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**THE JOINT IMPACT OF CORPORATE GOVERNANCE  
MECHANISMS AND CORPORATE SOCIAL  
RESPONSIBILITY PRACTICES ON THE PERFORMANCE  
OF MALAYSIAN LISTED COMPANIES**



**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
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**THE JOINT IMPACT OF CORPORATE GOVERNANCE MECHANISMS AND  
CORPORATE SOCIAL RESPONSIBILITY PRACTICES ON THE  
PERFORMANCE OF MALAYSIAN LISTED COMPANIES**



**Thesis Submitted to  
School of Economics, Finance and Banking,  
Universiti Utara Malaysia,  
In Fulfillment of the Requirements for the Degree of Doctor of Philosophy  
(Finance & Banking)**



**Pusat Pengajian Ekonomi, Kewangan dan Perbankan**  
(School of Economics, Finance and Banking)

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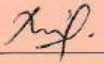
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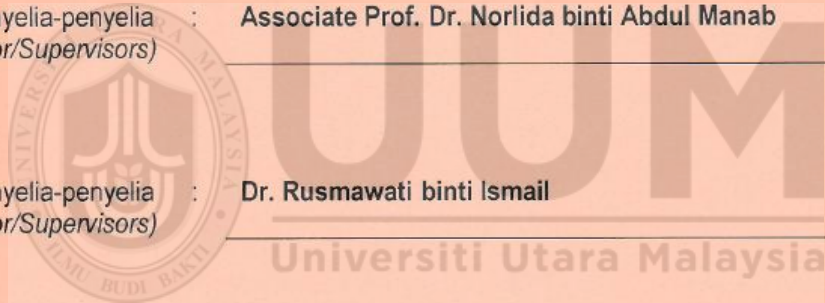
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## ABSTRACT

The financial crises over the past two decades revealed severe shortcomings in corporate governance (CG) mechanisms and corporate social responsibility (CSR) practices globally. Malaysia also suffered the same fate when many organizations experienced weak compliance of CG codes and CSR practices. Given this condition, this study investigated the joint impact of CG mechanisms and CSR practices on the performance of Malaysian listed companies representing 5501 firm-year observations for the period 2006-2017. Furthermore, this study examined the moderating effect of board characteristics on the relationship between CG-CSR and performance relationship. Dynamic panel regressions were utilized assuming that CG-CSR and performance relationships are encountered with dynamic endogeneity and reverse causality; thus, system-GMM provides efficient solutions for such econometric problems. The findings reveal that CG and CSR, mainly, have value destroying impacts on firm performance such that CEO duality, directors' remunerations, RMC independence, board diversity, environment, community, and workplace practices of CSR negatively and significantly affect firm performance consistent with agency theory predictions and agency cost argument. Contrarily, RMC size, RMC meetings, and marketplace practices of CSR positively determine firm performance parallel with resource dependence theory and the risk management perspective of CSR. Moreover, firm size positively, and leverage negatively affect firm performance. Additionally, ownership structure variables, CEO remuneration, board size, board independence, and money spent on CSR do not affect performance. Besides, an insignificant moderating effect of board characteristics is observed on the CG-CSR and performance relationship. Notwithstanding sound theoretical support, practically, the findings imply that despite continuous amendments in the Malaysian Code of Corporate Governance (MCCG), an effective monitoring mechanism is required to assess the compliance of the Code and CSR framework provided by the Securities Commission Malaysia and Bursa Malaysia. Thus, Malaysian listed companies should ensure compliance with the Code and CSR framework to attain better performance.

**Keywords:** board characteristics, corporate governance, corporate social responsibility, firm performance, system-generalized method of moments

## ABSTRAK

Krisis kewangan sejak dua dekad yang lalu mendedahkan kelemahan ketara dalam mekanisme tadbir urus korporat (CG) dan amalan tanggungjawab sosial korporat (CSR) secara global. Malaysia juga mengalami nasib yang sama apabila banyak organisasi mengalami pematuhan kod CG dan amalan CSR yang lemah. Berdasarkan keadaan semasa, kajian ini meneliti kesan bersama mekanisme CG dan amalan CSR terhadap prestasi syarikat tersenarai di Malaysia yang mewakili 5501 cerapan tahun-firma sepanjang tempoh 2006-2017. Selanjutnya, kajian ini menyelidik kesan penyederhanaan cirian lembaga pengarah ke atas hubungan antara CG-CSR dan prestasi firma. Regresi panel dinamik digunakan dengan anggapan bahawa hubungan CG-CSR dan prestasi dihadapi dengan keendogenan dinamik dan kausaliti berbalik; oleh itu, sistem-GMM memberikan penyelesaian yang berkesan untuk masalah ekonometrik tersebut. Dapatan menunjukkan CG dan CSR, terutamanya, mempunyai nilai kesan kerosakkan terhadap prestasi firma seperti kedualan CEO, imbuhan pengarah, kebebasan RMC, kepelbagaian lembaga, persekitaran, komuniti, dan amalan tempat kerja CSR secara negatif dan signifikan mempengaruhi prestasi syarikat, selari dengan ramalan teori agensi dan hujah kos agensi. Sebaliknya, saiz RMC, mesyuarat RMC, dan amalan pasaran CSR menentukan prestasi firma secara positif selari dengan teori pergantungan sumber dan perspektif pengurusan risiko CSR. Tambahan pula, saiz firma secara positif, dan leveraj secara negatif mempengaruhi prestasi firma. Selain itu, pemboleh ubah struktur pemilikan, imbuhan CEO, saiz lembaga pengarah, kebebasan lembaga pengarah, dan wang yang dibelanjakan untuk CSR tidak mempengaruhi prestasi. Kesan penyederhanaan yang tidak signifikan terhadap cirian lembaga pengarah pula diperhatikan pada hubungan CG-CSR dan prestasi. Walaupun terdapat sokongan teori yang kukuh, secara praktiknya penemuan menunjukkan bahawa biarpun terdapat pindaan berterusan dalam Kod Tadbir Urus Korporat Malaysia (MCCG), mekanisme pemantauan yang berkesan diperlukan untuk menilai kepatuhan rangka kerja Kod dan CSR yang disediakan oleh Suruhanjaya Sekuriti Malaysia dan Bursa Malaysia. Oleh itu, syarikat tersenarai Malaysia harus memastikan pematuhan rangka kerja Kod dan CSR untuk mencapai prestasi yang lebih baik.

**Kata kunci:** cirian lembaga pengarah, tadbir urus korporat, tanggungjawab sosial korporat, prestasi firma, sistem-kaedah momen teritlak

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### Publications Derived from the Thesis

1. Karim, S., Manab, N. A. & Ismail, R. B. (2020). The interaction effect of independent boards on corporate governance-corporate social responsibility (CG-CSR) and performance nexus. *Asian Academy of Management Journal*, 25(1), 61-84.
2. Karim, S., Manab, N. A. & Ismail, R. B. (2020). Assessing the governance mechanisms, corporate social responsibility and performance: the moderating effect of board independence. *Global Business Review*, DOI: 10.1177/0972150920917773
3. Karim, S., Manab, N. A. & Ismail, R. B. (2020). The dynamic impact of board composition on CSR practices and their mutual effect on organizational returns. *Journal of Asia Business Studies*, 14(4), 463-479
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## LIST OF ABBREVIATIONS

BM	Bursa Malaysia
BSIZE	Board Size
BIND	Board Independence
BDIV	Board Diversity
CEOD	CEO Duality
CG	Corporate Governance
COMM	Community Practices of CSR
CREM	CEO Remuneration
CSR	Corporate Social Responsibility
DREM	Directors' Remuneration
ENV	Environment Practices of CSR
EPS	Earnings per Share
GMM	Generalized Method of Moments
IOWN	Institutional Ownership
LEV	Leverage
MCCG	Malaysian Code on Corporate Governance
MCSR	Money Spent on CSR
MICG	Malaysian Institute of Corporate Governance
MKT	Marketplace Practices of CSR
MSWG	Minority Shareholders Watchdog Group
OLS	Ordinary Least Squares Method
OWNC	Ownership Concentration
PERF	Performance of Company <i>i</i>
PLCs	Public Listed Companies
RMC	Risk Management Committee
RMCS	Risk Management Committee Size
RMCI <sub>n</sub>	Risk Management Committee Independence
RMCM	Risk Management Committee Meetings
ROA	Return on Assets
ROE	Return on Equity
SCM	Securities Commission Malaysia
SIZE	Firm Size
TQ	Tobin's Q
WRK	Workplace Practices of CSR

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Overview of the Chapter**

The purpose of this chapter is to present introduction of the study where background information and overview of corporate governance mechanisms and corporate social responsibility practices have been provided. For this reason, the chapter is divided into eight sections. Section 1.1 discusses the background and overview of corporate governance mechanisms and corporate social responsibility practices of Malaysian listed companies. Section 1.2 presents a problem statement where practical and theoretical gaps have been highlighted. Next, research questions are stated in Section 1.3 followed by research objectives in Section 1.4. Then, Section 1.5 presents the significance of the study. Further, Scope of the study is described in Section 1.6 followed by the organization of the thesis in Section 1.7. Finally, Section 1.8 explains the definition of key terms.

### **1.1 Background and Overview of Study**

Over the last decades, a significant number of scholars and practitioners have examined a broad range of corporate governance issues. Traditionally, the concept of corporate governance has been closely related to the resolution of conflicts of interest among shareholders and managers and the maximization of the economic value of a firm. However, recent corporate scandals and failures have directed the attention of corporate

governance toward sustainability, fairness, transparency and accountability in businesses; bringing a new aim of aligning corporate objectives with the interests of stakeholders.

In spite of the shift of the concept of corporate governance toward sustainability, and the inclusion of environmental and social concerns in corporate management, most of the research has examined corporate governance and corporate social responsibility (CSR) independently. As this subject has been scarcely investigated jointly, it is suggested that research should seek to shed light on the cumulative impact of corporate governance and corporate social responsibility on firm performance, particularly in an emerging market such as Malaysia, where there is a concern for moving beyond the isolated idea of corporate governance toward a broader concept that embraces the triple bottom line as a way of doing business (Jamali, Safieddine, & Rabbath, 2008). This study sets its aim in this underdeveloped area of investigation.

Corporate governance plays a critical role in setting up the formal organizational structures and processes through which members interested in the overall well-being of the firm take measures to protect the interests of the stakeholders (Ali, Qiang, & Ashraf, 2018; Bhatt & Bhatt, 2017). Corporate governance has emerged as a critical business and economic issue at the global level followed by a number of high profile corporate failures. At the same time, as early as 2005, the international economic press acknowledged the growth of Corporate Social Responsibility (CSR) initiatives of the world organizations. The Economist mentioned:

Today all companies, but especially the big ones, are enjoined from every side to worry less about profits and to be socially responsible instead. Surprisingly, these

demands have elicited a willing, not to say avid, response in enlightened boardrooms everywhere: companies at every opportunity now pay elaborate obeisance to the principle of CSR. They have CSR officers, CSR consultants, CSR departments, and CSR initiatives coming out of their ears (The Economist, 22 January 2005, p. 11).

The above quote reflects the current wisdom regarding the insufficient commitment of organizations about making profits for their shareholders by engaging themselves in “insidious munificence” and being altruistic at the cost of shareholder’s money (ElGammal, Yassine, Fakh, & El-Kassar, 2018). Against this backdrop, there has been a conscious attempt during the early 21st century to reform the corporate governance policies to rationalize the growing CSR activities across international, regional and national fronts (Ahmed, 2015). The notion of CSR grew up from being merely philanthropic to an appendix of the core business strategy. At the international level, CSR was included in company level initiatives, as well as in the multi-stakeholder initiatives at national and international levels such as the UN global compact. The concept of practicing CSR was adopted in the UK, which was one of the traditional Anglo-American model of corporate responsibility and governance by reorienting its system of corporate law around the objective of ‘enlightened shareholder value’. This reform formally makes the law of directors’ duties and corporate reporting apparently more stakeholders inclusive (Bhaduri & Selarka, 2016; Arora & Bodhanwala, 2018).

Recent literature on corporate governance has redefined the corporate governance as a system of mechanisms – market oriented and institutional – that benefits all the

constituents of society (Sahut, Peris-Ortiz, & Teulon, 2019). This definition still builds on the conventional shareholder value maximization while considering the benefits accruing to all the stakeholders. While many regulatory efforts have been initiated to identify and codify good governance practices to rebuild public and market trust, there are a parallel number of efforts to broaden the social and environmental boundaries of corporate governance (Mitra & Gaur, 2019). The UN Global Compact's 2004 report, "Who Cares Wins," which looks at the social, environmental and governance<sup>1</sup> issues that can have a material impact on corporate financial performance, is one of many recent reports investigating the links between social, environmental and governance practices (Atan, Alam, Said, & Zamri, 2018).

In this stream, the way that environmental, social and corporate governance issues are managed in a more globalized, interconnected and competitive world is part of companies' overall management processes needed to compete successfully (Sadou, Alom, & Laluddin, 2017). Companies that perform better with regard to these issues can increase shareholder value by, for example, properly managing risks, anticipating regulatory action or accessing new markets while at the same time contributing to the sustainable development of the societies in which they operate. Moreover, these issues can have a strong impact on corporate reputation, an increasingly important part of the company value (E-Vahdati, Zulkifli, & Zakaria, 2019).

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<sup>1</sup> Environmental, social, and governance factors, collectively known as ESG factors, is a term used in the capital markets to refer to a company's non-financial performance. Details on ESG investing in Malaysia are provided in Appendix A.

Therefore, regardless of the type of organizational structure, effective corporate governance should ensure an efficient utilization of all available resources including the resources being utilized for CSR. An ideal system of corporate governance should avoid any sub-optimal value maximization exercise stemming from “destructive goodwill” that might arise due to poor corporate governance characteristics. Specifically, while an increase in CSR expenditure may be consistent with firm value maximization if it is a response to changes in stakeholders’ preferences (Bhaduri & Selarka, 2016).

In the last few years, with the accelerating pace of globalization, investors have started to look toward emerging markets to improve the yield from their investments (Esa & Ghazali, 2012). In a similar vein, the businesses in emerging nations are keen to attract foreign investors to increase and diversify their investor base. This would seem to be a perfect fit. However, potential investors’ anxiety about corporate governance in these markets is a major hurdle (Ferrero-Ferrero, Fernandez-Izquierdo, & Munoz-Torres, 2012). By the early 20th century, the number of corporations and their shareholders had grown dramatically. Stockholders had become more numerous and geographically diverse. Consequently, their relationship with management had started to become remote (Ahmed, 2015). This, in turn, led researchers, legislators, and regulators search for measures to improve corporate governance. Such mechanisms included setting standards for effective corporate governance, separation of Chairman and Chief Executive’s roles, selection of independent directors, role of Lead Director, and holding of minimum number of “Executive Sessions.” Recently, researchers have tended to advocate “Bundle Approach” under which a set of these measures should improve the corporate governance

far more than any single measure on its own. Furthermore, they have explored whether and how these components of “bundle” complement or substitute for one another (Bhaduri & Selarka, 2016).

Keeping this stance, corporate governance and corporate social responsibility are not separated rather they complement each other (Jamali, Safieddine, & Rabbath, 2008). Since 1990’s, many companies have engaged in corporate social responsibility, internalizing externalities, and social issues. This conduct appears to clash with the meaning of corporate governance as “the courses in which the suppliers of money guarantee themselves of getting profit for their investment” (Shleifer & Vishny, 1997). Thus, corporate governance covers all the aspects of corporate social responsibility by defining the way business conducts itself in an ethical way including consciousness of all the stakeholders. Therefore, corporate governance and corporate social responsibility cumulatively shape firm performance, where weak governance disturbs the balance of social responsibility that ultimately reduces firm performance (Jo & Harjoto, 2011; Bear, Rahman, & Post, 2010).

Furthermore, company board is considered as a significant mechanism that contributes directly towards firm performance. But, this study uses board characteristics as explanatory as well as moderating variable contending that effective board characteristics tend to influence the relationships of ownership structure, corporate governance, corporate social responsibility practices and firm performance. As argued by Baron and Kenny (1986) that a moderating variable can be introduced where the relationship between a predictor variable and a criterion variable is either unexpectedly weak or

inconsistent. Thus, in line with this criterion, board characteristics have been introduced as moderating variables with the possibility of strengthening the relationship between ownership structure, corporate governance mechanisms, corporate social responsibility practices and firm performance.

Evidence suggests that the concern of the board of directors is to ensure effective corporate governance structures and social responsibility practices in the firm (Friede, Busch, & Bassen, 2015). It is, therefore, likely that parallel to several studies (Williams, Fadil, & Armstrong, 2005; Capezio, Shields, & O'Donnell, 2011; Wu & Wu, 2014; Şahin, Artan, & Tuysuz, 2015; Duru, Iyengar, & Zampelli, 2016; Zheng & Tsai, 2019), board characteristics may lead to alignment of interest between board members and shareholders. Hence, this alignment of interest may improve the board's monitoring ability with a view to improving firm performance (Ren, Chandrasekar, & Li, 2012). Thus, the success of corporate governance mechanisms and corporate social responsibility practices is expected to be supported by board characteristics. In this way, it is against this background that this study will attempt to examine the moderating effects of board characteristics on the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance.

In sum, corporate governance and corporate social responsibility are vital to performance of corporations. A significant number of financial incidents during last two decades created a state of perplexity and bewilderment for shareholders, stakeholders and general public. Therefore, companies must ensure compliance of corporate governance code and corporate social responsibility practices provided by their regulatory bodies to attain trust

of shareholders and stakeholders. Moreover, the study also anticipates board characteristics to influence the relationship between governance mechanisms, corporate social responsibility practices and firm performance.

## **1.2 Problem Statement**

The uncertainties surrounding firms have attracted the attention of business leaders to search for corporate governance structures and corporate social responsibility practices that can improve firm performance. The following subsections present the practical and theoretical gaps that motivate the study.

### **1.2.1 Practical Gaps**

Firstly, there are several factors that contributed directly towards the economic breakdown of renowned firms during past two decades. Primarily, the financial crises were caused by deregulation in the financial industry where it allowed speculation on derivatives backed by cheap, wantonly-issued mortgages available to all, even with questionable creditworthiness that led to the problems of securitization, moral hazard, and investors' pessimism. Underlying issues were significantly related to poor corporate governance mechanisms, weak internal control procedures and unethical moral standards. The crises stroke the developed economies at large and Malaysia, being a developing economy, suffered the same fate when many organizations crumpled from lack of appropriate corporate governance and corporate social responsibility practices.

Statistics provided from Securities Commission Malaysia revealed that Securities Commission (SC) took action against 20 criminal cases in 2018 (Securities Commission, 2018) whereas the number of prosecutions increased to 29 in 2019 (Securities Commission, 2019) where 14 cases were related to corporate governance mechanisms, 6 cases were related to corporate social responsibility practices and remaining 9 were miscellaneous cases relating to the problems of furnishing false information to SC. Mainly, these cases involved the submission of misleading information about corporate governance structure, presenting forged statements about corporate social responsibility practices, knowingly submitting the false information to the stock exchange (Securities Commission, 2019).

Correspondingly, chief issues in the cases submitted to SC Malaysia were related to presenting unaudited financial statements, misleading information of company about its financials, director of company doing business illegally, executive of company using organizational resources for paying his own debts, reporting false and misleading information about company's social responsibility practices (Securities Commission, 2019). These facts reveal weak internal control mechanisms, weak compliance of code of corporate governance and poor implementation of corporate social responsibility practices of public listed companies (PLCs) of Malaysia (Alazzani, Wan-Hussin, & Jones, 2019).

Secondly, the continuous exigency on the need to strengthen corporate governance structures and corporate social responsibility practices among listed companies in Malaysia was further triggered by a survey of PricewaterhouseCoopers (PwC), in the

Global Economic Crime Survey Malaysian Report 2018, that fraud cases increased to 41 percent in 2018 compared to a similar survey conducted in 2016 when the figure was 18 percent. Furthermore, the report indicated that bribery and corruption have been increased from 30 percent in 2016 to 35 percent in 2018 (PricewaterhouseCoopers, 2018; Abidin, Hashim, Saleh, & Devi, 2019) intimating weak governance structures and weak internal control mechanisms in Malaysian listed companies.

Furthermore, these presumptions are insinuating as Malaysia is continuously being haunted by huge financial collapses, from the famous Perwaja Steel Berhad, Renong, Technology Resources Industry and Malaysian Airlines (Mohammed, Ahmed, & Ji, 2017) almost thirty years back, to the latest Lembaga Tabung Haji, only adding to the already many similar cases (Abidin, Hashim, Saleh, & Devi, 2019). In the case of Lembaga Tabung Haji, in 2016, the institution for pilgrimage fund found accused of mismanaging funds of amounting to RM4 billion for political purposes (The Straits Times, 2018). However, these problems reveal that lack of compliance with both internal and external regulatory provisions have become a greater threat to the listed companies of Malaysia.

Thirdly, problems relating to corporate social responsibility practices suggest lack of proper information about the corporate social responsibility framework in the non-financial segment of the annual reports where Public Listed Companies (PLCs) are required to disclose the information as advocated by Bursa Malaysia. For instance, annual report of Lingkar Trans Kota Holdings Berhad, 2013 indicates no disclosure of CSR framework whereas in 2017, the same company issued its first statement on corporate

social responsibility along with its dimensions. Similarly, Eversendai Corporation Berhad, in its annual report of 2014, did not disclose CSR framework neither corporate social responsibility statement. But, in 2017, a statement on corporate social responsibility practices has been provided with three dimensions disclosed such as environment, community and marketplace.

Malaysia represents an interesting case to study in inquiring the developments taking place in the emerging economies and their effects on the progress of CSR disclosures in a number of ways. First, due to the country's growing economy and openness to foreign investments, the Malaysian regulatory authorities continuously revised the codes on corporate governance to enhance the governance and accountability practices of Malaysian listed companies. Second, the period under investigation represents a period before and a decade after the global financial turmoil, from which Malaysia was not spared. Third, Bursa Malaysia has mandated listed companies to disclose CSR information in the annual reports for companies with the financial year ending on December 31, 2007. Finally, as part of the Malaysian Government's awareness creation toward CSR programs, a number of CSR awards such as the Malaysian Prime Minister's CSR Award were introduced during this period. For instance, the Malaysian Prime Minister's CSR Award was launched in 2007 to encourage community development initiatives.

Hence, with respect to corporate social responsibility practices, an important critical element of disclosure practices becomes questionable to the public, stakeholders, and organizational beneficiaries where it is argued that a company only discloses that

particular dimension of CSR in its annual report which it practices. Besides, a company does not disclose if it does not practice a particular dimension of the CSR framework provided by Bursa Malaysia. Moreover, similar to examples quoted above, there is majority of listed companies that neither practice corporate social responsibility nor disclose in their annual reports rather they state that “there are no CSR practices adopted by the firm for a particular financial year.” Therefore, following these facts and problems pertaining to corporate social responsibility, the study intends to investigate in the problem.

Fourthly, the role of the board of directors is critical to the firm’s financial and non-financial performance. Despite, each code on corporate governance stressed mainly on the role of the board of directors, the compliance with the code is still ineffective. However, lack of monitoring capabilities by the directors of listed companies in providing a valuable oversight of the management activities and to steer the organizations in a right direction for a better achievement has also brought the issue to the limelight (Hendry & Kiel, 2004).

In the light of the above study, many enhancements are needed in corporate governance structures where the board of directors may better monitor the firm. Moreover, weak corporate governance practices, poor internal control mechanisms, elevated agency issues, financial misconduct, use of corporate resources for personal gains by managers and inappropriate disclosure practices by the organizations revealed that despite continuous amendments in the codes of corporate governance by the regulatory

authorities, compliance with the Codes on Corporate Governance and corporate social responsibility practices of Malaysian listed companies is not as effective as it is expected.

Finally, summing up practical problems of the study, the conflicted nature of compliance with the codes on corporate governance, poor disclosure of corporate social responsibility practices and critical role of the board of directors towards company performance has triggered the researcher to explore these relationships in Malaysian listed companies.

### **1.2.2 Theoretical Gaps**

From the theoretical perspectives, firstly, the relationship between corporate governance and corporate social responsibility in relation to firm financial performance has been examined in several developed and developing countries such as U.S (Sahut, Periz-Ortiz, & Teulon, 2019; Barnea & Rubin, 2010; Bear, Rahman & Post, 2010; Lo & Sheu, 2007); U.K (Arayssi, Dah, & Jizi, 2016; Jones & Thompson, 2012; Walls, Berrone & Phan, 2012; Jo & Harjoto, 2011; Harjoto & Jo, 2011); Spain (Fernández-Gago, Cabeza-Garcia, & Nieto, 2014); Lebanon (ElGammal, Yassine, Fakih, & El-Kassar, 2018; Jamali, Safieddine, & Rabbath, 2008); China (Zhuang, Chang & Lee, 2018); GCC countries (Garas & ElMassah, 2018; Issa & Fang, 2019); Vietnam (Kabir & Thai, 2017); India (Muttakin & Subramaniam, 2015; Arora & Bodhanwala, 2018); Bangladesh (Rashid, 2018; Khan, Muttakin, & Siddiqui, 2013); Pakistan (Ahsfaq & Rui, 2018) etc.

Secondly, findings of these studies are generalizable such that similar practices prevail in companies, whether belonging to developed or developing nations. The current study tests whether the theories (for instance agency theory, agency cost argument and resource

dependence theory) that originated from the West are also applicable to companies in the emerging economies with different institutional structures and cultural backgrounds or not. If they are applicable, then it is perceived that this could be due to the globalized nature of corporate operations and policy changes followed by the financial crises. In the same stream, the results of the present study are expected to offer some useful insights into the implications of the changes in policies from the perspective of the developing countries. Particularly in Malaysia, this relationship has been investigated using the data of 27 GLCs (Esa & Ghazali, 2012); 133 listed firms on Bursa Malaysia (Alazzani, Wan-Hussin, & Jones, 2019); 60 companies of Malaysia listed on Bursa Malaysia (Ali & Atan, 2013); 100 firms listed on Bursa Malaysia over three different socio-economic periods such as 1996, 2001 and 2006 (Ho & Taylor, 2013). Besides, the findings of these studies are inconclusive and inconsistent that led the researcher to re-investigate the impact of corporate governance mechanisms and corporate social responsibility practices on firm performance in an emerging market such as Malaysia.

Thirdly, the reason behind choosing Malaysia in the study is Malaysia is considered as a developing economy (Sadou, Alom, & Laluddin, 2017), despite undergoing rapid economic development over the past five decades. Malaysia's gross domestic product (GDP), per capita income, level of industrialization and overall standard of living are not on par with other developed nations. With a gross domestic product (GDP) per capita of \$11,198 (RM46,919) and a human development index (HDI) of 0.78 currently, Malaysia is classified as an emerging economy by the World Bank (Kenton, 2019). The International Monetary Fund (IMF) also classifies Malaysia as an emerging economy

where it shares common characteristics with other developing economies such as Brazil, Indonesia and China, including low-to-middle per capita earnings, rapid economic growth, high volatility, less mature capital markets and above-average return of investors (Cheng, 2020).

Malaysia is a unique country with diverse racial, ethnic and religious beliefs, coupled with a booming economy growth. Its economic resilience, both from the 1997 South East Asian economic crisis and the 2008 global financial turmoil, has lured international investors over the years. The multi racial groups and the rising trend of foreign direct investment made the Malaysian business environment an international stage of its own, where corporate governance and CSR issues had gained increased attention (Amran & Devi, 2008; Ahmed, 2015). Albeit the forces behind this increasing trend are not conclusive. The increase could be attributed to numerous factors, including policy changes in the form of corporate governance restructuring, increased awareness toward CSR practices and changes in the business environment (Ahmed, 2013).

Finally, due to inconsistencies in the literature, the argument given by Baron and Kenny (1986) has been followed that incorporation of moderating variable may strengthen the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance. There is a negligible number of studies that provide empirical support for board characteristics; namely, board size, board independence and board diversity collectively as moderating variables. Yet, there are studies that aim to explore the moderating effect of board size, board independence and board diversity independently (Zheng & Tsai, 2019; ElBadawy, Chinta, & Magdy, 2018; Duru, Iyengar,

& Zampelli, 2016; Capezio, Shields, & O'Donnell, 2011; Williams, Fadil, & Armstrong, 2005).

The rationale behind using the board characteristics as moderating variables is that the board is considered as a critical resource for organizations and role of the board of directors is vital to organizational performance (Barney, 1991). Agency theory (Jensen & Meckling, 1976) provides a framework for effective corporate governance in the form of role of the board of directors as it strengthens the internal control of a company and develops an intensive monitoring mechanism for a company to reduce the opportunistic behaviors of managers and information asymmetry. In this way, the board of directors is central to ensuring that the managers act as in the best interests of shareholders and not pursue their personal objectives (Fama & Jensen, 1983).

Because of the uncertain nature of governance mechanisms and corporate social responsibility practices, board's monitoring role is a major factor that prevents managers from free-riding behavior (Sheikh & Kaim, 2015) and protect the interests of shareholders. Moreover, the board of directors tends to resolve agency conflicts between management and shareholders and hence, acts as a liaison between external and internal business environment as the board is continuously linked to external and internal stakeholders. Given this condition, it is expected that board characteristics influence the relationship between corporate governance mechanisms, corporate social responsibility practices and performance of Malaysian listed firms.

Correspondingly, there is scantiness in the literature for the variables selected in the current study. For instance, external governance mechanisms include ownership concentration, managerial ownership, institutional ownership; internal governance mechanisms include CEO duality, CEO remuneration, directors' remuneration, risk management committee attributes, board size, board independence, and board diversity, whereas corporate social responsibility practices include marketplace, environment, community, workplace and money spent on CSR. Furthermore, board characteristics: board size, board independence and board diversity are also used as the moderating variables in the research. The literature concerning governance mechanisms, corporate social responsibility practices and board characteristics is still in infancy and need further research to learn from the experiences of organizations and countries of different environmental settings. In addition, the selected variables were identified based on the practical problems.

Reiterating, the environmental setting of a country may involve economic, social, political, and cultural conditions that directly or indirectly affect the lifestyles, growth patterns and development of business firms. Though Malaysia is blessed with abundant resources either natural or human, the expected level of educational, political and regulatory framework for effective business operations may be lacking. Therefore, the focus of the study is to examine the governance mechanisms and CSR practices on the performance of Malaysian listed companies. Additionally, board characteristics as moderating variables are expected to influence the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance.

Thus, this study attempts to investigate the joint impact of corporate governance mechanisms and corporate social responsibility practices on the performance of Malaysian listed companies. In addition, board characteristics are used as moderating variables in the study on the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance. In view of above highlighted problems, the study formulates the following research questions:

### **1.3 Research Questions**

To put the study in appropriate perspective, the researcher has raised the following research questions:

1. Do corporate governance mechanisms and corporate social responsibility practices jointly affect the performance of Malaysian listed companies?
2. Do board characteristics moderate the relationship between corporate governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies?

### **1.4 Research Objectives**

Following the research questions, the primary objective of this study is to examine the joint impact of corporate governance mechanisms and corporate social responsibility practices on firm performance. Moreover, the study also investigates the moderating effects of board characteristics on the relationship between corporate governance

mechanisms, corporate social responsibility practices and performance of Malaysian listed firms. Therefore, the study is aimed at achieving the following research objectives:

1. To examine the joint effects of corporate governance mechanisms and corporate social responsibility practices on the performance of Malaysian listed companies.
2. To investigate the moderating effects of board characteristics on the relationship between corporate governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies.

### **1.5 Significance of the Study**

This study provides more understanding of the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance in Malaysian listed companies. The study presents empirical evidence on the effects of external corporate governance mechanisms (ownership concentration, director ownership, institutional ownership); internal corporate governance mechanisms (CEO duality, CEO remuneration, directors' remuneration, risk management committee attributes, board size, board independence and board diversity); and corporate social responsibility practices (marketplace, workplace, community, environment and money spent on CSR) on firm performance. Likewise, the study empirically investigated the moderating effects of board characteristics; namely, board size, board independence and board diversity on the relationship between CG mechanisms, CSR practices and performance of Malaysian listed companies. Below, the significance of the study is presented in terms of theoretical and practical contribution.

### **1.5.1 Practical Contribution**

Practically, this study is of immense significance to the listed companies of Malaysia and specifically for policy makers of Malaysia. This study provides a mechanism for further understanding of the integrated effects of corporate governance mechanisms, corporate social responsibility practices and firm performance. Predominantly, the study provides a valuable framework that further enhances the effectiveness of corporate governance mechanisms, corporate social responsibility practices and board characteristics in the Malaysian firms.

Given the plethora of problems that have surrounded the Malaysian listed companies, the study has explored the challenges affecting corporate governance structure and corporate social responsibility practices. Hence, the results of this study are of high importance for regulatory bodies; such as, Securities Commission Malaysia (SCM), Bursa Malaysia (BM), Minority Shareholders Watchdog Group (MSWG) and Malaysian Institute of Corporate Governance (MICG) on the best way to improve corporate governance mechanisms and corporate social responsibility practices in Malaysia. Furthermore, these regulatory authorities can rely on the findings and then promote and review certain aspects of corporate governance structure and corporate social responsibility dimensions to enhance transparency and accountability of Malaysian listed companies.

As for the corporate world, this study hopes to provide some crucial considerations for the boards and the top management to start adopting effective corporate governance strategies and corporate social responsibility practices to strive for better organizational

performance. From the organizations' internal dimensions, they can also perceive the importance of governance attributes as their cautious measures to improve the internal controls and hence avoid any corporate scandals. Finally, the study serves as an important stream to cater the agency issues between management and shareholders and provide substantial implications for CSR concerns of Malaysian PLCs and signify the moderating effects of board characteristics on the CG-CSR-performance nexus.

### **1.5.2 Theoretical Contribution**

Particularly, this study provides theoretical contributions to the literature stream of corporate governance mechanisms and corporate social responsibility practices. Agency theory is the primary theory that provides the theoretical underpinning for the relationships between corporate governance mechanisms, corporate social responsibility practices and firm performance, suggesting that effective corporate governance and corporate social responsibility practices will lead firms towards enhanced performance due to reduced conflict of interest between shareholders and management. Furthermore, this study extends its theoretical discussion by incorporating overinvestment hypothesis of Barnea and Rubin (2010) and risk management perspective (Godfrey, 2005) for explaining the relationships between corporate social responsibility practices and firm performance. For explaining the moderating effect of board characteristics, it is assumed that the board of directors is a mechanism to resolve the agency conflicts between shareholders and management.

Although various studies examined the effects of corporate governance mechanisms and corporate social responsibility practices on firm performance (Barnea & Rubin, 2010; Jo & Harjoto, 2011; Byron & Post, 2016; Wellalage, Locke, & Acharya, 2017) but their results are unequivocal. Furthermore, evidence lacks in empirically testing the hypothesized relationships. Hence, this study has contributed to the literature by using an integrated approach to empirically examine the effects of governance mechanisms and CSR practices on firm performance. Furthermore, very few studies investigated the impact of risk management committee attributes along with other governance variables and corporate social responsibility dimensions cumulatively. Yet again, this study contributes to the literature by introducing unique governance variables and CSR dimensions. Moreover, the study adds to the current literature by empirically establishing the moderating effect of board characteristics on governance mechanisms, CSR practices and performance relationship. Hence, the study has been able to mitigate the inconclusive findings regarding corporate governance, corporate social responsibility and firm performance in Malaysian listed companies.

## **1.6 Scope of the Study**

This study attempts to investigate the joint impact of corporate governance mechanisms and corporate social responsibility practices on the performance of Malaysian listed companies. Moreover, board characteristics are used as the moderating variables on the relationship between corporate governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies.

Based on the data of stock price, market capitalization and availability of annual reports of listed companies, the population of the study is non-financial Malaysian Public Listed Companies (PLCs) due to the accessibility of related information. However, companies categorized under financial sector are excluded from the sample for the reasons that they are highly governed by certain rules and procedures imposed by regulatory bodies such as Bank Negara Malaysia. These companies are also excluded because they are highly levered which make them incomparable with non-financial firms. Public-listed companies are chosen for this study because PLCs must publish their annual reports that are publicly available and can be accessed through the Bursa Malaysia's website. The annual reports are presented in accordance to the requirement of the BM's regulations and Malaysian Companies Act 1965. The data in the annual reports are credible. The Thomson Datastream is also used to complement the annual report data such as the data on the companies' financial value (assets, revenues, profit, etc.) as well as market share price.

Furthermore, the study consists of 483 listed (active) firms on the Main Market of Bursa Malaysia whereas data of 105 inactive (delisted/dead) companies have also been incorporated to avoid survivorship bias. In addition, out of 15 business sectors listed on Bursa Malaysia, only eight business sectors have been included due to accessibility of information, financial nature of companies and unavailability of data. The eight business sectors included in the study are construction companies, consumer products firms, industrial products firms, infrastructure firms, plantation firms, property firms, technology firms, and trading services organizations for the period 2006-2017.

Correspondingly, the data of 105 delisted/inactive firms also belong to eight business sectors mentioned above. Hence, overall the data of 588 non-financial firms have been included in the study with 5501 firm-year observations. In addition, the reason for covering the twelve-year period of study (2006-2017) is because 2017 is the latest year for which financial information and annual reports are available; whereas 2006 has been taken as starting year because more than 10 years panel data is considered sufficient for pooled estimation.

As far as variables of the study are concerned, several studies opted different mix of variables using corporate governance and corporate social responsibility practices. This study is novel in combining the external governance mechanisms (ownership concentration, managerial ownership, institutional ownership); internal governance mechanisms (CEO duality, CEO remuneration, directors' remuneration and risk management committee attributes, board size, board independence and board diversity); and corporate social responsibility practices (marketplace, environment, community, workplace and money spent on CSR). Furthermore, board characteristics: board size, board independence and board diversity are used as explanatory as well as moderating variable in the research. The literature concerning governance mechanisms, corporate social responsibility practices and board characteristics is still in infancy and need further research to learn from the experiences of organizations and countries of different environmental settings. Therefore, the focus of the study is to examine the governance mechanisms and CSR practices on the performance of Malaysian listed companies. Additionally, board characteristics as moderating variable are expected to impact the

relationship between corporate governance mechanisms, corporate social responsibility practices and performance of Malaysia listed companies.

## **1.7 Organization of the Study**

This dissertation is divided into 6 Chapters. Chapter 1 presents the introduction comprising the background and overview of the study, the problem statement, the research questions and respective research objectives, significance of the study, the scope of the study, definition of key terms and finally the organization of the study.

Chapter 2 presents the development of corporate governance codes and corporate social responsibility framework in Malaysia along with the regulatory authorities framing the corporate governance codes in Malaysia.

Chapter 3 discusses about the underpinning theory related to corporate governance mechanisms, corporate social responsibility practices and board characteristics. Furthermore, prior literature on empirical findings of respective variables has been discussed.

Chapter 4 provides research framework and methodology where corporate governance mechanisms, corporate social responsibility practices and board characteristics have been hypothesized in relation to firm performance. Furthermore, the chapter discusses the research methodology employed in the study.

Chapter 5 describes the analysis and findings of the study where empirical results have been reported based on research framework. Moreover, the results have been discussed based on empirical analysis to fetch the support for hypotheses of the study.

Finally, Chapter 6 presents the summary of the results of the study where both theoretical and practical implications have been given. Moreover, the study concludes by elaborating the limitations of the study along with recommendation and suggestions for future research.

## **1.8 Definition of Key Terms**

Operationalization is a process to give meaning to a concept by stipulating the activities or processes necessary to measure it. However, this process is used to define the items that are expected to represent the variable in a study (Bhatti & Sundram, 2015). Therefore, this section operationalized the key variables selected from the extant literature.

### **Corporate Governance Mechanisms**

Corporate governance mechanisms refer to the criteria, characteristics and attributes adopted and implemented by the companies on their processes and procedures to reflect the strength of the internal control mechanisms and the balance of power. It facilitates the management to portray transparency and accept accountability for the best interests of all stakeholders (Shleifer & Vishny, 1997; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000).

## **Corporate Social Responsibility Practices**

Corporate social responsibility is referred to “the commitment by corporations and businesses towards achieving sustainability in the social, economic, and environmental conditions to pursue the profitability” (Companies Commission of Malaysia, 2013; Aguinis, 2011). For this study, corporate social responsibility practices include marketplace, environment, community, workplace and money spent on CSR.

## **Board Characteristics**

It refers to the blend of competent and diverse skills coupled with the right tone of practicing professional conduct in creating an effective board (MCCG, 2017; Barnea & Rubin, 2010; Coles, Daniel, & Naveen, 2008).

## **Firm Performance**

There are two performance measurement mechanisms through which it can be assessed that how well a company is performing. These are accounting-based performance measures and market-based performance measures. This study uses three accounting based performance measures, namely return on assets (ROA), return on equity (ROE), and earnings per share (EPS); whereas one market based performance measure such as market-to-book value (Tobin’s Q) is used (Ahmed & Mubaraq, 2015; Hamid, 2008).

### **Ownership Concentration**

Ownership concentration is defined as block holder ownership where ownership of the firm is limited to three to five owners (Jensen & Meckling, 1976; Ghazali, 2010; Sheikh & Karim, 2015; AlQadasi & Abidin, 2018).

### **Director Ownership**

Director ownership refers to the ownership of directors, their spouses and children in the firm (Muttakin & Subramaniam, 2015; Mishra & Kapil, 2017).

### **Institutional Ownership**

Institutional ownership is the ownership of institutional investors within the firm (Arouri, Hossain, & Muttakin, 2014; Sheikh & Karim, 2015).

### **CEO Duality**

CEO duality is the phenomenon where a same person acts as the chief executive officer and chairman of the company (Dalton & Dalton, 2005; Al-Manaseer, Al-Hindawi, Al-Dahiyat, & Sartawi, 2012; Duru, Iyengar, & Zampelli, 2016).

### **CEO Remuneration**

The term is referred to as salaries, bonuses and other emoluments paid to the chief executive officer as remuneration (Jensen & Murphy, 1990; Basuroy, Gleason, & Kannan, 2014; Sheikh & Kareem, 2015; Elsayed & Elbardan, 2018).

### **Directors' Remuneration**

Directors' remuneration is the amount paid to the directors as their salaries, bonuses and other emoluments (Shiah-Hou & Cheng, 2012; Lee & Isa, 2015; Elsayed & Elbardan, 2018).

### **Risk Management Committee**

RMC can be defined as a board committee developed to perform risk monitoring and risk control function within the firm (Ng, Chong, & Ismail, 2012; Nahar, Jubb, & Azim, 2016; Elamer & Benyazid, 2018).

### **Marketplace**

A corporate social responsibility dimension where marketplace practices refer to those activities companies perform to support local business and suppliers, customer retention and satisfaction, product quality and safety, pricing strategies and advertising policies and consumer education (Feng, Wang, & Kreuze, 2017).

### **Environment**

Environment related practices include initiatives for using renewable energy, reducing air and water pollution, reducing the use of hazardous chemicals, monitoring energy resources, greenhouse emissions and maintaining biodiversity (Raiborn, Payne, & Joyner, 2013).

## **Community**

Community practices of CSR include improving local infrastructure, community engagement and community health care and education (Feng, Wang, & Kreuze, 2017).

## **Workplace**

Workplace practices are referred to as activities performed for the betterment and support of employees of the firm (Harter, Schmidt, & Hayes, 2002; Feng, Wang, & Saini, 2015).

## **Money Spent on CSR**

Money spent on CSR indicates donations, sponsorships, scholarships and money spent on welfare programs in Malaysian listed companies (Ehsan & Kaleem, 2012).



## CHAPTER TWO

### DEVELOPMENT OF CORPORATE GOVERNANCE CODES AND CORPORATE SOCIAL RESPONSIBILITY FRAMEWORK IN MALAYSIA

#### 2.0 Overview of the Chapter

This chapter discusses the development of corporate governance codes and corporate social responsibility (CSR) framework in Malaysia. The chapter is divided into four sections. Section 2.1 presents developments of corporate governance codes in Malaysia and their significance for Public Listed Companies. Section 2.2 elaborates regulatory bodies that frame corporate governance codes in Malaysia. Section 2.3 discusses CSR framework in Malaysia given by Bursa Malaysia. Finally, chapter summary is given in Section 2.4.

#### 2.1 Development of Corporate Governance Codes in Malaysia

Since financial crises of 1997 and 2008 have spurred the need of improved corporate governance structures and enhanced disclosure mechanisms by the companies, these financial collapses primarily act as a wake-up call for regulatory authorities of different economies (Sekome & Lemma, 2014). Several government organizations developed rules and regulations for firms to help them with operational activities. For instance, USA developed Sarbanes-Oxley Act in 2002, Organization of Economic Cooperation Development (OECD) presented revised version of corporate governance structures in 2004, and Preda Codes were given in 2002 in Italy. Subsequently, Malaysia started its

development in Code of Corporate Governance in 1998 in line with the Cadbury Report<sup>2</sup>, UK (Ghazali, 2010).

One of the countries that was most distressed by the Asian financial crisis was Malaysia. The crisis experienced the stock market and currency values dropped by more than 40 percent (Jamil, 2017). As a result, the High Level Finance Committee was established in March 1998 to develop a framework for improved corporate governance. This resulted in introduction of MCCG in Malaysia where first report on corporate governance codes was presented by the committee (Ahmed & Mubaraq, 2015). The first MCCG (2000) emphasized listed companies to have audit committees:

1. Comprising no fewer than three members;
2. Majority members to be independent;
3. The Chairman of the Audit Committee to be an independent director; and
4. At least one member of the audit committee to be:
  - a. A member of the Malaysian Institute of Accountants; or
  - b. Have three years working experience as an accountant, passed the examinations prescribed by the Accountants Act 1967 and be a member of one of the accounting associations specified by the Act.

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<sup>2</sup> The Cadbury Report is a report issued by The Committee on the Financial Aspects of the Corporate Governance chaired by Adrian Cadbury that sets out recommendations on the arrangement of company boards and accounting systems to mitigate corporate governance risks and failures. The report was published in draft version in May, 1992. Its revised and final version was issued in December, 1992. The report's recommendations have been used to varying degrees to establish other codes such as those of the OECD, the European Union etc.

