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THE EFFECT OF BOARD OF DIRECTORS AND AUDIT COMMITTEE CHARACTERISTICS ON FIRM PERFORMANCE: EVIDENCE FROM MALAYSIA

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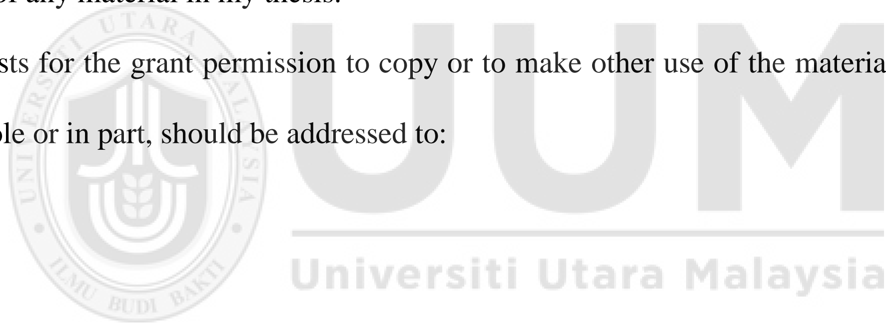

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ABSTRACT

Corporate governance issues are under the attention of the researchers for over three decades due to the increasing global economic crisis. Hence, this study attempts to contribute towards literature by investigating relationships of corporate governance and firm performance in Malaysia as a developing country. In particular, the study investigates the relationship between the board of director's characteristics and the audit committee characteristics and the performance of non-financial listed companies (excluding financial companies) in Malaysia for the two years (2014 and 2015). The model of this study is theoretically based on the agency theory. To examine the conceptual model, the required data were gathered from the annual reports of top 100 non-financial listed firms in Malaysia. In analyzing the data, this study utilized the liner multiple regression by taking the sample of 100 companies with 200 observations in order analyze the relationship between board of director's characteristics and the audit committee characteristics and the performance (ROA and Tobin`s Q). Moreover, this study used firm size and leverage as control variables. Based on the liner multiple regression results that was used to examine the effect of the predictors of the firm performance measured by Return on Assets (ROA) and Tobin-Q. The statistical results showed that board size and foreigner board members were a positive determinant of Tobin-Q. While, the government link of board members was negative determinants of Tobin-Q. On the other hand, the government liking of the board and the audit committee meeting were negative predictors of ROA. While, the board size was a positive predictor of ROA. Besides providing suggestions for future research directions, this study also provides several recommendations for regulators, companies, stakeholders and in particular, the shareholders.

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Keywords: corporate governance, firm performance, Malaysia, board of directors' characteristics, audit committee characteristics.

ABSTRAK

Isu-isu pentadbiran korporat berada di bawah pemerhatian penyelidik selama lebih tiga dekad yang lalu akibat krisis ekonomi global yang semakin meningkat. Oleh itu, kajian ini bertujuan untuk menyumbang ke arah sastera dengan menyiasat hubungan pentadbiran korporat dan prestasi firma di Malaysia sebagai sebuah negara yang membangun. Khususnya, kajian ini mengkaji hubungan antara ciri-ciri lembaga pengarah dan ciri-ciri jawatankuasa audit dan prestasi syarikat yang tersenarai sebagai bukan berkewangan (tidak termasuk syarikat-syarikat yang berkewangan) di Malaysia selama dua tahun (2014 dan 2015). Model kajian ini adalah secara teori berdasarkan teori agensi. Untuk memeriksa model konsep, data yang diperlukan telah dikumpulkan daripada laporan tahunan sebanyak 100 syarikat yang disenaraikan sebagai syarikat bukan berkewangan di Malaysia. Dalam menganalisis data, kajian ini telah mengunakan regresi liner dengan mengambil sampel 100 syarikat dengan 200 pemerhatian untuk menganalisis hubungan antara ciri-ciri lembaga pengarah dan ciri-ciri jawatankuasa audit dan prestasi (ROA dan Tobin`s Q). Berdasarkan liner berbilang hasil regresi yang telah digunakan untuk mengkaji kesan ramalan prestasi firma yang diukur dengan Pulangan atas Aset (ROA) dan Tobin-Q. Keputusan statistik menunjukkan ahli kepada saiz papan dan papan asing adalah penentu positif Tobin-Q. Walau bagaimanapun, sambungan kerajaan daripada ahli lembaga pengarah adalah penentu negatif Tobin-Q. Sebaliknya, keinginan kerajaan lembaga dan mesyuarat jawatankuasa audit adalah peramal negatif ROA. Manakala, saiz lembaga adalah peramal positif ROA. Selain menyediakan cadangan untuk ke arah penyelidikan masa depan, kajian ini juga menyediakan beberapa cadangan bagi pengawal selia, syarikat-syarikat, pihak berkepentingan dan khususnya, para pemegang saham.

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Kata kunci: pentadbiran korporat, prestasi firma, ciri-ciri lembaga pengarah, ciri-ciri jawatankuasa audit Malaysia.

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LIST OF ABBREVIATIONS

Abbreviation	Description of Abbreviation
CG	Corporate Governance
BOD	Board of Director
AC	Audit Committee
MCCG	Malaysia Code on Corporate Governance
ICG	Implementation of Corporate Governance
CEO	Chief Executive Officers
ROA	Return on Asset
BS	Board Size
BI	Board Independence
BM	Board Meeting
BC	Board Commitment
BG	Board Gender
FB	Foreigner Board
PCB	Professional Certification of Board
GLB	Government Link of Board
ACS	Audit Committee Size
ACI	Audit Committee Independence
ACM	Audit Committee Meeting
ACC	Audit Committee Commitment
FAC	Foreigner Audit Committee

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FEAC	Financial Experts of Audit Committee
OECD	Organization for Economic Cooperation and Development
FIRMSIZE	Firm Size
UK	United Kingdom
U.S.A	United States of America
VIF	Variance Inflation Factor
MLR	Multiple Linear Regressions

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

The current competitive global business environment faced by business organizations has increased their effort to achieve high growth to attract investors who will be willing to finance future expansion plans of their organizations. On a general note, the decision to invest in a venture are mainly influenced by the ability of the business to remain stable and to generate profits (Mallin, 2007). This accounts for the inability of deteriorating businesses to raise funds for their investment projects. This situation can affect not only the specific business organizations but also the overall economic performance. To safeguard and protect the corporate business environment, governments throughout the world have been increasing effort on the implementation of effective corporate governance mechanisms. In accord to Organization for Economic Cooperation and Development (OECD), "good corporate governance is essential for the economic growth led by the private sector and for the promotion of the social welfare". In review, effective from 1997, i.e. from the era of Asian financial crisis, corporate governance has attracted new understanding as the legislations and institutions that regulate the business governance's as well as the relationships between corporations and government.

To ensure sustainability of an organization, chief executive officers (CEO) together with board of director's (BOD) members should emphasize more on corporate governance mechanisms. Generally, corporate governance has been acknowledged as an important

set of procedures employed by the CEO and the board members. They watch the practices within an organization to ensure effective decision-making that had been allow the organization to achieve its goals of the maximization of the shareholders' benefits. Therefore, efficient and effective governance of the corporation is important for the protection of the interest of different stakeholders such as shareholders, employees, customers, suppliers. Corporate governance also assists the government in ensuring effectiveness in enforcing the accountability of firms (Vinten, 1998).

Among corporate and academic practitioners, corporate governance has become an important issue. This concentration in business world arises from perceived significance of moral and ethical behavior in business, and this builds an overall atmosphere (environment, both legal and social) endorsing good corporate governance. In academe, it's evident that decisions for business are certainly not built in without recourse to procedures. Strategic decision makers look at wider goals rather than just business objects. For instance, managers are more interested in their individual goals and satisfaction levels rather than their subordinates or community benefits. Corporate governance, as a mechanism, has been hot topic to past and recent literature as they want to lower these conflicts between management and the investors interests.

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Therefore, CG is in place and it intends to safeguard the owner's capital from selfish conducts of managers (Pandya, 2011; Pfeffer, 1972; Shleifer and Vishny, 1986; Jensen and Meckling, 1976; Abdurrouf, 2011) and to guarantee them that managers acts in the vested interests of the shareholder and stakeholders. Furthermore, this CG function and related regulations has gained global attention since it improves the whole economic

efficiency to attain and align benefits of the individuals with firm's stakeholders (Hsu and Petchsakulwong, 2010; Saibaba and Ansari, 2011; Bozec, 2005). Similarly, investors (both foreign and local) had been be fascinated with companies who practice corporate governance. The appropriate maintenance of the Corporate Governance Code had been proactively stop any financial clashes as well as diminish fraud and any malpractices. This had been improved the overall firm growth that ultimately contributes in enhancing the country's general economic growth and development (Al-Matari et al., 2012a).

Malaysia redrafted the MCCG 2000 in 2007 in line with domestic and international market developments. The code MCCG 2007 was focused on addressing the functions of board of directors and audit for companies. The code made clarifications on directors' role alongside their entitlement and eligibility criteria for appointment. Additionally, the code suggested the creation of an internal audit role as a function and asked to directly report audit committee to guarantee independence. Furthermore, the code provided for the formation of an audit committee as well which should be comprised exclusively of non-executive directors. Moreover, it was suggested that all audit committee members must be able to evaluate and understand financial statements so they can effectively execute their responsibilities (MCCG 2007).

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The Global Financial Distress of 2007-2008 hit significantly the major economies of the world including Malaysian and faced the sharp decline in their stock markets that can be seen by 670 points decline in the index of Malaysian stock market (Bursa Malaysia) which in turn equaled to 45 % of its total capitalization. In accord to Angabini and Wasiuzzaman (2011), It can be considered the major fall after the Asian Financial

Distress (1997) in the country. As a result of this situation, corporate governance weaknesses were clearly visible after the financial distress in Asia countries including Malaysia. Asian Round Table on Corporate Governance recommended for the improvement of structure of governance and to find improved ways to overcome the weaknesses (OECD, 2011). Moreover, corporate frauds and poor performance of Kenmark Industrial Co Ltd. (2010), linear corporation (2008) and Sime Darby (Sime) (2010) in post implementation period of MCCG 2007 demanded more for the improvement of Malaysian CG code (Satkunasingam et al., 2012). Corporate governance Blue print was issued in July 2011 by Securities Commission Malaysia was an effort to improve governance structure of the country. This blue print provided the foundation for the introduction of latest MCCG 2012 in March 2012 (MCCG, 2012). Main issues focused in that particular code were independence of the board among others, with expectation for the improvement of financial performance in Malaysian's listed companies, that issue is still needs to explore.

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Since 2000, three CG codes in Malaysia were introduced and implemented MCCG 2000, 2007 and 2012 till date. Some researchers examined the firm's financial performance and its effect on the past two CG codes on firm before and after the implementation of the code (Noor and Fadzil, 2013). A pre-and-post analysis of MCCG 2000 found no evidence regarding the code and its impact on the performance of the firm in pre-ICG (Implementation of Corporate Governance). However, the post-ICG period revealed the positive relationship with the firm performance (Saad, 2010). The effect of MCCG 2007 practices particularly, independence of the board of directors, board expertise and expertise of the audit committee and its impact on the financial performance of

Malaysian Government Linked companies (GLCs) before and after implementation context. The outcomes of the study provided empirical evidence that only variable that is audit committee positively expertise influenced the GLCs financial performance in post implementation of the code. These results provided a foundation for the improvement and recommendations of new code (MCCG 2007) that all members related to audit committee should have ability and skills to do analysis, readability and understanding financial statements (Hamid and Aziz, 2012).

The relationship between independence of the board as suggested by the recently introduced CG code (MCCG 2012) was investigated by Rahman, Ibrahim, and Ahmad (2015)**.** The authors examined the common belief by examining the financial performance of the listed companies in Malaysia for the period from 2010 to 2013 in before and after adoption of the code. They also examined the effect of CG regulation (MCCG 2012) in particular, performance of the firm for the sample of 270 companies was tested by taking board independence (separate leadership structure, proportion of independent non-executive directors on the board and independent chairman) as independent variables, a stratified random from all divisions of the Malaysian economy with the exception of banks and insurance companies by using Ordinary Least Square (OLS). Results of the study found that the directions of MCCG 2012, particularly the independence of the board (separate leadership structure, proportion of independent directors and independent chairman) are not enforceable and solely depends on the discretion of the firm (comply or provide justification of non-compliance) and not became the compulsory listing requirements of Malaysian capital market yet. Thus, the

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outcomes of the research had been support to decrease the difference among MCCG 2012 and Bursa Malaysia compulsory listing requisites.

Numerous theories have been utilized and tested in examining the link that is between corporate governance and the overall organizational performance. Given that corporate governance is a vital issue in enhancing organizational performance, it is one of the main factors that may influence economic growth. For instance, one of the previous studies that established the link between firm's performance and corporate governance is the workout by Brown and Caylor (2004) that confirmed the positive link between factors such as the composition and characteristics of the board's members. As widely acknowledged, the main role of the board's members is to foresee the anticipated performance of the organization and formulate long-term strategic plans that enhance the overall organizational performance towards achieving its objectives.

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1.2 Problem Statement

Academicians and practitioners have attested to the significance of corporate governance as it relates to the performance of organizations in the developed countries. The attention given to corporate governance was due to the severe impacts of the financial crisis that occurred in different regions of the world due to foreign investors' retraction from some countries causing their collapse. The financial crisis in East Asian countries and the Latin America's meltdown that occurred in 1997 were glaring instances that could have been avoided if these countries were meticulous in implementing corporate governance provisions.

Moreover, investors worldwide lost faith in investment opportunities especially after the drastic collapse of well-known global corporations such as Enron crisis in the U.S.A in 2001 and the WorldCom in 2002. These crises were said to occur due to the inadequate, ineffective and inefficient corporate governance systems (Becht, Marco and Patrick, 2002). The case of Sunbeam in the U.S.A in 2001 is another instance of inefficient governance mechanism and its disastrous consequences on overall corporate performance. Enron default case, the former executive director of the company was accused of unlawful activities with the involvement of Arthur Anderson which resulted in the company incurring civil penalties. This further eroded investors' confidence and those of other stakeholders in the corporate financial system (Rice and Alabama, 2006).

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Corporate governance issues are not new as it has always been around since the emergence of modern corporations. However, the current increased attention to this issue is due to the series of CEO firings in the first half of 1990s and after the major defaults e.g. Enron and World.com in the early 2000s. The concern of corporate governance in Asia including Malaysia became the hot issue in the late 1990s after the Asian Financial Crisis in 1997. In recent years, the focus on the corporate governance has increased significantly due to major corporate defaults such as Adelphia (2002), Arthur Anderson (2001), Commerce Bank (1991), Enron (2001), Fanny Mae (2008), Global Crossing (2002), Goldman Sachs (2007), Harris Scarfe (2001), HIH (2001), Lehman Brothers (2008), Marconi (2005), Northern Rock (2007), One.Tel (2001), Tyco (2002), WorldCom (2002), Parmalat and Yukos in the U.S.A, European and others (Obiyo and Lenee, 2011; Jackling and Johl, 2009; Ii, Kankpang and Okonkwo, 2012).

The issue of Corporate Governance (CG) has been became a topical discussion among researchers in both industry and academia especially in the aftermath of the high-profile corporate collapses of Global Crossing Ltd., WorldCom Inc. (2002), and Enron Corp. (2001) in the USA in accord to (Petra, 2005). In reaction to downfall of major companies like Ahold, Enron and WorldCom, thorough enquiries were conducted about this matter and one of the important factors identified as the cause of the problem was the misrepresentation and manipulation of their financial statements. Therefore, much consideration is being paid to corporate governance to protect investors by guaranteeing ethical management practices (Jackling and Johl, 2009; Brown and Caylor, 2006; Bøhren and Strøm, 2010; Khanchel, 2007).

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Even though it's difficult to determine a causal link between CG and firm performance, it is generally believed that good governance results improved firms' performance (Young, 2003). However, experimental results vary on the relationship between CG and firm performance and are inconsistent (Ponnu, 2008). There have been positive findings with respect to relationship between them (Tham, Marn, and Romuald, 2012; Shukeri, Shin, and Shaari, 2012; AlMutairi, 2008), while others found no connection between two (Karpagam, 2013). However, few studies also established that the application and compliance with CG practices enhances firm performance (Noor and Fadzil, 2013; Velnampy, 2013; Klapper and Love, 2004; Nur'ainy, Nurcahyo, Kurniasih, and Sugiharti, 2013).

Between 1997 to 1998, the Asian financial crises enormously affected the economies of most Asian countries including Malaysia and this led to changes in the CG laws in these

countries. Thus, Malaysia as other Asian countries, among others proposals, introduced Malaysian Code on Corporate Governance (MCCG 2000) in 2000 which aimed at underpinning CG provision within the country. The presentation of MCCG 2000 was an official turn on for corporate governance codes in the country (Abdullah, 2004; MCCG, 2012).

In Malaysia, firm performance was largely affected by corporate governance and there were corporate failures which show the weakness of the corporate governance. This further shows that there is no single model that can be used for firm to improve the performance. The recent corporate scandals are not isolated cases. It is continuation from the past episodes that posed threats to the several nations. Some instances of the corporate governance failures at corporate level in Malaysia are Perwaja Steel Sdn. Bhd, Technology Resources Industries Berhad (TRI), Transmile and Megan Media. Additionally, there were failures in corporate governance even at the national level in Malaysia such as Malaysia Airline Systems (MAS) and Port Klang Free Zone (PKFZ) in accord to (Norwani, Mohamad, and Chek, 2011).

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According to the study of Nuryanah and Islam (2011), a higher Tobin's Q with a value greater than 1 suggests a high market value for the company's asset and growth. Moreover, firms have been found to increase their investment opportunities with a Tobin's Q of more than 1, indicating that management has performed well with the assets under its command and have higher growth potential (Eberhart, 2012; Lang & Litzenberger, 1989). However, the percentage of firm performance of the listed companies in Bursa Malaysia in 2010, 2011, 2012, 2013, 2014 and 2015 as measured by

Tobin Q was 66%, 69%, 69%, 64%, 66% and 63% respectively indicating the companies' poor performance as showed in Table 1.1.

With regards to the ROA, the firm performance is deemed poor if the ROA is negative. In the years 2010, 2011, 2012, 2013, 2014 and 2015, 16%, 15%, 17%, 16%, 18% and 19% respectively of the listed companies in Bursa Malaysia revealed negative performance based on the Return on Assets (ROA). This adverse performance has largely blamed many factors (Peng, Buck & Filatotcheve, 2003). It is argued that corporate governance practices were among the factors contributing to the performance of firms (Al-Matari *et al.*, 2012b: Alsaeed, 2006). Similar findings are those of the performance in 2015 is depicted in Table 1.1 as follows;

Table 1.1
Indicators of Poor Performance

Year	ROA	Criterion	Citation	Tobin-Q	Criterion	Citation
2010	16%	-	Peng et al. (2003)	66%	<1	Nuryanah and Islam (2011)
2011	15%	-	Peng et al. (2003)	69%	<1	Nuryanah and Islam (2011)
2012	17%	-	Peng et al. (2003)	69%	<1	Nuryanah and Islam (2011)
2013	16%	-	Peng et al. (2003)	64%	<1	Nuryanah and Islam (2011)
2014	18%	-	Peng et al. (2003)	66%	<1	Nuryanah and Islam (2011)
2015	19%	-	Peng et al. (2003)	63%	<1	Nuryanah and Islam (2011)

The effectiveness of CG practice is a function of the board where it has a vital role to play in a company, as its function is to manage and direct the management (Farrar, 2005: Nuryanah & Islam, 2011). It also plays a monitoring role since a separation exists between ownership and control within the company (Jensen & Meckling, 1976). Likewise, the board is also core to CG mechanisms and is considered as the main

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mechanism that shareholders can employ to control top management (John & Senbet, 1998).

The board is responsible for determining the overall strategy of the firm, and to assure sufficient administration for the protection of the shareholder value (Keenan, 2004). Practically, corporate boards allocate most of their duties to the management team, but hold the authority to hire, to compensate, and if needed to replace top executives (Fama & Jensen, 1983). The main responsibility of corporate decisions still remains with the board and it has a fiduciary duty to make sure that the firm is capable of withstanding any critical business conditions affecting its performance.

It is important to note that audit committee characteristics presumably, could continue to serve as the corporate regulators to ensure the management accountability and responsibility towards shareholders by ensuring that managers present true and fair view of the firms and avoid irregularities. Therefore, size, independence and meeting of the audit committee characteristics will serve as a good blend of CG structure in creating firm's performance. Previous studies revealed mixed findings concerning the relationship between committee characteristics and firm performance.

Due to the above inconsistencies noted in previous studies, this study had been re-examined the corporate governance impact on the performance of the firm. Moreover, because of extensive disagreement among previous research findings, this research aimed to fill the gap in the literature by executing the research on the relationship between corporate governance and firm performance in Malaysia.

1.3 Research Questions

Generally, the current study aimed to clarify the CG factors which affecting the performance of Malaysian firms. Specifically, the following part had been address the research question of this study:

1. What is the relationship between the board characteristics (board independence, board commitment, board gender, board size, foreigner board, professional certification, board meeting and government link) and performance of the Malaysian top 100 quoted companies?
2. What is the relationship between the audit committee characteristics (audit committee size, audit committee independence, audit committee meetings, audit committee commitment, foreigner audit committee and audit committee financial experience) performance of the Malaysian top 100 quoted companies?

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1.4 Research Objectives

With the intention to investigate the impact of the mechanisms of the corporate governance such as (BOD and AC) on the performance of firm (ROA and Tobin-Q), the following are the objectives of the study:

1. To examine the relationship among the board characteristics (size of the board, independence of the board, meeting of the board, board commitment, board gender, foreigner board, professional certification, government link) and firm performance for top 100 companies in Malaysian.

2. To investigate the relationship among the audit committee characteristics (audit committee size, audit committee independence, audit committee meeting, audit committee commitment, foreigner audit committee, financial experience of audit committee and firm performance for top 100 companies in Malaysian.

1.5 Significance of Study

This study had been contributed to the literature, as it is investigated crucial corporate governance variables with performance. Specifically, this study is significant in the following ways:

1.5.1 Theoretical Significance

Theoretically, the findings of this study had provided novel empirical insights in the domain of agency theory, more specifically on the influence of the board of director's characteristic on firm performance. Numerous studies have been conducted in the developed countries (Klapper and Love, 2004; Gompers, Ishii and Metrick, 2003; Kang and Zardkoohi, 2005) and developing countries (Limpaphayom and Comelly, 2006; Ahmadu, Aminu and Taker, 2005) which investigated the effect of fundamentals of corporate governance on the corporate financial performance. However, empirical evidence is still inadequate on some countries among the companies' financial performance and corporate governance.

This research has added to the numerous attempts to understand corporate governance in the literature. This section provided potential theoretical significance of the present study. So, this study elucidates on the understanding of the best practices of corporate

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governance structure among Malaysian listed companies. The study also investigated the corporate governance variables and their influence on the organizations performance and productivity. More specifically, it provided implications of the study for the benefits of financial practitioners (investors and creditors) and academics.

