MIDOCEAN UNIVERSITY

العنوان:

تحديد الفجوات البحثية لرسالة في مجال التخصص



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دراسات نقدية 3



سوف نستعرض معكم تحديد الفجوات البحثية لرسالة في مجال التخصص ثم توضيح مدى اسهام الرسالة في تطوير الموضوع البحثي وغلق الفجوات البحثية.



Chapter
03

مقدمة:

تتُشكّل الفجوات البحثية منطلقاً أساسيا لأي بحث علمي رصين، إذ تكشف عن المناطق التي أغفلتها الدراسات السابقة أو لم تعالجها بعمق كافي.

وفي مجال الحوكمة المؤسسية والأداء المالي في الأسواق الناشئة، لا تزال ثمة فجوات جوهرية تستدعي الاستقصاء العلمي، لا سيما في السياق السعودي الذي يتميز ببيئة تنظيمية وثقافية خاصة.



Chapter
03

بيانات الدراسة:

عنوان الرسالة: Corporate Governance, Voluntary Disclosure and Financial Performance:
An Empirical Analysis of Saudi Listed Firms Using a Mixed-Methods Research Design

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Chapter
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الفجوات البحثية التي أشار إليها الباحث:

أشارت الرسالة صراحة إلى جملة من الفجوات البحثية:

- شُحّ الدراسات التي تتناول أثر إصلاحات الحوكمة المؤسسية في الأسواق الناشئة باستخدام مناهج بحثية مختلطة، إذ اقتصرت معظم الدراسات السابقة على المنهج الكمي وحده.
- غياب دراسات تطبيقية شاملة تبحث في مستوى الامتثال لقواعد حوكمة الشركات السعودية وعلاقته بالإفصاح الطوعي والأداء المالي في آنٍ واحد.
- ندرة الأبحاث التي تأخذ بعين الاعتبار الخصوصية الثقافية والدينية للسياق السعودي وانعكاسها على ممارسات الحوكمة، كاشتراطات الشريعة الإسلامية وهياكل الملكية المركّزة.
- قصور في تحليل العلاقة بين آليات الحوكمة الداخلية (مجلس الإدارة - لجان المراجعة) والإفصاح الطوعي كأداة لتحقيق الاستدامة المالية طويلة الأمد.



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تحليل مدى إسهام الرسالة في غلق الفجوات البحثية:

الفجوة الأولى:

سعت الرسالة إلى تحقيق ستة أهداف متكاملة باستخدام المنهج المختلط كمقاربة جديدة لدراسة أثر إصلاحات الحوكمة وهو ما يُسدّ هذه الفجوة المنهجية بشكل مباشر ومقنع.

الفجوة الثانية:

تناولت الرسالة العلاقة بين مستوى الامتثال لقواعد الحوكمة السعودية وممارسات إدارة الأرباح، عبر بناء مؤشر حوكمة ذاتي الإنشاء مستمد من قواعد الحوكمة السعودية مما يُعدّ إسهاماً منهجياً نوعياً في غلق هذه الفجوة.

الفجوة الثالثة:

أسهمت الرسالة في معالجة هذه الفجوة من خلال اختيار السياق السعودي والتعمق في خصوصيته، مشيرة إلى أن ممارسات الحوكمة قد تختلف كلياً في الشركات السعودية نظراً للمتطلبات الإسلامية والبيئة التنظيمية الخاصة.

الفجوة الرابعة:

بقيت معالجتها جزئية، إذ ركّزت الرسالة على الإفصاح الطوعي كمتغير تابع لا كركيزة للاستدامة المالية .. مما يؤكد أن العلاقة بين الإفصاح والاستدامة المالية في السياق السعودي لا تزال سؤالاً بحثياً مفتوحاً



Chapter
03

رأيي كباحث:

تُمثّل رسالة Albassam (2014) إسهاماً علميا قويا في أدبيات الحوكمة المؤسسية السعودية،

لا سيما في توظيفها للمنهج المختلط الذي أتاح فهماً أعمق للظاهرة المدروسة. غير أن الرسالة " وهذا طبيعي في أي بحث علمي " لم تُغلق جميع الفجوات بالكامل؛

فالعلاقة بين الحوكمة والاستدامة المالية في السياق السعودي لا تزال تحتاج إلى مزيد من البحث التطبيقي، وهو ما يفتح آفاقاً واعدة لبحوث الدكتوراه القادمة في هذا المجال.



Chapter
03

الخاتمة:

كشف تحليل رسالة Albassam (2014) عن أهمية اختيار المنهج البحثي المناسب للسياق المدروس، وضرورة مراعاة الخصوصية الثقافية والتنظيمية عند دراسة ظاهرة الحوكمة في الأسواق الناشئة. كما أوضح التحليل أن الرسالة أسهمت بصورة فعلية في سدّ ثلاثة من أبرز فجواتها البحثية الأربع، في حين بقيت الفجوة المتعلقة بالاستدامة المالية مفتوحةً للبحث المستقبلي، مما يُؤكد أن البحث العلمي مسيرة تراكمية لا تنتهي عند حدود دراسة واحدة.

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Corporate Governance, Voluntary Disclosure and Financial Performance: An Empirical Analysis of Saudi Listed Firms Using A Mixed-Methods Research Design

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ABSTRACT

This thesis empirically analyses corporate governance reforms in Saudi Arabia using a mixed-methods research design. Saudi Arabia has recently pursued corporate governance reforms; the establishment of the Capital Market Authority (CMA) in 2003 and the publication of the Saudi Corporate Governance Code (SCGC) in 2006 constitute a central part of these reforms. This study attempts to provide new insights by exploring the corporate governance reforms pursued. In particular, by using an integrated research design framework, the study seeks to: (i) examine the level of compliance with, and disclosure of, the governance provisions contained in the SCGC by Saudi listed firms; (ii) ascertain whether the introduction of the SCGC has helped improve corporate governance standards in the Saudi corporate context; (iii) investigate the factors affecting voluntary corporate governance disclosure among Saudi listed firms; (iv) examine the association between a number of individual corporate governance mechanisms (i.e., equilibrium-variable model) and financial performance in Saudi listed firms; (v) analyse the relationship between voluntary compliance with the SCGC and firm financial performance by employing a broad composite corporate governance index (i.e., compliance-index model); and (vi) explore the level of awareness and appreciation of good corporate governance practices among key internal and external stakeholders in Saudi Arabia.

The first five objectives outlined above are examined using a quantitative methodology, whereas the sixth objective is investigated by employing a qualitative research design. Efforts have been made to achieve integration between the two different research designs by applying the Explanatory Sequential Design (two sequential stages) proposed by Creswell and Clark (2011) within a multi-theoretical framework that incorporates insights from agency, managerial signalling, stakeholder, stewardship and resource dependence theories. The decision to employ a mixed-methods research design is motivated by the relative lack of, and recent calls for, mixed-methods approaches in corporate governance research. The mixed-methods approach seeks to provide a more complete understanding of the effects of corporate governance reforms on corporate disclosure and performance. In addition to the quantitative analysis, semi-structured interviews were conducted with five different groups of key stakeholders. The interview data offers further scope to: (ii) explore the corporate governance reforms; (ii) examine the impact of such reforms on actual governance practices; and (iii) provide a unique opportunity to further understand and explain the quantitative findings.

Through the quantitative approach, the study examined balanced panel data of 80 Saudi listed firms from 2004 to 2010. This generated a total of 560 firm-year observations that were collected manually from the sampled firms' annual reports. First, the constructed Saudi Corporate Governance Index (SCGI) showed that the introduction of the SCGC has helped improve voluntary corporate governance disclosure among Saudi listed firms. Second, this study found that board size, audit firm size, the presence of a corporate governance committee, government ownership, institutional ownership and director ownership have a positive influence on the level of compliance with the SCGC. In contrast, the analysis showed that the proportion of independent directors and block ownership are negatively correlated with the level of voluntary corporate governance disclosure.

Third, the findings obtained from the compliance-index model suggest that good corporate governance practices, proxied by the SCGI, are positively related to return on assets (ROA), but have no significant relationship with firm value, as measured by Tobin's Q (Q-ratio). Similarly, the results from the equilibrium-variable model are by and large mixed. Whereas CEO duality, proportion of independent directors, board sub-committees and director ownership are positively related to ROA, board size is negatively associated with ROA. On the other hand, the proportion of independent directors, board size, frequency of board meetings and director ownership are positively related to firm value, while CEO duality and the presence of board sub-committees have no significant relationship with firm value. The results from the quantitative analysis are robust to controlling for a number of potential endogeneity problems. Finally, the findings obtained from the interview data generally suggest that the regulatory authorities and the CMA in particular need to further strengthen efforts to enhance the level of awareness and appreciation of good corporate governance practices among key internal and external stakeholders of corporate governance in Saudi Arabia.

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LIST OF ABBREVIATIONS

CG	Corporate Governance
CIM	Compliance-Index Model
CMA	The Capital Market Authority
ECGI	The European Corporate Governance Institute
EVM	Equilibrium-Variable Model
GA	General Assembly
MCI	Ministry of Commerce and Industry
MENA	Middle East and North African countries
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
Q-ratio	Tobin's Q (a market-based measure)
ROA	Return on Assets (an accounting-based measure)
ROSC	Report on the Observance of Standards and Codes
SAMA	Saudi Monetary Agency
SCGC	The Saudi Corporate Governance Code
SCGI	The Saudi Corporate Governance Index
SOCPA	The Saudi Organisation for Certified Public Accountants
Tadawul	The Saudi Stock Exchange
VCGD	Voluntary Corporate Governance Disclosure

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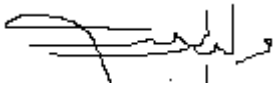
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RESEARCHER'S DECLARATION

I declare that, except where explicit reference is made to the contribution of others, this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signature: 

Printed name: **Waleed M Albassam**

CHAPTER ONE

INTRODUCTION

1. INTRODUCTION

Saudi Arabia has recently pursued comprehensive corporate governance reforms, primarily by: (i) establishing the Capital Market Authority (CMA) in 2003; and (ii) releasing the Saudi Corporate Governance Code (SCGC) in 2006. The Saudi government is also working to re-organise and strengthen the Saudi Stock Exchange (Tadawul). Generally, such reforms are often pursued with the aim of enhancing the ways in which listed firms are governed by encouraging greater board accountability, discipline, fairness, independence, responsibility, transparency and disclosure (Filatotchev and Boyd, 2009; Samaha *et al.*, 2012).

The aim of this study is mainly to explore the corporate governance reforms that have been pursued in Saudi Arabia. Specifically, in response to the corporate governance reforms pursued, this study seeks to achieve six integrated objectives using mixed-methods research as a new approach to investigating the effects of corporate governance reforms on corporate performance and voluntary disclosure behaviour (Boyd *et al.*, 2012; Johl *et al.*, 2012; McNulty *et al.*, 2013; Zattoni *et al.*, 2013). First, this study explores the level of compliance with the SCGC among Saudi listed firms. Second, it investigates whether the introduction of the Saudi code has helped in improving corporate governance practices. Third, it attempts to explore the factors affecting voluntary corporate governance disclosure. Fourth, it estimates the link between a number of individual corporate governance mechanisms and firm financial performance using the equilibrium-variable model. Fifth, it investigates the relationship between the level of compliance with the SCGC and firm financial performance using the compliance-index model. Finally, it examines the level of awareness and appreciation of good corporate governance practices among key internal and external stakeholders of firms in Saudi Arabia.

This chapter is organised as follows. Section 1.1 presents a background and overview of the corporate governance framework in Saudi Arabia. Section 1.2 discusses the motivation and also sheds light on the significance of the study in the context of Saudi corporations. Section 1.3 describes the research questions and the methodology for the study. Section 1.4 highlights the contributions of this study to the extant literature. Finally, Section 1.5 presents the organisation of the whole thesis.

1.1 BACKGROUND – OVERVIEW OF CORPORATE GOVERNANCE IN SAUDI ARABIA

Saudi Arabia has witnessed political, social and economic reforms in the last two decades (Al-Filali and Gallarotti, 2012; Al-Matari *et al.,* 2012). The resent economic reforms led to an improvement in the economic position of Saudi Arabia. Specifically, Saudi Arabia has become one of the largest emerging economies in the world, including having the largest stock market in the Middle East (Piesse *et al.,* 2012). It has also become an important member of the largest 20 economies in the world (G20) (Al-Filali and Gallarotti, 2012). Corporate governance reforms are an important part of the Saudi economic reforms. These reforms coincided with the increasing attention paid to corporate governance following the collapses/scandals in developed countries, such as the UK and the US (e.g., Barings Bank, Enron and WorldCom), and developing countries, such as the 1997/1998 Asian economic crisis (Haniffa and Hudaib, 2006; Hussainey and Al-Najjar, 2012; Ntim *et al.,* 2012a).

However, until the early 2000s, the importance of corporate governance was little appreciated in the Arab world in general and Saudi Arabia in particular (Al-Motairy, 2003). Similarly, until 2006, the Companies Act of 1965 was the main legislation governing companies' behaviour in Saudi Arabia[1] (Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008). A major limitation of this legislation is that the Companies Act does not directly address internal corporate governance mechanisms, except for a few of the provisions associated with the composition of the board of directors. Moreover, important provisions relating to disclosure, transparency, accountability and protection of shareholders, especially minority shareholders, are also not covered by the Companies Act. Thus, until the publication of the SCGC, there were no explicit voluntary corporate governance guidelines the focused directly on regulating the behaviour of officers and directors of corporations in Saudi Arabia.

Furthermore, and as discussed further in Chapter Two, it is worthwhile to note that stock trading was not formalised until the early 1980s, when the Saudi government formed an official stock exchange, as part of the broader attempt at to creating a free market economy (Hussainey and Al-Nodel, 2008; Tadawul, 2012). There were only 14 listed firms in 1975, a number that gradually increased to 72 in 1995. Due to the absence of a supervisory body, the Saudi Arabian Monetary Agency (SAMA) was responsible for

[1] A new Companies Act has been proposed by the Ministry of Commerce and Industry (MCI). This new Act is currently pending approval by the Saudi Council of Ministers. The most prominent features of the new Act include the: (i) expansion of the powers of the general assembly; and (ii) enhancement of internal control mechanisms (Alriyadh, 2011a).

operating, regulating and monitoring the stock market until the CMA was established in 2003 (SFG, 2009; Tadawul, 2012).

This engendered a debate in Saudi Arabia about the need to adopt good corporate governance principles with the aim of improving the performance of the stock market, as well as protecting shareholders' rights (Al-Motairy, 2003; Alshehri and Solomon, 2012). Specifically, academics, investors and practitioners urgently called for the development of, and improvement in, corporate governance standards by: (i) strengthening the financial market (for example, by enhancing market capitalisation, increasing the number of listed firms and allowing direct foreign investors' participation[2]); (ii) protecting shareholders' rights; (iii) improving disclosure and transparency; and (iv) limiting speculation and insider dealing in order to maintain market stability and mitigate sharp fluctuations in share prices (SFG, 2009; Alshehri and Solomon, 2012). In addition, international bodies, such as the World Bank, the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD) generally encouraged developing countries, and particularly Saudi Arabia, to make corporate governance a priority, including facilitating the introduction of codes of good corporate governance (Rwegasira, 2000; Clarke, 2004; ROSC, 2009).

Consequently, in 2003, the Saudi government established the CMA in response to the increasing domestic and international pressure (Al-Nodel and Hussainey, 2010). The CMA, since its establishment, has become responsible for regulating and reforming corporate governance practices and the stock market trading rules[3] (Alshehri and Solomon, 2012). As a consequence, the Saudi stock market has witnessed substantial growth in the last decade in terms of increasing the number of listed firms, market capitalisation, liquidity and visibility (Alshehri and Solomon, 2012). For example, listed firms increased in number from 77 firms in 2005 to 145 firms in December 2010, with a market capitalisation of about $353bn, representing nearly 44% of the total Arab stock market capitalisation (SFG, 2009; Hearn *et al.*, 2011; Tadawul, 2012).