However, from the financial year ending 30 June 2001, it was required by the listed companies to state in their annual reports the degree to which they had complied with the MCGG (Esa & Ghazali, 2012). Furthermore, it was made mandatory for public listed companies to comply with the regulations for enhancing corporate governance structure in the country (Jamil, 2017).

The conspicuous effort to improve and strengthen the corporate governance framework can be observed with the 2007 revision of the MCGG and amendments to the Companies Act 1965. The code was particularly revised to strengthen boards of directors and audit committee to ensure that both perform their roles effectively (Mohammed, Ahmed, & Ji, 2017). At the same time, several statutory requirements have been issued by the regulatory bodies to ensure higher audit and reporting quality within the Malaysian corporate governance environment (Wahab, Ariff, Marzuki, & Sanusi, 2017; Jamil, 2017).

In addition, the Securities Commission Malaysia released corporate governance Blueprint (2011) as an attempt to advance corporate governance in the Malaysian setting and avoid any financial collapse. The Blueprint (2011) was the key to delivering the MCGG 2012 that focused on strengthening board structure and composition recognizing the role of directors as active and responsible fiduciaries (Ahmed & Mubaraq, 2015; Bhatt & Bhatt, 2017). However, the board of directors was required to be effective steward and guardian of the company while simultaneously providing strategic direction and monitoring mechanism to the firm and ensuring compliance of laws and ethical values to maintain an effective governance structure (Ming & Eam, 2015; Mohammed, Ahmed, & Ji, 2017).

For public listed companies, the code was made mandatory to explain the compliance, or else specific reasons must be given in case of non-compliance (Bhatt & Bhatt, 2017). Furthermore, for the first time, the Securities Commission stressed on the sustainable business practices where organizations are required to disclose environmental, social and governance (ESG) aspects of businesses (MCCG, 2012).

Finally, in 2017, a revised code was released by SC Malaysia in an effort to promote greater internalization of corporate governance culture. Furthermore, the code supersedes all the previous codes with its unique comprehend, apply and report (CARE) approach where public listed companies are not only required to comply rather apply and explain the compliance of corporate governance code. However, surpassing all the previous codes, the greater emphasis on current code is on board responsibilities and composition, risk management and internal control framework, and communication with the stakeholders. Despite all the improvements made in the code, the most significant amendments are setting up a stand-alone risk management committee; at least 30% women representation on the board by large companies; and communicating the stakeholders about socially responsible activities performed by the firms (MCCG, 2017). Consequently, the amendments again stressed that corporate governance and corporate social responsibility are not isolated rather they complement each other (ElGammal, Yassine, Fakir, & El-Kassar, 2018) where the compliance of one strengthens the effectiveness of another and vice versa (Alazzani, Wan-Hussin, & Jones, 2019).

Currently, in 2019, the Securities Commission has released a report of Corporate Governance Monitor where the prime objective of the report is to provide an analysis of

compliance of MCCG (2017) by all public listed companies (Securities Commission Malaysia, 2019). Significant insights from the CG Monitor indicate that out of 841 listed firms in 2018, more than 70 percent companies adopted the MCCG (2017) best practices and at least 1 Step Up practice was adopted by 74 percent companies. Furthermore, a steady progress was observed in terms of gender diversity on boards. In addition, there are seven best practices that are mostly adopted by all the listed companies with the least number of departures. However, in case of non-compliance, the company states that “*will adopt at a later stage*” where SC reprimands such statement by the company and considers it unacceptable as it is blatant disregard of a fundamental corporate governance practice, reflecting weak corporate governance standards and failure of company board.

On the other hand, 685 companies showed departure from the practice of disclosing CEO remuneration on a named basis. 524 companies did not adopt the practice of including technology to enhance participation of shareholders in voting. And, 518 companies did not comply with the practice of gender diversity on board (Securities Commission, 2019). In this way, CG Monitor, 2019 presents an effective outlook for the investors, shareholders and stakeholders observe the compliance of corporate governance codes by the Malaysian listed companies.

In sum, the review of all the codes suggests that Securities Commission has taken effective steps in all the Codes to improve the governance structure of public listed companies. However, there is a lack of compliance of the code by the listed companies that invoked the need to continually revise the code. Below, Table 2.1 gives initiatives and reforms of corporate governance in Malaysia during 1965-2019.

Table 2.1  
*Initiatives and Reforms of Corporate Governance in Malaysia*

<b>Year</b>	<b>Initiatives and Reforms</b>
1965	The true and fair certification of financial statements by the directors was introduced.
1993	The audit committee requirement was introduced.
1997	An independent accounting standard setting was introduced.
1998	The establishment of the High-Level Finance Committee to conduct a detailed study on corporate governance and to make recommendations for improvement.
1998	The Malaysian Institute of Corporate Governance was established.
1998	The regulations for directors and CEOs to disclose interest in the public listed company were introduced.
1999	Quarterly reporting was introduced.
2000	The MCCG was introduced.
2000	Amendments were made to the SC Act 1993 by making the SC the sole regulator for fund raising activities and the corporate bond market.
2001	The audit committee must have a member who is financially trained.
2001	The Malaysian Capital Market master plan was launched to further streamline and regulate the capital market and to chart the course for the capital market for the next 10 years.
2001	The financial sector master plan was launched to chart the future direction of the financial system over the next 10 years. It outlined the strategies to achieve a diversified, effective, efficient and resilient financial system.
2001	The mandatory disclosure of corporate governance code compliance was introduced.
2001	The establishment of minority shareholder watchdog group (MSWG).
2001	The mandatory accreditation program for director was introduced.
2002	The internal audit guidelines for PLCs were introduced.
2003	Guidance notes on share splits, guidance for companies to meet the compliance and internal control requirements were introduced.

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Table 2.1 (Continued)

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2004	Amendments to the security laws and takeover codes for better investors' protection were made.
2005	A review in respect of accounting minority interests in companies' financial statements and guidelines on compliance functions for fund managers to further strengthen investor's protection were introduced.
2006	Revised guidelines on securities borrowing and lending were made and the enhanced guidelines for placement of securities for greater shareholders' and investor protection were issued.
2007	The MCCG was revised. Amendments in relation to corporate governance to Companies Act, 1965 were made.
2012	MCCG 2012 released through Corporate Governance Blueprint 2011.
2017	MCCG 2017 released with the aim to improve governance structure in Malaysia.
2019	CG Monitor is presented by Securities Commission Malaysia to assess the compliance of MCCG (2017) by the Public Listed Companies (PLCs).

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Source: Developed by the Author

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## **2.2 Regulatory Authorities Framing Corporate Governance Codes in Malaysia**

Currently, for Malaysia, Securities Commission (SC) is the regulatory body empowered by the government to issue and regulates all provisions with regard to corporate governance code to ensure a full compliance by all public listed organizations. As a result, the first Malaysian Codes of Corporate Governance (MCCG) was issued in the year 2000. The body is working closely with Bursa Malaysia, Minority Shareholders Watchdog Group (MSWG) and Malaysian Institute of Corporate Governance (MICG) in revising and strengthening the regulations to create a suitable conducive business environment in Malaysia.

Regulatory authorities that contribute in framing corporate governance codes in Malaysia from 1998 to 2017 are High-Level Finance Committee on Corporate Governance, Malaysian Institute of Corporate Governance and Minority Shareholders Watchdog Group. Each of them is being explained below.

### **2.2.1 High-Level Finance Committee on Corporate Governance (FCCG)**

The FCCG was set up on 24 March 1998 with the aim to create a framework of corporate governance and setting the standards of best practices for companies. The team comprises the Ministry of Finance, government officials and representatives of regulatory authorities, industry and corporate sectors (Haniffa & Hudaib, 2006). One year after its establishment, the FCCG generated a report in 1999 that was published by the Securities Commission and was known as the Report on Corporate Governance (1999). However, the report was later recognized as the Malaysian Code on Corporate Governance (2000). Furthermore, the report consisted of 70 recommendations relating to three matters: (i) The proposed Code; (ii) the reform of laws and regulations on the duties of directors and officers, improving disclosure practices, enhancing the rights of the shareholders and improving effectiveness of company meetings; and (iii) the training and education of directors.

### **2.2.2 Malaysian Institute of Corporate Governance (MICG)**

The MICG was established in March 1998 by the High-Level Finance Committee on Corporate Governance. It is a non-profit public company limited by guarantee, with founding members consisting of the Federation of Public Listed Companies (FPLCs), Malaysian Institute of Accountants (MIA), Malaysian Association of Certified Public Accountants (MICPA), Malaysian Institute of Chartered Secretaries and Administrators (MAICSA), and Malaysian Institute of Directors (MID). The prime objective of MICG is to raise the awareness and practice of good corporate governance in Malaysia (Jamil, 2017).

### **2.2.3 Minority Shareholders Watchdog Group (MSWG)**

The Minority Shareholder Watchdog Group (MSWG) was set up as a government initiative to be a part of a broader capital market framework to protect the interest of minority shareholders through shareholder activism (Mohammed, Ahmed, & Ji, 2017). Furthermore, the purpose of MSWG is to encourage good governance amongst public listed companies to raise shareholder value over time. Furthermore, MSWG has evolved to be an independent research organization concerning corporate governance matters and advises on minority shareholders voting at Annual General Meeting (Wahab, Ariff, Marzuki, & Sanusi, 2017). Additionally, it provides a platform for a collective voice to both retail and institutional minority shareholders and advises on voting at general meetings of public listed companies. It is considered to be the first step towards

encouraging shareholder activism without referring to the courts (Report on Corporate Governance, 1999).

### **2.3 Bursa Malaysia CSR Framework**

Despite significant development in corporate governance codes in Malaysia, the multitudes of demands are voiced by the regulatory authorities for public listed companies (PLCs) to become more socially and environmentally responsible, and disclose their CSR initiatives in their annual reports (Rahman, Zain, & Yahya, 2011). Bursa Malaysia, in its efforts to promote corporate social responsibility practices in public listed companies, has formulated a CSR framework constituting a set of guidelines for the Public Listed Companies in Malaysia to assist them in practicing corporate social responsibility (Alazzani, Wan-Hussin, & Jones, 2019; Ahamed, Almsafir, & Al-Smadi, 2014). The Prime Minister of Malaysia referred to in the Budget Speech 2006 that from now on, all listed companies are required to disclose their CSR activities. It aims to promote Malaysian listed companies to become more involved in the social responsibility, and to make ways to approach the socially responsible processes (Bursa Malaysia, 2006).

Conspicuously, Bursa Malaysia uses the framework to define the priorities with the preliminary initiatives to achieve the CSR vision, crafting a CSR statement for annual report, increase employment involvement, internal environmental management (ISO 14000), creating green products, adopting triple bottom line, independent sustainability reporting and tapping the potential of socially responsible indices (Esa & Ghazali, 2012).

In coalition with Bursa Malaysia, Companies Commission of Malaysia (SSM) launched its report on Corporate Social Responsibility Disclosure in 2013. Through its Corporate Responsibility Agenda, Companies Commission of Malaysia defines corporate responsibility as “the commitment by corporations and businesses towards achieving sustainability in the social, economic and environmental conditions to pursue the profitability.” Figure 2.1 depicts the CSR framework provided by Bursa Malaysia whereas Figure 2.2 explains each component in detail.

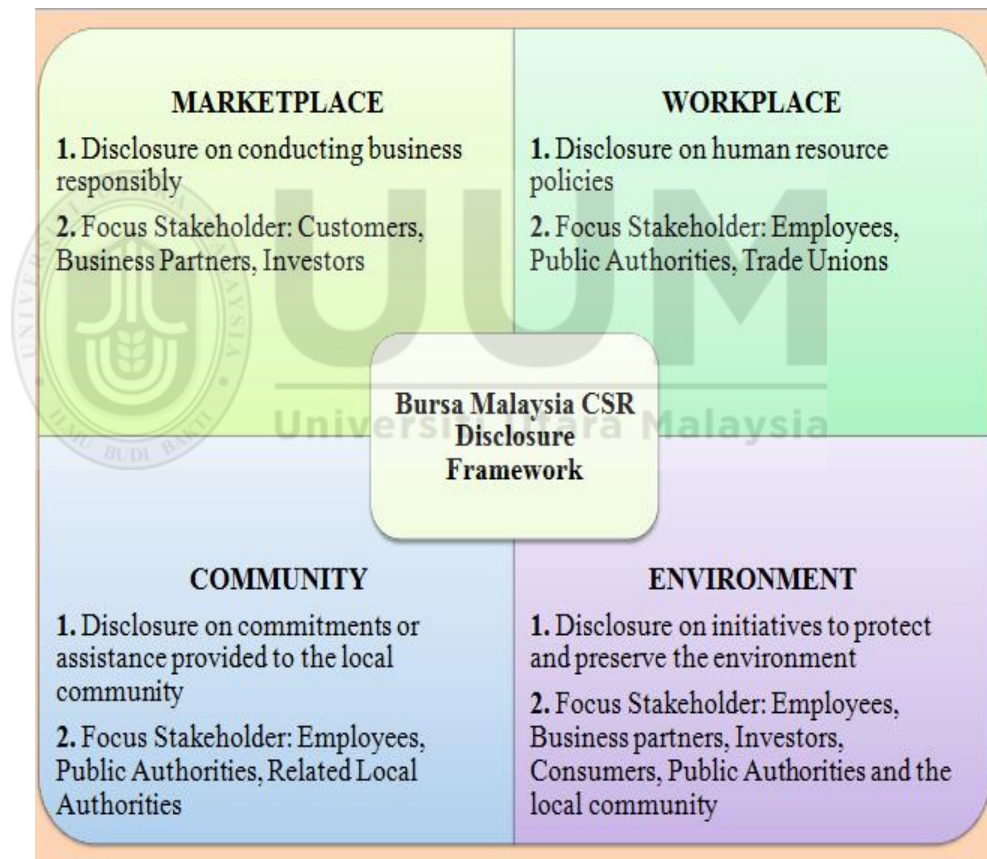


Fig. 2.1 Corporate Responsibility: Guidance to Disclosure and Reporting  
(Source: Companies Commission Malaysia – CSR Framework)

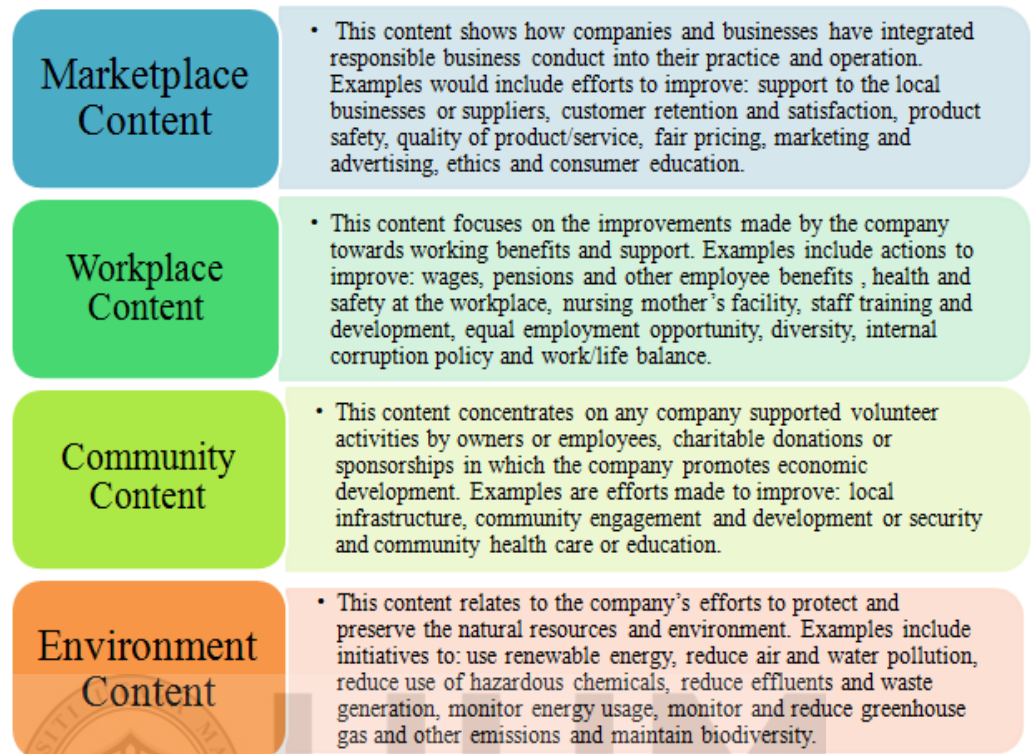


Fig. 2.2 Corporate Responsibility: Guidance to Disclosure and Reporting  
(Source: Companies Commission Malaysia – Explanation of CSR Dimensions)

The prescribed guidelines for Malaysian listed companies, the Bursa Malaysia Securities Berhad Main Market Listing Requirements, amended in September, 2006, made it mandatory to provide a description of the corporate responsibility activities or practices undertaken by them. If there are no activities undertaken in a reported year, the company must provide a statement to that effect (Companies Commission Malaysia, 2013). In addition to that, Chapter 9, paragraph 9.25 (1) of the Listing Requirements mandates that a listed issuer must set out separately in its annual report ‘a description of the corporate social responsibility activities or practices undertaken by the listed issuer,’ and, in case of non-compliance, there would be the imposition of a fine not exceeding RM1 million

indicating the importance of CSR disclosure by Malaysian Listed Companies in their annual reports to avoid any financial turmoil.

In sum, Bursa Malaysia has provided CSR framework in terms of marketplace, environment, community, and workplace practices (Ahamed, Almsafir, & Al-Smadi, 2014; Yusoff & Adamu, 2016) and directed companies to disclose their CSR strategy in their annual reports based on these four dimensions. However, the compliance of Bursa Malaysia CSR framework in the annual reports of public listed companies is still questionable and needs investigation into the matter.

### **2.3.1 CSR Dimensions provided by Bursa Malaysia**

Bursa Malaysia (2006) has directed public listed companies to disclose their CSR practices on account of marketplace practices, environment practices, community practices and workplace practices. As far as independent CSR practices are concerned, Mandl and Dorr (2007) explained the four independent corporate social responsibility practices in detail. Conspicuously, marketplace practices refer to those activities companies perform in integrated business conduct into their practice and operation. More specifically, marketplace activities can be exemplified by the tasks performed to support local business and suppliers, customer retention and satisfaction, product quality and safety, pricing strategies and advertising policies, and consumer education (Rahman, Zain, & Yahya, 2011; Anas, Rashid, & Annuar, 2015; Feng, Wang, & Kreuze, 2017; Yang & Basile, 2019). Additionally, marketplace practices focus on responsible supply chain management, activities to improve the quality and safety of products, innovation,

fair pricing and ethical advertising. While targeting consumers, these practices constitute corporate branding efforts and enhancing brand image in consumer minds. Moreover, this study expects marketplace practices to be significantly linked with organizational returns.

Correspondingly, environment related practices constitute company's efforts to protect and preserve the natural resources and the environment. These activities include initiatives for using renewable energy, reducing air and water pollution, reducing the use of hazardous chemicals, monitoring energy resources, greenhouse emissions and maintaining biodiversity. In the last decade, more and more profit oriented businesses have begun to engage in and espouse environmental-friendly strategies, policies, and activities to protect the natural environment (Feng, Wang, & Kreuze, 2017; Raiborn, Payne, & Joyner, 2013). Furthermore, it is expected that firms performing environment practices positively boost organizational returns.

Community practices basically concentrate on firms' activities in the form of charitable donations or sponsorships for uplifting economic development. These activities include improving local infrastructure, community engagement and community health care and education. Moreover, these practices refer to the efforts firms take to improve their relations with communities in which they are embedded (Anas, Rashid, & Annuar, 2015; Feng, Wang, & Kreuze, 2017; Yang & Basile, 2019); for instance, dialogue and partnership with the communities in mitigating the potential impacts of business operation, in involvement in community development and in financial contribution to community well-being. Since, community practices involve significant monetary element

therefore it is expected that firms over-invest in these activities to uplift their organizational returns.

Workplace practices are more precisely referred to as activities performed for the betterment and support of employees of the company. For instance, actions to improve wages, pensions and employee benefits, health and safety measures at workplace, facilities for working women, staff training and development, equal employment opportunity and maintaining work/life balance all constitute workplace practices. These activities would help promote workers' commitment and productivity, and motivate them to put forth more effort toward the company's overall objectives (Feng, Wang, & Saini, 2015; Yang & Basile, 2019). Additionally, satisfied employees are more likely to generate higher organizational returns that are particularly significant for generating higher firm financial performance. Particularly for this study, it is expected that workplace practices generate positive returns either accounting or market returns.

## **2.4 Chapter Summary**

The chapter provides the insights on the development of corporate governance codes and CSR framework in Malaysia. The chapter discussed the development of Codes on Corporate Governance and the four codes of 2000, 2007, 2012 and 2017. Afterwards, the regulatory authorities who contribute in framing the Codes are explained. Finally, the Bursa Malaysia CSR Framework has been presented where listed companies are directed to disclose their CSR practices in terms of marketplace, environment, community and workplace.

## CHAPTER THREE

### LITERATURE REVIEW

#### 3.0 Introduction

This chapter presents a review of earlier empirical and theoretical studies of corporate governance mechanisms, corporate social responsibility practices and moderating effects of board characteristics. First, the chapter presents synthesis of literature based on theory related to the study. Then, literature on firm performance, corporate governance mechanisms, corporate social responsibility practices and board characteristics has been reviewed. For this purpose, the chapter is divided into six sections. Section 3.1 presents underpinning theory; named as agency theory. Section 3.2 explains firm performance along with accounting-based and market-based performance measures. Section 3.3 reviews the literature concerning corporate governance mechanisms used in the study such as ownership concentration, director ownership, institutional ownership, CEO duality, CEO remuneration, directors' remuneration, risk management committee in terms of size, independence and meetings. Furthermore, Section 3.4 presents literature review of board characteristics such as board size, board independence and board diversity used as explanatory as well as moderating variables in the study. Section 3.5 presents a review of literature on corporate social responsibility practices and their impact on firm performance. Afterwards, control variables have been explained in Section 3.6. Finally, chapter summarizes the whole discussion in Section 3.7.

### **3.1 Underpinning Theories related to Corporate Governance Mechanisms, Corporate Social Responsibility Practices, and Firm Performance**

There are several studies that address the corporate governance mechanisms and corporate social responsibility practices in relation to agency theory and agency cost perspective. Below is the brief description of agency theory and agency cost perspective, in addition to overinvestment hypothesis and risk management perspective, and resource dependence theory related to corporate governance mechanisms, corporate social responsibility practices and board characteristics for highlighting their role in determining organizational performance.

#### **3.1.1 Agency Theory and Agency Cost Perspective**

Since its inception, agency theory (Jensen & Meckling, 1976) attempts to highlight the principal-agent conflicts and agency costs arising from this conflicted relationship. According to Jensen and Meckling (1976) principal-agent relationship is an agreement where one or more principal(s) appoint an agent to perform some task on their behalf that may entrust some decision making authority to the agent. If both participants of the agreement are utility maximizers then there is a rationale that agent will not always perform his duties in the best interests of the principal, raising the principal-agent conflict. Similarly, organizations, working for the best interests of their stakeholders, may appoint some agents who are utility maximizers who may expropriate the rights of stakeholders for their own benefits.

According to agency theory, agency conflicts occur between principals and agents because of widely dispersed ownership and the separation of shareholders and

management (Jensen & Meckling, 1976). Moreover, agency conflicts also occur between majority and minority shareholders as a result of concentrating the shareholdings in the hands of a few shareholders on account of other shareholders (Shleifer & Vishny, 1997). Consequently, Claessens, Djankov, & Lang, (2000) argue that companies with concentrated ownership are run by the major shareholders, who play a significant role in their decision-making processes. A company with active shareholders who hold a large proportion of shares and participate in the company's strategic direction is a signal of holding a good control and governance structure (Jensen, 1993). Furthermore, a conflict of interest increases agency costs and reduces the firm value as a result of disagreements regarding benefits, the problem of moral hazard and the adverse selection problem. In addition, Healy and Palepu (2001) reported that increased agency costs contribute to a lowering in the liquidity of corporate shares, poor management reputation, and higher capital costs.

Agency theory claims that conflict of interest is driven by widely dispersed ownership and the separation of shareholders and management (Jensen & Meckling, 1976). It is asserted that firms with ownership concentration face less severe agency problems than the firms where controlling shareholders have more incentives to maximize the firm's value and its ability to monitor managers. An entrenchment problem arises with the tight control where the major shareholdings of large shareholders enable them to expropriate the rights of minority shareholders. Hay, Knechel, & Ling, (2008) stressed that controlling shareholders can ask for increased monitoring of their interests and to protect the minority shareholders' interests. Moreover, they also argued that in the presence of

less regulated environment and high concentration of ownership, investment in the monitoring mechanism will increase.

The controlling shareholders can be the shareholders who have stake within the firms and they can be from outside the firm (for example, institutional investors) where they show no relationship with the management. The presence of larger ownership concentration may align the agency problems between management and shareholders or they can raise the conflict of interests between minority and majority shareholders (Aluchna & Kaminski, 2017). Alignment view suggests that insiders of the firms directly have shareholdings in the company equity and they can openly oversee the activities of managers. Moreover, insider controlling shareholders strongly depend on the internal financial information about the firm and less likely to rely on the information provided by the public (AlQadasi & Abidin, 2018). In this way, managers are more cautious in preparing the financial statements and cannot mislead the insider controlling shareholders.

Contrarily, expropriation view indicates that insider controlling shareholders can expropriate the rights and wealth of minority shareholders in the presence of more influential incentives that enhances the chances of extensive monitoring by the minority shareholders in terms of regular analysis of financial reports (AlQadasi & Abidin, 2018). Meanwhile, the ownership structure of a firm is regarded as the main element of corporate governance mechanism and this ownership structure is distinct across developing and developed countries. For instance, in the USA and UK, the ownership structure is more dispersed than concentrated as compared to developing nations of East

Asia, where structure of ownership is limited to two to five shareholders (Claessens & Fan, 2002).

Notwithstanding, the monitoring role of the board is more pronounced in the firms with dispersed ownership than the firms with concentrated ownership structure (Aguilera, 2005). In this stream, firms show effective corporate governance practices in the presence of dispersed ownership structure where board's monitoring is more pronounced (Alabdullah, 2018). This fact enforces the positive impact of governance mechanisms, corporate social responsibility practices and firm performance where board of directors are actively involved in assessing governance mechanisms and socially responsible practices to increase the firm performance through their significant monitoring role (Alazzani, Wan-Hussin, & Jones, 2019).

Besides, firms that depict the concentrated ownership structure indicate that power is limited to the dominant shareholders for monitoring managers of the firms which ultimately reduces the effectiveness of other corporate governance mechanisms in the firm (Bozec & Bozec, 2007). Controlling shareholders, with the dominance of insider shareholders, is regarded as an internal governance mechanism which impacts the formation of the overall corporate governance structure of firms (Mishra & Kapil, 2017). For ensuring effective corporate governance system, controlling shareholders must possess extraordinary monitoring capabilities for balancing other corporate governance mechanisms and to control the misalignment of managers of the firm (Suttipun, 2018; Chong, Ong, & Tan, 2018).

Jensen and Meckling (1976) argue that increased insider ownership is expected to increase the firm's value. Dominant insider shareholders can participate actively in the operations and decision-making activities, and serve in senior managerial positions that reduce the opportunity for managers to mislead investors (Jackling & Johl, 2009). This reduces the reliance of insider shareholders on the internal governance monitoring mechanisms in monitoring the firm's managers. Setia-Atmaja (2009) argues that large shareholders may favor fewer independent directors on the board and on risk committee. In addition, insider controlling shareholders usually have senior managerial positions, and no incentive to mislead investors through manipulating financial statements (Mishra & Kapil, 2017).

### **3.1.2 Overinvestment Hypothesis versus Risk Management Perspective**

Concerning corporate social responsibility practices, Barnea and Rubin (2010) consider CSR engagement as a principal-agent relation between managers and shareholders. They argue that affiliated insiders have an interest in over-investing in CSR if doing so provides private benefits of reputation building as good global citizens, possibly at the cost of shareholders. In a related vein, Goel and Thakor's (2008) theoretical model shows that overconfident managers sometimes make value-destroying investments. If CEOs tend to over-invest in order to build their personal reputations as good citizens, a negative association between effective governance mechanisms, CSR practices and corporate performance is expected (Harjoto & Jo, 2011). Effective internal and external governance mechanisms should reduce the insiders' ability and opportunity to over-invest in CSR. More importantly, if the over-investment hypothesis is valid, firm performance/value will

be adversely affected by the CSR practices because of the agency cost created by the managers' engagement in CSR (Jensen & Meckling, 1976). CSR initiatives may also incur agency costs as managers obtain private benefits from building the reputation as good social citizens (such as a good career outcome) at the expense of shareholders (Feng, Wang, & Kreuze, 2017). Jo and Harjoto (2011) claim that CSR commitment may have value-decreasing effects when there is a high level of managerial entrenchment, supporting the notion by Barnea and Rubin (2010) that a firm's insiders (such as managers and large blockholders) may overinvest in CSR for their private benefit or to cover up corporate misconduct.

Contrarily, it is asserted that risk-averse managers will not indulge themselves in corporate social responsibility practices to increase the shareholder wealth (Godfrey, 2005). Additionally, advocates of corporate social responsibility argue that socially responsible activities should be analyzed from the perspective of risk management (Kordsachia, 2020). The risk management perspective of CSR predicts that CSR engagement will create moral capital for firms (Godfrey, Merrill, & Hansen, 2009) and this moral capital provides an insurance-like value to shareholders (Godfrey, 2005). A company will invest in activities which enhance public goods and social welfare ultimately increasing the value of shareholders' residual claims. More specifically, risk management perspective entails that managers can reduce the firm's exposure to firm-specific risks that give rise to costs in a way that investors cannot diversify away and value is added through risk management (Godfrey, Merrill, & Hansen, 2009).

### 3.1.3 Resource Dependence Theory

Resource dependence theory is an influential management theory related to corporate governance and organizational processes. The theory characterizes the corporation as an open system, which is dependent on contingencies in the external environment. Prior literature on the board of directors suggests that resource dependence theory is an effective framework to understand and examine boards. Pfeffer and Salancik (2003) suggest that directors bring four benefits to organizations: (a) information in the form of advice and counsel, (b) access to channels of information between the firm and environmental contingencies, (c) preferential access to resources, and (d) legitimacy. Based on the various resources they provide to a firm, Hillman, Cannella, and Paetzold (2000) classify those four benefits into director types, namely, business experts, insiders, community influentials, and support specialists. Hillman, Cannella, and Paetzold (2000) extend the resource dependence theory to suggest that a more diverse board represents a valuable set of resources and may help achieve better economic outcomes.

Resource dependence theory presents several arguments to promote board diversity. For instance, diverse directors act as a bridge to important constituencies in the external environment, resulting in greater access to more talent. Diverse directors also hold unique information that can potentially improve board advisory to managers and help in better decision making. Board diversity also sends important positive signals to the product and labor markets. As non-insiders and non-business experts, diverse directors may help to bring diverse perspectives and non-traditional approaches to problems. Prior literature on board diversity has considered gender and ethnicity as separate dimensions under

resource dependence theory. However, recent studies on board diversity are grounded in resource dependence theory focus on gender, and more specifically on the impact of gender on economic outcomes (García-Meca, Garcia-Sanchez, & Martínez-Ferrero, 2015).

Evidence suggests that male and female economic agents have behavioral differences. For example, women, when compared to men, are more risk and competition averse and their preferences are more flexible (Croson & Gneezy, 2009). They also present greater ethical concerns (Ku Ismail & Abdul Manaf, 2016), propose less aggressive strategies, invest less in research and development and more in social sustainability initiatives, take pro-social actions, which means that companies to which they belong can have higher levels of social responsibility (Galbreath, 2018). In this stream, it is indicated that both men and women hold different set of skills, experience, and knowledge to deal with business operations of firms. Given that women are more conservative, more averse to excessive risk-taking and with greater ethical concern than men (Ku Ismail and Abdul Manaf, 2016), the presence of women on the boards of directors conditions unethical practices, affecting the corporate social performance. By promoting cognitive disparity between the members of the Board of Directors, gender diversity increases the board's independence of thinking and, consequently, its performance of supervisory and advisory functions.

Thus, this study mainly follows the propositions of agency theory, overinvestment hypothesis and resource dependence theory for fetching the theoretical support of corporate governance mechanisms and corporate social responsibility practices on firm

performance. Hence, it is expected that predictions of agency theory, overinvestment hypothesis, risk management perspective, and resource dependence theory will be consistent with the outcomes of this study.

### **3.2 Firm Performance**

Firm performance refers to the performance of a firm over a period of time to investigate what a firm had and expected to accomplish in the future that ultimately contributes in the decision-making process (Waggoner, Neely, & Kennerley, 1999). In modern management, firm performance carries a more significant position that goes beyond quantification and accounting (Koufopoulos, Zoumbos, Argyropoulou, & Morwani, 2008). Firm performance provides information that facilitates managers' monitoring of performance, progress update, encourage motivation and communication and perceive issues (Waggoner, Neely, & Kennerley, 1999). It is, therefore, important for any company to analyze its complete organizational performance. For measuring firm performance, the term is described as the quantification of the action's effectiveness and efficiency (Neely, Gregory, Platts, 1995). It is the transference of the complex reality of performance into a chronology of limited symbols that are communicable and reported under similar situations (Lebas, 1995). However, there is a lack of consistency in the area of management as to what exactly counts for firm performance.

There are countless number of ways to measure the firm performance; most commonly known as accounting-based and market-based performance measures. Previous researches have used either accounting based performance measures (Bhatt & Bhatt,

2017; Ofoeda, 2017; Kumari & Pattanayak, 2017; Ujunwa, 2012) or market-based performance measures (Basuroy, Gleason, & Kannan, 2014; Arouri, Hossain, & Muttakin, 2014; Amran & Ahmed, 2009) and few have used both performance measures (Nahar, Jubb, & Azim, 2016; Ming & Eam, 2015; Al-Saidi & Al-Shammari, 2015; Shiah-Hou & Cheng, 2012). As Hamid (2008), documented several researchers have used accounting-based performance measures in their studies from 1968 to 1978. But, from 1978 to 1990, many researchers used both performance measures in their studies. Afterwards, a substantial number of researchers used multiple performance measures in their studies.

Both performance measures have their own strengths in measuring a firm's performance. Accounting measures count for accounting information taken from already available data in the annual reports or financial statements, hence, it mainly focuses on the past performance as it measures performance based on historical data (Suttipun, 2018; Bhatt & Bhatt, 2017; Ofoeda, 2017). Moreover, accounting-based performance measures widely provide a standardized approach in making a comparison between the financial performance of companies and between financial periods (Hamid, 2008). In this way, accounting-based performance measures are critical to firms in assessing their performance while effectively providing grounds for managers to plan, control and achieve the organizational goals (Kumari & Pattanayak, 2017; Ujunwa, 2012; Erhardt, Werbel, & Shrader, 2003). Yet there are some weaknesses of accounting based measures as it only covers the historical data and may not be relevant to a certain extent. It can also be subjected to biasness, manipulation, and differences in the accounting measurements

of the procedures (Duru, Iyengar, & Zampelli, 2016; Capezio, Shields, & O'Donell, 2011; Hamid, 2008).

Alternatively, market-based performance measures are mainly focused towards future estimates of companies' performance as they are widely used in measuring the value of a firm at a particular point in time (Ali, Qiang, & Ashraf, 2018; Mishra & Kapil, 2017; Ahmed & Mubaraq, 2015). McMullen (1996) claim that market-based performance measurements have an advantage over the accounting-based performance measures as they are less vulnerable to differential accounting techniques, procedures, manipulation of records, and represent investors' evaluation of a firm's ability to generate future economic earnings rather than past performance of companies (Abraham & Singh, 2016; Yasser, Mamun, & Rodrigs, 2017; Ming & Eam, 2015; Darmadi, 2013).

Yet again, market-based performance measures are not without any weakness as problems exist when the firm faces multiple set of stakeholders and shareholders therefore, the sole concentration on investors' evaluation may not be sufficient (Altaf & Shah, 2018; Bhatti & Sundram, 2015). For example, arguments of Bhagat and Bolton (2008) are noteworthy claiming market-based performance measures are susceptible to investors anticipation, for example, if investors anticipate the insignificant correlation between corporate governance and long term stock even though there is significant correlation between performance and governance (Kao, Hodgkinson, Jaafar, 2019; Palaniappan, 2017; Arouri, Hossain, & Muttakin, 2014).

As a result, a combination of both performance measures could be used to provide a more comprehensive insight and understanding of the relationship between selected variables and performance (Jong, Gispert, Kabir, & Renneboog, 2003, Sunday, 2008; Darmadi, 2013; Ming & Eam, 2015; Sheikh & Karim, 2015; Nguyen & Nguyen, 2015; Şahin, Artan, & Tuysuz, 2015; Nahar, Jubb, & Azim, 2016; Palaniappan, 2017; Yasser, Mamun, & Rodriqs, 2017). Therefore, this study also chosen a blend of both performance measures given that accounting-based performance measures provide insights on the historical data, whereas market-based performance measures present significant future expectations for the investors and stakeholders. Correspondingly, from the management perspective, firm performance has an evident importance from different prescriptions recommended for performance enhancement. Thus, this study employs both measurements as suggested by earlier studies given the importance of profitability in the short term/past performance and value of the market in the long term/future performance.

In sum, firm's success is reflected through its performance indicating how a firm performs over a certain period of time. Significant efforts have been spent in the determination of measures of performance (Neely, Gregory, & Platts, 1995; Gregory & Whittaker, 2013, Gregory, Tharyan, & Whittaker, 2013). Through determining such measurements, a firm is enabled to compare its performance in various time periods and instances. Firm performance is greatly influenced by corporate governance mechanisms and corporate social responsibility practices. If the functions are suitably set up for the corporate governance system, it will help in attracting investments, aid in increasing firm's funds, strengthen the pillars of the company through goodwill and in turn, it will

proceed to the automatic increase of the firm performance. Effective corporate governance protects the firm from possible financial suffering and results in significant development (Avcin & Balcioğlu, 2017; Ofoeda, 2017) whereas corporate social responsibility protects stakeholder concerns, maintaining the goodwill of the company (Lo & Sheu, 2007; Ahamed, Almsafir, & Al-Smadi, 2014; Zahid & Ghazali, 2015).

### **3.3 Corporate Governance Mechanisms**

Corporate governance mechanisms refer to the criteria, characteristics and attributes adopted and implemented by the companies on their processes and procedures to reflect the strength of the internal control mechanisms and balance of power (Ali, Qiang, & Ashraf, 2018; AlQadasi & Abidin, 2018). It facilitates the management to portray transparency and accept accountability for the best interests of all stakeholders (Nyambia & Hamdan, 2018; Saleh, Halili, Zeitun, & Salim, 2017; Bokpin, 2013; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000; Shleifer & Vishny, 1997). Corporate governance is one of the significant factors that determine the health of the system and its ability to survive economic distress (Mohammed, Ahmed, & Ji, 2017; Jamil, 2017). Therefore, the health of the organization depends on underlying sound mechanisms of corporate governance and connections between them (Vieira, Neves, & Dias, 2019; Teti, Dell'Acqua, Etro, & Volpe, 2017).

Furthermore, corporate governance mechanisms are the ways of bridging the interests of investors and managers into line and ensuring that firms are run for the benefit of shareholders and stakeholders (ElGammal, Yassine, Fakir, & El-Kassar, 2018; Arora &

Bodhanwala, 2018). Effective corporate governance mechanisms mobilize the capital appropriation while promoting the efficient use of resources both within the company and the larger economy (AlQadasi & Abidin, 2018; Wellalage, Locke, & Acharya, 2017).

Correspondingly, corporate governance mechanisms swirl around ownership structure of organizations (Panda & Leepsa, 2019; Alabdullah, 2018; Lepore, Paolone, Pisano, & Alvino, 2017), role of the board of directors (Issa & Fang, 2019; Zhuang, Chang, & Lee, 2018) and their remuneration patterns in the firm (Usman, Zhang, Wang, Sun, & Makki, 2018; Afrifa & Adesina, 2018), and risk management (Abdullah & Said, 2019; Musallam, 2018). Therefore, this study focuses on significant governance mechanisms, namely, ownership concentration, director ownership, institutional ownership, CEO duality, CEO remuneration, directors' remuneration, and risk management committee in terms of size, independence and meetings, board size, board independence and board diversity that influence firm performance.

### **3.3.1 Ownership Concentration**

Ownership concentration determines whether the ownership is dispersed or limited to three to five owners. This may be referred to as block holder ownership where ownership is confined to three to five owners. Agency theory contends that agency conflicts occur between principals and agents because of widely dispersed ownership and the separation of shareholders and management (Fama, 1980; Jensen & Meckling, 1976). La Porta, Lopez-de-Silanes, Shleifer, & Vishny, (2000) described this concept as a prospective cause of conflict of interest between major and minor shareholders. However, block

holder ownership is considered as a way to decrease the conflict of interest between shareholders and management. Alternatively, Haniffa and Hudaib (2006) are of the view that owners, having a major percentage of an organization's assets, allow block holders to monitor and control the behavior of managers.

One of the mechanisms in controlling moral hazard problems arising from separation of ownership and control is via concentrated ownership by outside shareholders, as they have greater incentives to align management and shareholders' interests resulting in better corporate performance (Li & Simerly, 1998) and benefiting minority shareholders (Haniffa & Hudaib, 2006). However, concentrated ownership can come with costs for minority shareholders as the controlling owners might try to expropriate the company's assets. Furthermore, incentives to perform direct monitoring are weaker for dispersed ownership due to free-rider problems (Ahmed & Mubaraq, 2015). Domination by large shareholders may also damage performance due to large exposure to a firm's risk (Yasser, Mamun, & Rodrigs, 2017).

### **3.3.2 Ownership Concentration and Firm Performance**

Studies on the links between ownership structure and company performance are driven by the fundamental assumption that different ownership structures may result in different company performance, although the direction and strength of these relations may be moderated by the institutional context in which firms operate (Sánchez-Ballesta & García-Meca, 2007); however, over 30 years of research points to the conclusion that "in general, the evidence does not provide strong support for a relation between ownership

and performance” (Kapopoulos & Lazaretou, 2007, p. 146). Only marginal effects for shareholder value of an individual firm are identified (Thomsen & Pedersen, 2000), while companies with majority shareholders do not differ from companies of diffused ownership in terms of performance (Demsetz & Villalonga, 2001).

The existing literature has been dominated by considerations of the principal-agent conflict that results from the separation of ownership and control and is reinforced by the dispersion of ownership (Jensen & Meckling, 1976). Dispersed ownership, traditionally evident in the Anglo-Saxon economies, offers an environment where conflicting interests between opportunistically acting agents (executives) and shareholder value-oriented principals (shareholders) generate costs and are detrimental to the company value (Aluchna & Kaminski, 2017). To mitigate agency costs related to the risk of expropriation by managers, shareholders may adopt various sets of monitoring and incentive mechanisms provided by different governance structures (Shleifer & Vishny, 1997). While dispersed ownership resulting in agency costs is generally inversely related to performance (Sheikh & Karim, 2015), medium concentration is likely to increase the engagement by the dominant shareholder in management (Aluchna & Kaminski, 2017). In general, it improves firms’ performance, provides monitoring of opportunistically driven managers and lowers coordination costs (Shleifer & Vishny, 1997).

Interest in studies on concentrated ownership defined as “the distribution of the ownership rights among different parties who collectively own the firm” (Richter & Weiss, 2013, p. 2) derive from the fact that concentrated ownership is the prevailing pattern of the shareholder structure noted in continental Europe (Thomsen & Pedersen,

2000), Asia (Nguyen, Locke, & Reddy, 2014) and Latin America (Saona & San Martín, 2016). Yet the impact of large shareholders on firms' performance is not fully understood, being conceptually divided between the hypotheses on monitoring they provide and the expropriation they engage in at the cost of minority shareholder (Krivogorsky & Burton, 2012). Despite the potential for active monitoring, effective control and interest alignment, block holders may realize private benefits and expropriate minority shareholders (Thomsen & Pedersen, 2000).

Empirical results regarding ownership concentration and firm performance are inconclusive. Some studies assert that concentrated ownership contributes directly in the company's strategic direction signaling a good control and governance structure (Hay, Knechel, & Ling, 2008; Jaafar & El-Shawa, 2009; Omran, 2009; Nguyen, Locke, & Reddy, 2014; Wang, 2016; Saleh, Halili, Zeitun, & Salim, 2017; Lepore, Paolone, Pisano, & Alvino, 2017; Ali, Qiang, & Ashraf, 2018; Altaf & Shah, 2018; Mardnly, Mouselli, & Abdulraouf, 2018; Nguyen, Nguyen, & Nguyen, 2018; Kao, Hodgkinson, & Jaafar, 2019; Shao, 2019) reported positive association between ownership concentration and firm performance.

On the other hand, there are studies that re-affirm the predictions of agency theory suggesting a negative influence of ownership concentration on firm performance (Sheikh & Karim, 2015; Chen, Sung, & Yang, 2017; Aluchna & Kaminski 2017) contending that concentration leads to the entrenchment by majority shareholders who may act at the expense of minority investors. Dominant shareholders who also act as controlling shareholders are prone to exploit private benefits which have deleterious consequences

for company performance (Chen, Sung, & Yang, 2017). In the context of weak external mechanisms and an undeveloped institutional environment, this study follows the entrenchment line of thinking and anticipates increased risk of expropriation by block holders as argued by agency theory.

The above discussion indicates that the impact of ownership concentration on firm performance is debatable and needs further empirical support to confirm its relationship with firm performance. Therefore, such paradoxical findings of effect of ownership concentration on firm performance of previous researches spur this study to further enhance and re-examine the relationship to develop a better understanding.

### **3.3.3 Director Ownership**

Director ownership defines the stake and proportion of shares held by the directors, their spouses and children within the firm (Mishra & Kapil, 2017; Ahmed & Mubaraq, 2015). The ‘convergence-of-interest’ model or the ‘insider model’ of corporate governance argues that there is a relationship between directors’ shareholdings and performance because the greater the financial stake, the greater the costs for not maximizing shareholder wealth (Jensen & Meckling, 1976). Similarly, Fama and Jensen (1983) assert that when corporate insiders own low levels of firm equity, they have higher incentives to keep their strategies in line with the preferences of other owners since their bonding to the firm’s outcome is high. But, as ownership by corporate insiders reaches a certain point, they would allocate firm resources for their own interest regardless of the effects on outside shareholders (McConnell & Servaes, 1995).

