 reports the joint significance value is 106.23. This regression Chi test is significant at 1% level, and leads to the conclusion that the parameters associated with these variables are not zero. Consequently, the group of all explanatory variables can be included in the panel Tobit regression model.

Table 7.8 Summary of findings

Variable	Issue 1			Interpretation
Board Size (BOARD)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Non significant	Board size has non-significant effect on LPCs financial performance.
Non-executive directors (NONE)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Non significant Non significant	Non-executive directors increase LPCs financial performance
Insider ownership (INSIDE)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Non significant Confirm Non significant	High insider ownership increase LPCs financial performance
Board diversity (DIVERSITY)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Reject Confirm Confirm	Board diversity decrease LPCs market based financial performance. Board diversity increase LPCs accounting based financial performance and shareholders' value.
Female board directors (FEMALE)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Confirm Reject Reject	Female directors' increase LPCs market based financial performance. Female directors' decrease LPCs accounting based financial performance and shareholders' value.
Minority board directors (MINORITY)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Non significant Non significant Confirm	Minority board directors increase LPCs financial performance
CEO duality (CEO)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Reject Non significant Non significant	CEO duality decrease LPCs financial performance.
Ownership type (OWNER)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Reject Non significant Non significant	Institutional ownership decrease LPCs financial performance
Firms size (LNSALES)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Non significant Non significant Confirm	Large LPCs increase their financial performance.
Firm age (AGE)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA	Reject Non significant Reject	Mature LPCs decrease their market base financial performance and shareholders wealth.

		Positively effect in firm ROE		
Firm leverage (DEBT)	Positively effect in firm financial performance	Positively effect in firm Tobin's Q Positively effect in firm ROA Positively effect in firm ROE	Reject Non significant Non significant	Highly levered LPCs decrease their financial performance.
Firm operating industry (INDUSTRY)	Positively effect in firm financial performance	Significantly effect in firm financial performance metrics	Confirm	LPCs operating industry has significant impact on their financial performance.
Variable	**Issue**			**Interpretation**
Board Size (BOARD)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	confirm Non significant	Large boards' decrease LPCs PA agency conflicts.
Non-executive directors (NONE)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Reject	Non-executive directors decrease LPCs PA agency costs
Insider ownership (INSIDE)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant confirm	High insider ownership increase LPCs PA agency costs
Board diversity (DIVERSITY)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Confirm Non significant	Board diversity decrease LPCs PA agency costs.
Female board directors (FEMALE)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Non significant	Female directors have no significant impact on LPCs PA agency conflicts.
Minority board directors (MINORITY)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Non significant	Minority directors have no significant impact on LPCs PA agency conflicts
CEO duality (CEO)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Non significant Non significant	CEO duality has no significant impact on LPCs PA agency conflicts
Ownership type (OWNER)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Confirm Non significant	Institutional ownership increase MNCs PA agency costs.
Firms size (LNSALES)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in	Confirm Reject	Large LPCs decrease their PA agency costs

		firm Q dummy free cash flow		
Firm age (AGE)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Not significant Not significant	LPCs age has no significant impact on LPCs PA agency conflicts
Firm leverage (DEBT)	Positively effect in firm PA agency conflict	Positively effect in firm assets utilisation ratio Positively effect in firm Q dummy free cash flow	Confirm Reject	Highly levered LPCs decrease PA agency conflicts.
Firm operating industry (INDUSTRY)	Positively effect in firm PA agency conflict	Significantly effect in firm PA agency conflicts	Confirm	LPCs operating industry has significant impact on their PA agency conflicts.
Variable	**Issue 3**			**Interpretation**
Board Size (BOARD)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Non significant	LPC board size has no significant impact on their PP agency conflicts.
Non-executive directors (NONE)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	Non-executive directors decrease MNCs PP agency costs
Insider ownership (INSIDE)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Non significant	Insider ownership has no significant impact on their PP agency conflicts.
Board diversity (DIVERSITY)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	Board diversity decrease LPCs PP agency costs.
Female board directors (FEMALE)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	Female directors increase LPCs PP agency conflicts.
Minority board directors (MINORITY)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	Minority board directors increase LPCs PP agency conflicts.
CEO duality (CEO)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	CEO duality increase LPCs PP agency conflicts.
Ownership type (OWNER)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Reject	Institutional ownership decrease LPCs PP agency costs.
Firms size (LNSALES)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Not significant	LPC size has no significant impact on their PP agency costs.
Firm age (AGE)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Not significant	LPC age has no significant impact on their PP agency costs.
Firm leverage (DEBT)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Not significant	LPC leverage level has no significant impact on their PP agency costs.
Firm operating industry (INDUSTRY)	Positively effect in firm PP agency conflict	Positively effect in firm Dividend pay-out ratio	Confirm	LPCs operating industry has significant impact on their PP agency conflicts.

7.9 Conclusion

This chapter details the results of the research and analyses the information and statistical methods applied in the sample LPC data. The relationship between corporate governance, control variables, financial performance and agency costs is discussed in detail. There is also discussion about the test of endogeneity of corporate governance variables and instrumental variable models. In addition, the econometric test for autocorrelation, over-identification restrictions and joint significance are also presented.

Overall, this study indicates that board size is insignificant for three financial performance proxies. Nevertheless, results, indicates large boards reduce LPCs' PA agency conflicts. This study reveals PP agency costs have no significant impact on LPCs' board size.

Non-executive directors' show a positive and significant relationship with LPCs' Tobin's Q, indicating non-executive directors increases LPCs' financial performance. Furthermore, results indicate a significant negative relationship between non-executive directors, PA and PP agency costs.

The INSIDE coefficient shows a significant positive relationship with LPCs ROA. The study results reveals Q-dummy free cash flow agency costs proxy indicates LPCs' insider owners increase LPCs' PA agency costs. However, the DIVIDEND coefficient shows a non-significant relationship between LPCs insider ownership and LPCs dividend pay-out ratio.

Board diversity has positive and negative effects on LPCs' financial performance. The DIVERSITY variable is significantly negatively related to LPCs' TOBIN'S Q variable and it is positively and statistically significantly related with LPCs'

ROA and ROE. Moreover, results reveals diversified LPC boards reduce LPCs' PA and PP agency costs.

Table 7.4 shows, female board directors are significantly positively related with LPCs TOBIN'S Q and significantly negatively related with LPCs' ROA and ROE. However, PA agency costs proxies indicate female board directors have no significant impact on LPCs' PA agency costs. Nevertheless, this study indicates female board directors increase LPCs' PP agency costs.

The coefficient of MINORITY and ROE has a significant positive relationship, indicating ethnic minority directors increase LPCs' shareholder wealth. However, ethnic minority directors and LPCs' PA agency costs proxies have no significant relationship. Further, PP agency costs proxy shows a significant positive relationship with LPCs' ethnic minority directors.

Next, CEO duality has a significant negative impact on LPCs' TOBIN'S Q. However, study reports there are no significant relationship between CEO duality and PA proxies. Also, PP agency costs proxy shows a significant positive relationship between CEO duality and LPCs' PP agency costs.

This study shows institutional ownership has a significant negative impact on LPCs' TOBIN'S Q value. Table 7.6 reports institutional ownership increases LPCs' assets utilisation ratio. Moreover, result shows LPCs' institutional ownership has a significant negative impact on LPCs' dividend pay-out ratio. This indicates institutional ownership leads to reduce a LPCs' PA and PP agency costs.

LNSALES have a significant positive effect on LPC shareholder value creation. Firm size variables reported in Table 7.6 has a significant impact on ASSETS ratio. However, Table 7.6 shows LPCs' size variable has no significant impact on LPCs' PP agency costs proxy. Though LPC age has no significant impact on

LPCs' ROA, this result indicates LPC age has a negative impact on LPCs' TOBIN'S Q and shareholders' value creation. However, the age of an LPC has no significant relationship with LPCs' PA and PP agency costs proxies. Study reports LPCs' leverage ratio has a significant negative relationship with LPCs' TOBIN'S Q. Furthermore, PA agency costs proxy and the debt variable show a significant positive relationship. This indicates high leveraged LPCs have fewer PA agency conflicts. However, this study couldn't find any significant relationship between LPCs' leverage ratios and PP agency costs proxy. A significant relationship between INDSUTRY variables and financial performance leads to rejection of hypothesis about there being no impact on LPCs' operating industries and LPCs' financial performance.

Finally, a robustness check results for all regressions results are reported. First, serial correlation of order 1 and order 2 indicates there is no serial correlation of all models. Second, Hansen-Sargan J statistic accepts over identification restriction which means instruments are valid. Third, joint significance test results suggest significance of explanatory variables in all financial performance and agency costs proxies.

The next chapter compares MNC subsidiaries and LPCs and tests hypotheses 15-18.

Chapter 8
Comparison of multinational subsidiaries and local public companies in Sri Lanka

8.0 Introduction

This chapter presents the results of the comparison study of MNCs and LPCs' financial performance and PA and PP agency costs. Econometric tests results for hypotheses 15, 16, 17 and 18 are also reported. This chapter is organised as follows. Section 8.1 shows ANOVA test results and discussion for hypothesis 15 and hypothesis 16. Section 8.2 provides a difference-in-difference test to analyse hypothesis 17 and further discussion. Section 8.3 provides quantile regression tests' results and discussion related to hypothesis 18 in this study. Section 8.4 provides comparative information of MNCs and LPCs' financial performance and agency costs from chapters 6 and 7. Section 8.5 concludes the chapter.