Furthermore, previous studies have focused only on the effect of board the characteristics such as board size, board independence and the meetings of the board on firm's performance (Abid, 2014; Azmi, Noor, and Fadzil, 2013; Carpenter, Boyd, Mccombs, Morgan, and Burnsid, 2015; Fairus, Rahim, Juhaida, and Fikhriah, 2015; Fooladi, 2012; Mohamed, Ahmad, and Khai, 2016; Molla, 2016; Rahman, Ibrahim, and Ahmad, 2015; Sulaiman, 2014; Tham, Marn, and Romuald, 2012). Thus, the present study also added new variables to the board of the directors' characteristics i.e. the board professional certification, the board commitment and the commitment of the audit committee. In addition, regarding the importance of the foreign member of the board, this study added this variable to the board of director and audit committee characteristics because it may enhance firm's performance.

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In addition, this study contributed to the performance of relevant business and business management in the context of Malaysian studies. In conducting this study, it is expected that the results can improve knowledge about the field of business management and performance of Malaysian companies. Proposed research may also be helpful in providing support to CG improvements to authorities, general public and investors on the corporate governance and corporate performance in Malaysia. In addition, this study seeks to fill the void or the gap in previous studies, highlighting all levels of government

of companies with specific qualifications in business management and addressing specific business problems.

1.5.2 Practical Significance

To the best researcher's knowledge and from practical perspective, empirical literature is yet to address issues concerning the relationship between CG practices (i.e., board of director characteristics and audit committee characteristics) and financial performance of the firm among listed companies in Bursa Malaysia. Furthermore, this investigation was carried out under the Malaysian business context, which is to some greater extent differs from studies conducted in other business settings. So, the practical contribution offered by the findings of this study had been being of great benefits to many stakeholders of Malaysian corporate organizations including regulators, investors, companies and even employers.

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This section addresses possible implications of this study for financial practitioners. The present study had been hopefully enhanced the practitioners' understanding the fundamentals of the corporate governance that influences firm's performance. This research had been an addition to academics' knowledge by providing evidence relating to corporate governance mechanisms and their influence upon the performance of the firm. The need to enhance firm's performance has motivated the significance of this study by determining factors that influence firm performance.

Malaysian policy makers need a framework to organize business organizations. In addition, the results of proposed research could be a helpful empirical evidence for

companies, politicians and authorities in Malaysia (e.g. CMA, Malaysian Organization of Certified Public Accountants) on the effectiveness of the board, audit committees and their impact on the company's performance to improve governance practices in Malaysia.

In addition, this study contributed to our understanding the best practices from the corporate governance structure of listed companies in Malaysia. Moreover, corporate governance variables that affect the performance and productivity of enterprises are identified. Specifically, this research is useful for both the financial practitioners (investors and creditors) and academics. Although for financial sector professionals, this research had been improved the knowledge of corporate governance mechanisms, which affects the performance of a company. Proposed reperch had been also contribute to the understanding towards the field research in that particular area regarding the additive empirical evidence of fundamentals of corporate governance and performance of the company. The importance of the proposed research comes from the need to know the factors that significantly affect the performance of the company.

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1.6 Scope of Study

As mentioned above, this study is limited to Bursa Malaysia as a mechanism to generate investment houses to stimulate economic development. The study was limited only among selected companies doing business in the nonfinancial sector on the main board of the Malaysia Stock Exchange in 2014 and 2015. Therefore, the corporate governance variables (board of directors' characteristics and audit committee characteristics) do concern that board meetings, board commitment, board size, board independence, board gender, foreigner board, professional certification of the board members, government link

of the board members, audit committee size, audit committee independence, audit committee meeting, audit committee commitment, foreigner audit committee, and financial experience of audit committee. Regarding the company's performance, this study focuses on asset return (ROA) and Tobin Q.

1.7 Organization of Study

The first chapter presented and introduced of the study. In this chapter, it presented the background of the research, the problem statement, the research questions, the research objectives, the importance and significance of the study, the scope of the study and the definitions of terminology were discussed and this chapter provides an overview of the organization study.

Chapter two provides a relevant literature overview. This chapter describes the definition and measurement of company performance, and the definition of corporate governance. Corporate governance (board and audit committee characteristics), company performance, and chapter summary are included. Third chapter explains methodology of the research, this chapter also includes the proposed research framework, hypotheses development, design of the research, data analysis and summary chapter. The fourth chapter focuses on analysis; this chapter provides an analysis of the data readers, as a part of fourth chapter, it also includes the multiple linear regression analysis, descriptive statistics, multiple regressions, correlation analysis and analysis of results and a summary for the chapter is provided. Chapter five, concludes the study. This chapter provides a summary of this research, particularly, its limitations and suggestions for future agenda of the research.

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1.8 Summary of the Chapter

Chapter one discussed the background of the proposed research and as a part of chapter one, highlighted problem statement. Moreover, chapter one accompanies the research questions, research objectives, scope of study and the organization of the research. Next chapter presents an overview of the relevant literature.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter consists of critically reviews previous literature on performance of the firm, corporate governance and the relationship between corporate governance (board of directors characteristics and characteristics of audit committee) namely, (board size, board independence, board meeting, board commitment, board gender, foreigner board, professional certification, government linking, audit committee size, audit committee independence, audit committee meeting, audit committee commitment, foreigner audit committee, and financial experience of audit committee) and firm performance (ROA and Tobin-Q). At the end this chapter had been described the summary as a conclusion.

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2.2 Firm Performance

In the literature firm performance or organizational performance is the most widely utilized outcome variable which can be explained simply as a measure of how well the firm is performing in comparison to a set of metrics. In academic literature, a widely-embraced practice is the use of operational indicators such as cost, quality, delivery reliability and flexibility as firm performance metrics (Li et al 2006; Koufteros 1995; Koufteros et al 1997; Krause et al 2007; Li et al 2005; Klassen and Whybark, 1999). Financial and market based indicators are also utilized to evaluate firm performance (e.g. Holmberg, 2000; Tan et al 1999; Huselid et al 1997; Baker and Sinkula, 2005). It is a widely accepted practice to evaluate firm performance in terms of its ability to create

competitive advantage (Li et al 2006). Successful organizations achieve competitive advantage by creating a defensible position over competitors (Li et al 2006). Thus, the attainment of competitive goals is a good index of a firm's performance. According to Anekal, (2014), Ycamin et al., 1999; Li et al., 2006; Koufteros, 1995; Koufteros et al., 1997; Krause et al., 2007; Baker and Sinkula, 2005, firm performance is defined as the extent to which the firm attains its competitive goals. Competitive goals are described in terms of the ability of the firm to provide value to the customer (Tu et al 2001) and value to other stakeholders of the firm itself. This had been enable the firm to grow and also ensure its financial sustainability (Tracey and Tan, 2001).

In their view, Iswatia and Anshoria (2007) defined firm performance as the functional ability of the business to acquire and manage diverse forms of resources in several different ways so as to gain a competitive edge over other organizations. Firm's performance had been divided into three categories by Thomas (2007); these are organizational effectiveness, oganizational financial performance, and organizational operational performance.

The measurement of performance states the effective and efficient actions measurements (Neely, Gregory and Platts, 1995). The performance measurement plays a vital role for the accounting and quantification differences in recent business management (Koufopoulos, Zoumbos and Argyropoulou, 2008). One more study by Bititci, Carrie and McDevitt (1997) presented that the organizations have process for the implementation of performance measurement according to the nature of organizational objective and strategies.

The firm utilized performance measurement for the sake of growth valuation, the frim can get vital information through measurements of performance such as progress report, performance management's monitoring, highlight issues and increase motivation level (Waggoner, Neely and Kennerley, 1999). Therefore, it is important for firm to calculate their performance level. Additionally, measurement of performance has great importance in performance management. For performance measurement, it is easy and simple approach to make quantify figures for conveying their actions and communication of complex realities (Lebas, 1995). It is considered as the successful measurement tool when complex realties can describe in easy and convenient way. Similarly, Bititci et al. (1997) stated the importance of performance management as the central point in the process of performance management and he mentioned that it is significant to provide efficient and reliable functions of performance management.

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Furthermore, firm value is taken as the positive wealth or benefit for the firm, it relies on the number of shareholders with high share amount (Rouf, 2011). The financial statements of company show the performance of company. Thus, companies had been emphasized on the disclosure quality by management (Herly and Sisnuhadi, 2011). For any company, performance management considered as a most significant tool for management effectiveness (Demirbag, Tatoglu, Tekinus and Zaim, 2006). It is not possible to measure methods and processes improvement without return measurement. Though, measure the performance level in organization is significant for utilization of resources identification during business performances (Gadenne and Sharma, 2002; Madu, Aheto, Kuei and Winokur, 1996).

Theoretically, the concept of performance established as strategic management's principal and evidently, most strategic studies utilized the construct of business performance in their attempt to investigate different strategy content and functional issues. In management, the importance of performance is evident through the many recommendations provided for performance improvement. Prior studies on governance along performance of firm is not perfect relationship without accounting variable additions. There are some single measurements which base on market or accounting have adopted in previous research.

Performance measurement varies widely in different fields. Although there are wide variations in measurements of performance with many of its related to different fields, this study tried to utilize the measurement concerning corporate governance. Based on literature and numerous articles that relate to corporate governance. This study provides firm performance measurement in different perspective.

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The widely used return on assets (ROA) and Tobin-Q are employed to measure the firm performance (Bhatt and Bhattacharya, 2015). After an extensive debate regarding research methods, some researchers have suggested that firm performance should be measured with Tobin-Q such as Bozec (2005), Deeksha and Ajai (2009) and Khan, Nemati and Iftikhar (2011). On the other hand, there are some authors who recommend the investigation of profitability variables on the corporate governance variables, like Khatab *et al*. (2011).

There are numerous empirical researches that have adopted accounting based measurements like ROA and market based measurement such as Tobin-Q. For example,

Lin (2011), Lin *et al*. (2011), Abdullah *et al*. (2008), Bektas and Kaymak (2009), Bhagat *et al*. (2011), Chowdhury (2010), Omran, Bolbol and Fatheldinc (2008), Douma *et al*. (2006), Kapopoulos and Lazaretou (2007), Garg (2007), Harjoto and Jo (2008), Heenetigala and Armstrong (2011), Bauer *et al*. (2009), Herly and Sisnuhadi (2011), Irina and Nadezhda (2009), Khatab *et al*. (2011), Kyereboah-Coleman (2007), Ehikioya (2009), Liang *et al*. (2011), Mandacı and Gumus (2010), Sánchez-Ballesta and García-Meca (2007), Sanda, Mikailu and Garba (2005), Najid and Abdul Rahman (2011), and Reddy *et al*. (2010). Based on the above evidences, the present study also measures performance by using both ROA and Tobin-Q.

2.3 Corporate Governance

Corporate governance is highly focused variable by researchers and practitioners in the business studies and scenarios from past recent years due to scams and worse incidences at high levels such as Asia financial crisis 1997, world's high ranked companies scams and again global financial crisis 2008. The definition of corporate governance is that, introduce a system for all business activities included external and internal which established through transparency and accountability for all stakeholders (Solomon, 2007). There is yet no universally accepted definition of corporate governance. However, most famous and well-known definition of corporate governance is "the system by which companies are directed and controlled" (Cadbury Committee, 1992).

Gregory and Simms (2006) presented four corporate governance principles includes equality, responsibility, accountability and transparency. Corporate governance continues to face serious challenges around the world with the emergence of corporate scams

mostly well-known included 2001 Enron and WorldCom in 2002. Consequently, it is believed that current corporate governance procedures are not sufficient for the whole control on management's attitude.

Moreover, corporate governance is defined by OECD which stated, "for the control and direction of business corporations, it is a system. Moreover, this system defines the roles and rights in corporations for different participants, (for instance, shareholders, stakeholders, and management) and identifies the methods and rules for corporate affairs' decisions. Through this system, the company defines their objectives and sources to achieve those objectives with performance monitoring" (OECD, 1999).

Furthermore, CG is defined by Denis and McConnell (2003) as a set of process, institutions and markets that affects the self-interest of the firm's controllers – those who make decisions concerning the firm operations that increases firm value of the owners. CG is also concerned with determining a solution to the issue surrounding the principal - agent relationship. The principal is the founder of the business hence, it seeks for ways to ensure that management activities are geared towards maximizing returns for them (Ehikioya, 2009).

From the review of numerous literature on previous definitions of CG, the present study agrees with and adopts the one provided by Santosh (2005) as explicated above. In other words, the present study agrees that CG refers to the construction and methods associated with the board of directors, investors, top management along with other participants and the objectives of ensuring responsibility and improvement of performance.

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CG has garnered a lot of attention in the circles of academics and business practitioners in the previous years, which resulted in the development and eventual laying down of fundamentals of practice, empirical studies and conceptual models (Lazarri *et al*., 2001). Proponents of CG contend that the stock price downfall, experienced by approximately U.S.A firms, in particular Adelphia, Enron, Parmalet, Tyco and WorldCom was as a result of weak governance (Chaghadari, 2011; Gompers, Ishii and Metrick, 2003). In Continental Europe, cases of Parmalat and Maxwell were said to be caused by inefficiency across the hierarchy, such as top management teams, CEOs, and chairperson resulting in a sudden financial crisis (Petra, 2005; Sussland, 2005; Rose, 2006; Clarke, 1998).

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In order to ensure success of firms, CG is a crucial component that guarantees accountability and responsibility and a set of principles that has to be adopted into the firm's every department. CG has attracted a lot of attention as it concentrates on the long-term relationship through checks and balances, incentives for managers and management-investors relations and most importantly, transaction relationships involving disclosure and authority (Imam and Malik, 2007).

The establishment of the CG committee improves the monitoring and supervisory role of the board over top management and executives. It provides new initiatives towards improving the boardrooms' governance structure and activities. As for director's remuneration, the CG committee makes sure that the directors are remunerated on the basis of good performance (Najjar, 2012).

The agency theory provided the premise on which CG originally stands. The agency theory covers investors, shareholder, manager, administrator and issues occurring as well as the issues attributed to the relations between those who are directly and indirectly associated with the company's affairs (Darwish, 2007). CG literature shows that the firm value mostly enhances by regulatory authority, suppliers, customers, board, creditors and management. Similarly, CG is considered as an umbrella concept which cover specific problems during communication among management, shareholders, stakeholders and board of directors (Abbott, Park and Parker, 2004). Moreover, according to Shleifer and Vishny (1997) CG involves the methods in which company funders ensure that they get adequate returns on their investment. Similarly, John and Senbet (1998) stated that CG involve all the stakeholders in the firm, and according to them it is a mechanism through which stakeholders' workout govern over firm insiders and management in a way that their benefits are properly endangered.

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In both developing and developed countries, CG literature shows that the firm value mostly enhances by regulatory authority, suppliers, customers, board, creditors and management. Similarly, CG is considered as an umbrella concept which cover specific problems during communication among management, shareholders, stakeholders and board of directors (Tricker, 1994). These results are consistent with Claudiu and Catalin's (2007) findings which shows that CG increase the market confidence in the firm and explains the stability and growth of company.

Furthermore, CG is a critical element of performance and the development of the country's economy (Ibrahim *et al*., 2010; Brava, Jiangb, Partnoyc and Thomasd, 2006).

Theoretically, good CG could be associated with high corporate value. Numerous studies found that for the purpose of effective corporate governance, the stakeholders are more persuaded to a pay premium at averages of 10 to 12% (Khanchel, 2007). Similarly, perfect CG can improve company internal monitoring, minimize self-centered behaviors, and lower the information asymmetry, thus it positively affects the delivery of high value information disclosure (Li and Qi, 2008). Furthermore, along with Magdi and Nadereh (2002), CG certifies that business works accurately and stakeholders are beneficiaries of a accountable return.

A benefit of CG is the fact that it ensures the equality of treatment to the entire shareholders including minorities and foreign shareholders. The former group needs protection from predatory actions or unlawful direct or indirect control. Stakeholders such as specific employees and their illustrative forms should also be allowed to express their concerns freely regarding unlawful and immoral performs to the board and their privileges should be protected in doing so. It is also the responsibility of CG to ensure the timely and accurate disclosure of information relating to the firm. Information must be organized and disseminated following high quality standards of accounting and financial as well as non-financial disclosure. Members of the board should take decisions on the right information, diligence and care is required and it is in the best interests of the shareholders. The board has the responsibility to ensure high ethical standards and to show commitment effectively to their responsibilities (Imam and Malik, 2007).

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Ultimately, good CG should be at the core of the organization as this would become entrenched in the organizational values. Commitment to the tenets of good corporate

governance fosters stakeholder assurance and attracts both local and foreign investors. However, for Malaysia, it is lacking in these aspects. Currently, the Securities and Exchange Commission (SEC) makes efforts to encourage listed companies to fulfill with the corporate governance rules and regulations in order to ensure that suppliers of funds get adequate and fair return on their investment. If any unlawful practice is discovered, listed companies are required to provide justifications.

In recent times, the relationship between corporate governance and firm performance is one of the most crucial focuses in the globe particularly in Malaysia. In this section, some mechanisms that play important role in board of directors' characteristics such as: board size, board independence and board meeting are discussed. Above said variables are the main in reflecting the firm performance in the emerging countries (Young, Ahlstrom, Bruton, Peng and Jiang, 2008; Nuryanah and Islam, 2011). According to the preceding studies regarding the association amid board of director's characteristics and firm performance, the findings are very much inconsistent. It is also evident that no study (to the knowledge of the researcher) has studied some of the variables between CG and firm performance. The current study is the original study to add some variables to the CG structure, including board commitment, professional certification and audit committee commitment. Moreover, it includes new variables to the corporate structure, including professional certification and audit committee commitment. Furthermore, previous studies are yet to examine foreign member of the board and its relationship with firm performance. Thus, this study investigates the relationship between foreign member on the board and firm performance.

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In light of these findings, these variables are essential for improving performance, providing new insight and innovation. The next part reviews board of directors' characteristics, such as, board size, board independence and board meeting. Due to the above explanation in the first chapter on weaknesses and inadequacy of relevant literature, companies have been trying to improve the performance by improving the application of CG in the Malaysian companies. This study tries its best to fill the gap in previous studies by investigating some of the factors that are very crucial in improving and developing the application of CG in the Malaysian companies and eventually to improve corporate performance. Consequently, attracting new investors had been help the country's economy to prosper. Therefore, it is very useful to add some variables to the board of director's characteristics such as Professional certification as follows:

2.3.1 Board of Directors Characteristics and Firm Performance

In this section, some mechanisms that play a vital role in board characteristics such as: board size, board independence and board meeting are discussed. These variables are very important in reflecting the performance of firms in the developing countries (Nuryanah & Islam, 2011; Young, Peng, Ahlstrom, Bruton & Jiang, 2008). Based on the prior studies concerning the association between board characteristics and firm performance, the findings are still inconclusive. The current study is the pioneering study to add some variables to the board structure, including board commitment, and professional certification of board members. Furthermore, there is lacking in previous studies to examine foreign member of the board with firm performance. Thus, this study investigates the relationship between foreign member on the board and firm performance.

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2.3.1.1 Board Size and Firm Performance

The size of the board measured by the number of directors is a very important indicator of its effectiveness. Board size increase is likely to improve board's effectiveness in providing adequate support. It had been also assist in reducing agency cost that results from inefficient management of the corporation. This had been ultimately improved the financial results of the firm (Jensen and Meckling, 1976). Kyereboah-Coleman and Biekpe (2005) argued that the larger board sizes are better and had been likely enhance corporate performance. The possible explanation of this could be that the board may be comprised of members with more and diverse expertise and capabilities which could be utilized in undertaking vital decisions. In such circumstances, it had been harder for a powerful CEO to dominate the collective decisions of the board. The outcome could lead to improving governance, more especially in improving efficiency in company's management and enhancing its financial performance. Dalton and Dalton (2005) argued that apart from getting networking opportunities and access to higher resources, larger boards could benefit the company as it can serve as sources of advice and counsel. The diversity of the board can also be ensured through the enlargement of the boards such that the board can be composed of varieties of members with different experience, skill sets, gender, and race.

In contrast Jensen (1993) stated that boards of a director with larger number of members had been likely be ineffective due to the possibility that it had been be difficult for CEO to coordinate the activities the board. He further claimed that as the board gets too big, the difficulty in coordinating it activities had been arise which had been result in difficulty. The importance of smaller boards is that it reduces the possible occurrence of

free riding by individual directors and increases their participation in decision-making. Thus, De Andres et al. (2005) opined that the benefits that could be derived from better management control by the larger board can be offset by the impending problems relating to coordination, communication, and decision-making. The argument of De Andres et al. (2005) was further buttressed by Hermalin and Weisbach (2003) who emphasized that smaller board size leads to improved performance.

Gill and Mathur (2011) argued that larger board size is has an inverse relationship with firms" profitability. Abdul Rahman and Haneem Mohamed Ali (2006) investigated the degree of board efficiency in supervising function of the board of directors and reducing earnings management. The findings showed the positive influence of earnings management on board size. They further suggested that larger boards are inefficient in performing their duties than lesser boards. Anderson et al. (2004) found inverse influence of the independence of the board and board size on the cost of debt and this result is in line with the findings of Conyon, (2014) suggesting an inverse relationship. Cheng and Courtenay (2006) stated that firms with larger board size have a lower variability of corporate value, as such board sizes are negatively associated with corporate value. In contrast, Lin (2007) argues that a company with a high level of diversification on the board and debt leverage is positively related to board size. Thus, inconsistent findings have been found in the effect of board size on earnings management measures of firms.

Additionally, Vintil, Păunescu, and Gherghina, (2015) investigated the relationship between financial performance with corporate governance by consider 51 technology related companies as a sample which listed on NASDAQ and also Dow Jones index part

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within 2000-2013 time period. They took return on assets, Tobin-Q, return on equity and return on invested capital as a measurement of performance. This study determined the corporate governance through various factors included: board of directors' characteristics (such as gender, size, independence and advisory committee), shareholder structure (institutional investors shares and CEO shares), CEO characteristics (such as duality, tenure and age), and CEO remuneration (bonuses, stocks packages and base salary). Furthermore, this study analyzed the data through regression model which relies on generalized least squares (GLS), fixed effects and standard errors corrections for heteroscedasticity by White method. Results of this study expressed that corporate governance has mixed effect on financial performance.

This section sheds light on agency theory as mentioned above. Under the agency theory, the agency proponents argue that a board of smaller size with minimised monitoring duties encourages efficiency, strategic discussions, coordination and communication. With the increase in board size, conflicts of interest arise in decision-making and the majority of the members resort to becoming lazy and passive in their duties of providing resources (Abdurrouf, 2011; Jensen, 1993; Nanka-Bruce, 2011). In the same context, as Yermack (1996) stated, issues of communication, coordination and decision making hinder company performance with the increase in the number of directors. Hence, an additional member should be included on the board, a possible trade-off existing between coordination and diversity.