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[2] The CMA prohibits foreign investors, whether they are individuals or institutions, from participating directly in the market. Following the 2006 market crash, the CMA has been keen to boost foreign investment. In August 2008, the CMA granted foreigners (resident or non-resident) the opportunity to indirectly buy Saudi shares through swap arrangements (SFG, 2009, p.6). The operation of swap arrangements involves a process whereby a CMA-approved and licensed Saudi local brokerage firm buys and holds shares on behalf of its foreign customers. Any profits, losses or dividends are then passed on to the foreign customers. Full permission and direct participation by foreign investors is still under discussion, as part of the general attempts to reform corporate governance and enhance the market for corporate control (Okaz, 2013).

[3] As explained above and discussed in Chapter Two, the SAMA was responsible for regulating the stock market from 1984 to 2003. The Saudi Stock Exchange (also known as Tadawul) was established in 2003 and became responsible for operating the stock market under the CMA's control. In 2007, the Saudi Council of Ministers approved the separation of the Tadawul from the CMA to make it an independent entity (Tadawul, 2012).

As previously explained, although general governance reforms began in 2003 with the establishment of the CMA, internal corporate governance in Saudi Arabia was formally institutionalised by the publication of the SCGC in 2006 (Hussainey and Al-Nodel, 2008; Al-Moataz and Hussainey, 2012; Soliman, 2013a). A point worth noting is that the early and rapid growth in market capitalisation since 2004 diverted the CMA's attention from introducing a corporate governance code upon its establishment in 2003 (SFG, 2009; Alshehri and Solomon, 2012). However, following about three years of sharp increases in share prices, the Saudi stock market experienced a dramatic decline in 2006. It lost about 25% of its market value in just two months (in February and March of 2006), ultimately losing approximately 53% of its market value by December 2006. Specifically, the market index dropped from approximately 16,700 to 7,900 between the January 2006 and December 2006, losing over $480bn of its market value. This sudden crash in the Saudi stock market directly intensified the need to improve corporate governance legislation and enhance external corporate governance mechanisms (SFG, 2009; Tadawul, 2012).

Thus, there was an urgent need for a governance code that could help improve corporate governance practices among Saudi listed firms (Alshehri and Solomon, 2012). Further, Al-Abbas (2009) argues that the market crash called into question whether the governance legislation in place at the time could effectively protect investors. In effect, the stock market crash accelerated the introduction of the SCGC in November 2006 with the aim of restoring confidence in the market and protecting investors (Al-Abbas, 2009).

The SCGC addresses many corporate governance issues, including: (i) board of directors; (ii) disclosure and transparency; (iii) shareholders' rights and the general assembly; and (iv) internal controls and risk management (CMA, 2010). Similar to the Companies Act, which was derived largely from the British Companies Act (see Hussainey and Al-Nodel, 2008) the SCGC is mostly extracted from the 1992 UK Cadbury Report (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Seidl *et al.,* 2013). For example, the SCGC recommends an Anglo-American style. Specifically, the board of directors consists of executive and non-executive directors (unitary board of directors). Board of directors is primarily accountable to shareholders through a voluntary compliance and disclosure regime 'comply or explain'. In addition, the CMA took an early initiative to release other governance legislation, such as the Market Law and Listing Rules in 2004. The CMA implemented such legislation to reform the internal corporate governance framework.

1.2 MOTIVATION OF THE STUDY

The financial crisis in the South East Asian stock market in 1997/1998 is attributed to poor corporate governance, transparency and disclosure practices (Haniffa and Hudaib, 2006). In the past decades, the collapse of big companies in developed countries, such as Enron and WorldCom, is also partly attributed to weak corporate governance practices (Hussainey and Al-Najjar, 2012; Ntim *et al.,* 2012a). Given the importance of corporate reforms, corporate governance has attracted much attention from policy-makers and academics (Aguilera and Cuervo-Cazurra, 2009). In light of this, this study aims to investigate the corporate governance reforms that have been pursued in Saudi Arabia for the following four main reasons.

First, Saudi Arabia has institutional, regulatory and contextual characteristics similar to some other developing Islamic and Arab countries (Piesse *et al.,* 2012). On the other hand, it is different from many developed and developing countries in a number of regulatory, institutional and contextual aspects. Specifically, Saudi Arabia is an Islamic state, where Shariah (Islamic) law is promulgated (Hussainey and Al-Nodel, 2008; Safieddine, 2009; Judge, 2010). The Saudi government emphasises that the constitution of Saudi Arabia is based on Shariah. Moreover, most formal statutory rules are strictly based on Islamic laws (Al-Matari *et al.,* 2012).

Therefore, Islamic principles fundamentally influence daily life in Saudi society, including in business, law, economics and politics, among other areas (Abu-Tapanjeh, 2009; Kamla, 2009). Furthermore, Islamic governance characteristics are explicitly underpinned by these values, such as accountability, equality, fairness, generosity, morality, justice, philanthropy, social responsibility, transparency and truthfulness (Abdul-Rahman, 1998; Sarker, 1999). Practices that contravene these values, such as exploitation, profiteering and gambling, are prohibited (Lewis, 2005; Choudhury and Hoque, 2006). As a corollary, implications of the commitment to those principles are reflected in corporate operations. This can create unique corporate governance challenges in terms of the agency problems (Safieddine, 2009; Vinnicombe, 2010). For example, Shariah prohibits ex-ante charging/offering of interest (riba or usury) (Lewis, 2005; Kamla *et al.*, 2006). Thus, Islamic finance in different forms, such as '*Mosharkah*' and '*Murabaha*',[4] is very common

[4] '*Musharakah*' primarily operates like a joint-venture contract in which a bank and an entrepreneur make joint contributions of capital and management expertise into a business project. Any profit or loss emanating from the project is shared according to a pre-determined ratio (Kamla, 2009; Archer *et al*., 2010). In contrast, '*Murabaha*' contracts are profit-sharing agreements, in which the whole capital required to finance a project is provided by a bank. However, the counter-party provides the managerial expertise and labour. Any profit from the project is shared by both parties according to a pre-determined ratio; the losses (if any) are borne solely by the bank (Kamla, 2009; Archer *et al*., 2010).

among most Saudi listed companies (Kamla, 2009). This makes it highly interesting to explore the corporate governance practices in Saudi Arabia (Lewis, 2005; Safieddine, 2009).

Apart from Islamic governance characteristics, the Saudi corporate context has distinctive cultural features, which include strong hierarchical social norms (Al-Twaijry *et al.,* 2002; Haniffa and Hudaib, 2007; Alshehri and Solomon, 2012). Specifically, the corporate context is greatly affected by informal social relations, such as family, tribal and personal relationships, which are highly socially valued (Hussainey and Al-Nodel, 2008). A study by the Union of Arab Banks found that many listed firms in Arab countries are dominated by families (Baydoun *et al*., 2013). Family firms usually employ their relatives. This implies that individuals are not necessarily hired based on merit, but rather based on their linage, loyalty and informal/personal relationship with the owners of the firm. Arguably, such informal governance arrangements can impact negatively on internal governance mechanisms.

In addition, Saudi Arabia has been under monarchical rule since its unification in 1932. Specifically, the three main fundamental structures (powers) are the executive, legislature and judiciary structures, which are all under the direct control of the Saudi king (Al-Matari *et al.,* 2012). Thus, political connections are considered to influence corporate governance practices, especially appointments to corporate boards (Hussainey and Al-Nodel, 2008). For example, public companies are largely dominated by political appointments. This may have negative consequences for the composition and independence of corporate boards. Furthermore, government intervention may hinder the effectiveness of external corporate governance mechanisms in the Saudi stock market.

Meanwhile, the current literature suggests that interest in studying and exploring corporate governance has been steadily growing in Islamic and Arab countries, including Saudi Arabia (Alsaeed, 2006; Kamla and Roberts, 2010; Baydoun *et al.,* 2013). This is mainly due to the differences in religious, social and political systems in these countries compared to those of developed countries, where most studies have focused. Therefore, these important and distinctive regulatory, institutional and contextual differences can have significant implications for the effectiveness of corporate governance, disclosure, accountability and performance mechanisms.

Second, Baydoun *et al*. (2013) report that ownership of Saudi corporations is highly concentrated. The implication is that such high ownership concentration in Saudi listed firms can exacerbate the agency problem because of limited distinction between ownership and control (Jensen and Meckling, 1976). Baydoun *et al.* (2013) suggest that concentrated

ownership results in the appointment of close friends and relatives to corporate boards, which limits board independence among Middle Eastern firms. The World Bank's report on the observance of standards and codes (ROSC) relating to corporate governance practices shows that ownership in Saudi listed firms tends to be concentrated in government and family holdings (ROSC, 2009). For example, and as discussed in Chapter Six, the government owns more than 70% of some firms' equity, with an average of 42% of the stock market value. This may result in limited institutional investment, as well as limited foreign participation in the market (La Porta *et al.*, 2002). It can also impact negatively on market efficiency and weaken the role of the market for corporate control as an external governance mechanism (Jensen and Meckling, 1976; Haniffa and Hudaib, 2006; Ntim *et al.*, 2012b).

Additionally, despite the existence of concentrated ownership structures, the SCGC is voluntary and is based on the UK's 'comply or explain' style (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Seidl *et al.*, 2013), where corporate ownership in UK listed firms is relatively widely held (Hussainey and Al-Najjar, 2012). Hence, this raises the question of whether the voluntary Saudi Corporate Governance Code (SCGC) could effectively improve corporate governance standards among Saudi listed firms that explicitly suffer from high ownership concentration.

Third, as discussed in Section 1.1, Saudi Arabia is an important emerging economy (Al-Filali and Gallarotti, 2012). Its stock market accounted for 44% of the total Arab market capitalisation and 25% of the total Arab GDP in 2010 (SFG, 2009; Hearn *et al.*, 2011). Since 2008, Saudi Arabia has achieved an important economic position at international level as a member of the G20 (Al-Matari *et al.*, 2012). In addition, Saudi Arabia is one of the largest oil producers in the Organization of the Petroleum Exporting Countries (OPEC), accounting for 31% of the total OPEC production in 2010. Also, Saudi Arabia holds one quarter of the world's oil reserves (OPEC, 2012).

Furthermore, Saudi Arabia embraces extensive foreign investments; in addition, it invests significantly in both developed and developing countries[5] (Al-Filali and Gallarotti, 2012). This implies that any corporate governance failures in Saudi Arabia may have serious implications far beyond the Middle East and developing economies. For example, poor corporate governance practices may lead not only to losses to domestic shareholders, but also foreign shareholders. Also, the presence of weak corporate governance regime can exacerbates information asymmetry, which negatively affects the attractiveness of

[5] Foreign investment in Saudi Arabia reached about $170bn in 2011, invested by more than 50 countries (Alriyadh, 2011b). Furthermore, Saudi Arabia invests globally in the field of energy, petrochemicals and financial spread in a number of countries, such as in the US, Europe and Asia (MOF, 2011).

investment in Saudi Arabia. Baydoun *et al*. (2013) argue that despite the importance of Gulf countries, which are the main oil producers, led by Saudi Arabia, little attention has, however, been given to studying their commerce and finance activities.

Fourth, although a number of countries have issued corporate governance codes[6] (Aguilera and Cuervo-Cazurra, 2009; Samaha *et al.,* 2012; ECGI, 2013), empirical studies mainly concentrated in a few developed countries (Baydoun *et al.,* 2013; Bozec and Bozec, 2012; Ntim and Soobaroyen, 2013). However, due to the variation between countries in terms of the effectiveness of corporate governance mechanisms (Aguilera and Cuervo-Cazurra, 2009), the legal system (Bozec *et al.,* 2010) and cultural practices (Haniffa and Hudaib, 2006; Kamla and Roberts, 2010) as discussed above, the effects of corporate governance practices on voluntary disclosure and corporate performance can be expected to vary between developing and developed countries. Therefore, an investigation of corporate governance reforms in developing countries, where there is a lack of empirical evidence, is crucial in providing a complete understanding of the impact of corporate governance reforms on firm financial performance and voluntary disclosure practices.

Moreover, the literature indicates that previous studies on Saudi Arabia have not investigated the governance reforms from an integrated perspective (Al-Nodel and Hussainey, 2010). This notwithstanding, however, there are a limited number of studies that have been conducted on Saudi Arabia that have focused on different aspects of corporate governance that need to be explicitly acknowledged. These studies can be classified into three groups. The first group consists of studies that statistically examine the level of compliance with corporate governance standards and also look at the factors influencing voluntary corporate governance disclosure (e.g., Alsaeed, 2006; Hussainey and Al-Nodel, 2008; Al-Moataz and Hussainey, 2012; Al-Moataz and Lakhal, 2012; Al-Janadi *et al.,* 2013). Generally, as discussed in Chapter Three, these studies show that there have recently been relative improvements in the level of compliance with corporate governance rules, as well as identifies a variety of factors that influence good corporate governance practices. The general limitation of these studies is that they were conducted based on a relatively small number of governance provisions, small samples, and unbalanced panel data.

The second group of studies empirically examines the relationship between individual corporate governance and firm financial performance (e.g., Al-Abbas, 2009; Safieddine, 2009; Al-Nodel and Hussainey, 2010; Alzharani *et al.,* 2011; Ezzine, 2011;

[6] After the publication of the UK's Cadbury Report in 1992, many countries around the world began issuing their own governance codes (Aguilera and Cuervo-Cazurra, 2009). According to the European Corporate Governance Institute (ECGI), 91 countries had released their own codes by the middle of 2013 (ECGI, 2013).

Soliman, 2013a and b). With a focus on individual governance mechanisms related to board composition and ownership, these studies suggest that better governed firms, on average, tend to perform better than poorly governed firms. The current study extends the previous ones in two ways: (i) by examining the association between individual (equilibrium-variable model) governance mechanisms and corporate performance; and (ii) by investigating the link between the level of compliance (compliance-index model) with the SCGC and firm financial performance.

The third and final group of prior studies comprises qualitative research investigating corporate governance practices in the Saudi corporate context, such as Al-Twaijry *et al.* (2002), Al-Razeen and Karbhari (2004), Haniffa and Hudaib (2007), Piesse *et al.* (2012), Al-Matari *et al.* (2012), Alshehri and Solomon (2012) and Robertson *et al.* (2013). Using questionnaire and interview data, these studies generally explore stakeholders' perceptions of corporate governance practices. It can be noted from the findings of these studies that there is strong stakeholder support for further corporate governance reforms in order to increase the protection of shareholders' rights.

To sum up, this study is different from previous studies conducted on Saudi Arabia in a number of ways. First, previous Saudi studies use either a quantitative approach (e.g., Alsaeed, 2006; Al-Abbas, 2009; Al-Moataz and Lakhal, 2012) or a qualitative approach (e.g., Al-Matari *et al.*, 2012; Alshehri and Solomon, 2012; Piesse *et al.,* 2012). However, this study employs a mixed-methods research design, potentially providing a more complete understanding of the effects of corporate governance reforms on corporate disclosure and performance (Zattoni *et al.,* 2013). A central criticism of the findings from previous studies using quantitative data is that they do not provide sufficient interpretation of the results due to the excessive reliance on statistical data (Boyd *et al.,* 2012). In contrast, in a mixed-methods study, it can be argued that data obtained from interviews can be helpful in explaining and interpreting the statistical findings obtained from the qualitative data (Boyd *et al.,* 2012; Johl *et al.,* 2012).

Second, prior studies that have explored the level of compliance using a particular index have generally focused either on a small number of governance provisions (e.g., Alsaeed, 2006) or on one governance aspect. For example, Al-Moataz and Lakhal (2012) and Al-Janadi *et al.* (2013) focus heavily on board of directors' provisions, while Al-Razeen and Karbhari (2004) and Hussainey and Al-Nodel (2008) concentrate on firms' information reporting. In contrast, this study constructed the Saudi Corporate Governance Index (SCGI), consisting of 65 provisions classified into four different sub-indices: (i)

board of directors and board sub-committees; (ii) disclosure and transparency; (iii) internal control and risk management; and (iv) shareholders' rights and the general assembly.

Third, most existing studies have not relied on the SCGC in constructing their index. For example, Alsaeed (2006) relied on ratings developed by other previous studies. Similarly, Hussainey and Al-Nodel (2008) and Al-Nodel and Hussainey (2010) reviewed previous literature to draw up disclosure items, while Piesse *et al.*'s (2012) index was guided by the principles set out in the OECD's principles of corporate governance. This calls into question the ability of these studies to capture contextual governance challenges that have been discussed previously, and thus, the applicability or relevance of the findings from these studies to the Saudi corporate context. Therefore, this study employs a self-constructed index derived from local governance legislation (the SCGC), which is arguably more applicable to the Saudi corporate context.