8.1 Analysis of Variance (ANOVA test)

In general, the purpose of using an ANOVA test is to check the significant difference of sample mean values. This is the initial step in identifying factors that are influencing a given data set. This study uses two study samples; MNCs and LPCs. Hence, the F test performed by ANOVA is equivalent to the t-test. As a first step, the one-way ANOVA test is used to test hypothesis $H_{15.}$ Nine corporate governance variables are used by MNCs and LPCs tests using one-way ANOVA tests. Board size (BOARD), non-executive directors' percentage (NONE), inside ownership percentage (INSIDE), board diversity (DIVERSITY), female board director percentage (FEMALE), ethnic minority director percentage (MINORITY), CEO duality (CEO), ownership type (OWNER) and leverage ratio (DEBT) is tested in one-way ANOVA. If $F > F_{critical}$ and $p<\alpha$, then this study the null hypothesis is not accepted, suggesting the two groups' means are differ.

Table 8.1 ANOVA test results for corporate governance variables

Variable	F	F critical	P-value
BOARD SIZE	14.9385424	3.851402	0.0001187
NONE	0.12690095	3.851789	0.7217504
INSIDE	29.5928605	3.851328	6.792E-08
DIVERSITY	6559.84562	3.851133	0
FEMALE	2051.17159	3.851174	1.96E-240
MINORITY	610.760213	3.851204	1.16E-104
CEO	27.3798391	3.850907	2.042E-07
OWNER	52.0727044	3.850907	1.066E-12
DEBT	0.14335981	3.853659	0.7050687

H_{15}: There is no mean difference in MNC subsidiaries' corporate governance variables and LPCs' corporate governance variables.

Overall, results show that apart from non-executive directors and leverage ratio, other corporate governance variables have significant mean differences. This results leads to acceptance of the H_{15} of this study about there being significant difference between the governance mechanisms of MNCs and the governance mechanisms of LPCs.

ANOVA test for corporate governance compliance of MNCs and LPCs

This study employs ANOVA tests to analyse the next hypotheses H_{16a}. Before introducing the mandatory code of best practice on corporate governance in 2008, the CSE had a voluntary code of best practice on matters relating to financial aspects of corporate governance, introduced in 1997. This voluntary code has undergone several changes and in early January 2007 the SEC introduced a new voluntary code of best practice. Up until the start of the 2008 financial year, firm could follow the voluntary code. The second phase started on 1 April 2008 and required listed firms to comply with the code. To analyse the mean differences of corporate governance compliance, this study used figures from the year before the introduction of the mandatory code – 2007, and the year after its introduction –

2009. This study excludes 2008 (the year the code was introduced) to reduce statistical errors because in 2008 some companies may have been in transition.

H_{16a}: There is significant difference in corporate governance compliance of MNCs in Sri Lanka before and after the code of best practice on corporate governance was introduced in 2008.

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	570469.073	19	30024.68805	298.434	0	1.592811
Within Groups	166304.1113	1653	100.6074479			
Total	736773.1843	1672				

ANOVA test results show F value is greater than F critical value. Moreover, P value (0) is less than alpha (0.05). Therefore, this result significantly accepts the hypothesis- H_{16a}.

The H_{16b} hypothesis analysed corporate governance compliance differences in LPCs before and after code of best practice on corporate governance was introduced (2008).

H_{16b}: There are significant differences in corporate governance compliance of LPCs in Sri Lanka before and after the mandatory code of best practice on corporate governance was introduced in 2008.

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	189485.2	17	11146.19	135.1358	0	1.628098
Within Groups	158199.3	1918	82.4814			
Total	347684.5	1935				

ANOVA test results show F value is greater than F critical value. Moreover, P value (0) is less than alpha (0.05). Therefore, this result significantly accepts the hypothesis – H_{16b}.

8.2 Difference-in-difference method (DID)

The first step of DID method is to compute performance proxies for MNCs and LPCs using data for before and after the promulgation of the voluntary code of best practice in 2007. Due to data constraints, this study constructs the performance measures for one year before and one year after the voluntary code date. There are two dimensions for comparison. The first comparison is to compare the difference across two groups i.e. compliance and non-compliance groups (difference across category). The second is to compare the difference before and after the compliance of code (difference across time). The effect of the time period after the corporate governance best practice voluntary code became effective is captured by the dummy variable TIME. To capture the effect of the corporate governance voluntary code the dummy variable TREAT is used. TT is calculated by multiplying TIME by TREAT.

Table 8.2 shows DID regression results of MNCs' and LPCs' financial performance proxies. The coefficient of TT variable is positively and statistically significant at 10% level of MNCs' TOBIN'S Q variable, and statistically significant at 5% level for MNCs' ROA variable. This indicates that complying with the voluntary code of best practice on corporate governance (2007) increases MNCs' accounting-based financial performance. This finding is consistent with the corporate governance survey in Sri Lanka (2007), which found a positive impact from applying best practice on businesses' financial performance in Sri Lankan listed companies. Hence, this study accept hypothesis H_{17a1}. Table 8.2 shows the coefficient of TT variable positively and statistically significant at 1% level of LPCs' ROA variable, indicating that complying with the Sri Lankan code of best practice on corporate governance voluntary code (2007) has a positive effect in LPCs accounting-based financial performance (ROA). Hence, this

finding leads to acceptance of the hypothesis H_{17b1}. Table 8.3 shows DID regression results of MNCs' and LPCs' PA and PP agency proxies. The coefficient of TT variable is positively and statistically significant at 1% level of MNCs' ASSETS variable. Hence, complying with the best practice code reduces MNCs' PA agency conflict. Moreover, MNCs' TT variable is negatively and statistically significant at 5% level for MNCs' DIVIDEND variable. This indicates that complying with the voluntary code of best practice (2007) decreases MNCs' PP agency conflict. This is consistent with the concept that the governance structure of a firm involves mechanisms to minimise agency conflicts between shareholders and managers and minority and majority shareholders. Further, this finding is in line with Dey (2008) who finds that the existence and level of corporate governance mechanisms in a firm determines the level of agency conflicts in the firm. Therefore, this study accepts hypothesis H_{17a2} and H_{17a3}. Next, though the coefficient of TT variable is positively related with LPCs' ASSETS variable, it is insignificant. This indicates that the voluntary code of best practice on corporate governance (2007) has no significant impact on LPCs' PA agency conflicts. Hence, this study rejects hypothesis H_{17b2}. However, Table 8.3 shows, the coefficient of TT variable negatively and statistically significant at 1% level of LPCs' DIVIDEND variable and indicates that complying Sri Lankan code of best practice on corporate governance voluntary code (2007) decreases LPCs' PP agency conflicts. This is in line with John & Knyazeva (2006) who find that firms with weak corporate governance have high dividend pay-out policies. This finding leads to acceptance of hypothesis H_{17b3}. In summary, these regression results show that complying with the voluntary code of best practice has a more significant positive effect on MNCs than for LPCs. One possible explanation for that is there may be more MNCs applying the voluntary code. Therefore,

complying with the voluntary corporate governance code may show a more significant positive effect for MNCs than for LPCs. Another, possible explanation for that is that MNCs' structure and operations is complex. Therefore, applying the voluntary code of best practice in corporate governance (2007) reduced conflicts between managers of MNCs and shareholders.