The agency issues between shareholders and management may encourage the directors to exert less effort to administrate the firm (Shan, 2017). Moreover, these issues may lead the directors to use available resources for their personal well-being (Ahmed & Mubaraq, 2015). Meanwhile, agency problem may be reduced if directors hold a large fraction of the firm's equity (Alabdullah, 2018). Thus, an increase in proportion of shares owned by the directors may help to align the interest of directors and shareholders by restricting them not to waste the firm's resources for their own well-being (Ofoeda, 2017; Mishra & Kapil, 2017).

### **3.3.4 Director Ownership and Firm Performance**

The empirical evidence of director ownership and firm performance provides mixed results. A common notion prevails that directors will work for the best interests of organizations when they have ownership in the firm (Alabdullah, 2018). Or else, a potential conflict of interest between directors and owners of the firm can be raised (O'Callaghan, Ashton, & Hodgkinson, 2018). The arguments of Shleifer and Vishny (1997) are noteworthy for explaining this phenomenon from incentive perspective and entrenchment perspective (Mitra, Jaggi, & Al-Hayale, 2017; Mueller & Spitz-Oener, 2006). Incentive perspective, they claim, explains that directors take up different investment strategies that tend to reduce the payment to outside suppliers of funds and it can only be possible when there is a high level of director ownership within the firm (Alabdullah, 2018; Arora & Sharma, 2016; Ahmed & Mubaraq, 2015). Contrarily, entrenchment perspective contends high director ownership brings fewer chances for outsiders to interfere in the management affairs (O'Callaghan, Ashton, & Hodgkinson,

2018). Taking both perspectives simultaneously, the relationship between director ownership and firm performance seems non-linear (Shan, 2017; Mueller & Spitz-Oener, 2006).

According to Jensen and Meckling (1976), the directors can act as the owners in directly instructing and monitoring the management of the companies if they own the shares. It can then reduce agency problems as compared to the situation where the directors, who are not the owners, supervise the management of the company. Agency theory suggests that if directors are required to own shares of the firm, and their actual shareholdings increase, then the interests of the directors would align with those of the shareholders in general. This alignment would result in a smaller tendency for the directors to transfer wealth away from the corporation, and thus the shareholders in general would benefit.

However, García-Meca and Sánchez-Ballesta (2011, p. 42) argue that directors as owners could encourage them to make decisions that are “value-reducing” in nature “in order to protect their positions in the firm, expropriating wealth from the outsiders and hence decreasing the value of the firm.” Nonetheless, some studies have provided support for the agency theory conjecture that they found positive association between director ownership and firm performance. For instance, Ahmed (2013) found a positive relationship between firm performance and director ownership. In the Malaysian context, Mak and Kusnadi (2005) and Ghazali (2010) both found no significant association between director ownership and firm performance. Building on the agency theory, this study expects director ownership would have a positive impact on firm performance.

### 3.3.5 Institutional Ownership

Institutional ownership is the number of shares held by institutional investors (McConnell & Servaes, 1995; Arouri, Hossain, & Muttakin, 2014; Sheikh & Karim, 2015). Institutional investors have a very significant role in corporate governance and they are concerned with reducing agency costs in the firms as they have both the motivation and intention to monitor the managers to safeguard their interest (Panda & Leepsa, 2019; Mehdi, Sahut, & Teulon, 2017). Moreover, they can directly participate in firm's decision-making process by pressuring the board of directors and disciplining the management (Panda & Leepsa, 2019; Wang, 2016).

Based on the monitoring role of institutional investors, Pound (1988) presented three hypotheses namely efficient monitoring, conflict of interest, and strategic alliance to explicate the relationship between firm value and institutional shareholdings where efficient monitoring hypothesis predicts that institutional investors can monitor the management more effectively than small investors (Wang, 2016; Mehdi, Sahut, & Teulon, 2017). Contrarily, conflict of interest hypothesis suggest that institutional investors are forced to use their right to vote in favor of management on account of their other business relationships (Aluchna & Kaminski, 2017; Zhou, Lan, & Tang, 2016). Accordingly, the strategic alignment hypothesis predicts that managers and institutional investors may find it valuable to cooperate in the best interests of organizations (Young & Wu, 2017). Yet, this cooperation diminishes the favorable effects on corporate value that could result from intense monitoring of institutional shareholders (Al-Saidi & Al-Shammari, 2015; Arouri, Hossain, & Muttakin, 2014).

### 3.3.6 Institutional Ownership and Firm Performance

Based on agency theory, several studies show that institutional investors significantly affect the firm performance. Several studies suggest that large institutional investors help to resolve agency problems by monitoring management (Arouri, Hossain, & Muttakin, 2014; Sheikh & Karim, 2015; Zhou, Lan, & Tang, 2016). Contrarily, in emerging markets, institutional investors focus on governance as a way to enhance profitability markets, unlike in the developed countries, where institutional investors focus on governance as a way to avoid risk (Young & Wu, 2017).

Firms with greater institutional ownership tend to perform better because institutional investors have the resource and the ability to properly monitor management decisions (Sheikh & Karim, 2015). Concentrated shareholdings by institutions provide an incentive for diligent monitoring as they have the resources, expertise and stronger incentives to actively monitor the actions of management and prevent managers' opportunistic behavior (Zhou, Lan, & Tang, 2016). In addition, because institutional owners hold substantial shareholdings that make it difficult to sell shares immediately at prevailing prices, the institutional investors have greater incentives to closely monitor companies (Aluchna & Kaminski, 2017).

Institutional investors also pursue active shareholder policy with respect to monitoring corporate spending, reforming governance and addressing social and environmental issues (Mehdi, Sahut, & Teulon, 2017). The positive impact of the presence of institutional investors on company performance is noted in numerous studies (Thomsen

& Pedersen, 2000; Krivogorsky & Burton, 2012), although this link appears to be more complex (Aluchna & Kaminski, 2017). The analysis shows that institutional investors may differ in their goals and expectations as well as monitoring strategies and governance behavior (Young & Wu, 2017).

Institutional owners hold a significant percentage of corporate ownership in the Malaysian business environment and these institutional investors have strong influence over the corporate governance matters (Ahmed & Mubaraq, 2015). Meanwhile, limited evidence exists on the association between institutional ownership and corporate performance in Malaysia that needs further investigation into the relationship. The presence of institutional investors in the ownership structure is viewed as an important element of corporate governance. Due to their experience, know-how and professional knowledge, institutions provide oversight and monitoring over the executives and discipline dominant owners (Aluchna & Kaminski, 2017).

### **3.3.7 CEO Duality**

CEO duality refers to a situation when the chief executive officer of a company also acts as the chairperson of the board of directors (Duru, Iyengar, & Zampelli, 2016; Al-Manaseer, Al-Hindawi, Al-Dahiyat, & Sartawi, 2012). Jensen (1993) suggests that when the same person is the CEO and chairman of the board, the board of the directors cannot perform its key function. In this case, the internal control system will be very weak, and the CEO will get more power to control the board of directors and will bring value-decreasing impact to firm performance. Meanwhile, the independence of the board of

directors is impacted and it is more likely for the CEO to pursue his/her own interests but not all shareholders' interests. Baliga, Moyer, and Rao (1996) suggest that in case of the CEO and chairman duality, the board is less effective control mechanisms. This result is in line with the arguments of the agency theory, which states that duality promotes CEO entrenchment by reducing board monitoring effectiveness (Benjamin & Biswas, 2019).

The advocates of organizational theories suggest that duality enhances unity of command (Abraham & Singh, 2016; Garas & ElMassah, 2018). However, the proponents of agency theory (Abraham & Singh 2016; Nas & Kalaycioglu, 2016; Duru, Iyengar, & Zampelli, 2016) suggest that avoiding duality limits potential CEO entrenchment. Contrarily, Finkelstein and D'Aveni (1994) explained the role duality through agency theory, arguing that agency problems arise when the same person holds two positions on the board; leading towards performance inefficiency and ultimately towards conflict of interest (Benjamin & Biswas, 2019; Sheikh & Karim, 2015). However, CEO duality is synonymous with poor performance and weaker monitoring, establishes dependence, decreases board monitoring effectiveness and increases CEO entrenchment (Nuanpradit, 2019).

### **3.3.8 CEO Duality and Firm Performance**

There are some studies which provide arguments for and against CEO duality through their empirical evidence. Boyd (1994) provided arguments that CEO duality is contingent and it cannot be predicted through a specific theory. Moreover, there is no variation in performance due to CEO duality, but very minor evidence to link it with long-term

performance of firms (Baliga, Moyer, & Rao, 1996). Similarly, splitting the roles of CEO and chairman of the board leads towards uncertainty and ambiguity both for employees and for stakeholders (Dalton & Dalton, 2005). The empirical results are inconsistent regarding the effects of CEO duality on performance.

The prevalence of CEO duality can exacerbate agency conflicts. Proponents of agency theory who focus on monitoring and entrenchment argue that avoiding duality limits potential CEO entrenchment and the level of firms' dysfunctionality (Finkelstein & D'Aveni, 1994). Vigilant boards tend to favor non-duality because duality, by providing CEOs with undivided authority, facilitates CEO entrenchment, and hence, can lead to opportunistic behavior that reduces shareholder wealth (Jensen & Meckling, 1976). CEO duality, by granting a CEO an influential role on the board of directors and compromising its effective control of decision-making, increases the likelihood that the CEO will "take actions that deviate from the interests of residual claimants" (Fama & Jensen, 1983, p. 304) and other stakeholders. In the same vein, poor governance and monitoring is associated with CEO duality causing lower governance effectiveness of independent directors (Garas & ElMassah, 2018), higher enforcement actions by the regulators, poorer financial performance, and lower firm value (Benjamin & Biswas, 2019). In view of the arguments above, this study expects a negative relationship between CEO duality and firm performance.

### 3.3.9 CEO Remuneration

The basic pillar of agency theory is that self-interest agents (CEOs) have a tendency to engage in actions that maximize their personal wealth or utility preferences, at the cost of their firms (Jensen & Meckling, 1976). In this way, agency theory focuses on the issue of agency costs that arise due to the divergence in interests between managers and outside shareholders (Benjamin & Biswas, 2019). Contrarily, principals are interested in actions that maximize shareholders' wealth (Usman, Zhang, Wang, Sun, & Makki, 2018). However, efforts to force agents to act in the shareholder's interest could result in monitoring costs, which are in some situations become so large as to make such exact compliance unattractive (Terkovska, 2017; Teti, Dell'Acqua, Etro, & Volpe, 2017; Lee & Isa, 2015). Moreover, complexities in monitoring the management behavior result in establishment of organizational mechanisms that may achieve compliance in a gainful way (Elsayed & Elbardan, 2018; Usman, Zhang, Wang, Sun, & Makki, 2018).

One such mechanism is to introduce a remuneration package which motivates the managers to choose those actions that increase the shareholders' wealth (Li & Hwang, 2018). For instance, economics perspective contends that the issue of pay-performance usually relies on the principle-agent theory (Elsayed & Elbardan, 2018; Jensen & Meckling, 1976) to justify a positive correlation between executive remuneration and firm performance (Basuroy, Gleason, & Kannan, 2014; Faria, Martins, & Brandão, 2014; Jensen & Murphy, 1990). However, the responsibilities and accountabilities of directors and CEOs have been increased in recent years (Teti, Dell'Acqua, Etro, & Volpe, 2017)

that make it imperative to consider the directors and CEOs as the agents of shareholders to align their mutual interests (Abraham & Singh, 2016).

### **3.3.10 CEO Remuneration and Firm Performance**

Several empirical studies investigated the influence of CEO remuneration on firm performance. However, the empirical findings exhibit mixed results of the relationship making it even questionable for the future researchers. For instance, Shaw and Zhang (2010) find that CEO cash compensation is positively related to firm performance. Carpenter and Sanders (2002) also conclude that the pay-performance relation is significant and positive. These relationships are primarily explained by the alignment of CEO and shareholders' interests by using efficient compensation contracts. The agency theory supports this result, because it was stated that incentive schemes in the form of financial rewards to the CEO would limit the difference in alignment.

Gao and Li (2015) give a different view on the topic by comparing the CEO pay-performance sensitivity in privately-held and public firms. Their results indicate that in both private and public firms the relation between CEO compensation and firm accounting performance is positive. Appropriate CEO compensation contracts are given as the main reason for this impact. Ozkan (2011) examined the link between CEO pay and firm performance for firms in the UK. A positive and significant link between CEO cash compensation and firm performance was found. There was also a positive relation between total compensation and firm performance, but this was not significant. The reason for the positive relationship is the mitigation of the conflict of interest between the

CEO and the principal by using appropriate compensation packages. Faria, Martins, and Brandão (2014) analyzed the impact of total CEO remuneration and short and long term CEO remuneration on corporate performance. Results indicate that there is a significant positive relationship between CEO remuneration and firm performance. Furthermore, studies of Teti, Dell'Acqua, Etro, and Volpe (2017) and Usman, Zhang, Wang, Sun, and Makki (2018) also documented a significant direct relationship between CEO remuneration and firm performance.

On the other hand, a study by Brick, Palmon, and Wald (2006) shows that there is a strong negative relation between CEO compensation and the performance of a company. They find if the firm is large the CEO and directors engage into cronyism and are paid regardless of the performance of the company. Moreover, Nourayi and Mintz (2008) studied the effect of a CEO's tenure and remuneration on firm performance. The study investigates the pay performance relationship by examining the firm's performance on CEOs cash and total remuneration based on the length of tenure and highlighted a negative relationship between CEO remuneration and both market-based and accounting-based measures of performance.

Basu, Hwang, Mitsudome, and Weintrop (2007) examine the CEO compensation and firm performance of Japan. They find a negative relationship between compensation and accounting performance. According to this study the negative relationship can be explained by the weak governance structures, which result in greater agency problems. Because of these weak governance structures an overcompensation of CEO occurs, which eventually leads to poor firm performance. Likewise, Terkovska (2017) and Li and

Hwang (2018) reported a negative relationship between CEO remuneration and firm performance.

Besides, Tosi, Misangyi, Fanelli, Waldman and Yammarino (2004) presented their study on the CEO charisma, compensation and its effects on firm performance. They found a relationship between CEO charisma and higher payment. However, they failed to prove any relation between CEO compensation and firm performance. This study mentions that other factors play a role in CEO compensation and firm performance, which could explain this insignificant relation. Mohammed and Phil (2013) found similar results in their study where they stated no relationship between CEO compensation and firm performance. Another study supporting this relationship between CEO compensation and firm performance is from Leone, Wu and Zimmerman (2006) concluding that CEO compensation has no significant relationship with firm performance.

### **3.3.11 Directors' Remuneration**

The controversy of directors' remuneration has recently captured the attention of shareholders, regulators, the media and the general public (Abdullah, 2006; Elsayed & Elbardan, 2018). It has generated heated debate because of the increasing number of high profile corporate failures. This has led to questioning the appropriateness of the corporate structure that determines the executive remuneration and the linkages between directors' remuneration packages and firm performance. Two main contrasting but interlinked frameworks have been introduced to explain the association between executive remuneration and firm performance (Elsayed & Elbardan, 2018). First, pay-performance

framework derives support from agency theory, contemplating a positive association between agency-based contract and firm performance. Agency based contracts propose that executives will only obtain high rewards when certain firm performance targets are achieved.

The second framework, performance-pay, has maintained a direct link between firm performance and executive remuneration. This link may not be related to managerial performance alone, but instead of a whole range of environmental and institutional factors impacting firm performance. These interactions may be complex and with exceptions (Conyon & Sadler, 2001). The notion of performance-pay has been on lower-level executives to advance their career to achieve the rewards obtainable at higher positions in the corporate ladder (Elsayed & Elbardan, 2018). There are several studies that based their investigations on analyzing the two frameworks independently. Major proportion addresses first framework linking pay with performance of directors and CEOs. However, the empirical findings of earlier studies are inconsistent.

### **3.3.12 Directors' Remuneration and Firm Performance**

Linking directors' remuneration to corporate performance should be seen as fair to the shareholders, as directors, especially involving executive directors' remuneration packages, are rewarded based on their individual and corporate performance. Various studies have been carried out in the UK to examine whether such a link indeed exists, with top director's remuneration being the focus (Conyon, Gregg, & Machin, 1995). Their evidence shows that corporate growth is an important determinant of top director's

remuneration. Conyon and Peck (1998) also document evidence of a positive and significant correlation between performance and the remuneration. Their evidence also shows a positive significant association between firm's size and the firm's highest paid director's remuneration.

Jensen and Murphy (1990) find only a weak link between directors' compensation and firm's performance. In Malaysia, Firth, Tam & Tang, (1999) found performance, as measured by contemporaneous and lagged accounting profitability, is associated positively and strongly with CEO and executive directors' compensation. Moreover, Hassan, Christopher, and Evans (2003) who examine the link between directors' remuneration and corporate performance involving firms pre- and during the Asian financial crisis period (1996-1998) find only a weak relation, though it is positive. Interestingly, their evidence from the lag-effect analysis shows a strong relation between financial indicators and directors' remuneration. Their evidence also shows a positive and significant association between directors' remuneration and firm's size and firm's turnover, which they argue, represent firm's internal growth and the positive and significant relations of these variables are consistent with the earlier findings in the UK and in Hong Kong (Firth, Tam, & Tang, 1999).

Lee, Lev, and Yeo (2008) examined performance-pay link for the listed US firms and reported positive and robust association between firm performance and directors' remuneration. In a parallel study, Shiah-Hou and Cheng (2012) investigated that how outside directors' (independent directors) experience and their remuneration affect firm performance through the quality of their monitoring and advising when traditional board

structure does not work efficiently. They argue that outside director experience and remuneration have an economically positive impact on firm's accounting and market performance. Even when endogeneity problems of outsiders are counted, the relationship still seems the positive confirming authors' predictions.

Likewise, Lee and Isa (2015) have examined the effect of directors' remuneration on the performance of banks in Malaysia during 2003-2011 and observed a direct relationship between directors' remuneration with performance measured by return on assets and return on equity. Moreover, Aggarwal and Ghosh (2015) examined the impact of directors' remuneration on firm's intrinsic (accounting performance) and extrinsic (market performance) value. They found a combination of results suggesting a positive influence of directors' remuneration and the firm's intrinsic (accounting measure) value. Meanwhile, the relationship does not benefit the extrinsic value of the firm. Correspondingly, Nyambia and Hamdan (2018), Afrifa and Adesina (2018), and Elsayed and Elbardan (2018) reported a positive relationship between directors' remuneration and firm performance confirming the proposition of agency theory.

On the other hand, Abdullah (2006) investigated the determinants of directors' remuneration on 86 distressed firms of Malaysia during 2001. Author documented an insignificant relationship between directors' remuneration and return on assets. However, a negative and significant link is observed between directors' remuneration and lagged return on assets (ROA). Author argues that there is a need to focus on the relationship between remuneration and firm performance. Similarly, Wahab, Marzuki, Jaafar, and Masron (2018) found a negative relationship between Bumiputras directors'

remuneration and firm performance, implying that the role of Bumiputras directors is to offer political expedience to the board and thus provide economies of scale through their status to the country. Moreover, Jiang and Zhang (2018) documented an inverse relationship between executive remuneration and firm performance where firms have poor internal control mechanisms and high level of institutional shareholdings. This negative effect is more pronounced in central government-controlled listed SOEs (state-owned enterprises) than in those controlled by local government implying that there is inefficacy of the government's say-on-pay policy.

### **3.3.13 Risk Management Committee**

Risk management committee is the unit of least attention by practitioners and academicians has now become an important emphasis (Ng, Chong, & Ismail, 2012). Conventionally, risk management activities have been merged as part of the key functions of an audit committee. Regulatory changes (Bank Negara Malaysia, 2010) have determined the scope of the audit committee as segregating the risk management and internal control apart from ensuring integrity and transparency in the financial reporting process. Not only audit directors should be financially literate rather audit committee must be familiar with risk management as ways to enhance the checks and balance function (Ng, Chong, & Ismail, 2012). The recurrence of business collapses substantially casts doubt about the effectiveness of an audit committee in overseeing and executing risk management program. The multiple roles performed by the audit committee have been objected by Zaman (2001), Kallamu and Saat (2015) and Elamer and Benyazid

(2018) that it is unreasonable to expect an audit committee to carry out high-level review as its members have only limited resources in terms of skills and time.

Burton (2008) explains risk as more than the description defined from a financial perspective; it encompasses politics, economy, regulation, and market. Against this background, Bugalla, Kallman, Lindo, and Narvaez (2012), among others proposed that an audit committee should be independent of the risk management committee in order to preserve the integrity and protect against fiduciary malfeasance. The above insights provide two implications – first, it underscores the need to separate duties and responsibilities between an audit committee and risk management committee. Second, auditors and risk management committee members should not be linked in any way to ensure a fair assessment of all risk management functions. Brown, Steen, and Foreman (2009), Ng, Chong, and Ismail (2012), and Abdullah and Said (2019) strongly recommended the setup of an independent RMC given the more complex risk environment and supported the argument that an audit committee may be unable to oversee both financial and non-financial risks. Moreover, many audit committee members found it uncomfortable to be overburdened with workload in risk oversight.

While many advocates of the risk management committee have highlighted the numerous benefits of a risk management committee to mitigate risk and assess firm performance, the empirical finding in this association remains vague and narrow. Among risk management related researches, Brown, Steen, and Foreman (2009) conducted a thorough review of risk management in the Australian biotechnology companies.

Subramaniam, McManus, and Zhang (2009) examined how the risk management committee is associated with firms' characteristics and board factors.

Bugalla, Kallman, Lindo, and Narvaez (2012) on the other hand, proposed a new model of governance and risk management for financial intermediaries determining how well an independent risk management committee could serve its purpose in minimizing the tendency to take risks. Ng, Chong, and Ismail (2012) believe that a stand-alone risk management committee continues to play an integral part in various risk issues that influence the success of the operation, particularly after the regulatory change. They further argue that the formation of RMC in view of good corporate governance will help ensure adequate industry health and strength. At minimum, an effective risk management system helps organizations to achieve their objective, improves the quality of financial reporting, and enhances company reputation (Subramaniam, McManus, & Zhang, 2009). Abubakar, Ado, Mohamed, and Mustapha (2018) investigated the effect of risk management committee attributes and board financial knowledge on performance of listed firms in Nigeria and found an insignificant impact of RMC size on return on assets. However, a negative impact was observed between RMC independence and ROA.

Based on the above recommendations, this study focuses on three attributes that have been recommended in previous works. The attributes include the number of directors on the committee, the proportion of independent directors on the committee and the frequency of meetings (Liu & Zhuang, 2011, Musallam, 2018).

### 3.3.13.1 Size of Risk Management Committee

In carrying out its function effectively and efficiently, the committee should be supported with adequate resources and authority (Elamer & Benyazid, 2018). Be´dard, Chtourou, and Courteau (2004) argued that a large committee provides not only strength, the diversity of opinion and expertise makes it more effective to find out and resolve potential problems. Moreover, Ng, Chong, and Ismail (2012) claim that according to Bank Negara Malaysia (2010), all financial institutions must set up an independent risk management committee, which comprises a minimum of three directors (Abdullah & Said, 2019; Abubakar, Ado, Mohamed, & Mustapha, 2018).

Empirical researches suggest that committee size can have implications on company performance in both directions. On one hand, Pearce and Zahra (1992) argue, resource dependence theory supports the notion of size (Yasser, Mamun, & Rodrigs, 2017) because the larger the committee, the more likely it has more resources to be utilized in addressing issues and problems in the monitoring process (Zheng & Tsai, 2019; Elamer & Benyazid, 2018; Aebi, Sabato, & Schmid, 2012). Similar to that, a larger committee could possibly boost the status and power of the committee in the company (Musallam, 2018; Coetzee, 2016; Kalbers & Fogarty, 1993). Therefore, it is reported that a larger risk management committee is able to address risk matters more effectively (Abubakar, Ado, Mohamed, & Mustapha, 2018; Ng, Chong, & Ismail, 2012).

On the other hand, agency theory predicts that a larger committee can raise free riders problem as the presence of more members tends to comfort the others that lead towards

agency conflicts among board committees and management (Subramaniam, McManus, & Zhang, 2009; Karamanou and Vafeas, 2005). Moreover, a bigger size will possibly lead to focus lost and committee members tend to be less active in a committee (Abubakar, Ado, Mohamed, & Mustapha, 2018), larger committee size brings slower decision-making process (Musallam, 2018), less-candid discussions of financial performance (Kallamu & Saat, 2015), and biases against risk-taking (Coetzee, 2016). Finally, Erkens, Hung, and Matos (2012) argued that the risk management committee must have at least three members to ensure proper functioning.

### **3.3.13.2 Independence of Risk Management Committee**

The independence of committee members is one of the key elements in corporate governance. Fama and Jensen (1983) stated independent directors are crucial to monitor management actions (Nahar, Jubb, & Azim, 2016). This is because they do not have a personal interest in the company (Mathew, Ibrahim, & Archbold, 2018; Palaniappan, 2017) and this difference, at least allows them to make fair judgment without fear and favor (Zemzem & Kacem, 2014). Moreover, resource based view (Barney, 1991) perceives the higher RMC independence fetches critical outside resources to the firm in the form of diverse knowledge, experience and skill-base (Abdullah & Said, 2019). Additionally, conventional wisdom suggests that a greater level of independence allows for more effective monitoring, affects discrete tasks, adopts anti-takeover devices, negotiates takeover premiums and improves firm performance (Ahmed & Mubaraq, 2015; Sheikh & Karim, 2015; Coles, Daniel, & Naveen, 2008).

Prior studies have documented mixed evidences regarding independent directors on the risk management committee. For instance, Abbott, Parker, and Peters (2004) reported that firms with more independent directors in a committee are less likely associated with the Securities and Exchange Commission's (SEC) sanction for fraudulent or misleading reporting (Musallam, 2018; Ng, Chong, & Ismail, 2012). Mangena and Pike (2005) stated that the influence of management is less when committee members are more independent, limiting the free-rider behavior of managers within firms (Sheikh & Karim, 2015). At the extreme, the finding of Bronson, Carcello, and Hollingsworth (2009) supported a completely or a 100 percent independent audit committee (Abubakar, Ado, Mohamed, & Mustapha, 2018). However, Zemzem and Kacem (2014) found a significant positive relationship between RMC independence and firm performance of Tunisian lending firms during 2002-2011. In the Malaysian context, Bank Negara Malaysia (2010) requires the risk management committee for firms to be composed of non-executive directors and out of these; chairperson must be independent suggesting there should be at least one independent director in RMC. Meanwhile, the exact proportion is not determined yet (Ng, Chong, & Ismail, 2012).

### **3.3.13.3 Frequency of Risk Management Committee Meetings**

Even if an independent risk management committee is well-structured with best practices in corporate governance, its function is however less effective without members' participation, which possibly explains how vital the activity criteria are related to the role of the committee (Suttipun, 2018; Kumari & Pattanayak, 2017). Abbott, Parker, and Peters (2004) emphasized that an inactive committee likely cause ineffectiveness and

consequently regular meetings are necessary (Abubakar, Ado, Mohamed, & Mustapha, 2018). In this study, the committee's activity in risk management is observed by the frequency of risk management committee meetings every year. The meeting provides a good opportunity for members to openly communicate, discuss, and achieve a common goal in risk monitoring, control and enhanced firm performance (Ofoeda, 2017). Sori, Ramadili, and Karbhari (2009) stated that the number of meetings is an indication of the amount of effort of a committee directed to accomplish the tasks and responsibility entrusted (Amoozegar, Pukthuanthong, & Walker, 2017; Ahmed & Mubaraq, 2015). It also signifies the times of committee members devoted to correct the situation (Palaniappan, 2017; Nahar, Jubb, & Azim, 2016).

Jackling and Johl (2009) claim that frequency of meetings of the board can play an active role in linking the external environment to the governance of the company and can have a positive impact on firm performance (Kallamu & Saat, 2015). However, Ferrero-Ferrero, Fernández-Izquierdo, and Muñoz-Torres (2012) indicate that the higher frequency of meetings is only effective in crisis times and negatively influences the performance of the firms during expansionary times. However, Battaglia, Gallo, and Graziano (2014) found a positive relationship between RMC meetings and firm performance, claiming a higher frequency of meetings can boost the effective risk management activities (Abubakar, Ado, Mohamed, & Mustapha, 2018).

From previous works, it is also obvious that the frequency of meetings plays a central role in determining the effectiveness of a committee (Palaniappan, 2017). For example, Abbott, Park, and Parker (2000) reported that the frequency of meetings indicates the

desire of members to fulfill their responsibilities; thereby it has a negative relationship with fraudulent reporting. A general expectation is that frequent meetings ensure a smooth and effective monitoring process of decision making (Ofoeda, 2017; Amoozegar, Pukthuanthong, & Walker, 2017). More importantly, risk identification and assessment are an on-going process that should be brought to the board and risk management committee's attention on a usual basis (Li & Hwang, 2018; Terkovska, 2017; Subramaniam, McManus, & Zhang, 2009). Furthermore, committee meetings enable the members to keep themselves updated about activities in managing principal risks and boosting firm performance through a constant review (Elamer & Benyazid, 2018; Kallamu & Saat, 2015).

### **3.4 Board Characteristics**

This study constitutes board characteristics such as board size, board independence and board diversity as explanatory as well as moderating variable. Moderating variables are used in order to examine the strengthening or weakening effect on the given relationship. As suggested by Baron and Kenny (1986), the introduction of a moderating variable becomes necessary when mixed findings exist. It is, therefore, in line with several studies (Williams, Fadil, & Armstrong, 2005, Capezio, Shields, & O'Donnell, 2011, Wu & Wu, 2014; Duru, Iyengar, & Zampelli, 2016; Luanglath, Ali, & Mohannak, 2019; Zheng & Tsai, 2019) to use board characteristics as moderating variable in an effort to achieve alignment of interest in principal-agent relationship. In this context, the present study argues that board characteristics such as board size (Zheng & Tsai, 2019; Şahin, Artan, & Tuysuz, 2015), board independence (Capezio, Shields, & O'Donnell, 2011), and women

representation on the board (ElBadawy, Chinta, & Magdy, 2018) will influence the relationship of corporate governance mechanisms, corporate social responsibility practices and firm performance.

Significance for choosing board characteristics as moderating variable contends that the board of directors and top management allow firms to get the required resources (Rashid, 2018) and attention for efficient implementation of corporate governance mechanisms and corporate social responsibility practices (Alazzani, Wan-Hussin, & Jones, 2019; Sahut, Periz-Ortiz, & Teulon, 2019; ElGammal, Yassine, Fakir, & El-Kassar, 2018; Arora & Bodhanwala, 2018) which may increase business performance. The company board is constituted to reduce the cost associated with conflict between owners and management (Matuszak, Róžańska, & Macuda, 2019; Ashfaq & Rui, 2018; Shamil, Shaikh, Ho, & Krishnan, 2014) and taking into account the concerns relating to the stakeholders (Issa & Fang, 2019; Rao & Tilt, 2016).

The shareholders' main interest is to maximize firm value (Benjamin & Biswas, 2019; Nuanpradit, 2019) while the interest of the management is to maximize their benefits (Terkovska, 2017; Fama & Jensen, 1983). In this situation, corporate governance mechanisms are usually introduced to deal with this condition and minimize the conflict (Altaf & Shah, 2018; Mardnly, Mouselli, & Abdulraouf, 2018; Saleh, Halili, Zeitun, & Salim, 2017). Thus, a number of corporate governance mechanisms have been proposed to ensure the effectiveness of monitoring in solving agency problems between management and owners and gaining stakeholders' interests (Coles, Daniel, & Naveen, 2008; Faleye, Hoitash, & Hoitash, 2011; Duru, Iyengar, & Zampelli, 2016).

Board characteristics; namely, board size, board independence and board diversity are considered one of the mechanisms to resolve these agency conflicts (Issa & Fang, 2019; Luanglath, Ali, & Mohannak, 2019; AlQadasi & Abidin, 2018; Palaniappan, 2017). Though the board delegates both management functions and decision control functions of internal managers, they retain final control over the managers through the right to ratify key operational decisions (Duru, Iyengar, & Zampelli, 2016; Sanchez-Marín & Baixauli-Soler, 2014; Chen, 2011; Fama & Jensen, 1983). As Coles, Daniel, and Naveen, (2008) contend complex firms should have larger board size due to broad experience, knowledge and diverse skill-base (Mishra & Kapil, 2017; Ofoeda, 2017). Furthermore, such firms should have higher board independence for better advice to the firm's CEO (Yasser, Mamun, & Rodrigs, 2017; Sheikh & Karim, 2015). Additionally, women's representation on the board also provides a distinct set of skills and experience to the firm for better advice and monitoring of the management affairs (Issa & Fang, 2019; Byron & Post, 2016).

For the given relationship of corporate governance mechanisms, corporate social responsibility practices and firm performance, it is expected that board characteristics will strengthen the given relationship while integrating agency theory, stakeholder theory and resource dependence theory. Details of each characteristic are explained as follows,

### 3.4.1 Board Size

Board size is one of the important dimensions of board composition in the current literature. Empirical evidence supports the idea that financial performance and board size are negatively correlated (Lipton & Lorsch, 1992; Yermack, 1996; Nyamongo & Temesgen, 2013; Hassan & Halbouni, 2013), but some results are contradictory (Haniffa & Hudaib, 2006; Sheikh & Karim, 2015). This negative correlation is confirmed by the agency theory, which has been a dominant theory in economics and finance literature (Hermalin & Weisbach, 2003). Social psychology literature proposes that the larger board size leads to communication and coordination problems (Jensen, 1993). On the other hand, a large board decreases both the ability and incentives to control management (Cheng, Evans, & Nagarajan, 2008). According to the resource based view, a larger board leads to new resources and skills when a firm is faced with environmental uncertainty and turbulence (Barney, 1991).

In recent years, many researchers have moved beyond studying the effect that board size has on firm performance and, instead, have turned their attention to studying board attributes as insiders versus outsiders and board member diversity to name a few. The study of these attributes is important, yet the argument arises that the effects of board size on certain organizational outcomes have never been fully resolved. Some might take exception to this premise; however, further exploratory research into how board size affects organizations is reasonable.

Williams, Fadil, and Armstrong (2005) explored the moderating role of board size on the relationship between top management team tenure and corporate illegal activity. The authors hypothesized that larger board size moderates the relationship between top management team tenure and firm illegal activity such that the incidence of illegal activity will be reduced in the firms with larger boards. Consequently, results affirmed that larger boards have more human assets to monitor the board in a behavioral manner.

Similarly, Şahin, Artan, and Tuysuz (2015) examined the moderating role of board size on the relationship between FDI's international diversification and firm performance in Turkey by proposing that relationship will be stronger with larger boards of firms. They found confirmation of their hypothesis by claiming that larger boards strengthen the relationship between FDI's diversification and firm performance due to efficient monitoring, greater skills and insightful experience that ultimately enhances shareholder wealth. Furthermore, Luanglath, Ali, and Mohannak (2019) examined the moderating role of board size on the relationship between top management team gender diversity and productivity and found a lower board size positively moderates the relationship. Additionally, Zheng and Tsai (2019) contend that larger board positively moderates the diversification-performance relationship.

In sum, it is argued that larger boards seem to consolidate the relationship between variables. In this way, a limited research encourages the current study to investigate the moderating effects of board size on corporate governance mechanisms, corporate social responsibility practices and firm performance.

### 3.4.2 Board Independence

The number of independent directors on the board is often used as a proxy for good governance. The role of the board of directors as an effective monitoring mechanism for management is dependent upon them being non-executive and independent. Furthermore, the inclusion of independent directors on corporate boards is an effective mechanism to reduce the potential divergence between management and shareholders. Fama (1980) argued that more independent directors on the board act as professional referees and work for value maximization of shareholders. Outsiders, dominated on the boards, in terms of percentage of independent directors will enhance the reputation of the firm, as the firm is viewed as following good corporate governance, improving the reliability of its financial disclosures. These shortcomings can be taken care of by choosing efficient board members.

Observing the moderating role of independent board of directors, several empirical researches include board independence to explore the moderating impact on the given relationship with mixed results. For instance, Capezio, Shields, and O'Donnell (2011) investigated the moderating role of board structural independence on CEO pay-for-firm-level performance of Australian public companies included in the S&P/ASX 500 index. The authors found an insignificant moderating role of independent directors on the relationship between CEO pay and firm performance supporting behavioral agency theory that questions whether board structural independence reinforces the board's willingness to implement CEO pay-for-firm-level performance.

Likewise, Chen (2011) investigated the impact of top management team characteristics on internationalization using board independence as moderating variable. However, the study gets endorsement from agency theory arguments suggesting an enhanced positive relationship between top management team (TMT) tenure and international experience with the number of independent directors on the board. Moreover, Kuo and Hung (2011) found a significant moderating effect of board independence on family control and investment-cash flow sensitive firms of Taiwan.

On the other hand, Duru, Iyengar, and Zampelli (2016) investigated the performance impact of CEO duality within a dynamic framework, assessing significant linkages between current governance mechanisms and other firm specific variables of firm performance on U.S 950 unique firms. The results reveal that independent board of directors positively moderate the significant negative relationship between CEO duality and firm performance. Parallel to that, Şahin, Artan, and Tuysuz (2015) examined the moderating effects of the board of directors on the relationship between international diversification and firm performance in Turkey. They found a significant moderating impact of the board of directors on the relationship between international diversification and firm performance, arguing that interest of independent directors is linked with lower-risk investment decisions. Likewise, Khaoula and Moez (2019) found a significant moderating effect of independent board on firm value and tax planning in European listed firms.

Alternatively, Wu and Wu (2014) examined the moderating role of the board of directors on the relationship between integrated risk management and product innovation using

panel data of 1178 Chinese firms. They found a negative moderating role of independent directors on the significant positive relationship between integrated risk management and product innovation success. Thus, excessive involvement of independent directors in the daily affairs of organizations may restrict the managers to perform their functions liberally hence, negatively affecting the performance.

These incongruent findings of earlier empirical researches relating to the moderating role of independent directors on board suggest that further exploration of the phenomenon is required.

### **3.4.3 Board Diversity**

Many recent studies in the field of corporate governance have generated a growing interest in gender diversity on board of directors as a consequence of the guidelines for good governance introduced in many countries and on the assumption that the presence of women on management bodies has a positive effect on firm performance. Similarly, in the field of social responsibility, an increasing number of studies defend the inclusion of women at all levels of company management for several reasons. Van der Walt and Ingley (2003) state that the arguments in favor of diversity on the board directors are of two types: ethical and economic. The ethical arguments consider diversity on the board to be desirable as an end in itself, and emphasize that it is unfair to exclude certain groups of the business elite by gender, race or other characteristics (Singh, Vinnicombe, & Johnson, 2001). The economic arguments stem from the fact that a failure to select the most talented candidates negatively affects the financial performance of the company. So, the

composition of the board affects the way that it performs its functions, which reflects, in part, on the performance of the company (Kiel & Nicholson, 2003).

In addition, gender diversity on board of directors has also been justified from various viewpoints. For example, it is claimed that diversity is an indicator of corporate social responsibility; generates greater creativity in decision-making (Erhardt, Werbel, & Shrader, 2003); and contributes other perspectives to debates, raising new concerns and providing new sensitivities that find expression in the discussions of boards (Burke, 1997).

According to Malaysian Code on Corporate Governance (2017), there must be 30 percent women representation on the board by Large Companies. Since there is growing concern of literature about examining the effect of board diversity on firm performance, but there is minimal literature that observes the moderating impact of board diversity on a given relationship. A study of ElBadawy, Chinta, and Magdy (2018), attempts to investigate the moderating and mediating role of gender on the relationship between quality of work life and organizational commitment. The authors found a significant moderating effect of gender on the relationship between quality of work life and organizational commitment. Finding of the study incites the need to further explore the moderating effect of gender in various organizational procedures and processes such as corporate governance mechanisms, corporate social responsibility practices and firm performance.

### **3.5 Corporate Social Responsibility**

In the early twenty-first century, debate about the role of social responsibility in the global economy has increased because of the collapse of some companies and their financial scandal like Enron and Worldcom (Smith, 2003). But here is a key question in mind: what is corporate social responsibility? Until now, no consensus in the literature has caused CSR defined in different ways by various researchers.

Over three decades of intensive scientific study in the field of social responsibility, scholars still disagree upon fundamental issues of what constitutes corporate social responsibility (Aguilera, Rupp, Williams, & Ganpathi, 2007). For instance, Van Beurden and Gössling (2008) defined corporate social responsibility as the persistent obligation by corporate to behave honorably and contribute to economic development, whereas improving the quality of life of the labor force and their families as of the native community as a whole. According to Bhattacharya, Korschun, and Sen (2009) corporate social responsibility is a commitment to improving the health of the community through volunteer activities and commercial assistance from company funds. Zhu and Tan (2008) noted that CSR is a process of wealth creation that improves the company's competitive advantage. Despite all the definitions provided by different scholars, there is a general belief that the role of organizations in society is more important than maximizing the wealth of a firm's equity holders (Babalola, 2012).

According to Aguinis (2011, p. 855), CSR refers to “context-specific organizational actions and policies that take into account stakeholders' expectations and the triple

bottom line of economic, social, and environmental performance.” The motivation to engage in CSR behavior is unclear at times (ElGammal, Yassine, Fakir, & El-Kassar, 2018; Feng, Wang, & Kreuze, 2017). Therefore, businesses are moral agents, entrusted with direct obligations of all of society and thus businesses engage in CSR out of moral commitments (Issa & Fang, 2019; Rashid, 2018; Wellalage, Locke, & Acharya, 2017). Similarly, Porter and Kramer (2006) stated that companies should identify, prioritize, and address those social issues that matter most, or upon which they can make the largest impact (Feng, Wang, & Kreuze, 2017). They suggest that companies should start with generic social impacts simply by being good citizens, improving relationships with local authorities and bringing pride to employees (Alazzani, Wan-Hussin, & Jones, 2019; Al-Malkawi & Javaid, 2018; Amini & Bianco, 2017). Second, they should identify, and seek to mitigate, the various forms of social harm arising out of their value chain activities (Famiyeh, 2017; Anas, Rashid, & Annuar, 2015; Esa & Ghazali, 2012). Finally, strategic CSR involves pioneering innovations to benefit both society and a company’s own competitiveness (Arora & Bodhanwala, 2018). To be sure, corporations with poor CSR records experience significant negative repercussions when their negative records become public, and these firms frequently become a part of the consumer watchdog groups’ name-and-shame publicity programs (Yang & Basile, 2019; Salehi, DashtBayaz, & Khorashadizadeh, 2018).

The question of whether a publicly held company should involve in socially responsible behavior is still a subject of much debate and sheer disagreements in the literature (Salehi, DashtBayaz, & Khorashadizadeh, 2019). In this regard, the traditional economic

logic suggests that the corporate managers are required to make decisions, maximizing the wealth of a firm's equity holders through increasing the firm performance (Mackey, Mackey, & Barney, 2007). Nevertheless, the traditional financial logic argues that the socially responsible activities and practices should be avoided when they do not meet those economic objectives set by the traditional economic logic (Jensen & Meckling, 1976; Mackey, Mackey, & Barney, 2007).

In this sense, prior literature introduces some particular types of socially responsible activities, increasing the value of a firm and thus maximizing the wealth of a firm's shareholders. To illustrate, socially responsible behavior can act as a contributing factor in differentiating a given firm's product in the market (McWilliams & Siegel, 2001), can help firms avoid governmental fines and can act as a risk shield for listed companies (Godfrey, 2005). Despite the preceding arguments and discussions, social responsibility theorists contend that there should be some socially responsible activities beneficial to employees, customers, suppliers and society at large, although those activities lead to a reduction in the present value of a firm's cash flow (Mackey, Mackey, & Barney, 2007).

Over the past few decades, the need for corporate social responsibility has been accentuated even in countries where the shareholder-oriented ownership is dominant (Christensen, 2013). In the wake of recent corporate collapses like the case of Enron and similar affairs, the restoration of reputation appears to be the primary motivating factor for companies to adopt CSR practices. Recent studies have focused primarily on the impact of these reports on shareholders' value and the reason of why such reports are issued voluntarily (Salehi, DashtBayaz, & Khorashadizadeh, 2019; Christensen, 2013).

Moreover, prior literature indicates that firm's reputation is the most frequent reason given by corporate executives when interviewed and asked why they adopt CSR reporting (Christensen, 2013).

### **3.5.1 Debate on Aggregate and Disaggregate Measures of Corporate Social Responsibility**

Most studies use the aggregate measure of CSR, a composite index of several categories of CSR using Kinder, Lydenberg, Domini (KLD) & Co data. For example, Waddock and Graves (1997) examined corporate social performance and financial performance, using the aggregate measure of KLD data (Feng, Wang, & Kreuze, 2017). Servaes and Tamayo (2013) explored how customer awareness moderates the association between CSR and firm performance, again, using the aggregate measure of several KLD categories (Nguyen & Nguyen, 2015). However, the use of the aggregate measure of KLD categories has been criticized (Chong, Ong, & Tan, 2018; Feng, Wang, & Kreuze, 2017). For instance, Mitchell, May, and McDonald (1995) emphasized that an aggregate CSR measure without a sound theoretical background is flawed. Scott, Cocchi, and Gemmill (2014) claimed that aggregate measures of KLD are arithmetic tools with weaker statistical basis. Besides, Paruolo, Saisana, and Saltelli (2013) mentioned that the weighing of indicators is the main concern when constructing a composite index (Feng, Wang, & Kreuze, 2017; Zeng, 2016).

Hence, CSR is a multi-dimensional concept (Sahut, Periz-Ortiz, & Teulon, 2019; Zhuang, Chang, & Lee, 2018) and should thus be more preferably measured in disaggregated aspects (Wellalage, Locke, & Acharya, 2017; Ahamed, Almsafir, & Al-Smadi, 2014;

Ehsan & Kaleem, 2012). One notable example is a study by Wang and Berens (2014) who examined how a firm that engages in different types of social activities can create a favorable corporate reputation among its stakeholders, and thus achieve a good financial performance (Byron & Post, 2016). The four types of CSR dimensions examined were economic, legal, ethical, and philanthropic social performance (Carroll, 1979, 1991). They found that the four types of CSR activities affect financial performance differently, and their effects are mediated by public reputation and financial reputation. However, they note that since KLD ratings were not developed as an operationalization of Carroll's four types of CSP, only some KLD indicators were used to measure the four dimensions (Janamrung, & Issarawomrawanich, 2015).