Finally, previous studies use noticeably smaller sample sizes than this study. This study uses a balanced panel data over a longer period (2004-2010), while previous studies use unbalanced panel data over a relatively short period. Thus, this study can also be considered as an extension of previous studies with regard to sample size, research method and the balanced nature of panel data with a longer time horizon. Arguably, this improves the generalisability of the findings for Saudi listed corporations.

1.3 RESEARCH QUESTIONS AND METHODOLOGY

In this study, the central research question is: Has the publication of the Saudi Corporate Governance Code (SCGC) in 2006 helped in improving corporate governance practices and does it impact on corporate performance in Saudi listed firms? To answer this key question, the central research question is divided into six supplementary or sub-questions.

The first sub-question is: What is the level of compliance with the 2006 SCGC? This question examines to what extent Saudi listed firms comply with the SCGC. Following recent studies, a corporate governance index is constructed to examine the level of voluntary corporate governance disclosure among Saudi listed firms (e.g., Alsaeed, 2006; Tsamenyi *et al.*, 2007; Al-Moataz and Hussainey, 2012; Ntim *et al.*, 2012a; Allegrini and Greco, 2013; Tariq and Abbas, 2013). The second sub-question is: Has the introduction of the 2006 SCGC improving Saudi corporate governance practices? This question aims to investigate whether the introduction of the Saudi code has helped in enhancing corporate governance practices by examining and comparing pre- and post-2006

levels of corporate governance disclosure. The third sub-question is: What are the factors that influence the level of compliance with the 2006 SCGC? In exploring this question, the study seeks to explore the factors influencing voluntary compliance with the SCGC. The literature on corporate governance suggests that board of directors' characteristics and firm ownership structure are the main determinants of voluntary corporate governance disclosure (e.g., Haniffa and Cooke, 2002; Eng and Mak, 2003; Chalevas, 2011; Samaha *et al.,* 2012; Allegrini and Greco, 2013; Ntim and Soobaroyen, 2013). Therefore, the most influential corporate governance and ownership structure variables, based on extensive review of the literature, were chosen and investigated.

The fourth sub-question is: What is the association between individual corporate governance mechanisms and firm financial performance? The study uses the equilibrium-variable model, as the traditional approach to answer this sub-question (e.g., Vafeas and Theodorou, 1998; Weir and Laing, 2000; Haniffa and Hudaib, 2006; Mangena *et al.*, 2012). The fifth sub-question is: What is the relationship between compliance with the 2006 SCGC and firm financial performance? The study employs the compliance-index model to answer this question. The compliance-index model involved an examination of the relationship between corporate governance as a set of provisions and firm financial performance, using the constructed index (e.g., Black, 2001; Gompers *et al.,* 2003; Cremers and Nair, 2005; Morey *et al.,* 2009; Bauer *et al.,* 2010; Renders *et al.,* 2010; Giroud and Mueller, 2011; Ammann *et al.,* 2013; Munisi and Randoy, 2013; Tariq and Abbas, 2013; van Essen *et al.,* 2013). These two different models help to explore the differences in findings and their implications.

This research follows previous corporate governance studies in choosing an appropriate approach to answer the first five research questions using quantitative data. In particular, statistical techniques of data analysis are used to ensure that findings are valid and reliable (Collis and Hussey, 2009; Creswell, 2009). The data includes financial and non-financial information, mainly extracted from firms' annual reports, which are reliable sources (Omar and Simon, 2011).

The final sub-question is: What is the level of awareness and appreciation of the importance of good corporate governance practices in Saudi Arabia among key stakeholders following the corporate governance reforms? Qualitative data was used to answer this question by investigating the impact of corporate governance reforms within the Saudi corporate context. In addition, investigating this qualitative research sub-question provides a unique opportunity to further understand and explain the quantitative findings. As noted from descriptive studies on corporate governance, semi-structured interviews are

suitable for exploring corporate governance reforms (e.g., Haniffa and Hudaib, 2007; Piesse *et al.,* 2012; Soobaroyen and Mahadeo, 2012; Bailey and Peck, 2013). Therefore, semi-structured interviews were conducted with five different stakeholder groups, including boards of directors, key executive management, audit firm partners, regulators and shareholders.

As explained in Chapter Four, this study uses a mixed-methods research approach. Recently, mixed-methods research has attracted much attention because it can help in achieving integration between quantitative and qualitative data/findings (Cassell *et al.,* 2005; Boyd *et al.,* 2012; Johl *et al.,* 2012; Zattoni *et al.,* 2013). Molina-Azorin (2012, p.33) states: "*mixed-methods research is becoming an increasingly popular approach in several areas, and it has long been called for as an approach for providing a better understanding of research problems*". Because of the importance of studying the behaviour of individuals and firms, management studies have paid close attention to mixed-methods research (Clarke, 1998; Cassell *et al.,* 2005). Johl *et al*. (2012) note that the complexity of business management research has contributed to the use of mixed-methods in providing in-depth explanation and understanding of the governance phenomenon.

According to Creswell and Clark (2011), mixed-methods research uses two levels of integration between quantitative and qualitative data: the independent level and the interactive level. The current study uses the independent level to answer the quantitative and qualitative research questions separately, as well as for the data collection and analysis. To achieve integration, the findings from these two methods are discussed jointly at the after presenting and discussing the quantitative and qualitative findings individually.

As discussed further in Chapter Four, and in line with mixed-methods studies on corporate governance (e.g., Mengoli *et al.,* 2009; Johl *et al.,* 2012), the explanatory sequential design (two sequential stages) suggested by Creswell and Clark (2011) is employed. This study initially focuses on the quantitative data because of the nature of the research problem and research questions (see Morgan, 1998). Then, after obtaining the statistical findings, the study explores deep insights from interviews using a thematic analysis approach.[7] The interview data helps in improving the quantitative findings of the study in the following three ways. First, the interviews provide additional scope for analysis to explore the impact of corporate governance reforms on actual governance practices (Boyd *et al.,* 2012; Molina-Azorin, 2012). Second, they increase the robustness

[7] It is worthy to note that this is mainly a quantitative (senior) study, which is supplemented with a qualitative (junior) data to facilitate the interpretations, meanings, and implications of the quantitative findings. Arguably, this minimises the weaknesses that are often associated with prior studies that are purely quantitative in nature.

of the empirical findings obtained from the quantitative approach (Mengoli *et al.,* 2009). Finally, the interviews provide close and more in-depth insights in the improvements achieved, and impediments that still needs to be addressed with respect to the corporate governance reforms pursued, which arguably cannot be developed through the analysis of quantitative data alone (Bailey and Peck, 2013).

1.4 CONTRIBUTIONS OF THIS STUDY

The current study contributes to the corporate governance literature in several ways. First, it contributes by showing how the findings from quantitative and qualitative data can be integrated to examine corporate governance behaviour using mixed-methods research design. Quantitative research noticeably dominates business studies generally and corporate governance studies in particular (Boyd *et al.,* 2012; Zattoni *et al.,* 2013). Despite the importance of qualitative data in management behaviour research, little attention has been paid to corporate governance (Soobaroyen and Mahadeo, 2012; McNulty *et al.,* 2013). In this regard, Molina-Azorin (2012) reports that 77% of existing studies on business research are quantitative, whereas only 8% of existing studies use a qualitative research design.

However, it has been argued that quantitative data by itself does not provide sufficient an explanation of findings obtained through statistical analysis (Zattoni *et al.,* 2013). More precisely, quantitative findings do not provide a detailed interpretation, and are less likely to shed light on 'why' a social phenomenon occurs (Morgan and Smircich, 1980; Cohen *et al.,* 2002; Creswell and Clark, 2011). Therefore, Zattoni *et al*. (2013) highlight the lack of agreement among results in the corporate governance literature derived from using statistical analysis. This serves as motivation for researchers to use interviews along with quantitative data to explore interaction among key stakeholders. Mengoli *et al*. (2009) argue that a qualitative method (interviews) also provides a mechanism for checking the robustness of quantitative data findings.

Boyd *et al*. (2012) and Molina-Azorin (2012) argue that mixed-methods research generates more reliable and credible findings than any single method employed. Molina-Azorin (2012) conducted a survey about the methodology used in studies published in the *Strategic Management Journal* from 1980 to 2006. He found that mixed-methods studies tend to be cited more often than studies using a single method. This indicates that studies using mixed-methods are highly valued by researchers (Boyd *et al.,* 2012; McNulty *et al.,*

2013; Zattoni *et al.*, 2013).[8] As discussed in Chapter Four, the study shows that it is empirically possible to employ a mixed-methods approach in a study on corporate governance reforms. Therefore, adopting a mixed-methods approach in this research paves the way for the application of this methodology by future researchers in the context of corporate governance.

Second, the study contributes to the literature by adopting a multiple-theoretical framework to interpret the empirical findings and to understand corporate governance behaviour in depth. It has been noted that existing studies on corporate governance usually adopt agency theory despite the importance of using other complementary corporate governance theories (Filatotchev and Boyd, 2009; Chalevas, 2011; Zattoni *et al.*, 2013). Zattoni *et al*. (2013) suggest that the mixed findings obtained by corporate governance studies are a result of adopting only agency theory. Therefore, this study contributes by explain how to use multiple theories in interpreting the empirical findings.

Third, to the best of this researcher's knowledge, this study is the first to show evidence of the level of compliance with the Saudi Corporate Governance Code, as well as comparing compliance before and after the introduction of the code in 2006. More precisely, this study is the first attempt to investigate the relationship between the issued code and voluntary corporate governance disclosure in Saudi Arabia. Furthermore, the Saudi Corporate Governance Code is voluntary, adopting the UK's 'comply or explain' style (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Piesse *et al.*, 2012). Existing studies have suggested differences (as previously discussed) between the UK and Saudi Arabia in terms of effective governance mechanisms, legal systems and cultural practices (Haniffa and Hudaib, 2006; Aguilera and Cuervo-Cazurra, 2009; Bozec *et al.*, 2010; Kamla and Roberts, 2010). Therefore, the study also contributes to the literature by examining the possibility of adopting a UK-style governance regime in Saudi Arabia. The findings suggest that the introduction of the SCGC in 2006 has helped in improving corporate governance practices among Saudi listed firms.

Fourth, the study contributes to the extant governance literature by providing empirical evidence on the factors determining good corporate governance practices in Saudi listed firms. The factors investigated include the board of directors' characteristics and firm ownership structure. The results suggest that board size, audit firm size, the presence of a corporate governance committee, government ownership, institutional

[8] However, and as discussed in Chapter Four, mixed-methods research may be more costly and difficult to conduct because of: (i) the diversity of skills required (e.g., quantitative and qualitative data collection and analysis skills; (ii) multiplicity of data required (e.g., qualitative and quantitative data); and (iii) greater resource requirements (e.g., more time to collect data and travelling costs), amongst others. These can be impediment to the use of mixed methods research.

ownership and director ownership have a positive influence on the level of compliance with voluntary corporate governance disclosure, whereas the proportion of independent directors and block ownership are negatively correlated with the level of voluntary corporate governance disclosure.

Fifth, this study contributes to and extends the extant literature by providing evidence on the influence of corporate governance practices on firm financial performance. Existing studies for both developed and developing countries that examine this relationship use either the equilibrium-variable model or the compliance-index model. However, this study contributes to the literature by adopting both of these approaches, thereby helping explore the influence of the chosen method on the findings. The evidence from the findings from the equilibrium-variable model indicate that CEO duality, proportion of independent directors, board sub-committees and director ownership are positively related to ROA. Also, the findings show that frequency of board meetings has no significant relationship with ROA, while board size is negatively associated with ROA. However, the proportion of independent directors, board size, the frequency of board meetings and director ownership are positively related with firm value, while CEO duality and board sub-committees have no significant relationship with firm value. In contrast, the compliance-index model suggests that good corporate governance practices are positively related to return on assets (ROA), but have no significant relationship with firm value, as measured by Tobin's Q (Q-ratio).

Sixth, the awareness and appreciation of good corporate governance practices among key stakeholders in Saudi Arabia was investigated in depth by conducting semi-structured interviews. This study contributes to the corporate governance literature by providing insights about boardroom interactions, the behaviour of regulatory bodies, auditors' influences and general stakeholders' perceptions regarding the recent corporate governance reforms in Saudi Arabia. The findings suggest that there is a need to encourage small shareholders to exercise their rights in order to improve good corporate governance practices and enhancing accountability of management and board of directors to shareholders. Furthermore, there is a need for regulatory bodies in Saudi Arabia to further increase market depth, enhance institutional investment and allow more direct foreign investor participation in order to activate the market for corporate control as an external corporate governance mechanism.

Seventh, to the researcher's best knowledge, this study is innovative in the Saudi corporate business context because it employs a broad self-constructed index consisting of 65 provisions derived from the local governance legislation. Most existing empirical

studies adopt subjective analysts' ratings (ready-to-use) to explore the level of compliance. It can be argued that the differences in governance mechanisms and legal systems among countries are not taken into account when subjective analysts' ratings are used (Renders *et al.,* 2010). Moreover, subjective analysts' ratings focus on certain provisions, such as board of directors' and ownership structure (Ammann *et al.,* 2013). Thus, this study contributes to the literature by providing a constructed index applicable to the Saudi context, which also opens up new avenues for future research.

Eighth, the current literature suggests that studies on corporate governance focus heavily on developed countries (Bozec and Bozec, 2012; Baydoun *et al.,* 2013; Ntim and Soobaroyen, 2013). To the best of the researcher's knowledge, to date, no study has investigated corporate governance reforms either in developed or developing countries using an integrated framework. Specifically, this study attempts to explore corporate governance reforms from three integrated perspectives: (i) voluntary corporate governance disclosure; (ii) financial performance; and (iii) the awareness and appreciation of good corporate governance practices using a qualitative research design. Therefore, the developed integrated framework provides new insights in studying corporate governance reforms. Thus, the findings of this study pave the way for the use of the integrated approach by establishing evidence of corporate governance reforms in Saudi Arabia.

Finally, the findings of this study contribute to the extant literature by assessing corporate governance reforms for policy-makers and regulatory bodies. Additionally, the findings of this study may have practical importance to regulatory authorities and policy-makers, such as the Ministry of Commerce and Industry, the Capital Market Authority and the Saudi Stock Exchange (Tadawul) in terms of enhancing the market for corporate control as an external governance mechanism.

1.5 ORGANISATION OF THE THESIS

As shown in Figure 1.1 below, the thesis is organised into ten chapters investigating the corporate governance reforms in the Saudi business context and their influence on voluntary corporate governance disclosure and firm financial performance. Chapter One seeks to introduce the research objectives, discuss the background of the study, articulate the main motivation of the study, present the research questions and elaborate on the research contributions. The chapter concludes with a brief outline of the way in which the thesis is organised. Chapter Two presents a brief overview of corporate governance in Saudi Arabia. It aims to explore the corporate governance framework that

helps make the corporate governance reforms model more understandable. More precisely, it sheds light on the external framework, including regulatory and supervisory bodies. It also discusses the internal framework, including governance legislation before and after the recent governance reforms in Saudi Arabia. Also, Chapter Two presents a review of the difficulties and challenges faced by the corporate governance regime in Saudi Arabia.