In empirical studies consistent with the agency theory, there are many researchers around the world who have investigated the relationship between board size and firm

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performance and they found a negative relationship between board size and firm performance in the developed countries such as Ben-Amar and Andre (2006), Florackis (2005), Gavrea & Stegerean (2012), Irina and Nadezhda (2009), Juras and Hinson (2008), Liang, Xu, & Jiraporn (2013), Nanka-Bruce (2011), O`Connell and Cramer (2010) and Yawson (2006). On the same path, in the developing countries, the relationship between the board size and firm performance has been found to be negative (Al Farooque, Zijl, Dunstan, Karim, 2007; Al Manaseer *et al*., 2012; Ali & Nasir, 2014; Al-Najjar, 2014; Amran & Che-Ahmad, 2009; Chechet, Jnr & Akanet, 2013; Garg, 2007; Haniffa & Hudaib, 2006; Ibrahim & Abdul Samad, 2011; Kota & Tomar, 2010; Lin, 2011; Mashayekhi & Bazazb, 2008; MoIlah & Talukda, 2007).

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Consistent with the prior empirical research and agency theory, numerous researchers round the globe had investigated the relationship between board size and firm performance and in the developed countries many of them found the inverse relationship between board size and firm performance (see for example, Gavrea and Stegerean (2012), O`Connell and Cramer (2010), Liang, Xu, and Jiraporn (2013), and Nanka-Bruce (2011)). The studies related to the developing countries, also found the inverse relationship between the board size and firm performance (see for example, Ali and Nasir, 2014; Chechet, Jnr and Akanet, 2013; Al Manaseer *et al*., 2012; Ibrahim and Abdul Samad, 2011; Kota and Tomar, 2010; Lin, 2011).

Finally, this section contains the empirical researches, that had found insignificant relationship between board size and firm performance the in developed countries (Abdurrouf, 2011; Aljifri and Moustafa, 2007; Al-Matari et al., 2012; Al-Matari et al.,

2012b; Al-Najjar, 2013; Bektas and Kaymak, 2009; Belkhir, 2005; Chaghadari, 2011; Chiang and Lin, 2011, Dar, Naseem, Rehman and Niazi, 2011; Ghabayen, 2012; Ghazali, 2010; Guoa and Kgab, 2012; Ibrahim and Abdul Samad, 2011; Ibrahim et al., 2010Latief, Raza and Gillani, 2014; Lin, 2011; Noor, 2011; Nuryanah and Islam, 2011; Prabowo and Simpson, 2011; Rachdi and Ameur, 2011; Stanwick and Stanwick, 2010; Vo and Nguyen, 2014).

2.3.1.2 Board Independence and Firm Performance

It is a major factor in influencing board independence or the degree to which board members is dependent on the organization. Christopher (2005) stated that independence of the board of directors is an added value to an organization as it increases the responsibility, allows critical judgment of self-governance, increase business network and connections between the board and executive, and moderates the power of the CEO and chairman of the board which in many companies is very powerful. Thus, when the non-executive or outside directors are independence from management, there could be the possibility of providing superior benefits to the firm. In addition to the requirement of MCCG that one third of the board should comprise independent directors, the board should include a number of directors which fairly reflects the investment in the company by shareholders other than the significant shareholder.

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Erickson, Park, Reising and Shin (2005), in their own study, found a negative effect of high board independence on firm value contrary to the study of Al-Najjar et al. (2014). Primarily, their work was conducted to investigate the influence of board composition on firm value with the integration of high ownership concentration among listed Canadian

firms covering the period of 1993-1997. It was found by their study that firms that increase the proportion of outside directors in the following year performed poorly in relation to others. Consequently, it was suggested that addition of outside directors who are officers in financial institutions to the board had been likely enhance the value of firms.

Ben-Amar and Zeghal (2011) studied the importance of the relationship between the board's independence and the transparency of executive remuneration disclosures in a sample of 181 Canadian companies listed on TSX by the Stock-Guide database using a comprehensive measure of board independence. The measure used nine variables and nine different industry sectors. The findings indicated a positive and significant association between the board of directors' independence and the transparency of executive remuneration disclosures. In essense, it means the independence of the board of directors curtails administrative opacity and promotes the transparency in the information disclosed with respect to the executive pay. In addition, these findings provide support that increasing the presence of independent directors on the board and its committees enhance its performance on the quality of information disclosed about compensation practices to external shareholders. In addition, the results showed that board independence has great impact in promoting its skillfulness for controlling managers in the design of executive remuneration packages through the disclosure about the compensation policies used by the board to reward executives.

Taghizadeh and Saremi (2014) investigated the impact of board of directors' characteristic (independent non-executive directors) on firm performance and the result

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showed that ROE effected through frequency of independent non-executive directors and suggest that high proportion of independent non-executive directors reduce the amount of ROE. Meanwhile, Nyamongo and Temesgen (2013) utilized two measures of performance, return on assets (ROA) and return on equity (ROE), and measure of governance, namely the independent directors. The study adopted a panel econometrics method to investigate the relationship between governance variables and bank performance. It found that the existence of independent board directors tends to increase the performance of the banks in Kenya. Additionally, Vintil et al. (2015) investigated the relationship between financial performance with corporate governance by consider 51 technology related companies as a sample which listed on NASDAQ and also Dow Jones index part within 2000-2013 time period. They took return on assets, Tobin-Q, return on equity and return on invested capital as a measurement of performance. This study determined the corporate governance through various factors included: board of directors' characteristics (such as gender, size, idependence and advisory committee), shareholder structure (institutional investors shares and CEO shares), CEO characteristics (such as duality, tenure and age), and CEO remuneration (bonuses, stocks packages and base salary). Furthermore, this study analyzed the data through regression model which relies on generalized least squares (GLS), fixed effects and standard errors corrections for heteroscedasticity by White method. Results of this study expressed that corporate governance has mixed effect on financial performance. Mostly, the stakeholders' perception influenced this relationship. Besides, there is positive impact of CEO remuneration on ROE and negative effect of CEO remuneration on Tobin-Q ratio. This study indicated elements of behavioral finance during results interpretations.

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The agency theory is based upon the notion that an inherent conflict exists between the interests of the firm's owner and its manager (Fama & Jensen, 1983). With regards to corporate governance, the agency theory indicates that sufficient monitoring mechanisms should be laid down to safeguard shareholders from management's selfish behaviours. Thus, the majority of external directors on the board are considered to have a positive effect on performance (Fama & Jensen, 1983; Jensen & Meckling, 1976; Shleifer & Vishny, 1997).

In the developed countries, several studies investigated the relationship among the board independence and firm performance and revealed positive findings. Several authors conducted studies related to this relationship such as Bozec *et al.* (2010)**,** Chamberlain (2010), Galbreath (2010), Heenetigala and Armstrong (2011), Liang, Xu, and Jiraporn (2013), Mahadeo *et al.* (2012), Müller (2014), Mura (2007), Nanka-Bruce (2011), O`Connell and Cramer (2010), Reddy *et al.* (2010), Saibaba and Ansari (2011) and Shan and McIver (2011). Moreover, many other authors in the developing countries found the same findings i.e. positive relationship between the board independence and firm performance such as Azam *et al.* (2011), Bozcuk (2011), Chiang and Lin (2011), Hsu and Petchsakulwong (2010), Khan *et al.* (2011), Nuryanah and Islam (2011), Uadiale (2010) and Zainal Abidin, Kamal and Jusoff (2009).

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Opposite to the agency theory, numerous empirical findings around the globe endorsed the negative relationship between the board independence and firm performance. In earlier researches that were conducted in the developed countries, a negative relationship between board independence and firm performance was found Jermias and Gani (2014),

Pan, Lin and Chen (2013Singh and Gaur (2009), Stanwick and Stanwick (2010) and Valenti *et al.* (2011). Similarly, another identical finding in the developing countries was demonstrated by Vo and Nguyen (2014), Ghabayen (2012), Noor (2011), Sahu and Manna (2013), Khan and Javid (2011), Sheikh, Wang and Khan (2013) and Chahine and Safieddine (2011).

Besides this, some researchers found insignificant association among the board independence and firm performance in the developed countries such as Bøhren and Strøm (2010), García-Sánchez (2010), Hu, Tam and Tan (2010), or developing nations like Al-Matari *et al*. (2012), Chowdhury (2010), Al-Matari *et al*. (2012b), Chugh *et al*. (2011), Ghazali (2010), Guoa and Kgab (2012), Ibrahim and Abdul Samad (2011), Kota and Tomar (2010), Ibrahim *et al*. (2010), Prabowo and Simpson (2011), Kumar and Singh (2012), Latief, Raza and Gillani (2014Noor (2011), Sahu and Manna (2013), Rachdi and Ameur (2011) and Pandya (2011).

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2.3.1.3 Board Meeting and Firm Performance

Due to the importance of board effectiveness on firm performance, many studies were conducted in various contexts in developed as well as developing countries in order to investigate this relationship. Finding from developed countries confirmed that the relationship between board meetings and firm performance was positive (Gavrea and Stegerean, 2012; Khanchel, 2007; Liang, Xu, and Jiraporn, 2013; Lin and Hu, 2002). In the same manner, studies conducted in the developing countries such as Sahu and Manna (2013), Khan and Javid (2011), Kang and Kim (2011), Hsu and Petchsakulwong (2010) and Kamardin (2009) also affirmed such positive association. On the contrary, some

studies such as Wu et al. (2007) and Garcia-Sanchez (2010) found negative influence of the board meeting on firm performance in developed countries. Such negative influence was also discovered in developing countries (Danoshana and Ravivathani, 2014; Kamardin, 2009; Noor, 2011). Nevertheless, some studies discovered insignificant relationship between board meetings and performance of firms (Gavrea and Stegerean, 2012; Kyereboah- Coleman, 2007; Noor, 2011). Additionally, (Taghizadeh and Saremi, 2014) study the impact of board of directors' characteristic (board meeting) on firm performance and found that ROE is influenced by frequency of board meeting and suggest that high rate of board meeting reduce amount of ROE.

The crux of the above particular discussion, it can be argued that there can be a negative association between frequency of board meetings and firm performance. However, the researches the found the evidence of negative association with respect to the developed and developing countries are still few. For instance, Danoshana and Ravivathani (2014), Noor (2011) and García-Sánchez (2010) concluded the negative relationship between the frequency of board meetings and firm performance.

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Finally, beyond from the advocates and point of view of agency theory, researchers in general had examined the relationship among the board meeting and firm performance. Their result found insignificant association among the above said variables (e.g. Gavrea and Stegerean, 2012; Noor, 2011).

2.3.1.4 Board Commitment and Firm Performance

Board commitment is anticipated to assist objectives attainment and resolve the problem in business. Attendance of board meeting is a task significance symbol and issues

detection then resolve the issues. It is also part of making effective decisions for objectives achievement. Similarly, meeting regularity enhance the confidence of investors because this is considered the sign of hard work and serious attitude towards achieving company goals and enhance investors share worth. The symbol of serious attitude, control, evaluations, excellence and eminence towards enhancing company and investor value is called commitment (Al-Rimawi, 2001). Agency theory stated that job separation increase the independency and provide certified right decisions. It introduces the monitoring transparency, accountability and stakeholders reporting within the corporation (Jensen and Meckling, 1976). Board commitment mirrors its members' eagerness to improve firm performance (Pfeffer and Salancik, 1978).

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Commitment in significant element in firm due to less board commitment, their process ignores and irresponsibility in task performance. Similarly, Cordeiro et al. (2007), Garg (2007), Shao (2010) and Sherman (2004) studied the relationship between board diversity (board commitment) and firm performance. While, Al-matari et al. (2014) inspected board commitment as a moderating variable on the relationship between corporate governance and performance. They create an unimportant moderating outcome on the relationship of performance and executive features (size, independence, and meetings). As noted by (Bhatt and Bhattacharya, 2015) in their study which examined the relationship between financial performance and internal governance structure of Information Technology (IT) sector in India. The study uses 114 listed IT sector firms in India from 2006 to 2011 as sample. At the end of the investigation, they found that the attendance of the board members was found to be positively associated with firm performance.

2.3.1.5 Board Gender and Firm Performance

Board gender diversity refers to the degree to which woman are incorporated on corporate sheets of chiefs or woman portrayal on board (Julizaerma and Sori, 2012; Dutta and Bose, 2006). Recently, it is an increasing part of corporate governance research, most practical research on the topic is constrained in developed countries (Kang, Cheng, and Gray, 2007; Gray, 2007). Empirical indication displays that the attendance of women director's position in board level has positive impact on numerous firms results. Thus, impact of gender diversity on firm performance has unpredictable results and provides option for research to empirical enquiry. Few studies show significantly positive effect of gender diversity on firm performance. In Malaysia, Julizaerma and Sori, (2012) approved a study which findings suggest that there is positive impact of gender diversity on firm performance (Return on Assets). Additionally, Fan (2012) conducted research on gender diversity and performance in Singapore in 390 different sectors samples from listed on the Singapore Exchange during 2002 – 2004. He found positive impact of board diversity on financial performance. The study utilized multiple regressions for analysis. Prihatiningtias (2012) follow a cross sectional time-series data, tried to examine the impact of the woman presence in the meeting room on firm monetary, social and ecological performance in Indonesia. The outcomes demonstrated that gender differences had beneficial outcome on firm monetary execution. Also, the outcomes from the subjective review showed that the ladies board individuals, particularly ladies chiefs, trust that they may get constructive outcome hierarchical change, which may then enhance firm execution by and large. There are distinctive statements on the connection between sex assorted qualities and the association's upper hands. A few contentions bolster the

hypothesis that more noteworthy assorted qualities are probably going to convey points of interest to the firm because of different factors.

In accord to MCCG, the board establishes a policy formalizing its approach to boardroom diversity. The board take steps to ensure that women candidates are sought as part of its recruitment exercise. The board explicitly discloses in the annual report its gender diversity policies and targets and the measures taken to meet those targets.

Campbell and Minguez-Vera (2008) contended that gender diversity could principal to growing originality and novelty. Instead, other researchers contended high gender diversity is a symbol of negative firm effect. High gender diversity might increase conflicts ratios (Richard et al., 2004; Joshi et al., 2006), risks respond difference (Jianakoplos and Bernasek, 1998), and slight decision process (Hambrick et al., 1996).

Prior studies on corporate governance and accounting show the impact of gender diversity on financial performance. Carter et al. (2003) examined the effect of diversity on performance in U.S.A firms and they found that there is large ratio of woman in board perform highly well. He considered ROA as a performance proxy (Shrader et al., 1997; Krishnan and Park, 2005).

In their study, which used a sample of some Canadian firms, Francoeur et al. (2008) argued that high proportion of women officers' lead to positive and significant abnormal returns. In Europe, the evidence of positive associations between gender diversity and financial performance was found in a study from Spain (Campbell and Minguez-Vera, 2008) and Denmark (Smith et al., 2005). In the context of developing countries, Ararat et

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al. (2010) provide support for such positive relationship using a sample of the Turkish listed firms.

Additionally, Vintil et al. (2015) investigated the relationship between financial performance with corporate governance by consider 51 technology related companies as a sample which listed on NASDAQ and also Dow Jones index part within 2000-2013 time-period. They took return on assets, Tobin's Q, return on equity and return on invested capital as a measurement of performance. This study determined the corporate governance through various factors included: board of directors' characteristics (such as gender, size, independence and advisory committee), shareholder structure (institutional investors shares and CEO shares), CEO characteristics (such as duality, tenure and age), and CEO remuneration (bonuses, stocks packages and base salary). Furthermore, this study analyzed the data through regression model which relies on generalized least squares (GLS), fixed effects and standard errors corrections for heteroscedasticity by White method. Results of this study expressed that corporate governance has mixed effect on financial performance. Mostly, the stakeholders' perception influenced this relationship. Besides, there is positive impact of CEO remuneration on ROE and negative effect of CEO remuneration on Tobin's Q ratio. This study indicated elements of behavioral finance during results interpretations.

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2.3.1.6 Foreigner Board and Firm Performance

Foreign directors facilitate by vital particular information relating to appropriate subjects in foreign markets, henceforth they participate in the strategic decision making quality

(Zahra and Filatotchev, 2004). Besides, the foreign directors are less prospective to take private firms and its management relationship for independent (Van and Ingley, 2003).

According to agency theory, foreign diversity of different nationalities in board increase the control system worth for high firm performance. Similarly, Oxelheim and Randoy (2003) found that there is positive relationship between foreign board members and firm performance. They described that foreign member participation in the board represents high commitment level for control management and fairness, hence the performance had been increase. Moreover, in family firms the foreign directors play vital role and provide high level expertise. Foreign directors enhance the board efficiency.

Additionally, foreign directors convey many knowledge and variety, particularly for companies that function at worldwide level. Moreover, weak legal countries and governance institutions facilitate directors by foreigners which enhance governance at firm and minimize the cost of capital. It signals the firms had willingness to accept the conceivably advanced governance standards from foreign directors (Miletkov, Poulsen and Wintoki, 2011).

Miletkov et al. (2011) investigated the relationship between firm performance and foreign directors in 98 countries as a sample. The sample consists of 20,000 companies and data was selected in 2005. This study utilized Ordinary Least Squares (OLS) regression to analyze the impact of foreign directors on firm performance. The results concluded a negative relationship between foreign directors and performance of the firm. In contrast, Ruigrok et al. (2007) examined the relationship between foreigners and gender characteristics on the corporate board in Switzerland. This research utilized some control

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variables including age of directors and directors' tenure. The sample selection constituted about public 210 firms in Switzerland stock exchange for the period of 2003. They followed probity regression analysis. The outcomes indicated that there is impact of nationality (foreign), gender on the corporate board.

2.3.1.7 Professional Certification and Firm Performance

Empirical study shows that being a member of a professional body matters a lot in board governance. Australian Council of Professions defines a professional body as an association of people in the same occupation which has been set up for the specific goal of promoting essential practices in this field. They are usually non-profit organizations that are established for advancing a particular profession with the aim of protecting the public interest and also professional's interests. Being a member of professional body is an essential qualification for members of the audit committee. This is expected to ultimately lead to improved and superior performance. There are many professional bodies in Malaysia such as: ACCA, ICAEW, MIT, MAICSA, and MICPA.

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In a study conducted by Azar et al. (2014), the study investigated the relationship between traditional board characteristics such as nonexecutive directors and board meeting as well as other organizational characteristics such as CEO tenure, and member of professional body and performance of Malaysian companies. They used Generalized Least Squares (GLS) regression analysis. The panel data set comprised of 1206 observations between year 2007 to 2012 in 201 companies listed in Bursa Malaysia. They utilized Tobin-Q as proxy of performance. It found that membership of professional bodies had a significant negative relationship with performance. Overall, the findings

concluded that the consideration of both board effectiveness and board experience characteristics play an important role in better performance of companies.

Based on findings from some studies like (Azar et al., 2014) which investigated the relationship between professional certifications of the board members on firm performance and use it as a dummy variable to measure it. In line with the above study, this study used the professional certifications of members. So, this study used the ratio of the members with professional membership as a measurement for this variable.

2.3.1.8 Government Link and Firm Performance

It is a usual practice in Malaysia that ex-government officials serve on the board of directors. According to agency theory, ex-government bureaucrats facilitate by the resources to counter-part the specialty of the board with attaining particular experience and government agency interaction. Malaysia have unique feature of corporate which is ex-government officers' trainings as directors in company. Mostly they give the high position to ex-government retires in the corporate sector as a private employee. Moreover, there is great difference in public and private sector management but some have a lot of expertise and sometimes these expertise not same as private sector directors' expertise, then they have great diversity in board.

Age is also a factor responsible for performance among firm directors which have young directors in companies shows good performance as compared to old staff companies. The reason for this may be old people do not have enough knowledge and have not advanced knowledge, it is also not possible for old people to adjust themselves according to dynamic corporate environment. Current study focus on the ex-government officers'

proportion who serve as corporate directors and make better performance. Mostly they give the high position to ex-government retires in the corporate sector as a private employee. Moreover, there is great difference in public and private sector management but some have a lot of expertise and sometimes these expertise not same as private sector directors' expertise, then they have great diversity in board. For instance, on the off chance that an ex-officer had worked in the remote service, the long encounters in managing outside governments or foundations would be profitable for nearby organizations that are extending abroad. In addition, in a few occurrences, managing government organizations could include some bureaucratic strategies and the encounters of the ex-officers had been being essential in managing these offices. Thus, the consideration of ex-government officers on boards could prompt more powerful basic leadership and upgrade the execution of the organizations.

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According to Latif et al. (2013) there is positive effect of ratio of ex-government officers as directors on performance. Mostly they give the high position to ex-government retires in the corporate sector as a private employee. Moreover, there is great difference in public and private sector management but some have a lot of expertise and sometimes these expertise not same as private sector directors' expertise, then they have great diversity in board. For instance, on the off chance that an ex-officer had worked in the remote service, the long encounters in managing outside governments or foundations would be profitable for nearby organizations that are extending abroad. In addition, in a few occurrences, managing government organizations could include some bureaucratic strategies and the encounters of the ex-officers had been being essential in managing

these offices. Thus, the consideration of ex-government officers on boards could prompt more powerful basic leadership and upgrade the execution of the organizations.

2.3.2 Audit Committee Characteristics and Firm Performance

It is important to note that audit committee size, audit committee independence and audit committee meeting, presumably, could continue to serve as the corporate regulators to ensure the management accountability and responsibility towards shareholders by ensuring that managers present true and fair view of the firms and avoid irregularities. Therefore, size, independence and meeting of the audit committee characteristics will serve as a good blend of CG structure in creating firm's performance. Previous studies revealed mixed findings concerning the relationship between committee characteristics and firm performance as explained in the next sub-section.

2.3.2.1 Audit Committee Size and Firm Performance

The audit committee is mainly established to help the BODs oversight function in an attempt to increase financial transparency. Amidst increasing numbers of financial reporting scandals, the audit committee’s role in CG has become a trending topic of discussion among legislators, academicians, shareholders and managers. Audit committee’s main role is to hold regular meetings among the external and internal auditors to see the transparency of the financial statements. So, that risk can be assessed regarding the firm’s internal controls. According to MCCG, the board should establish an audit committee comprising at least three members, a majority of whom are independent. All members of the audit committee should be non-executive directors.

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According to Hamdan et al. (2013) studied the impact of audit committee size on performance (such as financial, operating and stock performance) in Jordon. The results of their study indicated that the audit committee has an influence on financial and stock performance and did not have any impact on operating performance (Allen, 2000; Australia 2002; Clarke, 1998). The audit committee can play a key role in monitoring and improving information quality between firm owners and managers (Abdurrouf, 2011).

As consistent to prior study, Garcı´a-Meca and Sa´nchez-Ballesta (2011) and Bozec (2005) investigated the relationship between firm performance and CG in Canada and Spain. They recommended that future research should focus on the elements of audit committee such as the board of directors because of its strategic role. The current study focus on their recommendations and explored the audit committee along CG various dimensions.