On the other hand, Al-Malkawi and Javaid (2018) used Zakat as proxy of CSR in their study. Etymologically, the concept of CSR is a corporate obligation toward the society. Similar to this, Islamic Law, that is, Shari'a states that Zakat is the obligation toward the society. In other words, it is the responsibility of those who have, to help those who are in need (charity), and for maximizing the social welfare. Zakat is not restricted to only an individual responsibility but it can be extended as the responsibility or an obligation of all the corporations or organizations toward the society, as these entities are generating profits and they can very well support the cause of enhancing the societal benefits. Another significance of taking Zakat variable is that it truly shows the amount of expenditure made by a corporation on social welfare (Al-Malkawi & Javaid, 2018).

Salehi, DashtBayaz, and Khorashadizadeh (2018) used CSR expenditures as a measure of corporate social responsibility in Tehran. In the same way, Ehsan and Kaleem (2012)

used donations as a proxy for CSR. For example in Pakistan, almost all companies report their various social activities and concerns like (Charity, Aids, Environment protected projects, Education, Hospitals/health providing services, Community/societal betterment programs) under the head of ‘donations’ and data is available in their audited financial annual reports as Securities and Exchange Commission of Pakistan (SECP) made it requirement for all listed companies to inform about their spending on corporate donations in the profit & loss accounts. They extend, under the Worker’s Welfare Fund Ordinance (1971) companies should participate and disclose their amounts of spending toward worker welfare in their annual reports. Therefore, they used combined construct for CSR as Donations + Worker Welfare Fund to measure CSR.

In another study, Ahamed, Almsafir, and Al-Smadi (2014) claim that it is difficult to get the exact amount spend for a corporation investing in CSR. According to Bursa Malaysia CSR disclosure framework, corporations of Malaysia need to disclose their CSR activities on the environment, workplace, community and marketplace aspects, but it is not mandatory to disclose the exact amount of money spent on CSR. Furthermore, they reported a positive relationship between CSR dimensions provided by Bursa Malaysia and corporate financial performance.

Similar to Ahamed, Almsafir, and Al-Smadi (2014), Yusoff and Adamu (2016) employed the CSR dimensions in their study in accordance with Bursa Malaysia CSR disclosure framework and reported that each independent dimension of CSR (marketplace, environment, community and workplace) is positively associated with earnings per share and return on equity. Feng, Wang, and Kreuze (2017) used a disaggregated approach to

measure CSR in four categories, namely employees-oriented CSR, environment-oriented CSR, society-oriented CSR, and market-oriented CSR in the US largest 3000 companies across different industries. The authors reported a positive relationship between employee-oriented CSR and firm performance in four labor-sensitive manufacturing industries such as materials, industrials, consumer discretionary and consumer staples. Contrarily, a negative relationship was observed between employee-CSR and performance in the energy sector and utilities firms. In addition, environment-oriented CSR is positively related to firm performance in six sectors and negatively related to performance in healthcare and telecommunication sector. Society-oriented CSR is found positive in four sectors and negative in energy and utilities sectors. Market-oriented CSR is positive for consumer discretionary firms and for industrial firms. For remaining six sectors, the relationship is found insignificant. For given reasons, this study uses independent CSR measures of marketplace, environment, community and workplace provided by Bursa Malaysia and money spent on CSR (Salehi, DashtBayaz, & Khorashadizadeh, 2018; Ehsan & Kaleem, 2012) as measures of corporate social responsibility practices.

### **3.5.2 Corporate Social Responsibility Practices and Firm Performance**

The investigation of the association between corporate social responsibility and firm performance can be observed from two viewpoints. The first view is the positive interpretation. This view suggests that implementing effective corporate social responsibility practices will have an affirmative effect on the financial performance of the companies (Nyeadi, Ibrahim, & Sare, 2018). The second interpretation is the pessimistic

viewpoint. This would suggest that firm performance is adversely affected by actions that are deemed to be good CSR practices. Previous research has tried to figure out the relationship between corporate social responsibility practices and firm performance, but interestingly, these studies have shown unequivocal results.

The mixed results show the different theoretical perspectives on the relationship between corporate social responsibility activities and financial performance. Van Beurden and Gössling (2008) supposed that the different results achieved have been caused by the various methodologies used by the researchers. Barnett (2007) commented that we are unable to absolutely determine whether a one-dollar investment in social plans returns more or less than \$1 in benefit to the shareholder. However, CSR is shown to decrease conflicts between corporations and society. Investors rarely invest in companies with high social responsibility, because investment in social responsibility programs has high costs in the short term (Godfrey, 2005). Although the corporate social responsibility practices include the initial cost for a company, it ultimately leads to improve performance of the company (Kordsachia, 2020).

As a result, indicating that the company has acted in a socially and environmentally responsible method can provide a firm with four main benefits: improved corporate image and relations with stakeholders; better employment and maintenance of employees; improved internal decision making and cost savings; and improved financial returns (Salehi, DashtBayaz, & Khorashadizadeh, 2018). In practice, prior literature on the relationship between corporate social responsibility and firm performance is indicative of an increasing number that demonstrates a positive correlation between CSR

and financial performance (Waddock & Graves, 1997). However, the evidence on the relations between CSR and financial performance is mostly inconclusive or mixed (for instance, positive relation, no relation and negative relation) and some studies suggest that these relationships ought to interpret with caution since the measurement of such linkages is difficult (Feng, Wang, & Kreuze, 2017).

Mackey, Mackey, and Barney (2007) argue that investors may have motivations other than wealth creation when making their investment decisions and consider the balance between supply and demand of socially responsible opportunities as relevant when determining the economic value creation. More specifically, the scholars maintain that when the demand for CSR opportunities is greater than the supply of these opportunities, then these socially responsible activities are likely to create economic value for a given firm.

According to Porter and Kramer (2006) CSR can be a source of opportunity, innovation, and competitive advantage when used appropriately. Particularly, firms can simultaneously enhance their competitiveness in the markets and advance the economic and social conditions in the communities when adopting policies and practices aiming at creating “shared value” (Porter & Kramer, 2006, 2011). However, empirical studies have generated mixed results regarding the CSR-firm performance relationship. Margolis, Elfenbein, and Walsh (2009) conducted a meta-analysis of 167 studies on the link between corporate social performance (CSP) and corporate financial performance and found that the overall effect is positive but small. However, the significant relationship is supported by stakeholder theory based on the findings of the study. Peloza (2009)

reviewed 128 studies on CSR and financial performance and reported that 75 studies (about 58.6 percent) found a positive association between CSR and financial performance, 34 studies (about 26.7 percent) found a mixed or neutral association, and 19 studies (about 14.7 percent) found a negative association.

Prior studies view CSR engagement as a long-term investment focusing on building and maintaining strong relationships with stakeholders and thus improving firm performance. For example, Martin, Petty, and Wallace (2009) argued that CSR activities are valuable in helping companies develop and maintain their reputations, reinforcing their commitment to stakeholders, and maintaining their long-term business success. CSR can boost internal employee morale and commitment within a firm (Godfrey, 2005) and attract and retain capable employees. Houston and Johnson (2000) found that CSR helps promote external social benefits, such as public goodwill outside the firm, enhancing the firm's reputation, even in the presence of corporate scandals or regulatory scrutiny. Luo and Bhattacharya (2006) suggested that CSR engagement helps increase customers' satisfaction levels, leading to higher market returns. In addition, Jo and Harjoto (2011) found that CSR engagement increases firm value and some CSR activities that address internal social enhancement within the firm (such as employee diversity, firm relationship with its employees, and product quality) enhance firm value more than other CSR activities. Furthermore, Zeng (2016) reported the results of a study where the higher CSR ranking of the firm, the less likely a firm is to engage in tax aggressiveness, and the firm experienced enhanced market value. Correspondingly, there are studies of Famiyeh (2017), Al-Malkawi and Javaid (2018), Nyeadi, Ibrahim, and Sare (2018), Salehi,

DashtBayaz, and Khorashadizadeh (2018), and Yang and Basile (2019) who documented a positive impact of social responsibility on firm performance.

Some studies found a negative association between CSR and firm performance. Firms may face a trade-off between social responsibility and financial performance, placing them in a disadvantageous cost position. CSR initiatives may also incur agency costs as managers obtain private benefits from building the reputation as good social citizens at the expense of shareholders. Jo and Harjoto (2011) found that CSR commitment may have value-decreasing effects when there is a high level of managerial entrenchment, supporting the notion by Barnea and Rubin (2010) that a firm's insiders (such as managers and large blockholders) may overinvest in CSR for their private benefit or to cover up corporate misconduct (Kotchen & Moon, 2012). Moreover, Oduro and Haylemariam (2019) found a negative relationship between CSR and firm performance in Ghana. Besides the above explanations based on the agency costs argument, the mixed results of the CSR-performance accentuate the need to further explore this relationship.

### **3.6 Control Variables**

Many studies have explored the firm-specific characteristics to analyze the relationship between corporate governance, corporate social responsibility and performance. This study mainly focuses on two control variables, namely firm size and leverage.

***Firm Size:*** One of the largely studied control variable is firm size, which is measured by taking the natural logarithm of total assets. Ghazali (2010) contends that larger the firm size, more profitable the firm will be. This is because of economies of scale where

sources are obtained at cheaper cost and greater diversification. Likewise, Hassan and Halbouni (2013) found a positive association between the two variables, suggesting larger the size, greater will be the performance. Additionally, Sheikh, Wang, and Khan (2013) also found a positive relationship between firm size and performance. Muttakin and Subramaniam (2015) documented that larger firm size and better firm performance (ROA) are significantly related to CSR disclosure levels. Similarly, Ahmed and Mubaraq (2015) found a consistent significant impact of firm size on performance. Likewise, Ofoeda (2017) found a direct relationship between firm size and performance.

Alternatively, Fama and French (1992) argue that performance is inversely related to size, where firms are operationally inefficient, the lesser degree of transparency in managerial actions and ultimately resulting in conflict of interest between shareholders. In the same way, Gedajlovic and Shapiro (2002) reported a negative relationship between the two variables. Ming and Eam (2015) found that firm size is negatively related to Tobin's Q. Mishra and Kapil (2017) found an inverse relationship between firm size and ROA and Tobin's Q. In the same way, Bhatt and Bhatt (2017) reported a negative relationship between firm size and ROE and ROIC. However, Palaniappan (2017) found an insignificant relationship between firm size and performance.

**Leverage:** Second control variable, leverage is the ratio of total debt to total assets, which indicates the percentage of total assets financed through total debt. Jensen (1986) explains in his study that debt lowers the agency costs of free cash flows by lowering the cash flow available for spending at the discretion of managers. This potential conflict of interest can lead the firm towards improved performance. Similarly, Gedajlovic and

Shapiro (2002) found a positive relationship between leverage and firm performance. Bhatt and Bhatt (2017) found a significant relationship between leverage and accounting-based performance measures.

Alternatively, Jackling and Johl (2009) argue that there exists a negative relationship between leverage and performance. In the same way, Sheikh, Wang, and Khan (2013) found in their study that leverage is negatively related to firm performance. Muttakin and Subramaniam (2015) reported a negative significant impact of leverage on firm CSR disclosure. Similarly, Ming and Eam (2015) reported inverse relationship between leverage and ROA and Tobin's Q, however the relationship is positively significant with ROE. Likewise, Mishra and Kapil (2017) found a negative relationship between leverage and firm's accounting (ROA) and market-based (Tobin's Q) performance measures.

Conversely, Hassan and Halbouni (2013) provided in their study that amount of leverage in a firm's capital structure influences the agency conflicts between managers and shareholders through restraining managers and encouraging them to act more in the interests of shareholders. But they found an insignificant relationship between leverage and firm performance. Similarly, Palaniappan, (2017) found that leverage does not affect the firm performance significantly. Hence, overall it is suggested that role of control variables in empirical research is significant. Observing the two control variables, namely firm size and leverage in the current study will definitely create substantial outcomes.

### 3.7 Chapter Summary

The literature review focused on explaining the underpinning theory; namely, agency theory. Afterwards, firm performance is explained in terms of accounting based measures and market based measure. Furthermore, prior literature examining the impact of corporate governance mechanisms namely ownership concentration, director ownership, institutional ownership, CEO duality, CEO remuneration, directors' remuneration, risk management committee attributes, board size, board independence and board diversity on the firm performance has been reviewed. Extending the literature review, the chapter critically analyzed the moderating effect of board characteristics on firm performance. Though, minimal literature was available highlighting the effect of moderating variable on performance yet for empirical support further investigation is required. After that, literature concerning corporate social responsibility dimensions namely, marketplace, environment, community, and workplace along with money spent on CSR activities have been discussed. Afterwards, control variables have been discussed with previous empirical research findings in order to get support for the current study.

## CHAPTER FOUR

### RESEARCH FRAMEWORK AND METHODOLOGY

#### 4.0 Introduction

Based on the research objectives of this study, the chapter constructs the theoretical framework using the corporate governance mechanisms, corporate social responsibility practices, moderating variable, control variables and measures of firm performance using the evidence of past literature and theories. The chapter contains several sections where Section 4.1 elaborates agency theory related to the study for understanding the relationship between independent, dependent and moderating variables. Section 4.2 is followed by the research framework. Operational definition of variables and their measurements are tabulated in Section 4.3. Moreover, Section 4.4 draws a list of hypotheses for the study to quantify the relationship between independent, dependent and moderating variable. Section 4.5 explains the data, data sources and sample selection, whereas Section 4.6 presents a research design where structure of data, data analysis using STATA and regression equations are presented. Finally, the chapter concludes by providing a brief summary of research framework and methodology.

#### 4.1 Theoretical Framework

This study derives the support for a theoretical framework on corporate governance and corporate social responsibility with reference to the underpinning theory explained in Chapter Three; namely, agency theory that is being explained below briefly.

#### **4.1.1 Agency Theory and Agency Cost Perspective**

Corporate governance mechanisms mainly embrace support from agency theory for explaining the relationship between governance mechanisms, corporate social responsibility practices and firm performance. Agency theory presumes that agency conflicts occur between principals and agents because of isolated ownership and the separation of shareholders and management (Jensen & Meckling, 1976). However, agency conflicts occur between majority and minority shareholders as a result of concentrating the shareholdings in the hands of a few shareholders on account of other shareholders (Shleifer & Vishny, 1997). Consequently, Hay, Knechel, and Ling (2008) argue that companies with concentrated ownership are run by the major shareholders, who play a significant role in their decision-making processes (AlQadasi & Abidin, 2018). Thus, this study mainly follows the propositions of agency theory by incorporating the corporate several governance mechanisms such as ownership concentration, director ownership, and institutional ownership.

As far as other governance mechanisms are concerned, agency theory claims that if a person holds the same position of CEO and chairperson, it will ultimately raise agency conflicts. Moreover, with respect to remuneration mechanisms, agency theory argues that monitoring can become efficient if managers of firms are given remuneration packages to reduce agency costs (Elsayed & Elbardan, 2018; Afrifa & Adesina, 2018). In addition, risk management committee attributes (size, independence, and meeting) in a firm will lead to effective monitoring, accountability and efficient internal control mechanism,

reducing expected risks associated with firms and enhancing shareholder wealth (Kallamu & Saat, 2015; Elamer & Benyazid, 2018).

In addition, board characteristics such as board size, board independence and board diversity are used to align the interests of shareholders and management with effective monitoring mechanisms within the firm. Thus, agency theory predicts that board characteristics are mechanisms to reduce agency conflicts and bring the alignment of interests. Concerning corporate social responsibility practices, agency cost argument predicts that managers may entrench the corporate resources for self-serving causes and may over-invest in socially responsible practices to hide their financial malfeasance.

#### **4.1.2 Overinvestment Hypothesis versus Risk Management Perspective**

Barnea and Rubin (2010) consider CSR engagement as a principal-agent relation between managers and shareholders. They argue that affiliated insiders have an interest in over-investing in CSR if doing so provides private benefits of reputation building as good global citizens, possibly at the cost of shareholders. If CEOs tend to over-invest in order to build their personal reputations as good citizens, a negative association between effective governance mechanisms, CSR practices and corporate performance is expected (Harjoto & Jo, 2011). Effective internal and external governance mechanisms should reduce the insiders' ability and opportunity to over-invest in CSR. More importantly, if the over-investment hypothesis is valid, firm performance/value will be adversely affected by the CSR practices because of the agency cost created by the managers' engagement in CSR (Jensen & Meckling, 1976). CSR initiatives may also incur agency

costs as managers obtain private benefits from building the reputation as good social citizens (such as a good career outcome) at the expense of shareholders (Feng, Wang, & Kreuze, 2017).

Contrarily, it is asserted that risk-averse managers will not indulge themselves in corporate social responsibility practices to increase the shareholder wealth (Godfrey, 2005). The risk management perspective of CSR predicts that CSR engagement will create moral capital for firms (Godfrey, Merrill, & Hansen, 2009) and this moral capital provides an insurance-like value to shareholders (Godfrey, 2005). More specifically, risk management perspective entails that managers can reduce the firm's exposure to firm-specific risks that give rise to costs in a way that investors cannot diversify away and value is added through risk management (Godfrey, Merrill, & Hansen, 2009).

#### **4.1.3 Resource Dependence Theory**

Resource dependence theory, one of the significant theory in corporate governance and CSR literature, characterizes the corporation as an open system, which is dependent on contingencies in the external environment. Pfeffer and Salancik (2003) suggest that directors bring four benefits to organizations: (a) information in the form of advice and counsel, (b) access to channels of information between the firm and environmental contingencies, (c) preferential access to resources, and (d) legitimacy. Based on the various resources they provide to a firm, Hillman, Cannella, and Paetzold (2000) classify those four benefits into director types, namely, business experts, insiders, community influentials, and support specialists. Hillman, Cannella, and Paetzold (2000) extend the

resource dependence theory to suggest that a more diverse board represents a valuable set of resources and may help achieve better economic outcomes.

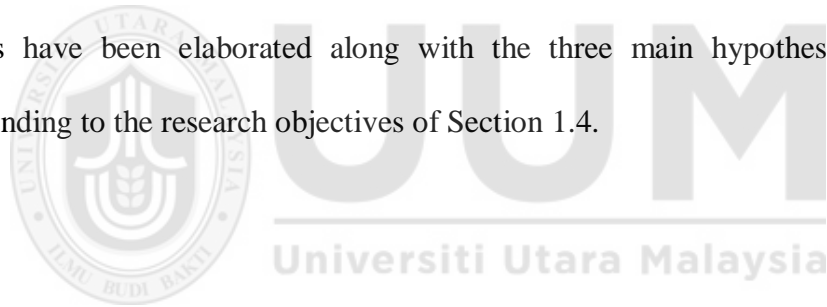
Resource dependence theory presents several arguments to promote board diversity. For instance, diverse directors act as a bridge to important constituencies in the external environment, resulting in greater access to more talent. Board diversity also sends important positive signals to the product and labor markets. Prior literature on board diversity has considered gender and ethnicity as separate dimensions under resource dependence theory. However, recent studies on board diversity are grounded in resource dependence theory focus on gender, and more specifically on the impact of gender on economic outcomes (García-Meca, Garcia-Sanchez, & Martínez-Ferrero, 2015).

Evidence suggests that male and female economic agents have behavioral differences. For example, women, when compared to men, are more risk and competition averse and their preferences are more flexible (Croson & Gneezy, 2009). They also present greater ethical concerns (Ku Ismail & Abdul Manaf, 2016), propose less aggressive strategies, invest less in research and development and more in social sustainability initiatives, take pro-social actions, which means that companies to which they belong can have higher levels of social responsibility (Galbreath, 2018). In this stream, it is indicated that both men and women hold different set of skills, experience, and knowledge to deal with business operations of firms. Given that women are more conservative, more averse to excessive risk-taking and with greater ethical concern than men (Ku Ismail and Abdul Manaf, 2016), the presence of women on the boards of directors conditions unethical practices, affecting the corporate social performance.

Thus, this study mainly follows the propositions of agency theory, overinvestment hypothesis and resource dependence theory for fetching the theoretical support of corporate governance mechanisms and corporate social responsibility practices on firm performance. Hence, it is expected that predictions of agency theory, overinvestment hypothesis, risk management perspective, and resource dependence theory will be consistent with the outcomes of this study.

#### **4.2 Research Framework**

Figure 4.1 presents the research framework of the study where the proposed relationships between independent variables, dependent variables, moderating variables and control variables have been elaborated along with the three main hypotheses of the study corresponding to the research objectives of Section 1.4.



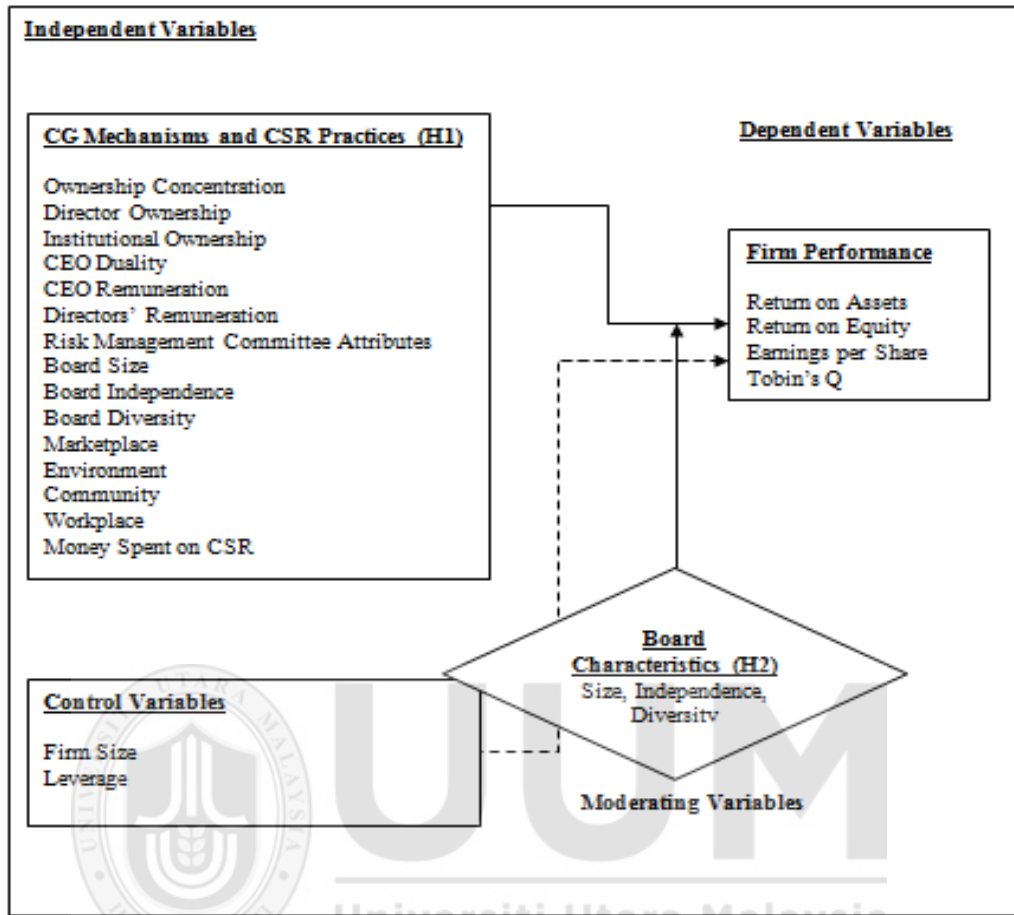


Figure 4.1 Research Framework

### 4.3 Operational Definitions and Measurement of Variables

The following section elaborates operational definition of variables used in the study covering dependent, independent, moderating and control variables. In essence, the dependent variables (ROA, ROE, EPS, and Tobin's Q) are based on accounting as well as market-based performance measures where ROA, ROE and EPS are employed as accounting performance measures and Tobin's Q is taken up as market-based performance measure.

The independent variables consist of external corporate governance mechanisms such as ownership concentration, director ownership, institutional ownership; and internal corporate governance mechanisms, namely, CEO duality, CEO remuneration, directors' remuneration and risk management committee (size, independence and frequency of meetings), and board characteristics (board size, board independence, and board diversity). Risk management committee attributes are used in terms of dummies not in their actual continuous form due to these reasons; first, the data and information about RMC is often limited given their relatively short history of establishment as compared to other prominent committees such as compensation, etc. Second, the optimal formation of an RMC across non-financial firms makes its data insufficient.

Furthermore, as part of the regulatory reform for insurance companies in Malaysia, Bank Negara Malaysia (2010) has made it mandatory to set up an RMC which comprises a minimum of three directors. As far as RMC independence is concerned, BNM (2010) required the RMC for insurance firms to be entirely composed of non-executive directors whom the chairperson must be an independent director. In other words, there should be at least one independent director in the RMC. For RMC meetings, BNM encourages regular RMC meetings, at a minimum once every quarter. Since, risk management committee is still in infancy for non-financial firms, this study expect a regular RMC meeting held at least once a year would benefit firm financial and market performance.

In addition, board characteristics have been utilized as continuous as well as moderating variables in the study. Corporate social responsibility practices include marketplace, environment, community, workplace and the amount of money spent on CSR activities.

Furthermore, control variables used in the study are firm size and leverage. Table 4.1 explains the operational definitions of variables in terms of their proxies and measurements where Panel A gives the definitions of independent variables of the study, Panel B and Panel C provide respective definitions of external and internal CG variables along with Panel D exhibiting board characteristics as explanatory and moderating variables.

Additionally, Panel E illustrates the definitions of CSR variables used in the study. Meanwhile, a company is said to fulfill the requirement of Marketplace practices if it discloses information regarding conducting business responsibly and focus of the statements is on customers, business partners and investors. For environment practices, a company is said to fulfill the requirement of Environment practices if it discloses information regarding initiatives to protect the environment and focus of the statements is on renewable energy, reducing air and water pollution, monitoring energy usage and maintaining biodiversity.

Concerning community practices, a company is said to fulfill the requirement of Community practices if it discloses information regarding assistance provided to local communities and focus of the statements is on welfare support programs for community health care, development, security and education. Finally, a company is said to fulfill the requirement of Workplace practices if it discloses information regarding human resource policies and focus of the statements is on improving wages, pensions, employee benefits, health and safety, diversity and equal employment opportunity. In the end, Panel F shows the definitions of control variables of the study.

Table 4.1  
Operational Definition and Measurement of Variables

<b>Variables</b>	<b>PROXY</b>	<b>Definition</b>
<b>Panel A: Dependent Variables</b>		
Return on Assets	$ROA_{it}$	Net income to total assets.
Return on Equity	$ROE_{it}$	Net income to stockholders' equity.
Earnings per Share	$EPS_{it}$	Net income to total outstanding common stocks.
Tobin's Q	$TQ_{it}$	The market value of equity plus the book value of liabilities divided by total assets.
<b>Independent Variables</b>		
<b>Panel B: External Corporate Governance Mechanisms:</b>		
Ownership Concentration	$OWNC_{it}$	Shares held by 5-10 largest shareholders to outstanding common shares.
Director Ownership	$DOWN_{it}$	Shares held by directors, their spouses and children to total outstanding common shares.
Institutional Ownership	$IOWN_{it}$	Shares held by all the institutions (financial and non-financial firms, etc.) to total outstanding common shares.
<b>Panel C: Internal Corporate Governance Mechanisms:</b>		
CEO Duality	$CEOD_{it}$	A dummy variable, 1 if CEO is the chairman of the board and 0 otherwise.
CEO Remuneration	$CREM_{it}$	Amount of salary, bonuses, and other emoluments paid to CEOs.
Directors' Remuneration	$DREM_{it}$	Amount of salary, bonuses, and other emoluments paid to directors.
Risk Management Committee Size	$RMCS_{it}$	A dummy variable, 1 if risk management committee size contains 3 board members and 0 otherwise.
Risk Management Committee Independence	$RMCI_{it}$	A dummy variable, 1 if risk management committee contains at least 1 independent director and 0 otherwise.
Risk Management Committee Meetings	$RMCM_{it}$	A dummy variable, 1 if risk management committee meetings held at least once in a year and 0 otherwise.
<b>Panel D: Corporate Governance and Moderating Variables:</b>		
Board Size	$BSIZE_{it}$	Board size is the total number of boards of directors of a company.
Board Independence	$BIND_{it}$	Proportion of independent directors to total number of board directors.
Board Diversity	$BDIV_{it}$	Proportion of women on board to total number of board directors.
<b>Panel E: Corporate Social Responsibility Practices:</b>		
Marketplace	$MKT_{it}$	A dummy variable, 1 if requirements for marketplace fulfill and 0 otherwise.
Environment	$ENV_{it}$	A dummy variable, 1 if requirements for environment fulfill and 0 otherwise.

Table 4.1 (Continued)

Community	$COMM_{it}$	A dummy variable, 1 if requirements for community fulfill and 0 otherwise.
Workplace	$WRK_{it}$	A dummy variable, 1 if requirements for workplace fulfill and 0 otherwise.
Money Spent on CSR	$MCSR_{it}$	A dummy variable, 1 if money spent on CSR available and 0 otherwise.
<b>Panel F: Control Variables</b>		
Firm Size	$FSIZE_{it}$	Natural logarithm of total assets.
Leverage	$LEV_{it}$	Total liabilities to total assets.

#### 4.4 Hypotheses Development

The hypotheses developed in the given section are for the purpose of examining the impact of corporate governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies. In addition, the moderating effect of board characteristics has been analyzed on the relationship between corporate governance mechanisms, corporate social responsibility activities and firm performance. Previous literature on the given relationships has been used as reference to the present study.

##### 4.4.1 Corporate Governance Mechanisms and Firm Performance

Corporate governance mechanisms used in this study are ownership concentration, managerial ownership, institutional ownership, CEO duality, CEO remuneration, directors' remuneration, risk management committee (size, independence and meetings), board size, board independence, and board diversity whereas performance measures employed in the study are both accounting based (ROA, ROE, EPS) and market-based (Tobin's Q) measure. Therefore, performance measures are termed as firm performance for indicating the performance of Malaysian listed companies collectively. For each

indicator, a separate hypothesis has been developed along with theoretical support from previous researches.

#### **4.4.1.1 Ownership Concentration**

Ownership concentration refers to the situation of a firm's ownership, whether it is dispersed or limited to a number of owners. The term is referred to as block holder ownership where ownership is confined to two or more than two owners. Agency theory presumes that top managers acting as agents of blockholders can pursue courses of action that may not be consistent with the interest of owners (Fama, 1980; Jensen & Meckling, 1976). La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000) described this concept as a prospective cause of conflict of interest between major and minor shareholders. Alternatively, Haniffa and Hudaib (2006) are of the view that owners, having a major percentage of organization's assets, allow block holders to monitor and control the behavior of managers leading to conflict of interest. Few studies confirm the predictions of agency theory and document an inverse relationship between ownership concentration and firm performance (Foroughi & Fooladi, 2012; Leung & Cheng, 2013; Sheikh & Karim, 2015; Chen, Sung, & Yang, 2017; Aluchna & Kaminski 2017).

Thus, based on presumptions of agency theory, this study hypothesizes that:

**H<sub>1A</sub>**: There is a negative relationship between ownership concentration and firm performance.

#### **4.4.1.2 Director Ownership**

Director ownership refers to the proportion of shares held by the directors, their spouses and children in the firm. It is a common perception that directors will work for the best interests of organizations if they have ownership in the firm. Or else, a potential conflict of interest between directors and owners of the firm can be raised. The agency issues between shareholders and management may encourage the directors to exert less effort to administrate the firm. Moreover, these issues may lead the directors to use available resources for their personal well-being. Based on these presumptions, there are studies that depict an inverse relationship between director ownership and firm performance (Bokpin, 2013; Ahmed & Mubaraq, 2015; Shan, 2017; Aluchna & Kaminski, 2017; Mitra, Jaggi, & Al-Hayale, 2017; O'Callaghan, Ashton, & Hodgkinson, 2018; Shao, 2019); claiming that effectiveness of corporate governance mechanism is questionable when director ownership is high based on the arguments of agency cost theory that director ownership will bring costs to the firm. Relying on the agency cost perception, this study hypothesizes that:

**H<sub>1B</sub>:** There is a negative relationship between director ownership and firm performance.

#### **4.4.1.3 Institutional Ownership**

Institutional ownership is defined as the number of shares held by institutional investors in an organization. Pound (1988) presented three hypotheses namely efficient monitoring, conflict of interest, and strategic alliance to explicate the relationship between firm value and institutional shareholdings. Based on agency argument that institutional investors are

intense in monitoring their investments, Graves and Waddock (1990), Ahmed and Mubaraq (2015) and Panda and Leepsa (2019) reported negative impact of institutional ownership on firm performance claiming that institutional investors might have been cautious in their investment decisions amidst fear from the recent global financial crisis. Thus, based on these agency arguments, this study hypothesizes that:

**H<sub>1C</sub>:** There is a negative relationship between institutional ownership and firm performance.

#### **4.4.1.4 CEO Duality**

CEO duality refers to a situation when chief executive officer of a company also performs the duties of the chairperson of the board of directors. Agency theory claims that problems arise when the same person holds two positions on the board; leading towards performance inefficiency and ultimately towards conflict of interest. There are some studies that advocate the philosophy of agency theory suggesting negative relationship between role duality and firm performance (Ujunwa, 2012; Duru, Iyengar, & Zampelli, 2016; Nas & Kalaycioglu, 2016; Abraham & Singh, 2016). Consistent with the presumptions of agency theory, this study hypothesizes that:

**H<sub>1D</sub>:** There is a negative relationship between CEO duality and firm performance.

#### **4.4.1.5 CEO Remuneration**

CEO remuneration is the amount of remuneration paid to CEOs in terms of salaries, bonuses and other emoluments. The agency theory focuses on the issue of agency costs that arise due to the divergence in interests between managers and outside shareholders. Economics perspective contends that issue of pay-performance usually relies on the principle-agent theory (Jensen & Meckling, 1976). However, the responsibilities and accountabilities of directors and CEOs have been increased in recent years. Therefore, it is imperative to consider the directors and CEOs as the agents of shareholders to align their mutual interests.

Empirically, it is argued that CEO remuneration negatively influences firm performance where CEO may expropriate the rights of shareholders or, blockholders do not set CEO performance packages in order to avoid potential conflict of interest (Nourayi & Mintz, 2008; Terkovska, 2017; Li & Hwang, 2018). Depending on such conflicted nature of CEO remuneration and agency costs arguments, the study hypothesizes that:

**H<sub>1E</sub>**: There is a negative relationship between CEO remuneration and firm performance.

#### **4.4.1.6 Directors' Remuneration**

Directors' remuneration is the amount of remuneration paid to directors including salaries, bonuses and other emoluments. The pay-performance framework of directors' remuneration and its impact on firm performance derives support from agency theory. Moreover, agency based contracts propose that directors will only obtain high rewards

when certain performance targets are achieved (Elsayed & Elbardan, 2018). Empirically, a few studies support the negative effect of director remuneration on firm performance (Abdullah, 2006; Wahab, Marzuki, Jaafar, & Masron, 2018; Jiang & Zhang, 2018). Therefore, based on these agency based contracts, this study hypothesizes that:

**H<sub>1F</sub>**: There is a negative relationship between directors' remuneration and firm performance.

#### **4.4.1.7 Risk Management Committee**

Risk management committee is referred to as an independent committee of the company's board. It is the unit of least attention by practitioners and academicians, but now it has become an important emphasis (Ng, Chong, & Ismail, 2012). Traditionally, when the risk exposures of the firm have been related primarily to financial and fraud risks, the role of monitoring and providing oversight regarding risks to which a firm is exposed was considered as one of the functions of the audit committee. Nonetheless, a series of corporate failures and scandals and increasing complexity of exposures linked to new technologies demands that understanding of risk should be broadened. In fact, these developments cast doubt on the effectiveness of audit committees in overseeing and executing risk management programs, as their traditional expertise is in the areas of financial and fraud risk (Ng, Chong, & Ismail, 2012). Reiterating the similar approach, Brown, Steen, and Foreman (2009) marked that the task of risk management, in many, if not all organizations, has become beyond the scope and capabilities of audit committees alone. Moreover, audit committee members may lack the expertise and time needed to

perform in-depth risk management duties, especially given the ever-increasing demand imposed on them by various codes on corporate governance (Sekome & Lemma, 2014).

In contemporary management, there has been an increasing focus on the structure and strategies adopted by a board in meeting various stakeholder needs, and the adoption of monitoring sub-committees may be viewed as one such strategy for maintaining corporate performance. A monitoring board committee, such as risk management committee is likely to enhance corporate accountability by providing a mechanism for independent oversight of corporate activities, thus promoting corporate legitimacy (Ng, Chong, & Ismail, 2012; Musallam, 2018).

However, this study focuses on three attributes that have been recommended in previous works on audit committee. The attributes include the number of directors on the committee, the proportion of independent directors on the committee and the frequency of meetings (Liu & Zhuang, 2011; Abdullah & Said, 2019). Resource based view supports the notion of size because the larger the committee, the more likely it has more resources to be utilized in addressing issues and problems in the monitoring process. Similarly, a larger audit committee could possibly boost the status and power of the committee in the company (Kalbers & Fogarty, 1993; Pearce & Zahra, 1992). Therefore, it is reported that a larger risk management committee is able to address risk matters more effectively (Ng, Chong, & Ismail, 2012). Therefore, based on resource dependence theory, this study hypothesizes that,

**H<sub>1G1</sub>:** There is a positive relationship between risk management committee size and firm performance.

Fama and Jensen (1983) stated independent directors are crucial to monitor management actions. This is because they do not have a personal interest in the company and this difference, at least allows them to make fair judgment without fear and favor. Following the arguments of Faleye, Hoitash, and Hoitash (2011), it is asserted that intense monitoring leads independent directors to receive less strategic information from management, poor advising and zero communication with the CEO (Adams & Ferreira, 2007; Adams, 2009). Hence, more independence on RMC limits the functions of the risk management committee. Thus, consistent with agency theory presumptions, it is hypothesized that,

**H<sub>1G2</sub>:** There is a negative relationship between the number of independent directors on the risk management committee and firm performance.

The meeting provides a good opportunity for members to openly communicate, discuss, and achieve a common goal in risk monitoring, control and enhanced firm performance. Sori, Ramadili, and Karbhari (2009) stated that the number of meetings is an indication of the amount of effort of a committee directed to accomplish the tasks and responsibility entrusted. It also signifies the terms of committee members devoted to correct the situation. Jackling and Johl (2009) claim that frequency of meetings of the board can play an active role in linking the external environment to the governance of the company and can have a positive impact on firm performance. Therefore, it is hypothesized that,

**H<sub>1G3</sub>:** There is a positive relationship between the frequency of meetings of the risk management committee and firm performance.

#### 4.4.1.8 Board Characteristics

Coles, Daniel, and Naveen (2008) argue that complex firms should have larger boards, because larger boards potentially bring more experience and knowledge and offer better advice. Particularly, such firms should have more outsiders on the board who then serve to provide advice and expertise to the CEO (Hermalin & Weisbach, 2003). Moreover, previously documented negative relationship (Coles & Hoi, 2003) between board size and Tobin's Q does not hold for complex firms with extensive advising needs (Coles, Daniel, & Naveen, 2008). However, this positive relationship is driven by outside directors for providing valuable advice to the CEO and management team. Additionally, the authors reported a positive relationship between Tobin's Q and board size and a negative relationship between outside directors and firm value.

Consequently, Mishra and Kapil (2017), Ofoeda (2017), Yasser, Mamun, and Rodrigs (2017), Sheikh and Karim (2015), Sheikh, Wang, and Khan (2013) also found a positive relationship between board size and firm performance and negative relationship between independent directors and organizational returns. This study also claims larger board size to be more effective for firm value than smaller board due to complexity of their organizational processes. Meanwhile, this study expects higher board independence to be less effective for organizational returns due to excessive involvement of independent directors in daily affairs, restricting managers to perform their functions deliberately (Wu & Wu, 2014). Thus, it is hypothesized that,

**H<sub>1H</sub>**: There is a positive relationship between board size and firm performance.

**H<sub>11</sub>**: There is a negative relationship between board independence and firm performance.

Additionally, concerning women's representation on board (board diversity), firm reputation can be increased by adding women candidates on board (Bear, Rahman, & Post, 2010). Though a single female director can create a positive firm value, she is also faced with several challenges. Konrad, Kramer, and Erkut (2008) argue when at least three board members are female on the board, it becomes easy for women directors to ask challenging questions and work in collaboration to increase firm returns. Gender diversity on the management team is also likely to bring disadvantages to the organization. Greater gender diversity may increase the likelihood of intragroup conflicts (Richard, Barnett, Dwyer, & Chadwick, 2004), which in turn may result in slower decision-making process (Darmadi, 2013). Further, women are considered more risk-averse than men in financial decision making (Ujunwa, 2012), and thereby may affect the organization's resource allocation. Based on these arguments, it is hypothesized that,

**H<sub>11J</sub>**: There is a negative relationship between board diversity and firm performance.

#### **4.4.1.9 Corporate Social Responsibility and Firm Performance**

Porter and Kramer (2006) stated corporate social responsibility can be a source of opportunity, innovation, and competitive advantage when used appropriately. Particularly, firms can simultaneously enhance their competitiveness in the markets and advance the economic and social conditions in the communities when adopting policies and practices aiming at creating "shared value." There are several studies that report combination of results regarding the impact of corporate social responsibility and firm

performance. For example, Peloza (2009) reviewed 128 studies on CSR and financial performance and reported that 75 studies (about 58.6 percent) found a positive association between CSR and financial performance, 34 studies (about 26.7 percent) found a mixed or neutral association, and 19 studies (about 14.7 percent) found a negative association.

However, there are different approaches used to measure corporate social responsibility and its impact on firm performance. For instance, many studies used KLD ratings for investigating the impact of CSR on firm performance (Waddock & Graves, 1997; Nguyen & Nguyen, 2015); a few used segregated dimensions for CSR such as the marketplace, workplace, environment and community (Ahamed, Almsafir, & Al-Smadi, 2014; Yusoff & Adamu, 2016; Feng, Wang, & Kreuze, 2017; Yang & Basile, 2019); whereas some used donations such that the amount spent on CSR activities as a proxy of CSR (Ehsan & Kaleem, 2012). Therefore, this study employs the CSR disclosure framework (marketplace, environment, community and workplace) provided by Bursa Malaysia and the amount of money spent on CSR activities as proxies of CSR to examine their impact on firm performance. Based on agency cost argument, presuming that managers will tend to over-invest in CSR activities to camouflage their financial misconduct, this study hypothesizes that,

**H<sub>1K1</sub>:** There is a negative relationship between marketplace practices and firm performance.

**H<sub>1K2</sub>**: There is a negative relationship between environment practices and firm performance.

**H<sub>1K3</sub>**: There is a negative relationship between community practices and firm performance.

**H<sub>1K4</sub>**: There is a negative relationship between workplace practices and firm performance.

**H<sub>1K5</sub>**: There is a negative relationship between the amount of money spent on CSR and firm performance.

#### **4.4.2 Moderating Variable - Board Characteristics**

There are several studies that examine the impact of board size, board independence and board diversity on firm performance. However, there is very little evidence for understanding their moderating role on a given relationship. For instance, Williams, Fadil, and Armstrong (2005) investigated the moderating role of board size on top management team tenure and corporate illegal activity and found it significant. Moreover, Şahin, Artan, and Tuysuz, (2015), Zheng and Tsai (2019) and Luanglath, Ali, and Mohannak (2019) reported significant moderating effect of board size on respective relationships. Thus, the study hypothesizes that:

**H<sub>2A</sub>**: There is a significant moderating effect of board size on the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance.

As for board independence, the earlier empirical findings suggest positive (Şahin, Artan, & Tuysuz, 2015; Duru, Iyengar, & Zampelli, 2016), negative (Wu & Wu, 2014), and insignificant (Capezio, Shields, & O'Donnell, 2011; Chen, 2011), moderating effect of board independence on a particular relationship. Therefore, the study hypothesizes that:

**H<sub>2B</sub>**: There is a significant moderating effect of board independence on the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance.

For board diversity, there is very little empirical support that studies the role of board diversity as a moderating variable. However, based on the study of ElBadawy, Chinta, and Magdy (2018) who examined the moderating and mediating role of gender on the relationship between quality of work life and organizational commitment, found a significant moderating effect of gender on the relationship between quality of work life and organizational commitment. Hence, the study hypothesizes that:

**H<sub>2C</sub>**: There is a significant moderating effect of board diversity on the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance.

## **4.5 Data**

As mentioned earlier, this study aims to investigate the joint impact of governance mechanisms and CSR practices on firm performance and the moderating effects of board characteristics on the relationship between governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies has also been examined. For this purpose, companies listed on the main market of Bursa Malaysia have been taken as a sample for the period 2006-2017. Below, data sources and sample selection present the data in detail.

### **4.5.1 Data Sources**

The population chosen for the study is listed companies of Bursa Malaysia. The Malaysian Code on Corporate Governance (2017) has been used to get the details about corporate governance mechanisms and board characteristics. Furthermore, Bursa Malaysia CSR Disclosure framework has been employed for obtaining the data related to CSR practices. This is to ensure the robustness of the research that corporate governance mechanisms and corporate social responsibility practices has been taken from various dimensions, namely, general and international dimensions. This is consistent with the recommendations by previous researches to use country specific corporate governance mechanisms and corporate social responsibility practices and to use a bigger sample size as most of the previous researches tend to employ a small sample size.

Additionally, data related to performance measures such as return on assets, return on equity, earnings per share and Tobin's Q and control variables (firm size and leverage)

have been sourced from Thomson Reuters Datastream whereas independent variables such as ownership concentration, director ownership, institutional ownership, CEO duality, CEO remuneration, directors' remuneration, risk management committee attributes, board size, board independence, and board diversity have been taken from annual reports of non-financial firms for the period 2006-2017. Moreover, data relevant to CSR practices have also been hand-collected from content analysis of annual reports of companies listed on Bursa Malaysia. For each independent dimension of CSR, number of sentences contributed to a single dimension has been counted in order to fulfill the requirement of the respective CSR activity.