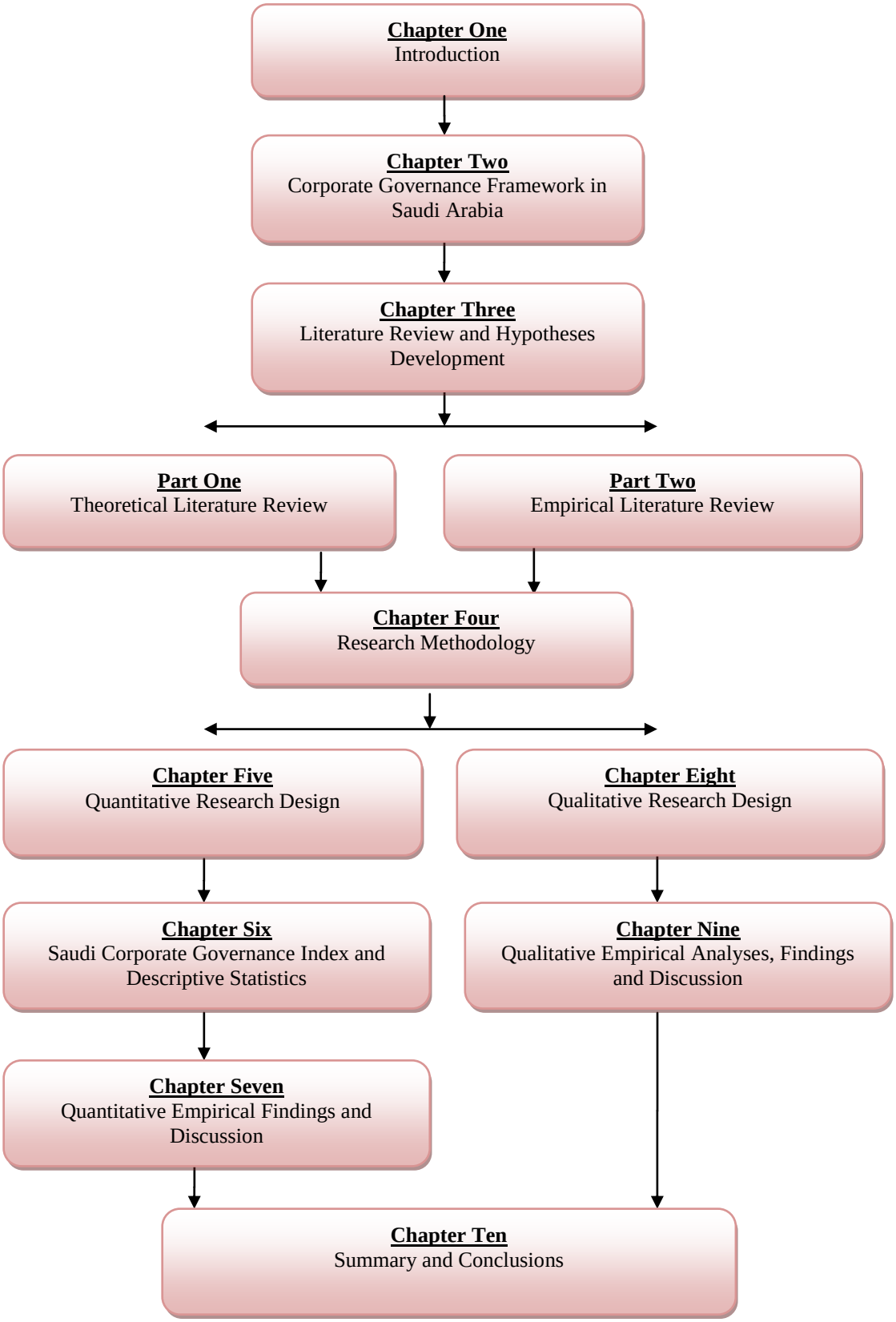
Chapter Three presents a review of related theoretical and empirical studies on corporate governance. More specifically, the chapter is divided into three main sections. First, it reviews key theories associated with corporate governance, which include agency, stakeholder, stewardship, managerial signalling and resource dependence theories, by highlighting their implications within the Saudi context. Distinct from most prior studies a multiple-theoretical perspective is adopted instead of focusing only on agency theory. This provides a profound understanding of corporate governance behaviour and its predictions of the relationship between corporate governance mechanisms and voluntary corporate governance disclosure/financial performance (Ntim and Soobaroyen, 2013). Furthermore, reviewing these theories helps in incorporating them into a framework that can be used in interpreting and rationalising the empirical findings. Chapter Three also reviews empirical studies from both developed and developing countries that investigate the level of compliance with corporate governance codes and the determinants of voluntary corporate governance disclosure. Third, it reviews existing empirical literature examining the relationship between corporate governance mechanisms and firm financial performance in both developed and developing countries.

Chapter Four presents the research design and methods used in this research. The compatibility of the selected research design with the research objectives and questions is discussed. The chapter also addresses the challenges in using a mixed-methods research design. Following this, the next three chapters shed light on the quantitative data and discuss the findings relevant to the literature. In particular, Chapter Five discusses the quantitative research design, methodology and statistical analysis of data used in this study, and the justification of the chosen data and research design. Three statistical corporate governance models are employed: (i) the voluntary corporate governance disclosure model, which explores the level of compliance with the SCGC and the factors affecting voluntary corporate governance disclosure; (ii) the equilibrium-variable model, which investigates the link between a number of individual corporate governance mechanisms and firm financial performance; and (iii) the compliance-index model, which examines the relationship between the constructed SCGI and corporate financial performance.

In Chapter Six, the descriptive statistics of the constructed Saudi Corporate Governance Index (SCGI) are presented. This chapter presents the statistical summaries of the financial proxies, the explanatory variables and the control variables used in the developed models. Chapter Seven discusses the empirical findings obtained by running the multivariate regression model using Ordinary Least Squares (OLS). The tolerance values of the variables are used to examine: (i) the determinants of voluntary corporate governance disclosure; and (ii) the relationship between corporate governance practices and firm financial performance using both the equilibrium-variable model and the compliance-index model. The robustness of the results and the possible existence of any endogeneity problems are also examined by conducting a number of sensitivity analyses, including estimating a fixed-effects model and an instrumental variable model.

The following two chapters then address the qualitative data and its analysis in this thesis. Specifically, Chapter Eight presents the theoretical framework that underlies the qualitative research method, the design of the semi-structured interviews and the process of data collection and data analysis using a thematic analysis approach. Chapter Nine presents an analysis of the semi-structured interviews that targeted five different internal and external key stakeholders groups, including boards of directors, executive management, audit firm partners, regulators and shareholders. In addition, Chapter Nine uses interview data to reveal the perceptions of the key stakeholders regarding their awareness and appreciation of good corporate governance practices. It also presents the results by comparing quantitative and qualitative findings. In addition, it checks the robustness of the quantitative findings by comparing and contrasting them with those of the qualitative research design (Mengoli *et al.,* 2009; Johl *et al.,* 2012). Finally, Chapter Ten presents a summary of the findings from the quantitative and qualitative data, and the implications of this study for policy-makers and practitioners. Additionally, it discusses the contributions of the study and sheds light on its limitations. The chapter concludes by explicitly offering suggestions for future research.

Figure 1.1: Thesis structure constructed by the researcher



CHAPTER TWO

CORPORATE GOVERNANCE FRAMEWORK IN SAUDI ARABIA

2. INTRODUCTION

This chapter generally seeks to provide a description (and, where appropriate, an evaluation) of the corporate governance framework in Saudi Arabia. Specifically, it presents information about the regulatory bodies and corporate governance legislation before and after the recent corporate governance reforms that have been pursued in Saudi Arabia. This is done by providing background information about corporate governance in Saudi Arabia. The external and internal corporate governance frameworks are then investigated. Since the study focuses on internal governance mechanisms and the construction of a compliance index, the chapter pays substantial attention to the internal corporate governance framework. In contrast, the external corporate governance environment is briefly addressed. The remainder of the chapter is organised as follows. Section 2.1 presents background information relating to the Saudi corporate governance framework. Section 2.2 discusses the corporate governance model within the Saudi corporate context. Section 2.3 describes the Saudi external corporate governance framework. Section 2.4 investigates the Saudi internal corporate governance framework, whilst Section 2.5 presents the chapter summary.

2.1 SAUDI CORPORATE GOVERNANCE: BACKGROUND INFORMATION

Until the early 1980s, there was no formally operated and well-developed equity market in Saudi Arabia. At that time, the stock market and regulations were weak, and thus unable to protect and attract shareholders and investors (Hussainey and Al-Nodel, 2008; Al-Nodel and Hussainey, 2010; Al-Matari *et al.*, 2012). Operationally, the stock market had its informal beginnings in the 1930s with the establishment of the first joint stock company. By 1975, there were about 14 public companies. The rapid economic expansion facilitated by the oil boom in the 1970s led to an increase in the number of large public companies and banks (see Figure 2.1). However, the stock market remained informal until 1985, when the government tasked the Saudi Arabian Monetary Agency (SAMA) (Central Bank) with developing the stock market. From 1985, the SAMA was charged with

regulating and monitoring stock market trading, until the Capital Market Authority (CMA) was established in July 2003 (SFG, 2009; Tadawul, 2012).

The Saudi Companies Act issued in 1965 is the only mandatory legislation concerned with monitoring the behaviour of corporations and their officers[9] (Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008). However, the Act does not widely address corporate governance mechanisms, apart from a limited number of mechanisms relating to board characteristics and the general assembly of shareholders. The literature suggests that Saudi Arabia is an important emerging economy (Al-Filali and Gallarotti, 2012). As shown in Table 2.1, the Saudi stock market accounted for 44% of the total Arab market capitalisation and 25% of the total Arab GDP in 2010 (SFG, 2009; Hearn *et al.*, 2011). Furthermore, Saudi Arabia has been a member of the G20 since 2008, largely due to the important nature of its emerging economy (Al-Matari *et al.*, 2012).

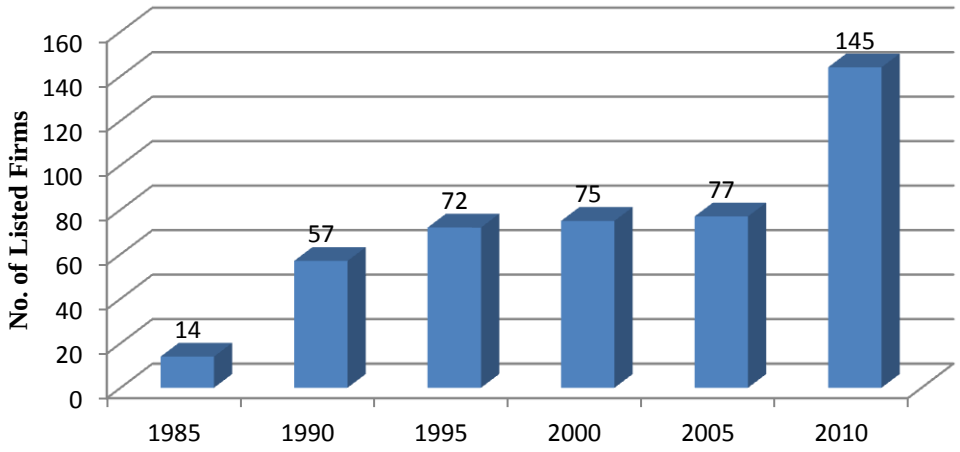


Figure 2.1: The Saudi stock market growth during the last two decades (Source: Tadawul).

In the 2000s, the number of listed firms and the value of market capitalisation did not reflect the importance of the Saudi economy regionally and internationally (Al-Filali and Gallarotti, 2012). Therefore, there was a growing call by academics, investors and practitioners to reform the stock market and corporate governance regime in Saudi Arabia (SFG, 2009; Alshehri and Solomon, 2012). Their suggestions included: (i) increasing market capitalisation and the number of listed firms, and allowing the direct participation of foreign investors; (ii) releasing corporate governance regulations to protect shareholders' rights; (iii) improving disclosure and transparency; and (iv) enhancing external corporate governance mechanisms, such as the market for corporate control. Moreover, international bodies, such as the World Bank, the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD), began

[9] As explained in Chapter One, the new Companies Act is still under study (Alriyadh, 2011a).

encouraging emerging countries, especially Saudi Arabia, to make corporate governance a priority and to introduce governance codes (Rwegasira, 2000; Clarke, 2004; ROSC, 2009).

Consequently, the Saudi government began pursuing corporate governance reforms as part of general economic reforms in the early 2000s (Al-Matari *et al.*, 2012). The Saudi government established new authorities, such as the Supreme Economic Council, the Saudi Arabian General Investment Authority (SAGIA) and the Saudi Stock Exchange (Tadawul), in order to improve investment and enhance economic growth. Specifically, corporate governance reforms began in 2003, when the Capital Market Authority (CMA) was established (Al-Nodel and Hussainey, 2010).

Table 2.1: Securitas markets of MENA countries – Middle East and North Africa.

Market	Established	Market Value (US$ Bill)	Market Value as % of GDP	Stocks Traded, Turnover Ratio (%)
Panel 1: Individual country statistics				
Saudi stock market	2003	157.31	73.35	10.08
Kuwait stock exchange	1962	59.53	142.58	10.55
Abu Dhabi securities market	2000	30.36	37.85	0.46
Egypt (Alexandria/Cairo)	1888/1903	27.85	39.26	1.81
Doha securities market	1997	26.70	130.73	1.36
Dubai financial market	2000	14.28	17.81	1.95
Bourse de Casablanca	1929	13.05	29.48	4.31
Amman stock exchange	1999	10.96	110.19	3.55
Bahrain stock exchange	1989	9.70	100.99	0.27
Muscat securities market	1988	7.25	33.56	1.49
Khartoum stock exchange	1995	3.24	12.01	0.75
Iraq stock exchange	2004	2.69	3.06	0.48
Bourse de Tunis	1969	2.44	9.07	1.03
Algeria stock exchange	2003	0.14	0.22	0.01
Beirut stock exchange	1920	0.00099	0.01	0.60
Panel 2: Regional statistics				
Middle East and North Africa	100.00%	363.01		
Gulf Region (incl. Saudi Arabia)	84.06%	305.13		
Saudi Arabia	43.33%	157.31		
North Africa	11.98%	43.48		

Source: Hearn *et al*. (2011, p.344).

Since the establishment of the CMA, it has been responsible for re-regulating the stock market and corporate governance regime (Alshehri and Solomon, 2012). As a corollary, the Saudi stock market witnessed substantial growth in the number of firms, market capitalisation, liquidity and visibility (Alshehri and Solomon, 2012). For instance, as shown in Figure 2.1, there were 145 listed firms in December 2010, compared with 77 listed firms in 2005. Also, the market capitalisation reached $353bn in 2010, representing

nearly 44% of the total Arab stock market capitalisation (SFG, 2009; Hearn *et al.*, 2011; Tadawul, 2012).

In early 2004, the Saudi stock market witnessed rapid increases in share prices. This trend of rapid market growth continued until February 2006, when the stock market experienced a dramatic drop in share prices; by December 2006, it had lost over $480bn, approximately 53% of its market value. The sudden market crash highlighted a serious need to improve corporate governance mechanisms within Saudi firms (SFG, 2009; Tadawul, 2012). The Saudi Corporate Governance Code (SCGC) was therefore introduced in November 2006 by the CMA as a direct response to the market crash, with the primary aim of restoring confidence in the market and protecting investors (Al-Abbas, 2009).

2.2 THE CORPORATE GOVERNANCE MODEL IN SAUDI ARABIA

The corporate governance regime in Saudi Arabia mostly follows the Anglo-American model, with particular emphasis on protecting shareholders' interests (Alshehri and Solomon, 2012; Seidl *et al.*, 2013). This stems from the fact that Saudi corporate law and legislation is derived primarily from British corporate law. For example, the Companies Act issued in 1965 was derived mainly from the British Companies Act (Hussainey and Al-Nodel, 2008; Al-Matari *et al.*, 2012). Similarly, as explained in Chapter One, the Saudi Corporate Governance Code is largely derived from the 1992 UK Cadbury Report (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Seidl *et al.*, 2013). For instance, the Saudi code recommends adopting a unitary-style board of directors, consisting of executive and non-executive directors (NEDs), who are primarily accountable to shareholders through a voluntary 'comply or explain' compliance and disclosure regime. Subsection 2.4.1 presents a discussion of the similarities between the two codes.

Despite the similarities, there are contextual differences, such as social norms, highly hierarchical social structure, and concentrated ownership structures, including state ownership, which may hinder the effectiveness of formal corporate governance mechanisms in Saudi Arabia (Al-Twaijry *et al.*, 2002; Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008; ROSC, 2009; Baydoun *et al.*, 2013). Chapter One discussed the characteristics of the Saudi corporate context. The remaining sections of this chapter discuss the external and internal corporate governance environment and the challenges facing the regulatory authorities.