Table 8.2 DID regression of financial performance, MNCs and LPCs

Variables	MNCs TOBIN'S Q	MNCs ROA	MNCs ROE	LPCs TOBIN'S Q	LPCs ROA	LPCs ROE
Number of obs	279	279	279	347	347	347
TT	.0400389* (.0438055)	.0137428** (.0199062)	16.21619 (11.92801)	4.72e-07 (1.05e-06)	.0947684*** (.0244308)	-13.55267 (11.95168)
TREAT	-.0578692 (.0336099)	-.0009952 (.0152731)	-.2820106 (9.114212)	-9.79e-07 (1.42e-07)	-.0805437** (.0330091)	-21.27617 (16.10346)
TIME	-.0425921 (.0409565)	-.0060852 (.0186116)	-18.03925 (11.13188)	-5.10e-07 (9.70e-07)	.0942208*** (.0225135)	18.47777* (10.99272)
BOARD SIZE	.0031038 (.0034055)	.0002566 (.0015475)	1.607657** (.9491798)	7.36e-08 (9.60e-08)	-.0004836 (.002228)	.9556853 (1.105908)
NONE	-1.796798*** (.1922957)	.0045403 (.0873837)	-12.37298** (5.26048)	-5.90e-06 (4.16e-06)	-.0146881 (.1070203)	2.749651 (52.95392)
INSIDE	.2580375*** (.0427466)	.0473683** (.019425)	-3.913271 (12.23829)	1.00001*** (.0012929)	5.633396 (30.01392)	-19.99352 (14.63791)
DIVERSITY	7.520484*** (.9953438)	.1188802 (.4523075)	8.411149*** (2.742508)	9.13e-09 (6.26e-09)	-.0005325*** (.0001452)	-.1810397** (.0734043)
FEMALE	-13.7504*** (1.668458)	.0759625 (.7581863)	-12.94982*** (4.560802)	-.4700764 (.3488928)	-3.91703 (8.09908)	12.80807 (3.996523)
MINORITY	1.61474*** (.1517967)	.035102 (.06898)	9.442189** (4.178366)	4.73e-06 (4.04e-06)	.0224237 (.0938456)	-3.013832 (4.421033)
CEO	.0156859 (.0282142)	-.0160423 (.0128212)	6.264728 (7.832297)	-7.88e-08 (6.85e-07)	-.0078952 (.015896)	7.999873 (7.835813)
OWNER	.0366676 (.0270541)	.0127518 (.012294)	3.386521 (7.358217)	-4.43e-07 (1.57e-06)	.0535884 (.0363651)	19.78603 (17.73312)
LNSALES	-.0212819*** (.0062448)	.0025596 (.0028378)	-1.127819 (1.897334)	-2.56e-07 (1.74e-07)	.0099804* (.0040436)	7.253281*** (2.297853)
LNAGE	.0047988 (.0105726)	-.0051906 (.0048044)	-7.930493*** (2.889583)	1.29e-07 (2.95e-07)	-.0102842 (.006853)	1.960385 (3.417924)
DEBT	.0000191 (.0005318)	.0004985** (.0002417)	.193079 (.1534386)	3.80e-08 (1.10e-07)	-.0034133 (.0025474)	-1.600974 (1.265131)
INDUS1	-.0164634 (.0272394)	-.0142206 (.0123782)	-2.920945 (7.429365)	2.40e-06 (1.72e-06)	-.0415863 (.039894)	-8.622358 (19.48137)
INDUS2	.0776499 (.0532545)	-.0253105 (.0242001)	20.37456 (14.54402)	4.79e-07 (5.00e-07)	.0600508*** (.0115965)	-.0936992 (5.715506)
INDUS3	-.0671623*** (.0236052)	.0549386*** (.0107268)	-3.575421 (6.423244)	-4.20e-08 (6.25e-07)	.0274813** (.0145145)	10.42897 (7.416946)
INDUS4	-.0367647** (.0151855)	-.0141642** (.0069007)	-7.366742** (4.198814)	-4.29e-07 (4.72e-07)	-.0277689** (.0109557)	-10.12832* (5.705776)
INDUS5	-.0322568 (.0197386)	.0519223*** (.0089697)	9.289719 (5.875705)	1.03e-6** (4.92e-07)	.0169189 (.0114153)	-7.448055 (5.797301)
INDUS6	-.0983391** (.0534641)	-.0208408 (.0242953)	.8271932 (14.57417)	-7.11e-07 (1.04e-06)	.0104842 (.0240802)	-5.137895 (11.81559)
INDUS7						
R^2	0.6509	0.3677	0.2672	1.0000	0.3124	0.1311

[a] unbalanced panel; * significant at 10% level; ** significant at 5% level; *** significant at 1% level; This model provides standard errors which are in parentheses.

Table 8.3 DID regression of agency costs, MNCs and LPCs

Variables	MNCs ASSETS	MNCs DIVIDEND	LPCs ASSETS	LPCs DIVIDEND
Number of obs[a]	279	279	348	347
TT	.4265082*** (.1572468)	-.4064758** (.2378155)	23.40337 (28.85074)	-.2061639*** (.0741145)
TREAT	-.0121694 (.1206483)	.2861132 (.182465)	14.93502 (38.51458)	-.4634243*** (.1001382)
TIME	-.3419199*** (.1470201)	-.5692335** (.2223489)	-26.41056 (26.47346)	-.1798103*** (.0682981)
BOARD SIZE	-.0159518 (.0122245)	-.0002563 (.018488)	-4.123603 (2.825089)	-.0029577 (.0067589)
NONE	-.6897945 (.6902765)	-3.596447*** (1.043954)	7.212115 (12.46219)	.5704618** (.3246623)
INSIDE	.0961943 (.1534457)	-.9859782*** (.2320669)	4.96454 (21.39381)	-47.74044 (91.05177)
DIVERSITY	6.935486 (5.989198)	8.500694 (9.057889)	.0170264 (.1712817)	.00004529 (.0004405)
FEMALE	-5.541261 (3.572947)	-4.941115 (5.403621)	24.41395 (21.38683)	-2.373066 (2.456978)
MINORITY	.3333106 (.5448987)	3.362575*** (.824089)	14.42032** (7.33577)	-.39038 (.2846949)
CEO	-.0623462 (.1012795)	-.0329391 (.1531722)	-21.24594 (18.90753)	-.0420668 (.0482228)
OWNER	.1374126 (.097115)	.0845473 (.146874)	-18.2618 (42.68486)	.1186711 (.110319)
LNSALES	.4987631*** (.0224168)	-.1991938*** (.0339026)	45.96449*** (4.573909)	-.0323724*** (.012267)
LNAGE	.0423555 (.037952)	.0256474 (.0573975)	-24.28568*** (8.522702)	-.0750958*** (.0207895)
DEBT	-.0016421 (.0019091)	.0003617 (.0028872)	-3.400018 (2.975014)	-.0446165*** (.0077279)
INDUS1	.3037934*** (.0977803)	-.0836283 (.14788)	-48.45819 (46.64791)	.017667 (.1210245)
INDUS2	1.452482*** (.1911657)	.2971129 (.2891134)	7.85027 (13.82713)	.109351*** (.0351796)
INDUS3	.5165126*** (.0847346)	-.3286951** (.1281502)	68.54867*** (16.99164)	-.0030568 (.0440318)
INDUS4	-.0086114 (.054511)	-.187243** (.0824408)	52.74075*** (13.06793)	.0136813 (.0332357)
INDUS5	.2600933*** (.0708548)	-.0041703 (.1071587)	4.585236 (13.79513)	-.0012612 (.0346301)
INDUS6	.1068588 (.1919179)	.2233889 (.2902511)	-22.33046 (31.76355)	.0198263 (.0730508)
INDUS7				
R^2	0.7921	0.3791	0.2568	0.3472

[a] unbalanced panel; * significant at 10% level; ** significant at 5% level; *** significant at 1% level; This model provides standard errors which are in parentheses.

8.3 Quantile regression

The quantile regression results show that the effects of corporate governance variables differ across the quantiles in the conditional distribution of firm market-based performance (TOBIN'S Q). Figure 8.1 (a) shows MNCs' corporate governance variables differ across the quantiles in the conditional distribution of

firm TOBIN'S Q and figure 8.1 (b) shows LPCs' corporate governance variables differ across the quantiles in the conditional distribution of firm TOBIN'S Q.

Board size and quantile regression- Figure 8.1 (a) shows that size of board has the largest positive effect around θ=0.50 for MNCs, being significantly smaller in θ=0.95. However, figure 8.1 (b) shows that size of board has the largest positive effect around θ=0.95 for LPCs, being significantly smaller in θ=0.50. This shows that board size effects are almost opposite between MNCs and LPCs in different quantiles of performance proxy. This indicates a large board is an appropriate for moderately performing MNCs and high performance LPCs.

None executive directors and quantile regression- Figure 8.1 (a) reveals that the proportion of non-executive directors has the largest positive effect around θ=0.05 to 0.3 for MNCs, being significantly smaller in θ=0.95. However, figure 8.1 (b) reveals that the proportion of non-executive directors has the largest positive effect around θ=0.95 for LPCs, being significantly smaller in θ=0.3. This shows the effect of non executive directors in MNCs and LPCs is almost opposite in different quantiles of performance proxy. This indicates that non-executive directors are an appropriate corporate governance mechanism for low performance MNCs and high performance LPCs.

Insider ownership and quantile regression- Figure 8.1 (a) reveals that the proportion of insider ownership has the largest positive effect around θ=0.95 for MNCs, being significantly smaller in θ=0.05 to 0.6. However, figure 8.1 (b) reveals that the proportion of insider ownership has the largest positive effect around θ=0.35 for LPCs, being significantly smaller in θ=0.05. This shows the insider ownership affects MNCs and LPCs differently in different quantiles of performance proxy. This indicates insider ownership is an appropriate corporate

governance mechanism for high performance MNCs and moderate performance LPCs.

Board diversity and quantile regression-Figure 8.1(a) indicates percentage of board diversity has the largest positive effect around θ=0.05 to 0.5 for MNCs, being significantly smaller in θ=0.95. However, figure 8.1 (b) reveals that the percentage of board diversity has the largest positive effect around θ=0.8 for LPCs, being significantly smaller in θ=0.95. Results indicate that board diversity has significant impact on low financial performance MNCs and high financial performance LPCs in Sri Lanka.

Female board directors and quantile regression- Figure 8.1(a) indicates percentage of female board directors has the largest positive effect around θ=0.95 for MNCs, being significantly smaller in θ=0.05 to 0.6. However, figure 8.1 (b) reveals that the percentage of female board directors has the largest positive effect around θ=0.75 for LPCs, being significantly smaller in θ=0.25. Results indicate that female board directors have significant impact on high performance MNCs and LPCs.

Ethnic minority board directors and quantile regression-Figure 8.1(a) indicates percentage of ethnic minority board directors has the largest positive effect around θ=0.95 for MNCs, being significantly smaller in θ=0.05 to 0.30. However, figure 8.1 (b) reveals that the percentage of ethnic minority directors on a board has the largest positive effect around θ=0.1 for LPCs, being significantly smaller in θ=0.75. This shows the minority board directors' have the opposite effect in MNCs and LPCs. Results indicate, ethnic minority directors have significant impact on high performance MNCs and low performance LPCs.