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Furthermore, main principal of audit committee is to certify the financial reporting quality and monitoring systems. The monitoring systems have audit committee which plays important role for information asymmetry decreasing between internals and externals (Kim and Yoon, 2007). It is considered that there is important role of audit committee in the stakeholders' protection (Abdurrouf, 2011; Kyereboah-Coleman, 2007). Moreover, audit committee is the interaction line among insiders and outsider auditors. It assists board by providing them proper facilities which includes nominating auditors, revising the audit scope, the audit results, internal financial information and publication of financial reports (Chanawongs, Poonpol and Poonpool, 2011).

Ultimately, the principles of CG require that audit committees should be autonomous and they should provide their duties with a high sense of professional diligence. In cases of financial, the audit committee is responsible to assess the matter and take actions. The transparent financial information the decreases information asymmetry and improves the firm value (Abdurrouf, 2011; Bhagat and Jefferis, 2002).

Numerous researchers found a positive relationship between audit committee size and firm performance in advanced countries including Reddy *et* al. (2010), Khanchel (2007), Bauer *et al*. (2009), and Premuroso and Bhattacharya (2007). In a similar manner, in the developing country, studies by, Black and Kim (2007), Black, Jang and Kim (2003), Danoshana and Ravivathani (2014), Heenetigala and Armstrong (2011), Obiyo and Lenee (2011) and Swamy (2011) found a positive association between these two.

2.3.2.2 Audit Committee Independence and Firm Performance

To ensure the audit corporate governance practices, the non-executive participants are more important for the purpose of financial reporting (Swamy, 2011). According to (Hamdan et al., 2013) there is impact of audit committee characteristics (namely: audit committee independence) on performance of firm in Jordon. He focused on stock performance, financial performance and operational performance. This study findings show that there is relationship between audit committee and financial performance and stock performance while there is not any relationship between audit committee and operational performance.

The impact of audit committee is considered positive. There are some studies in developed and developing countries on the audit committee independence and

performance relationship (Dey, 2008; Khanchel, 2007; Nuryanah and Islam, 2011; Abdullah *et al*., 2008; Yasser *et al*., 2011; Chechet, Jnr and Akanet, 2013; Swamy, 2011; Saibaba and Ansari, 2011). These studies finding reveal that there is significant positive relationship between audit committee independence and firm performance.

In contrast, few studies investigated the same relationship in both developed countries and developing countries, these studies results showed the negative role of (Dar *et al*., 2011). Ultimately, some researchers' findings show contrary outcome and exposed the audit committee independence have not any effect on firm performance, including Dar *et al*. (2011), Ghabayen (2012), Khan and Javid (2011), Rahmat *et al*. (2009), Noor (2011) and Kota and Tomar (2010).

2.3.2.3 Audit Committee Meeting and Firm Performance

The audit committee meeting is among the most important elements of audit committee characteristics. Preceding studies used meeting frequency as the activeness of the audit committee measurement (Rahmat *et al*., 2009; Khanchel, 2007; Hsu and Petchsakulwong, 2010).

The effective audit committee provides the financial reporting process steps and internal monitoring needs meetings with punctuality (Vafeas, 2000). Furthermore, mostly they conduct the meeting within a year only three to four times and it is coordinated by the chairmen others supervise him (McMullen; Raghunandan, 1996; Hughes, 1999).

Agency theory stated that Jensen (1993) shows active boards is the sign of worse performance. Lipton and Lorsch (1992) and Jackling and Johl (2009) also described that

meetings frequency is the symbol for high performance of the firm. Furthermore, meetings frequency is considered as the indicator of board functional role rather than misperceptions of roles. Generally, board role is to manage the employees not to firm management including in their roles. Moreover, Hsu and Petchsakulwong (2010) examined the impact of audit committee meeting on performance in Public Thai non-life insurance companies as a sample during 2000 to 2007 in Thailand. For the measurement of insurance performance, this study used allocative, technical, revenue and cost efficiency. This study utilized shortened bootstrapped regression for analysis. The findings of this study show there is negative relationship between audit committee meeting and performance efficiency. Generally, there is no relationship between audit committee meeting and firm performance as stated by Rahmat *et al*. (2009), Kyereboah-Coleman (2007), Noor (2011) and Al-Matari *et al*. (2012a).

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2.3.2.4 Audit Committee Commitment and Firm Performance

In Malaysia, the audit committee members are picked from the members of board of director's pertaining to the code of corporate governance. So, it can be argued that, the measurement used for the commitment of board of directors can also be used for the measurement audit committee commitment because audit committee members are chosen from the members of board of director's.

Empirical studies such us (Al-matari, Al-swidi, Hanim, and Fadzil, 2014) show how the commitment of audit committee members is associated with performance. They measured the commitment of the board of directors by the frequency of attendance of the meeting divided by the number of the meeting scheduled during the year. This implies

that they used a ratio of board of director's attendance at meetings. The current study adopted this measurement based on the above explanation and to reflect the audit committee commitment.

Attendance of board meeting is a task significance symbol and issues detection then resolve the issues. It is also part of making effective decisions for objectives achievement. Similarly, meeting regularity enhance the confidence of investors because this is considered the sign of hard work and serious attitude towards achieving company goals and enhance investors share worth. The symbol of serious attitude, control, evaluations, excellence and eminence towards enhancing company and investor value is called commitment (Al-Rimawi, 2001).

Agency theory stated that job separation increase the independency and provide certified right decisions. It introduces the monitoring transparency, accountability and stakeholders reporting within the corporation (Jensen and Meckling, 1976). Board commitment mirrors its members' eagerness to improve firm performance (Pfeffer and Salancik, 1978).

Commitment in significant element in firm due to less board commitment, their process ignores and irresponsibility in task performance. Similarly, Cordeiro et al. (2007), Garg (2007), Shao (2010) and Sherman (2004) studied the relationship between board diversity (board commitment) and firm performance. While, Al-matari et al. (2014) inspected board commitment as a moderating variable on the relationship between corporate governance and performance. They create an unimportant moderating outcome on the relationship of performance and executive features (size, independence, and meetings).

As noted by (Bhatt and Bhattacharya, 2015) in their study which examined the relationship between financial performance and internal governance structure of Information Technology (IT) sector in India. The study uses 114 listed IT sector firms in India from 2006 to 2011 as sample. At the end of the investigation, they found that the attendance of the board members was found to be positively associated with firm performance.

2.3.2.5 Foreigner Audit Committee and Firm Performance

When the firms have foreigners in audit committee then they have two sided benefits, one on control side and another is on monitoring side. According to Oxelheim et al. (2013), the directors from different localities have different features area wise like in case of foreign directors they can be independent for the sake of management control. There had been be great difference in board when the director had been from developed country where the practices of corporate governance is more authenticated and advanced. Thus, the audit committees with foreign directors have high independence level and have high level of control on management.

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From another perspective, foreign directors have diverse, advance knowledge and expertise so he can participate in board decision making, they can enhance board performance through varied culture and language (Miletkov et al., 2013). According to Masulis et al. (2012) foreign directors can be nominated as a CEOs because of fulfilment of monitoring requirement. For that reason, the audit committees with foreign directors have high independence level and have high level of control on management.

However, firms choose foreign directors in their preferences from countries which have close culture, institutions and distance (Van Veen et al., 2013). Additionally, less differences between the foreign directors' distance, culture and language then they can perform a good job as management monitoring advertisement (Miletkov et al., 2013).

Besides, Beasley et al. (2009) assist the selection of audit committee members through proper rules and fulfil regulations despite complete management monitoring role. Furthermore, psychology research exhibits that if the firm have experts intelligent and team work employees then they had been perform excellent (Erhsrdt, et al., 2003).

Moreover, Firoozi et al. (2016) examined the audit committee performance during the managers financial reporting decisions. This study followed the Canadian unique context where companies along U.S.A director's large pool and both countries have similarities. This study found one foreign director in audit committee of 45% companies while 78% companies choose directors from U.S.A. It means that there is negative relationship between foreign directors in audit committee and financial reporting qualities including both restatement and abnormal accruals. With this perspective, U.S.A does not show high or good influence of foreign director presence in audit committee. These study controls the alternate and endogeneity interpretation for the findings. This study is opposed to the study which shows the similar culture, language and diversity foreign directors provide an excellent job for a company.

2.3.2.6 Financial Experience of Audit Committee and Firm Performance

The Blue-Ribbon Panel (1998) investigated the proficiency and financial knowledge of audit committee which is important for the efficiency of committee. According to Panel

(1998), there should be experts' members in the audit committee. Then they can monitor the management in better way and decrease the scam or fraud ratio in the company. The diverse and pressurized firms have reflection of financial literacy in their audit committees (Yoon et al., 2012). Moreover, mostly the term financial literacy means financial academic background despite the expert abilities in financials. Joseph at el. (2011) proclaimed investor evaluates the audit committee accounting proficient person.

McDaniel et al., (2002) contend that financial reporting quality improves with the high financial literal member in audit committee members. Additionally, Xie et al. (2003) stated that if the audit committee have high level financial experts then company do not have need to control and monitor financial system of firm. Davidson et al., (2004) findings reveal that the firms' financial performance has positive relationship with audit committee high level financially literate. This finding is confirmed by consequent studies (Mir and Souad, 2008). This could be clarified by the circumstance when company have strong corporate governance due to high level financial expertise then shareholder wealth increases and the company also have strong accounting policies for management control.

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Defond et al. (2005) indicated that strong corporate governance with audit committee enhance the worth of shareholders. Jaime and Micheal (2013) described that there is vital role of financial expertise in audit committee because it enhances the financial reporting accountability. Furthermore, they proclaimed that financial experts in audit committees can deal with a client in better way and also for the mistakes detection financial knowledge is more important.

According to Hamdan et al. (2013) explored impact of audit committee characteristics (namely: financial experience) on performance (such as financial, operating and stock) in Jordan. This study findings reveals that there is relationship between audit committee and financial and stock performance whereas the audit committee have relationship with operating performance. Moreover, Al-mamun, Yasser, and Rahman, (2014) scrutinize the impact of audit committee characteristics on firm performance in Malaysians' PLCs. The study revealed there is significant positive impact of audit committee characteristics on firm performance.

Nevertheless, audit committee accounting and financial management expert members has significant positive impact on quality of financial reporting and appropriateness (Zhang, Zhou and Zhou, 2007; Krishnan, 2005; Saleh et al., 2007; Krishnan and Visvanathan, 2008). Consequently, Raghunandan and Rama (2007) opposed to audit committee expert members who donate to significantly less overstating and more effective monitoring. Prior empirical evidence shows that experience and audit knowledge in huge number of independent director provide authentic reports (Dezoort, 1998). There were contrary views regarding impact of audit committee on the earnings management. Rashidah and Mohamed (2006) exposed the experienced audit committee members facilitate the firm with effective and efficient financial matters.

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Bursa Malaysia Securities in paragraph 15.09 trained that board's audit committee would have at least one participant of Malaysian Institute of Accountants (MIA). In case of MIA non-participant, there are other circumstances they should meet criteria like three years' working experience or have professional qualification. In the worldwide, MIA is a

participant of the International Federation of Accountants (IFAC). It approves the amount that has IFAC statements possibility in Malaysia and provisions the vocation of this body. According to MCCG, all members of the audit committee should be financially literate and at least one should be a member of an accounting association or body. Knapp (1987) and Cohen et al. (2002) believed that audit committee's essential role can be substituted by the roles of external auditors. Based on Abbott, Parker and Peters (2004) reports audit committees' experience had been decrease the prospect of failure of the conditions that cause the restatement.

2.4 Underlying Theory

The present study utilized agency theory to underpin the investigation of the influence of corporate governance on the performance of firms listed in Malaysian Stock Exchange. The theory explains that agency problem exists in the governance of corporation as a result of asymmetric and incomplete information. Furthermore, another issue that can be explained by the theory is a relationship that exists between employers and employees, where shareholders as employers recruit senior executives for managing their companies, thus, different mechanisms can be used to reconcile the agent's interests with that of the principal.

2.4.1 Agency Theory

Addressing the contractual link between the agent (director of the firm) and the principals (shareholders of the firm) is what agency theory covered. In a typical agency relationship, the principals who often are the shareholders delegate their responsibilities

to an agent who are mostly the managers to manage their businesses. It has been pointed out by the theory that in a situation where both of the parties tries to maximize their benefits from the business, there is a high possibility that the agent (directors) may engage in self-interest attitude to the detriment of the principals (shareholders) (Jensen and Meckling, 1976).

The main assumption of agency theory is that an individual tries to maximize their own utilities. In addition, this conflict arises from the probability that the directors are maximizing their wealth, whereas shareholders tend to maximize their own profits (Reis and Stocken, 2007). Conflicts could also occur between the company and auditors (Goldman and Barlev, 1974). Abdullah and Valentine (2009) found that agency theory can be used to explore the relationships between the management structure and ownership. However, separation can be applied to the agency model in aligning the objectives of the management with that of the owners of the firms.

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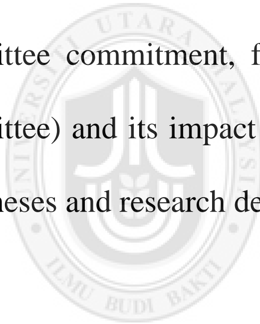
The link between corporate governance and agency theory is such that it should guarantee the quality of financial information (Cohen, Krishnamoorthy and Wright, 2004). For example, Bonazzi and Islam (2007) showed that the board control over the CEO had been improved and enhance the performance of the CEO and avoid possible conflict between the interests of the two parties. Bushmana and Smith (2001) found a relationship between corporate governance mechanisms and quality of accounting information. In his study, Bhat (2008) discovered that corporate governance influence the quality of estimates of assets and liabilities through many ways. That is corporate

governance limits the management bias through its influence on the director's process which makes the directors follow the good disclosure policy.

2.5 Summary of Chapter

This chapter reviewed numerous prior studies on the relationship between corporate governance and firm performance. The chapter discussed the role of corporate governance fundamentals (board of directors characteristics and audit committee characteristics) variables, (board size, board independence, board meeting, board commitment, board gender, foreigner board, professional certification, government link, audit committee size, audit committee independence, audit committee meeting, audit committee commitment, foreigner audit committee and financial experience of audit committee) and its impact firm performance . The next chapter had been developed the hypotheses and research design and methodology.



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CHAPTER THREE

HYPOTHESIS DEVELOPMENT AND METHODOLOGY

3.1 Introduction

Current chapter describes theoretic structure of the agency theory to formulate hypotheses which is followed by the justification of the research approach utilized in this study to answer the research questions and to test the hypotheses. Additionally, it provides details of the research process beginning with the research objectives, data gathering, procedures and methods of data compilation, model patterns, various regressions and extent of the variables. Finally, the summary of the chapter is presented in the end.

3.2 Research Framework

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The current research framework uses agency theory to investigate the relationship between firms' performance and CG (BOD characteristics and AC characteristics) and firms' performance. This lays the basis of agency theory that emphasizes on the main problem which emerges during such situations of incomplete and asymmetric information. The vital aspects in this study is relationship between the employers and the employees. For example, when shareholders employ senior executives for higher ranks from other companies, it can be used as distinctive mechanisms to check and align the interests of those agents with the owners.

Per the agency theory, the assignment of management duties and tasks brings administrators and agents to come together for this mechanism to work and this aligns the interests and benefits of principals and the agents. This also oversees the functioning of managers and guarantees that

the delegated power results in higher returns. In line, herewith assertion, Kyereboah-Coleman (2007) and Biekpe (2005) also identified that agency theory aligns relationship between the characteristics BOD and the characteristics of audit committee with organization's performance.

Agency theory tends to establish the relation between owners and managers. This also contributes to the separation of both roles and turns out to strengthen confidence between them. Therefore, it aids the company to progress, improve and increases its value in books (Jensen and Meckling, 1976). This is an important tool and stresses on monitoring job to tackle these issues of the agency BOD (Lefort and Urzua, 2008). Perhaps, the board contributes major part in safeguarding shareholders' interests from varying interests of the management and so the most reliable solution to agency problem stays in the institution of the BOD (Hermalin and Weisbach, 2003).

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The prime target of board is to lower cost of handling these agency problems and emphasize management on use of full disclosure of information in financial statements which serves the interests of stakeholders (Fama and Jensen, 1983). As already identified by Abdullah (2004) and De Andres et al (2005), board characteristics could be enriched through reformation of board structure and size and this had been help to improve performance, strategic plans and their implementation in a way its required.

Current study investigates the connection between the board of directors and audit committee with firm performance. Board of directors' characteristics comprised its independence, size, meeting, commitment, gender mix, foreigner member in board, professional certification and government link. However, audit committee characteristics comprised independence, size, committee meetings and commitment to work and investigate issues, foreigner audit committee,

and experience of audit committee with firm performance among other Malaysian listed companies. These named characteristics of board and audit committee are reflected as independent variables in this study and had been be examined against firms' performance-dependent variable (i.e. ROA and Tobin-Q).

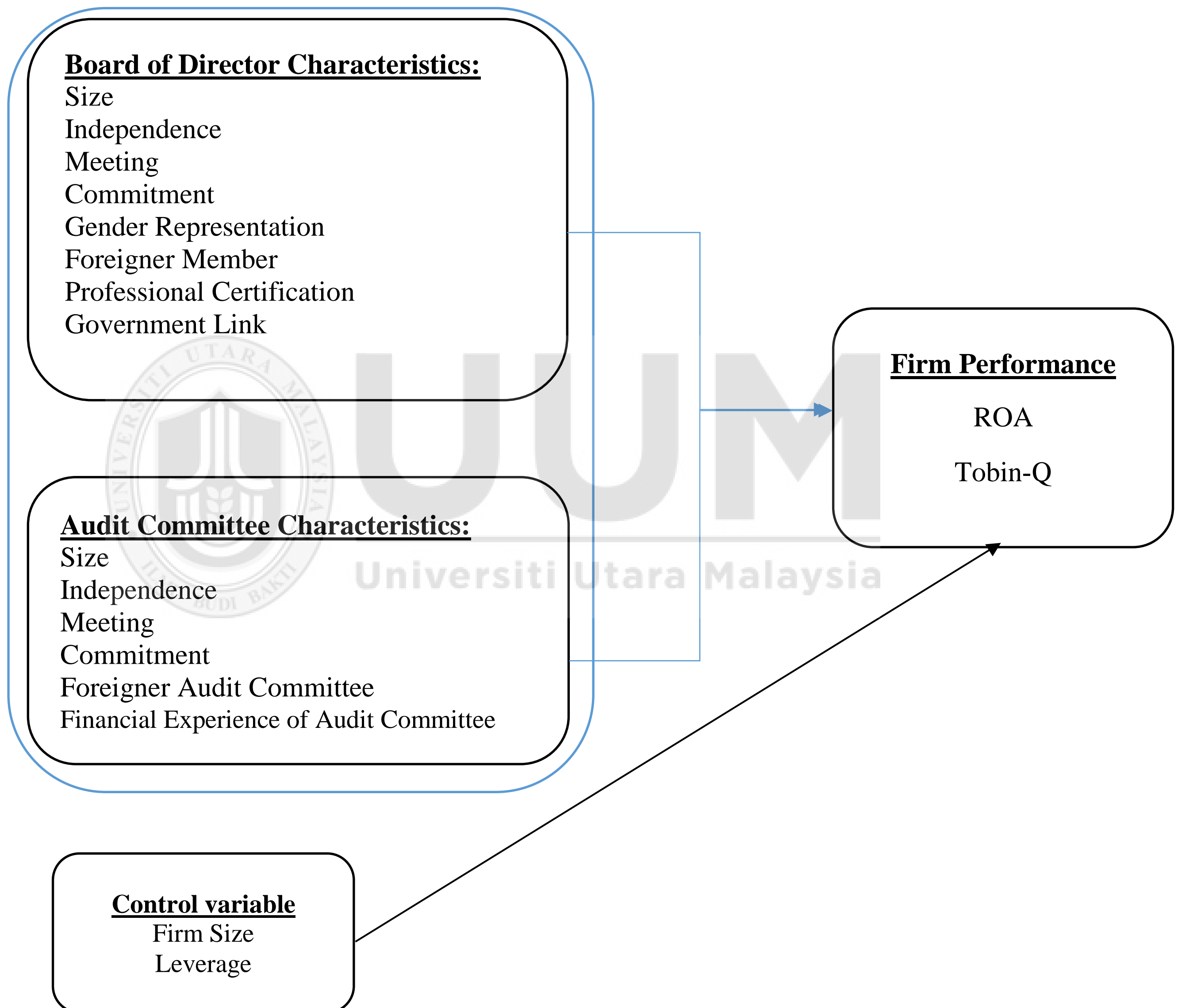

Figure 3.1
Research Framework

Figure 3.1 represents current study research model with all corresponding variables. Detail arguments and justification of respective variable is hereinafter as well as the hypotheses development.

3.3 Hypotheses Development

This section provides hypotheses on relation between firm performance (Tobin Q and ROA) with corporate governance characteristics as dependent variables (named; board size, independence, board meeting, commitment, gender, foreigner member in board, professional certification, government link size, committee independence, committee meeting, audit committee commitment, foreigner audit committee, financial experience of audit committee).

3.3.1 Firm Performance

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The dependent variable of this study is the firm performance with indicators represented by the return on asset (ROA) and Tobin-Q. This study focuses on measuring firm performance through two common types of tools, accounting base measurement and market based measurement (i.e. the ROA and Tobin-Q). Previous studies had also used this method of performance measurement (Ibrahim and Abdul Samad, 2011; Karaca and Ekşi, 2012; Liang, Lin and Huang, 2011; Lin, 2011; Shahab-u-Din and Javid, 2011; Herly and Sisnuhadi, 2011; Najid and Abdul Rahman, 2011). However, it's significant to mention that my study uses two financial ratios (Tobin-Q and ROA) to measure firms' performance and both has their own benefits as reviewed hereinafter.

3.3.1.1 ROA

Return on Asset (ROA) is the firm measurement and ROA is different in various companies representing measurements of efficient utilization of assets. It is generally an effective firm profitability indicator as compared with standard rate of return equivalent to the risk adjusted weighted average cost of capital (Al-Matari *et al*., 2012a).

Additionally, the income return measures have come under criticism for being retrospective and only moderately taking account of future events through amortization and depreciation. The accountant is also limited by standards set of their profession by gauging the rate of profit. They are directed by various accounting practices deploying different methods for valuation of both tangible and intangible assets (Kapopoulos and Lazaretou, 2007).

The ROA also assesses the firm's performance in terms of its finance and operations (Klapper and Love, 2004). Therefore, the greater the ROA, the more efficient is the use of shareholder's assets (Ibrahim and Abdul Samad, 2011). Based on Miller's (1995), ROA is used to represent measurement of firm's assets efficiency in a manner that the assets are utilized to produce net income from firm's operations. Furthermore, it says that ROA also characterizes the management effectiveness in appropriating capital since they generated net income without using more capital.