The Saudi corporate governance environment consists of external and internal frameworks. The external framework consists of: (i) the Ministry of Commerce and Industry (MCI), (ii) the Capital Market Authority (CMA); (iii) the Saudi Stock Exchange (Tadawul); and (iv) the Saudi Organization for Certified Public Accountants (SOCPA). The internal corporate governance mechanisms are made up of: (i) the Saudi Corporate Governance Code (SCGC); (ii) the listing Rules; and (iii) the Saudi Companies Act. In the next section, the external corporate governance mechanisms will be briefly discussed, followed by a detailed discussion of the internal corporate governance framework.

2.3 THE SAUDI EXTERNAL CORPORATE GOVERNANCE FRAMEWORK

Figure 2.2 shows the structure of the Saudi financial system, including corporate governance regulatory bodies. Recently, the Saudi government established: (i) the Capital Market Authority (CMA) in 2003; (ii) the Saudi Stock Exchange (Tadawul) in 2003; and (iii) the Saudi General Investment Authority (SAGIA) in 2000. The Saudi government founded the Saudi Organization for Certified Public Accountants (SOCPA) in 1992. These authorities joined the existing authorities, including the Ministry of Finance, formed in 1932, the Ministry of Commerce, formed in 1953, the Saudi Monetary Agency (SAMA), established in 1952, and the Public Investment Fund (PIF), founded in 1971, to constitute the external corporate governance framework in the country. Each of these external governance structures are discussed in the following subsections.

2.3.1 Ministry of Commerce and Industry (MCI)

The Ministry of Commerce and Industry (MCI) was established in 1953 with the responsibility to regulate listed firms' activities. Specifically, until 2003, the MCI was the sole authority that regulated the affairs of listed firms and the organisation of the general assembly of shareholders. In 1965, the MCI issued the Companies Act, which featured a limited number of corporate governance provisions that sought to protect shareholders. In particular, the Act outlined the responsibilities and composition of the board of directors and the rights of shareholders. In 1990, the MCI released the Public Disclosure Standard in an effort to enhance voluntary disclosure and transparency. However, following the 2006 corporate governance reforms, many supervisory duties of the MCI were transferred to the CMA (CMA, 2010).

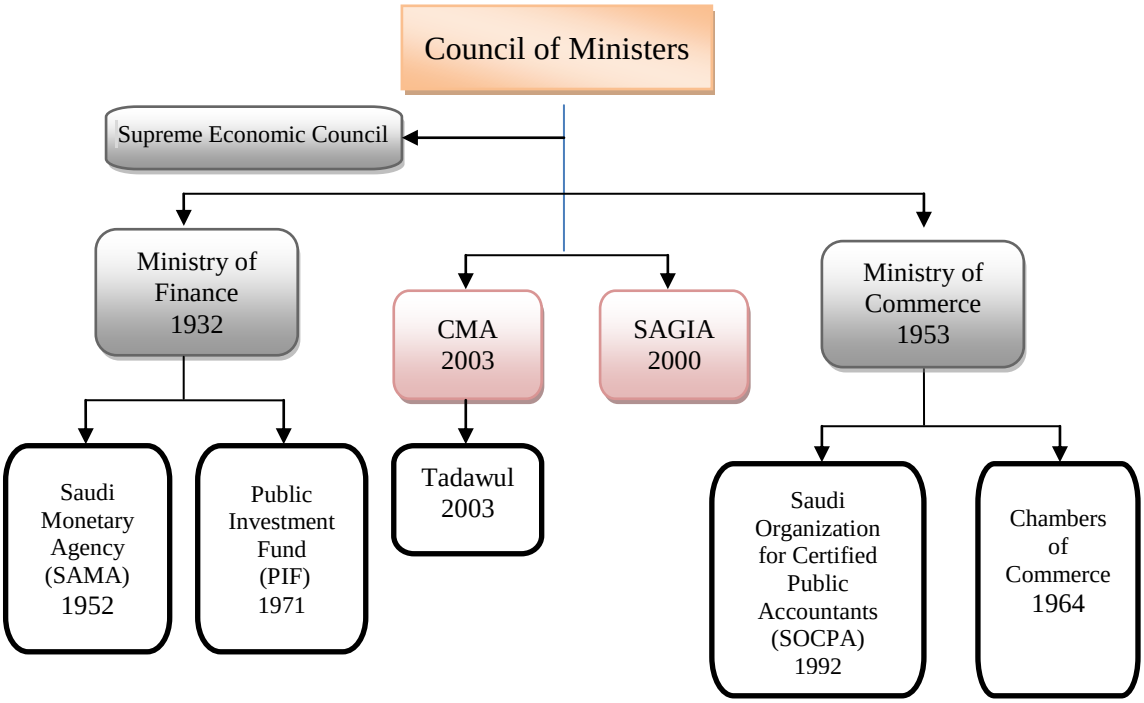


Figure 2.2: The broad external corporate governance framework in Saudi Arabia. Source: Researcher's Construction.

2.3.2 Capital Market Authority (CMA)

The establishment of the Capital Market Authority (CMA) in 2003 was a great step forward and by far the most important external corporate governance reform in Saudi Arabia (Hussainey and Al-Nodel, 2008; Al-Matari *et al.*, 2012). The CMA reports to the Prime Minister directly. This has given the CMA power in regulating the stock market and accelerating corporate governance reforms.[10] In total, the CMA has formulated seven rules relating to corporate governance practices, including the 2004 Market Law, the 2004 Listing Rules, the 2005 Investment Funds Regulations, the 2005 Merger and Acquisition Regulations and the 2006 Saudi Corporate Governance Code. The CMA's main responsibilities are to: (i) develop and regulate the Saudi stock market; and (ii) increase investors' confidence and enhance transparency and disclosure in listed companies (CMA, 2010).

To improve the corporate governance practices in Saudi listed firms, the CMA has implemented three major corporate governance initiatives in three main phases (ROSC, 2009). The first phase of governance initiatives was completed with the release of the Saudi Corporate Governance Code. Phase two of the governance initiatives is currently on-going, and is geared towards increasing the awareness and appreciation of good corporate governance practices, with particular focus on listed firms. Phase three of the governance

[10] Although great benefits can be gained by the CMA through its association with the Prime Minister, there are also consequences to its ability to operate independently, some of which have been discussed in Subsection 2.3.5.

initiatives involves the revision of the Saudi Corporate Governance Code in order to enhance its effectiveness by bringing it up to date with international corporate governance standards and practices. In addition to seeking to improve the internal corporate governance mechanisms and regulations, the CMA has sought to enhance the effectiveness of the market for corporate control as an active external corporate governance mechanism.[11]

2.3.3 Saudi Stock Exchange (Tadawul)

As discussed in Section 2.1, the operations of the Saudi stock market have been formalised since 1985 (Hussainey and Al-Nodel, 2008; Tadawul, 2012). Until 1985, however, the market operated informally in the 1930s, when the Arabian Automobiles Company was founded as the first joint stock company in Saudi Arabia (Tadawul, 2012). In 1975, the number of listed firms had increased to 14 public companies. The market remained informal until 1985, when the SAMA took responsibility for developing the stock market and regulating trading (SFG, 2009; Tadawul, 2012). As shown in Figure 2.1, the number of firms gradually increased to 57 in 1990 and 75 in 2000. Since its establishment in 2003, the CMA[12] has sought to develop the stock market by setting up the Saudi Stock Exchange (Tadawul) in 2003 (Tadawul, 2012). The Tadawul is a regulatory body that is responsible for organising the financial market. It is managed by a board of directors appointed by the Council of Ministers, including representatives of legislators, licensed Saudi local brokerage firms and listed firms.

2.3.4 Saudi Organization for Certified Public Accountants (SOCPA)

The accounting and auditing profession in Saudi Arabia is relatively young. It began in 1965, when a new law was passed requiring listed firms to have their financial statements audited by independent auditors in order to protect shareholders (SOCPA, 2012). The first chartered accountants' act was consequently issued in 1974. The 1974 Act remained very important in regulating the accountancy profession in Saudi Arabia under the supervision of the Ministry of Commerce and Industry (MCI). Until the early 1990s, the profession had not developed as desired, as there was no independent body to oversee its improvement (Haniffa and Hudaib, 2007). In 1992, the Saudi Organization for Certified Public Accountants (SOCPA) was established as a semi-independent authority (Alsaeed,

[11] Chapter Nine addresses the key stakeholders' perceptions of the CMA's efforts to improve corporate governance mechanisms among Saudi listed firms.

[12] The Council of Ministers approved the conversion of the Saudi Stock Exchange (Tadawul) to the Joint Stock Company in 2007. The conversion led to the implementation of the Capital Market Law, which requires the stock market to be run as an independent body (Tadawul, 2012).

2006). It promotes the accounting and auditing profession in Saudi Arabia. Therefore, it was assigned to perform the following tasks: (i) re-organising audit firms; (ii) granting licenses; and (iii) monitoring the quality of audit firms' performance. The 1974 Chartered Accountants' Act was amended and revised in 1992 (SOCPA, 2012). The SOCPA finally obtained recognition by the International Federation of Accountants (IFAC) in 2006 (SOCPA, 2012). Furthermore, out of sixteen bodies in total, the SOCPA was chosen by the IFAC to help develop the accounting and auditing profession (SOCPA, 2012). Alsaeed (2006) suggests that the SOCPA has helped enhance the quality of audit firms. It has also helped increase shareholders' and investors' confidence in corporate governance disclosure and the reliability of corporate annual reports.

2.3.5 Difficulties and Challenges Facing the External Governance Framework

The World Bank's report on the observance of standards and codes (ROSC) relating to corporate governance practices in Saudi Arabia has outlined a number of challenges and difficulties currently faced by regulators and supervisory authorities in Saudi Arabia (ROSC, 2009). These challenges include: (i) a lack of managerial independence among regulatory authorities; (ii) unnecessary government and political interference; (iii) low market deepening; and (iv) weak implementation and enforcement of corporate laws (Al-Abbas, 2009; ROSC, 2009; Al-Matari *et al.*, 2012). Chapter Nine presented, in detail, a review of key stakeholders' perceptions of those challenges. The following section briefly discusses some of the challenges facing the Saudi stock market.

First, the CMA reports directly to the Council of Ministers. It acts as a government agency, with its board members appointed directly by the government. As such, its independence is impeded through excessive government interventions that affect its ability to effectively monitor and regulate corporate practices (Kantor *et al.*, 1995; Al-Matari *et al.*, 2012). The inability of foreigners to invest directly in the Saudi stock market and the absence of foreign listed firms are examples of the influence of the government on the stock market (Al-Moataz and Hussainey, 2012). In contrast, in developed countries, such as the US and the UK, securities markets are not subject to direct government intervention (Lipton and Lorsch, 1992).

Second, related to the above challenge, the CMA is not managerially independent from the Saudi government, which also increases opportunities for political interference, thereby impeding the effectiveness of its operations (Al-Matari *et al.*, 2012). In addition, government intervention may lack the technical know-how in supervising modern complex financial architecture. Consequently, the CMA's capacity to implement and enforce

corporate regulations is weak, often leading to low compliance with corporate laws, as well as poor transparency, disclosure and governance practices for some provisions (Alshehri and Solomon, 2012).

Finally, as discussed in Chapter One, there is a lack of depth in the Saudi market. Despite the pursuance of recent reforms which sought to strengthen its stock market by increasing the number of listed firms (Alshehri and Solomon, 2012), the depth and breadth of the Saudi market is comparatively low; thus, the market requires further deepening. One of the reasons is that the Saudi stock market has not been able to attract any significant number of non-listed firms to be listed due to government restrictions (ROSC, 2009). For example, there were only 144 listed firms as of December 2010, which is not reflective of the size of the Saudi economy (Al-Filali and Gallarotti, 2012). In addition, investor/shareholder protection laws are relatively weak, often leading to insider dealings and manipulation, usually to the disadvantage of minority shareholders (La Porta *et al.*, 2002; Piesse *et al.*, 2012). This is typified by the 2006 stock market crash (Al-Abbas, 2009).

2.4 THE SAUDI INTERNAL CORPORATE GOVERNANCE FRAMEWORK

As previously explained, until the early 2000s, corporate governance practices in Saudi listed firms were regulated by the 1965 Companies Act (Haniffa and Hudaib, 2007; Al-Abbas, 2009). Therefore, recent corporate governance reforms pursued in Saudi Arabia sought to directly improve the internal corporate governance mechanisms in Saudi firms. Among the objectives of this thesis is to investigate: (i) the determinants of voluntary corporate governance disclosure; and (ii) the relationship between corporate governance and firm financial performance, which involved the construction of a compliance index known as the Saudi Corporate Governance Index (SCGI). As discussed in Chapter Five, the constructed compliance index was constructed based on the corporate governance provisions contained in the: (i) Saudi Corporate Governance Code; (ii) Tadawul's Listing Rules; and (iii) Companies Act. The three regulations constitute the main internal corporate governance regulatory structures within the Saudi corporate context. Therefore, the internal corporate governance mechanisms proposed by these regulations are discussed in detail in the following subsections.

2.4.1 The Saudi Corporate Governance Code (SCGC)

The Saudi Corporate Governance Code (SCGC) is considered to be a main driver in implementing good corporate governance practices across Saudi listed firms. As discussed in Chapter Five, the SCGC was the main source for constructing the compliance index used in this study. Therefore, this subsection reviews the SCGC and presents its provisions in detail. The SCGC mainly consists of four parts: (i) preliminary provisions; (ii) shareholders' rights and the general assembly; (iii) disclosure and transparency; and (iv) board of directors.

The first part presents the preliminary provisions by providing the necessary definitions and the relationship between the SCGC and other pieces of legislation. Article 1 outlines the main purpose of releasing the SCGC, which is to regulate and improve compliance with corporate governance standards among Saudi firms. Article 1b indicates that the code constitutes the main guiding principle for all public firms listed on the Saudi stock market. To demonstrate the level of compliance with the code in annual reports, the regulator requires companies to explain any non-implemented provisions.

The second part of the SCGC discusses shareholders' rights and general assembly provisions. Specifically, the main issue concerning the rights of public shareholders is facilitating the exercise of their rights and access to information. Article 5a states that the general assembly should be held within six months of a company's financial year end. The date, location and agenda of the general assembly meeting shall be announced at least 20 days prior to the date of the meeting. Furthermore, an invitation to the meeting shall be published on the Saudi stock market's website and also the website of the respective company. Article 5e requires the company's management to facilitate the participation of the largest number of shareholders in the general assembly. However, shareholders have a right to appoint any other shareholder, who is neither a board member nor an employee of the company, to attend the general assembly on their behalf. Article 5f puts emphasis on the right of shareholders to participate in the formulation of the general assembly meeting agenda. Therefore, the board of directors shall discuss topics proposed by shareholders who own at least 5% of the company's shares.

To reduce asymmetric information, Article 4b asserts that the board and company management should ensure full access to information by shareholders, enabling them to exercise their rights properly. This information must be regularly provided and updated every six months. In doing so, the company must use the most effective ways of communicating with their shareholders (Article 4b). Article 5j indicates that the stock exchange shall be immediately informed of the results of the general assembly meeting

through the Tadawul website. Therefore, a company can be penalised if such announcements, especially price sensitive information, is delayed.

In order to maximise the participation of small shareholders in making important decisions, such as the nomination of board members, the code recommends applying a one-share-one-vote policy[13] (Article 6b). Similarly, the right of shareholders regarding receiving dividends is clearly stated in the SCGC. Moreover, Article 7 asserts that the dividends policy should be discussed with shareholders during the general assembly. It is noteworthy that the provisions relating to shareholders' rights and general assembly were included in the constructed Saudi Corporate Governance Index (SCGI), representing 12% of the total provisions (i.e., 8 out of a total of 65 corporate governance provisions).

Part Three of the SCGC focuses specifically on enhancing corporate transparency and voluntary disclosure. It is noted that the provisions mentioned in this particular part are deemed complementary to the Tadawul's Listing Rules (Article 8). To enhance the board's independence, Article 9 requires that the board's composition should be disclosed in a firm's annual report. Specifically, it requires corporate annual reports to include a clear classification of board members into executive directors, non-executive directors and independent non-executive directors. Similarly, a brief description of the jurisdictions and duties of the board must be provided. The firm also has to disclose the board sub-committees, such as audit, nomination and remuneration committees, indicating the names of their chairmen and members, and information about their meetings. The Saudi Code also considers the board's compensation as an internal corporate governance mechanism. Article 9e requires listed firms to provide details of compensation and remuneration paid to each member of the board of directors and each of its top five executives, including the CEO and CFO. The SCGC does not put a ceiling on board compensation and remuneration. Article 17 points out that such payment may take the form of: (i) a fixed salary; (ii) an attendance allowance; and/or (iii) a certain percentage of the corporate profits.