#### **4.5.2 Sample Selection**

There are fifteen different business sectors listed on Bursa Malaysia. Based on the availability of data and annual reports for the period 2006-2017, only eight business sectors have been included in the study, namely construction companies, consumer products firms, industrial products firms, infrastructure firms, plantation firms, property firms, technology firms, and trading services organizations. However, the data of financial firms, real estate investment trusts, exchange-traded funds and closed-funded firms have been excluded because these firms are categorized under the financial companies. As such, the companies in the financial sector are highly regulated by the central bank prudential regulations on issues of liquidity, asset and capital holding, and provision for bad debts among other factors (Santos, 2001). Furthermore, the financial leverage of financial firms is not comparable to those non-financial firms (Mwangi, Makau, & Kosimbei, 2014).

Moreover, the data relevant to non-active Listed Companies have also been incorporated for the given eight business sectors in order to avoid survivorship bias that basically entails that adding non-surviving firms to the data set causes the coefficient estimates on the variables to be attenuated but still significant (Davis, 1996). However, the remaining business sectors such as hotels, mining and special purpose acquisition companies (SPACs) have been eliminated from the study due to unavailability of market data and limited number of observations.

Description of 8 sectors along with the number of companies in each sector is given below in Table 4.2.

Table 4.2  
*Sampling Frame of Listed and Delisted Non-Financial Companies related to Eight Business Sectors in Malaysia*

<b>Sr. No.</b>	<b>Business Sector</b>	<b>Active PLCs</b>	<b>Non-Active PLCs</b>
1.	Construction	25	3
2.	Consumer	85	16
3.	Industrial	120	25
4.	Plantation	33	10
5.	Properties	53	15
6.	Technology	58	14
7.	Trading Services	106	22
8.	Infrastructure	3	0
	<b>Total Companies:</b>	<b>483</b>	<b>105</b>

Listed companies were chosen because of various advantages over non-listed companies. The main reason is that listed companies have published annual reports that are publicly available and that can be accessed using the Bursa Malaysia website. The annual reports of listed companies are also presented in a uniform way and the data is subject to the Bursa Malaysia regulations and Companies Act 1965. Moreover, useful data for market

share prices of Malaysian listed companies is available in Thomson Reuters Datastream that complements the data of companies' annual reports. Finally, the use of listed companies enables a comparison to be made with previous studies conducted in Malaysia as majority of the Malaysian studies used listed companies.

All data related to the independent, dependent and moderating variables are obtained through company's annual reports filed with the Bursa Malaysia as well as the respective company's website. The annual reports are then scrutinized and all the necessary data have been picked-up.

#### **4.6 Research Design**

This section provides details on the structure of data employed in the study. For carrying out analysis process, panel data are utilized where both static and dynamic estimators have been used for estimations. However, based on several econometric problems, the estimator with precise results has been chosen for further explanations of results.

##### **4.6.1 Data Structure**

Data is mainly structured in cross-sectional and time-series effect. Cross-sectional data focus on people, firms, cities and markets, etc. whereas time-series data provide analysis over different periods of time such as annual, quarterly and monthly etc.

#### **4.6.1.1 Panel Data Analysis**

Panel data analysis considers both cross-sectional and time series effect in the sample and helps in identifying the sources of possibly mingled effect. Within the social sciences, panel data analysis has enabled researchers to undertake longitudinal analysis in a wide variety of fields. With repeated observations of enough cross-sections, panel data analysis permits the researcher to study the dynamics of change with short time series. The combination of time series with cross-sections can enhance the quality and quantity of data in ways that would be impossible using only one of these two dimensions (Greene, 2003; Gregory, Tharyan, & Whittaker, 2013). For this purpose, the current study is using panel data for analysis.

The panel dataset is created using MS-Excel 2007. The preparation of dataset started by storing the already available and hand-collected data related to the selected variables into excel spreadsheets. Outliers are screened and adjusted using 3-sigma method to avoid extreme values in the dataset. Once the panel data set is completely ready, it is winsorized at the one percent level in econometric software (Stata) version 13.0 where analysis for this research is applied using a multiple regression equation. Apart from that, variance inflation factor (VIF) is applied to confirm the existence of no serious multicollinearity problem between the independent variables.

#### 4.6.1.2 Dynamic Panel Estimation

In order to deal with the dynamic nature of the CG-CSR and performance relationship, the dynamic panel estimation is carried out using the generalized method of moments (GMM) estimator. The application of this dynamic panel estimator is preferable due to several reasons. Among others, allowing for lagged dependent variable and unobserved individual-specific effects in the specification may contribute to capturing consistent and unbiased estimates of other parameters, thus leads to a more influential model (Lucey & Zhang, 2011). The GMM estimator is claimed as robust in the class of all estimators since this estimation method does not require unnecessary assumptions. For example, there is no requirement for this estimation method to have complete information of the exact distribution of data generating process and the error terms. In developing the GMM estimation, it is commonly assumed that the error terms in the model are uncorrelated with a set of explanatory variables (Arellano & Bond, 1991; Blundell & Bond, 1998). This econometric method efficiently selects the estimator of parameters so that the correlations between error terms and the explanatory variables are nearly close to zero.

This research applies one of the most common variants of the GMM to estimate the dynamic panel models. The method is known as system-GMM (S-GMM) estimator (Arellano & Bover, 1995; Blundell & Bond, 1998). This dynamic panel data estimation approach is an extension of the original GMM estimator from Arellano and Bond (1991), which is known as difference-GMM (D-GMM) estimator. The basic principle of the D-GMM is to eliminate the unobserved individual-specific effects by accomplishing first-differenced equations with suitable lagged levels of the dependent and endogenous

variables as instruments. However, implementing first differencing lessens the variation in all regressors which leads to weak identification problem and increases the measurement errors. Therefore, S-GMM is employed.

The S-GMM method combines moment conditions for model in first differences (the transformed equation) with moment conditions for the model in levels (the original equation). This process is done by exploiting lagged variables at levels as instrumental variables in the transformed equation, whereas lagged difference variables are used as instruments in the original equation. By estimating regressions in the transformed and original equations simultaneously, the S-GMM is able to differentiate the instruments while keeping regressors in levels. Hence, this procedure allows the introduction of more instruments, further reduce the finite sample bias and substantially improve the estimation efficiency (Baltagi, 2008). The consistency and reliability of GMM estimator procedures are tested using two standard diagnostic tests. The over-identifying restriction is tested using the Sargan's (1964) test of misspecification. Meanwhile the Arellano-Bond (1991) tests for first order serial correlation (AR(1)) and second order serial correlation (AR(2)) of the residuals are applied to verify the efficiency of model estimations using GMM approach.

S-GMM estimation procedure is performed in one- and two-step variants. The process starts by calculating the one-step GMM estimates. In the first step, homoskedasticity and independent residuals are assumed. Then, by utilizing the one-step residuals, a more efficient two-step GMM estimator is computed. The two-step S-GMM estimation methods is credited as more sophisticated and effective approach since this estimator uses

optimal weighting matrices. Furthermore, Windmeijer (2005) proposes a two-step estimator with robust standard errors to correct finite-sample bias. The adjustment is performed by acquiring an estimated variance covariance matrix (VCE) which is robust to heteroskedasticity. This adjustment won't change the point estimates. Only estimated VCE and standard errors are change. By doing the correction of the standard errors of the two-step GMM estimates, this estimator is more competent in dealing with the issues of endogeneity for some of the explanatory variables and omitted variables bias. Most importantly, this method is capable of offering acceptable and consistent estimators under the above mentioned issues.

#### **4.6.2 Data Analysis using Stata**

As mentioned earlier, this study employs dynamic panel estimations using system-Generalized Method of Moments (S-GMM) approach for analysis purpose. Furthermore, the study uses STATA for estimation purposes. However, before analysis, it is necessary to clean and screen the data to make it more presentable.

##### **4.6.2.1 Winsorization**

Outliers in the dataset are those observations which are particularly different from other observations due to their unique characteristics. The existence of an outlier in the data can be due to data entry error, an unanticipated extraordinary event or an event that needs an explanation (Hair, Black, Babin, & Anderson, 2010). These outliers can be questionable and misrepresent or mislead the results (Tabachnick & Fidell, 2007). An outlier can be defined as the value that has such extreme scores on an individual variable,

or on set of variables which eventually distort the overall results. In this way, winsorization is the process of handling the problem of outliers in the distribution of data to give researchers more desirable statistical properties of the dataset. The probable advantage of Winsorizing is the preservation of information a case had among the highest or lowest values in a distribution and protects against harmful effects of outliers.

However, in STATA, there is a module called WINSOR for winsorizing a variable in the dataset. This module performs symmetric winsorization based on percentage and many data points are changed from both extremes of the distribution on a specified variable (Reifman & Keyton, 2010). Following this technique, the study first Winsorized the variables at one percent to avoid the problem of outliers and then further estimations were employed on the Winsorized variables.

#### **4.6.2.2 Multicollinearity**

A significant proposition for the multiple regression model is that independent variables are not completely multicollinear. One regressor must not be the linear function of another. For testing multicollinearity, VIF (variance inflation factor) test is applied on the dataset. When multicollinearity is present, standard errors may be inflated. The threshold value for VIF is  $> 10$  or  $1/VIF < 0.10$  indicates a problem of multicollinearity.

### 4.6.2.3 Reverse Causality

Reverse causality is the condition where not only dependent variable is caused by the independent variable but also independent variable is caused by the dependent variable. Reverse causality is one of the reasons behind endogeneity. For checking the model suffers from reverse causality or not, the recommended solution is to re-estimate the regression model using a lagged value of independent variable and keeping dependent variable as  $t$ , if there is no reverse causality, the link between both variables will remain same irrespective of using time lag. If, the sign of independent variable changes, and is significant, then model suffers reverse causality. If the sign of coefficients remains same there would be no problem of reverse causality.

### 4.6.3 Regression Equations

Multiple dynamic regressions used to estimate the joint effects of corporate governance mechanisms and corporate social responsibility practices on the performance of Malaysian Listed Companies and to examine the moderating role of board characteristics on the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance.

For dynamic panel estimations, the general model of regression equations is as follows,

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \dots + \beta_n X_{it} + Y_{it-1} + \varepsilon_{it}$$

Where  $Y_{it-1}$  is the one-year lagged value of dependent variable that controls for potential endogeneity, reverse causality, simultaneity and dynamic heterogeneity.

As mentioned earlier, this study is based on two research objectives and dynamic estimator has been employed on the dataset. Therefore, regression equations 1(a), 1(b), 1(c), 1(d) constitute the objective 1 of the research in terms of joint effects of corporate governance mechanisms and corporate social responsibility practices on firm performance using dynamic model.

$$\begin{aligned}
 Perf(ROA_{it}) = & \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 IOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \\
 & \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} + \\
 & \beta_{13} MKT_{it} + \beta_{14} ENV_{it} + \beta_{15} COMM_{it} + \beta_{16} WRK_{it} + \beta_{17} MCSR_{it} + \beta_{18} FSIZE_{it} + \beta_{19} LEV_{it} + \\
 & \beta_{20} Perf(ROA_{it-1}) + \varepsilon_{it} \dots \dots \dots (1a)
 \end{aligned}$$

$$\begin{aligned}
 Perf(ROE_{it}) = & \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 IOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \\
 & \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} + \\
 & \beta_{13} MKT_{it} + \beta_{14} ENV_{it} + \beta_{15} COMM_{it} + \beta_{16} WRK_{it} + \beta_{17} MCSR_{it} + \beta_{18} FSIZE_{it} + \beta_{19} LEV_{it} + \\
 & \beta_{20} Perf(ROE_{it-1}) + \varepsilon_{it} \dots \dots \dots (1b)
 \end{aligned}$$

$$\begin{aligned}
 Perf(EPS_{it}) = & \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 IOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \\
 & \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} + \\
 & \beta_{13} MKT_{it} + \beta_{14} ENV_{it} + \beta_{15} COMM_{it} + \beta_{16} WRK_{it} + \beta_{17} MCSR_{it} + \beta_{18} FSIZE_{it} + \beta_{19} LEV_{it} + \\
 & \beta_{20} Perf(EPS_{it-1}) + \varepsilon_{it} \dots \dots \dots (1c)
 \end{aligned}$$

$$\begin{aligned}
 Perf(TQ_{it}) = & \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 IOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \\
 & \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} +
 \end{aligned}$$

$$\beta_{13}MKT_{it} + \beta_{14}ENV_{it} + \beta_{15}COMM_{it} + \beta_{16}WRK_{it} + \beta_{17}MCSR_{it} + \beta_{18}FSIZE_{it} + \beta_{19}LEV_{it} + \beta_{20}Perf(TQ_{it-1}) + \varepsilon_{it} \dots\dots\dots(1d)$$

As stated in second research objective, the moderating effect of board characteristics has been examined on the relationship between governance mechanisms, corporate social responsibility practices and firm performance. Thus, regression equations 2(a), 2(b), 2(c) exhibit the moderating effect of board size, board independence and board diversity, respectively on the relationship between CG mechanisms, CSR practices and firm performance.

$$\begin{aligned} Perf_{it} = & \beta_0 + \beta_1 BSIZE_{it} + \beta_2 OWNC_{it} + \beta_3 OWNC_{it} * BSIZE_{it} + \beta_4 DOWN_{it} + \beta_5 DOWN_{it} * \\ & BSIZE_{it} + \beta_6 IOWN_{it} + \beta_7 IOWN_{it} * BSIZE_{it} + \beta_8 CEOD_{it} + \beta_9 CEOD_{it} * BSIZE_{it} + \\ & \beta_{10} CREM_{it} + \beta_{11} CREM_{it} * BSIZE_{it} + \beta_{12} DREM_{it} + \beta_{13} DREM_{it} * BSIZE_{it} + \beta_{14} RMCS_{it} + \\ & \beta_{15} RMCS_{it} * BSIZE_{it} + \beta_{16} RMCI_{it} + \beta_{17} RMCI_{it} * BSIZE_{it} + \beta_{18} RMCM_{it} + \beta_{19} RMCM_{it} * \\ & BSIZE_{it} + \beta_{20} MKT_{it} + \beta_{21} MKT_{it} * BSIZE_{it} + \beta_{22} ENV_{it} + \beta_{23} ENV_{it} * BSIZE_{it} + \beta_{24} COMM_{it} + \\ & \beta_{25} COMM_{it} * BSIZE_{it} + \beta_{26} WRK_{it} + \beta_{27} WRK_{it} * BSIZE_{it} + \beta_{28} MCSR_{it} + \beta_{29} MCSR_{it} * \\ & BSIZE_{it} + \beta_{30} FSIZE_{it} + \beta_{31} FSIZE_{it} * BSIZE_{it} + \beta_{32} LEV_{it} + \beta_{33} LEV_{it} * BSIZE_{it} + \beta_{34} Perf_{it-1} + \\ & \varepsilon_{it} \dots\dots\dots (2a) \end{aligned}$$

$$\begin{aligned} Perf_{it} = & \beta_0 + \beta_1 BIND_{it} + \beta_2 OWNC_{it} + \beta_3 OWNC_{it} * BIND_{it} + \beta_4 DOWN_{it} + \beta_5 DOWN_{it} * \\ & BIND_{it} + \beta_6 IOWN_{it} + \beta_7 IOWN_{it} * BIND_{it} + \beta_8 CEOD_{it} + \beta_9 CEOD_{it} * BIND_{it} + \beta_{10} CREM_{it} + \\ & \beta_{11} CREM_{it} * BIND_{it} + \beta_{12} DREM_{it} + \beta_{13} DREM_{it} * BIND_{it} + \beta_{14} RMCS_{it} + \beta_{15} RMCS_{it} * \end{aligned}$$

$$\begin{aligned}
& BIND_{it} + \beta_{16}RMCI_{it} + \beta_{17}RMCI_{it} * BIND_{it} + \beta_{18}RMCM_{it} + \beta_{19}RMCM_{it} * BIND_{it} + \\
& \beta_{20}MKT_{it} + \beta_{21}MKT_{it} * BIND_{it} + \beta_{22}ENV_{it} + \beta_{23}ENV_{it} * BIND_{it} + \beta_{24}COMM_{it} + \\
& \beta_{25}COMM_{it} * BIND_{it} + \beta_{26}WRK_{it} + \beta_{27}WRK_{it} * BIND_{it} + \beta_{28}MCSR_{it} + \beta_{29}MCSR_{it} * BIND_{it} \\
& + \beta_{30}FSIZE_{it} + \beta_{31}FSIZE_{it} * BIND_{it} + \beta_{32}LEV_{it} + \beta_{33}LEV_{it} * BIND_{it} + \beta_{34}Perf_{it-1} + \varepsilon_{it} \dots\dots\dots \\
& \dots\dots\dots(2b)
\end{aligned}$$

$$\begin{aligned}
Perf_{it} = & \beta_0 + \beta_1BDIV_{it} + \beta_2OWNC_{it} + \beta_3OWNC_{it} * BDIV_{it} + \beta_4DOWN_{it} + \beta_5DOWN_{it} * \\
& BDIV_{it} + \beta_6IOWN_{it} + \beta_7IOWN_{it} * BDIV_{it} + \beta_8CEOD_{it} + \beta_9CEOD_{it} * BDIV_{it} + \beta_{10}CREM_{it} + \\
& \beta_{11}CREM_{it} * BDIV_{it} + \beta_{12}DREM_{it} + \beta_{13}DREM_{it} * BDIV_{it} + \beta_{14}RMCS_{it} + \beta_{15}RMCS_{it} * \\
& BDIV_{it} + \beta_{16}RMCI_{it} + \beta_{17}RMCI_{it} * BDIV_{it} + \beta_{18}RMCM_{it} + \beta_{19}RMCM_{it} * BDIV_{it} + \\
& \beta_{20}MKT_{it} + \beta_{21}MKT_{it} * BDIV_{it} + \beta_{22}ENV_{it} + \beta_{23}ENV_{it} * BDIV_{it} + \beta_{24}COMM_{it} + \\
& \beta_{25}COMM_{it} * BDIV_{it} + \beta_{26}WRK_{it} + \beta_{27}WRK_{it} * BDIV_{it} + \beta_{28}MCSR_{it} + \beta_{29}MCSR_{it} * BDIV_{it} + \\
& \beta_{30}FSIZE_{it} + \beta_{31}FSIZE_{it} * BDIV_{it} + \beta_{32}LEV_{it} + \beta_{33}LEV_{it} * BDIV_{it} + \beta_{34}Perf_{it-1} + \varepsilon_{it} \dots\dots\dots \\
& \dots\dots\dots(2c)
\end{aligned}$$

However,  $Perf_{it}$  is firm performance for  $it$ h company at time  $t$ ,  $OWNC_{it}$  is ownership concentration for  $it$ h company at time  $t$ ,  $DOWN_{it}$  is director ownership for  $it$ h company at time  $t$ ,  $IOWN_{it}$  is institutional ownership for  $it$ h company at time  $t$ ,  $CEOD_{it}$  is CEO duality for  $it$ h company at time  $t$ ,  $CREM_{it}$  is CEO remuneration for  $it$ h company at time  $t$ ,  $DREM_{it}$  is directors' remuneration for  $it$ h company at time  $t$ ,  $RMCS_{it}$  is risk management committee size for  $it$ h company at time  $t$ ,  $RMCI_{it}$  is risk management committee

independence for  $i$ th company at time  $t$ ,  $RMCM_{it}$  is risk management committee meeting for  $i$ th company at time  $t$ ,  $BSIZE_{it}$  is board size for  $i$ th company at time  $t$ ,  $BIND_{it}$  in board independence for  $i$ th company at time  $t$ ,  $BDIV_{it}$  is board diversity for  $i$ th company at time  $t$ ,  $MKT_{it}$  is marketplace dimension for  $i$ th company at time  $t$ ,  $ENV_{it}$  is environment dimension for  $i$ th company at time  $t$ ,  $COMM_{it}$  is community dimension for  $i$ th company at time  $t$ ,  $WRK_{it}$  is workplace dimension for  $i$ th company at time  $t$ ,  $MCSR_{it}$  is money spent on CSR activities for  $i$ th company at time  $t$ ,  $FSIZE_{it}$  is firm size for  $i$ th company at time  $t$ ,  $LEV_{it}$  is leverage for  $i$ th company at time  $t$ ,  $\beta_0$  is the intercept,  $\varepsilon_{it}$  is the random error term for  $i$ th company at time  $t$ .

#### **4.7 Chapter Summary**

The chapter discusses about the theoretical background of the study where underpinning theory is discussed in relation to corporate governance mechanisms, corporate social responsibility practices and board characteristics. Moreover, research framework has been developed. The chapter leads to hypotheses development of corporate governance mechanisms, corporate social responsibility practices and firm performance. In addition, role of moderating variable has also been hypothesized for the study. Meanwhile, data and data sources along with sample selection have been presented. Finally, research design is given where data structure, data analysis using Stata and regression equations have been presented at the end.

## CHAPTER FIVE

### ANALYSIS OF RESULTS AND DISCUSSION

#### 5.0 Introduction

The purpose of this chapter is to present the results of the data analysis based on the area of the study using the research framework of Figure 4.1 presented in Chapter 4: The joint impact of governance mechanisms and corporate social responsibility practices on performance of Malaysian listed companies. Furthermore, discussion of results has also been presented along with respective models of the study to fetch theoretical and empirical support for the relationships. Thus, the chapter is divided into seven distinct sections for comprehensive elaboration of results and findings. Section 5.1 illustrates descriptive statistics of continuous variables of the study. Section 5.2 presents the results of diagnostic tests performed on the dataset. Pairwise correlation of continuous variables is presented in Section 5.3 whereas section 5.4 gives the regression results of effects of corporate governance mechanisms and corporate social responsibility practices on firm performance using dynamic estimator along with discussion of empirical results.

Furthermore, the regression results of the moderating effect of board characteristics on the relationship between governance mechanisms, corporate social responsibility practices and firm performance and its discussion is given in Section 5.5. Correspondingly, hypothesis testing has been explained in Section 5.6. The chapter concludes by providing a brief summary of analysis of results and discussion in Section 5.7.

## 5.1 Descriptive Statistics

This study aims to investigate the joint impact of corporate governance mechanisms and corporate social responsibility practices on performance of Malaysian listed companies. For this purpose, data of 588 Malaysian active (listed) and inactive (delisted) firms have been analyzed. Table 5.1 presents the summary of descriptive statistics of continuous variables of the study for the period 2006-2017.

Panel A of Table 5.1 presents the descriptive statistics of the dependent variables of the study where  $ROA_{it}$  exhibits mean value of 4.65 percent with a standard deviation of 4.52 percent whereas maximum value is 12.45 and the minimum value is -1.99. Furthermore, the mean value of return on equity is 7.27 percent with a standard deviation of 6.23 percent and minimum and maximum values of -0.01 percent and 18.17 percent respectively.

Moreover, the average value of earning per share ( $EPS_{it}$ ) is 0.08 percent with a standard deviation of 0.11 percent, whereas a maximum value shows 0.31 percent and the minimum value is -0.05 percent for earnings per share. Correspondingly, the mean value of Tobin's Q is 0.98 percent where  $TQ_{it}$  yields the standard deviation 0.59 as a difference of maximum (2.21 percent) and minimum value (0.34 percent).

Referring to Panel B of Table 5.1 where the descriptive statistics of corporate governance mechanisms are presented, indicate that on average, ownership of Malaysian listed companies is 49.54% concentrated with a standard deviation 0.1578 generated as a difference of maximum (0.7169) and the minimum value (0.2254). Additionally, director

ownership depicts 11.48% shares are held by directors and their spouses. This is because Malaysian firms are mainly concentrated in ownership structure; therefore, there is lower percentage of shares owned by directors of firms. However,  $DOWN_{it}$  indicates standard deviation (0.1409) with maximum and minimum values of 0.4074 and 0.0001 respectively.

Furthermore, in Malaysian listed companies, institutional ownership is 33.58% indicating the appropriate level of shares owned by institutions with minimum (0.1467) and maximum value (0.5502) resulting in the standard deviation of 0.1270. Moreover, CEO duality depicts the mean value of 8.01%, suggesting that there are only 8.01% firms in Malaysia where the dual role of CEOs is observed. The descriptive statistics for mean CEO remuneration indicates RM0.0683 million and for directors' remuneration, the average value is RM0.0857 million. Furthermore, standard deviation values for  $CREM_{it}$  and  $DREM_{it}$  are RM0.0494 and RM0.0699 millions respectively, which is the difference of a maximum RM1.600 million and the minimum RM0.0155 million for CEO remuneration and difference of a maximum RM2.300 million and the minimum RM0.0096 million for directors' remuneration.

Concerning risk management committee attributes; namely, size, independence and meetings show the average values of 44.39%, 42.91%, and 43.25% respectively. The mean value of RMC size suggests that 44.39% of Malaysian listed companies have a risk management committee with three board members. Similarly, there are 42.91% companies that have RMC with one independent director and there are 43.25% cases where Malaysian firms held RMC meetings, at least once in a year. Overall, the mean

values of RMC attributes indicate that less than 50% companies have a specialized risk management committee with three board members, out of which one board member is an independent director and RMC meetings held, at least, once in a year.

Referring to the Table 5.1, where Panel C gives the descriptive statistics of board characteristics used as continuous as well as moderating variables in the study; namely, board size, board independence and board diversity. The mean board size is 7.62 with minimum 3 board members and a maximum of 15 board of directors in Malaysian firms. Additionally, mean value of independent boards of directors suggests that there are 42.61% independent directors on Malaysian firms' boards. Moreover, in Malaysian firms, there is only 8.52% board diversity (women on boards) where the minimum value indicates no female appearance with a maximum value of 50% women on board.

Correspondingly, Panel D of Table 5.1 where descriptive statistics of corporate social responsibility practices is given, indicates the average value for marketplace practices is 42.53% suggesting that, on average, 42.53% companies in Malaysia adopt marketplace practices of CSR where companies disclose their practices related to conducting business responsibly where key statement addresses the local businesses, suppliers and investors in the annual reports. Moreover, environment practices yields mean value of 65.66%, suggesting that Malaysian firms disclose information related to initiatives undertaken by firms to protect and preserve the environment. In addition, community practices indicate the mean value of 69.06% where the focus of the statements provided in the annual reports of firms is to exhibit commitments and assistance provided to the local communities.

Meanwhile, workplace practices depict the value of 65.06%, suggesting that Malaysian firms disclose workplace practices in their annual reports on account of human resource practices performed in their firms. Moreover, money spent on CSR shows the average value of 71.27%, suggesting that there are 71% companies of Malaysia that are involved in donations, charitable and socially responsible programs conducted by Malaysian firms whereas rest 29% do not spend money on CSR activities.

Finally, in reference to Panel E of Table 5.1, the descriptive statistics of control variables of the study are presented where firm size indicates the mean value of RM774 million with a standard deviation of RM885 million with the gap between the minimum (RM72 million) and maximum (RM28000 million) value of total assets. Furthermore, Panel E also presents descriptive statistics for leverage measured by total debt-to-total assets ratio. This ratio shows the relative proportion of debt and equity used to finance a company's assets. However, on average, for every RM1 of total assets, the firms owe RM0.39 to creditors in Malaysia.

Table 5.1

*Descriptive Statistics of Variables Over the Period (2006-2017)*

<b>Variable</b>	<b>Unit</b>	<b>Obs.</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Minimum</b>	<b>Maximum</b>
<b><i>Panel A: Dependent Variables</i></b>						
$ROA_{it}$	(%)	5501	4.6587	4.5241	-1.99	12.45
$ROE_{it}$	(%)	5501	7.2713	6.2377	-0.01	18.17
$EPS_{it}$	(%)	5501	0.0861	0.1137	-0.056	0.313
$TQ_{it}$	(%)	5501	0.9878	0.5986	0.34	2.21
<b><i>Panel B: Independent Variables (Corporate Governance Mechanisms)</i></b>						
$OWNC_{it}$	(%)	5501	0.4954	0.1578	0.2254	0.7169
$DOWN_{it}$	(%)	5501	0.1148	0.1409	0.0001	0.4074
$IOWN_{it}$	(%)	5501	0.3358	0.1270	0.1467	0.5502
$CEOD_{it}$	(%)	5501	0.0801	0.2715	0	1
$CREM_{it}$	(RM millions)	5501	0.0683	0.0494	0.0155	1.600
$DREM_{it}$	(RM millions)	5501	0.0857	0.0699	0.0096	2.300
$RMCS_{it}$	(%)	5501	0.4439	0.4968	0	1
$RMCI_{it}$	(%)	5501	0.4291	0.4425	0	1
$RMCM_{it}$	(%)	5501	0.4385	0.4784	0	1
<b><i>Panel C: Independent and Moderating Variables (Board Characteristics)</i></b>						
$BSIZE_{it}$	(No. of Directors)	5501	7.622	1.8328	3	15
$BIND_{it}$	(Ratio)	5501	0.4261	0.1102	0.1428	1
$BDIV_{it}$	(Ratio)	5501	0.0852	0.1068	0	0.5
<b><i>Panel D: Independent Variables (Corporate Social Responsibility Practices)</i></b>						
$MKT_{it}$	(%)	5501	0.4253	0.4944	0	1
$ENV_{it}$	(%)	5501	0.6566	0.4748	0	1
$COMM_{it}$	(%)	5501	0.6906	0.4622	0	1
$WRK_{it}$	(%)	5501	0.6506	0.4768	0	1
$MCSR_{it}$	(%)	5501	0.7127	0.4525	0	1
<b><i>Panel E: Control Variables</i></b>						
$SIZE_{it}$	(RM millions)	5501	774.85	885.84	72	28000
$LEV_{it}$	(%)	5501	0.3910	0.1766	0.1324	0.6698

## 5.2 Results of Diagnostic Tests

Before presenting the estimated results of the joint impact of CG mechanisms and CSR practices on the performance of Malaysian listed companies, it is important to run the standard diagnostic tests of all models. This is because the reliability and consistency of the GMM estimations depend on the validity of the instruments and the absence of serial correlation in the residuals. The results of diagnostic tests are reported in Table 5.2. Panel A reports the diagnostic tests for models 1 (a), 1(b), 1(c), 1(d) in which CG mechanisms and CSR practices are regressed against performance measures. Meanwhile, Panel B reports the diagnostic tests for model 2 (a), 2(b), 2(c) in which moderating effect of board characteristics on the relationship between CG mechanisms, CSR practices and firm performance has been examined and regressed.

First, the validity of the instrument is tested by using the Sargan's (1964) test of misspecification. The null hypothesis in Sargan test is that all instruments in the specified model are not redundant and over-identifying restrictions are valid. Therefore, accepting the null hypothesis indicates the validity of the group of instruments and the appropriate model specification. In line with Arellano and Bond (1991) findings, column (1,2,3) of Table 5.2 shows that the one-step, two-step, and two-step robust standard errors D-GMM version of Sargan-test are sensitive to heteroskedasticity ( $p$ -value is less than 0.05), leading to the rejection of the validity of instruments for all models. Provided that D-GMM did not pass the Sargan test of misspecification, S-GMM presented by Blundell and Bond (1998) have been employed to test validity of over-identifying restrictions. Column (4) of Table 5.2 again indicates that the one-step S-GMM version of Sargan tests

are prone to heteroskedasticity (p-value is less than 0.05). Due to the presence of heteroskedasticity of unknown form, the results of the repeated Sargan test analysis based on two-step and two-step with robust standard errors S-GMM (Columns 5 and 6) passed the Sargan test.

The application of various two-step S-GMM estimations for a diagnostic test is meant to have a more thorough assessment so as the best estimation technique is selected. The result shows that two-step S-GMM is considered as the final estimator. Overall, columns (5) and (6) of Panel A indicate that the Sargan test for models 1 (a, b, c, d) do not reject the over-identifying restrictions (p-value is greater than 0.05) reflecting that the instruments are exogenous and the models are appropriate. For moderating variables, model 2 (a, b, c) also suggests that two-step S-GMM passed the Sargan test of over-identifying restrictions showing that instruments for interaction variables are exogenous and the models are correct. Therefore, the results suggest that these models are well-specified and the estimators chosen are consistent for models 1 and 2.

Another significant diagnostic test in dynamic panel data estimation is the Arellano-Bond (1991) test for autocorrelation between residuals (AR). This diagnostic test is employed to check on the validity of instruments due to the dynamic nature of the data (Arellano & Bond, 1991). The standard assumption in the first-order serial correlation (AR(1)) model is that the residuals for every model in the current period (period  $t$ ). Meanwhile, the second-order serial correlation (AR(2)) model presumes that the residuals in the period  $t$  depends upon the residual in both period  $t-1$  and period  $t-2$ .

**Table 5.2 Panel A: Diagnostic Test for Model 1**

	One-Step D- GMM (1)	Two-Step D- GMM (2)	Two-Step D- GMM with Robust SE (3)	One-Step S- GMM (4)	Two-Step S- GMM (5)	Two-Step S- GMM with Robust SE (6)
<b>Model 1(a)</b>						
	$PerfROA_{it} = \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 JOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} + \beta_{13} MKT_{it} + \beta_{14} ENV_{it} + \beta_{15} COMM_{it} + \beta_{16} WRK_{it} + \beta_{17} MCSR_{it} + \beta_{18} FSIZE_{it} + \beta_{19} LEV_{it} + \beta_{20} Perf(ROA_{it,j}) + \varepsilon_{it}$					
Sargan test for over-identifying restrictions (p-value)	178.56(0.00)	158.88(0.00)	-	93.83(0.00)	65.96(0.40)	-
2 <sup>nd</sup> Order Autocorrelation Test (p-value)	-	2.21(0.21)	2.10(0.25)	-	2.41(0.78)	2.18(0.84)
No. of Lags	75	75	75	84	84	84
No. of Instruments	588	588	588	588	588	588
<b>Model 1(b)</b>						
	$PerfROE_{it} = \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 JOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} + \beta_{13} MKT_{it} + \beta_{14} ENV_{it} + \beta_{15} COMM_{it} + \beta_{16} WRK_{it} + \beta_{17} MCSR_{it} + \beta_{18} FSIZE_{it} + \beta_{19} LEV_{it} + \beta_{20} Perf(ROE_{it,j}) + \varepsilon_{it}$					
Sargan test for over-identifying restrictions (p-value)	111.02(0.00)	94.81(0.00)	-	74.74(0.16)	57.66(0.70)	-
2 <sup>nd</sup> Order Autocorrelation Test (p-value)	-	1.05(0.27)	0.97(0.31)	-	1.98(0.68)	1.75(0.75)
No. of Lags	75	75	75	84	84	84
No. of Instruments	588	588	588	588	588	588
<b>Model 1(c)</b>						
	$PerfEPS_{it} = \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 JOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} + \beta_{13} MKT_{it} + \beta_{14} ENV_{it} + \beta_{15} COMM_{it} + \beta_{16} WRK_{it} + \beta_{17} MCSR_{it} + \beta_{18} FSIZE_{it} + \beta_{19} LEV_{it} + \beta_{20} Perf(EPS_{it,j}) + \varepsilon_{it}$					
Sargan test for over-identifying restrictions (p-value)	234.05(0.00)	167.50(0.00)	-	93.68(0.00)	63.37(0.49)	-
2 <sup>nd</sup> Order Autocorrelation Test (p-value)	-	-2.01(0.31)	-1.87(0.35)	-	-1.98(0.65)	-2.15(0.78)
No. of Lags	75	75	75	84	84	84
No. of Instruments	588	588	588	588	588	588
<b>Model 1(d)</b>						
	$PerfTO_{it} = \beta_0 + \beta_1 OWNC_{it} + \beta_2 DOWN_{it} + \beta_3 JOWN_{it} + \beta_4 CEOD_{it} + \beta_5 CREM_{it} + \beta_6 DREM_{it} + \beta_7 RMCS_{it} + \beta_8 RMCI_{it} + \beta_9 RMCM_{it} + \beta_{10} BSIZE_{it} + \beta_{11} BIND_{it} + \beta_{12} BDIV_{it} + \beta_{13} MKT_{it} + \beta_{14} ENV_{it} + \beta_{15} COMM_{it} + \beta_{16} WRK_{it} + \beta_{17} MCSR_{it} + \beta_{18} FSIZE_{it} + \beta_{19} LEV_{it} + \beta_{20} Perf(TO_{it,j}) + \varepsilon_{it}$					
Sargan test for over-identifying restrictions (p-value)	116.77(0.00)	85.66(0.00)	-	143.29(0.00)	82.07(0.06)	-
2 <sup>nd</sup> Order Autocorrelation Test (p-value)	-	-1.58(0.30)	-1.42(0.38)	-	-2.52(0.70)	-2.43(0.85)
No. of Lags	75	75	75	84	84	84
No. of Instruments	588	588	588	588	588	588

**Table 5.2 Panel B: Diagnostic Test for Model 2\***

	$ROA_{it}$	$ROE_{it}$	$EPS_{it}$	$TQ_{it}$
<b>Model 2(a)</b>	$Perf_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 OWNC_{it} + \beta_3 OWNC_{it} * BSIZE_{it} + \beta_4 DOWN_{it} + \beta_5 DOWN_{it} * BSIZE_{it} + \beta_6 JOWN_{it} + \beta_7 JOWN_{it} * BSIZE_{it} + \beta_8 CEOD_{it} + \beta_9 CEOD_{it} * BSIZE_{it} + \beta_{10} CREM_{it} + \beta_{11} CREM_{it} * BSIZE_{it} + \beta_{12} DREM_{it} + \beta_{13} DREM_{it} * BSIZE_{it} + \beta_{14} RMCS_{it} + \beta_{15} RMCS_{it} * BSIZE_{it} + \beta_{16} RMCh_{it} + \beta_{17} RMCh_{it} * BSIZE_{it} + \beta_{18} RMCm_{it} + \beta_{19} RMCm_{it} * BSIZE_{it} + \beta_{20} MKT_{it} + \beta_{21} MKT_{it} * BSIZE_{it} + \beta_{22} ENV_{it} + \beta_{23} ENV_{it} * BSIZE_{it} + \beta_{24} COMM_{it} + \beta_{25} COMM_{it} * BSIZE_{it} + \beta_{26} WRK_{it} + \beta_{27} WRK_{it} * BSIZE_{it} + \beta_{28} MCSR_{it} + \beta_{29} MCSR_{it} * BSIZE_{it} + \beta_{30} FSIZE_{it} + \beta_{31} FSIZE_{it} * BSIZE_{it} + \beta_{32} LEV_{it} + \beta_{33} LEV_{it} * BSIZE_{it} + \beta_{34} Perf_{i,t-1} + \epsilon_{it}$			
Sargan Test of Over-Identifying Restrictions (p-value)	74.15(0.48)	29.73(0.25)	46.28(0.34)	22.84(0.56)
2 <sup>nd</sup> Order Autocorrelation Test (p-value)	-0.92(0.35)	-1.38(0.16)	-2.40(0.06)	-1.60(0.10)
2 <sup>nd</sup> Order Autocorrelation Test (p-value) with Robust SE	-0.71(0.41)	-1.24(0.20)	-2.20(0.07)	-1.41(0.12)
No. of Lags	1	1	1	1
No. of Instruments	172	172	172	172
No. of Groups	588	588	588	588
<b>Model 2(b)</b>	$Perf_{it} = \beta_0 + \beta_1 BIND_{it} + \beta_2 OWNC_{it} + \beta_3 OWNC_{it} * BIND_{it} + \beta_4 DOWN_{it} + \beta_5 DOWN_{it} * BIND_{it} + \beta_6 JOWN_{it} + \beta_7 JOWN_{it} * BIND_{it} + \beta_8 CEOD_{it} + \beta_9 CEOD_{it} * BIND_{it} + \beta_{10} CREM_{it} + \beta_{11} CREM_{it} * BIND_{it} + \beta_{12} DREM_{it} + \beta_{13} DREM_{it} * BIND_{it} + \beta_{14} RMCS_{it} + \beta_{15} RMCS_{it} * BIND_{it} + \beta_{16} RMCh_{it} + \beta_{17} RMCh_{it} * BIND_{it} + \beta_{18} RMCm_{it} + \beta_{19} RMCm_{it} * BIND_{it} + \beta_{20} MKT_{it} + \beta_{21} MKT_{it} * BIND_{it} + \beta_{22} ENV_{it} + \beta_{23} ENV_{it} * BIND_{it} + \beta_{24} COMM_{it} + \beta_{25} COMM_{it} * BIND_{it} + \beta_{26} WRK_{it} + \beta_{27} WRK_{it} * BIND_{it} + \beta_{28} MCSR_{it} + \beta_{29} MCSR_{it} * BIND_{it} + \beta_{30} FSIZE_{it} + \beta_{31} FSIZE_{it} * BIND_{it} + \beta_{32} LEV_{it} + \beta_{33} LEV_{it} * BIND_{it} + \beta_{34} Perf_{i,t-1} + \epsilon_{it}$			
Sargan Test of Over-Identifying Restrictions	14.36(0.07)	47.15(0.08)	68.36(0.10)	76.00(0.09)
2 <sup>nd</sup> Order Autocorrelation Test (p-value)	1.74(0.21)	2.57(0.84)	1.54(0.65)	2.30(0.74)
2 <sup>nd</sup> Order Autocorrelation Test (p-value) with Robust SE	1.68(0.25)	2.32(0.95)	1.48(0.81)	2.10(0.89)
No. of Lags	1	1	1	1
No. of Instruments	172	172	172	172
No. of Groups	588	588	588	588
<b>Model 2(c)</b>	$Perf_{it} = \beta_0 + \beta_1 BDIV_{it} + \beta_2 OWNC_{it} + \beta_3 OWNC_{it} * BDIV_{it} + \beta_4 DOWN_{it} + \beta_5 DOWN_{it} * BDIV_{it} + \beta_6 JOWN_{it} + \beta_7 JOWN_{it} * BDIV_{it} + \beta_8 CEOD_{it} + \beta_9 CEOD_{it} * BDIV_{it} + \beta_{10} CREM_{it} + \beta_{11} CREM_{it} * BDIV_{it} + \beta_{12} DREM_{it} + \beta_{13} DREM_{it} * BDIV_{it} + \beta_{14} RMCS_{it} + \beta_{15} RMCS_{it} * BDIV_{it} + \beta_{16} RMCh_{it} + \beta_{17} RMCh_{it} * BDIV_{it} + \beta_{18} RMCm_{it} + \beta_{19} RMCm_{it} * BDIV_{it} + \beta_{20} MKT_{it} + \beta_{21} MKT_{it} * BDIV_{it} + \beta_{22} ENV_{it} + \beta_{23} ENV_{it} * BDIV_{it} + \beta_{24} COMM_{it} + \beta_{25} COMM_{it} * BDIV_{it} + \beta_{26} WRK_{it} + \beta_{27} WRK_{it} * BDIV_{it} + \beta_{28} MCSR_{it} + \beta_{29} MCSR_{it} * BDIV_{it} + \beta_{30} FSIZE_{it} + \beta_{31} FSIZE_{it} * BDIV_{it} + \beta_{32} LEV_{it} + \beta_{33} LEV_{it} * BDIV_{it} + \beta_{34} Perf_{i,t-1} + \epsilon_{it}$			
Sargan Test of Over-Identifying Restrictions	38.09(0.08)	26.09(0.12)	49.84(0.07)	43.41(0.17)
2 <sup>nd</sup> Order Autocorrelation Test (p-value)	-1.20(0.52)	-1.95(0.09)	-1.54(0.08)	-1.85(0.10)
2 <sup>nd</sup> Order Autocorrelation Test (p-value) with Robust SE	-1.15(0.62)	-1.56(0.15)	-1.42(0.10)	-1.73(0.15)
No. of Lags	1	1	1	1
No. of Instruments	172	172	172	172
No. of Groups	588	588	588	588

\*All values are based on 3-GMM (two-step) estimations

Comparatively, the test for AR(2) of residuals in the first differenced equation is more important than the test for AR(1) of residuals because technically AR(2) test is applied to detect the presence of the first differenced residuals in both period  $t-1$  and period  $t-2$  (Roodman, 2009). As the difference residuals in AR(2) incorporate the difference residuals in AR(1), only the AR(2) outputs are disclosed in Table 5.2. Overall, the results of the diagnostic test AR(2) for models 1 (a, b, c, d) and 2 (a, b, c) reported in Table 5.2 meet the requirements of accepting no second order serial correlation in the first-difference residuals (all respective values are greater than 0.05). Therefore, to draw research findings on predictive relation between corporate governance mechanisms, corporate social responsibility practices and firm performance only the estimations of two-step S-GMM are discussed in the following sections.

### **5.2.1 Multicollinearity Test between Independent Variables**

Variance inflation factor (VIF) test was carried out to determine whether there exists high collinearity between the independent variables or not. In other words, whether two or more variables are measuring the same thing or variables are independent of one another. Hair, Black, Babin, and Anderson (2010) suggested that VIF of less than 10 would indicate no serious multicollinearity problem amongst the paired variables. Hair, Black, Babin, and Anderson (2010) stated that one of the various methods to check for the existence of the correlation among independent variables is through multicollinearity test that explains the level by which one variable's effect could be managed by the other variable. However, variance inflation factor is the technique to check for multicollinearity. For the data set of the current study, no problem of multicollinearity

existed after running regressions. Table 5.3 and 5.4 present the values of VIF of the study indicating no problem of multicollinearity. In a circumstance whereby the VIF is more than 10, indicates that the variables are highly interrelated which incite multicollinearity problem (Greene, 2003). Along these, the multicollinearity test using VIF as presented in Table 5.3 and 5.4 find the non-existence of multicollinearity problem because, for every independent variable, the VIF value is less than the threshold value of 10. Therefore, the study concludes that there is no problem of multicollinearity among independent variables.