CEO duality and quantile regression-Figure 8.1(a) indicates percentage of CEO duality has the largest positive effect around θ=0.95 for MNCs, being significantly smaller in θ=0.05. However, figure 8.1 (b) reveals that the percentage of CEO duality has the largest positive effect around θ=0.5 for LPCs, being significantly smaller in θ=0.15. This indicates CEO duality is an appropriate corporate governance mechanism for high financial performance MNCs and LPCs with moderate performance.

Institutional ownership and quantile regression-Figure 8.1(a) indicates ownership type has the largest positive effect around θ=0.95 for MNCs, being significantly smaller in θ=0.05 to 0.50. However, figure 8.1 (b) reveals that the percentage of institutional ownership has the largest positive effect around θ=0.05 for LPCs, being significantly smaller in θ=0.50. This shows the institutional ownership has different effects in MNCs and LPCs in lower quantiles of financial performance proxy and has similar behaviour in moderate to high quantiles of financial performance proxy.

Company size and quantile regression-Figure 8.1(a) indicates firm size has the largest positive effect around θ=0.05 to 0.3 for MNCs, being significantly smaller in θ=0.95. Moreover, figure 8.1 (b) reveals that the firm size has the largest positive effect around θ=0.05 for LPCs, being significantly smaller in θ=0.95. Results indicate, firm size has significant impact on low performance MNCs and LPCs.

Company age and quantile regression-Figure 8.1(a) indicates firm age has the largest positive effect around θ=0.95 for MNCs, being significantly smaller in θ=0.8. However, figure 8.1 (b) reveals that firm age has the largest positive effect around θ=0.5 for LPCs, being significantly smaller in θ=0.3. This shows the firm age has different effects on MNC subsidiaries and LPCs in quantiles of

performance proxy, measured as Tobin's Q. Results indicate, firm age has significant impact in high financial performance MNCs and moderate performance LPCs.

Leverage ratio and quantile regression-Figure 8.1(a) indicates firm leverage has the largest positive effect around θ=0.05 to 0.2 for MNCs, being significantly smaller in θ=0.95. However, figure 8.1 (b) reveals that firm leverage has the largest positive effect around θ=0.5 for LPCs, being significantly smaller in θ=0.05. Results indicate firm leverage has significant impact on low performance MNC subsidiaries and moderate performance LPCs.

Overall, the results as displayed below indicate corporate governance variables have significant different effects in MNCs and LPCs in different quintiles of performance proxy. This leads to acceptance of hypothesis H_{18}. Therefore, any bundle of corporate governance mechanisms needs to be varied for MNCs and LPCs.

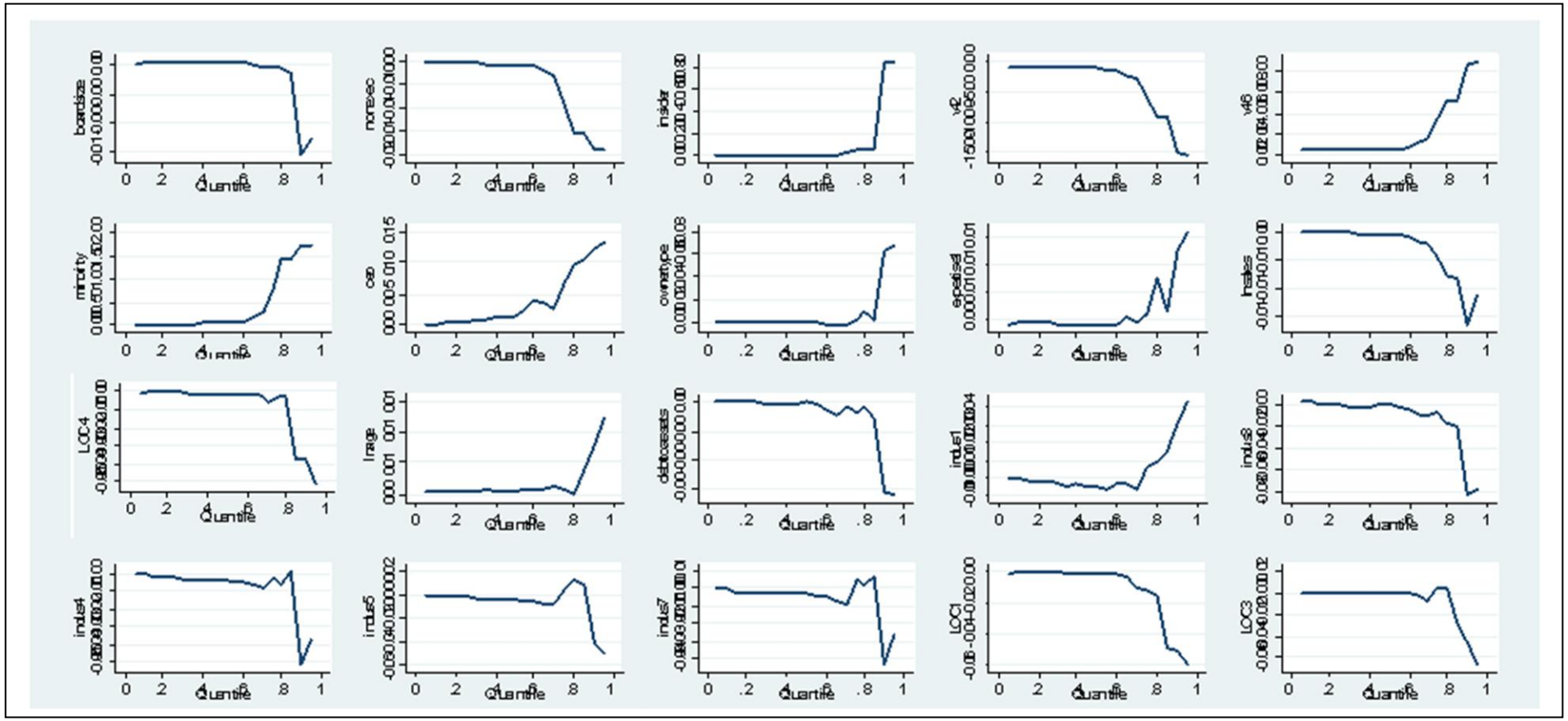

Figure 8.1 (a) Estimates for MNCs Tobin's Q and corporate governance

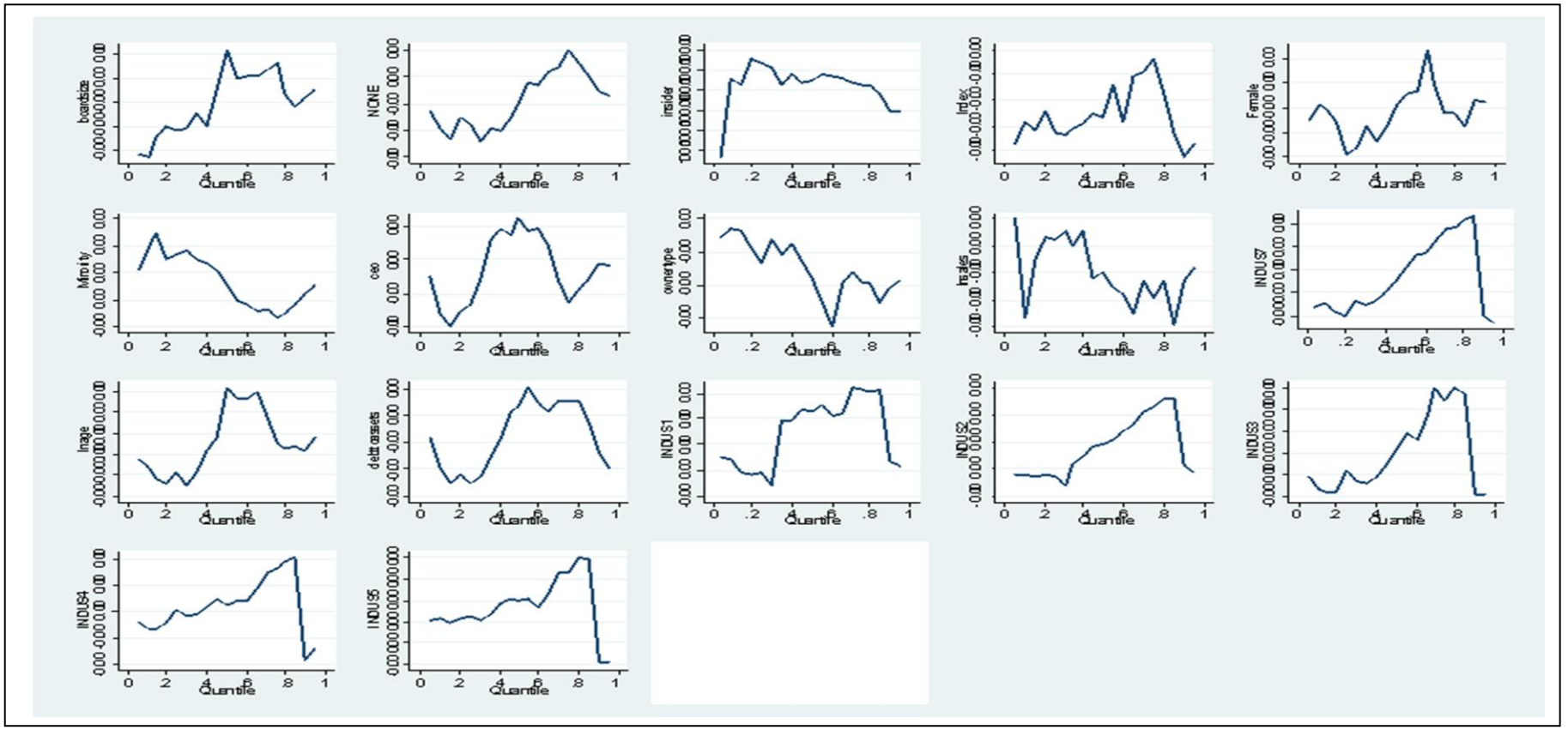

Figure 8.1 (b) Estimates for LPCs Tobin's Q and corporate governance

8.4 Comparison of MNCs and LPCs financial performance and agency costs

8.4.1. Comparison of MNCs' and LPCs' financial performance

Table 8.3 shows three financial performance proxies and corporate governance and control variable regression results for MNCs and LPCs.