In order to disclose directors' interests in other companies, Article 9b states that firms' annual reports should include the names of other listed firms in which a director holds additional directorships. Also, Article 18 asserts that board members cannot participate in any activity that runs counter to the company's interests. The SCGC also

[13] A number of developed countries apply a one-share-one-vote principle (e.g., the UK and the US). Theoretically, this may increase the opportunity of small shareholders to appoint their representatives to the board (Adams and Ferreira, 2008). In Saudi Arabia, the MCI issued a resolution in January 2012 to mandate listed firms to apply a one-share-one-vote principle during board elections (Al-jazirah, 2012).

requires companies to declare any punishment, penalty or preventive restriction imposed by the CMA or other regulatory, supervisory or judiciary body (Article 9). The code puts emphasis on the importance of firms' internal control systems and evaluates the role of the system in enhancing corporate governance practices (Article 9g). The provisions discussed in this section represent about 34% (i.e., 22 out of the total of 65 corporate governance provisions) of the total corporate governance provisions contained in the constructed Saudi Corporate Governance Index.

The fourth part of the SCGC focuses on corporate governance provisions relating to the board and directors. The primary role of a board of directors is to represent the interests of shareholders (Berle and Means, 1932; Davidson *et al.*, 1996). As a result, the code extensively discusses the role of the board of directors in five subsections: (i) main functions of the board; (ii) responsibilities; (iii) composition; (iv) board sub-committees; and (v) board meetings.

First, the code explains that the board's main role is to reduce agency costs and maximise the firm's value for shareholders. These functions include: (i) laying down a comprehensive strategy for the firm; (ii) establishing risk management policy and identifying areas of risk; and (iii) reviewing and updating corporate strategies and policies. Additionally, the board should supervise the implementation process and hold management accountable when objectives are not met. Article 10b recommends that listed firms draft their own corporate governance code, which should not contradict the provisions of the SCGC, in order to activate governance structures. In addition, Article 10e focuses on the behaviour of executives and employees, which should be monitored by the board to ensure adherence to proper professional and ethical standards. Furthermore, the code requires that public listed companies develop a written policy regulating their relationship with stakeholders in order to protect their rights.

Second, the code has outlined the responsibilities of the board of directors. It suggests that representation of shareholders' interests by the board is the most important responsibility of the board. It indicates that board members must strive to achieve whatever is required to ensure the general welfare of stakeholders, not just the interests of a minority of privileged shareholders. The board chairperson is expected to ensure equal and timely access to information by all board members. Most importantly, non-executive and independent board members must be enabled to have effective and complete access to information to perform their duties and responsibilities. It can be noted that the SCGC indicates that the responsibility for running the company ultimately rests with the board, even if some of its powers are delegated to appropriate board sub-committees or third

parties (Article 11a). Therefore, Article 11b states that responsibilities of board members must be clearly stated in the company's articles of association.

Third, the SCGC focuses on the composition of the board. In Article 12, the code recommends that the size of the board should be not less than three and not more than eleven members. On the other hand, the number of independent members of the board shall be not less than two members or one third of the members, whichever is greater. In addition, the majority of board members shall be non-executive directors. Board members are expected to be appointed by the general assembly, provided that the duration of the appointment does not exceed three years. Additionally, the general assembly holds the power to dismiss all or some of the board members. Also, when any member resigns from the board, the company shall promptly notify the CMA and Tadawul and specify the reasons for such resignation or termination (Article 12g).

To enhance the role of the board in monitoring firm performance, the Saudi Corporate Governance Code recommends splitting the roles of CEO and chairperson. Specifically, Article 12d recommends that the board chairperson should be a non-executive director. To ensure that directors devote sufficient time to performing their roles, the code specifies that a board member shall not act as a board member of more than five listed firms at the same time (Article 12h).

Fourth, the establishment of appropriate board sub-committees and their independence are also covered in the SCGC. In order to enable the board of directors to perform its duties successfully, a suitable number of committees shall be set up in accordance with the company's requirements (Article 13). The code mandates listed firms to establish audit, nomination and remuneration committees. As the presence of non-executive directors is important in corporate governance principles, the code requires the appointment of a sufficient number of non-executive directors in such committees. These committees shall notify the board of their performance, findings and decisions with transparency. In addition, the board shall follow up on committee activities to ensure that the committees are performing their roles as they should.

According to the code, the audit committee shall have not fewer than three members, including a member who is professionally literate in financial and accounting matters. Similarly, executive board members are not eligible to be audit committee members. Article 14c determines that the main functions of the audit committee include the following: (i) to supervise the company's internal audit and review the internal control system; (ii) to recommend the appointment and remuneration of the external auditor; and (iii) to review the auditor's opinion on financial statements.

Table 2.2: The Key Corporate Governance Provisions of the UK Cadbury Report and the Saudi Code

Corporate Governance Provisions	1992 Cadbury Report	2006 Saudi Code
Board of Directors		
Board structure	One-tier system	One-tier system
Board size	Not specified	Between three and eleven
Board composition (classification)	Executive and non-executive directors	Executive, non-executive and independent directors
Role duality	Separate chairperson and CEO required	Separate chairperson and CEO required
Chairperson	Non-executive director	Non-executive director
Non-executive	A minimum of three directors	A majority of directors
Independent	A minimum two directors	At least one third of directors
Information accessibility	Ensure equal accessibility between members	Ensure equal accessibility between members
Directors' training	Provided, especially for newly-appointed directors	Provided, especially for newly-appointed directors
Frequency (number) of board meetings	Not specified (regularly)	Not specified (regularly)
Board Sub-Committees		
Recommended committees	Audit, remuneration and nomination committees	Audit, remuneration and nomination committees
Audi committee composition	Formed by a minimum of three (at least two non-executive directors)	Formed by a minimum of three (all non-executive directors)
Remuneration committee composition	Formed by the whole or a majority of non-executive directors	Formed by a sufficient number of non-executive directors
Nomination committee composition	Formed by a majority of non-executive directors	Formed by a sufficient number of non-executive directors
Disclosure and Transparency		
Board and management compensation	Recommended to be disclosed	Recommended to be disclosed
Ownership structure	Not covered	Covered
Dividends policy	Not covered	Covered
Firms' Social Contributions	Not covered	Covered, but limited in scope
Narrative on Compliance/Non-Compliance	Recommended to be disclosed	Recommended to be disclosed
Internal Control and Risk Management		
Effectiveness of control system	Provide statement	Provide statement
Risk management	Not covered	Covered, but limited in scope
Narrative on the firm as a going concern	Covered	Covered
Compliance or regulation	Voluntary or self-regulation	Voluntary or self-regulation

Source: Compiled from the 1992 Cadbury Report and the 2006 Saudi Corporate Governance Code.

In a similar vein, the duties of the nomination and remuneration committees are concentrated on: (i) ensuring, on an annual basis, the independence of directors; (ii) drawing up clear policies regarding the compensation and remuneration of board members and top executives; and (iii) determining the strengths and weakness in the board of

directors and recommending strategies compatible with the company's welfare (Article 15).

Finally, the code addresses board meetings. It asserts that board members shall perform their duties, carry out their responsibilities and endeavour to attend all meetings (Article 16). Furthermore, the board shall hold ordinary meetings regularly. Also, the board shall document its meetings and prepare records of the deliberations and voting. As discussed above, the code heavily focuses on board of directors' mechanisms due to their importance in corporate governance. As a corollary, the majority of the corporate governance provisions contained in the constructed Saudi Corporate Governance Index relate to the role and duties of the board, directors and their sub-committees. Specifically, 54% (35 out of the total of 65 corporate governance provisions) of the SCGI provisions are related to the board of directors.

2.4.2 Listing Rules and Corporate Governance Mechanisms

Since its establishment in 2003, the CMA has sought to establish and improve corporate governance regulations. The 2004 Tadawul's Listing Rules represented an important step towards reforming corporate governance regulations in Saudi Arabia. Therefore, as explained previously, the Saudi Corporate Governance Index (SCGI) used to examine the level of compliance with corporate governance standards draws heavily on these rules. Part Six of the regulation, entitled 'Continuing Obligations', includes 15 articles addressing the importance of disclosure and transparency in corporate annual reports.[14]

First, the rules address disclosure and transparency in order to reduce asymmetric information. Article 25a stipulates that listed firms must notify the CMA and shareholders without delay of any major developments in their operations. The rules specify that the notification should be made on the Tadawul website at least two hours before the first trading period in the stock market. The objective is to inform stakeholders of any potential effect on the firm's assets, liabilities or general course of business. Regarding financial performance, Article 26d points out that the company must announce its quarterly and annual financial results on the stock market website immediately following board approval. The CMA specifies that the financial results must be declared within 15 days in the case of quarterly results and 40 days for annual results. Moreover, the annual report must be

[14] It is noted that the Listing Rules also include the corporate governance provisions contained in the Saudi Corporate Governance Code.

approved by the board of directors and signed by the authorised directors, the CEO and the CFO prior to its publication and circulation to shareholders (Article 26a).

Second, there are obligations relating to the contents of the annual board report. Article 27a requires listed firms to publish their annual report in the main national newspapers and also on the website of the Tadawul. Listed firms are required to review the company's operations during the last financial year. In addition, they should include the relevant factors influencing the company's business, which can help investors to assess the company's future. As such, the board of directors' report must contain the following details: (i) a description of the principal activities of the company; (ii) a description of the company's significant plans, decisions, future prospects and any risks facing the company; (iii) a summary, in the form of a table or a chart, of the company's assets, liabilities and business results for the last five financial years; (iv) an explanation of any significant differences between the operational results of the last financial year and the previous financial year; (v) a description of the company's dividend policy; and (vi) a detailed report about the company's loans and debt commitments.

Third, as ownership structure is significant and closely associated with the agency problem, Article 27/10 directs companies to disclose the board's report on the ownership structure, naming those shareholders who own 5% or more of the company's shares. This ownership disclosure rule applies to directors, managers, outsiders and their associates. In addition, they have to inform shareholders about any changes to such interests and rights during the last financial year. For the purpose of increasing transparency in the companies' contracts and not being exploited by insiders, Article 27/17 states that the board report must include detailed information regarding the related interests by any board director, the CEO, the CFO or their relative in commercial transactions and business contracts that the firm engages in. In order to show the board's effectiveness, Article 27/16 indicates that the number of board meetings and the attendance record of each meeting should be included in the annual board report.

According to Article 27/22, the board report should be supplemented by statements confirming that: (i) a proper accounting system has been maintained; (ii) the internal control system is sound in its design and has been effectively implemented; (iii) there are no significant doubts concerning the company's ability to continue as a going concern; and (iv) where the board of directors recommends that the external auditors should be changed, the reasons for such a recommendation are provided.

Finally, according to managerial signalling theory, managers (agents or insiders) have more inside information than ordinary shareholders (principals) (Morris, 1987;

Bebchuk and Weisbach, 2010). Thus, Article 33 prohibits trading by agents within a reporting window. Specifically, directors, executive managers and their associates cannot trade in any securities of the company during the following periods: (ii) during the 10 days preceding the end of the financial quarter and until the date of the announcement of the quarterly results; and (ii) during the 20 days preceding the end of the financial year and until the date of the announcement of the company's annual results. Further, in order to regulate the remuneration packages of executives and directors of listed firms, Article 36 of the Listing Rules asserts that the company should provide a written policy for remuneration or compensation for the general assembly to vote on.

2.4.3 Saudi Companies Act and Corporate Governance Mechanisms

The first formal attempt to regulate corporate operations and activities was in 1965, when the Companies Act was introduced (Kantor *et al.*, 1995). This Act was extensively amended in 1982 and 1985. Shinawi and Crum (1971) indicate that the primary source of the Saudi Companies Act is the 1948 British Companies Act (as cited by Hussainey and Al-Nodel, 2008). This 1965 Act briefly addresses some corporate governance mechanisms. Particularly, this Act focuses on board characteristics and provisions protecting shareholders. However, it does not address the detailed disclosure and transparency mechanisms that are contained in the SCGC and the Listing Rules and discussed above. Therefore, in this section, the internal corporate governance mechanisms contained in the Companies Act are explained briefly.

First, the section on board structure contains provisions relating to: (i) board size; (ii) the CEO and chairperson's relationship; (iii) the board's power; (iv) the annual board report; and (v) the frequency of board meetings. Article 66 of the Companies Act stipulates that the company is managed by the board of directors. The size of the board is determined by the company's articles of association, but must not be less than three members. The appointment of board members is part of the shareholders' responsibilities in the general assembly, provided their tenure does not exceed three years. However, in contrast to the SCGC, the Companies Act does not address the board's composition. For example, it neither specifies whether independent non-executive directors should be part of the board nor the number of independent or non-executive directors that should form a board. Therefore, firms can decide their own structure according to the articles of association. Article 79 allows companies to combine the chairperson's and the CEO's positions in one role. As discussed in Chapter Three, this is consistent with the predictions of stewardship theory, which suggest that it is appropriate to combine the positions of the CEO or the

managing director and the board chairperson. Similarly, despite the importance of board sub-committees in ensuring corporate governance practices, the Companies Act does not stipulate the role or the number of board sub-committees that a corporation should have. This was changed in 1994 when a resolution by the Prime Minister mandated companies to appoint an audit committee to oversee and improve internal control systems, with the aim of protecting shareholders.

Second, Article 89 of the Act requires public listed companies to issue annual reports containing a board report, the main financial statements and an external auditor's report. To ensure such information is available and accessible to the largest possible number of shareholders, the report must be published in any national newspaper issued in the same city as the company's headquarters. Regarding the frequency of board meetings, Article 80 of the Act points out that the board of directors has to meet at the board chairperson's invitation. However, regardless of any contrary provision in the company's articles of association, the chairperson must call a meeting when requested by at least two directors. A board meeting shall be deemed valid if and only if attended by at least half of the board members, provided there are a minimum of three attendees. Directors who are unable to attend the board meeting have the right to delegate other members to vote on their behalf.

In order to mitigate the potential conflict of interest between agents and principals, Article 69 points out that a contract or transaction between the company and directors must be authorised by the general assembly. Furthermore, if such contracts are more than one year in length, the authorization must be annually renewed. Also, members cannot vote on any issue in which they have a vested interest. However, the chairperson, in turn, is responsible for notifying the general assembly about any personal interest of board members. The Companies Act also outlines how directors should be remunerated. Article 74 states that they should be paid a fixed bonus or a certain percentage of the profits, or may combine the two. However, the maximum annual compensation should be either about $53,000 for each director or 10% of the net profits, distributed between the members, whichever is lower.

Finally, the Act also considers shareholders' rights and how their investments can be protected. Article 87 clearly states that shareholders who own at least 20 shares have the right to attend general assembly meetings. Shareholders have the right to discuss issues relating to the company's performance during the general assembly. Article 83 of the Act asserts shareholders' right to appoint another shareholder (non-directors) to attend the general assembly meeting and vote on their behalf. Article 84 points out that the annual

general assembly meeting should be held at least once a year, during the six months following the end of the financial year. To ensure that information is accessible for all shareholders at the annual meeting, the Act states that the annual report must be made available at least 60 days before the meeting.

In order to encourage shareholders to exercise their right to attend the general assembly meeting, Article 88 requests the publication of details of the meeting in a daily newspaper at least 25 days before the meeting. The meeting details should include the meeting agenda, date, time and location.