Table 5.3

*Multicollinearity Test using Variance Inflation Factor for  $ROA_{it}$  and  $ROE_{it}$*

<b>Variables</b>	<b>VIF (<math>ROA_{it}</math>)</b>	<b>1/VIF (<math>ROA_{it}</math>)</b>	<b>VIF (<math>ROE_{it}</math>)</b>	<b>1/VIF (<math>ROE_{it}</math>)</b>
$OWNC_{it}$	1.03	0.270825	1.25	0.302563
$DOWN_{it}$	2.01	0.498533	2.63	0.265896
$IOWN_{it}$	1.98	0.505647	3.69	0.523674
$CEOD_{it}$	3.06	0.326896	1.98	0.456217
$CREM_{it}$	3.72	0.268708	2.01	0.214589
$DREM_{it}$	2.78	0.322107	3.06	0.325416
$RMCS_{it}$	2.34	0.359425	2.34	0.257891
$RMCI_{it}$	1.44	0.427258	1.16	0.365214
$RMCM_{it}$	1.25	0.466496	1.21	0.487952
$BSIZE_{it}$	2.25	0.526895	2.14	0.425895
$BIND_{it}$	1.36	0.258955	1.40	0.141452
$BDIV_{it}$	1.58	0.458934	1.23	0.544521
$MKT_{it}$	3.10	0.358376	2.30	0.425632
$ENV_{it}$	3.14	0.318365	1.32	0.258610
$COMM_{it}$	1.69	0.591235	3.35	0.230145
$WRK_{it}$	3.06	0.259675	2.63	0.356874
$MCSR_{it}$	2.58	0.356248	1.25	0.368952
$FSIZE_{it}$	1.65	0.258962	2.04	0.523689
$LEV_{it}$	2.35	0.425632	2.56	0.415268
<b>Mean VIF</b>	<b>2.23</b>		<b>2.08</b>	

Table 5.4

*Multicollinearity Test using Variance Inflation Factor for  $EPS_{it}$  and  $TQ_{it}$* 

<b>Variables</b>	<b>VIF (<math>EPS_{it}</math>)</b>	<b>1/VIF (<math>EPS_{it}</math>)</b>	<b>VIF (<math>TQ_{it}</math>)</b>	<b>1/VIF (<math>TQ_{it}</math>)</b>
$OWNC_{it}$	2.03	0.258964	1.65	0.255776
$DOWN_{it}$	1.02	0.365891	1.52	0.355520
$IOWN_{it}$	1.95	0.214740	1.20	0.254411
$CEOD_{it}$	1.56	0.258763	1.95	0.252455
$CREM_{it}$	2.36	0.365897	3.09	0.154583
$DREM_{it}$	2.45	0.328748	3.07	0.255256
$RMCS_{it}$	2.78	0.361852	1.48	0.422622
$RMCI_{it}$	2.96	0.258641	1.78	0.458525
$RMCM_{it}$	3.05	0.269874	2.98	0.247789
$BSIZE_{it}$	2.35	0.151252	2.04	0.248745
$BIND_{it}$	2.58	0.325884	1.85	0.141552
$BDIV_{it}$	2.10	0.468588	1.14	0.253254
$MKT_{it}$	1.25	0.368517	2.25	0.235588
$ENV_{it}$	3.36	0.258741	1.89	0.145658
$COMM_{it}$	1.89	0.365895	1.87	0.124755
$WRK_{it}$	2.58	0.258965	1.25	0.541321
$MCSR_{it}$	2.69	0.145852	3.10	0.588545
$FSIZE_{it}$	1.85	0.255861	3.58	0.254584
$LEV_{it}$	2.56	0.364858	3.05	0.355884
<b>Mean VIF</b>	2.28		2.14	

### 5.3 Pairwise Correlation of Variables

Multicollinearity refers to the existence of correlation between two independent variables in the predictive model. The presence of high multicollinearity misleadingly increases the standard errors of the parameter estimates. As a result, the parameters that are significant turn to be insignificant, creating a type II error where failing to reject the null-hypothesis when it is false. Multicollinearity can falsify the analysis of a predictive model.

Therefore, it is important to test for the existence of a multicollinearity problem among independent variables. One way to analyze multicollinearity is the pairwise Pearson's correlation, developed by Karl Pearson in the 1880's. As a general rule of thumb, multicollinearity problem is suspected if the correlation between two independent variables is above 0.80 (Hair, Black, Babin, & Anderson, 2010).

The results of pairwise Pearson's correlation tests indicate that there is no multicollinearity problem between independent variables in the predictive models. This is because the pairwise Pearson's correlation indicators for almost all independent variables are less than 0.8. Table 5.5 represents the correlation of continuous variables of study where values are less than 0.8 indicating no problem of multicollinearity.

The values indicate that return on assets is positively and significantly related to return on equity, earnings per share, Tobin's Q, ownership concentration, CEO remuneration, directors' remuneration, board size, and firm size whereas it is negatively and significantly related to director ownership, institutional ownership, board independence, board diversity, and leverage. Moreover, return on equity is positively and significantly linked to earnings per share, Tobin's Q, ownership concentration, CEO remuneration, directors' remuneration, board size, and firm size, whereas  $ROE_{it}$  is negative and significantly linked to director ownership, institutional ownership, board independence, board diversity and leverage.

Meanwhile, earnings per share is positively significant with Tobin's Q, ownership concentration, CEO remuneration, directors' remuneration, board size, and firm size. Alternatively, earnings per share is negatively significant with director ownership,

institutional ownership, board independence and leverage whereas the relationship between  $EPS_{it}$  and board diversity is negatively insignificant. Tobin's Q is positively significant with ownership concentration, CEO remuneration, directors' remuneration, board size, firm size and leverage. However, the relationship between Tobin's Q and institutional ownership is positively insignificant. Moreover,  $TQ_{it}$  is negatively related to director ownership, board independence and board diversity where the relationship is only significant with director ownership. Ownership concentration is negatively related to director and institutional ownership, CEO and directors' remuneration, board independence and leverage whereas it is positively related to board size, board diversity and firm size.

Director ownership is positively associated with institutional ownership, directors' remuneration, and board diversity whereas it is negatively and significantly related to CEO remuneration, board size, board independence, firm size and leverage. Institutional ownership is positively significant with CEO and directors' remuneration, board independence, firm size and leverage whereas it is negatively significant with board size and board diversity. CEO remuneration is significant with all continuous variables exhibiting negative relationship with board independence and presenting positive relationship with directors' remuneration, board size, board diversity, firm size and leverage. Directors' remuneration is positive with board size, board diversity, firm size and leverage whereas it is negatively linked to board independence. Board size is positive with board diversity, firm size and leverage whereas a negative relationship is observed with board independence. Accordingly, board independence is positively linked to board

diversity, firm size and leverage. In the meantime, board diversity is positively insignificant with firm size, whereas negatively significant with leverage.

Concerning CSR variables, marketplace is significant across all correlated variables except directors' remuneration, RMC attributes, and board characteristics. Moreover, environment and community practices of CSR are significantly correlated with all variables except for director ownership, CEO duality, RMC size, RMC independence and board size. In addition, workplace practices are significantly correlated with all variables except director ownership and board diversity. In the meantime, money spent on CSR is correlated significantly with all variables of regression model apart from director ownership. Correspondingly, firm size is significant across all variables except board diversity and marketplace. Finally, leverage is significantly correlated with all variables except ownership concentration, RMC attributes, and community practices of CSR.

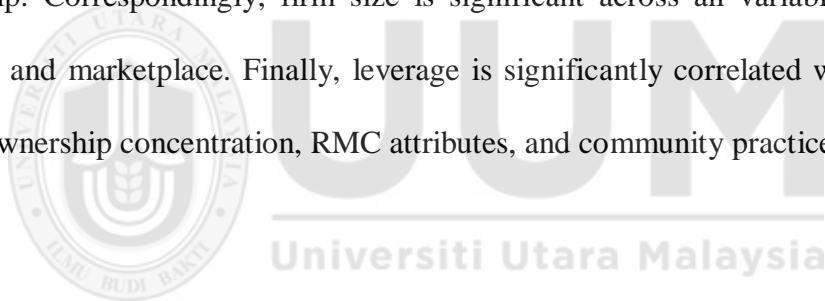


Table 5.5

Correlation of Variables for Model 1

	<i>ROA<sub>it</sub></i>	<i>ROE<sub>it</sub></i>	<i>EPS<sub>it</sub></i>	<i>TQ<sub>it</sub></i>	<i>OWNC<sub>it</sub></i>	<i>DOWN<sub>it</sub></i>	<i>IOWN<sub>it</sub></i>	<i>CEOD<sub>it</sub></i>	<i>CREM<sub>it</sub></i>	<i>DREM<sub>it</sub></i>	<i>RMCS<sub>it</sub></i>
<i>ROA<sub>it</sub></i>	1										
<i>ROE<sub>it</sub></i>	0.67***	1									
<i>EPS<sub>it</sub></i>	0.62***	0.57***	1								
<i>TQ<sub>it</sub></i>	0.37***	0.46***	0.26***	1							
<i>OWNC<sub>it</sub></i>	0.18***	0.17***	0.20***	0.17***	1						
<i>DOWN<sub>it</sub></i>	-0.03***	-0.12***	-0.14***	-0.06***	-0.18***	1					
<i>IOWN<sub>it</sub></i>	-0.15***	-0.17***	-0.02***	0.01	-0.16***	0.09***	1				
<i>CEOD<sub>it</sub></i>	0.01	0.01	-0.04***	0.02	0.01	0.02	-0.03***	1			
<i>CREM<sub>it</sub></i>	0.13***	0.16***	0.19***	0.11***	-0.13***	-0.08***	0.08***	0.01	1		
<i>DREM<sub>it</sub></i>	0.13***	0.16***	0.20***	0.09***	-0.09***	-0.15***	0.09***	-0.12***	0.62***	1	
<i>RMCS<sub>it</sub></i>	0.09***	0.12***	0.20***	0.11***	0.11***	-0.10***	-0.04***	-0.08***	0.14***	0.13***	1
<i>RMCM<sub>it</sub></i>	0.08***	0.11***	0.21***	0.11***	0.10***	-0.14***	-0.17***	-0.11***	0.13***	0.11***	0.16***
<i>RMCN<sub>it</sub></i>	0.10***	0.12***	0.20***	0.11***	0.11***	-0.06***	-0.05***	-0.12***	0.14***	0.12***	0.18***
<i>BSIZE<sub>it</sub></i>	0.13***	0.16***	0.23***	0.14***	0.13***	-0.08***	-0.14***	-0.11***	0.19***	0.32***	0.18***
<i>BIND<sub>it</sub></i>	-0.12***	-0.14***	-0.18***	-0.11***	-0.07***	-0.06***	0.07***	0.03**	-0.17***	-0.15***	-0.13***
<i>BDIV<sub>it</sub></i>	-0.14***	-0.16***	-0.08***	-0.07***	0.09***	0.05***	-0.08***	-0.09***	0.05***	0.01	0.02
<i>MKT<sub>it</sub></i>	0.15***	0.21***	0.42***	0.13***	0.15***	0.21***	0.23***	0.10***	0.11***	0.17	0.08
<i>ENV<sub>it</sub></i>	0.18***	0.21***	0.11***	0.06***	0.24***	0.05	0.15***	0.08	0.25***	0.15***	0.06
<i>COMM<sub>it</sub></i>	0.12***	0.15***	0.41***	0.08***	0.23***	0.08	0.16***	0.06	0.26***	0.16***	0.09
<i>WRK<sub>it</sub></i>	0.14***	0.16***	0.21***	0.14***	0.21***	0.18	0.14***	0.07***	0.14***	0.08***	0.15***
<i>MCSR<sub>it</sub></i>	0.16***	0.17***	0.22***	0.12***	0.15***	0.12	0.11***	0.09***	0.11***	0.06***	0.14***
<i>SIZE<sub>it</sub></i>	0.15***	0.22***	0.46***	0.16***	0.10***	-0.14***	0.05***	-0.11***	0.36***	0.31***	0.30***
<i>LEV<sub>it</sub></i>	-0.06***	-0.08***	-0.11***	0.01	-0.13***	-0.07***	0.05***	-0.09***	0.08***	0.04***	0.01

Significant at \*\*\*1, \*\*5 and \*10 percent levels.

	<i>RMCM<sub>it</sub></i>	<i>BSIZE<sub>it</sub></i>	<i>BIND<sub>it</sub></i>	<i>BDIV<sub>it</sub></i>	<i>MKT<sub>it</sub></i>	<i>ENV<sub>it</sub></i>	<i>COMM<sub>it</sub></i>	<i>WRK<sub>it</sub></i>	<i>MCSR<sub>it</sub></i>	<i>SIZE<sub>it</sub></i>	<i>LEV<sub>it</sub></i>
	1										
	0.15***	1									
	0.19***	0.20***	1								
	-0.18***	-0.16***	-0.06***	1							
	0.01	0.02	0.03	0.23	1						
	0.04	0.12***	0.17***	0.12***	0.21***	1					
	0.08	0.24***	0.09	0.18***	0.17***	0.11	1				
	0.09	0.16***	0.04	0.16***	0.12***	0.12	0.20***	1			
	0.17***	0.17***	0.12***	0.12***	0.08	0.15***	0.13***	0.20***	1		
	0.15***	0.14***	0.16***	0.13***	0.06***	0.14***	0.14***	0.16***	0.14***	1	
	0.28***	0.29***	0.31***	0.03*	0.01	0.02	0.12***	0.25***	0.16***	0.12***	1
	0.02	0.34	0.03**	0.04***	-0.08***	0.09***	0.07**	-0.06	0.08***	0.18***	0.22***

#### **5.4 Regression Results and Discussion of Research Objective 1: The Joint Impact of Corporate Governance Mechanisms and Corporate Social Responsibility Practices on Firm Performance using S-GMM**

Based on research objective 1 of the study, this section provides regression results of corporate governance mechanisms and corporate social responsibility practices on firm performance using Blundell and Bond (1998) System-Generalized Method of Moments (S-GMM) in Models 1(a), 1(b), 1(c), and 1(d). Furthermore, relationships between corporate governance mechanisms, corporate social responsibility practices and firm performance have been discussed for attaining the empirical and theoretical support of reported results.

##### **5.4.1 Results and Discussion on the Joint Effects of Corporate Governance Mechanisms and Corporate Social Responsibility Practices on Firm Performance using System GMM (Model 1)**

As mentioned earlier in research objective 1, this study examines the joint impact of corporate governance mechanisms and corporate social responsibility practices on the performance of Malaysian listed companies. For this purpose, corporate governance mechanisms and corporate social responsibility practices have been regressed against four performance measures such as  $ROA_{it}$  in Model 1(a),  $ROE_{it}$  in Model 1(b),  $EPS_{it}$  in Model 1(c), and  $TQ_{it}$  in Model 1(d). Following this sequence, results are interpreted and discussed by individual variables across the four models to maintain consistency of results.

In this way, Table 5.6 presents lagged dependent variables ( $L1$ ) indicating prior firm performance for a particular performance measure at time  $t-1$ . Results indicate that  $L1$  for each performance measure is statistically positive and significant at the 99 percent level

with coefficients 0.1217 ( $z = 4.48$ ) for  $ROA_{it}$ , 0.1516 ( $z = 5.79$ ) for  $ROE_{it}$ , 0.1073 ( $z = 3.36$ ) for  $EPS_{it}$  and 0.1728 ( $z = 5.26$ ) for  $TQ_{it}$ . It also reveals that the models are dynamic and cater the problems of endogeneity, simultaneity and unobserved heterogeneity.

Ownership concentration is negatively related to all performance measures in sub-models 1(a), 1(b), 1(c), and 1(d) but the relationships are insignificant. Furthermore, the coefficient value for ownership concentration and return on assets (model 1(a)) is -0.6383 ( $z = -0.25$ ); for return on equity in model 1(b) the coefficient value is -3.6121 ( $z = -1.00$ ); for earnings per share the coefficient value indicates -0.0496 ( $z = -0.74$ ) in model 1(c); whereas in model 1(d) the coefficient value is -0.0122 ( $z = -0.05$ ) for market performance measure. Negative signs across all performance measures imply that concentrated ownership in Malaysian firms is a prospective cause of conflict of interest consistent with agency theory presumptions but the relationships are insignificant with all measures of performance either accounting or market based measures suggesting that despite there is 50 percent concentrated ownership in Malaysian public listed companies (Table 5.1) its effect on firm performance is insignificant. However, in Malaysian setting, this finding is consistent with the studies of Ahmed (2015), Ahmed and Mubaraq (2015), and Haniffa and Hudaib (2006).

Alternatively, director ownership is positively related in all regression models, but the relationships are insignificant where the coefficient values are 4.5310 ( $z = 1.13$ ), 7.2494 ( $z = 1.32$ ), 0.0466 ( $z = 0.68$ ), and 0.2323 ( $z = 0.67$ ) for Models 1(a), 1(b), 1(c) and 1(d) respectively. Even though the coefficients showed the inclination towards positive links between director ownership and firm performance, but the relationships are insignificant

whether accounting measures or market measures are employed. However, in Malaysian country setting, Ghazali (2010) also observed this insignificant relationship. Moreover, this finding is also consistent with the findings of Garcí'a-Meca and Sa´nchez-Ballesta (2011).

Corresponding to institutional ownership, the coefficients values -2.6024 ( $z = -0.75$ ), -2.3183 (-0.51), -0.0755 ( $z = -0.83$ ) and -0.1381 (-0.49) depict that institutional ownership is negatively related to firm performance in each sub-model such as 1(a), 1(b), 1(c) and 1(d) respectively. Moreover, statistically insignificant relationship is observed between institutional ownership and all performance measures suggesting that there is tendency of the given relationships to embrace support from agency theory presumptions where conflict of interest raises between majority and minority shareholders making institutional investors as more cautious of their investments proposals. This finding is also observed by Aluchna and Kaminski (2017) and Al-Saidi and Al-Shammari (2015). Meanwhile, in Malaysia, the finding is consistent with the study of Ahmed (2013) who also reported an insignificant relationship between institutional ownership and performance of Malaysian firms.

Meanwhile, CEO duality is negatively and significantly related to return on assets in Model 1(a) with coefficient value -0.4992 ( $z = -0.72$ ) at 99 percent confidence level; for return on equity (Model 1(b)) the relationship is significant at 95 percent confidence level with coefficient -1.0641 ( $z = -0.55$ ); in Model 1(c) where performance is measured by earnings per share the relationship between CEO duality and performance is negatively significant at 90 percent confidence level with coefficient value -0.0025 ( $z = -0.10$ ); in

Model 1(d) where Tobin's Q is employed as market based performance measure indicates a negative significant (at 95 percent confidence level) relationship with CEO duality with coefficient value -0.1978 ( $z = -1.85$ ). A negative relationship of CEO duality with all performance measures embraces the predictions of agency theory which asserts that agency problems arise when the same person holds two positions on the board; leading firm towards declining performance, and ultimately raising conflict of interest.

Moreover, CEO duality is synonymous with poor performance (Abraham & Singh, 2016), weaker monitoring (Benjamin & Biswas, 2019), establishes dependence (Nas & Kalaycioglu, 2016), decreases board monitoring effectiveness and increases CEO entrenchment (Nuanpradit, 2019). In the Malaysian context, this finding goes parallel to the directions given by the Securities Commission in its each code of corporate governance (2000-2017) where it is iterated that listed companies should not have the dual role of chairman and CEO to avoid potential conflict of interests. Referring to Table 5.1 of descriptive statistics, it is indicated that only 8.01 percent companies are having dual roles of CEOs and chairmen. The results imply that despite there are only 8.01 percent companies in Malaysia with the dual roles of CEOs, the impact of this role duality is inversely related to firm performance. This finding is consistent with the findings of Abraham and Singh (2018), Nas and Kalaycioglu (2016), and Hassan and Halbouni (2013).

Considering the results of CEO remuneration and its impact on firm performance, regression analysis indicates a negative, but statistically insignificant relationship of  $CREM_{it}$  with all performance measures. In model 1(a), CEO remuneration is negatively

related to  $ROA_{it}$  with coefficient value -1.3191 ( $z = -1.15$ ); in Model 1(b) there is negative relationship between CEO remuneration and  $ROE_{it}$  with coefficient value -1.5506 ( $-0.71$ ); in Model 1(c)  $CREM_{it}$  is negatively linked to  $EPS_{it}$  with coefficient value -0.0119 ( $z = -0.42$ ); and, in Model 1(d) there is an inverse relationship between CEO remuneration and market based performance measure with coefficient value -0.2642 ( $z = -1.08$ ). Empirical results in all regression models show that despite the results are inclined towards inverse relationship with performance but statistically these relationships are insignificant in each model. However, this result is parallel to the findings of Sheikh and Kareem (2015), and Mohammed and Phil (2013). Additionally, in Malaysia, similar finding is reported by Abdullah (2006) for an insignificant relationship between executive remuneration and firm performance.

Additionally, directors' remuneration is negatively and significantly related to both accounting and market based performance measures in each regression model. For instance, model 1(a) depicts the coefficient value of -0.9232 ( $z = -0.94$ ) of inverse relationship between  $DREM_{it}$  and  $ROA_{it}$  statistically significant at 99 percent confidence level whereas model 1(b) where performance is measured by return on equity indicates statistically significant and negative relationship (at 90 percent confidence level) with coefficient value -1.6675 ( $z = -0.77$ ); for model 1(c) the relationship between  $DREM_{it}$  and  $EPS_{it}$  is statistically negative and significant at 95 percent confidence level with coefficient value -0.0416 ( $z = -1.73$ ); and, for model 1(d) the relationship between directors' remuneration and Tobin's Q is negative and significant at 99 percent confidence level with coefficient value -0.2431 ( $z = -0.95$ ). The negative relationship

between directors' remuneration and performance focuses on the issue of agency costs arising due to divergence of interests between directors and management. Moreover, the inverse relationship causes directors to work for their own interests rather than the benefits of the firm. Hence, this entrenchment perspective results in negative relationship between directors' remuneration and firm performance.

This finding has implications for Malaysian listed companies in terms of remuneration packages for directors suggesting that remuneration perks for directors of listed companies should be reduced so that they may not use the organizational resources for their private benefits rather they must be paid based on their performance in the company. The declined impact on both accounting-based and market-based performance measures reiterate that Securities Commission Malaysia need to monitor the remuneration packages of directors of Malaysian PLCs to reduce their negative influence on firm performance. However, this inverse relationship is also reported by Terkovska (2017), and Firth, Fung, and Rui (2006).

Concerning risk management committee attributes, risk management committee size is positively and significantly related to all performance measures in the regression models 1(a), 1(b), 1(c), and 1(d).  $RMCS_{it}$  is statistically positive and significant (at 95 percent confidence level) with coefficient value 0.1835 ( $z = 0.28$ ) in model 1(a) where performance is measured by return on assets. In model 1(b), the relationship between  $RMCS_{it}$  and  $ROE_{it}$  is statistically positive and significant at 95 percent confidence level with coefficient value 0.0114 ( $z = 0.01$ ). Moreover, model 1(c) indicates a statistically positive and significant relationship (at 90 percent confidence level) between risk

management committee size and earnings per share with coefficient value 0.0010 ( $z = 0.05$ ); whereas in model 1(d) the relationship is statistically positive and significant (at 99 percent confidence level) between  $RMCS_{it}$  and  $TQ_{it}$  with coefficient value 0.1742 ( $z = 0.82$ ).

The positive finding of risk management committee size and firm performance implies that the risk management committee with three board members acts as a function to mitigate the agency issues between shareholders and management while efficiently performing the tasks associated with the firm's risk management department. In the Malaysian context, it is asserted that RMC with three board members is more pronounced in financial sector (Ng, Chong, & Ismail, 2012) whereas this study focuses on non-financial companies of Malaysia implying that risk management committee having three board of directors is becoming an important consideration for non-financial firms to cater the risks associated with Malaysian business environment.

Securities Commission Malaysia in its recent code on corporate governance (MCCG, 2017) also directed firms to establish a separate risk management committee, whereas Bank Negara Malaysia (BNM, 2010) directed financial firms that there must be three board members in the risk management committee. The size of the risk management committee can be used as a mechanism to reduce the agency conflicts in the firms to achieve better financial and market performance (Jiraporn, Singh, & Lee, 2009). However, this finding is also reported by Sekome and Lemma (2014), and Sori, Ramadili, and Karbhari (2009).

Alternatively, risk management committee independence is negatively and significantly related to firm performance in sub-models 1(a), 1(b), 1(c), and 1(d). In model 1(a), RMC independence is negatively and significantly (at 90 percent confidence level) related to  $ROA_{it}$  with coefficient value  $-0.0118$  ( $z = -0.01$ ). In models 1(b) and 1(c), where performance is measured by return on equity and earnings per share,  $RMCIn_{it}$  is statistically negative and significant with  $ROE_{it}$  and  $EPS_{it}$  (at 95 percent confidence level) with coefficients  $-0.8756$  ( $z = -0.42$ ) and  $-0.0198$  ( $z = -0.63$ ) respectively. Meanwhile, in model 1(d), the relationship between RMC independence and Tobin's Q is statistically negative and significant (at 99 percent confidence level) with coefficient value  $-0.0583$  ( $z = -0.19$ ).

Negative relationship implies that the presence of an independent director on the risk management committee brings costs to the firm in the form of intense monitoring of director where it is perceived that primary function of an independent director is only related to monitoring and shying away from offering strategic advice. In this way, intense monitoring by independent director can leave him/her with less information and poorer focus on advising thereby compromising his/her ability to create value for the firm (Faleye, Hoitash, & Hoitash, 2011). Additionally, the presence of one independent director on RMC is less effective for firm performance due to his excessive involvement in operations of risk management committee, which restricts other committee members to perform their functions deliberately (Wu & Wu, 2014).

In the Malaysian context, it is noteworthy that Bank Negara Malaysia (2010) required insurance companies to establish an RMC solely of non-independent directors where the

chairperson must be an independent director (Ng, Chong, & Ismail, 2012). The negative relationship between RMC independence and firm performance is indicative of intense monitoring, less advising, unnecessary interference, and poor firm performance. Hence, Securities Commission Malaysia should devise an appropriate number of independent directors on the risk management committee for listed firms in Malaysia in order to obtain higher firm performance. Yet, similar finding is reported by Aebi, Sabato, and Schmid (2012).

Furthermore, the risk management committee meeting is positive and significantly related to accounting based performance measures in models 1(a), 1(b) and 1(c); whereas in model 1(d) the relationship is positive but statistically insignificant. In model 1(a),  $RMCM_{it}$  is positively and significantly related to return on assets (at 99 percent confidence level) with coefficient 0.8177 ( $z = 1.13$ ); in model 1(b) the relationship is significant at 90 percent confidence level where coefficient value is 2.1654 ( $z = 1.24$ ); and, in model 1(c),  $RMCM_{it}$  is statistically significant with earnings per share at 95 percent confidence level with coefficient 0.0259 ( $z = 1.24$ ). The positive significant relationship of RMC meeting with accounting returns is parallel to the arguments of Ng, Chong, & Ismail, (2012) where they claim that meeting provides a good opportunity to openly communicate, discuss, and achieve common objectives in risk oversight and control. Additionally, meeting is the indication of the amount of effort of a committee directed to accomplish the tasks and responsibilities entrusted. Moreover, the positive relationship with accounting measures signifies the time of risk management committee

members devoted to making necessary strategies, to implement them and correct the situation of risk management function to achieve better performance.

In Malaysian context, risk management committees of financial sector are required to meet at least once in a quarter (Bank Negara Malaysia, 2010) but for non-financial companies it is not yet mandatory for a risk management committee to meet once in a quarter (MCCG, 2017); hence, this study taken the dummy of risk management committee meeting to be held at least once in a year in non-financial listed firms of Malaysia. It is evident from the regression results that even though RMC meeting held, at least, once in a year in Malaysian non-financial companies, it casts a positive impact on firm performance. For market returns, the relationship is positive, but insignificant suggesting that the number of meetings must be increased in the risk management committee to have a substantial impact on market performance. Moreover, a similar result is reported in the study of Sori, Ramadili, and Karbhari (2009).

Concerning board characteristics, board size is negative, but insignificantly related to all performance measures in the respective models 1(a), 1(b), 1(c), and 1(d). The values of coefficients are -0.1825 ( $z = -1.09$ ) in Model 1(a) where  $ROA_{it}$  is employed as performance indicator; in model 1(b) where return on equity is performance variables the coefficient value is -0.0314 (-0.06); the coefficient value for the relationship between earnings per share and board size is -0.0017 ( $z = -0.38$ ) in Model 1(c); whereas in Model 1(d) the coefficient value indicating the impact of board size on Tobin's Q is -0.0174 (-0.80). The plausible explanation for insignificant relationship between board size and firm performance is Malaysian boards are dominated by family members who are very

influential in the decision-making process and domination of boards by family members makes the board size irrelevant in the decision making process; thus, leaving no significant impact on firm performance. However, similar finding is also reported by Zabri, Ahmad, and Wah (2015), Ponnu and Karthigeyan (2010), and Haniffa and Hudaib (2006) in Malaysian country setting.

Similarly, board independence is also negative, but insignificantly related to firm performance in the models 1(a), 1(b), 1(c), and 1(d) with coefficient values -3.4345 ( $z = -1.25$ ), -5.1970 ( $z = -1.30$ ), -0.0163 ( $z = -0.32$ ), and -0.5170 ( $z = -1.57$ ) respectively. The insignificant relationship between board independence and firm performance is parallel to the findings of Mishra and Kapil (2017), and Palaniappan, (2017). Moreover, Malaysian studies, for instance, Bhatt and Bhatt (2017), and Johari, Saleh, Jaffar, and Hassan (2008) also reported similar finding in their researches.

Moreover, out of board characteristics only board diversity is the predictor of firm performance in Malaysian listed firms. Board diversity is negatively and significantly related to firm performance in all sub-models 1(a), 1(b), 1(c), and 1(d) with coefficient values -4.3136 ( $z = -1.81$ ) in model 1(a) where return on assets is employed as performance indicator (statistically significant at 95 percent confidence level); -1.0065 ( $z = -0.34$ ) in model 1(b) where return on equity is the performance variable (statistically significant at 95 percent confidence level); -0.0460 ( $z = -0.90$ ) in model 1(c) where earnings per share is regressed against board diversity (statistically significant at 90 percent confidence level); and, -0.0051 ( $z = -0.02$ ) in model 1(d) where Tobin's Q is employed as market performance measure (statistically significant at 99 percent

confidence level). The negative relationship between board diversity and firm performance is consistent with the arguments of agency theory where it is argued that greater gender diversity on board brings intragroup conflicts, which, in turn, results in ineffective decision-making process (Darmadi, 2013). In addition, women are considered risk-averse than men in making financial decisions that impact the company's resource allocation, resulting in an inverse relationship between board diversity and firm performance. In Malaysia, board diversity is observed in approximately 8 percent companies on average (Table 5.1) with minimum no woman on board and maximum of 50 percent female representation. Securities Commission has made it mandatory for Malaysian listed companies to have 30 percent female appearance on board (MCCG, 2017). The probable explanation for the negative relationship between board diversity and firm performance is a lower percentage of female representation on boards. Furthermore, most of the female directors in Malaysia have strong ties with the owners of the firms and do not have a substantial corporate background, they are likely to increase agency costs for the firms and delay decision-making process which negatively affects the performance. This result is parallel to the findings of Darmadi (2013) and Ujunwa (2012).

Concerning corporate social responsibility practices, marketplace practices are positively associated with firm performance in Models 1(a), 1(b), and 1(d). However, in model 1(c) the relationship is statistically insignificant. The coefficient values for relationship between marketplace practices of CSR and firm performance indicate 0.3648 ( $z = 1.29$ ) in model 1(a) where  $ROA_{it}$  is performance indicator, 0.9091 ( $z = 2.11$ ) in model 1(b)

where  $ROE_{it}$  is performance measure, and 0.0594 ( $z = 1.69$ ) in model 1(d) where  $TQ_{it}$  is performance variable (all statistically significant at 95 percent confidence levels respectively). The positive association between marketplace practices and performance is parallel to the arguments of risk management perspective where it is argued that CSR engagement will create moral capital for firms (Godfrey, Merrill, & Hansen, 2009) and this moral capital provides an insurance-like value to shareholders (Godfrey, 2005).

A company will invest in activities which enhance public goods and social welfare ultimately increasing the value of shareholders' residual claims. More specifically, the risk management perspective entails that managers can reduce the firm's exposure to firm-specific risks that give rise to costs in a way that investors cannot diversify away and value is added through risk management (Godfrey, Merrill, & Hansen, 2009). Moreover, marketplace practices of CSR underscore the activities to improve support to local businesses and suppliers, customer satisfaction and retention, product safety, fair pricing and opting marketing and advertising ethics in educating their customers. In Malaysia, the positive relationship between marketplace practices and firm performance indicate that affirmative actions taken in the aforementioned areas by managers of Malaysian listed firms while mitigating the risks associated with firms brings enhanced firm performance. Moreover, it also signifies that managers of Malaysian listed firms are investing in marketplace practices of CSR where shareholders feel an insurance-like value that eventually adds to their wealth. Empirically, this relationship is in congruence with the studies of Feng, Wang, and Kreuze (2017), Yusoff and Adamu (2016), and Ahamed, Almsafir, and Al-Smadi (2014).

Corresponding to other CSR dimensions in the study, environment, community, and workplace practices of CSR are negative and significantly associated with accounting based performance measures in models 1(a), 1(b), and 1(c) while they are insignificant with Tobin's Q in model 1(d). The coefficients of environment practices in Models 1(a), 1(b), and 1(c) are -0.7542 ( $z = -1.10$ , significant at 99 percent confidence level), -0.8890 ( $z = -0.90$ , significant at 95 percent confidence level), and -0.0147 ( $z = -1.21$ , significant at 95 percent confidence level) respectively. Moreover, in Model 1(d) where market based performance measure is employed in the regression model indicates coefficient value of -0.0040 ( $z = -0.07$ ) with insignificant relationship between environment practices of CSR and market performance.

Additionally, the coefficients for community practices exhibit the values in models 1(a), 1(b), and 1(c) as -0.8621 ( $z = -0.86$ , significant at 99 percent confidence level), -0.5525 ( $z = -0.42$ , significant at 90 percent confidence level), and -0.0029 ( $z = -0.14$ , significant at 99 percent confidence level) respectively. In model 1(d) where the performance measure employed is Tobin's Q also exhibit a negative, but an insignificant relationship with coefficient value -0.0083 ( $z = -0.09$ ). Furthermore, the coefficients of workplace practices with each performance measure show inverse relationships, but the relationships are significant in models 1(a), 1(b), and 1(c). For instance, model 1(a) indicates the coefficient value of -0.1994 ( $z = -0.37$ ) where the return on assets is used as performance variable shows the relationship is statistically significant at 99 percent confidence level. In Model 1(b) the relationship is statistically significant at 95 percent confidence level between workplace practices and  $ROE_{it}$  with coefficient -0.2513 ( $z = -0.35$ ). In addition,

Model 1(c) depicts the coefficient value of -0.0027 ( $z = -0.30$ ) of the relationship between workplace practices and earnings per share (statistically significant at the 99 percent confidence level). However, an insignificant but inverse relationship is observed between workplace practices and Tobin's Q in Model 1(d) with coefficient -0.0070 ( $z = -0.12$ ). The plausible explanation for negative relationships between CSR activities and firm accounting performance is firms face trade-off between social responsibility and firm performance, placing them in a disadvantageous cost position incurring agency costs where managers attain private benefits from building the reputation as good social citizen at the expense of shareholders (Nyeadi, Ibrahim, & Sare, 2018; Salehi, DashtBayaz, & Khorashadizadeh, 2018; Feng, Wang, & Kreuze, 2017). Therefore, CSR practices have value-decreasing impact in the face of high level managerial entrenchment where managers overinvest in CSR activities for their personal benefits to camouflage their corporate misconduct (Byron & Post, 2016; Harjoto & Jo, 2011).

Noticeably, it is evident in Malaysian context that CSR activities performed in the name of environment, community and workplace practices are detrimental to the organizational accounting returns. It indicates that managers of Malaysian firms overinvest in the CSR activities to hide their own financial misconduct, thus creating agency costs for firms and negatively affecting firm performance. Moreover, for each CSR dimension (for instance environment, community, and workplace) an insignificant impact on firm's market performance is observed which reveals although there is tendency towards inverse relationship between CSR practices and market performance it is not creating negative market output for the firms in a significant manner. Yet, the negative results are parallel

to the findings of Oduro and Haylemariam (2019), and Janamrung and Issarawornrawanich (2015).

Focusing the results between money spent on CSR which is amount of money spent on welfare programs by Malaysian listed firms and firm performance, findings indicate an indirect and insignificant relationship between  $MCSR_{it}$  and all performance measures in each regression model. The coefficient values are -0.7166 ( $z = -1.02$ ) in model 1(a) whereby  $ROA_{it}$  is performance variable, -0.3484 ( $z = -0.39$ ) in model 1(b) where performance is measured by return on equity, -0.0011 ( $z = -0.08$ ) in model 1(c) of earnings per share as performance indicator and -0.0013 ( $z = -0.10$ ) in model 1(d) where Tobin's Q is regressed against money spent on CSR. The negative results refer back to the overinvestment hypothesis of CSR where money spent on welfare programs such as scholarships, charity and sponsorships are performed in the firms to hide financial misconducts by the managers. Yet, the results are insignificant with all performance measures, suggesting that despite negative regression coefficients between money spent on CSR and firm performance, the negative impact is not significant. In the Malaysian context, it is argued that money spent on CSR is being misused by the corporate tycoons in the firms to maintain the image of good corporate citizens, but they are overinvesting to an extent where its impact on firm performance is negligible and insignificant. Therefore, Bursa Malaysia needs to monitor the CSR activities of Malaysian listed firms to oversee the negative impacts of CSR on firm performance.

Referring to Table 5.1 of descriptive statistics, it is noteworthy that only marketplace practices are positively associated with firm performance showing a mean value of 42

percent, whereas all remaining dimensions of CSR are negatively related to firm performance where average values of CSR dimensions are exceeding 60 percent. It can be inferred that CSR dimensions are positively related to performance below 50 percent; however, when the percentage exceeds 60 percent the impact of CSR activities on firm performance becomes negative. Therefore, it is implied that marketplace practices (to improve support to local businesses and suppliers, customer satisfaction and retention etc.) performed by Malaysian listed firms are lower in percentage as compared to other CSR dimensions such as environment (to protect and preserve the environment through use of renewable energy, reduce water and air pollution); community (to improve local infrastructure, community engagement and healthcare or education); workplace (to improve wages, pensions, and other employee benefits, health and safety at the workplace etc.); and money spent on welfare projects. From results of all CSR indicators it is inferred that at lower percentages there is a direct relationship between CSR and firm performance. As the percentage increases, the impact of CSR indicators on firm performance becomes negative. However, above 70 percent, the relationship between CSR and performance becomes insignificant.

Concerning control variables firm size is positively and significantly related to all performance measures with coefficient value 0.4675 ( $z = 1.36$ ) in model 1(a) whereby return on assets is performance indicator depicts a statistically significant relationship with firm size at 95 percent confidence level. Moreover, the coefficient shows the value of 0.4881 ( $z = 1.11$ ) in model 1(b) where the relationship between firm size and return on equity is positive and significant at 95 percent confidence level. In model 1(c), the

relationship between earnings per share and firm size shows the coefficient value of 0.0414 ( $z = 6.33$ ) statistically significant at 99 percent confidence level. Meanwhile, model 1(d) depicts the coefficient value of 0.0571 ( $z = 1.25$ ) for the relationship between firm size and Tobin's Q statistically significant at 95 percent confidence level. The positive association between firm size and performance implies that due to economies of scale where resources are obtained at a cheaper cost and greater diversification, firm size positively adds to the firm value. Additionally, the bigger size in terms of the asset base of a firm provides confidence to the investors and stakeholders that their investments and stakes are safe in the particular firm. Table 5.1 of descriptive statistics also reveals the mean value of firm size is RM774 millions, which indicates that large companies perform optimally due to their ease of accessibility to external capital and better governance structures that ultimately contributes positively towards firm performance. Moreover, the positive relationship between firm size and performance is also documented by Ghazali (2010), Hassan and Halbouni (2013), Ahmed and Mubaraq (2015), and Ofoeda (2017).

Alternatively, leverage is negative and significantly related to accounting based performance measures in models 1(a), 1(b), and 1(c) whereas in model 1(d) the relationship is negative but insignificant. Model 1(a) shows the coefficient value of -7.3348 ( $z = -6.59$ ) for the relationship between leverage and return on assets, statistically significant at the 99 percent level. Moreover, model 1(b) depicts the coefficient value of -5.2742 ( $z = -3.61$ ) for the linkage between leverage and return on equity, significant at 99 percent confidence level. In model 1(c) where earnings per share is the performance measure, the relationship is negative with coefficient value -0.1208 ( $z = -5.89$ ) and

significant at 99 percent confidence level. However, in model 1(d) the coefficient value is -0.0208 ( $z = -0.14$ ) but the relationship is insignificant with Tobin's Q. In this stream, the negative results with accounting measures of performance reveal that Malaysian firms are not satisfying their creditors on a timely basis and are unable to generate sufficient profitability to fulfill their claims. Additionally, pecking order theory (Myers & Majluf, 1984) of capital structure suggests that profitable companies prefer internal financing rather than external financing. Referring to Table 5.1 of descriptive statistics, mean value of leverage shows for every RM1, Malaysian firms owe RM0.39 to creditors. It also signifies that the capital structure of Malaysian listed firms is based on equity rather than debt where investors can enjoy higher returns by considering under-leveraged firms in their investment portfolio. Moreover, the negative relationship is in congruence with Jackling and Johl (2009), Sheikh, Wang, and Khan (2013), Muttakin and Subramaniam (2015), Ming and Eam (2015), and Mishra and Kapil (2017).

Overall, it is indicated that most of the corporate governance and corporate social responsibility practices influence firm performance significantly. It is revealed that CG and CSR, mainly, have value destroying impact on firm performance; for instance, CEO duality, directors' remuneration, RMC independence, board diversity, environment, community, and workplace practices of CSR are negatively and significantly related to firm performance in Malaysian listed firms. The value declining impact of CG and CSR variables on firm performance are consistent with the prophecies of agency theory and agency costs argument. Alternatively, RMC size, RMC meetings, and marketplace practices of CSR are positively influencing firm performance where the findings

embraced the predictions of resource dependence theory and risk management perspective of CSR. Meanwhile, firm size is positive and significant whereas leverage is negative and significant with firm performance of Malaysian listed firms.

Despite several significant relationships, this study has documented various insignificant relationships such as ownership structure variables, CEO remuneration, board size, board independence, and money spent on CSR do not affect firm performance. Similarly, concerning moderating effect of board characteristics, none of the board characteristics significantly moderates the relationships between CG-CSR and performance of Malaysian listed companies.



Table 5.6

*The Joint Effects of Governance Mechanisms and Corporate Social Responsibility Practices on Firm Performance using System-GMM (Model 1) Two-Step Results*

<b>Variable</b>	<b>Model 1(a)</b> <i>ROA<sub>it</sub></i>	<b>Model 1(b)</b> <i>ROE<sub>it</sub></i>	<b>Model 1(c)</b> <i>EPS<sub>it</sub></i>	<b>Model 1(d)</b> <i>TQ<sub>it</sub></i>
<i>L1</i>	0.1217 (4.48)***	0.1516 (5.79)***	0.1073 (3.36)***	0.1728 (5.26)***
<i>OWNC<sub>it</sub></i>	-0.6383 (-0.25)	-3.6121 (-1.00)	-0.0496 (-0.74)	-0.0122 (-0.05)
<i>DOWN<sub>it</sub></i>	4.5130 (1.13)	7.2494 (1.32)	0.0466 (0.68)	0.2323 (0.67)
<i>IOWN<sub>it</sub></i>	-2.6024 (-0.75)	-2.3183 (-0.51)	-0.0755 (-0.83)	-0.1381 (-0.49)
<i>CEOD<sub>it</sub></i>	-0.4992 (-0.72)***	-1.0641 (-0.55)**	-0.0025 (-0.10)*	-0.1978 (-1.85)**
<i>CREM<sub>it</sub></i>	-1.3191 (-1.15)	-1.5506 (-0.71)	-0.0119 (-0.42)	-0.2642 (-1.08)
<i>DREM<sub>it</sub></i>	-0.9232 (-0.94)***	-1.6675 (-0.77)*	-0.0416 (-1.73)**	-0.2431 (-0.95)***
<i>RMCS<sub>it</sub></i>	0.1835 (0.28)**	0.0114 (0.01)**	0.0010 (0.05)*	0.1742 (0.82)***
<i>RMCI<sub>it</sub></i>	-0.0118 (-0.01)*	-0.8756 (-0.42)**	-0.0198 (-0.63)**	-0.0583 (-0.19)***
<i>RMCM<sub>it</sub></i>	0.8177 (1.13)***	2.1654 (1.24)*	0.0259 (1.54)**	0.0856 (0.46)
<i>BSIZE<sub>it</sub></i>	-0.1825 (-1.09)	-0.0134 (-0.06)	-0.0017 (-0.38)	-0.0174 (-0.80)
<i>BIND<sub>it</sub></i>	-3.4345 (-1.25)	-5.1970 (-1.30)	-0.0163 (-0.32)	-0.5170 (-1.57)
<i>BDIV<sub>it</sub></i>	-4.3136 (-1.81)**	-1.0065 (-0.34)**	-0.0460 (-0.90)*	-0.0051 (-0.02)***
<i>MKT<sub>it</sub></i>	0.3648 (1.29)**	0.9091 (2.11)**	0.0069 (1.21)	0.0594 (1.69)**
<i>ENV<sub>it</sub></i>	-0.7452 (-1.10)***	-0.8890 (-0.90)**	-0.0147 (-1.21)**	-0.0040 (-0.07)
<i>COMM<sub>it</sub></i>	-0.8621 (-0.86)***	-0.5525 (-0.42)*	-0.0029 (-0.14)***	-0.0083 (-0.09)
<i>WRK<sub>it</sub></i>	-0.1994 (-0.37)***	-0.2513 (-0.35)**	-0.0027 (-0.30)***	-0.0070 (-0.12)
<i>MCSR<sub>it</sub></i>	-0.7166 (-1.02)	-0.3484 (-0.39)	-0.0011 (-0.08)	-0.0013 (-0.10)

$FSIZE_{it}$	0.4675 (1.36)**	0.4881 (1.11)**	0.0414 (6.33)***	0.0571 (1.25)**
$LEV_{it}$	-7.3348 (-6.59)***	-5.2742 (-3.61)***	-0.1208 (-5.89)***	-0.0208 (-0.14)
Sargan Test for over-identifying restriction: p value	Pass	Pass	Pass	Pass
Arellano-Bond Test for 2 <sup>nd</sup> order	Pass	Pass	Pass	Pass
Firm-Year Observations	5501	5501	5501	5501
N	12	12	12	12
Significant at ***1 percent, **5 percent and *10 percent levels.				
<i>Note:</i> Please refer to Table 4.1 for Operational Definition of Variables (Page No. 118)				

### 5.5 Regression Results and Discussion of Research Objective 2: The Moderating Effects of Board Characteristics on the Relationship between Corporate Governance Mechanisms, Corporate Social Responsibility Practices and Firm Performance using S-GMM

Based on research objective 2 of the study, this section provides empirical results on the moderating effects of board characteristics on the relationship between governance mechanisms, corporate social responsibility practices and firm performance using System-Generalized Method of Moments (S-GMM) in Models 2(a), 2(b), and 2(c). Furthermore, the moderating effects of board size, board independence and board diversity on the relationships between corporate governance mechanisms, corporate social responsibility practices and firm performance have been discussed for attaining the empirical and the theoretical support of reported results in upcoming sub-sections.