3.3.1.2 Tobin-Q

Tobin-Q is the market-based measurement. It's presumptuous and looks toward future events and also takes account of shareholders' expectations towards future performance of the firm, by considering past and present performance (Wahla *et al*., 2012; Shan and McIver, 2011; Ganguli

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and Agrawal, 2009). This is also considered as conventional tool since Tobin-Q calculates the anticipated firm's long-run performance (Bozec *et al*., 2010) contrary to the equity value in market which takes account for the firm's progress projections developing from outside factors and not dependent on management decisions. This is also demonstrated across the company's level (Demsetz and Villalonga, 2001; Shan and McIver, 2011).

Tobin-Q is widely considered as superior measure of the firm's performance (Mayer, 2003; Amran and Che-Ahmad, 2009). Similarly, Ang and Ding (2006) and Najid and Abdul Rahman (2011) asserted that Tobin-Q is a more stable way of providing estimation of the firm value, as the worth of the firm's assets are not as volatile as its share price when valuation proxies like price to earnings or book value are utilized.

The greater the value of Tobin-Q, the more efficient had been be the company's governance process. Tobin-Q also presents that the market perceives that the firm is performing well (Ibrahim and Abdul Samad, 2011; Weir *et al*., 2002). The higher Tobin-Q ratio signifies success in terms of firm's deployment of investment for the benefit of the company that has more weight in comparison to its book value (Kapopoulos and Lazaretou, 2007).

The calculation of Tobin-Q in current study is the result obtained from the market value of equity added to the book value of the debt over the book value of the total assets; a calculation utilized by Karaca and Ekşi (2012), Kang and Kim (2011), and Wahla *et al*. (2012) because it is hard to obtain the required information regarding the market value of debt issued such as all firm's assets replacement costs since financial reports do not usually disclose such information.

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As the study covers the board and audit committee structure dimensions of corporate governances, this is better to use both techniques (ROA and Tobin-Q) as their integration reflects firm's performance. Similarly, the results had been show the firm's performance in terms of accounting and market values since their stock returns shows more firm-specific information (Ting, 2008; Liang *et al*., 2011). While, Demsetz and Villalonga (2001) argued that each measurements method of performance has their own disadvantages, other researchers contended that measurement of reliability can be increased by using both methods to establish a compound measure of the financial performance of the firm (Rowe and Morrow, 1999; Gentry and Shen, 2010; Schwab, 1999). As discussed above and taking suggestion by Al-Matari *et al*. (2012a) into consideration, both measurements were used for CG in their study. The present study follows the same argument.

There has been past first-hand studies conducted on Tobin-Q and accounting profitability, including Herly and Sisnuhadi (2011), Karaca and Ekşi (2012), Bhagat *et al*., (2011), Liang *et al*. (2011), Heenetigala and Armstrong (2011), Najid and Abdul Rahman (2011), Obiyo and Lenee (2011), Lin *et al*., (2011) and Shahab-u-Din and Javid (2011) as aforementioned under literature review chapter. Therefore, the present study is consistent with the prior studies.

3.3.2 The Board of Directors Characteristics and Firm Performance

The present study concentrated on the independent variables, including board of directors' characteristics (size, independence, meeting, board commitment, gender mix, foreigner board, professional certification, and government link). This section provides a discussion of these variables, which helps in reaching accurate findings. The objective is to investigate these

variables and to determine their effect on firm performance. The next section describes these variables, in detail.

3.3.2.1 Board Size and Firm Performance

In previous literature, it was contended that board size affects the ability of directors to control the top management with larger boards often believed to have high monitoring capacity than smaller board (Abdullah, 2004). Nevertheless, Lipton and Lorsch (1992) argued that larger board size may render it less effective in controlling top level management. In line with this argument, Lipton and Lorsch (1992) further proposed that the membership of board should be between eight and nine members. This recommendation is premised on the contention that any additional benefits to be derived from the increment in the board membership may be offset by cost associated with easier control by the CEO, slow decision-making, and effectiveness problem. In their study, firm's financial performance was calculated by ROA, ROE and Tobin's Q. Their view was further supported by Jensen (1993) who suggested that board may become less effective as it members rise more than 7 or 8. Empirical studies recorded mixed findings in the literature on the influence of board size on the financial performance of firms. The studies of Yasser et al. (2011) and Dalton and Dalton (2005) recorded a significant progressive connection between board size and companies' performance. While other studies such as Ahmadu et al. (2005), Mustafa (2006) and De Andres et al. (2005) found out that large size of board is linked to the poor performance of the companies in the sample they investigated. On the contrary, studies of Bhagat and Black (2001), Limpaphayom and Connelly (2006) and Beiner et al. (2004) reported a lack of connection between board size and financial performance. Considering the facts that results are inconsistent and mixed in literature, there is an urgent need

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for further investigation especially in an emerging business environment such as Malaysia where similar studies have not been undertaken. Although there are empirical evidences regarding the effect of board size on firm performance, yet the findings are still mixed. The previous studies in the developed countries are consistent with the agency theory by confirming that there is a negative relationship between board size and firm performance. These studies include Gavrea and Stegerean (2012), Liang, Xu, and Jiraporn (2013), Nanka-Bruce (2011) and O`Connell and Cramer (2010). Similarly, in the developing countries, many studies found the relationship between the board size and firm performance to be negative (Al Manaseer et al., 2012; Ali & Nasir, 2014; Al-Najjar, 2014; Chechet, Jnr & Akanet, 2013; Ibrahim & Abdul Samad, 2011; Kota & Tomar, 2010; Lin, 2011). Therefore, this study responds to the call by examining the link between size of board and financial performance of firm. It is hypothesized hereby as follow:

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

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3.3.2.2 Board Independence and Firm Performance

Normally, board consists of internal and external directors. Outside or external directors, otherwise identified as non-executive directors, are those members of the board who do not perform in any of executive functions. Jensen and Meckling (1976) clarified that boards which are constituted by outsiders or non-executive directors (NEDs) had been likely aid in overcoming agency problems through ensuring effective control and monitoring of management's selfish behavior. Baysinger and Butler (1985) opined that firms may enjoy superior performance benefits from outside directors due their independence from firm's management. This independence is considered as an important characteristic of the board which

ensures its effectiveness in control and monitoring of managerial activities (Fama and Jensen, 1983).

Findings from previous researchers on the link between the independence of directors and company financial performance are inconsistent. Findings from Lefort and Urzua (2008), Krivogorsky (2006), Limpaphayom and Comelly (2006) reported a substantial positive effect on board and firm's performance because of the proportion of independent directors on it. On the contrary, Erickson et al. (2005) found opposite but significant impact on board independence and firm value. However, insignificant effect of an independent director on board on firm's value was also discovered by De Andres et al. (2005) and Bhagat and Black (2001). In view of CG, the agency theory indicates that sufficient monitoring mechanisms employed to safeguard shareholders from the self-interests of management. Hence, a high number of external directors on the board is considered as having a potential positive impact upon performance (Fama & Jensen, 1983; Jensen & Meckling, 1976; Shleifer & Vishny, 1997). Based on above arguments regarding board independence, it leads us to the following hypothesis:

H2: There is a positive relationship between board independence and firm performance.

3.3.2.3 Board Meeting and Firm Performance

Since the role of board effects on firm performance variables, studies have been conducted on this effect in developed together with developing countries. The results of board meetings on firm performance was affirmative in the developed countries (Gavrea and Stegerean, 2012; Khanchel, 2007; Liang, Xu, and Jiraporn, 2013; Lin and Hu 2002) and same goes for developing countries as documented in literatures such as, Sahu and Manna (2013), Kang and

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Kim (2011), Khan and Javid (2011), and Hsu and Petchsakulwong (2010). Based on the these research findings, the resulting hypothesis is formulated:

H3: There is a positive relationship between the number of board meetings and firm performance.

3.3.2.4 Board Commitment and Firm Performance

Meeting attendance indicates work seriousness. Directors that attend meetings can make assessment of issues at first hand and act accordingly. They find resolutions of problems and make better decisions which supports in accomplishing the organization's objectives. Commitment also suggests control, seriousness, prominence, assessment, and quality in upholding company's and investor's interests (Al-Rimawi, 2001). Board commitment shows its members' hold themselves accountable and feels responsible to improve firm performance (Pfeffer and Salancik, 1978). Similarly, Garg (2007), Sherman (2004), Cordeiro et al. (2007) and Shao (2010) conducted further studies on to build relationship between board diversity (like board commitment) and firm performance. Hence, following hypothesis is formulated by taking into consideration of above discussion:

H4: There is a relationship between board commitment and firm performance.

3.3.2.5 Board Gender and Firm Performance

Empirical evidence shows that women representation into board of directors' results in numerous firm outcomes. There has been varying relation between gender mix and performance of firm and this area nevertheless lacks practical investigations. Several findings build

constructive and substantial connection between gender group and firm performance. In Malaysia, Julizaerma and Sori, (2012) conducted report in which they noticed that positive correlation exists between gender diversity and firm performance (Return on Assets). Similarly, in Singapore, Fan (2012) revealed proof to support this notion that a positive relationship is there between board diversity and financial performance. Prihatiningtias (2012) utilized a cross sectional time-series data in Indonesia and discovered that gender diversity had positive impact on firm financial performance.

Using Tobin-Q as the indicator of market-based performance, Carter et al. (2003) provided support for the assertion that the U.S.A firms which has higher ratio of women members on the board of directors proves to perform considerably well than others. Using ROA as the indictor of accounting-based performance measurement, (Krishnan and Park, 2005; Shrader et al., 1997) also identified that positive connection exists between board gender and performance. In view of the above findings from former studies, the resulting hypothesis is formulated:

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H5: There is a relationship between board gender and firm performance.

3.3.2.6 Foreigner Board and Firm Performance

Foreigner board members are a key factor of board diversity which is important in improving board performances and to develop and implement proactive decisions. Foreign directors carry with them invaluable experience and knowledge about appropriate issues in foreign markets and hence they can add to the strategic decision making process (Zahra and Filatotchev, 2004). They are also less prone to have intimate ties with local firms and its administration and are therefore objective and independent (Van and Ingley, 2003). Hence, from agency theory standpoint

mixture of nationalities in board composition can improve monitoring process which had been result in better operational and firm's performance. In the same perspective, Oxelheim and Randoy (2003) established that foreign members of the board have substantial positive influence on firm's performance.

Moreover, foreign directors can bring necessary expertise and diversity, particularly for companies that function internationally. For countries where they have comparatively weaker legal and governance institutions, introducing foreign directors can prove good tactic to develop governance in firm and ease its cost of capital by signaling its inclination to promise to attain perhaps better governance standards (Miletkov, Poulsen and Wintoki, 2011). Based on this discussion, the subsequent hypothesis is formulated:

H6: There is a relationship between foreign member on the board and firm performance.

3.3.2.7 Professional Certification and Firm Performance

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Empirical study illustrates that being a member of professional body does matter in board. Professional membership is necessary element for board of directors' members which ultimately leads to improved functioning.

According to Azar et al. (2014) found that membership of professional bodies had a significant negative relationship with performance. Overall, the findings concluded that the consideration of both board effectiveness and board experience characteristics play an important role in better performance of companies. Based on findings from some studies like (Azar et al., 2014) which investigated the relationship between professional certifications of the board members on firm

performance and use it as a dummy variable to measure it. In view of the above findings from former studies, the resulting hypothesis is formulated:

H7: There is a relationship between professional certification and firm performance.

3.3.2.8 Government Link and Firm Performance

There is distinctive feature of Malaysian corporate culture where it's quite common practice of ex-government officials to serve as directors in board. Ex-government officials are preferred to be selected as directors because of their knowledge, experience and familiarity in interacting with government agencies. It gives impression to most companies that in case if they should deal with government agencies then it had been be easier to have ex-government officials facilitate those matters in company's favor. Additionally, selecting senior officials in board provides company with public sector expertise as well. Their skill and knowledge had been also complement the experience of directors from private sectors. According to Latif et al. (2013) there is positive effect of ratio of ex-government officers as directors on performance. Hence, the following hypothesis is developed:

H8: There is a relationship between government link and firm performance.

3.3.3 The Audit Committee Characteristics and Firm Performance

The present study also concentrated on the independent variables, including audit committee's characteristics (size, meeting, audit independence, audit committee commitment, foreigner audit committee, and financial expertise). This section provides a discussion of these variables, which

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helps in reaching accurate findings. The objective is to investigate these variables and to determine their effect on firm performance. The next section describes these variables, in detail.

3.3.3.1 Audit Committee Size and Firm Performance

Audit committee size is one of the commonly discussed elements of AC. With regards to the agency theory, the management-shareholders conflict often leads to best management's decision to serve their own benefits and not the interest of shareholders, particularly when the management consist of selfish people (Jensen and Meckling, 1976). The audit committee contributes a key role in monitoring and improving the information quality between managers and firm owners (Abdurrouf, 2011).

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Furthermore, a larger audit committee could ensure stricter control, but it makes conclusions difficult to reach (Hsu and Petchsakulwong, 2010). The audit committee quality is basically related to the corporate board's quality which is its origin; board structure has also been mentioned by policy makers and academics as a main component in defining the quality of financial statements (Vafeas, 2005; Pagano, Schwartz, Wagner and Marinelli 2002). With regards to the agency theory, the management-shareholders conflict often leads to top management's decision to serve their own interests and not the shareholders, particularly when management is a very opportunistic person (Jensen & Meckling, 1976). In the absence of independent and effective control procedures, top management is often inclined to go against protecting the interests of shareholders (Fama & Jensen, 1983). Therefore, audit committees that are efficient and effective must be able to resolve conflicts (Klein, 2002) and to work towards sustainable good performance (Charan, 1998; Rahmat *et al*., 2009). Based on the previous writings about their relationships, the following hypothesis is formulated:

H9: There is a relationship between audit committee size and firm performance.

3.3.3.2 Audit Committee Independence and Firm Performance

The independence of audit committee is the second key element of AC. It should comprise of at least three executive members (directors) and non-executive independent members should be two-third (2/3). The appointment of the chairman is carried out from the autonomous non-executive directors and is done by the BOD. Its objectivity is mostly described as proportion of the non-executive and executive directors (Kang and Kim, 2011; Abdullah *et al*., 2008). The committee which has more non-executive directors than executive is even more independent and vice versa (Rahmat *et al*., 2009). In the similar context, outer member in audit committee plays key role in making sure the practices to support and check corporate governance activities are in place during auditing processes (Swamy, 2011). Besides, per Abdullah *et al*. (2008), firms which are comprised of most inside directors but lacks in having audit committee to head them are more prone to participate in committing financial scam in comparison to their controlled counterparts in the same industry and with similar size.

The correlation between audit committee independence and firm performance is usually anticipated to stay positive. However, limited research has been conducted to examine this link between firm performance and audit committee independence, even in the advanced nations (Khanchel, 2007; Dey, 2008) and the developing countries (Chechet, Jnr and Akanet, 2013; Yasser *et al*., 2011; Swamy, 2011; Nuryanah and Islam, 2011; Saibaba and Ansari, 2011). Researchers discovered a positive relationship between these two factors.

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From the perspective of both, the agency theory, the autonomy given provides the opportunity to reach the right decision without any restriction and to detect errors and reveal them without any problems because the independent reviewers are not related to the company. The relationship between audit committee independence and firm performance is anticipated to be positive. However, there are very few studies that have examined the relationship between audit committee independence and firm performance both in the developed nations (Dey, 2008; Khanchel, 2007) or the developing countries (Abdullah *et al*., 2008; Chechet, Jnr & Akanet, 2013; Nuryanah & Islam, 2011; Saibaba & Ansari, 2011; Swamy, 2011; Yasser *et al*., 2011). They found a positive association between the audit committee independence and firm performance. Considering the preceding literature and other associated ideas, the following hypotheses is proposed.

H10: There is a positive relationship between audit committee independence and firm performance.

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3.3.3.3 Audit Committee Meeting and Firm Performance

The meetings of the audit committee are among widely investigated AC and most of the previous studies utilized the meeting frequency as proxies for the effectiveness of the audit committee (Rahmat et al., 2009; Khanchel, 2007; Hsu and Petchsakulwong, 2010; Kyereboah-Coleman, 2007). Consistent with the recommendations of previous studies conducted by Hsu and Petchsakulwong (2010) and Kalbers and Fogarty (1993), the commitment of the audit committee is related to its effectiveness. Along the same line, Hsu and Petchsakulwong (2010) and Menon and Had beeniams (1994) contended that the frequency of meetings indicates diligence.

Similarly, Jackling and Johl (2009) suggested that superior performance had been only come when these meetings are conducts so frequently. Moreover, Rebeiz and Salame (2006) argued that it's not just the meetings that had been enhance any firm's performance but importance should be given to meeting's agenda and quality of discussion in it. Taking another perspective, apart from the agency theory, some researchers were not able to find connection or link amongst meetings of audit committee and firm performance; for instance, Noor (2011) and Rahmat *et al*. (2009). Based on the conflicting evidence amongst the theories and historical studies, the outcomes remain very inconsistent.

From another perspective, under agency theory, Jensen (1993) suggested that boards should be relatively inactive and evidence of higher board activity is likely to symbolise a response to poor performance. Likewise, Jackling and Johl (2009) and Lipton and Lorsch (1992) suggested that greater frequency of meetings is likely to result in superior performance. Moreover, Rebeiz and Salame (2006) argued that the quality of meetings is also important and that increasing the number of meetings does not necessarily enhance a firm's performance. Hence, the resulting hypothesis is formulated:

H11: There is a relationship between audit committee meetings and firm performance.

3.3.3.4 Audit Committee Commitment and Firm Performance

In Malaysia, the audit committee members are picked from the members of board of director's pertaining to the code of corporate governance. So, it can be argued that, the measurement used for the commitment of board of directors can also be used for the

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measurement audit committee commitment because audit committee members are chosen from the members of board of director's.

Attendance of board meeting is task significance symbol and issues detection then resolves the issues. It is also part of making effective decisions for objectives achievement. Similarly, meeting regularity enhance the confidence of investors because this is considered the sign of hard work and serious attitude towards achieving company goals and enhance investors share worth. The symbol of serious attitude, control, evaluations, excellence and eminence towards enhancing company and investor value is called commitment (Al-Rimawi, 2001).

Agency theory stated that job separation increase the independency and provide certified right decisions. It introduces the monitoring transparency, accountability and stakeholders reporting within the corporation (Jensen and Meckling, 1976). Board commitment mirrors its members' eagerness to improve firm performance (Pfeffer and Salancik, 1978). Considering the preceding literature and other associated ideas, the following hypotheses is proposed:

H12: There is a relationship between audit committee commitment and firm performance.

3.3.3.5 Foreign Member Audit Committee and Firm Performance

Existence of foreigner member in audit committee results into having better control and serves as monitoring role. Oxelheim et al. (2013) indicated in literature that when audit committee adopts demographic diversity in its characteristics, such as having a foreign director, then this change leads to more independence of audit committee and keeps them out of management's

control. This influence is likely noticeable when foreign directors are selected from a country with strict governance mechanisms such as U.S.A.

However, there is opposing argument to this idea which states that foreigner directors might contribute to committee in making better decisions by introducing new knowledge and range of skills but on other hand they might reduce committee performance because of differences in terms of background, linguistic and physical distance (Miletkov et al., 2013). However, firms choose to select foreign directors from like countries so there are minimal differences between their home and firms' culture (Van Veen et al., 2013). Similarly, this idea is supported by (Miletkov et al., 2013) stating that if the dissimilarities are lower between the foreign directors and the firm than they intend to perform a better job in advising and controlling managers Thus, the next hypothesis is thus established:

H13: There is a relationship between foreigner audit committee and firm performance.

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3.3.3.6 Financial Experience of Audit Committee and Firm Performance

Financial knowledge and experience is vital and this adds to effectiveness of audit committees and is considered necessary where firms have statutory obligations to establish audit committees (Yoon et al., 2012). The author called this 'Financial literacy' and elaborated that this not only refers to the financial expertise but also takes account of financial background. Joseph at el., (2011) also stated that investors value more when accounting expertise of audit committee is more than normal.

Xie et al., (2003) contended that financially literate members can better comprehend the situation and see any discrepancies in accounting transactions and help to serve as monitoring

role to make financial systems more reliable. Davidson et al., (2004) discovered that positive connection exists between financially literate audit committee members and firm performance. This correlation is further supported in subsequent research findings (Mir and Souad, 2008).

In their study, Defond et al., (2005) asserted that audit committees who works with support of strong corporate governance aids to improve shareholder capital. Jaime and Micheal (2013) stated that financial proficiency of audit committee is crucial because they are responsible to vouch on effectiveness, reliability and completeness of financial reporting process. The Writers further asserted that financial expertise of members in audit committee can provide substantial value to the client since they can use their financial knowledge to detect if there is any manipulation in accounting records or misappropriation of assets.

Moreover, (Al-Mamun et al., 2014) also investigated this relation in terms of EVA based on selected PLCs in Malaysia. The analysis highlighted the importance of connection amongst audit committee characteristics and performance of firm. Based on this argument, the succeeding hypothesis is formulated:

H14: There is a relationship between financial experience of audit committee and firm performance.

3.4 Control Variables

In previous literature, some variables such as firm size, debt, industry and year have been studied as control variables. Previous studies by Chiang and Lin (2011), Herly and Sisnuhadi (2011), Karaca and Ekşi (2012), Kang and Kim (2011), Khan and Javid (2011), Liang *et al*. (2011), Chaghadari (2011), Nuryanah and Islam (2011), Saibaba and Ansari (2011), Shan and

McIver (2011) and Zureigat (2011) have tested the firm size and debt as control variables with firm performance when investigating the determinants of firms' performance. Moreover, prior studies that test the industry with firm performance such as, Bozec (2005), Cho and Kim (2007), Filatotchev, Isachenkova, and Mickiewicz (2007), Garg (2007) and Mandacı and Gumus (2010). They argued that the firm size, debt, industry and years affect firm performance. Therefore, in line with prior studies, current study considers the firm size and leverage as the selected control variables.

3.4.1 Firm Size

This study justifies that firm size can be used as the control variable because similar studies have also used it. Per Patro, Lehn and Zhao (2003), the likelihood of firm size and its development are main factors of the boards' size and structure. They discovered that the size of the firm is linked to the board size in a direct way and is inversely proportional to the growth opportunities proxy. They also discovered that statement is contrariwise related to the size of the firm and linked to the proxy of opportunities for growth in a direct way. Hence, firm size affects firm performance.

The firms' size influences its performance and is normally considered as a control variable in the empirical literature regarding CG (e.g. Ghosh, 2006; Andres *et al*., 2005). The impact of size on corporate governance is clear in the studies which utilized larger companies as sample but less effective for studies using smaller companies because although they meet statutory requirement, they have more uncertainty and seems to have more agency issues (Patro *et al*., 2003).