2.4.4 Difficulties and Challenges Facing the Internal Governance Framework

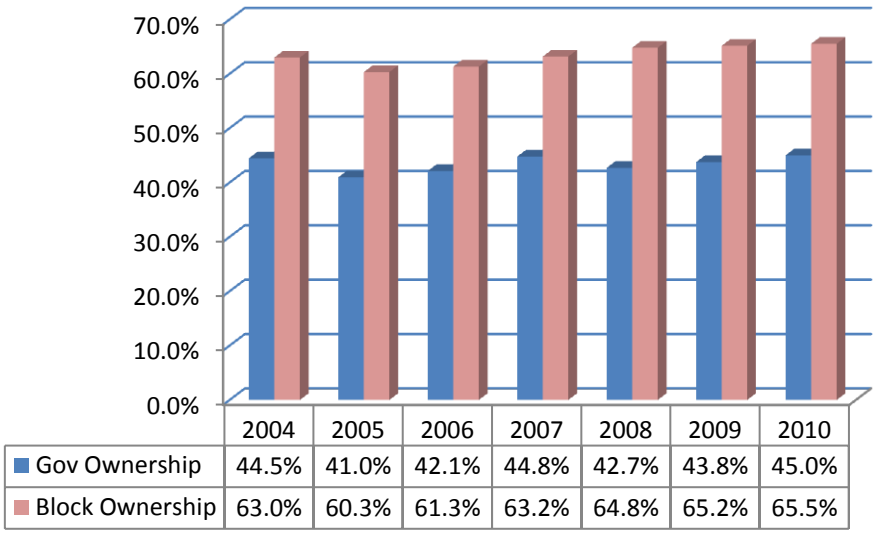
With the exception of the Companies Act, corporate governance regulations are still in their infancy, and their effectiveness has not been extensively examined empirically (ROSC, 2009; Al-Abbas, 2009). Consequently, there are a number of challenges that face regulatory authorities in their attempt to improve corporate governance practices in Saudi listed firms. The following section briefly discusses two of the main difficulties faced by the regulatory bodies in their attempt to develop an effective and efficient internal corporate governance framework.[15]

First, as discussed in Chapter One, compliance with the Saudi corporate governance rules is voluntary in nature, which is modelled along the UK's 'comply or explain' style voluntary compliance and disclosure regime (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Seidl *et al.,* 2013). As shown in Figure 2.3, Saudi listed firms suffer from high ownership concentration, including government ownership (ROSC, 2009), in contrast to the UK, where ownership is relatively more diffuse (Hussainey and Al-Najjar, 2012). La Porta *et al*. (1999) suggest that controlling shareholders tend not to support good governance reforms, and thus the presence of large shareholders can lead to the exploitation of minority or small shareholders (Haniffa and Hudaib, 2006; Ntim *et al.*, 2012a; Allegrini and Greco, 2013).

Finally, as discussed in Section 2.2, the internal corporate governance framework has an Anglo-American orientation. This is reflected in the way that the Companies Act and the SCGC focus on protecting shareholders' rights. However, some provisions relating to other stakeholders have not been clearly addressed, which can lead to misinterpretation by firms and practitioners. For example, the code requires companies to set policies that regulate the relationship between the firm and its stakeholders. However, it does not

[15] These difficulties discussed further in Chapter Nine with particular focus on analysing the perceptions of the key stakeholders regarding corporate governance reforms in Saudi Arabia.

explain clearly how these provisions can be implemented and/or measured. In addition, it fails to identify specifically the different types of other stakeholders that the firm should report to.



	2004	2005	2006	2007	2008	2009	2010
Gov Ownership	44.5%	41.0%	42.1%	44.8%	42.7%	43.8%	45.0%
Block Ownership	63.0%	60.3%	61.3%	63.2%	64.8%	65.2%	65.5%

Figure 2.3: Government and block ownership between 2004 and 2010 (Source: PIF and Tadawul).

2.5 CHAPTER SUMMARY

This chapter discussed the corporate governance regime in Saudi Arabia. First, it provided background information relating to the external and internal corporate governance environment. Specifically, it provided an overview of the Saudi stock market, its origins and subsequent developments.

Second, the chapter discussed the corporate governance model in Saudi Arabia. The corporate governance regime in Saudi Arabia is based on the Anglo-American model. In particular, it focuses on protecting shareholders rather other stakeholders of the firm. This is due primarily to the fact that corporate law has been influenced largely by the British Companies Act, despite apparent differences in contextual characteristics, such as religion, social norms and the legal system.

Third, the chapter investigated the external corporate governance framework in Saudi Arabia. The external framework is represented by the regulatory and supervisory bodies. Three regulators directly related to corporate governance are the Ministry of Commerce and Industry (MCI), the Capital Market Authority (CMA) and the Saudi Stock Exchange (Tadawul). This chapter also discussed some of the difficulties and challenges faced by regulatory authorities in their attempt to enhance corporate governance practices in Saudi firms. Finally, the chapter discussed the internal corporate governance framework.

Specifically, it addressed the regulations relating to internal corporate governance practices. In particular, governance mechanisms contained in the Companies Act, the Listing Rules and the Saudi Corporate Governance Code (SCGC) were discussed in detail. However, the main focus was on the Saudi code, since it was the main source used for constructing the broad Saudi Corporate Governance Index (SCGI) used to examine the level of compliance with the SCGC by Saudi listed companies.

The next chapter presents a review of the relevant theoretical and empirical literature on corporate governance. Specifically, the chapter addresses three main issues. First, relevant corporate governance theories will be reviewed. Second, empirical literature relating to the determinants of voluntary corporate governance disclosure will be discussed, and hypotheses will be developed. Finally, empirical literature relating to the relationship between corporate governance and firm financial performance will be discussed, and hypotheses will be developed.

CHAPTER THREE

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

3. INTRODUCTION

This chapter presents a review of the existing literature on corporate governance. Specifically, the chapter attempts to achieve the following three major objectives. First, it investigates the key theories associated with corporate governance. Second, the chapter discusses the empirical literature relating to compliance with, and disclosure of, corporate governance mechanisms. In addition, it sheds light on the factors influencing voluntary corporate disclosure. The rationale is to identify gaps in the empirical literature related to the potential determinants of voluntary compliance with, and disclosure of, corporate governance mechanisms that can be addressed by this study.

Third, the chapter reviews empirical studies examining the relationship between corporate governance mechanisms and firm performance. Specifically, it traces the existing literature on corporate governance and financial performance. The relationship between corporate governance and financial performance is examined by using both the equilibrium-variable model and the compliance-index model. The equilibrium-variable model involves an examination of the association between individual corporate governance variables and financial performance. The compliance-index model involves an investigation of the relationship between a composite corporate governance index and firm financial performance. The review helps in developing an understanding of the empirical methods, data sources and findings, as well as in identifying gaps within the existing literature that a study on the Saudi context can contribute to.

This chapter is organised as follows. Section 3.1 presents a discussion on the theoretical literature relating to voluntary corporate disclosure and financial performance. Section 3.2 investigates the existing empirical literature relating to compliance with corporate governance standards contained in different corporate governance codes. Section 3.3 discusses the possible factors influencing voluntary corporate disclosure and develops appropriate hypotheses. Section 3.4 reviews empirical studies on the relationship between corporate governance and firm performance, and subsequently develops relevant hypotheses, whilst Section 3.5 provides a summary of the chapter.

3.1 THE THEORETICAL LITERATURE ON CORPORATE GOVERNANCE AND DISCLOSURE

This section examines corporate governance theories related to both voluntary corporate disclosure and financial performance. As discussed in Chapters One and Two, Saudi Arabia has recently pursued corporate governance reforms, with the aim of improving corporate governance practices and protecting shareholder interests (SCGC, 2006; Al-Abbas, 2009; Al-Nodel and Hussainey, 2010; Alshehri and Solomon, 2012; Al-Janadi *et al.*, 2013; Robertson *et al.*, 2013). Corporate governance is related to different fields, including law, economics, finance, organisational behaviour, management, ethics and politics (Rwegasira, 2000; Bebchuk and Weisbach, 2010; Solomon, 2010). Therefore, it is difficult to rely on one theory, such as agency theory alone, in interpreting and explaining corporate governance behaviour (Chen and Roberts, 2010; Sharma, 2013).

In this regard, Zattoni *et al*. (2013) indicate that several recent meta-analyses have revealed that existing studies adopting an agency-based perspective generally found mixed relationship between corporate governance behaviour and performance outcomes. They highlight that corporate governance studies must move away from agency theory and consider other theoretical frameworks. Nevertheless, a considerable number of previous studies have adopted only agency theory to interpret their empirical findings (Filatotchev and Boyd, 2009; Chalevas, 2011; Zattoni *et al.*, 2013). Thus, similar to other studies (Haniffa and Hudaib, 2006; Ntim *et al.*, 2012a; Ntim and Soobaroyen, 2013), a multiple-theoretical framework[16] is adopted to examine the relationships among corporate governance mechanisms, voluntary disclosure and financial performance. Due to its dominance within the corporate governance and disclosure literature, however, agency

[16] The central motivation for adopting a multiple-theoretical framework is explained as follows. First, it has been suggested that any single corporate governance theory, including agency theory, has a limited ability to completely explain the relationship among corporate governance, voluntary disclosure and financial performance (Nicholson and Kiel, 2007; Ntim and Soobaroyen, 2013; Sharma, 2013). In other words, on their own, these individual theories suffer from a number of weaknesses (Chen and Robin, 2010), but together they can complement each other and enhance their predictive power. Second, the corporate governance phenomenon is complex, relating to a variety of disciplines, such as law, economics, sociology, business and management (Rwegasira, 2000; Bebchuk and Weisbach, 2010), and is thereby inherently multi-theoretically oriented. Third, it is a direct response to recent calls for the use of alternative or complementary theories in empirical corporate governance studies, which can enhance theoretical puralism (Ntim and Soobaroyen, 2013; Zattoni *et al*., 2013). Fourth, as a direct response to recent calls for more mixed-methods research approaches in investigating corporate governance, this study employs a mixed-methods research design to examine the connections among corporate governance, disclosure and financial performance (Boyd *et al*., 2012; McNulty *et al*., 2013), which requires the use of complementary theories in order to achieve effective integration in the interpretation of the quantitative and qualitative findings (Chen and Roberts, 2010; Johl *et al*., 2012). Finally, it is generally in line with existing studies that have adopted a multiple-theoretical perspective (e.g., Nicholson and Kiel, 2007; Black, 2006b; Jackling and Johl, 2009; Conyon and He, 2011; Ntim and Soobaroyen, 2013), and thus can facilitate comparisons with the findings of these studies.

theory is adopted as the primary theoretical framework. Given the complexity of the corporate governance and disclosure phenomena, agency theory is supplemented with predictions from managerial signalling, stakeholder, stewardship and resource dependence theories.

In the following subsections, agency, managerial signalling, stakeholder, stewardship and resource dependence theories are briefly reviewed. These theories are selected because they are powerful in explaining the relationships among corporate governance, voluntary disclosure and firm performance.

3.1.1 Agency Theory

Agency theory is one of the most important theories in the context of corporate governance. As such, a large volume of studies in the literature are based on it (Filatotchev and Boyd, 2009). The agency contract has been described by Jensen and Meckling (1976) as a contractual agreement between owners (principals) and managers (agents) to operate the firm in the interests of shareholders. This, however, does not suggest that Jensen and Meckling (1976) were the first to develop agency theory or suggest the possibility of agency conflicts between corporate owners and managers. In fact, economists such as the famous British economist Adam Smith have long identified the existence of such potential agency conflicts, often embedded in the separation of ownership (shareholding) and control (management) in modern corporations. Specifically, Smith (1776, p.606-607) described the agency problem in this way: *"The directors of such [joint-stock] companies, however, being the managers rather of other people's money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private co-partnership frequently watch over their own.... Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company".*

Later, Berle and Means (1932) elaborated on Smith's view, whilst Jensen and Meckling (1976) explicitly developed the agency theory. In essence, agency theory seeks to reduce agency problems between shareholders and managers by aligning the interests of managers (agents) with those of shareholders (principals). Furthermore, it seeks to prevent the expropriation of shareholders' wealth. The corporate governance literature provides examples as to how such wealth can be expropriated: (i) executive directors may exploit insider information for their own benefit (Jensen and Meckling, 1976; Black 2006a; Chalevas, 2011); (ii) by executive directors awarding excessive pay to themselves in the form of salaries and bonuses (Berle and Means, 1932; Shleifer and Vishny, 1997; Bebchuk

and Fried, 2003; Ntim *et al.*, 2012b); and (iii) managers can consume corporate resources through increased consumption of perquisites, such as enjoying larger offices and greater secretarial support (Jensen and Meckling, 1976).

As a result, agency theory suggests that corporate governance mechanisms can be introduced to mitigate managerial opportunism, thereby minimising agency costs (Haniffa and Hudaib, 2006; Solomon, 2010). More specifically, agency theory calls for building an institution of governance structures through the establishment of a set of legal contracts by shareholders to monitor managers. First, it suggests a reduction in the number of executive board members; which could enhance the board's independence (Berle and Means, 1932; Solomon, 2010; Chen, 2011; Al-Janadi *et al.*, 2013). Also, this may help shareholders hold board members to account (Fama 1980; Bebchuk and Weisbach, 2010; Conyon and He, 2011).

Furthermore, board sub-committees, such as audit, nomination and remuneration committees, are important instruments to monitor managerial behaviour (Klein, 1998; Allegrini and Greco, 2013). Second, the establishment of an internal control system can help limit wealth expropriation by a firm's management (Jensen and Meckling, 1976; Renneboog and Szilagyi, 2011). Third, designing a compensation and managerial incentive system that is linked to financial performance can encourage top managers to improve their performance (Bebchuk and Fried, 2003; Chalevas, 2011; Ntim *et al.*, 2014). This, in turn, may limit the exploitation of the firm's resources by managers for their personal interest (Jensen and Meckling, 1976).

In sum, agency theory suggests that good governance through the establishment of effective corporate governance mechanisms can lead to a net decrease in agency costs. In addition, it should mitigate monitoring and bonding costs, thereby leading to overall improvement in governance practices, voluntary disclosure and financial performance (Fama and Jensen, 1983; Siddiqui *et al.*, 2013). This is the central rationale emphasised in the recommendations of a number of corporate governance codes in many countries (e.g., the 1992 Cadbury Report; the 2003 Combined Code; the 2002 King Report; the 2006 SCGC).

i) Agency Theory in the Saudi Corporate Environment

The Saudi government has taken a number of steps over the years to reform the corporate governance regime. The development of the 2006 Saudi Corporate Governance Code (SCGC) constitutes a cornerstone of the reforms (Al-Abbas, 2009; Al-Nodel and Hussainey, 2010; Robertson *et al.*, 2013). Similar to other corporate governance codes, the

SCGC seeks to reduce agency conflicts between mangers and shareholders by improving transparency, accountability and responsibility of corporate boards of directors (ROSC, 2009; Alshehri and Solomon, 2012). This is particularly important within the Saudi context due to the presence of high ownership concentration in Saudi listed firms (Al-Abbas, 2009; Al-Nodel and Hussainey, 2010). Such ownership concentration could adversely affect the rights of small shareholders (Baydoun *et al.,* 2013); thus creating a conflict of interest between small shareholders and large shareholders. For example, large shareholders have the power to appoint their friends and relatives. The appointment of such directors could mean that they might look after the interests of large shareholders at the expense of small shareholders. In addition, politically well-connected individuals may be appointed to senior positions without due regard for their ability to perform those roles (Haniffa and Hudaib, 2007; Boytsun *et al.,* 2011). Such practices can have an adverse impact on voluntary corporate disclosure and financial performance. Thus, the application of an agency theoretical framework becomes even more important in the context of Saudi Arabia.

3.1.2 Managerial Signalling Theory

Managerial signalling theory is considered to be an extension of agency theory (Jensen and Meckling, 1976; Buskirk, 2012). It was developed to explain the information asymmetry between managers and shareholders (Morris, 1987; Black *et al*, 2006a). The theory proposes that corporate insiders (i.e., managers and directors) have more information about the firm than outsiders, such as shareholders (Kapopoulos and Lazaretou, 2007; Bebchuk and Weisbach, 2010). Therefore, agents could potentially exploit this information to maximise their personal interests (Jensen and Meckling, 1976). Arguably, the origin of this problem is weak ethics and opportunistic behaviour within modern corporations (Kapopoulos and Lazaretou, 2007; Conyon and He, 2011).