Referring to Table 5.1, where mean board size is 7.62; the average percentage of independent directors is 42 percent; and average percentage of women on board is 8.52 percent. For analysis purpose, the mean values are used as cut-offs for obtaining

consistent and reliable results of interacted variables. Panel B of Table 5.2 indicates that results of moderating variables are robust to two-step S-GMM where they pass the Sargan test of over-identifying restrictions and Arellano-Bond test of autocorrelation. Following sub-sections provide results and discussions on the moderating effects of board size, board independence, and board diversity on the relationship between governance mechanisms, CSR practices and performance of Malaysian listed companies.

### **5.5.1 Results and Discussion on the Moderating Effects of Board Size on the Relationship between Corporate Governance Mechanisms, Corporate Social Responsibility Practices and Firm Performance using S-GMM (Model 2(a))**

This sub-section presents the results and discussion on the moderating effects of board size on the relationship between governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies. For estimation purpose, board size as a continuous variable is interacted with both corporate governance mechanisms and corporate social responsibility practices where the mean value of  $7.62 \approx 8$  board of directors is taken as cut-off value. As a result, new variables have been generated that are regressed in S-GMM against four performance variables such as  $ROA_{it}$  in Model 2(a<sub>i</sub>),  $ROE_{it}$  in Model 2(a<sub>ii</sub>),  $EPS_{it}$  in Model 2(a<sub>iii</sub>), and  $TQ_{it}$  in Model 2(a<sub>iv</sub>). Following this sequence, results are interpreted and discussed about interaction variables along with their respective original variables across four sub-models for maintaining consistency of results. However, Brambor, Clark, and Golder (2006) assert in their study about the interpretation of moderating variables that when the model is interactive (based on interaction terms) then focus should be on explaining interactions not on original variables as individual variables are not main concern now. Additionally, Aiken and West

(1991) also recommended interpreting interaction terms while explaining the moderating effect of a variable  $Z$  on the relationship between variables  $X$  and  $Y$ .

Table 5.7 presents the moderating effect of board size on the relationship between governance mechanisms, CSR practices and firm performance. The value of  $LI$  indicates that it is negatively significant at 99 percent confidence level in all sub-models with coefficient values -45.988 ( $z = -0.85$ ) in sub-model 2(a<sub>i</sub>), -0.3285 ( $z = -5.55$ ) in sub-model 2(a<sub>ii</sub>), -0.3419 ( $z = -0.65$ ) in sub-model 2(a<sub>iii</sub>), and -0.3750 ( $z = -6.30$ ) in sub-model 2(a<sub>iv</sub>). Moreover, board size is positive but statistically insignificant in all sub-models. Ownership concentration indicates that there is an insignificant moderating impact of board size on the ownership concentration performance relationship. Referring to Table 5.6, there is negative, but insignificant influence of ownership concentration on firm performance across all performance indicators. The insignificant moderating impact of board size reinforces that with eight boards of directors on the company board, the relationship between ownership concentration and firm performance remains same and brings no substantial impact on the organizational performance. The positive insignificant moderating effect of  $B_{SIZE}_{it}$  implies that the board of directors would not lead to higher firm performance in the presence of concentrated ownership of Malaysian listed firms.

Correspondingly, positive relationship between director ownership and firm performance is positively, but insignificantly moderated by board size. There is the consistent insignificant moderating effect of board size in all four sub-models 2(a<sub>i</sub>), 2(a<sub>ii</sub>), 2(a<sub>iii</sub>), and 2(a<sub>iv</sub>) with coefficients 0.7595 ( $z = 0.18$ ), 2.7024 ( $z = 0.48$ ), 0.0133 ( $z = 0.15$ ), and 0.8905 ( $z = 1.64$ ) respectively. The positive moderating effect shows the tendency of board size to strengthen the relationship between  $DOWN_{it}$  and performance, but there is

an insignificant impact indicating that board size would not lead to higher firm performance in the presence of director ownership.

Additionally, institutional ownership and performance relationship is negatively, but insignificantly moderated by board size. Table 5.6 indicates that institutional ownership has a negative and insignificant impact on firm performance. This negative impact is corresponds to the negative moderating impact of board size, that is, there is inclination of board size towards the negative moderating impact on  $IOWN_{it}$ -Performance relationship, but the effect of board size is insignificant in all sub-models with four performance indicators. The results imply that board size will not lead to enhanced performance in presence of institutional owners in the firms. Since there is insignificant impact of ownership structure variables on firm performance, the consistent insignificant moderating impact of board size on ownership structure variables reiterates that ownership structure is not a predictor of firm performance in Malaysian listed firms.

The probable explanation for this insignificant impact is that ownership structure of Malaysia is concentrated and few family groups own the shares of large firms where the controlling shareholdings by few members retain insignificant impact on performance. Meanwhile, boards of directors are either the owners or they are elected by the owners who tend to offset any significant on firm performance. In this way, there is neither significant impact of ownership structure on firm performance nor a significant moderating impact of board size on the relationship between ownership structure and firm performance.

In addition, the negative relationship between CEO duality and firm performance is negative, but insignificantly moderated by board size. There is consistently negative, but insignificant impact of board size on the relationship between  $CEOD_{it}$  and the performance, implying that board size would not create higher organizational returns if CEO holds the same position as chairman. Table 5.6 indicates a negative, but significant impact of CEO duality on firm performance, but board size does not moderate this inverse relationship as the interaction term is statistically insignificant. Moreover, CEO remuneration-performance relationship is also negatively but insignificantly moderated by board size in all sub-models implying that board size does not bring an increase in firm performance if there is high remuneration paid to the CEO.

Contrarily, directors' remuneration and performance relationship is positively and significantly moderated by board size in sub-models 2(a<sub>i</sub>), 2(a<sub>iii</sub>), and 2(a<sub>iv</sub>) with coefficients 1.6637 ( $z = 1.20$ , statistically significant at 95 percent confidence level), 0.0479 ( $z = 2.45$ , significant at 95 percent confidence level), and 0.0431 ( $z = 0.34$ , marginally significant at 99 percent confidence level) respectively. The results imply that the negative relationship between directors' remuneration and firm performance is further strengthened by board size as measured by  $ROA_{it}$ ,  $EPS_{it}$ , and  $TQ_{it}$ . This finding is consistent with agency cost argument which asserts that salaries, bonuses and other emoluments paid to the directors are creating value decreasing impact on firm performance and interacting it with board size reinforces the fact that remuneration paid to the directors should be based on their roles performed not on their ranks or posts.

Moreover, salaries, bonuses, and other emoluments paid to the directors should be reduced to obtain higher firm performance.

The plausible explanation for this relationship is the boards of directors are the same who receive remuneration for their monitoring activities performed in the firms, it is the remuneration committee who sets remuneration for every director based on the rank on which a director is employed. Agency conflicts rise among the directors for differentiating remuneration packages leading firms towards declining profits and market returns. Therefore, board size strengthens the negative relationship between  $DREM_{it}$  and performance asserting that remuneration must be based on performance-pay structure not on pay-performance structure to avoid value declining impacts in the firms. And remuneration committees must be unbiased and impartial while establishing the remuneration mechanisms for the directors of the firms.

As far as risk management committee attributes are concerned, board size is insignificantly moderating the impact of RMC attributes on firm performance. Referring Table 5.6, it is evident that  $RMCS_{it}$  is positively linked to firm performance whereas the interaction terms suggest that there is tendency of positive moderation but the relationships are insignificant in each sub-model implying that board size does not bring elevated company returns if there are three board members on risk management committee. Contrarily, RMC independence and RMC meeting are negative, but insignificantly moderated by board size. The regression results of S-GMM in Table 5.6 present that RMC independence is negatively linked to firm performance, but this negative relationship is not affected by the presence of the board of directors, that is,

board size does not enhance performance if there is one independent director on the risk management committee. Similarly, board size also insignificantly but negatively moderates the relationship between risk management committee meeting and performance, implying rather  $RMCM_{it}$  is positively influencing performance, but there is inclination of board size towards negative moderating effect. It indicates that board size is unable to increase firm performance if the risk management committee meets, at least, once in a year.

For CSR variables, only marketplace practices are positively and significantly moderated by board size in all four sub-models (statistically significant at 95 percent confidence levels) with coefficients 0.0798 ( $z = 0.20$ ) in sub-model 2(a<sub>i</sub>), 0.6089 ( $z = 0.72$ ) in sub-model 2(a<sub>ii</sub>), 0.0043 ( $z = 0.45$ ) in sub-model 2(a<sub>iii</sub>), and 0.1194 ( $z = 1.82$ ) in sub-model 2(a<sub>iv</sub>). Table 5.6 indicates that marketplace practices of CSR are positively linked to firm performance; this positive association is strengthened by the board of directors, which implies that board size tend to increase firm performance if there are positive steps taken by firms for marketplace practices of CSR. This finding also inculcates that board of directors supports the socially responsible activities performed to improve local infrastructure and maintaining ties with suppliers, achieving customer satisfaction and retaining them etc. hence, positively moderating the relationship.

Moreover, the rest of the CSR dimensions are positive, but insignificantly moderated by board size. For instance, the relationship between environment practices and performance is negative (Table 5.6) which is positive and insignificantly moderated by board size, implying that board size does not bring an increase in performance of firms if firms tend

overinvest in the environment practices of CSR. Additionally, the relationship between  $COMM_{it}$  and performance is positive and insignificant as moderated by board size. This finding implies that negative association between community practices and firm performance (Table 5.6) is positively but insignificantly reinforced by board size indicating that board size does not enhance firm performance if community practices are performed at the discretion of managers. Similarly, workplace practices are negatively related to firm performance and this negative relationship is positive, but insignificantly moderated by board size in each sub-model. This result implies that board size does not enhance firm performance if firms continue to practice value declining workplace practices of CSR. In the meantime,  $MCSR_{it}$  and performance relationship is also positive, but insignificantly moderated by board size. The relationship between money spent on CSR and performance is also insignificant in Table 5.6; the insignificant moderating effect of board size reiterates that money spent on CSR is neither a predictor of firm performance nor moderated by board size.

For control variables, firm size and performance relationship is positively moderated by board size in sub-models 2(a<sub>i</sub>) where the return on assets is a performance indicator and 2(a<sub>iii</sub>) where earnings per share is used as a performance variable (both moderately significant at the 95 percent confidence levels). The positive and significant moderating effect with accounting returns suggests that board size brings enhanced  $ROA_{it}$  and  $EPS_{it}$  if firms maintain larger firm size. The diversity of opinion, efficient decision-making, and active involvement of the board of directors in organizational processes brings higher accounting gains through maintaining a sound asset base in the firms.

Alternatively, leverage is positively, but insignificantly moderated by board size, which implies that an inverse relationship between leverage and firm performance has tendency to be moderated by board size positively but relationships are insignificant in each sub-model. This finding implies that board size does not increase firm performance if firms tend to owe RM0.39 for every RM1 to the creditors (Table 5.1). In other words, it is not a matter of concern to the board of directors if their firms rely on external or internal financing patterns for maintaining financial leverage.

In sum, it is argued that board size only moderates the relationship between  $DREM_{it}$  and performance, marketplace practices of CSR and firm performance and firm size-performance relationship marking remaining relationships as insignificant between CG mechanisms, CSR practices and firm performance. Hence, it is suggested that board size does not moderate the relationship between governance mechanisms, CSR practices and firm performance.

Table 5.7

Moderating Effect of  $BSIZE_{it}$  on CG, CSR, and Performance Relationship (Model 2a)

Variable	Model 2(a) $ROA_{it}$	Model 2(a <sub>ii</sub> ) $ROE_{it}$	Model 2(a <sub>iii</sub> ) $EPS_{it}$	Model 2(a <sub>iv</sub> ) $TQ_{it}$
$LI$	-45.988 (-0.85)***	-0.3285 (-5.55)***	-0.3419 (-0.65)***	-0.3750 (-6.30)***
$BSIZE_{it}$	0.4917 (0.70)	0.2292 (0.22)	0.0042 (0.30)	0.1254 (1.22)
$OWNC_{it}$	-27.377 (-1.43)	-47.606 (-1.83)	-0.3391 (-1.06)	-0.5652 (-0.27)
$OWNC_{it} * BSIZE_{it}$	0.5786 (0.23)	1.1787 (0.37)	0.0054 (0.01)	0.1520 (0.55)
$DOWN_{it}$	5.6856 (0.19)	2.3812 (0.06)	0.2476 (0.48)	3.7437 (0.99)
$DOWN_{it} * BSIZE_{it}$	0.7595 (0.18)	2.7024 (0.48)	0.0133 (0.15)	0.8905 (1.64)
$IOWN_{it}$	-5.9556 (-0.21)	-8.2290 (-0.22)	-0.2082 (-0.39)	-1.6288 (-0.50)
$IOWN_{it} * BSIZE_{it}$	-0.8721 (-0.22)	-4.8341 (-0.88)	-0.0544 (-0.75)	-0.2347 (-0.61)
$CEOD_{it}$	-4.2043 (-0.54)	-8.1216 (-0.58)	-0.0235 (-0.18)	-0.4680 (-0.43)
$CEOD_{it} * BSIZE_{it}$	-0.3912 (-0.39)	-0.1254 (-0.08)	-0.0047 (-0.30)	-0.2108 (-1.15)
$CREM_{it}$	-7.4350 (-0.57)	-8.3374 (-0.56)	-0.0181 (-0.08)	-1.0728 (-0.77)
$CREM_{it} * BSIZE_{it}$	-0.4264 (-0.32)	-0.6779 (-0.41)	-0.0240 (-1.23)	-0.0536 (-0.37)
$DREM_{it}$	-3.0691 (-0.35)	-8.0970 (-0.59)	-0.1994 (-1.23)	-1.2789 (-1.19)
$DREM_{it} * BSIZE_{it}$	1.6637 (1.20)**	2.1145 (1.09)	0.0479 (2.45)**	0.0431 (0.34)***
$RMCS_{it}$	-10.667 (-0.91)	-7.1635 (-0.48)	-0.0079 (-0.05)	-0.7361 (-0.75)
$RMCS_{it} * BSIZE_{it}$	1.1535 (0.78)	0.6758 (0.35)	0.0261 (1.24)	0.0936 (0.74)
$RMCI_{it}$	-17.137 (-1.30)	-12.644 (-0.72)	-0.1300 (-0.66)	-1.8034 (-1.93)
$RMCI_{it} * BSIZE_{it}$	-1.3528 (-0.87)	-0.3317 (-0.17)	-0.0213 (-0.88)	-0.0483 (-0.33)

Table 5.7 (Continued)

$RMCM_{it}$	0.9413	5.3674	0.0028	1.6320
	(0.10)	(0.47)	(0.02)	(1.86)
$RMCM_{it} * BSIZE_{it}$	-0.3156	-0.5453	-0.0128	-0.1438
	(-0.24)	(-0.39)	(-0.55)	(-1.38)
$MKT_{it}$	2.1857	4.4694	0.0494	0.1927
	(0.67)	(0.77)	(0.70)	(0.39)
$MKT_{it} * BSIZE_{it}$	0.0798	0.6089	0.0043	0.1194
	(0.20)**	(0.72)**	(0.45)**	(1.82)**
$ENV_{it}$	-0.0763	-5.6119	-0.0522	-0.5419
	(-0.01)	(-0.45)	(-0.45)	(-0.63)
$ENV_{it} * BSIZE_{it}$	0.4387	0.5001	0.0051	0.0938
	(0.43)	(0.31)	(0.29)	(0.83)
$COMM_{it}$	23.375	25.407	0.1913	0.2801
	(1.73)	(1.38)	(1.03)	(0.20)
$COMM_{it} * BSIZE_{it}$	1.6960	0.7318	0.0042	0.0631
	(1.06)	(0.34)	(0.16)	(0.31)
$WRK_{it}$	7.0902	12.239	0.1773	0.8962
	(0.99)	(1.03)	(1.32)	(0.95)
$WRK_{it} * BSIZE_{it}$	0.2095	0.9331	0.0030	0.0966
	(0.25)	(0.67)	(0.17)	(1.04)
$MCSR_{it}$	-22.088	-16.463	-0.1853	-0.1783
	(-1.72)	(-1.00)	(-1.05)	(-0.18)
$MCSR_{it} * BSIZE_{it}$	1.0781	0.5900	0.0082	0.1601
	(0.64)	(0.29)	(0.35)	(0.91)
$FSIZE_{it}$	2.0947	4.4932	0.0876	0.6144
	(0.92)	(1.10)	(2.21)*	(2.05)**
$FSIZE_{it} * BSIZE_{it}$	0.5356	0.5492	0.0101	0.0322
	(1.96)**	(1.08)	(1.88)**	(0.76)
$LEV_{it}$	-17.468	-14.346	-0.2133	-0.8372
	(-2.71)	(-1.37)	(-1.83)	(-0.94)
$LEV_{it} * BSIZE_{it}$	1.7348	1.8119	0.0317	0.0621
	(1.52)	(1.01)	(1.80)	(0.47)
Sargan Test for over-identifying restriction: p value	Pass	Pass	Pass	Pass
Arellano-Bond Test for 2 <sup>nd</sup> order	Pass	Pass	Pass	Pass
Firm-Year Observations	5501	5501	5501	5501
N	12	12	12	12

Significant at \*\*\*1 percent, \*\*5 percent and \*10 percent levels.

### 5.5.2 Results and Discussion on the Moderating Effects of Board Independence on the Relationship between Corporate Governance Mechanisms, Corporate Social Responsibility Practices and Firm Performance using S-GMM (Model 2(b))

This sub-section presents the results and discussion on the moderating effects of board independence on the relationship between governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies. For estimation purpose, board independence as a continuous variable is interacted with both corporate governance mechanisms and corporate social responsibility practices where the mean value of 42 percent indicates that on Malaysian boards there is 42 percent board independence and it is taken as cut-off value. As a result, new variables have been generated that are regressed in S-GMM against four performance variables such as  $ROA_{it}$  in Model 2(b<sub>i</sub>),  $ROE_{it}$  in Model 2(b<sub>ii</sub>),  $EPS_{it}$  in Model 2(b<sub>iii</sub>), and  $TQ_{it}$  in Model 2(b<sub>iv</sub>). Following this sequence, results are interpreted and discussed about interaction variables along with their respective original variables across four sub-models for maintaining consistency of results.

Table 5.8 presents the moderating effect of board independence on the relationship between governance mechanisms, CSR practices and firm performance. The value of  $LI$  indicates that it is negatively significant at 99 percent confidence level in all sub-models with coefficient values -0.3704 ( $z = -8.41$ ) in sub-model 2(b<sub>i</sub>), -0.3760 ( $z = -7.86$ ) in sub-model 2(b<sub>ii</sub>), -0.4105 ( $z = -7.50$ ) in sub-model 2(b<sub>iii</sub>), and -0.3561 ( $z = -7.51$ ) in sub-model 2(b<sub>iv</sub>). Moreover, board independence is positive but statistically insignificant in all sub-models. Concerning ownership structure variables, ownership concentration indicate that there is the positive insignificant moderating impact of  $BIND_{it}$  on ownership

concentration performance relationship. Referring to Table 5.6, there is negative, but insignificant influence of ownership concentration on firm performance across all performance indicators. The insignificant moderating impact of board independence reinforces that the relationship between ownership concentration and firm performance remains same if there is a representation of 42 percent independent boards of directors and they bring no substantial impact on the organizational performance. The positive insignificant moderating effect of board independence implies that independent directors would not lead to higher firm performance in the presence of concentrated ownership of Malaysian listed firms.

On the contrary, the positive insignificant relationship between director ownership and firm performance is negatively, but insignificantly moderated by board independence. There is the consistent insignificant moderating effect of board independence in all four sub-models. The negative moderating effect shows the tendency of board independence to reduce the firm performance in the presence of shares owned by directors, but insignificant relationships are observed, so it is impossible to draw concrete conclusion on this moderating effect of board independence.

Additionally, institutional ownership and performance relationship is positively, but insignificantly moderated by board independence. There is the negative insignificant impact of  $IOWN_{it}$  on firm performance (Table 5.6) and board independence positively but insignificantly moderates this relationship. Moreover, there is tendency of board independence towards the positive moderating impact on  $IOWN_{it}$ -Performance relationship, but the effect of board independence is insignificant. The results imply that

independent boards of directors will not lead to enhanced performance in presence of institutional owners in the firms. Since there is insignificant impact of ownership structure on firm performance, the consistent insignificant moderating impact of board independence on ownership structure variables reiterates that ownership structure is not a significant predictor of firm performance in Malaysian listed firms.

In addition, the negative relationship between CEO duality and firm performance (Table 5.6) is negatively but insignificantly moderated by board independence. There is consistently negative, but insignificant impact of  $BIND_{it}$  on the relationship between  $CEOD_{it}$  and performance, implying that board independence would not create higher organizational returns if CEO holds the same position as chairman. Table 5.6 indicates that CEO duality negatively predicts firm performance, but board independence does not moderate this inverse relationship as the interaction term is statistically insignificant. Moreover, CEO remuneration-performance relationship is also negatively, but insignificantly moderated by board independence in all sub-models implying that the independent board of directors do not lead to higher performance if there is high remuneration paid to the CEO.

Contrarily, directors' remuneration and performance relationship is positively and significantly moderated by board independence in sub-model 2(b<sub>iii</sub>) only, with coefficient value 1.9311 ( $z = 1.81$ , moderately significant at 95 percent confidence level). However, there is positive, but insignificant moderating effect of board independence in remaining three sub-models 2(b<sub>i</sub>), 2(b<sub>ii</sub>), and 2(b<sub>iv</sub>). The result implies that board independence tends to increase firm performance if the amount of salaries, bonuses and other emoluments

paid to the directors is less and based on their job goals not on their posts. The conflicted remuneration patterns set by the remuneration committee in Malaysian firms can be the tentative cause of these relationships, that is, independent directors find it unjust to receive less remuneration for the tasks performed in the firms by them. Thus, positively moderating the negative influence of directors' remuneration on firm performance.

For risk management committee attributes, board independence is insignificantly moderating the impact of RMC variables on firm performance. In reference to Table 5.6, it is evident that  $RMCS_{it}$  is positively linked to firm performance whereas the interaction terms suggest that there is tendency of positive moderation but the relationships are insignificant in each sub-model implying that independent board of directors do not bring elevated returns if there are three board members on risk management committee. Contrarily, RMC independence is negatively, but insignificantly moderated by board independence. It is evident in Table 5.6 that RMC independence is negatively linked to firm performance, but this negative relationship is not affected by the presence of independent boards of directors. Moreover, board independence does not enhance firm performance if there is one independent director on risk management committee. Contrarily, board independence insignificantly and positively moderates the relationship between risk management committee meeting and performance, implying that board independence does not increase firm performance if there is, at least, one RMC meeting in a year.

Concerning corporate social responsibility practices, marketplace practices are negative and significantly moderated by board independence in sub-model 2(biii) where

performance is measured by earning per share with coefficient value  $-0.9538$  ( $z = -1.67$ ), moderately significant at 95 percent confidence level. Table 5.6 indicates that marketplace practices of CSR are positively linked to firm performance; but independent board of directors tends to decrease performance (as measured by  $EPS_{it}$ ) if marketplace practices are being performed in the firm. This finding signifies that independent boards of directors do not support the CSR activities performed under the dimension of marketplace such as to improve local infrastructure and maintaining ties with suppliers, achieving customer satisfaction and retaining them, etc.

Moreover, the relationship between environment practices and performance is negative (Table 5.6) which is negatively and insignificantly moderated by board independence implying that independent boards of directors do not bring an increase in performance of firms if environment practices of CSR are being performed in the firms. Additionally, the negative relationship between community practices and firm performance are insignificantly but negatively moderated by board independence. This finding implies that board independence does not enhance firm performance if community practices are performed by the Malaysian firms. Similarly, workplace practices are negatively related to firm performance and this negative relationship is positive, but insignificantly moderated by board independence. This result implies that board independence does not enhance firm performance if firms continue to practice workplace activities of CSR at the discretion of employees. In the meantime,  $MCSR_{it}$  and performance relationship is also positive, but insignificantly moderated by  $BIND_{it}$ . The relationship between money spent on CSR and performance is also insignificant as indicated in Table 5.6; the insignificant

moderating effect of board independence reconfirms that money spent on CSR is not predicted by firm performance and is not moderated by representation of independent directors on board.

Concerning control variables, firm size and performance relationship is negatively and insignificantly moderated by board independence in all sub-models. The negative and insignificant moderating effect suggests that board independence does not bring elevated performance if firms maintain large asset base in the firms. Alternatively, leverage is positively and significantly moderated by board independence in sub-models 2(b<sub>i</sub>) and 2(b<sub>ii</sub>) where performance is measured by  $ROA_{it}$  and  $ROE_{it}$  respectively. The coefficient values are 97.040 ( $z = 2.02$ ) for return on assets and 17.059 ( $z = 3.04$ ) for return on equity, slightly significant at 90 percent confidence level. This finding implies that board independence increases firm performance in the presence of moderate level of leverage where firms tend to owe RM0.39 for every RM1 to the creditors (Table 5.1). It is recommended by the independent board of directors to balance the level of external and internal financing in firms so that the declining impact of leverage on firm performance is minimized.

Table 5.8

Moderating Effect of  $BIND_{it}$  on CG, CSR, and Performance Relationship (Model 2b)

Variable	Model 2(b <sub>i</sub> ) $ROA_{it}$	Model 2(b <sub>ii</sub> ) $ROE_{it}$	Model 2(b <sub>iii</sub> ) $EPS_{it}$	Model 2(b <sub>iv</sub> ) $TQ_{it}$
$LI$	-0.3704 (-8.41)***	-0.3760 (-7.86)***	-0.4105 (-7.50)***	-0.3561 (-7.15)***
$BIND_{it}$	86.892 (0.21)	24.776 (0.54)	4.1974 (0.61)	43.779 (1.04)
$OWNC_{it}$	-10.884 (-1.86)	-71.509 (-1.03)	-0.6885 (-0.53)	-2.6424 (-0.31)
$OWNC_{it} * BIND_{it}$	17.328 (1.54)	17.417 (0.80)	0.4919 (0.17)	10.505 (0.57)
$DOWN_{it}$	-33.929 (-0.49)	-78.965 (-0.89)	-0.2076 (-0.15)	-4.8381 (-0.55)
$DOWN_{it} * BIND_{it}$	-39.185 (-0.28)	-19.014 (-1.06)	-1.3038 (-0.44)	-0.1485 (-0.01)
$IOWN_{it}$	-16.378 (-2.36)	-16.258 (-1.66)	-1.7155 (-1.07)	-2.0076 (-0.18)
$IOWN_{it} * BIND_{it}$	34.529 (2.35)	32.014 (1.63)	2.9640 (0.87)	7.0787 (0.29)
$CEOD_{it}$	-2.7717 (-0.12)	-0.6990 (-0.72)	-0.2447 (-0.59)	-0.5145 (-0.14)
$CEOD_{it} * BIND_{it}$	-9.5601 (-0.27)	-3.8582 (-0.07)	-0.0341 (-0.05)	-0.6318 (-0.10)
$CREM_{it}$	31.293 (0.75)	64.159 (1.20)	0.9070 (1.15)	5.6246 (1.06)
$CREM_{it} * BIND_{it}$	-7.8892 (-0.95)	-10.956 (-0.98)	-1.8598 (-1.17)	-10.989 (-1.11)
$DREM_{it}$	-11.621 (-0.50)	-2.8990 (-0.08)	-0.9221 (-1.69)	-6.0025 (-1.61)
$DREM_{it} * BIND_{it}$	22.769 (0.50)	6.7810 (0.09)	1.9311 (1.81)**	9.0734 (1.28)
$RMCS_{it}$	-46.485 (-0.56)	-60.656 (-0.57)	-1.4197 (-0.98)	-2.7372 (-0.32)
$RMCS_{it} * BIND_{it}$	8.5470 (0.48)	10.089 (0.46)	2.8457 (0.86)	7.8755 (0.38)
$RMCI_{it}$	7.4564 (0.82)	16.227 (0.15)	1.8641 (1.21)	7.4118 (0.81)
$RMCI_{it} * BIND_{it}$	-15.624 (-0.77)	-8.7943 (-0.04)	-3.9418 (-1.15)	-17.826 (-0.91)

Table 5.8 (Continued)

$RMCM_{it}$	-2.0758	55.221	-0.2893	-2.8017
	(-0.27)	(0.53)	(-0.18)	(-0.32)
$RMCM_{it} * BIND_{it}$	5.5621	9.9624	0.9258	6.8485
	(0.35)	(0.45)	(0.25)	(0.31)
$MKT_{it}$	13.783	23.707	0.5362	-0.3727
	(1.13)	(1.53)	(1.98)	(-0.31)
$MKT_{it} * BIND_{it}$	-19.390	-25.898	-0.9538	-0.7404
	(-0.75)	(-0.76)	(-1.67)**	(-0.31)
$ENV_{it}$	16.470	14.747	0.2247	2.7353
	(0.60)	(0.35)	(0.44)	(1.31)
$ENV_{it} * BIND_{it}$	-3.0852	-4.0220	-0.7604	-6.1504
	(-0.49)	(-0.42)	(-0.68)	(-1.21)
$COMM_{it}$	16.445	78.194	0.9257	2.1534
	(1.35)	(1.24)	(1.17)	(0.59)
$COMM_{it} * BIND_{it}$	-9.3518	-13.540	-1.1568	-4.3255
	(-0.91)	(-1.00)	(-0.70)	(-0.56)
$WRK_{it}$	-11.549	-8.0210	0.0091	0.7662
	(-0.66)	(-0.31)	(0.03)	(0.30)
$WRK_{it} * BIND_{it}$	25.135	16.496	0.1187	0.1133
	(0.85)	(0.34)	(0.17)	(0.02)
$MCSR_{it}$	-8.1629	-73.476	-1.4421	-1.3026
	(-1.95)	(-1.31)	(-1.64)	(-0.42)
$MCSR_{it} * BIND_{it}$	12.087	12.043	2.5091	2.4847
	(1.65)	(1.22)	(1.46)	(0.43)
$FSIZE_{it}$	-0.2633	-3.7348	0.3188	2.1494
	(-0.04)	(-0.42)	(1.98)	(2.66)
$FSIZE_{it} * BIND_{it}$	-0.6042	-5.9763	-0.5348	-3.7013
	(-0.04)	(-0.35)	(-1.64)	(-2.34)
$LEV_{it}$	-69.985	-10.578	-0.9983	-1.8471
	(-3.14)***	(-3.76)***	(-2.08)	(-0.79)
$LEV_{it} * BIND_{it}$	97.040	17.059	1.3605	5.1512
	(2.02)*	(3.04)*	(1.30)	(1.06)
Sargan Test for over-identifying restriction: p value	Pass	Pass	Pass	Pass
Arellano-Bond Test for 2 <sup>nd</sup> order	Pass	Pass	Pass	Pass
Firm-Year Observations	5501	5501	5501	5501
N	12	12	12	12

Significant at \*\*\*1 percent, \*\*5 percent and \*10 percent levels.

In sum, it is evident that board independence moderates the  $DREM_{it}$ -performance relationship,  $MKT_{it}$  and firm performance only in sub-model 2(b<sub>iii</sub>) where earnings per share is performance indicator, and leverage-performance relationship in sub-models 2(b<sub>i</sub>) and 2(b<sub>ii</sub>). Meanwhile, remaining relationships are insignificantly moderated by board independence. Hence, it is concluded that board independence does not moderate the relationship between governance mechanisms, CSR practices and firm performance.

### **5.5.3 Results and Discussion on the Moderating Effects of Board Diversity on the Relationship between Corporate Governance Mechanisms, Corporate Social Responsibility Practices and Firm Performance using S-GMM (Model 2(c))**

This sub-section presents the results and discussion on the moderating effects of board diversity (women on board) on the relationship between governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies. For estimation purpose, board diversity as a continuous variable is interacted with both corporate governance mechanisms and corporate social responsibility practices where the mean value of 8.52 percent indicates that Malaysian firms are having 8.52 percent women on boards; hence, it is taken as cut-off value. As a result, new variables have been generated that are regressed in S-GMM against four performance variables such as  $ROA_{it}$  in Model 2(c<sub>i</sub>),  $ROE_{it}$  in Model 2(c<sub>ii</sub>),  $EPS_{it}$  in Model 2(c<sub>iii</sub>), and  $TQ_{it}$  in Model 2(c<sub>iv</sub>). Following this sequence, results are interpreted and discussed about interaction variables along with their respective original variables across four sub-models for maintaining consistency of results.

Table 5.9 presents the moderating effect of board diversity on the relationship between governance mechanisms, CSR practices and firm performance. The value of  $LI$  indicates

that the model is dynamic and is negatively significant at 99 percent confidence level in all sub-models with coefficient values -0.3575 ( $z = -7.06$ ) in sub-model 2(c<sub>i</sub>), -0.3609 ( $z = -6.72$ ) in sub-model 2(c<sub>ii</sub>), -0.4039 ( $z = -8.08$ ) in sub-model 2(c<sub>iii</sub>), and -0.3699 ( $z = -7.99$ ) in sub-model 2(c<sub>iv</sub>). Moreover, board diversity is negative, but statistically insignificant in all sub-models. As regards ownership structure variables, ownership concentration indicates that there is a positive insignificant moderating impact of board diversity on the inverse relationship of ownership concentration and performance. The insignificant moderating impact of board diversity indicates that the relationship between ownership concentration and firm performance remains same with women's appearance on board. Moreover, the results imply that women directors would not increase firm performance in the presence of concentrated ownership of Malaysian listed firms.

Additionally, the positive insignificant relationship between director ownership and firm performance is positively and insignificantly moderated by board diversity. There is the consistent insignificant moderating effect of board diversity in all four sub-models. The positive moderating effect shows the tendency of women on board to enhance the firm performance in the presence of director ownership, but insignificant relationships are observed so it is difficult to reach at a concrete conclusion.

Meanwhile, institutional ownership and performance relationship is positive, but insignificantly moderated by board diversity. There is negative insignificant impact of  $IOWN_{it}$  on firm performance (Table 5.6) and board diversity positively and insignificantly moderates this relationship. Moreover, there is an inclination of board diversity towards the positive moderating impact on  $IOWN_{it}$ -Performance relationship,

but the effect of board diversity is insignificant in all sub-models. The results imply that women directors will not lead to enhanced performance if there are shares owned by the institutional owners in the firms. Since there is insignificant impact of ownership structure variables on firm performance, the consistent insignificant moderating impact of board diversity on ownership structure variables reconfirm that ownership structure does not predicts firm performance in Malaysian listed firms.

Correspondingly, the negative relationship between CEO duality and firm performance (Table 5.6) is positively and insignificantly moderated by board diversity. There is a consistently positive, but the insignificant moderating impact of  $BDIV_{it}$  on the relationship between  $CEOD_{it}$  and performance, implying that board diversity does not increase organizational returns if CEO holds the dual position as chairman. Table 5.6 indicates that CEO duality negatively predicts firm performance and board diversity shows inclination towards positive moderation, but the interaction term is statistically insignificant. Moreover, CEO remuneration-performance relationship is also positively but insignificantly moderated by board diversity in all sub-models implying that women directors do not lead to higher performance if there is high remuneration paid to the CEO.

Contrarily, directors' remuneration and performance relationship is negatively and insignificantly moderated by board diversity. The result implies that board diversity does not increase firm performance in the presence of high remuneration paid to the directors. In other words, women directors are not concerned whether directors receive high or low remuneration packages in Malaysian listed firms.

Referring to the risk management committee attributes, board diversity is insignificantly moderating the impact of RMC variables on firm performance. Noticeably, Table 5.6 indicates that  $RMCS_{it}$  is positively linked to firm performance whereas the interaction terms suggest that there is tendency of positive moderation but the relationships are insignificant in each sub-model implying that women board of directors do not bring elevated returns if there are three board members on risk management committee. Alike, RMC independence is negatively, but insignificantly moderated by board diversity. Table 5.6 shows that RMC independence is negatively linked to firm performance, but this negative relationship is not affected by board diversity. Moreover, board diversity does not enhance firm performance if there is one independent director on the risk management committee. In the meantime, board diversity insignificantly and positively moderates the relationship between risk management committee meeting and performance, implying that women on board do not increase firm performance if there is, at least, one RMC meeting in a year.

Regarding corporate social responsibility practices, marketplace practices are negatively and significantly moderated by board diversity in sub-model 2(c<sub>iii</sub>) where performance is measured by earning per share with coefficient value -0.5812 ( $z = -1.06$ ), moderately significant at 95 percent confidence level. Table 5.6 infers that marketplace practices of CSR are positively linked to firm performance; but women directors tend to decrease performance (as measured by  $EPS_{it}$ ) if marketplace practices are being performed in the firm. This finding signifies that board diversity does not support the CSR activities performed under the dimension of marketplace such as to improve local infrastructure

and maintaining ties with suppliers, achieving customer satisfaction and retaining them etc.

Moreover, the relationship between environment practices and performance is negative (Table 5.6) which is negatively and insignificantly moderated by board diversity implying that women on board does not bring an increase in performance of firms if environment practices of CSR are being performed in the firms. Additionally, the negative relationship between community practices and firm performance are insignificant, but positively moderated by board diversity. This finding implies that board diversity does not enhance firm performance if community practices are performed by the Malaysian firms. Similarly, workplace practices are negatively related to firm performance and this negative relationship is positively and significantly moderated by board diversity in sub-model 2(c<sub>ii</sub>) where return on equity is a performance indicator with coefficient 13.390 ( $z = 1.86$ ) moderately significant at 95 percent confidence level. This result implies that board diversity enhances firm performance if firms continue to practice workplace activities of CSR but at the discretion of employees suggesting that workplace practices that are creating value declining impact in the firms are positively moderated by women directors.

Moreover,  $MCSR_{it}$  and performance relationship is also negatively but insignificantly moderated by board diversity. The relationship between money spent on CSR and performance is also insignificant as indicated in Table 5.6; the insignificant moderating effect of board diversity corroborates that the money spent on CSR is not predicted by firm performance and is not moderated by representation of women on board.

For control variables, firm size and performance relationship is positively and insignificantly moderated by board diversity in all sub-models. The positive and insignificant moderating effect suggests that board diversity does not bring elevated performance if firms maintain large asset base in the firms. Besides, leverage is positively and significantly moderated by board diversity in sub-models 2(c<sub>i</sub>) where performance is measured by  $ROA_{it}$ . The coefficient value is 87.269 ( $z = 2.03$ ) moderately significant at 95 percent confidence level. This finding implies that board diversity increases firm performance in the presence of moderate level of leverage. Therefore, firms should continue on internal financing rather external financing for attaining investors' trust.

In sum, it is evident that board diversity moderates the  $MKT_{it}$  and firm performance only in sub-model 2(c<sub>iii</sub>) where earnings per share is performance indicator,  $WRK_{it}$  and performance relationship only in sub-model 2(c<sub>ii</sub>), and leverage-performance relationship in sub-models 2(b<sub>i</sub>). Meanwhile, remaining relationships are insignificantly moderated by board diversity. Thus, it is concluded that women's appearance on board does not moderate the relationship between governance mechanisms, CSR practices and firm performance.

Table 5.9

Moderating Effect of  $BDIV_{it}$  on CG, CSR, and Performance Relationship (Model 2c)

Variable	Model 2(c <sub>i</sub> ) $ROA_{it}$	Model 2(c <sub>ii</sub> ) $ROE_{it}$	Model 2(c <sub>iii</sub> ) $EPS_{it}$	Model 2(c <sub>iv</sub> ) $TQ_{it}$
$LI$	-0.3575 (-7.06)***	-0.3609 (-6.72)***	-0.4039 (-8.08)***	-0.3699 (-7.99)***
$BDIV_{it}$	-27.588 (-0.66)	-48.388 (-0.75)	-2.7409 (-0.46)	-27.557 (-0.83)
$OWNC_{it}$	-48.456 (-1.90)	-49.627 (-1.48)	-1.0974 (-1.94)	-0.8466 (-0.40)
$OWNC_{it} * BDIV_{it}$	14.530 (0.79)	62.790 (0.28)	5.6832 (1.49)	11.812 (0.88)
$DOWN_{it}$	-25.596 (-0.62)	-7.0981 (-0.17)	-0.2439 (-0.36)	-2.0664 (-0.56)
$DOWN_{it} * BDIV_{it}$	16.187 (1.03)	67.188 (0.32)	2.9952 (0.98)	7.2515 (0.45)
$IOWN_{it}$	-10.318 (-0.34)	-45.956 (-0.96)	-0.8578 (1.26)	-0.5720 (-0.17)
$IOWN_{it} * BDIV_{it}$	9.7579 (0.40)	12.572 (0.38)	5.7588 (1.16)	1.2707 (0.06)
$CEOD_{it}$	-6.5308 (-0.54)	-7.4037 (-0.41)	-0.1405 (-0.62)	-1.7712 (-1.34)
$CEOD_{it} * BDIV_{it}$	4.0836 (0.62)	19.505 (0.19)	0.5856 (0.41)	11.036 (1.17)
$CREM_{it}$	-10.738 (-0.67)	-3.7213 (-0.18)	-0.0889 (-0.29)	-0.2298 (-0.13)
$CREM_{it} * BDIV_{it}$	2.0133 (0.36)	0.7671 (0.01)	0.2493 (0.20)	4.9424 (0.64)
$DREM_{it}$	6.7073 (0.71)	14.329 (0.99)	0.0994 (0.53)	-0.9009 (-0.77)
$DREM_{it} * BDIV_{it}$	-11.549 (-0.21)	-11.678 (-1.57)	-0.3087 (-0.37)	-1.3863 (-0.23)
$RMCS_{it}$	-7.7844 (-0.55)	-21.597 (-0.96)	-0.1040 (-0.42)	-0.1636 (-0.11)
$RMCS_{it} * BDIV_{it}$	12.909 (0.13)	11.217 (1.06)	0.7622 (0.34)	3.5347 (0.41)
$RMCI_{it}$	0.5003 (0.03)	17.931 (0.63)	0.2079 (0.48)	3.3925 (1.38)
$RMCI_{it} * BDIV_{it}$	-16.892 (-0.15)	-10.297 (-0.63)	-1.2736 (-0.39)	-24.587 (-1.48)

Table 5.9 (Continued)

$RMCM_{it}$	13.218	18.255	0.0050	2.2783
	(0.79)	(0.56)	(0.01)	(0.98)
$RMCM_{it} * BDIV_{it}$	5.2701	4.4378	0.2101	17.403
	(0.76)	(0.31)	(0.08)	(1.31)
$MKT_{it}$	7.7174	12.386	0.2334	0.1513
	(1.59)	(1.42)	(2.26)	(0.27)
$MKT_{it} * BDIV_{it}$	-3.0578	-5.9754	-0.5812	-0.8928
	(-1.22)	(-0.14)	(-1.06)**	(-0.32)
$ENV_{it}$	-4.5372	-8.8733	-0.1413	-0.3188
	(-0.37)	(-0.48)	(-0.63)	(-0.32)
$ENV_{it} * BDIV_{it}$	-4.3920	-20.203	-0.0368	-0.5963
	(-0.81)	(-0.30)	(-0.04)	(-0.11)
$COMM_{it}$	5.2914	13.123	0.2949	0.0388
	(0.30)	(0.53)	(1.10)	(0.02)
$COMM_{it} * BDIV_{it}$	7.4246	7.3744	0.4894	6.8726
	(0.68)	(0.52)	(0.30)	(0.56)
$WRK_{it}$	-10.602	-15.965	-0.1940	-0.0708
	(-1.19)	(-1.29)	(-1.33)	(-0.09)
$WRK_{it} * BDIV_{it}$	6.3587	13.390	0.5924	5.8166
	(1.21)	(1.86)**	(0.66)	(1.34)
$MCSR_{it}$	8.9669	22.800	0.1370	1.0597
	(0.69)	(1.18)	(0.69)	(0.67)
$MCSR_{it} * BDIV_{it}$	-11.122	-25.785	-0.4736	-9.9415
	(-1.02)	(-1.52)	(-0.26)	(-0.84)
$FSIZE_{it}$	-1.0640	-2.4657	0.0950	0.7530
	(-0.46)	(-0.64)	(2.03)	(2.79)
$FSIZE_{it} * BDIV_{it}$	10.214	11.093	0.1420	0.1116
	(0.69)	(0.62)	(0.53)	(0.07)
$LEV_{it}$	-37.487	-33.328	-0.5028	-1.8158
	(-4.66)	(-2.74)	(-2.86)	(-2.14)
$LEV_{it} * BDIV_{it}$	87.269	81.150	0.8995	4.1828
	(2.03)**	(1.53)	(1.06)	(0.94)
Sargan Test for over-identifying restriction: p value	Pass	Pass	Pass	Pass
Arellano-Bond Test for 2 <sup>nd</sup> order	Pass	Pass	Pass	Pass
Firm-Year Observations	5501	5501	5501	5501
N	12	12	12	12

Significant at \*\*\*1 percent, \*\*5 percent and \*10 percent levels.

Overall, it is concluded that none of the board characteristics (board size, board independence and board diversity) moderate the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance in Malaysian listed companies.

## **5.6 Hypotheses Testing**

Tables 5.10 and 5.11 illustrate the hypothesis testing (H1 and H2) of the study based on hypotheses development presented in Chapter 4. Findings, based on research objective 1 of the study, illustrate that CEO duality, directors' remuneration, risk management committee attributes, board diversity, marketplace, environment, community, and workplace are the predictors of firm performance in Malaysian listed firms. Table 5.10 provides the outcome of Hypothesis 1 where the joint impact of CG mechanisms and CSR practices on firm performance is examined.