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Moreover, the utilization of economies scale and engagement of highly skilled management, make large firms more effective compared to their smaller counterparts (Kyereboah-Coleman and Biekpe, 2006). Arguing along similar line, Coles and Jarrell (2001) contended that during the growth of the firm, it requires more board members who are specialists in their various capacities. According to the contention above, in Haniff and Huduib's (2006) study, the natural algorithm of sales (LNSA) was utilized in measuring the size while in Peng, Li, Xie and Su (2010), natural logarithm of the company's assets was utilized in measuring the size. The latter size measure is adopted in the present study.

3.4.2 Leverage

Another widely used control variable is leverage. Several empirical studies used this variable for studying the correlation between CG and financial performance (Chiang and Lin, 2011; Kang and Kim, 2011; Karaca and Ekşi, 2012; Khatab *et al*., 2011; Kyereboah-Coleman and Biekpe; 2006; Chaghadari, 2011; Najid and Abdul Rahman, 2011; Wahla *et al*., 2012). These studies found that debt affects the financial performance of the firm. Firm leverage was calculated by Alsaeed (2006) by dividing the total liabilities by total assets. Debt ratio is measured in terms of ratio between total sum of long-term debt and short-term/extended liability by total assets. Debt ratio affects the company's outcomes. If the effect is high, then it may lead to diminished cash flows and had been reveal the company more in the market.

Based on agency theory, Jensen and Meckling (1976) claimed that the firm should have the leverage to reinforce its monitoring costs like increase in debt levels. Effective boards and committees can oversee management. The agency theory predicts that increasing the level of

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leverage leads to a corresponding increase in board effectiveness. Besides, adverse consequences of debt can result from the failure or the cost of agency fees of debt (Jensen, 1993). The present study measures the leverage by dividing total liabilities with total assets.

3.5 Sample Selection Process

In order to reach at objectives of current study, similar studies are utilized to investigate and conclude the relationship that exists between CG elements such as board of directors' characteristics (such as its size, board independence, meetings, board commitment, gender, foreign member on the board, professional certification and government linking), audit committee characteristics (size, independence, commitment, foreigner members and financial experience) as independent variables and firm performance (Tobin-Q and ROA) as dependent variables.

3.5.1 Data Collection

The data population selected in this study for analysis is the Malaysian industrial firms listed on Bursa Malaysia. Secondary data was utilized in for the conduct of the investigation. The secondary data was obtained through annual financial report of the companies listed on Bursa Malaysia. The selection of top 100 nonfinancial firms as a sample in this study (which are chosen as the top 100 capitalization companies) is adequate to give a clear and comprehensive result. Additionally, these listed companies provided information about compliance with the rules and regulations. It is expected that these companies would follow best practices of corporate governance as they are

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dependent users on their financial reporting and performance. The Table 3.1 show the sectors that have been taken as a sample for this study.

3.5.2 Data Collection Procedures

Data was mostly gathered from printed annual reports obtained via internet from the Bursa Malaysia website. The study is cross-sectional in nature as it focused on the year 2014 and 2015. Data on dependent variable was extracted from the DataStream while data for independent variables were taken from annual report.

Table 3.1
Companies Sectors

SECTOR	Num. of companies
CONSTRUCTN	6
CONSUMER	7
IND-PROD (Industrial-production)	16
IPC (electronics)	3
PLANTATION	10
PROPERTIES	15
REITS	6
TRAD/SERV (Trade in services)	37
Total	100

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3.6 Measurement of the Variables

This section specifies summary of measurement items of dependent and independent variables. The measurements of variables for the study were made as follows:

Table 3.2
Summary of Variables Measurement

VARIABLES	OPERATIONALISATION
Return on Assets Ratio (ROA)	Earnings of the company before tax divided by total assets (Ali and Nasir, 2014, Kılıç and Kuzey, 2016)
TobinQ Ratio (TOBIN-Q)	The book value of the debt plus the market value of equity divided by the book value of the total assets (Al-Matari et al., 2012a; Vo and Nguyen, 2014; Bhatt and Bhattacharya, 2015).
Board Size	It has been defined by Satirenjit Kaur Johl, Shireenjit Kaur, and Barry J. Cooper (2015), Shafie Mohamed Zabri, Kamilah Ahmad, and Khaw Khai Wah (2015), to be the number of directors on the board.
Board Independence	The measurement defined for independence by Johl, Kaur, and Cooper (2015); Mohamed et al., (2016); Al-Najjar, 2014; Jermias and Gani, 2014; Liang, Xu, and Jiraporn, 2013; Müller, 2014) as non-executive independent directors positioned in the board relative to the total members number (the number of non-executive independent members.
Board Meeting	The board meeting represents the number of meetings the board has during a year (Satirenjit Kaur Johl, Shireenjit Kaur, and Barry J. Cooper, 2015; Sahu and Manna (2013)).
Board Commitment	According to (Al-matari, Al-swidi, Hanim, and Fadzil (2014) amd Bhatt and Bhattacharya (2015)) it has been measured by attendance ratio by the members in a year.
Board Gender	Board gender diversity refers to the presence of women on corporate boards of directors or women representation on boards (Merve Kılıc*, and* Cemil Kuzey, 2016; Julizaerma and Sori, 2012).

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Table 3.2 (Continued)

VARIABLES	OPERATIONALISATION
Foreign Board	It can be measured by the number of non-executive foreign directors divided by the total number of board members (Mohammad Badrul Muttakin, Arifur Khan*, and* Nava Subramaniam, 2015; Miletkov et al., 2011).
Professional Certification	The professional certification is measured by the ratio of the members with professional membership to the board size.
Government Link	The government linked can be measured through the ratio of ex-government officials on the board, (Latif, Kamardin, Mohd, and Adam, 2013).
Audit Committee Size	It is measured by the number of members serving on the audit committee of the firm (Danoshana and Ravivathani, 2014; Ghabayen, 2012).
Audit Committee Independence	The audit committee independence is measured through the ratio of non-executive members of the committee (Mohd Fairus A. Rahim, Razana Juhaida Johari, and Nur Fikhriah Takril, 2015; Al- Chechet, Jnr and Akanet, 2013).
Audit Committee Meeting	It can be measured by the frequency of number of meetings during a year for the audit committee (Al-Matari et al., 2012b; Chechet, Jnr and Akanet, 2013; Saibaba and Ansari, 2013).
Audit Committee Commitment	It is measured by the attendee of the meeting (ratio of attendance of the members in a year) in according to (Al-matari, Al-swidi, Hanim, and Fadzil, 2014).
Foreigner Audit committee	(Al-matari, Al-swidi, Hanim, and Fadzil, 2014) measured this variable the ratio of foreign non-executive directors in the committee members number.

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Table 3.2 (Continued)

VARIABLES	OPERATIONALISATION
Financial Experience of Audit Committee	According to (Firoozi, Magnan, Fortin, and Nicholls, 2016) the experience of AC measured by the percentage of AC members who have a CAP, CA, CGA, or CMA designation divided by AC size.
Firm Size	It can be measured by the natural log of total assets (Merve Kılıc*, and* Cemil Kuzey, 2016; Haniff and Huduib, 2006; Peng, Li, Xie and Su, 2010).
Leverage	The measurement of the leverage can through ratio of total liabilities to total assets (Kılıç and Kuzey, (2016); Karaca and Ekşi, 2012; Khatab et al., 2011; Najid and Abdul Rahman, 2011; Wahla et al., 2012).

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3.7 Data Analysis Technique

Statistical tools were utilized to analyzed data in this study. Firstly, descriptive figures like maximum, minimum, mean, median, standard deviation, frequency count and percentage were utilized to describe the research data. In addition, correlation and multiple regressions were used for inferential statistics. The Pearson correlation was utilized to measure the importance of linear bivariate relationship between variables (Zikmund, 2003). To check the association between the independent and dependent variables, and the direction, degree and strength of the relationship, regressions were used (Hair, Anderson, Tatham, and Black, 2010). In this type of statistical analysis, STATA was found to be suitable and was used in this study.

3.7.1 Correlation

This study was interested in testing the correlation between the different variables. Pearson's correlation coefficients establish the relationships among the variables (Zikmund, 2003). Pearson’s correlation is used to study the connection between the independent and the dependent variables. Also, through Pearson’s correlation, relationships between variables can be assessed in term of whether there is any relationship among the variables. It shows the strength and direction of the relationship. If a correlation is more than 0.90 or several are more than 0.70 in the correlation matrix formed by all the independent variables, the effect is considered very high (Tabachnick and Fidell, 2013; Cohen, Cohen, West, and Aiken, 2002).

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3.7.2 Multiple Regression Analysis

Multivariate techniques have advantages over the usual univariate and bivariate regression in the sense is that it can cope with multiple variables in trying to comprehend complex relationships that are beyond the univariate and bivariate methods (Hair *et al.*, 2010). As mentioned in chapter one, the objectives of this study are to analyze and determine whether board of directors’ characteristics and audit committee characteristics have any relationship with firm performance. Two models are used so that objectives could be achieved in STATA whose dependent variables are the board of directors’ characteristics and audit committee characteristics, while, the dependent variables are ROA and Tobin-Q.

3.7.2.1 ROA Model

In this section, the current study discusses the empirical model. Consistent with previous studies, this study uses ROA to measure the dependent variable, firm performance. The following empirical model tests the impact of the effectiveness of BOD and the effectiveness of AC on ROA.

$$ROA = \alpha0 + \beta1BS + \beta2BI + \beta3BM + \beta4BC + \beta5BG + \beta6FB + \beta7PCB + \beta8GLB + \beta9ACS + \beta10ACI + \beta11ACM + \beta12ACC + \beta13FAC + \beta14FAAC + \beta15lAVERAGE + \beta16FIRMSIZE + \varepsilon$$

Where: ROA = Return on Asset. α0 = Intercept. BS = BOD Size. BI = Independence of the BOD's. BM = Board Meeting. BC = Board Commitment. BG = Board Gender. FB = Foreign Board. PCB = Professional Certification Board. GLB = Government Link Board. ACS = Audit Committee Size. ACI = Independence of the Audit Committee. ACM = Audit Committee Meeting. ACC = Audit Committee Commitment. FAC = Foreign Audit Committee. FEAC = Financial Experts of Audit Committee. ε = Error term.

3.7.2.2 TOBIN-Q Model

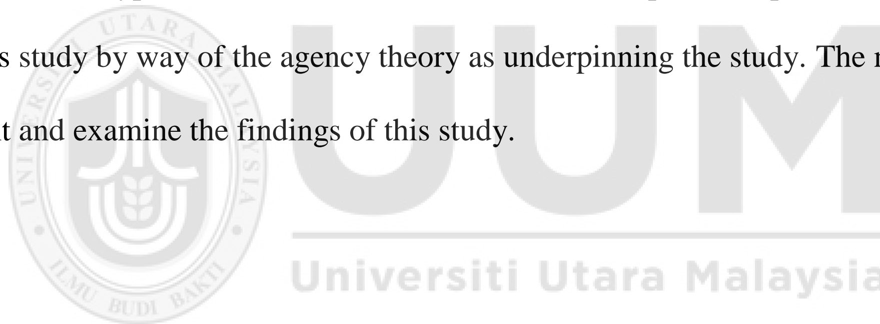
Consistent with prior studies, this study uses Tobin-Q as a measure of firm performance. The following empirical model the effectiveness of BOD and the effectiveness of AC on the demand for Tobin-Q.

$$TOBIN\text{-}Q = \alpha0 + \beta1BS + \beta2BI + \beta3BM + \beta4BC + \beta5BG + \beta6FB + \beta7PCB + \beta8GLB + \beta9ACS + \beta10ACI + \beta11ACM + \beta12ACC + \beta13FAC + \beta14FAAC + \beta15lAVERAGE + \beta16FIRMSIZE + \varepsilon$$

Where: TOBIN-Q = Return on Asset. α0 = Intercept. BS = BOD Size. BI = Independence of the BOD's. BM = Board Meeting. BC = Board Commitment. BG = Board Gender. FB = Foreign Board. PCB = Professional Certification Board. GLB = Government Link Board. ACS = Audit Committee Size. ACI = Independence of the Audit Committee. ACM = Audit Committee Meeting. ACC = Audit Committee Commitment. FAC = Foreign Audit Committee. FEAC = Financial Experts of Audit Committee. ε = Error term.

3.8 Summary of the Chapter

This chapter has described in details the methodologies which are used in this research and presented the hypotheses that were formulated. The chapter also provided the theoretical basis for this study by way of the agency theory as underpinning the study. The next chapter had been present and examine the findings of this study.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CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction

In this chapter, the results of the study were presented based on the objectives of the research and the hypotheses of it. The results comprised of descriptive statistics, correlations, and multiple regressions that were utilized to investigate the relationship among the variables (independent and dependent). The data were extracted from annual reports and analyzed using STATA.

4.2 Descriptive Statistics

The descriptive analysis was performed in order to provide demographic information about the sample which could lead to easy and better interpretation of data (Genser, Cooper, Yazdanbakhsh and Barreto, 2007). In Table 4.1, the mean and stander deviation of the main variables of this study are presented below.

The continuous variables were tested by the descriptive statistics which is presented in Table 4.1. The standard deviation, mean, maximum and minimum were included in the descriptive statistics which were computed using STATA version 14. Based on Table 4.1, the descriptive analysis show that the mean value of the size of the board (BS) is about eight (8) members with a maximum of fourteen (14) members and a minimum of four (4) members.

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In the same manner, the mean of directors who are independent is 0.47 with minimum and maximum percent of 0.27 and 0.83 respectively. The board meeting had a mean of 6 with minimum and maximum number of 4 and 16 respectively. Board commitment had a mean of 0.94 with minimum and maximum percent of 0.72 and 1 respectively.

Pertaining to board gender (BG), the outcome in the Table 4.1 illustrations that the mean value of the independence in the board is 1.12 with a maximum of 5 and a minimum of zero. While, the result of board members who are foreign (FB) in the same table shows the average value of the foreign members on the board is 0.08 with a minimum zero (0) and a maximum 0.5.

Furthermore, the result of professional certification of board members (PCB) show that the maximum of (0.67) and the minimum of zero (0) whereas mean value is 0.26. While, the result of government link of the board members (GLB) in Table 4.1 shows the maximum (0.8) and the minimum zero (0), whereas the mean value is 0.17.

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For audit committee size (ACS), the result in Table 4.1 specifies that the maximum number of audit committee size memberships is six (6) members and the minimum of their memberships is three (3). Table 4.1 also show that the audit committee independence (ACI) has mean of 0.87 with a minimum of 0.5 and a maximum of 1.

Regarding to audit committee meeting (ACM), the outcomes in Table 4.1 specify that the mean of the meeting times of the committee is about five (5) times a year with a bare minimum of two (2) and a bare maximum of eleven (11) times per year.

Meanwhile, Table 4.1 show that the audit committee commitment (ACC) result is 0.96 as a mean, 0.75 as a minimum and 1 as a maximum of the commitment of the committee. On its part, the result of foreign audit committee members show as (0.08), (0) and (0.67) for mean, minimum and maximum respectively. Furthermore, table 4.1 show that the mean of the audit committee financial expert's members is (0.39) and the minimum, maximum are (0), (1) respectively.

Table 4.1
Descriptive Statistics of the Continuous Variables

Variable	Std. Dev.	Mean	Min	Max
BS	2.02	8.63	4	14
BI	0.12	0.47	0.27	0.83
BM	2.67	6.70	4	16
BC	0.05	0.94	0.72	1
BG	1.06	1.12	0	5
FB	0.14	0.08	0	0.5
PCB	0.12	0.26	0	0.67
GLB	0.15	0.17	0	0.8
ACS	0.73	3.58	3	6
ACI	0.15	0.87	0.5	1
ACM	1.49	5.43	2	11
ACC	0.06	0.96	0.75	1
FAC	0.15	0.08	0	0.67
FEAC	0.17	0.39	0	1
LAVERAGE	17.21	29.15	0	83.65
FIRMSIZE	17800000	13700000	1361988	117000000
ROA	4.20	4.89	-10.42	18.26
Tobin-Q	0.69	1.03	0.12	3.77

As for leverage (LEVERAGE), the result in Table 4.1 show that the mean of leverage is about 29.15 with a minimum of 0 and a maximum of 83.65. With regards to firm size (FIRMSIZE), the outcome in the Table 4.1 shows that mean of the firm size is about (13700000) with a minimum of (1361988) and a maximum of (117000000).

Finally, in the performance measures, based on descriptive analysis as summarized in Table 4.1, the mean value of ROA is 4.89 with companies that have maximum and a minimum level of ROA 18.26 and -10.42 respectively, and a standard deviation of 4.20. It can be deduced from the data that a high dispersion exists on ROA across firms used as samples in this study. While the mean value of Tobin-Q is 1.03 with companies that have maximum and a minimum level of Tobin-Q 3.77 and 0.12 respectively, and a standard deviation of 0.69. It can be inferred that a high dispersion exists Tobin-Q across firms used as samples for this study.

4.3 Correlation Analysis

In line with Pallant (2011), this study performed correlation analysis. Pallant (2011) suggested that it is useful to use the correlation analysis to determine the direction and strength of the variables linear relationship. More specifically, Pearson correlation analysis was used to assess and clarify the strengths of the relationship between study variables, as shown in Table 4.2. The correlation coefficient values (R) in Table 4.2 indicate the strength of the relationship between variables in determining this resistance or strength. Hair et al. (2010) recommended that the correlation value of 0 to show no relationship, while the correlation ± 1.0 shows an ideal relationship. On the other hand, Cohen (1988), found that the correlation of performance between 0 and 1.0 is as follows: The correlation (R) of ± 0.1 and ± 0.29 shows a small relationship, while, between ± 0.30 and ± 0.49 showing middle relationship and above ± 0.50 Shows a strong relationship. Overall, the results of this study show that all the correlations are less than 0.80. This

corresponds to the Gujarati and Porter (2009) that the matrix of the correlation must not exceed 0.80 to safeguard that the multiple linear issue is not present in this study.

Table 4.2 showed the Pearson correlations for this study. From this correlation analysis, we can know the relationship between variable to another. The measurement of the value of Pearson correlation show the strength as well as the direction of the association between two variables. For this study, the relationships are determined the relations between firm performance with fourteen independent variables which are {board size (BS), board independence (BI), board meeting (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), government link (GLB), audit committee size (ACS), independence of audit committee (ACI), meeting of audit committee (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC)} and control variables which are leverage and firm size.

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According to Table 4.2, it showed that the correlations between the (ROA) as the dependent variable and the independent variables. From the output, two of independent variables which are board gender (BG) and audit committee commitment (ACC) are positively correlated with (ROA), while the other five of independent variables which are board independence (BI), board meeting (BM), professional certification of board (PCB), audit committee independence (ACI) and financial experts of audit committee (FEAC) are negatively correlated. While the rest of the independent variables do not have any signification, or correlated to ROA.

It also showed in the table that the correlations between the Tobin-Q as the dependent variable and the independent variables. From the output, three of independent variables which are professional certification of board (PCB), audit committee size (ACS) and financial experts of audit committee (FEAC) are positively correlated with (Tobin-Q). While the other three of independent variables which are board independence (BI), board meeting (BM) and audit committee independence (ACI) are negatively correlated. While the rest of the independent variables do not correlated to Tobin-Q.

According to table 4.2, the control variable (leverage) showed a positive correlated to the Tobin-Q and no signification or correlated to ROA. While the second control variable (firm size) show a positive correlated to Tobin-Q and ROA.

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4.4 Linear Multiple Regression Analysis

Data analysis for testing the hypotheses in this study is based on multiple regression analysis. To avoid misleading results, regression diagnostic tests must be done to verify the data’s compatibility for the multiple regression analysis before the model is accepted. Several steps were taken to measure the compatibility of the data with the following assumptions of multiple regression.

Table 4.2
Pearson Correlations

	BS	BI	BM	BC	BG	FB	PCB	GLB	ACS	ACI	ACM	ACC	FAC	FEAC	LAVE	FS	TQ	ROA
BS	1																	
BI	-0.32	1																
BM	0.19	*0.06	1															
BC	-0.27	0.16	-0.23	1														
BG	0.48	-0.21	*0.20	*-0.06	1													
FB	*0.07	*-0.02	*-0.02	*0.03	*0.01	1												
PCB	*-0.09	0.12	0.17	*-0.03	0.13	*0.10	1											
GLB	*0.05	0.15	0.19	-0.12	*-0.01	-0.22	-0.18	1										
ACS	0.28	0.19	0.40	*-0.05	0.14	*0.04	*0.01	*0.02	1									
ACI	*-0.01	0.22	-0.21	*0.04	*-0.05	-0.32	*-0.06	*-0.10	-0.19	1								
ACM	*0.07	0.12	0.51	-0.15	*0.04	-0.11	*0.10	0.12	0.15	*0.00	1							
ACC	*-0.09	*-0.09	-0.12	0.34	*0.02	*0.01	*-0.05	-0.14	*-0.09	*0.04	*-0.04	1						
FAC	*0.03	*0.02	*-0.01	*0.01	*0.01	0.75	*0.03	-0.16	*0.09	-0.24	*-0.09	*-0.05	1					
FEAC	*-0.03	*-0.08	*0.04	*0.00	0.19	*-0.05	0.52	-0.12	-0.13	*-0.02	*0.02	*0.02	*-0.06	1				
LAVE	0.28	-0.21	*-0.02	-0.14	*0.05	-0.13	*0.03	*0.01	*-0.08	0.16	0.14	*-0.08	-0.15	*0.06	1			
FS	0.25	*0.09	0.17	0.10	0.18	*0.00	*-0.10	*0.09	*0.01	*0.05	0.14	*0.03	*0.08	*-0.03	*0.02	1		
TQ	0.17	*-0.10	*-0.06	0.11	0.11	0.39	*0.05	-0.29	*0.03	*-0.07	-0.15	0.13	0.28	*0.01	*0.00	*0.04	1	
ROA	0.13	*-0.03	*-0.05	0.11	*0.04	0.31	*-0.01	-0.24	0.11	*-0.08	-0.27	*0.06	0.31	*-0.04	-0.11	*0.03	0.59	1

Notes:
∗ Significant at the 0.1, 0.05 and 0.01.

4.4.1 Outlier Detecting

Outliers are observations having unique characteristics that significantly deviates from others (Hair *et al*., 2010). Outliers can be determined through the use of univariate, bivariate and multivariate methods on the basis of the number of variables. The cases that have extreme values are considered as outliers, which are substantially different from other cases. There are different methods to check outliers, and the influence of outliers can be considered as either helpful or harmful. A researcher should investigate the outliers to decide whether the observations should be deleted or retained in the sample (Hair *et al.*, 2010). This study utilized standardized residuals which is a widely-used method to check for outliers.

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The analysis of the regression model was performed with and without their value and the results showed significant changes and thus, the researcher deleted 9 companies as outliers. In the preceding sections, the diagnostic test was employed among study variables.