Table 8.4 Comparison of MNC and LPCs' financial performance regression summary

Variable	TOBIN'S Q		ROA		ROE	
	MNC	**LPC**	**MNC**	**LPC**	**MNC**	**LPC**
BOARD	Positive		Negative		Positive	
NONE	Negative	Positive	Negative		Negative	
INSIDE	Positive			Positive		
DIVERSITY	Positive	Negative		Positive	Positive	Positive
FEMALE	Negative	Positive		Negative	Negative	Negative
MINORITY	Positive		Positive		Positive	Positive
CEO	Negative	Negative	Negative		Positive	
OWNER		Negative	Positive			
FOREIGN			Negative			
LNSALES	Positive				Positive	Positive
AGE	Positive	Negative			Negative	Negative
DEBT		Negative			Positive	
REGION1			Negative			
REGION2						
REGION3			Negative		Positive	
REGION4					Negative	
INDUSTRY1			Positive		Positive	
INDUSTRY2		Negative				
INDUSTRY3			Positive	Negative	Positive	Positive
INDUSTRY4			Positive		Positive	
INDUSTRY5			Positive		Positive	
INDUSTRY6						
INDUSTRY7			Positive		Positive	Positive

Board size and financial performance

Results indicate board size has both positive and negative impacts on MNCs' financial performance. However, board size has no significant impact on LPCs' financial performance proxies.

Board composition and financial performance

Non-executive directors have negative impacts for all three financial performance proxies in MNCs, indicating non-executive directors reduce MNCs' financial

performance. This indicates that non-executive directors on boards are not appropriate corporate governance mechanisms for MNCs in Sri Lanka. Conversely non-executive directors have significant positive impact on LPCs' financial performance. This result indicates that non-executive directors on boards are an appropriate corporate governance mechanism for LPCs. The inside ownership variable shows significant positive impacts on MNC market-based financial performance proxy and LPCs accounting-based financial performance proxy, indicating inside ownership is an appropriate corporate governance mechanism for MNCs and LPCs in Sri Lanka. This may be because Sri Lanka's high uncertainty environment leads companies to prefer more internal corporate governance mechanisms than external ones. The diversity variable shows significant positive relationship between MNCs' Tobin's Q and ROE indicating board diversity is an excellent corporate governance mechanism for MNCs. However, results indicate that board diversity reduces LPCs' market-based financial performance and increases shareholders' value. Next, female board directors show significant negative impact on MNCs' financial performance proxies. This result indicates female board directors are not appropriate corporate governance mechanism for MNCs in Sri Lanka. On the other hand, female board directors have significant positive impact on LPCs TOBIN'S Q and have a significantly negative impact on the other two financial performance proxies (ROA and ROE). Therefore, the issue of selecting female board directors as corporate governance mechanisms for LPCs, needs to be examined further. Ethnic minority directors show significant positive impact on MNCs' all three financial performance proxies. This indicates ethnic minority board directors are a perfect corporate governance mechanism for MNCs. Ethnic minority directors

have significant positive effect in firm ROE. This indicates minority directors are also good corporate governance mechanisms for LPCs.

Board leadership and financial performance

Unitary board leadership shows significant negative impact on MNCs' market-based financial performance proxy and accounting-based financial performance proxy. However, CEO duality generates more value to shareholders. Therefore, selecting CEO duality as a corporate governance mechanism for MNCs requires further consideration. Nevertheless, CEO duality has significant negative impact on LPCs' market-based financial performance proxy. Therefore, unitary board leadership is not a suitable corporate governance mechanism for LPCs in Sri Lanka. Institutional ownership has a significant positive relationship with MNCs' financial performance indicating institutional ownership is an appropriate corporate governance mechanism for MNCs in Sri Lanka. However, institutional ownership and LPCs' Tobin's Q shows a significant negative relationship, indicating board ownership is more appropriate for LPCs in Sri Lanka. Table 8.3 reveals foreign managers have significant negative impact on accounting-based financial performance proxy in MNCs. This leads to the conclusion that foreign managers are not an effective corporate governance mechanism for MNCs in Sri Lanka. MNCs' leverage ratio has significant positive impact on MNCs' financial performance, indicating high leveraged MNC subsidiaries have high financial performance. Therefore, debt works as an appropriate external corporate governance mechanism for MNCs and increases MNCs' financial performance. Conversely, the leverage variable has significant negative impact on LPCs' financial performance, measured as TOBIN's Q. This indicates highly leveraged LPCs' financial performance is lower than for low leveraged LPCs. This result

concludes that debt is not an appropriate corporate governance mechanism for LPCs in Sri Lanka.

Control variables and firm financial performance

The control variable indicates that overall, large MNCs and LPCs have higher financial performance than their smaller counterparts. Furthermore, MNCs' age has both positive and negative impacts on financial performance proxies. However, results indicate that mature LPCs have less financial performance than young LPCs. Results indicate that MNCs' parent locations have significant impact on MNCs' financial performance. Furthermore, industry factors play a significant role in MNCs' and LPCs' financial performance.

8.4.2. Comparison of MNC subsidiaries' and LPCs' agency costs

Table 8.5 reveals the relationship between corporate governance and agency costs proxies value for MNC subsidiaries and LPCs in Sri Lanka.

Table 8.5 Comparison of MNCs' and LPCs' agency costs regression summary

Variable	ASSETS		QFCF		DIVIDEND	
	MNC	LPC	MNC	LPC	MNC	LPC
BOARD	Positive	Positive				
NONE			Negative	Negative	Negative	Negative
INSIDE	Positive			Positive	Negative	
DIVERSITY		Positive	Positive		Negative	Negative
FEMALE			Negative		Positive	Positive
MINORITY			Positive		Positive	Positive
CEO	Negative				Positive	Positive
OWNER		Positive	Positive		Negative	Negative
FOREIGN	Negative					
LNSALES	Positive	Positive		Negative	Negative	
AGE			Negative		Positive	
DEBT	Negative	Positive		Negative	Negative	
REGION1	Negative					
REGION2						
REGION3						
REGION4	Negative					
INDUSTRY1			Positive			
INDUSTRY2		Negative		Negative		Positive
INDUSTRY3				Negative	Negative	
INDUSTRY4				Negative	Negative	
INDUSTRY5					Negative	
INDUSTRY6				Negative		
INDUSTRY7				Negative	Negative	

Board size and financial performance

The board size variable shows significant positive relationship with both MNCs and LPCs' assets utilisation ratio. This leads to the conclusion that larger boards reduce MNCs' and LPCs' PA agency conflict. However, board size has no significant impact on MNCs' and LPCs' PP agency conflicts. Therefore a large board is not an appropriate corporate governance mechanism for MNCs and LPCs from a PP agency costs aspect.

Board composition and financial performance

Results show that non-executive directors have significant negative impacts on MNCs' and LPCs' PA and PP agency costs proxies indicating non-executive directors reduce PA and PP agency conflicts in MNCs and LPCs. Therefore having non-executive directors on a board is an excellent corporate governance mechanism for MNCs and LPCs in Sri Lanka. Insider ownership shows significant positive relationship with MNCs' assets utilisation ratio, indicating insider ownership decreases MNCs' PA agency conflict. Moreover, results indicate a significant negative relationship between MNCs' dividend pay-out ratio and inside ownership. This shows that inside ownership reduces MNCs' minority and majority shareholder conflicts. Therefore, from both PA and PP agency perspective, inside ownership is an appropriate corporate governance mechanism for MNCs in Sri Lanka. In contrast, results reveal inside ownership increases PA agency conflicts in LPCs in Sri Lanka and there is no significant impact on insider ownership and LPCs' PP agency conflicts. Therefore, inside ownership is not an appropriate corporate governance mechanism for LPCs from an agency perspective. Table 8.4 indicates that though board diversity increases MNCs' PA agency conflicts; it reduces MNC subsidiaries' PP agency conflicts. Therefore, for MNCs with high PP agency conflicts, a diversified board is an appropriate corporate governance mechanism. However, results indicate that board diversity

increases LPCs' assets utilisation ratio. Hence, highly diversified LPCs have fewer PA agency conflicts. The results reveal board diversity reduces LPCs' PP agency conflicts. This indicates highly diversified LPC boards reduce conflict between majority and minority shareholders. Overall, results indicate board diversity is an appropriate corporate governance mechanism for LPCs because it reduces both PA and PP agency conflicts in LPCs. Though female board directors' decrease MNCs' PP agency conflicts, they lead to increased MNCs' PA agency conflicts. Therefore, selecting female board directors as a corporate governance mechanism for MNCs requires further attention at company PA and PP agency conflict levels. However, female directors have no significant impact on LPCs' PA agency costs and they significantly positively affect LPCs' PP agency conflicts. This leads to the recommendation that female board directors are not an appropriate corporate governance mechanism in LPCs in Sri Lanka. The ethnic minority variable has a significant positive relationship with MNCs' Q-dummy free cash flow, indicating ethnic minority directors increase MNCs' PA agency conflicts. Furthermore, the minority variable shows significant positive impact on MNCs' DIVIDEND variable, indicating ethnic minority directors increase MNCs' PP agency conflicts. This result leads to the conclusion that ethnic minority directors are not an appropriate corporate governance mechanism for MNCs' from agency perspective.