Noticeably, ownership structure variables (ownership concentration, director ownership, and institutional ownership), CEO remuneration, board size, board independence, and money spent on CSR do not affect firm performance. Thus, they are marked as not supported hypotheses in the Table 5.10. Additionally, hypotheses are marked supported based on the grounded theory of the study as highlighted in the table.

Table 5.10

*The Joint Impact of CG Mechanisms and CSR Practices on Firm Performance (H1)*

<b>H<sub>1A</sub></b>	Based on agency theory, there is negative relationship between ownership concentration and firm performance.	Not Supported
<b>H<sub>1B</sub></b>	Based on agency cost hypothesis, there is negative relationship between director ownership and firm performance.	Not Supported
<b>H<sub>1C</sub></b>	Based on agency theory, there is negative relationship between institutional ownership and firm performance.	Not Supported
<b>H<sub>1D</sub></b>	Based on agency theory, there is negative relationship between CEO duality and firm performance.	Supported
<b>H<sub>1E</sub></b>	Based on agency theory, there is negative relationship between CEO remuneration and firm performance.	Not Supported
<b>H<sub>1F</sub></b>	Based on agency contracts, there is negative relationship between directors' remuneration and firm performance.	Supported
<b>H<sub>1G1</sub></b>	Based on resource based view, there is a positive relationship between risk management committee size and firm performance.	Supported
<b>H<sub>1G2</sub></b>	Based on agency theory and intense monitoring argument, there is negative relationship between risk management committee independence and firm performance.	Supported
<b>H<sub>1G3</sub></b>	Based on efficient monitoring hypothesis, there is a positive relationship between risk management committee meeting and firm performance.	Supported
<b>H<sub>1H</sub></b>	Based on advisory role performed by larger board, there is a positive relationship between board size and firm performance.	Not Supported
<b>H<sub>1I</sub></b>	Based on agency theory, there is negative relationship between board independence and firm performance.	Not Supported
<b>H<sub>1J</sub></b>	Based on agency theory, there is negative relationship between board diversity and firm performance.	Supported
<b>H<sub>1K1</sub></b>	Based on over-investment hypothesis of CSR, there is a negative relationship between marketplace practices and firm performance rather there is a positive relationship between marketplace practices of CSR based on risk management perspective.	Not Supported
<b>H<sub>1K2</sub></b>	Based on over-investment hypothesis of CSR, there is a negative relationship between environment practices and firm performance.	Supported
<b>H<sub>1K3</sub></b>	Based on over-investment hypothesis of CSR, there is a negative relationship between community practices and firm performance.	Supported
<b>H<sub>1K4</sub></b>	Based on over-investment hypothesis of CSR, there is a negative relationship between workplace practices and firm performance.	Supported
<b>H<sub>1K5</sub></b>	Based on over-investment hypothesis of CSR, there is a negative relationship between amount of money spent on CSR and firm performance.	Not Supported

As indicated in the Table 5.10, some of the hypotheses are supported and some are not supported based on regression results provided in Table 5.6. So, it is difficult to reach at a definitive conclusion whether corporate governance and corporate social responsibility practices jointly impact firm performance. It can be concluded that CG and CSR partially impact firm performance while leaving certain relationships as insignificant.

Table 5.11 presents the hypotheses testing for hypothesis 2 of the study where moderating effect of board characteristics on the relationship between CG mechanisms, CSR practices and firm performance is examined. The regression results in Tables 5.7-5.9 indicate that none of the board characteristics moderate the relationship between governance mechanisms, corporate social responsibility practices and firm performance. Thus, hypothesis 2 did not find any significant empirical result and all hypotheses are not supported as indicated in Table 5.11.

Table 5.11

*Moderating Effect of Board Characteristics on the Relationship between CG Mechanisms, CSR Practices and Firm Performance (H2)*

<b>H<sub>2A</sub></b>	There is a significant moderating effect of board size on the relationship between CG mechanisms, CSR practices and firm performance.	Not Supported
<b>H<sub>2B</sub></b>	There is a significant moderating effect of board independence on the relationship between CG mechanisms, CSR practices and firm performance.	Not Supported
<b>H<sub>2C</sub></b>	There is a significant moderating effect of board diversity on the relationship between CG mechanisms, CSR practices and firm performance.	Not Supported

In sum, this study aimed to answer two research questions; first, whether CG mechanisms and CSR practices jointly impact the firm performance; and, second, whether board characteristics moderate the relationship between governance mechanisms, corporate

social responsibility practices and firm performance. Findings of the study brought partial support to the hypothesis 1 and no support for hypothesis 2. The reasons for inconclusive findings of the study are explained in the next chapter where it is asserted that unique country background of Malaysia is the prospective cause of the mixed results of joint impact of CG mechanisms and CSR practices on firm performance and no significant moderating effect of board characteristics on the given relationship.

## **5.7 Chapter Summary**

This chapter presents the analysis and discussion of the study. Results reveal that lagged dependent variables are statistically significant, implying that models are dynamic and S-GMM is an appropriate estimator where empirical results can be relied upon for statistical inference, therefore, it is suggested that ownership structure variables do not influence firm performance. Additionally, CEO remuneration, board size, board independence, and money spent on CSR also do not interpret firm performance. However, CEO duality, directors' remuneration, risk management committee attributes, board diversity, and CSR dimensions provided by Bursa Malaysia are the predictors of firm performance in Malaysian listed companies. Meanwhile, firm size positively whereas leverage negatively influence firm performance. Moreover, board characteristics (board size, board independence, and board diversity) do not moderate the relationship between governance mechanisms, CSR practices, and firm performance.

## CHAPTER SIX

### CONCLUSION AND RECOMMENDATIONS

#### 6.0 Introduction

The purpose of this chapter is to present a summary of the findings based on research objectives along with implications, limitations and recommendations of the study. For this purpose, the chapter is divided into six main sections where Section 6.1 presents the recapitulation of the main problems of the study. Moreover, Section 6.2 briefly presents the summary of the results of the study based on research objectives. This is followed by theoretical and practical implications of the study in relation to the stakeholders and shareholders in Section 6.3. Furthermore, Section 6.4 gives limitations of the study and recommendations for future research have been explained in Section 6.5. Finally, Section 6.6 gives concluding remarks on the study.

#### 6.1 Overview of the Study

This study attempts to investigate the joint impact of governance mechanisms and corporate social responsibility practices on the performance of Malaysian listed companies. Additionally, the moderating effect of board characteristics has been examined on the relationship between corporate governance mechanisms, corporate social responsibility practices and performance of Malaysian listed companies during 2006-2017. The inconclusive findings of the study refer to the unique country background of Malaysia where results obtained vary from the studies of developed

countries (USA, UK, Australia, Canada, Spain, France, etc.) and other emerging economies (China, Turkey, Bangladesh, India, Iran, Sri Lanka, Pakistan, etc.).

Current study aimed to test whether theories that originated from the West are also applicable to companies in emerging economies due to different institutional structures and cultural backgrounds or not. The findings of the study indicate that there are certain relationships that embrace support from agency theory and few variables show insignificant results and are still questionable. For instance, ownership structure variables of the study are insignificant to firm performance whether measured by accounting based performance measures or market based performance measure. The insignificant relationships and no support from agency theory indicate that Malaysia holds a unique ownership structure with the dominance of few family groups in the Malaysian corporate sector where the balancing effect of majority/controlling shareholders and minority shareholders do not affect firm performance. Moreover, there are sound external governance practices in the developed countries (USA, UK) and certain developing nations (China, Iran, Pakistan, Turkey) which suggest that Malaysia is lagging behind these nations due to family dominance in their ownership structures such that there is no influence of ownership structure on firm performance.

Additionally, CEO remuneration, board size, board independence, and money spent on CSR also do not influence firm performance. The insignificant results of these CG mechanisms, CSR practice and firm performance reiterate that Malaysia has novel institutional, cultural, political and governance structure as compared to other developed and developing economies where the influence of internal governance mechanisms and

CSR practice on firm performance is significant (Usman, Zhang, Wang, Sun, & Makki, 2018; Zhuang, Chang, & Lee, 2018; Mishra & Kapil, 2017; Ehsan & Kaleem, 2012) due to the discrete nature of institutional and governance structures in these countries. Thus, generalizability of this study is questionable due to insignificant relationships between governance mechanisms, CSR practices and firm performance where it is difficult to reach at a conclusion that governance and socially responsible practices prevailing in developed and developing economies are also being practiced in an emerging economy such as Malaysia.

Furthermore, board characteristics are employed as moderating variable on the relationship between governance mechanisms, corporate social responsibility practices and firm performance to test whether boards of Malaysian firms add value to the firms or they impact firms in a value decreasing manner. The results provided insignificant moderating effect of all board characteristics on the governance-CSR and performance relationships. These findings again inculcate that board characteristics are neither predictors of firm performance (except board diversity in Table 5.6) nor they significantly moderate the relationship between governance mechanisms, CSR practices and firm performance.

Correspondingly, the study employed dynamic estimators for analysis purpose where two-step S-GMM provided more precise and consistent results catering the problems of endogeneity, simultaneity and unobserved heterogeneity. Meanwhile, significant relationships have embraced the presumptions of agency theory, agency cost argument, and over-investment hypothesis of CSR for the theoretical and the empirical support on

the issues related to the joint impact of governance mechanisms, CSR practices and firm performance and for evaluating the moderating effect of board characteristics on these relationships.

## **6.2 Summary of Findings**

There are two research objectives of the study, as follows: (1) to examine the joint impact of governance mechanisms and corporate social responsibility practices on firm performance; and, (2) to examine the moderating effect of board characteristics on the relationship between governance mechanisms, corporate social responsibility practices and firm performance. Correspondingly, sub-sections 6.2.1 and 6.2.2 present the summarized results for two research objectives respectively.

### **6.2.1 Summary of Findings for Research Objective 1: The Joint Impact of Corporate Governance Mechanisms and CSR Practices on Firm Performance**

As mentioned in Section 1.4 of Chapter 1, the first objective of the study is to examine the joint impact of external corporate governance mechanisms such as ownership concentration, director ownership, institutional ownership; internal governance mechanisms such as CEO duality, CEO remuneration, directors' remuneration, risk management committee attributes, and board characteristics on performance of Malaysian listed companies. The findings indicate ownership structure variables to be insignificantly related to all performance measures. For ownership concentration, it is argued that performance of firms is determined by external factors such as the characteristics of its specific business environment, its market and conditions etc. Thus,

there is no reason to think that a firm with high concentrated ownership is more efficient than a firm having dispersed capital (Zouari & Taktak, 2014). There must be no relationship between ownership concentration and firm performance as the ownership structure will balance the advantages and disadvantages of the firm's shareholders (Al-Saidi & Al-Shammari, 2015).

Additionally, director ownership is also insignificantly linked to firm performance due to lower percentage of shares (11.48 percent, Table 5.1) held by directors, their spouses and children. According to Gorton and Rosen (1995), director ownership is considered low if there are less than 15 percent shares held by directors. And, at a low level of director ownership, directors might be reluctant to increase firm performance as they have to gain little if the firm do exceptionally well but will probably lose other benefits if company fails to achieve performance objectives. Similarly, institutional ownership is insignificant with firm performance where it is asserted that institutional investors are not a homogenous group – the strategy and monitoring by institutional owners depends on the scheme they follow and the remuneration plans for their executives (Woidtke, 2002).

Moreover, there is significant and negative relationship between CEO duality and firm performance consistent with the predictions of agency theory which asserts that agency problems arise when the same person holds two positions on the board; leading firm towards declined performance, and ultimately raising conflict of interest. It is indicated that CEO duality is synonymous with poor performance, weaker monitoring, establishes dependence, decreases board monitoring effectiveness and increases CEO entrenchment, thus, negatively influencing firm performance. Regarding remuneration patterns, CEO

remuneration is insignificantly whereas directors' remuneration is negatively significant with firm performance. The insignificant relationship refers to the job security of these executives due to dominance of major business groups in Malaysia. If CEOs are laid off from one company, they are readily recruited by another group. Hence, this informal employment security network makes these CEOs more powerful and influential in setting their own pays regardless of their performance. Contrarily, the negative insignificant impact of directors' remuneration indicates that directors of Malaysian firms work for their own interests rather than the benefits of the firm leading firm towards agency costs where salaries, bonuses, and other emoluments paid to the directors are leading firms towards declining performance.

Besides, risk management committee size is positively and significantly linked to firm performance contending that three board members on the risk management committee act as a liaison to mitigate the agency conflicts between management and shareholders while actively being involved in the risk management function of the firm. Thus, it is argued that the risk management committee is a mechanism to reduce the agency conflicts to achieve elevated firm performance. Alternatively, RMC independence is negatively and significantly linked to firm performance, suggesting that intense monitoring of independent directors brings costs to the firms where they only perform their supervisory role apart from their necessary advising role. Thus, intense monitoring and unnecessary involvement of independent director in the daily operations of risk management committee limits other members to perform their effective role which ultimately reduces firm performance. Furthermore, RMC meeting is positive and significantly related to

accounting based performance measures which indicate that the meeting provides a good opportunity to openly communicate, discuss, and achieve common objectives in risk oversight and control. Positive relationship also asserts that the risk management committee has devoted time and effort to accomplish tasks and responsibilities effectively.

Out of board characteristics, board size is negatively and insignificantly related to performance consistent with agency theory where larger board size brings the problems of miscommunication, less-candid discussions of managerial performance, inefficient and slow decision-making and poor attention towards attaining better corporate performance. Moreover, dominance of family members in influencing the decision-making process makes the role of board size irrelevant in impacting firm performance. Likewise, board independence is also negatively, but insignificantly related to firm indicating that more independent directors can be detrimental to companies as they may stifle strategic actions, engulf the company in intense and excessive monitoring, lack the business knowledge to be truly effective and lack real independence. Moreover, board diversity is negatively and significantly related to firm performance where it is argued that greater women's appearance on board brings intragroup conflicts that result in ineffective decision-making process. Besides, women are considered risk-averse than men in making financial decisions that impact the company's resource allocation, resulting in an inverse relationship between board diversity and firm performance.

As regards corporate social responsibility practices, marketplace practices are positively associated with firm performance, consistent with the arguments of risk management

perspective where CSR engagement creates moral capital for firms that brings an insurance-like value to shareholders. Contrarily, environment, community, and workplace practices of CSR are negatively and significantly associated with accounting based performance measures which asserts that firms face trade-off between social responsibility and firm performance, placing them in a disadvantageous cost position incurring agency costs where managers attain private benefits. Likewise, money spent on CSR is negatively, but insignificantly related to performance. Negative insignificant results indicate that money spent on CSR is over-invested by the executives of firms, but the impact of this financial malfeasance is not substantial.

Finally, firm size is positively and significantly related to firm performance, which highlights that bigger firm size provides confidence to the investors and stakeholders that their investments and stakes are safe in the particular firm. Alternatively, leverage is negatively and significantly related to accounting based performance measures revealing that Malaysian firms are not satisfying their creditors on a timely basis and are unable to generate sufficient profitability to fulfill their claims. Additionally, profitable companies prefer internal financing rather than external financing, but Malaysian firms are not maintaining profitability despite preferring internal financing.

### 6.2.2 Summary of Findings for Research Objective 2: The Moderating Effect of Board Characteristics on the Relationship between Governance Mechanisms, Corporate Social Responsibility Practices and Firm Performance

As stated earlier, the second objective of this study is to examine the moderating effect of board characteristics (board size, board independence and board diversity) on the relationship between corporate governance mechanisms, corporate social responsibility practices and firm performance.

Results reveal that none of board characteristics significantly moderate the relationship between governance mechanisms, corporate social responsibility practices and firm performance. Table 5.7 indicates the impact of board size on the given relationship. It is indicated that board size only moderates the significant negative relationship between directors' remuneration and firm performance, marketplace practices of CSR and firm performance, and firm size-performance relationship while remaining relationships are insignificantly moderated by board size.

Additionally, board independence also does not moderate the CG mechanisms, CSR practices and firm performance relationships (Table 5.8). Only  $DREM_{it}$ -performance relationship,  $MKT_{it}$  and firm performance relationship, and leverage-performance relationships are moderated by independent boards of directors. Besides, these relationships reveal weak moderating effect in one or two sub-models. Thus, board independence does not moderate the CG-CSR and performance relationships.

Likewise, Table 5.9 shows that board diversity does not moderate the relationships between governance mechanisms, CSR practices and firm performance. The only

relationships that are moderated by board diversity are  $MKT_{it}$  and firm performance,  $WRK_{it}$  and performance relationship, and leverage-performance relationship. Meanwhile, the rest of the CG-CSR and performance relationships are insignificantly moderated by women's appearance on the boards. Therefore, it is concluded that women appearance on board does not moderate the relationship between governance mechanisms, CSR practices and firm performance.

### **6.3 Implications of the Study**

This study aims to investigate the joint effects of governance mechanisms and corporate social responsibility practices on firm performance. Moreover, the moderating effect of board characteristics on the relationship between CG mechanisms, CSR practices and firm performance has also been examined. The implications of the study are in terms of theory and practice. The way how they are implying is being explained below.

#### **6.3.1 Theoretical Implications**

This research provides empirical evidence for the hypothesized theoretical relationships as presented in the research framework (Figure 4.1). The study investigated the joint impact of governance mechanisms and corporate social responsibility practices on firm performance. Further, the study established the moderating effect of board characteristics on the relationship between governance mechanisms, corporate social responsibility practices and firm performance. Considering the fact that corporate governance and corporate social responsibility are interrelated, the study mainly demonstrated the linkage with agency theory where it is contended that the fundamental theories from which

corporate governance and corporate social responsibility embrace support is agency theory. Moreover, further support is taken from agency cost perspective, overinvestment hypothesis, risk management perspective and resource dependence theory to explain the significant relationships of the study.

This study aimed to test whether the agency theory, agency cost argument, overinvestment hypothesis, risk management perspective, and resource dependence theory, basically originated from the Western countries, provide theoretical support for the study in an emerging economy such as Malaysia. It is evident from the findings of the study that relationships of CEO duality, directors' remuneration, risk management committee independence, and board diversity embraced the predictions of agency theory and agency cost argument where the relationships are negative and significant with firm performance. Interestingly, none of the ownership structure variables showed significant results, so it is argued that due to differences in institutional structure, governance constitution and political influences as compared to other developed and developing countries Malaysian listed firms are not indicating any significant impact on firm performance. Additionally, the significant relationships of the study reveal that agency cost arguments are valid for explaining the inverse relationships between CG mechanisms, CSR practices and firm performance. And, due to the globalized nature of governance structures and socially responsible practices agency theory presumptions are applicable in Malaysia.

Meanwhile, the positive relationships of risk management committee size and risk management committee meeting with firm performance are consistent with resource

dependence theory which indicated that risk management committee attributes are means to resolve the agency conflicts between shareholders and management and they bring critical resources to firms where active involvement of three board members in risk oversight is bringing positive outcomes to the firms and RMC meeting, held, at least, once in a year is a cause of enhanced firm performance by openly communicating and sharing risk related affairs in the meeting.

Correspondingly, this study owes support from the risk management perspective of CSR for explaining the positive and significant relationship of marketplace practices of CSR with firm performance where it is contended that active involvement in socially responsible activities bring an-insurance like protection to the shareholders. Contrarily, over-investment hypothesis of CSR is explained for the negative and significant relationships between CSR practices (environment, community and workplace) and firm performance. In this way, the study has generated a theoretical debate for the given relationships of governance mechanisms and corporate social responsibility practices that jointly impact firm performance.

Notwithstanding, board characteristics do not provide the significant moderating effect on the relationship between governance mechanisms, corporate social responsibility practices and firm performance. Due to insignificant results, it is difficult to relate findings to the theory since almost all of the relationships indicate unsubstantial moderating impact of board size, board independence, and board diversity on CG-CSR and performance relationship. Thus, such kind of insignificant results makes the role of board characteristics questionable in Malaysian listed companies.

In the meantime, various studies examined the effects of corporate governance mechanisms and corporate social responsibility practices on firm performance (Barnea & Rubin, 2010; Jo & Harjoto, 2011; Byron & Post, 2016; Wellalage, Locke, & Acharya, 2017) but their results are unequivocal. Furthermore, evidence lacks in empirically testing the hypothesized relationships. Hence, this study has contributed to the literature by using integrated approach to empirically examine the joint effects of governance mechanisms and CSR practices on firm performance and the moderating effect of board characteristics on these relationships.

### **6.3.2 Practical Implications**

The study reveals important findings and conclusion relating to the relationships based on research objectives. These findings have practical implications for distinct departments of Malaysian listed companies, regulatory authorities and policymakers that are being discussed below.

First and foremost, companies must be aware of the fact that their concentrated ownership structure is insignificant to firm performance. According to Zouari and Taktak (2014) maximizing the performance of firms is determined by external factors such as the characteristics of its specific business environment, its market and conditions where it operates. Thus, separation exists between ownership and control, and there is no reason to think that a firm with high concentrated ownership is more efficient than a firm having dispersed capital. Moreover, Al-Saidi and Al-Shammari (2015) argue that there should be no relationship between ownership concentration and firm performance as the ownership

structure will balance the advantages and disadvantages of the firm's shareholders. As reported by OECD (2017) ownership in Malaysian firms is basically concentrated where 10-12 family groups control range of companies. However, this controlling mechanism of shareholdings in Malaysian firms is unable to make any substantial impact on firm performance indicating that ownership concentration is not a predictor of firm performance in Malaysia.

In addition, director ownership is also insignificantly related to all performance measures suggesting that there is a low percentage of director ownership in Malaysian listed firms as indicated in Table 5.1 of descriptive statistics, where the average value shows 11.48 percent shares are owned by directors, their spouses and children. The percentage is considered low, according to Gorton and Rosen (1995) who suggest that director ownership less than 15 percent is low and is not enough to induce directors to align their interests to the interests of other shareholders of the firm. At a low level of ownership, director ownership might be reluctant to increase firm performance as they might have little to gain if the firm do exceptionally well but will probably lose other benefits if the company fails to achieve performance objectives.

Correspondingly, institutional ownership showed no substantial impact on firm performance, and an insignificant relationship is attributed to the argument of Woidtke (2002) where the author contends that institutional investors are not a homogenous group – the strategy and monitoring by institutional owners depends on the scheme they follow and the remuneration plans for their executives. Additionally, institutional investors differ in terms of their activism and engagement in monitoring (Aluchna & Kaminski, 2017;

Gillian & Starks, 2007), which determines their impact on firm performance. Findings related to ownership structure in Malaysian listed firms indicate that ownership structure is not a predictor of firm performance. One major reason attributed to these insignificant relationships is that the Securities Commission Malaysia does not focus on the external governance mechanisms, particularly for ownership structure variables. Therefore, due to no specific guidelines provided by the regulatory authorities, Malaysian listed firms are not showing any significant impact of ownership structure variables on firm performance.

Secondly, companies must take this point into consideration that CEO duality is negatively affecting the performance of their firms. Despite the low percentage of CEO duality in Malaysian listed firms (8.01 percent, Table 5.1) it is the potential cause of agency problems that arise when the same person holds two positions on the company board. CEO duality brings declined performance, establishes dependence, increases CEO entrenchment and decreases board monitoring effectiveness. The Securities Commission in its each code of corporate governance has directed firms to separate the position of CEOs and chairmen in the firms to avoid potential conflict of interest between management and shareholders. So, it is at the discretion of SC Malaysia to monitor whether listed companies are giving dual roles to the CEOs or complying with the directions of the Securities Commission.

Furthermore, the insignificant impact of CEO remuneration on firm performance have implications for Malaysian listed firms and regulatory authorities that despite receiving remuneration of around RM0.0683 million on average (Table 5.1) in the form of salaries, bonuses, and other emoluments, CEO are not leaving substantial impact on firm

performance. This could be due to the dominance of major business groups in Malaysia where job security of these executives is high. If they are laid off from one company, they are readily recruited by another group. Hence, this informal employment security network makes these CEOs more powerful and influential in setting their own pays regardless of their performance (Elsayed & Elbardan, 2018).

Additionally, directors' remuneration is negatively related to firm performance that brings agency costs to the firms due to the divergence of interests between directors and management where directors tend to work for their own interests rather than the benefits of the firm. Securities Commission has recommended firms to disclose the remuneration patterns of CEOs and directors on named basis and with the exact amount (MCCG, 2017). But, a recent report from SC Malaysia "The CG Monitor 2019" reveals that 685 companies showed departure from the practice of disclosing remuneration patterns on named basis, suggesting that Malaysian firms are reluctant to reveal exact remuneration patterns for CEOs and directors.

Moreover, the negative relationship between directors' remuneration and firm performance implies that amount of salaries, bonuses, and other emoluments paid to the directors must be reduced to align the interests of various directors in the firms and to avoid declining effect on firm performance. It is the prime responsibility of policymakers to settle an appropriate percentage for directors' remuneration so that their impact on firm performance is substantiated. Thus, Securities Commission Malaysia needs to oversee the remuneration packages of directors of Malaysian PLCs to reduce their negative influence on firm performance.

Thirdly, three boards of directors on an RMC are the value enhancers and they tend to mitigate the agency issues between management and shareholders by actively engaging in the risk oversight function of the firm. Securities Commission has not made it mandatory to establish the risk management committee with three board members rather it is voluntary step taken by the listed non-financial firms of Malaysia to form a risk management committee with three board of directors. The positive result invokes the need to make it mandatory for listed firms to establish a risk management committee with three directors to uplift the performance of firms through proper risk monitoring and control function.

Additionally, independent director on risk management committee brings costs to the firm in the form of intense monitoring of director where it is perceived that primary function of independent director is to perform monitoring role only. It is noteworthy in the Malaysian context that no such direction for percentage of independent directors on RMC has been provided by the Securities Commission to listed firms, but Bank Negara Malaysia (2010) has recommended insurance firms that chairman of RMC must be an independent director. Since the study revealed the negative influence of RMC independence on firm performance, it is necessary that SC must direct the firms with an appropriate number of independent directors on the risk management committee so that firms attain value from the advisory role of independent directors on RMC as well as on board.

Meanwhile, the positive effect of risk management committee meeting on performance indicates that the meeting provides a good opportunity to openly communicate, discuss,

and achieve common objectives in risk oversight and control. It is highlighted for listed non-financial firms of Malaysia increase the number of RMC meetings for discussing the issues related to risk management in firms. Bursa Malaysia and Securities Commission Malaysia must take note of this voluntary step taken by listed firms and provide guidelines for the risk management committee attributes in order to see whether increase in meetings will bring the same results or there are variations in performance.

Besides, both board size and board independence are insignificant to firm performance. The negative insignificant relationship between board size and performance embraces the predictions of agency theory where larger board size brings the problems of miscommunication, slower decision-making, less-candid discussions of managerial performance and poor attention towards attaining better corporate performance. Jensen (1993) argues that when boards get beyond seven or eight people, they are less likely to function effectively and are easier for the CEO to control. Similarly, Yermack (1996) connotes this argument by inferring in his study that the negative relationship between board size and firm value attenuates as boards become large, implying that greatest incremental costs rise as boards grow in size from small to medium. Additionally, the loss in firm value is more pronounced when boards grow from six to twelve and there is complete value lost when boards grow from 12 to 24.

Referring to Table 5.1 of Descriptive Statistics the average board size is 7.62 with minimum three and maximum 15 people as board of directors in Malaysian corporate firms. Notwithstanding negative relationship, an insignificant impact of board size on firm performance is observed that indicates whether there are larger or smaller boards in

Malaysia, the number of boards of directors are unable to leave a significant impact on performance. Yet, the negative signs show that there is tendency of board size to impact firm performance in an inverse manner. The plausible explanation for insignificant relationship between board size and firm performance is Malaysian boards are dominated by family members who are very influential in the decision-making process and domination of boards by family members makes the board size irrelevant in the decision making process; thus, leaving no significant impact on firm performance.

Similarly, the insignificant relationship between board independence and firm performance implies that more independent directors can be detrimental to companies as they may stifle strategic actions, engulf the company in intense and excessive monitoring, lack the business knowledge to be truly effective and lack real independence (Mishra & Kapil, 2017; Palaniappan, 2017). Agency theory posits that boards dominated by independent directors may involve in free-riding behavior and tend to entrench the corporate resources for their personal benefits. However, an insignificant relationship with all performance measures indicate that board independence is not a substantial predictor of firm performance in Malaysian listed companies.

Table 5.1 of descriptive statistics reveals that there is, on average, 42 percent board independence in Malaysia with the minimum 14 percent and a maximum 100 percent board independence. Meanwhile, Securities Commission Malaysia (MCCG, 2017) recommended the listed companies that there must be equal or more than 50 percent board independence on Malaysian corporate boards. Though Malaysian corporate boards reach approximately 50 percent board independence, but their insignificant impact on

firm performance is questionable, suggesting that independent directors are neither performing their roles as effective advisors nor as efficient monitors to oversight the functions of management. Thus, the SC Malaysia needs to monitor the effectiveness of independent board of directors in order to show a significant impact on firm performance.

Fourthly, board diversity is negatively related to firm performance implying that women appearance on board leads firm towards declining profits due to intra-group conflicts and inefficient decision-making. Practically, SC Malaysia stressed in MCCG (2017) that there must be 30 percent women representation on corporate boards in large firms. But, descriptive statistics indicate that there is only 8.52 percent female appearance on boards Malaysian firms. Additionally, the CG Monitor (2019) reveals that 518 companies departed from the practice of gender diversity that shows that Malaysian corporate boards are male dominated and are reluctant to replace the positions with female corporate heads. Thus, SC Malaysia must ensure that listed firms are complying with the 30 percent board diversity so that their impact on firm performance can be substantiated.

Fifthly, concerning CSR practices, an important implication for Malaysian listed firms, regulatory authorities, and policymakers is that effect of CSR practices is positive and significant below 50 percent (relationship between  $MKT_{it}$  and performance). As the percentage increases to 60 percent, the performance effect becomes negative, but significant with accounting measures of performance ( $ENV_{it}$ ,  $COMM_{it}$ , and  $WRK_{it}$ ). And, when the percentage extends the 70 percent, the performance effect of CSR practices becomes insignificant. These findings imply that although Malaysian listed firms comply with the Bursa Malaysia CSR framework but the impact of socially responsible practices

is in accordance with over-investment hypothesis where managers tend to over-invest in CSR practices to maintain their good corporate citizen image thereby entrenching the corporate resources for their own personal benefits.

On average, marketplace practices are being performed at a lower percentage but they are positively influencing the performance. Contrarily, environment, community and workplace practices are being performed at higher percentages but affect firm performance negatively. Bursa Malaysia needs to monitor these four dimensions of CSR independently practiced by the firms and provide a report, similar to CG Monitor (2019), so that it may be easy to point out where the corporate resources are being misused. The important consideration here is if managers are not over-investing in CSR activities, then why the impact on firm performance is detrimental. So, it is at the discretion of firms and regulatory authorities to provide efficient oversight for socially responsible practices to ensure effective firm performance.

Finally, board characteristics do not moderate the relationship between CG mechanisms, CSR practices and firm performance. Referring back to the independent board characteristics, only board diversity is negatively and significantly related to firm performance, whereas board size and board independence are insignificantly related to firm performance. The insignificant moderating effect connotes that board characteristics (except board diversity) are neither the predictors of firm performance nor they significantly moderate the relationships between governance mechanisms, corporate social responsibility practices and firm performance.

These findings have significant implications for SC Malaysia as it repeatedly provides guidelines (MCCG 2000-2017) for strengthening the board composition and enhancing their roles in the listed firms of Malaysia. Empirically, results reveal insignificant moderating as well as direct effects of board characteristics on firm performance implying that despite continuous amendments and guidelines provided by SC Malaysia, there are discrepancies in terms of compliance and practice. It is prime responsibility of regulatory authorities and policymakers of Malaysia to figure out the compliance of Malaysian listed companies for several guidelines provided by SC Malaysia in the form of repeated corporate governance codes.

#### **6.4 Limitations of the Study**

This study aimed to investigate the joint impact of corporate governance mechanism and corporate social responsibility practices on the performance of Malaysian listed companies during 2006-2017. Moreover, the moderating effect of board characteristics has also been examined on the given relationships. This study considered only the data of one emerging economy such as Malaysia and did not consider the data of other emerging economies to test same relationships.

In addition, the study is limited to few internal governance variables (CEO duality, CEO remuneration, directors' remuneration, risk management committee attributes and board characteristics) and certain external governance variables (ownership structure variables). Moreover, the study has taken five CSR indicators to verify the impact of corporate

social responsibility practices on firm performance while other dimensions such as supplier relations, investor relations etc. are not considered.

It is analyzed in each corporate governance code that the Securities Commission Malaysia has stressed on four main aspects of corporate governance such as board composition, remuneration, audit committee, and internal monitoring and control function; however, each code did not provide guidelines for ownership structure variables. So, the study did not find any policy implications for external governance mechanisms as regulatory authorities did not highlight the specific proportion of shareholdings (blockholders, directors, and investors etc.) to listed firms of Malaysia to practice corporate governance effectively as it is being practiced in the developed countries. Hence, the study is limited to provide practical insights for internal governance mechanisms and CSR practices and certain policy implications have been provided for external governance mechanisms. Meanwhile, the study is limited to examining the moderating effect of board characteristics on CG-CSR and performance relationship. However, other governance or CSR practices are not considered in investigating the moderating effect.

## **6.5 Recommendations for Future Research**

Based on research limitations, it is suggested that data of other developed and emerging economies can be included for producing diverse results of the mentioned relationships due to different economic backgrounds and state of development. Moreover, the study considered three accounting based measures and one market based performance measure;

for future research, other financial ratios such as Price Earnings Ratio, Dividend Yield, Return on Capital Invested etc., can be included for assessing performance with diverse perspectives.

Additionally, the study used S-GMM for producing unbiased regression results for examining the joint impact of CG mechanisms and CSR practices on firm performance and for investigating the moderating effect of board characteristics on the given relationships. In future research, other econometric techniques can be employed on the dataset. Moreover, other internal governance mechanisms such as audit committee attributes can be added for future research purpose. In the same way, external governance attributes such as market for corporate control can also be examined in future. Correspondingly, indices of CG mechanisms and CSR practices can be developed and then their joint impact on firm performance can be examined. Finally, for understanding the moderating effect of board characteristics, certain other governance mechanisms and CSR practices can be opted.

## **6.6 Conclusion**

This study attempts to investigate the joint impact of corporate governance and corporate social responsibility practices on the performance of Malaysian listed companies during 2006-2017. In addition, the moderating effect of board characteristics has also been examined on these relationships. Based on the empirical results, the study concludes in the following manner,

1. Out of external CG mechanisms, none of the ownership structure variable (ownership concentration, director ownership, and institutional ownership) found significant with firm performance. The study inferred that there should be no relationship between there should be no relationship between ownership concentration and firm performance as the ownership structure will balance the advantages and disadvantages of the firm's shareholders (Al-Saidi & Al-Shammari, 2015). Moreover, elevated firm performance is associated with external factors and it does not matter whether the firm with high concentrated ownership is more efficient than a firm with dispersed capital (Zouari & Taktak, 2014).
2. Alternatively, director ownership is positively and insignificantly related to firm performance due to lower percentage of shares held by the directors and their spouses and children. The lower percentage (11.48 percent) is in accordance with the argument of Gorton and Rosen (1995) where less than 15 percent director shareholding is considered as low and is not enough to induce directors to align their interests with the interests of other shareholders.
3. Considering insignificant impact of institutional ownership on firm performance, the argument of Woidtke (2002) is embraced where the author asserts that institutional investors are not a homogenous group – the strategy and monitoring by institutional owners depends on the scheme they follow and the remuneration plans for their executives. Additionally, institutional investors differ in terms of their activism and engagement in monitoring which determines their impact on firm performance (Aluchna & Kaminski, 2017).

4. Meanwhile, CEO duality is found negative and significant with firm performance embracing the predictions of agency theory which asserts that agency problems arise when the same person holds two positions on the board; leading firm towards declined performance, and ultimately raising conflict of interest. In Malaysia, it is stressed that listed firms must comply with the guidelines given by Securities Commission Malaysia to avoid practicing CEO duality to reduce its detrimental impact on firm performance.
5. The study found an insignificant and negative impact of CEO remuneration with firm performance indicating that despite high remuneration packages received by CEOs, they are unable to leave a significant impact on firm performance. Furthermore, informal employment security networks by dominant Malaysian business groups make these CEOs more influential in setting their own pays in spite of their performance (Elsayed & Elbardan, 2018).
6. Besides, directors' remuneration is found significant and negative with firm performance focusing on the issue of agency costs arising due to divergence of interests between directors and management. Moreover, remuneration of directors' must be based on their performance, not on their ranks or posts. Thus, Securities Commission Malaysia must provide the appropriate proportion of remuneration patterns to Malaysian listed firms so that the value declining impact of directors' remuneration on firm performance is minimized.
7. Referring to the risk management committee attributes, RMC size is positively and significantly related to firm performance implying that risk management committee with three board members acts as a function to mitigate the agency issues between

- shareholders and management while efficiently performing the tasks associated with the firm's risk management department. However, SC Malaysia must make it mandatory for listed companies to establish risk management committees with three board members so that their impact on firm performance is highlighted.
8. Alternatively, RMC independence is negative and significant with firm performance indicating that RMC independence brings costs to the firm in the form of intense monitoring and not providing strategic advice to the risk management committee. For SC Malaysia, it is necessary to provide the appropriate percentage of independent directors on an RMC so that non-financial firms gain benefits of the advisory role of independent directors.
  9. In this stream, RMC meeting is positively and significantly related to accounting based performance measures, claiming that the meeting provides a good opportunity to openly communicate, discuss, and achieve common objectives in risk oversight and control. Additionally, meeting is the indication of the amount of effort of a committee directed to accomplish the tasks and responsibilities entrusted. Reiterating, SC Malaysia must devise the number of risk management committee meetings for listed firms in order to enhance the profitability as well as the market returns of firms.
  10. Out of board characteristics, all are found negative with firm performance, but the relationship is significant with board diversity only. For board size and board independence, it is highlighted that when boards get beyond seven or eight people, they are less likely to function effectively and are easier for the CEO to control (Jensen, 1993). However, due to dominance of family members in Malaysian corporate boards, the role of board size becomes irrelevant in decision-making

- process that leaves an insignificant impact on firm performance. For board independence, it is indicated that in Malaysian listed firms there is approximately 50 percent board independence but their insignificant impact on firm performance reveals that independent board of directors are neither performing their roles as effective advisors nor as efficient monitors to oversight the functions of management.
11. Moreover, board diversity is negatively and significantly related to firm performance consistent with the arguments of agency theory greater gender diversity on board brings intra-group conflicts and causes ineffective decision-making process (Darmadi, 2013). In Malaysia, the negative relationship between board diversity and firm performance refers to the lower percentage (8.52 percent) of female directors on boards. Furthermore, most of the female directors in Malaysia are spouses or daughters of the owners of the firms and do not have a substantial corporate background, they are likely to increase agency costs for the firms and delay decision-making process which negatively affects the performance.
12. Concerning CSR practices, marketplace practices are positively associated with firm performance parallel to the arguments of risk management perspective where it is argued that CSR engagement will create moral capital for firms (Godfrey, Merrill, & Hansen, 2009) and this moral capital provides an insurance-like value to shareholders (Godfrey, 2005) that ultimately increases firm performance. In Malaysia, affirmative actions taken in marketplace activities by managers of Malaysian listed firms, while mitigating the risks associated with firms brings enhanced firm performance.
13. In reference to other CSR dimensions of the study, environment, community, and workplace practices of CSR are negatively and significantly associated with

accounting based performance measures embracing agency cost argument where firms face trade-off between social responsibility and firm performance, placing them in a disadvantageous cost position incurring agency costs where managers attain private benefits from building the reputation as good social citizen at the expense of shareholders. Thus, CSR practices have value-decreasing impact in the face of high level managerial entrenchment where managers overinvest in CSR activities for their personal benefits to camouflage their corporate misconduct (Byron & Post, 2016; Harjoto & Jo, 2011). In the Malaysian context, managers of listed firm tend to overinvest in CSR activities and prefer personal benefits than the benefits of the firms. Hence, Bursa Malaysia must monitor the firms to investigate the over-investment in the projects and activities related to CSR.

14. Overall, only marketplace practices of CSR are positively associated with firm performance inferring that CSR dimensions are positively related to performance below 50 percent; when the percentage exceeds 60 percent the impact of CSR activities on firm performance becomes negative. And, at a higher level of CSR practices, the relationship between CSR practices and firm performance becomes insignificant.
15. As far as moderating effect of board characteristics is concerned, none of the board characteristics showed significant results with governance mechanisms, CSR practices and performance relationships implying that board characteristics are neither good predictors of firm performance (except board diversity) nor they moderate the CG-CSR and performance relationships.

16. For analysis purpose, the study employed dynamic estimator (S-GMM) to avoid dynamic endogeneity problems in CG-CSR-performance relationships. Theoretically, most of the relationships embrace the predictions of agency theory. And, practically, the results have significant implications for Bursa Malaysia, Securities Commission Malaysia, policy makers, regulatory authorities of Malaysian State, top management and board of directors of Malaysian listed companies, investors, and stakeholders.

Overall, results of the study are empirically and theoretically supported, but there are certain relationships that showed insignificant results with firm performance. Finding of such relationships re-highlight the question whether governance mechanisms and corporate social responsibility practices jointly impact firm performance. In addition, the insignificant moderating effect of board characteristics raises the questions of compliance with the corporate governance codes (MCCG 2000-2017) by Malaysian listed firms that left researcher perplexed whether sound corporate governance mechanisms and effective corporate social responsibility practices prevail in Malaysia. Yet, the findings of the study are important for academia, policymakers, regulatory authorities, and Malaysian listed firms to observe the value enhancing (declining) impact of governance mechanisms and CSR practices on firm performance.

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## APPENDIX A

### ESG Investing in Malaysia

Environmental, social, and governance factors, collectively known as ESG factors, is a term used in the capital markets to refer to a company's non-financial performance. In 2006, the United Nations Environment Program Finance Initiative and United Nations Global Compact, investment industry, and intergovernmental and governmental organizations collaborated to create the United Nations Principles for Responsible Investment (UN-PRI). The goals of the UN-PRI are to understand the implications of ESG and to support investors in integrating these issues in their investment practices (UN PRI, 2015). UN-PRI requests investors to consider ESG issues when evaluating the performance of any company (Caplan, Griswold, & Jarvis, 2013).

Investors and stakeholders are concerned about the ESG factors of a company to know where the company invests money and how the company conducts business. The environmental concerns of investors and stakeholders, for instance, are natural environment protection, climate change, and environmental impacts arising from a business operation. The social factors important to stakeholders are human rights, equality, diversity in the workplace, and contribution to the society. Some of the concerned governance issues are ownership structure, board independence, equitable treatment of shareholders, minority shareholders' rights, transparency, and disclosure of corporate information (Atan, Alam, Said, & Zamri, 2017). Malaysia is an emerging economy that has targeted to achieve vision 2020 to become a developed nation by the year 2020. Therefore, the government of Malaysia has been steadily encouraging companies to exercise good corporate governance and place adequate emphasis on the issues related to corporate social responsibility.

In 2014, the Government of Malaysia launched the ESG index established by Bursa Malaysia known as FTSE4Good Bursa Malaysia (F4GBM) index in alliance with Financial Times Stock Exchange as part of the worldwide FTSE4Good Index Series and also aligned with other leading global ESG frameworks such as the GRI and the Carbon Disclosure Project (The Star, 2014). Currently, the index has 71 constituents compared with 24 when it was launched in 2014 (Subramaniam, 2020). Moreover, in Malaysia, ESG adoption began taking shape in 2018 as some of the country's large asset owners, namely the Employees Provident Fund, Kumpulan Wang Persaraan and Khazanah Nasional Berhad became signatories of the UN Principles for Responsible Investment, demonstrating their commitment to responsible investments to advocate for a more sustainable financial system.

Comparing to its other Asian counterparts, Malaysia is outperforming in ESG investing where Bursa Malaysia CEO Datuk Muhamad Umar Swift mentions that public-listed companies of Malaysia with market capitalization of RM2 billion and above have shown compliance level of 91% for sustainability disclosures with voluntary announcements and

disclosure of information (The Star, 2019). As such, there is also growing recognition among asset owners and investment managers of the financial merits of ESG Investing. Public equities and indices that consisted of ESG-compliant companies largely performed at par with the benchmark index over different investment periods. Another study by Deutsche Bank found that 89 percent of these had observed companies with high ESG ratings outperformed the market. Reliable empirical evidence has emerged that companies with better ESG practices are more profitable, trade at premium valuations to competitors, and are associated with long-term financial value creation.

Brighter financial prospects and outcomes are not just the only factors driving this push towards greater integration of ESG into business practices and investments strategies – investors belonging to specific demographic groups are also increasingly asking for investments that are good for both the society and environment, and their portfolios. For instance, millennials are twice as likely to invest in companies or funds that target social or environmental outcomes. About 35 percent of Asia's wealth will be in the hands of millennials in the next five to seven years, the highest rate of change in any global region. Controlling a greater share of wealth will allow today's millennials to advance the ESG Investing agenda. Further, gender also has a key role to play in this regard. Four in five (80 percent) women are observed to be keen investors in ESG as opposed to 60 percent of men, and the trend will continue with woman's rising financial independence. Employees have also started expecting their companies to disclose their sustainability initiatives and performance, in addition to incorporating ESG policies into the companies' investment processes (Oliver Wyman, 2018).

Although the Global Sustainable Investment Alliance (GSIA) states that assets managed under responsible investment strategies remains very low in Asia ex-Japan at only 0.8 per cent of total assets under professional management, well below Europe's 53 per cent, the region presents significant growth opportunities for sustainable investments in the coming years. ESG investing is becoming increasingly relevant and appealing due to the region's urgent environmental concerns. Asia's government pension funds are taking the lead to integrate ESG principles in their investment process.

The active engagement of government pension funds and sovereign wealth funds offers a big boost for ESG investing across Asia. According to the CFA Institute, Asia's current ESG assets under management reached US\$500 billion, accounting for 2.2 per cent of the US\$23 trillion ESG assets managed globally. Japan accounts for about 90 per cent of Asia's ESG assets under management and other Asian countries are expected to catch up on sustainable investments. ESG assets under management in Asia ex-Japan are estimated to reach US\$52 billion, mainly led by Hong Kong, South Korea and Malaysia (BusinessTimes, 2018).