4.4.2 Normality

Normality means the distribution of the error (or residuals) is normally distributed. In multiple regressions, normality is not necessary to estimate the regression coefficients, but is useful for valid hypothesis testing (Chen, Ender, Mitchell and Wells, 2005). If the variable is within the acceptable range of skewness and kurtosis, then the variable can be said to fulfill the normality assumption. Gladder command is used to find the best transformation methods, i.e., by taking the log, the square root or raising the variable to a

power. STATA program has the gladder command to select the appropriate transformation to help in the process. The natural logarithm transformation of the firm size has brought these variable to be normally distributed.

In addition, this study employed graphical methods to check the normality assumption of the residuals. The graphical methods include drawing, histogram and probability-probability (P-P) plot. Based on Figures 4.1 and 4.2, it can be said that the residuals are somewhat normally distributed for the model.

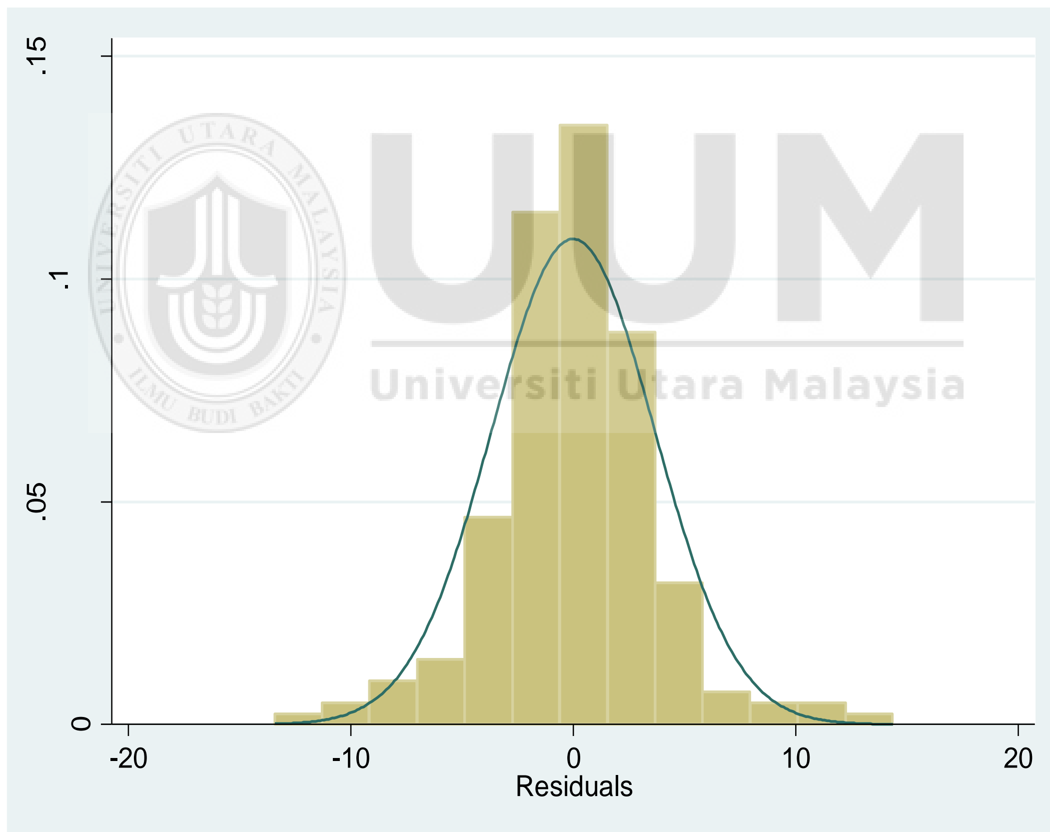

Figure 4.1
Histogram for the Statistic Test Result

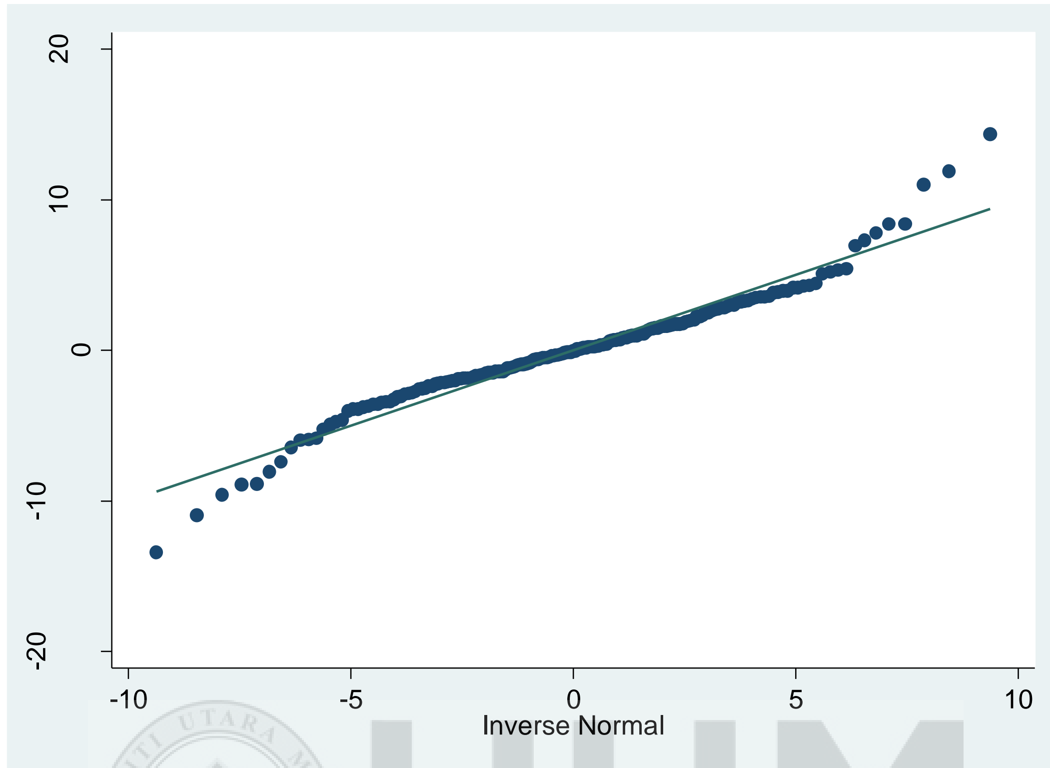

Figure 4.2
Normal P-P Plot of Regression Residuals

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4.4.3 Linearity

The relevance between the dependent variables and independent variable should be linear. "The linearity of the relationship between dependent variable and independent variables represents the degree to which the change in the dependent variable is associated with the independent variables" (Hair *et al.*, 2010). Furthermore, Hair *et al.* (2010) asserted that if the criterion deviation of the residuals is lesser than the criterion deviation of the dependent variable, then nonlinearity is not a problem. In this study, the dependent variables (ROA and Tobin-Q) show standard deviation at the level 4.20 and 0.69 respectively whereas the standard deviation of the residuals is 3.66. Therefore, the issue of non-linearity is not a concern in this study.

4.4.4 Multicollinearity

Multicollinearity testing is necessary because if linear multiple exists between two or more independent variables can distort the results of multiple gradients. The main concern is that to increase the degree of multiple linearity, estimates of regression coefficients become an unstable model and standard errors of coefficients have been overheated. In general, there are several ways to measure multiple linearity between independent variables such as Pearson correlation. Generally, the Pearson correlation with a significant value greater than 0.8 indicates a linear relationship between independent variables (Gujarati 2003, Poetry et al., 2010).

Notable researchers (Hair *et al*., 2010 and Tabachnick and Fidell, 2007) stated that an issue of multicollinearity arises if the independent variables correlation goes over 0.9. Along with the correlation test, the variance inflation factor (VIF) was conducted because the examination of the matrix correlations between variables does not always detect multicollinearity (Hamilton, 2009). VIF indicates the impact that other independent variables have on the standard error of regression coefficients. Collinearity problems are said to exist if VIF is over 10.

The results in Table 4.2 indicate that multicollinearity does not exists between independent variables because the Pearson correlation indicators for all independent variables are less than 0.8. Moreover, to confirm the results and check whether there is multicollinearity between variables, Variance Inflation Factor (VIF) and tolerance statistic are utilized. Hair *et al.* (2010) suggested that VIF of less than 10 and a tolerance statistic below 1 would indicate the existence

of no serious multicollinearity problem. Table 4.3 shows that VIF ranges below 10 and tolerance value is less than 1. These results reinforce that there is no multicollinearity.

Table 4.3
VIF and Tolerance Statistic for Multicollinearity Assumption

Variable	VIF	1/VIF
FB	2.68	0.37
FAC	2.4	0.42
BS	2.14	0.47
BM	1.87	0.53
BI	1.71	0.59
PCB	1.65	0.61
ACS	1.63	0.61
FEAC	1.51	0.66
BG	1.47	0.68
ACI	1.47	0.68
ACM	1.45	0.69
BC	1.37	0.73
GLB	1.29	0.77
FIRMSIZE	1.29	0.78
LAVERAGE	1.25	0.80
ACC	1.2	0.83
Mean VIF	1.65	

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4.4.5 Homoscedasticity

By homoscedasticity, it refers to the homogeneity of the modification of the residuals across stages of the forecast values. Hair *et al.* (2010) stated that it is the equivalent variance of dependent variable across the range of predictor variables.

Therefore, heteroskedasticity is created if the variance of the residuals is not constant. The presence of heteroskedasticity can cause a biased value for the true variance; the estimators of multiple regression analysis and inferences had been being very misleading and the *t* and *F* tests are likely to give inaccurate results (Gujarati, 2003). Toward

addressing the problem of heteroscedasticity in the data of the two next models were run with robust standard errors.

4.5 The Evaluation of the Models

After the testing of the regression assumptions, the researcher conducted regression analysis using Stata version 14 to determine the prophetic power of the characteristics of the board directors (board size, board independence, board meeting, board commitment, board gender, foreigner board, professional certification of board and government linking of board), and characteristics of the audit committee (size, independence, meeting, commitment, foreigner, financial experts) on firm performance. The purpose of conducting multivariate regression test analysis was to regulate the predictive capability of the dependent variable by each of the independent variable.

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The current section is separated into two parts. The first part investigates the relationship among the characteristics of the board of directors and the characteristics of the audit committee with the performance of firms as measured by ROA. While, the second part investigates the relationship among the characteristics of the board of directors and the characteristics of the audit committee with the performance of the firm as measured by Tobin-Q.

4.5.1 Model 1 (ROA as Dependent Variable)

In examining the hypotheses model through a multivariate regression analysis, some indicators are employed. Among them is R^2 (R Square) Coefficient, which evaluates the goodness of the regression equation. Also, it is stated to the determinate coefficient which

illustrations the independent variables that effect the variance of the dependent variable level. In the present study, the researcher makes use of R^2 to show the variance amount of the dependent variable (ROA) that is described by all of the dependent resulting from the joint effect of independent variable namely {board size (BS), board independence (BI), board meeting (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), and government link (GLB)}as the characteristics of the board of directors and {audit committee size (ACS), audit committee independence (ACI), audit committee meeting (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC)} as the characteristics of the audit committee. According to the literature, if R^2 is equal to 1 explained that the result is showing a perfect linear relationship between the independent and the dependent variables. In contrast, if R^2 is equal to 0, it explained that the result show no linear relationship existing between the independent and dependent variables. As a result, the value below R^2 shows the level of modification in the dependent variable is explained by the model which includes the variables of the board of directors characteristics {board size (BS), board independence (BI), board meeting (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), and government link (GLB)} and the characteristics of the audit committee {audit committee size (ACS), audit committee independence (ACI), audit committee meeting (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC)}.

As exposed by the results in Table 4.4, this model show that the value of R^2 is 0.2154. This means that the model elucidates 21.54 % of the variance in tis measurement. This is

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considered an acceptable result. The STATA (version 14) provides adjusted R^2 value in the output. In cases where there is a small sample, R^2 value is a slightly optimistic overestimation of the definite population value in accord to (Tabachnic and Fidell, 2007).

R2 indicates 0.2404 percent of variance in the dependent variable and explained the changes in the independent variables. This means that the variations in business performance was statistically explained or interpreted regression equation. The results in Table 4.4 also show that this model is significant ($p < 0.01$), which indicates the validity of the model used.

Table 4.4
Regression Result of model 1 (ROA)

Linear	regression	Number of obs	=	191
		F(16, 174)	=	3.26
		Prob > F	=	0.0001
		R-squared	=	0.2404
		Root MSE	=	3.8246

ROA	Coef.	t	P>t
BS	0.41	2.06	*0.04
BI	1.71	0.56	0.57
BM	0.18	1.22	0.22
BC	7.88	1.21	0.23
BG	0.22	-0.88	0.38
FB	2.98	0.86	0.39
PCB	-0.75	-0.34	0.73
GLB	-5.34	-2.64	*0.01
ACS	0.21	0.42	0.68
ACI	-0.20	-0.08	0.94
ACM	-0.78	-3.37	*0.00
ACC	2.96	0.64	0.52
FAC	4.50	1.48	0.14
FEAC	-0.24	-0.11	0.91
LAVERAGE	-0.01	-0.67	0.51
FIRMSIZE	-0.08	-0.12	0.90
_cons	-5.46	-0.74	0.46

Notes:
∗ Significant at the 0.1, 0.05 and 0.01.

4.5.1.1 Board of Director's Characteristics and ROA

The outcome of multivariate regression analysis between the characteristics of the board of directors (board size (BS), board independence (BI), board meeting (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), and government link (GLB)) and firm performance (ROA) with corresponding coefficient value and t-value are presented in table 4.4. The results indicate that the relationship between board size (BS) and ROA is positively significant (p<0.1). Thus, this result support hypothesis H1. Moreover, the outcomes show that board independence (BI) is positively association with ROA, but not significant (p>0.1). Therefore, this outcome does not support hypothesis H2. Similarly, with consistent to the board meeting (BM) was found to be posiively insignificant predictor of the ROA (p>0.1), Thus, this finding does not support hypothesis H3. The Table 4.4 also presents a positive however, not a significant relationship between the board commitment (BC), foreigner board (FB) and ROA (p>0.1). Hence, this result does not support hypothesis H4, H6. Similarly, with consistent to the professional certification (PCB) and board gender (BG) were found to be negatively insignificant predictor of the ROA (p>0.1), Thus, this finding does not support hypothesis H7, H5. In the anther hand, the result of government link (GLB) is significantly associated with ROA. The result presents a negative significantly relationship to ROA at (p<0.1). These finding support the hypothesis H8.

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4.5.1.2 Audit Committee Characteristics and ROA

In this section, this study discusses the relationships between six variables related to the characteristics of the audit committee, namely size of the audit committee (ACS), audit

committee independence (ACI), meeting of the audit committee (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC) and the ROA. Table 4.4 reveals that only one of audit committee characteristic which is audit committee meeting is significantly associated with ROA. These finding support the hypothesis H11. The result of this characteristic show that there is positive significant relationship between the audit committee meeting (ACM) and ROA at ($p<0.1$). While five of the six characteristics of audit committee are not significantly associated with ROA. These findings do not support the hypotheses H9, H10, H12, H13 and H14. However, the results show that there is negative relationship between the audit committee independence (ACI) and ROA, but not significant ($p>0.1$). Moreover, the same results are displayed by the financial expert of audit committee (FEAC) that there is no significant relationship exist between the financial expert of audit committee (FEAC) and ROA ($p>0.1$). While, the audit committee size and foreigner audit committee have a positive, but not a significant relationship with ROA ($p>0.1$). Finally, the audit committee commitment has a positive, but not a significant relationship with ROA ($p>0.1$).

4.5.1.3 Control Variables

The present study includes control variables, namely leverage and firm size. The first one is the firm size. The use of firm size as the control variable is justified by the findings of companies with various distinct characteristics. The possibility, that growth and firm size are significant determinants of the size of the board and structure, was highlighted by Patron, Lehn and Zhao (2003). According to them, firm size is inversely proportional the

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proxy of growth opportunities and is straightly related to its size. In addition, the firm size affects performance of firms and is widely operated as a control variable in most of the empirical studies dedicated to corporate governance (Yan *et al*., 2007; Andres *et al*., 2005; Ghosh, 2006). The influence of firm size on corporate governance has also been reported in findings that depict large companies to be less effective in comparison to their smaller counterparts because even though they adhere to government bureaucracy, they are riddled with higher and ambiguity agency problems (Patro *et al*., 2003). The result in Table 4.4 shows a positively relationship, but statistically insignificant ($p>0.1$) between firm size and ROA.

While, the second control variable considered was the leverage that refers to the total of liability to the total of assets. Leverage impacts the outcomes of the company. A positive effect may result in minimized cash flow, and control of the company, which could depict more of the market. As illustrated in Table 4.4, the result shows a positively insignificant relationship between leverage and ROA ($p>0.1$).

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4.5.2 Model 2 (TOBIN-Q as Dependent Variable)

Various tests of significance are employed to the multivariate regression analysis results. R^2 Coefficient is an instrument used to evaluate the goodness of the regression model. R^2 is also known as the identification coefficient which indicates the amount of variance in the dependent variable which is explained by the model variables.

The R^2 in this study was accustomed to indicate the share of the variance of the dependent variable (Tobin-Q) that is clarified by the combined effect of independent

variables, namely characteristics of the board of directors {size of the board (BS), independence of the board (BI), meeting of board (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), and government link (GLB)} and characteristics of the audit committee {audit committee size (ACS), audit committee independence (ACI), meeting of the audit committee (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC)}.

Table 4.5
Regression Result of model 2 (TOBIN-Q)

Linear	regression	Number of obs	=	191
		F(16, 174)	=	3.21
		Prob > F	=	0.0001
		R-squared	=	0.2509
		Root MSE	=	0.62671

Tobin-Q	Coef.	t	P>t
BS	0.06	1.89	*0.06
BI	0.10	0.19	0.85
BM	0.01	0.58	0.56
BC	1.33	1.54	0.13
BG	0.02	0.32	0.75
FB	1.60	2.43	*0.02
PCB	0.06	0.13	0.90
GLB	-0.94	-2.59	*0.01
ACS	-0.03	-0.29	0.77
ACI	0.02	0.06	0.96
ACM	-0.06	-1.47	0.14
ACC	1.06	1.23	0.22
FAC	0.05	0.08	0.93
FEAC	-0.04	-0.1	0.92
LAVERAGE	0.00	0.41	0.68
FIRMSIZE	0.01	0.07	0.95
_cons	-1.62	-1.34	0.18

Notes:
∗ Significant at the 0.1, 0.05 and 0.01.

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As it explained above about the R^2 and according to the result that is presented in Table 4.5, the value of R^2 in this model is 0.2509. This means that the model describes 60.28 % of the variance in firm performance. In addition, the value of R2 in the sample tends to be the true value in the population (Tabachnic and Fidel, 2007) somewhat optimistic. This means that the change in performance of firm is measured by Tobin-Q statistically explained or interpreted regression equation. The results in Table 4.5 also show that this model is significant, because the value of F is significant ($p < 0.01$). Demonstrating the validity of the user model.

4.5.2.1 Board of Director's Characteristics and TOBIN-Q

The outcome of multivariate regression analysis between the characteristics of the board of directors (size of the board (BS), independence of the board (BI), meeting of the board (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), and government link (GLB)) and firm performance (Tobin-Q) with corresponding coefficient value and t-value are presented in Table 4.4. The results show that the relationship between Tobin-Q and board size (BS) is positively significantly ($p<0.1$). Thus, this result support hypothesis H1. Moreover, the outcomes show that association between the board independence (BI) and Tobin-Q is a positive, but not significant ($p>0.1$). Therefore, this outcome does not support hypothesis H2. Similarly, with consistent to the board meeting (BM) was found to be positively insignificant predictor of the Tobin-Q ($p>0.1$), Thus, this finding does not support hypothesis H3. The Table 4.4 also presents a positive however, not a significant relationship between the board commitment (BC) and board gender (BG), professional certification (PCB) and

Tobin-Q (p>0.1). Hence, this result does not support hypothesis H4, H5 and H7. Similarly, with consistent to the foreigner board (FB) was found to be significantly positive predictor of the Tobin-Q (p<0.1), Thus, this finding support hypothesis H6. In the anther hand, the result of government link (GLB) is significantly associated with Tobin-Q. The result presents a negative significantly relationship to Tobin-Q at (p<0.1). These finding support the hypothesizes H8.

4.5.2.2 Audit Committee Characteristics and TOBIN-Q

In this section, this study discusses the relationships between six variables related to the characteristics of the audit committee, namely audit committee size (ACS), audit committee independence (ACI), meeting of the audit committee (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC) and the Tobin-Q. Table 4.4 reveals that the audit committee characteristic which are audit committee size (ACS), audit committee meeting (ACM) and financial expert of audit committee (FEAC) are negatively insignificantly associated with Tobin-Q. These findings do not support the hypotheses H9, H10 and H14.

However, the results show that there is positive relationship between the Tobin-Q and audit committee independence (ACI), but not significant (p>0.1). Moreover, the same results are displayed by the audit committee commitment (ACC) that there is positively insignificant relationship exist between it and Tobin-Q (p>0.1). Also, the foreigner audit committee (FAC) have a positive, but not a significant relationship with Tobin-Q (p>0.1).

4.5.2.3 Control Variables

The present study includes control variables, namely leverage and firm size. The first one is the firm size. The use of firm size is justified by the findings of companies with various distinct characteristics. The possibility, that firm growth and size are significant determinants of board's structure and size, as it highlighted by Patron, Lehn and Zhao (2003). According to them, firm size is inversely proportional the proxy of growth opportunities and is directly related to its size. In addition, the firm size affects performance of firms and is widely utilized as a control variable in empirical studies dedicated to corporate governance (Yan *et al*., 2007; Ghosh, 2006; Andres *et al*., 2005).

The influence of firm size on corporate governance has also been reported in findings that depict small companies to be more effective in comparison to their larger counterparts because even though they adhere to government bureaucracy, they are riddled with higher and ambiguity agency problems (Patro *et al*., 2003). The result in Table 4.4 shows a positively relationship, but significant ($p<0.1$) between firm size and Tobin-Q.

While, the second control variable considered was the leverage that refers to the total of liability to the total of assets. Leverage impacts the outcomes of the company. A positive effect may result in minimized cash flow, and control of the company, which could depict more of the market. As illustrated in Table 4.4, the result shows a significantly positive relationship between Tobin-Q and leverage at ($p<0.1$).

4.6 Summary of the Chapter

In this chapter, it provided the outcomes of analyzing the data, the variables descriptive analyzing, the response rate and Pearson correlation analysis. This was followed by a discussion on detection of outliers and the testing of assumptions which are namely, normality, multicollinearity, linearity, heteroscedasticity, and the regression analysis. The following chapter presents the discussion, conclusion, and recommendation.

CHAPTER FIVE

DISCUSSION, RECOMMENDATION, AND CONCLUSIONS

5.1 Introduction

This chapter presents the summary of findings, discusses the results and made suggestions for future research. The chapter is organized into four sections covering a summary of the study and discussion of the hypotheses, implications of the study, study's limitation and the conclusions.