Board leadership and financial performance

The CEO duality variable shows a significant negative relationship with MNCs' assets utilisation ratio which indicates unitary boards reduces MNCs' asset utilisation. Hence, unitary boards increase MNCs' PA agency costs. Furthermore, results reveal, CEO duality has significant positive relationship with dividend pay-out ratios. This indicates CEO duality increases MNCs' PP agency conflicts.

Therefore, CEO duality is not an appropriate corporate governance mechanism for MNCs from an agency perspective. Though CEO duality has no significant impact on LPCs' PA agency conflicts, results show CEO duality increases LPCs' PP agency conflicts. Therefore CEO duality is not an appropriate corporate governance mechanism for LPCs in Sri Lanka. Institutional ownership shows a positive effect on MNCs and LPCs' PA agency costs, which indicates institutional ownership increases PA agency costs in MNCs and LPCs in Sri Lanka. However, results indicate that institutional ownership decreases MNCs' and LPCs' PP agency conflicts. Therefore, before assigning institutional ownership as corporate governance mechanism for MNCs and LPCs there needs to be further analysis of company PA and PP agency cost levels. Table 8.4 indicates foreign managers have a negative and significant relationship with MNCs' assets utilisation ratio. This indicates foreign managers increase PA agency conflicts. Therefore, based on the above results, the foreign manager is not an appropriate corporate governance mechanism for MNCs in Sri Lanka.

Control variables and firm financial performance

MNCs leverage ratios show a significant negative relationship with assets utilisation, indicating high leveraged MNCs increase PA agency conflicts. However, results indicate that high leveraged MNCs have fewer PP agency conflicts. Therefore, before determining leverage as an external corporate governance mechanism for MNCs it needs further consideration. In contrast, results indicate high leveraged LPCs have high assets utilisation. Hence high leveraged LPCs have fewer PA agency conflicts than low leveraged LPCs. However, debt has no significant impact on LPCs' PP agency conflicts. Therefore, the results conclude that debt is an appropriate external corporate governance mechanism for LPCs in Sri Lanka in PA agency context. Considering

control variables, the results show that though mature MNCs have fewer PA agency conflicts, they have high PP agency conflicts. The results also indicate firm size has negative impacts on PA and PP agency costs in MNCs and LPCs. Results indicate MNCs' parent location can determine PA agency conflict. However, PP agency cost has no impact on MNCs' parent location. Finally, results indicate MNCs' and LPCs' operating industry can determine their PA and PP agency conflicts.

8.5 Conclusion

This chapter mainly explored the comparison of MNCs and LPCs operating in Sri Lanka. Using the ANOVA test, study findings indicate that, except for non-executive directors and leverage ratios in MNCs and LPCs, other corporate governance mechanisms have significant mean differences in MNCs and LPCs in Sri Lanka. Therefore, this study accepts H_{15} hypothesis. Further, using the ANOVA test, this study finds there are differences in corporate governance compliance in MNCs and LPCs before and after the introduction of the corporate governance voluntary code in 2007. Hence, this study accepts hypothesis H_{16a} and $H_{16b.}$ The next hypothesis in this study was analysed using the difference-in-difference method. This study finds significant differences in both financial performance and agency costs of MNCs before and after complying with the voluntary code of best practice on corporate governance (2007). Hence, this study accepts hypotheses $H_{17a1.}$ Further, this study finds that complying with the code of best practice on corporate governance positively and significantly increases MNCs' assets utilisation ratio and significantly decreases MNCs' dividend pay-out ratio. This indicates that complying with the code of best practice on

corporate governance reduces MNCs' PA and PP agency conflicts. Therefore, this study accepts H_{17a2} and hypothesis $H_{17a3.}$

Moreover, this chapter reports there is significant positive effects of corporate governance practices and financial performance in LPCs in Sri Lanka. This leads to accept of hypothesis H_{17b1}. However, this study couldn't find any significant association between complying with the code of best practice on corporate governance in LPCs and their PA agency costs. This leads to rejection of H_{17b2} hypothesis. Next, this study finds the coefficient of difference-in-difference variable is negatively and statistically significant for LPCs' dividend pay-out ratio. This indicates that complying with the voluntary code of best practice on corporate governance decreases LPCs' PP agency conflicts. This leads to accepts H_{17b3}. Finally, quantile regression results show there are significant differences between the effects of corporate governance variables across different quantiles of financial performance of MNC subsidiaries and LPCs. Hence, this study accepts H_{18}.

The next chapter provides a summary of findings of the empirical studies and a conclusion of the study.

Chapter 9
Summary, conclusion and implications

9.0 Introduction

This chapter summarises the discussion about corporate governance, financial performance and agency costs in MNCs and LPCs in Sri Lanka. The structure to be followed starts with section 9.1 summarising the thesis objectives. Section 9.2 provides a summary of the hypothesis and empirical study. Section 9.3 presents the contribution to the literature. Section 9.4 discusses the implications. Section 9.5 provides future directions for research with limitation of the existing study. Finally, section 9.6 provides the chapter conclusion.

9.1 Summary of thesis objectives

Studies of corporate governance have proliferated in recent years after the breakdown of large companies in Europe and Asia. International competition, globalisation and subsidiary activities drive instructional convergence towards the best practice of corporate governance in Asia. However, concentrated ownership, company pyramid structure, undeveloped capital markets, weak rules and regulations and high government intervention create a corporate governance situation in Asian companies that is different from the Anglo-American corporate governance model.

In Sri Lanka corporate governance initiatives commenced in 1997, with a voluntary code of best practice on matters relating to financial aspects of corporate governance. Since 1997 this code was revised several times with the new code of best practice on corporate governance completed in 2006. This enabled best practices in many jurisdictions and had practical implications for Sri Lanka. First, this new code was introduced as a voluntary code in 2007 but from 1st April 2008 it becomes mandatory for complying corporate governance rules

that formed part of the listing rule on the CSE. A country's legal system plays an important role in creating an effective corporate governance mechanism. In Sri Lanka in 2007 the Companies Act 7 was enacted. This new Act replaced the 25-year-old Companies Act and provided significant development in investor protection.

This thesis first provides an examination of the impact of corporate governance practices, financial performance and agency costs associated with MNCs. Second, the impact of corporate governance practices, financial performance and agency costs associated with LPCs are considered. Multiple governance attributes are next revaluated including board size, board composition structure (i.e. non-executive directors, insider ownership, board diversity, female board directors and minority board directors), board leadership structure (i.e. CEO duality, ownership type and foreign managers) and control variables (i.e. firm size, firm age, firm debt, firm location and industry) effects on MNCs' and LPCs' financial performance and agency costs.

Third, consideration is given to differences between the governance mechanisms of MNCs and the governance mechanisms of LPCs in Sri Lanka. This included any differences in corporate governance compliance between in MNCs and LPCs before and after the mandatory code of best practice on corporate governance code was introduced in 2008. Fourth an examination of whether voluntary compliance with the new corporate governance code had an effect on financial performance and agency costs in MNCs and LPCs is provided. Finally, the difference between the effects of MNCs' and LPCs' corporate governance variables across the quintiles of firm performance is discussed.

The study concentrated on secondary data collected from the Handbook of listed Companies, Fact Book and the data library CD issued by CSE and the individual

companies' respective audited annual reports. For the LPCs and MNCs, the sampling period is 2006 through 2010. As at 30th September 2010, the CSE has 203 listed companies across all business sectors except the financial sector. However, from that 203 there are 4 companies that did not provide all relevant data. All remaining companies, which represent 86 MNC subsidiaries and 113 LPCs are included as the sample for analysis. In order to control the endogeneity effect and reverse causality effect of corporate governance variables, this study mainly employed a dynamic panel GMM estimator to find out the relationship between corporate governance variables, financial performance and agency costs. To overcome endogenity problem most previous studies used a 2SLS regression technique. However, the inconsistency of finding instrumental variables, dynamic panel model, using the GMM has become an important tool in the recent panel data analysis. Several diagnostic tests including auto-correlation test, test of over identification restrictions and test for joint significance use to check the validity of this model. Various other statistical techniques include an ANOVA test, panel tobit regression, difference-in-difference method and quantile regression also used to check hypotheses relevant in this study.