5.2 Summary of the Study and Discussion of Hypotheses

Based on the results and findings that are obtainable in Table 5.1, the next sections provide discussions on the findings generated by the two models in light of (ROA) as accounting-based measurement and (Tobin-Q) as marketing-based measurement.

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5.2.1 Discussion of First Model (Results Based on ROA)

In this section, this current study provided the hypothesis testing the characteristics of the board of directors and the characteristics of the audit committee whit the (ROA). As consistent with the results in Table 5.1, some of the variables were found to be associated with ROA.

5.2.1.1 Board of Director's Characteristics

With the line of expectations from the previous studies, the relationship between board size and return on assets was underestimated positively significant, indicating that H1 is

adopted hypothesis. The result shows that the size of the board does contribute to improving the performance of the company.

While previous studies suggested that there is a positive relationship between the ROA and the board independence, this study, as depicted in Table 5.1 shows an insignificant and positive relationship between the board independence and ROA. This finding is similar with some previous studies such as Chowdhury (2010), Chugh *et al*. (2011), Sahu and Manna (2013), Guoa and Kgab (2012), and Ibrahim and Abdul Samad (2011).

The insignificant relationship between board independence and ROA can be explained possibly due to the major actions adopted by the board. The insignificant relationship among the share of the outside director and company performance would support signaling theory. Poor company performance forces management or controlling shareholders to appoint outside directors to improve performance with the professional competencies that the outside directors are having to give a positive signal to the investors for the improved performance in the future (high outside director's share is deemed as the best corporate governance practices) (Irina and Nadezhda, 2009; Firth *et al*., 2006).

Another important factor of the board of director's characteristics is the board meeting. Corresponding to the agency theory, this study hypothesized that a positive relationship exists between the board meeting and ROA. However, the finding as apparent in Table 5.1 revealed that meeting of the board has an insignificantly relationship to ROA. The result of the insignificant relationship between board meetings and ROA is similar to

prior studies that found that board meeting has not association to ROA such as Kyereboah-Coleman (2007) and Noor (2011).

The insignificant relationship among the board meetings and ROA can be justified reasonably through the argument that the board meeting frequency is not the guarantee of improved firm performance and more often than not, and frequency of the meetings depends on the problem (Jensen, 1993). In this particular scenario, Jackling and Johl (2009) argued that more board meeting is emphasized to investigate and improve poor performance and to, which in turn can be helpful for the improved operating performance in the future, highlighting the presence of a delayed meeting and lower frequency effect. Moreover, balance of meeting's costs and benefits should also be considered (Khanchel, 2007).

This study expected that the commitment of the board has a relationship with ROA. However, this result showed that the commitment of the board has an insignificant association with ROA as illustrated in Table 5.1.

The other important factor of the board of director's characteristics is the board gender. Agreeing with the agency theory, this study hypothesized a relationship between ROA and the board gender. However, the finding as apparent in Table 5.1 revealed that board gender has an insignificant relationship with ROA.

The current study expected that the number of board members who are foreign have a relationship with ROA. However, this result did not support the hypothesis. It was found

that the number of foreign members of the board has an insignificant association with ROA as illustrated in Table 5.1.

The insignificant relationship among the foreign members of the board and ROA may be attached to fact that the foreign members having lack of understanding of local environmental and cultural problems that may be the hindrance to handle a particular situation and to reach an appropriate decision.

Another factor of the board of director's characteristics is the professional certification of board members. Agreeing with the agency theory, this study hypothesized a relationship between the professional certification of board members and ROA. Nevertheless, the finding as seeming in Table 5.1 revealed that professional certification of board members has an insignificant relationship with ROA.

This study expected that the number of members with government linkage would be associated with ROA. Similarly, the result showed that the number of members with government linkage has significant association with ROA as shown in Table 5.1.

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5.2.1.2 Audit Committee Characteristics

With the line of expectations from the previous studies, this study hypothesized that size of the audit committee is expected to enhance the ROA. This is so since the audit committee is primarily developed to help the BODs oversight function in an attempt to increase the financial disclosure. As found in the statistical results of the current study show that the relationship between ROA and audit committee size as outward in Table 5.1 is an insignificant. Therefore, hypothesis H9 has not been supported. This result is in

line with previous empirical studies such us Noor (2011), Kim and Yoon (2007), Ghabayen (2012) and Abdurrouf (2011) in developing countries and Wei (2007) in China.

A possible explanation for this particular study results in respect to the association among the audit committee size and ROA, the particular importance of the audit committees in Malaysia is not considered as in the other countries. This result matches the insignificant result on audit committee size indicating that the role of some specific board practices aspects in developed countries of firm performance is absent in the case of Malaysia. Likewise, insignificant results of the audit committee size in Malaysia indicates towards the awareness and enforcement because the capital market of Malaysia is still developing. Moreover, external corporate governance mechanisms are weak, the participants in the market considers the board independence more significant factor as compared to board size or the audit committee's strength. Another augment of this results is that, Malaysia has opted the composition of independent commissioners, board independence and leadership structure, due to the fact that external governance mechanisms are weak in the Malaysian listed companies.

According to the agency theory; the audit committee independence plays an important role in ensuring that the practices of auditing in CG are observing the financial report effects which leads to the increase of company performance. Therefore, this study hypothesized an association among the independence of the audit committee and ROA. Based on the statistical results, this study found an insignificant relationship among ROA and the independence of the audit committee, as evident in Table 5.1. Consequently, H10 is not supported. So, this result is reliable with the previous studies in developing

countries that found no association among ROA and the independence of the audit committee like Ghabayen (2012), Kyereboah-Coleman (2007) and Noor (2011).

The reasoning for particular insignificant result is that the only existence of audit committee independence on the board may not be sufficient for the achievement of the audit committee monitoring objective to contribute toward increased firm's value. Large majority of expert-independent audit committee members should serve on the audit committee to improve the value of the firm (Al-Matari *et al*., 2012a).

In the light of the agency theory, the audit committee frequent meetings might lead to enhance financial accounting processes and superior performance. To examine this proposition, this study hypothesized that there is a relationship among ROA and the meeting of the audit committee. In the same line, the result as evident in Table 5.1 shows that there is a significant association among them. Thus, hypothesis 11 is supported.

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In the light of the agency theory, commitment of the audit committee may lead to enhance financial accounting processes and superior performance. To examine this proposition, this study hypothesized that there is a relationship among the audit committee commitment and ROA. Nevertheless, the result as it appeared in Table 5.1 shows that there is significant association among them. Therefore, hypothesis 12 is supported.

This study hypothesized that the foreigner audit committee members influence aspects of audit report. The finding as illustrated in Table 5.1 was not as expected. The justification behind the insignificant relationship between the foreign members of the board and ROA

may be attributed to the fact that the foreign members lack the knowledge on the domestic environmental and cultural issues in order to deal efficiently with the entire occurring situation and to make good decisions.

While, this study hypothesized that the financial experience of audit committee members influences aspects of the audit report. The finding as illustrated in Table 5.1 was not as expected.

Table 5.1
Summary of the All Findings

		ROA		TOBIN-Q	
Hy No	Variables	P>t	Decision	P>t	Decision
1	BS	*0.04	Supported	*0.06	Supported
2	BI	0.57	Not Supported	0.85	Not Supported
3	BM	0.22	Not Supported	0.56	Not Supported
4	BC	0.23	Not Supported	0.13	Not Supported
5	BG	0.38	Not Supported	0.75	Not Supported
6	FB	0.39	Not Supported	*0.02	Supported
7	PCB	0.73	Not Supported	0.9	Not Supported
8	GLB	*0.001	Supported	*0.01	Supported
9	ACS	0.68	Not Supported	0.77	Not Supported
10	ACI	0.94	Not Supported	0.96	Not Supported
11	ACM	*0.00	Supported	0.14	Not Supported
12	ACC	0.52	Not Supported	0.22	Not Supported
13	FAC	0.14	Not Supported	0.93	Not Supported
14	FEAC	0.91	Not Supported	0.92	Not Supported

Notes:
∗ Significant at the 0.1, 0.05 and 0.01.

5.2.2 Discussion of Second Model (Results Based on Tobin-Q)

In this section, the hypothesis statements were tested against Tobin-Q, such as characteristics of board of directors and characteristics of audit committee with (Tobin-Q) as evidenced from Table 5.1.

5.2.2.1 Board of Director's Characteristics

With the line of expectations from the previous studies, the relationship among the board size and Tobin-Q was found to be significant indicating that the hypothesis H1 is supported. The result shows that board size does contribute in improving the performance of firms. The previous finding is in line with earlier studies that found a positive relationship between board size and Tobin-Q whether in developed countries such as Albert-Roulhac and Breen (2005), Bauer *et al*. (2009), Danoshana and Ravivathani (2014).

While previous studies suggested that there is a positive relationship between the board independence and Tobin-Q, this study, as depicted in Table 5.1 found a positive insignificant link between the board independence and Tobin-Q. This result is similar to earlier researches that found insignificant association among the independence of the board and Tobin-Q whether in the developed countries such Millet-Reyes and Zhao (2010), Reddy, Locke and Scrimgeour (2010), Rachdi and Ameur (2011) and Sahu and Manna (2013).

The insignificant relation between board independence and Tobin-Q can be justified by the reason that the power of the CEO remains within the council. In addition to this, board is composed of non-executive member, so they cannot take part in the operation and has no role to develop the strategic plans of the company.

The other important factor of the board of director's characteristics is the board meeting. Agreeing with the agency theory, this study hypothesized a relationship among the board

meeting and Tobin-Q. However, the finding as it appeared in Table 5.1 revealed that board meeting has an insignificant relationship with Tobin-Q. This finding is not in the line with the prior studies that confirmed a positive significant relationship among the meeting of the board and Tobin-Q whether in developing countries (Kang and Kim, 2011; Sahu and Manna; 2013) or in developed countries (Khanchel, 2007).

Moreover, a further argument by Vafeas' (2000) is that the board meeting frequency is a critical part that may support to increase the firm's operating performance. Therefore, the board focus should be on the frequency of their meetings if the circumstances force tight supervision then number of meetings should be increased (Khanchel, 2007; Shivdasani and Zenner, 2002).

This study expects that the number of commitment of the board have a relationship with Tobin-Q. However, this result found that the number of commitment of the board has an insignificant association with Tobin-Q as illustrated in Table 5.1.

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The other important factor of the board of director's characteristics is the board gender. Agreeing with the agency theory, this study hypothesized a relationship among the board gender and Tobin-Q. However, the finding as apparent in Table 5.1 revealed that board gender has an insignificant relationship with Tobin-Q.

This study expects that the number of foreign members of the board have a relationship with Tobin-Q. However, this result found that the number of foreign members of the board has a significant association with Tobin-Q as illustrated in Table 5.1.

Another factor of the board of director's characteristics is the professional certification of board members. Agreeing with the agency theory, this study hypothesized a relationship among the professional certification of board members and Tobin-Q. However, the finding as apparent in Table 5.1 revealed that professional certification of board members has an insignificant relationship with Tobin-Q.

This study expects that the number of government linking members of the board have a relationship with Tobin-Q. However, this result found that the number of government linking members of the board has a significant association with Tobin-Q as illustrated in Table 5.1.

5.2.2.2 Audit Committee Characteristics

Based on the agency theory, this study hypothesized that audit committee size is expected to enhance the Tobin-Q. This is so since the audit committee is primarily developed to help the BODs oversight function in an attempt to increase the financial disclosure. Based on the statistical results of the current study, there is an insignificant association between audit committee size and Tobin-Q as it appeared in Table 5.1. Thus, hypothesis H9 is not supported. The result of this study was like those of previous scholars like Kyereboah-Coleman (2007) and Nuryanah and Islam (2011) who found no relationship among the size of the audit committee and Tobin-Q.

Insignificant finding of audit committee size and Tobin-Q gives rise to a possible reasoning that in the Malaysian context, the particular importance of the audit committees in Malaysia is not considered as in the other countries. This insignificant result on audit

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committee size indicating that the role of some specific board practices aspects in developed countries of firm performance is not followed in the context of Malaysia. Likewise, insignificant results of the audit committee size in Malaysia indicates towards the awareness and enforcement because the capital market of Malaysia is still developing. Moreover, external corporate governance mechanisms are weak, the participants in the market considers the independent board independence more significant factor as compared to board size or the audit committee's strength. Another augment of this results is that, Malaysia has opted the composition of independent commissioners, board independence and leadership structure, due to the fact that external governance mechanisms are weak in the Malaysian listed companies.

In according to the agency theory; the independence of the audit committee plays an important role in assuring that CG practices of auditing are observing to effect financial report which leads to the increase of company performance. Therefore, this study hypothesized an association among the independence of the audit committee and Tobin-Q. Based on the statistical results, this study found an insignificant relationship among the independence of the audit committee and Tobin-Q, as it appeared in Table 5.1. Consequently, H10 is not supported. However, this result agrees with those of previous studies, like Al-Matari *et al*. (2012a+b), Kota and Tomar (2010) and Kyereboah-Coleman (2007) that found an insignificant association between audit committee independence and Tobin-Q.

But, the result of this study is different as compared to previous empirical findings, as those studies found a positive relationship in developed countries such as Dey (2008) and

Khanchel (2007) and in the developing countries also like Abdullah *et al*. (2008), Nuryanah and Islam (2011) and Saibaba and Ansari (2011).

The insignificant relationship between audit committee independence and Tobin-Q may be justified by one particular reason, that the only existence of audit committee independence on the board may not be sufficient for the achievement of the audit committee monitoring objective to contribute toward increased firm's value. Large majority of expert-independent audit committee members should serve on the audit committee to improve the value of the firm (Al-Matari *el al*., 2013a).

In the light of the agency theory, regular meetings of the audit committee might lead to enhance financial accounting processes and superior performance. To examine this proposition, the present study hypothesized that there is a relationship among the meeting of the audit committee and Tobin-Q. However, the result that has been showed in Table 5.1 illustrations that there is insignificant association between them. Therefore, hypothesis 11 is not supported. This finding is in antithesis with previous studies that found a relationship among the audit committee meeting and the Tobin-Q like Khanchel (2007) in the US and Kang and Kim (2011) in Korea and Kyereboah-Coleman (2007) and Africa.

In the light of the agency theory, commitment of the audit committee may lead to enhance financial accounting processes and superior performance. To examine this proposition, this current study hypothesized that there is a relationship among the commitment of the audit committee and Tobin-Q. Though, the result that has been

showed in Table 5.1 illustrations that there is insignificant association among them. So, hypothesis 12 is not supported.

This study hypothesized that the foreigner audit committee members influence aspects of audit report. The finding as illustrated in Table 5.1 was not as expected. While, this study hypothesized that the financial experience of audit committee members influences aspects of the audit report. The finding as illustrated in Table 5.1 was not as expected.

5.3 Implications of the Study

This study has contributed towards the enhancement of previous empirical literature that tested the relationship among CG variables , namely board of directors' characteristics (board size, board independence, board meeting, board commitment, board gender, professional certifications, government liking and foreign member on the board), audit committee characteristics (size, independence, commitment, foreign member on the committee, financial experts of the committee and meeting) and firm performance (ROA and Tobin-Q) of the Malaysian public listed companies.

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This study had particularly studied the above said relationship in Malaysia. Hopefully, this study will benefit for the better understanding of the CG mechanism and firm performance in the Malaysian listed companies for all stakeholders in general and particularly owners. Results of the study also gives insight, that the application of good governance structure will support to attract local and foreign investors to the country for the investment in Malaysia with confidence to generate both short and long term profits.

Moreover, this study results were in line with prior empirical evidence, that combined the association among the board and audit committee characteristics to firm performance. This particular study integrated the board committee in the previous empirical literature due to its significant and also encourages all listed companies to enhance performance to build a strong investments portfolio.

The inconsistencies related to the association among the board of directors' characteristics and firm performance, this study tried to re-examine above said association in the developing country of Malaysia.

From the theoretical point of view, many theories that represents relative relationship to CG such as agency theory, resource dependence theory, stewardship theory, institutional theory, stakeholder theory, transaction cost theory, political theory, ethical theories, tournament theory and others, but in this particular study adopted the popular agency theory, due to the fact that it is the most dominant theory in the accounting studies.

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Board of director`s characteristics (board size, board independence, board meeting, board commitment, board gender, professional certifications, and foreign member on the board), audit committee characteristics (size, independence, meeting, foreign member on the committee, financial experts of the committee and meeting) in association with ROA, findings concluded that the agency theory has no reflection in the Malaysian listed companies. However, the result demonstrated that application of agency theory in Malaysia can be seen in government linked companies and audit committee commitment on the board.

Tobin's Q and board of director`s characteristics association (board size, board independence, board meeting, board commitment and board gender), audit committee characteristics (size, independence, foreign member on the committee, financial experts of the committee and meeting) the association with Tobin's Q found to be similar. Based on these findings, the finding the reflection of the agency theory do not exists in Malaysian listed companies. However, other results related to the foreign member on the board, government linking, professional certifications, audit committee meeting and audit committee commitment gives a reflection of the agency theory in Malaysian listed companies.

The present study results have provided a valuable insight for the companies, authorities, policy makers, general public and Malaysian shareholders through many ways. This contributed towards the better understanding of non-financial companies' attributes and the role of CG practices on the firm performance in the Malaysian listed companies.

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Moreover, the present research also contributed towards some practical insights for management. As a part of this, awareness of the management is very important regarding the board governance practices and understanding the role of board diversity and its impact the value of the firm. Awareness of these particular practices can help the firms for the appropriate selection of ways to handle the board of directors, while another important point should be considered that the role of improved board governance towards increased firm value is not same across all firms.

Furthermore, the present research results demonstrate numerous insights that could support government, researches, other relevant stakeholders and in particular the

shareholders. According to the research findings, information related to the non-financial CG is more valuable, when evaluating company's performance as compared to the overall classification of governance. Companies that have adopted the good CG practices may help their investors to get superior returns as compared to companies that has not adopted.

The present study adopted variables used already in previous studies which reported inconclusive findings of the association among independent variables; namely board of directors' characteristics (board size, board independence, board meeting, board gender, government liking and foreign member on the board), audit committee characteristics (size, independence, foreign member on the committee, financial experts of the committee and meeting) and two control variables, firm size and leverage with firm performance (ROA and Tobin's Q). Although the efficiency of CG practices is influenced by the environment in which the firm is operating. It is also noticeable that CG practices differ from one country to another according to culture and other factors. Previous empirical researches did not focus on the other developing jurisdiction and this study is an extension of prior studies in the developing countries as it is based on Malaysia. It will provide a strong insight to regulators, owners, management and government with respect to the association among these variables and firm performance. The Malaysian authorities should understand the significant role of some parameters of the CG structure to be mandated by all the listed companies, so that the investors can have the necessary information to reach informed investment decisions.

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5.4 Limitations of the Study and Future Studies

Despite that the result of this study may offer important insights that had been of interest to many parties such as researcher in this area, companies' shareholders, government and its policymakers, capital markets institutions, financial analyst and other relevant stakeholders, it still has limitations like other studies.

Firstly, this study has concentrated only on Malaysia top 100 companies. So, the proof of the conclusion might not hold for all firms and other companies outside those lists. Thus, the generalization of findings is only limited to the Malaysia listed industrial companies.

Secondly, this study used only one accounting measure that is ROA and one marketing measure which is Tobin-Q for measuring firm's performance, while other measurements were not used. The study ignored other methods of performance measurement reflecting market phenomenon such as Return on Sales, return on equity (ROE), Operating Cash Flow, Operation Profit, Profit Margin, Return on Capital Employed, Return on Investment (ROI), Growth in Sales, Cash to Assets, Sales to Assets and Expense to Assets.

Thirdly, the study only examined certain variables to determine the board's effectiveness for instance size of the board (BS), independence of the board (BI), meeting of the board (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), and government link (GLB) and its relationship to firm performance, even though there are some other important factors such as board process and variability which were ignored.

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Fourthly, the study only investigated certain variables to determine the effectiveness of the audit committee such as size of the audit committee (ACS), audit committee independence (ACI), audit committee meeting (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC) and its relationship to firm performance, it suggests future researchers to investigate the integration of internal audit characteristics with additional committees on the board in order to improve the performance of the company.

Fifthly, this study investigated non-financial firms and excluded financial and non-listed companies. Hence, the findings may not be suitable for financial and non-listed companies. Therefore, simplification that is applicable to all sectors should be made with caution. This study considered two years (2014 and 2015) and this short period of the study may not replicate all the years of operations of the sample companies. So, future researchers ought to consider the extension of this period and to all sectors.

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Finally, this study only examined the agency theory. Alternatively, future studies could investigate the tournament theory in relation to performance of the firms because there is an absence of studies in this field. Future researchers could also investigate the relationship between CG and firm performance pf firms considering additional theories such as political theory, ethical theories, stewardship theory, transaction cost theory, stakeholder theory and others.

5.4 Conclusion

Basically, this study investigated the relationship between CG mechanisms, characteristics of the board of directors (size of the board (BS), independence of the board (BI), meeting of the board (BM), board commitment (BC), board gender (BG), foreigner board (FB), professional certification (PCB), and government link (GLB)} and characteristics of the audit committee (audit committee size (ACS), audit committee independence (ACI), meeting of the audit committee (ACM), audit committee commitment (ACC), foreigner audit committee (FAC), and financial experience of audit committee (FEAC)} with firm performance (Tobin-Q and ROA) of the top 100 listed companies in Malaysian Securities Market (Bursa Malaysia). The study's sample comprised of firms selected from the non-financial sectors at the end of 2014 and 2015. Additional specifically, as stated earlier, the study's motivation arises from the gap in the current literature and inadequate evidences in the context of developing countries, mostly in Malaysia. This study has improved the understanding of CG mechanisms as it affects firm performance, especially with the unique culture and business environment of Malaysia.

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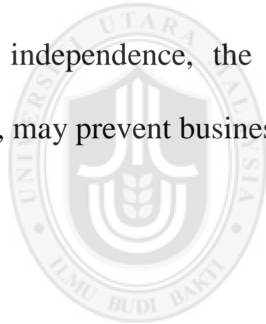
Although Malaysia has an instituted investment friendly business environment to inspire both foreign and local investors to invest without risk, yet the results did not completely support the hypotheses. This might attribute to the lack of good practical implications in some companies. Thus, government representatives in stock market authority ought to make it compulsory for all companies to comply with the corporate governance code. The

Authority of Stock Market also must update to the code to keep it abreast of universal corporate governance code in order to improve performance.

The results of this study provide evidence that there is no one single theory could explain the practices of corporate governance. Additionally, the results are beneficial for academicians and practitioners since it provides an insightful review of the existing work on monitoring mechanisms, regulatory bodies and audit quality. This study also contributes further to audit quality studies and fills the gap in accounting literature.

Furthermore, the Code of Corporate Governance should be made flexible to accommodate diverse forms of businesses. Some requirements like the duties of the board independence, the board diversity, namely experience, qualifications, among others, may prevent businesses from listing their shares in the stock market.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