9.2 Summary of results and hypothesis testing

9.2.1 Corporate governance mechanisms, financial performance and agency costs in MNC subsidiaries and LPCs

Table 9.1 shows a summary of hypotheses tested regarding corporate governance mechanisms, financial performance, PA and PP agency costs of MNCs. Similarly, Table 9.2 shows a summary of hypotheses tested regarding corporate governance mechanisms, financial performance, PA and PP agency costs of LPCs.

Table 9.1 Summary of hypotheses results regarding corporate governance variables, financial performance and agency costs in MNCs

Variable	Financial performance	PA agency costs	PP agency costs
Board size (BOARD)	Reject H_{1a1} regarding there is no significant association between board size and financial performance in MNCs	Reject H_{1a2} regarding there is no significant association between board size and PA agency costs in MNCs	Accept H_{1a3} regarding there is no significant association between board size and PP agency costs in MNCs
None executive directors (NONE)	Reject H_{2a1} regarding there is no significant association between non-executive directors and financial performance in MNCs	Reject H_{2a2} regarding there is no significant association between non-executive directors and PA agency costs in MNCs	Reject H_{2a3} regarding there is no significant association between non-executive directors and PP agency costs in MNCs
Inside ownership (INSIDE)	Reject H_{3a1} regarding there is no significant association between insider ownership and financial performance in MNCs	Reject H_{3a2} regarding there is no significant association between insider ownership and PA agency costs in MNCs	Reject H_{3a3} regarding there is no significant association between insider ownership and PP agency costs in MNCs
Board diversity (DIVERSITY)	Reject H_{4a1} regarding there is no significant association between board diversity and financial performance in MNCs	Reject H_{4a2} regarding there is no significant association between board diversity and PA agency costs in MNCs	Reject H_{4a3} regarding there is no significant association between board diversity and PP agency costs in MNCs
Female directors (FEMALE)	Reject H_{5a1} regarding there is no significant association between female board directors and financial performance in MNCs	Reject H_{5a2} regarding there is no significant association between female board directors and PA agency costs in MNCs	Reject H_{5a3} regarding there is no significant association between female board directors and PP agency costs in MNCs
Minority directors (MINORITY)	Reject H_{6a1} regarding there is no significant association between minority board directors and financial performance in MNCs	Reject H_{6a2} regarding there is no significant association between minority board directors and PA agency costs in MNCs	Reject H_{6a3} regarding there is no significant association between minority board directors and PP agency costs in MNCs
CEO duality (CEO)	Reject H_{7a1} regarding there is no significant association between CEO duality and financial performance in MNCs	Reject H_{7a2} regarding there is no significant association between CEO duality and PA agency costs in MNCs	Reject H_{7a3} regarding there is no significant association between CEO duality and PP agency costs in MNCs
Ownership type (OWNER)	Reject H_{8a1} regarding there is no significant association between ownership type and financial performance in MNCs	Reject H_{8a2} regarding there is no significant association between ownership type and PA agency costs in MNCs	Reject H_{8a3} regarding there is no significant association between ownership type and PP agency costs in MNCs
FOREIGN manager (FOREIGN)	Reject H_{9a1} regarding there is no significant association between expertise manager and financial performance in MNCs	Reject H_{9a2} regarding there is no significant association between expertise manager and PA agency costs in MNCs	Accept H_{9a3} regarding there is no significant association between expertise manager and PP agency costs in MNCs
Firms size (LNSALES/ LNASSETS)	Reject H_{10a1} regarding there is no significant association between firm size and financial performance in MNCs	Reject H_{10a2} regarding there is no significant association between firm size and PA agency costs in MNCs	Reject H_{10a3} regarding there is no significant association between firm size and PP agency costs in MNCs
Firm Age (AGE)	Reject H_{11a1} regarding	Reject H_{11a2} regarding	Reject H_{11a3} regarding

	there is no significant association between firm age and financial performance in MNCs	there is no significant association between firm age and PA agency costs in MNCs	there is no significant association between firm age and PP agency costs in MNCs
Firm Debt (DEBT)	Reject H_{12a1} regarding there is no significant association between firm leverage and financial performance in MNCs	Reject H_{12a2} regarding there is no significant association between firm leverage and PA agency costs in MNCs	Reject H_{12a3} regarding there is no significant association between firm leverage and PP agency costs in MNCs
Firm Location (LOCATION)	Reject H_{13a1} regarding there is no significant association between MNCs parent location and financial performance in MNCs	Reject H_{13a2} regarding there is no significant association between MNCs parent location and PA agency costs in MNCs	Accept H_{13a3} regarding there is no significant association between MNCs parent location and PP agency costs in MNCs
Industry (INDUSTRY)	Reject H_{14a1} regarding there is no significant association between firm operating industry and financial performance in MNCs	Reject H_{14a2} regarding there is no significant association between firm operating industry and PA agency costs in MNCs	Reject H_{14a3} regarding there is no significant association between firm operating industry and PP agency costs in MNCs

Table 9.2 Summary of hypotheses results regarding corporate governance variables, financial performance and agency costs in LPCs

Variable	Financial performance	PA agency costs	PP agency costs
Board size (BOARD)	Accept H_{1b1} regarding there is no significant association between board size and financial performance in LPCs	Reject H_{1b2} regarding there is no significant association between board size and PA agency costs in LPCs	Accept H_{1b3} regarding there is no significant association between board size and PP agency costs in LPCs
None executive directors (NONE)	Reject H_{2b1} regarding there is no significant association between non-executive directors and financial performance in LPCs	Reject H_{2b2} regarding there is no significant association between non-executive directors and PA agency costs in LPCs	Reject H_{2b3} regarding there is no significant association between non-executive directors and PP agency costs in LPCs
Inside ownership (INSIDE)	Reject H_{3b1} regarding there is no significant association between insider ownership and financial performance in LPCs	Reject H_{3b2} regarding there is no significant association between insider ownership and PA agency costs in LPCs	Accept H_{3b3} regarding there is no significant association between insider ownership and PP agency costs in LPCs
Board diversity (DIVERSITY)	Reject H_{4b1} regarding there is no significant association between board diversity and financial performance in LPCs	Reject H_{4b2} regarding there is no significant association between board diversity and PA agency costs in LPCs	Reject H_{4b3} regarding there is no significant association between board diversity and PP agency costs in LPCs
Female directors (FEMALE)	Reject H_{5b1} regarding there is no significant association between female board directors and financial performance in LPCs	Accept H_{5b2} regarding there is no significant association between female board directors and PA agency costs in LPCs	Reject H_{5b3} regarding there is no significant association between female board directors and PP agency costs in LPCs
Minority directors (MINORITY)	Reject H_{6b1} regarding there is no significant association between minority board directors and financial performance in LPCs	Accept H_{6b2} regarding there is no significant association between minority board directors and PA agency costs in LPCs	Reject H_{6b3} regarding there is no significant association between minority board directors and PP agency costs in LPCs

CEO duality (CEO)	Reject H_{7b1} regarding there is no significant association between CEO duality and financial performance in LPCs	Accept H_{7b2} regarding there is no significant association between CEO duality and PA agency costs in LPCs	Reject H_{7b3} regarding there is no significant association between CEO duality and PP agency costs in LPCs
Ownership type (OWNER)	Reject H_{8b1} regarding there is no significant association between ownership type and financial performance in LPCs	Reject H_{8b2} regarding there is no significant association between ownership type and PA agency costs in LPCs	Reject H_{8b3} regarding there is no significant association between ownership type and PP agency costs in LPCs
Firms size (LNSALES/ LNASSETS)	Reject H_{9b1} regarding there is no significant association between firm size and financial performance in LPCs	Reject H_{9b2} regarding there is no significant association between firm size and PA agency costs in LPCs	Accept H_{9b3} regarding there is no significant association between firm size and PP agency costs in LPCs
Firm Age (AGE)	Reject H_{10b1} regarding there is no significant association between firm age and financial performance in LPCs	Accept H_{10b2} regarding there is no significant association between firm age and PA agency costs in LPCs	Accept H_{10b3} regarding there is no significant association between firm age and PP agency costs in LPCs
Firm Debt (DEBT)	Reject H_{11b1} regarding there is no significant association between firm leverage and financial performance in LPCs	Reject H_{11b2} regarding there is no significant association between firm leverage and PA agency costs in LPCs	Accept H_{11b3} regarding there is no significant association between firm leverage and PP agency costs in LPCs
Industry (INDUSTRY)	Reject H_{12b1} regarding there is no significant association between firm operating industry and financial performance in LPCs	Reject H_{12b2} regarding there is no significant association between firm operating industry and PA agency costs in LPCs	Reject H_{12b3} regarding there is no significant association between firm operating industry and PP agency costs in LPCs

9.2.2 Compliance differences and financial performance

ANOVA test results confirm that, except for non-executive directors' percentage and leverage ratio variables, all other corporate governance variables have significant differences between MNCs and LPCs in Sri Lanka. Hence this study accepts hypothesis H_{15} - there is significant difference between governance mechanisms of MNC subsidiaries and LPCs. The next hypothesis examined whether there was any significant differences in corporate governance compliance of Sri Lankan listed companies before and after the 2008 introduction of the mandatory code of best practice on corporate governance. ANOVA test results confirm there is a significant difference of MNCs and LPCs mean values before and after complying with the corporate governance mandatory code in 2008. Hence, this study accepts Hypothesis16.

Using a difference-in-difference method, this study found there is significant impact on corporate governance practices, MNC financial performance and PA and PP agency costs. This leads to accepts of $H_{17a1,}$ H_{17a2} and H_{17a3} of this study. The second part of this hypothesis checked the impact on corporate governance practices, in LPCs' financial performance, PA and PP agency costs. The finding accepts hypotheses H_{17b1} and H_{17b3} that there is significant impact on corporate governance practices and financial performance/ PP agency costs associated with LPCs. However, a result rejects H_{17b2} because there is no significant impact on corporate governance practices and PA agency costs associated with LPCs. A quantile regression is used method to test the last hypothesis. Results indicated that corporate governance variables have different impacts on different financial performance quantiles in MNCs and LPCs. According hypothesis H_{18} regarding there are significant differences between the effects of MNCs' and LPCs' corporate governance variables across the quantiles of firm financial performance is accepted.

9.3 Contribution to the literature

The principal aim of this research as outlined in the first chapter is to identify the relationship between corporate governance practices, financial performance and PA and PP agency costs in MNCs and LPCs. This study makes a number of contributions to the understanding of corporate governance practices, financial performance and agency costs and the linkages between them. First, it adds to the empirical evidence concerning the relationship of corporate governance mechanisms and firm financial performance, PA and PP agency costs. In addition, by studying a wider range of corporate governance variables than prior

studies, it will enhance the understanding of how different corporate governance mechanisms collaborate with company financial performance.

Second, PA and PP cost have been articulated in the context of listed public companies in mature capital markets and both have recently been tested in emerging markets. This study extends an understanding of the extent to which PA and PP are applicable in emerging markets especially in relation to operating MNCs and LPCs. Most strikingly is the observation that PP is more significant than PA in Sri Lanka due to concentrated ownership structure, family ownership, weak institutional protection and lack of information disclosure.

Third, this study extends corporate governance related theories relating to the emerging economy. Sri Lanka's cultural and institutional factors are crucial for shaping the development of management and organisational form of companies. Therefore, theories derived from developed and mature markets only partially represent corporate governance relationship in emerging economies. This study extends current literature with implications for agency theory, stewardship theory, transaction costs theory, resource based theory, institutional theory and theory of tokenism for developing countries with consideration given to their cultural and institutional differences. Inclusion of context variable percentage of female board directors, percentage of ethnic minority directors and board diversity was found to be important in terms of explanatory power.

Finally, this study adopts GMM dynamic panel technique to control the endogeneity effect of corporate governance variables and reverse causality on financial performance and agency costs to provide robust results. Most of the previous studies do not explore the endogeneity effect of corporate governance variables, although they use 2SLS regression technique. The current research extended the econometric robustness of analysis using quantile regression

analysis; panel tobit regression and difference-in-difference method. Through these econometric tools, which are being used more frequently in microeconomics data analyses; this thesis can be seen as a pioneering study in the corporate finance sphere.

9.4 Implications

The findings of this research lead to several practical implications for LPCs and MNCs operating in Sri Lanka and other emerging markets. Sri Lanka's existing corporate governance best practice code was mandatory from 1st April 2008 for all listed companies on the CSE. However, this study shows some mandatory corporate governance mechanisms have a negative impact on firm financial performance or they increase company agency costs. Therefore, the corporate governance framework may need to be tailored to each organisation's structure as "one size does not fit all". Rather than having a corporate governance code mandatory by the law, the Sri Lankan code of best practice on corporate governance may need to be a more flexible as a " comply or explain" type code. Firms can then apply a relevant bundle of corporate governance mechanisms to enhance their firm value.

Aguilera *et al.* (2008) argue that the effectiveness of corporate governance mechanisms is determined by the firm's critical environmental variables. Although Sri Lanka basically followed the Anglo-American model of corporate governance, various country institutional and cultural differences have created a unique corporate governance environment in Sri Lanka. As an example, due to more than 64% of businesses listed on the CSE being family businesses (Masulis *et al.,* 2009), CEO duality may be a positive characteristic for family businesses in Sri Lanka. As a country with many ethnic groups, board diversification may

create a positive impact on Sri Lankan firm financial performance. Therefore, further development of the corporate governance code is required to consider country-specific characteristics rather than inheriting and adopting a bundle of corporate governance mechanisms from other developed countries.

Furthermore, results also show that a bundle of corporate governance mechanisms impact LPCs' and MNCs' financial performance and/or agency costs differently. Implementation of these corporate governance mechanisms incurred both benefits and costs. The results also show that the impacts of corporate governance mechanisms upon firm financial performance levels vary from firm to firm. Therefore, to enhance performance, a different bundle of corporate governance mechanisms for LPCs and MNCs is required, based on their financial performance levels.

Transparency, responsibility, accountability and fairness are four concepts that are now widely quoted as key principles of good corporate governance. However, high political intervention leads to a high level of informality surrounding the corporate governance practices in Sri Lanka. It is requiring reduce agency costs through strengthening corporate governance practices.

The results of this study have important implications for the ownership structure and company performance in Sri Lanka and other countries that have similar institutional settings. It confirms that the effect of inside ownership on firm performance is more positive and significant where legal protection of investors is weak. It suggests that although new legislative reforms have been enacted, Sri Lankan companies are highly dependent on internal governance mechanisms. Due to high inside ownership, managerial expropriation is very likely to exist. There is potential merit in promulgating new rules and regulations to control the expropriation of minority shareholders.

O'Donovan (2003) explains that the quality of a company's corporate governance can influence the cost of raising capital. "Investment Climate Statement - Sri Lanka" (2009) explains access to finance is costly and limited in Sri Lankan companies. There is potential merit in promulgating new polices to enhance the private commercial banks' role as major financial suppliers, especially in rural sectors, reduce constraints on long-term finance access of family firms and increasing the availability of low costs financing. Given evidence of the global financial crisis relating to curtailment of bank credit, it is important to enhance fund diversification and develop the debt market in Sri Lanka.

Next, the new corporate governance best practice code (2008) only relates to shareholders' right and firm efficiency. Firm performance and accountability measures are missing from the rules. Moreover, the new code expects limited transparency. The next corporate governance changes in Sri Lanka need to promote more transparency and accountability.

As a multicultural country, it is essential to introduce new board diversity orientation programs. This program creates a two-way socialisation process, i.e. bias is reduced and minority perspectives influence organisational norms and values (Cox, 1991). Additionally, promulgating new polices that increase women's contribution for higher managerial positions or specialisation will lead to better financial performance of companies.

Results shows complying with the code of best practice on corporate governance positively affects listed companies' value. However, the code of best practice on corporate governance is still a new concept for Sri Lankan investors and stakeholders. To attract new foreign and local investors and enhance the advantages of complying with the best practice code there needs to be more education and information about the code and its application. This can be

achieved through creating corporate governance networks including regulatory bodies, business leaders and stakeholders. Also trained and certified managers and directors regarding corporate governance practices are important. Establishment of institute for this corporate governance training is another requirement. Through capacity building, enforcement and follow-up corporate governance practices, creating a corporate governance rating system for investors and building corporate governance awareness among business leaders will improve the corporate governance practices in Sri Lankan companies.

9.5 Future research

This section presents recommendations for future research and limitations of the current study.

The data used for current study were derived from five years for MNC subsidiaries and LPCs. A larger time expansion may result in finding a different corporate governance relationship between CSE listed companies, financial performance and agency costs. Further inclusion of additional corporate governance variables or control variables could reveal a new relationship between corporate governance, financial performance and agency costs. CEO characteristics, banking efficiency, political regime and executive remuneration are still an open ground for future research. This study excluded financial sector companies, because of the nature of their liabilities which are different from those of non-financial sector firms. Due to financial firm scandals in recent years, research regarding complying with the corporate governance code and its impact on financial sector firms is important. This provides a rich vein for future research.

Next, while this study has provided useful insights into corporate governance, financial performance and agency costs in Sri Lankan listed businesses, the findings are based on research in a single country. It is suggested that future research tests this corporate governance relationship beyond Sri Lanka. Moreover, more than 64% of Sri Lankan listed businesses are family businesses. Therefore, focusing future research on family-owned firms and corporate governance impacts on their financial performance and agency costs is important. Furthermore, this study considered only the MNC parent locations and their impact on financial performance and agency costs. Future research needs to consider more the characteristics of MNC parent companies and their influence of corporate governance practices of MNC subsidiaries.

9.6 Conclusion

The current chapter has discussed the summary, conclusion and implication of results from empirical analysis. This research focused on the relationship between corporate governance mechanisms, firm financial performance and agency costs in LPCs and MNCs in Sri Lanka. Findings support the view that there is a positive relationship between corporate governance and firm financial performance and a negative relationship between corporate governance and firm agency costs. However, the process by which the firm financial performance and agency costs are affected in MNCs and LPCs is different. This result also supports the central argument in corporate governance that the institutional and cultural differences determine the effect of complying with corporate governance and financial performance and agency costs.

This study contributes to current literature in several ways, i.e. this is first direct study of corporate governance, firm performance and agency costs of listed Sri

Lankan companies representing all industries except the financial sector. This study controlled the ambiguity of corporate governance variables, financial performance and agency costs using a dynamic panel GMM estimator. The results of this study lead to important policy implications for corporate governance practices, financial performance and agency costs in Sri Lanka and other similar emerging markets. Finally, this study suggests that spanning the research in other markets and extending the time period could result in still better understanding of the relationship between corporate governance, firm financial performance, agency costs and new policy implications.

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