To reduce information asymmetries and market uncertainty, companies are expected to adopt good corporate governance practices (Jensen and Meckling, 1976). A reduction in information asymmetry could: (i) offer equal opportunities to both large and small shareholders in accessing information, which may help in reducing agency problems and the cost of capital (Morris, 1987; Hearn, 2011; Sharma, 2013); (ii) attract local and foreign investment and provide higher liquidity (Healy and Palepu, 2001; Chung and Zhang, 2011); and (iii) enhance the market as a corporate control mechanism, and in turn help create a highly efficient market (Klein *et al.,* 2005).

i) Managerial Signalling Theory in the Saudi Corporate Environment

Since its establishment in 2003, the Capital Market Authority (CMA) has sought to enhance transparency and disclosure and reduce asymmetric information (Al-Nodel and Hussainey, 2010). Specifically, the 2004 Listing Rules mandates listed firms to provide timely information to the stock market regarding any significant changes, whether related to performance, contracts, board structure or ownership structure. This has led to apparent improvement in terms of reporting financial and not-financial information in firms' annual reports. Furthermore, through corporate governance reforms, Saudi regulatory authorities seek to strengthen the stock market as an external corporate governance mechanism by increasing the number of firms and enhancing institutional investment. As discussed in Chapter One and Two, the Saudi stock market has seen a significant increase in the number of listed firms since 2005. As these newly listed firms need to obtain external financing, improvement in voluntary corporate disclosure resulting from a decrease in information asymmetry can help attract investment and reduce the cost of financing (Morris, 1987; Hearn, 2011).

3.1.3 Stakeholder Theory

Stakeholder theory represents a broader perspective of corporate governance. Freeman (1984) defines stakeholders as a wide range of individuals and groups who can affect, or are affected by, corporate activities. Solomon (2010, p.15) explains the theoretical basis of stakeholder theory as follows: *"companies are so large, and their impact on society so pervasive, that they should discharge accountability to many more sectors of society than solely their shareholders .... Not only are stakeholders affected by companies, but they in turn affect companies in some way"*. Unlike agency theory, stakeholder theory assumes that managers are accountable to all stakeholders (Chen and Roberts, 2010).

The above explanation implies that the firm has to protect the interests of different stakeholders, including shareholders (Clarke, 1998; Solomon, 2010). Nonetheless, stakeholders' expectations of a company differ. For example, shareholders expect a rewarding return, while employees expect a good income and job security. However, creditors expect the firm to have a strong financial position in order secure the safety of their investments, while policy-makers expect compliance with corporate governance regulations for stakeholders' protection.

Stakeholder theory emerged in the 1970s as a result of criticism of the shareholder model (Sternberg, 1997). However, the stakeholder model is less appreciated in countries

such as the UK and the US, where they adopt the Anglo-American orientation, which provides higher protection for shareholders at the expense of other stakeholders (Aguilera and Jackson, 2003; Solomon, 2010; Ntim *et al.,* 2012b). In contrast, the stakeholder model is heavily favoured in countries that employ the Continental European model, such as Germany, France, Sweden and some Asian countries, like Japan (Lazonick and O'Sullivan, 2000; Letza *et al.*, 2004). Firms' boards of directors in these countries are designed to have a 'two-tier board system', typically consisting of both managing and supervisory members (Clarke, 1998; Conyon and He, 2011). This may help firms protect different stakeholders' interests in countries that employ the Continental European-Asian governance model (Sharma, 2013).

There are a number of assumptions underlying stakeholder theory. First, corporations should be operated not only for the financial benefit of their owners, but also for the interests of the relevant broader society (Mitchell *et al.*, 1997; Chen and Roberts, 2010). Second, executive directors are equally accountable to all stakeholders, not only the firm's owners and creditors, but also other corporate stakeholders, such as employees, government, local community, customers and suppliers (Clarke, 1998). Third, stakeholder theory is strongly connected to notions of morality in business and corporate social responsibility (Letza *et al.*, 2004; Westphal and Zajac, 2013).

Although stakeholder theory has been widely embedded in governance codes (Aguilera and Cuervo-Cazurra, 2009), it has been criticised from two perspectives (Sternberg, 1997): (i) the assumptions of stakeholder theory conflict with the central objective of the firm as seeking to maximise the wealth of shareholders; and (ii) it also conflicts with the agent-principal relationship, which suggests that managers are primarily accountable to shareholders. As such, stakeholder theory is arguably incompatible with the basic principles of corporate governance. Nevertheless, stakeholder theory remains a key corporate governance theory (Clarke, 1998; Solomon, 2010; Chen and Roberts, 2010).

i) Stakeholder Theory in the Saudi Corporate Environment

Despite the fact that the corporate governance regime in Saudi Arabia is based on the Anglo-American model of corporate governance (Alshehri and Solomon, 2012; Seidl *et al.*, 2013), the 2006 SCGC does include some provisions related to the protection of stakeholders' rights and social responsibility (see Article 10). Saudi corporations will be expected to not only pursue the interests of shareholders, but also advance the interests of other stakeholders, such as employees, local communities and governments. Also, the

Islamic value of 'Zakat'[17] encourages benevolence to society; therefore, it can be reasonably expected that corporations are more likely to be socially responsible. However, there may be a number of impediments that can hinder effective application of stakeholder theory within the Saudi corporate context. First, as previously explained, compliance with the governance provisions of the SCGC is voluntary (i.e., a 'comply or explain' regime), which operates smoothly within a corporate context in which ownership of corporations is relatively widely held. In contrast, ownership in Saudi listed firms is highly concentrated, primarily through high government and family shareholdings, which tend to prioritise large shareholders; thus, the interests of other stakeholders may be ignored. Second, the concept of good corporate governance from a broader perspective is still in its embryonic stage within the Saudi corporate context. In particular, as discussed in Chapter Nine, general awareness and appreciation of good corporate governance practices is still relatively low among key corporate stakeholders, which can impact negatively on the applicability of stakeholder theory within the Saudi corporate context.

3.1.4 Stewardship Theory

In contrast to predictions of agency theory, stewardship theory relies on the notion that managers are not motivated by individual interest, but instead by the objectives of principals (Davis *et al.*, 1997). Therefore, the theory suggests that managers who run firms are trustworthy (Letza *et al.*, 2004; Siebels and Knyphausen-Aufseb, 2012). Stewardship theory has been developed based on a number of assumptions, as follows. First, managers' interests are aligned with owners' interests (shareholders) (Davis *et al.*, 1997). Second, as long as managers are trustworthy, CEO duality could be the most appropriate system to run a company (Donaldson and Davis, 1991; Siebels and Knyphausen-Aufseb, 2012). Specifically, agents have access to information about the firm, which makes them highly capable of working towards the firm's welfare (Nicholson and Kiel, 2007). Finally, firms' managers seek to employ the firms' resources in the best possible way to maximise the firms' value (Davis *et al.*, 1997; Nicholson and Kiel, 2007). This is because any misconduct in using these resources may affect their reputation and future career prospects (Conyon and He, 2011). Based on these arguments, stewardship theory can contribute to improving corporate governance.

The above discussion shows how stewardship theory exists in contrast to agency theory, which assumes the existence of a conflict of interest between agents and principals

[17] 'Zakat' is Islamic social tax: every Muslim individual and company must pay 2.5% of their wealth towards a charitable cause, such as making donations to the poor and needy (Kamla *et al*., 2006).

(Donaldson and Davis, 1991). Stewardship theory suggests there is no agency problem because of the mutual trust between insiders and owners (Davis *et al.,* 1997; Nicholson and Kiel, 2007).

i) Stewardship Theory in the Saudi Corporate Environment

The Saudi governance code recommends that a majority of the board of directors should be non-executive directors, and that at least one third of the directors should be independent (Article 12c and e). Moreover, the code stipulates the importance of separating the positions of the CEO and chairperson (Article 12d). Thus, the code's aim is to improve the accountability of firms' management by enhancing managerial supervision and monitoring. This is in direct contrast to the assumptions of stewardship theory, which suggest that managers are trustworthy individuals that may not need extensive monitoring of their management performance. Stewardship theory may be appropriate in the Saudi corporate context, because there are high levels of ownership by families, who typically appoint their own relatives as directors and executives. Thus, appointed CEOs and directors are likely to be considered trustworthy[18] (Siebels and Knyphausen-Aufseb, 2012).

3.1.5 Resource Dependence Theory

Resource dependence theory suggests that the board of directors is an essential link between the firm and the financial and non-financial resources that are crucial for the firm's growth (Pfeffer, 1972; Pearce and Zahra, 1992). Chen and Roberts (2010, p.653) explain that "*Organizations are not self-contained or self-sufficient, they rely on their environment for existence, and the core of the [resource dependence] theory focuses on how organizations gain access to vital resources for survival and growth*". Thus, the theory relies on two important assumptions.

First, the board of directors not only performs a monitoring role, but also provides necessary critical resources, such as business contacts and contracts, knowledge, experience and expertise (Hillman and Dalzel, 2003; Nicholson and Kiel, 2007; Bouwman, 2011; Chen, 2011). This can enhance financial performance and maximise shareholders' wealth (Pearce and Zahra, 1992). Second, the board of directors has the capability to represent the interests of different stakeholders, such as local communities, government, employees, suppliers, customers, creditors, regulators and policy-makers (Hillman and

[18] It is noted that while the appointment of family members into executive management may reduce type I agency problem (i.e., the agency problem between agents/managers and shareholders/principals), it can exacerbate type II agency problems (i.e., the agency problem between minority/small and majority/large shareholders) (Jensen and Meckling, 1976; Chen *et al.*, 2011).

Dalziel, 2003; Nicholson and Kiel, 2007). Thus, the board of directors can help the firm to achieve competitive advantage by serving as a direct link between the firm and the environment within which it operates (Chen and Roberts, 2010).

i) Resource Dependence Theory and the Saudi Corporate Environment

The board of directors in Saudi listed firms plays an important role in securing financial resources. For example, state ownership of a number of listed firms has helped provide necessary funding from the government. Similarly, listed firms are controlled by families who typically seek to raise their own capital in order to maintain control. Although this ensures large financial sources with low costs, at the same time it may increase ownership concentration in Saudi listed firms. In this regard, Baydoun *et al*. (2013) point out that companies in Saudi Arabia deprive minority shareholders by issuing invitations to wealthy and influential families for the subscription of shares in new Initial Public Offering (IPOs). However, as discussed in Chapters One and Two, the market authority prevents direct foreign investment. This may impede the ability of companies to attract financial and non-financial resources, such as external financing, experience and transfer of knowledge from foreign investors.

3.2 LEVEL OF COMPLIANCE WITH VOLUNTARY CORPORATE DISCLOSURE

As discussed in Chapter Two, the purpose of a corporate governance code is to improve voluntary corporate disclosure, corporate accountability and transparency (Goodstein *et al.,* 1994; Aguilera and Cuervo-Cazurra, 2009; Monks and Minow, 2011; Bouwman, 2011; Hermalin and Weisbach, 2012; Allegrini and Greco, 2013). Although corporate governance codes have been developed over the last two decades,[19] there are regional, cultural and organisational differences in terms of the extent of implementation and compliance (see Haniffa and Hudaib, 2006; Aguilera and Cuervo-Cazurra, 2009; Bebchuk and Weisbach, 2010; Ntim *et al.,* 2012a). Compliance with most corporate governance codes is voluntary 'comply or explain', such as the UK 1992 Cadbury Report, although compliance with a few, such as the US 2002 Sarbanes-Oxley Act, is mandatory ('comply or else'). Consequently, increasing research attention has been paid to measuring the level of compliance with corporate governance codes and their subsequent influence on

[19] As discussed in Chapter One, according to the European Corporate Governance Institute (ECGI), 91 countries had released their own codes by the middle of 2013 (ECGI, 2013).

financial performance (Werder *et al.,* 2005; Bebchuk and Weisbach, 2010; Bozec and Bozec, 2012; McNulty *et al.,* 2013). Given the importance of the level of compliance with corporate governance codes in improving corporate governance practices, this section seeks: (i) to discuss prior studies that explore the level of compliance with corporate governance rules; and (ii) to investigate the various factors influencing the level of compliance with corporate governance requirements.

3.2.1 Compliance and Disclosure of Corporate Governance Rules

The level of compliance with corporate governance codes varies based on differences in firm- and country-level governance practices (MacNeil and Li, 2006; Judge, 2011; Samaha *et al.,* 2012). In recent years, there has been an apparent increase in the number of countries, whether developed (e.g., Australia, Canada, France, Germany, Japan and the UK) or developing (e.g., Brazil, China, Egypt, Saudi Arabia, South Africa and Turkey), that have introduced corporate governance codes to enhance corporate governance standards among listed firms. Consequently, the corporate governance literature has paid close attention to investigating factors influencing voluntary corporate disclosure (Barako *et al.,* 2006; Allegrini and Greco, 2013).

In the following section, the level of compliance with corporate governance codes in developed and developing countries is discussed.

3.2.1.1 Level of Compliance in Developed Countries

Evidence from developed economies shows a high level of compliance with corporate governance codes. For instance, Conyon (1994) conducted a survey to investigate the level of compliance for the period 1988-1993. He finds that after the publication of the 1992 Cadbury Report, there was great improvement in corporate governance practices among listed firms in the UK. More specifically, 77% of the UK firms separated the role of CEO and chairperson after the implementation of the code, compared to 57% before the code was implemented. Also, there was a 50% increase in operating board sub-committees during the study period.

Similarly, Conyon and Mallin (1997) review studies examining compliance with the Cadbury recommendations among UK firms. They find widespread adherence through an increasing number of non-executive members on boards and committees. In the same vein, Pass (2006) reports that 35% of UK firms complied fully with the corporate governance rules contained in the 2003 UK Combined. Also, 45% took action to comply or proffered ‘acceptable’ explanations for non-compliance. The study was conducted on a

small sample of 50 large listed firms. This may limit generalisation of the findings, as the study focused only on large firms and used a relatively small sample size (see Eisenberg *et al.,* 1998).

Werder *et al*. (2005) find that firms on the Frankfurt Stock Exchange showed a high level of compliance with good corporate governance practices contained in the German governance code. They use a 2003 sample of 408 German listed firms. Similarly, Cromme (2005) reports that 75% of German listed firms complied with good corporate governance principles contained in the German governance code in 2003. Hegazy and Hegazy (2010) find that the average degree of compliance with the 2003 Combined Code among UK firms is around 70%. They employ the content analysis technique to analyse annual reports for the year 2008 of firms in the FTSE 100.[20]

Recently, Hussainey and Al-Najjar (2012) use data for 130 UK listed non-financial firms from 2003 to 2009. They find a high level of compliance with the Corporate Governance Quotient (CGQ) index among UK listed firms. The findings of Hegazy and Hegazy and Hussainey and Al-Najjar suggest that firms in the UK generally comply with the UK Combined Code, thereby improving voluntary disclosure and governance practices. Allegrini and Greco (2013) construct an index consisting of 60 corporate governance provisions extracted from the 2007 Italian civil governance code. They find that Italian listed companies increased their level of governance practices and voluntary disclosure in their annual reports. Similarly, Salterio *et al*. (2013) examine the level of compliance with 16 corporate governance recommendations imposed by the Canadian Securities Administrators using 742 Canadian listed firms. They find that, on average, 82% of the firms complied with some of the recommended good corporate governance practices, whilst 39% of the firms were completely compliant with all 16 good governance recommendations.

In sum, developed countries generally show good compliance with corporate governance standards. This can be attributed to strong legal, economic and cultural systems present in those countries, which are helpful in establishing good corporate governance practices (Aguilera and Cuervo-Cazurra, 2009; Filatotchev and Boyd, 2009; Toledo, 2010; Judge, 2011; Salterio *et al.,* 2013).

[20] The London Stock Exchange (FTSE) is ranked as the active market for IPO for both domestic and foreign firms. In addition, it is considered one of the most attractive financial markets globally (Hegazy and Hegazy, 2010).

3.2.1.2 Level of Compliance in Developing Countries

In developing countries, there is wide disparity in the level of compliance with corporate governance disclosure (Klapper and Love, 2004; Solomon, 2010). At the country level, empirical studies in developing countries find that the level of compliance varies according to the type of government in place (MacNeil and Li, 2006; Samaha *et al.,* 2012). Generally, however, a number of studies find a weak level of compliance with codes of good governance in developing countries. For example, Ararat and Ugur (2003) provide an overview of the Turkish corporate governance system. They highlight that the shortcomings, including weak supervision and enforcement by the regulatory authorities, result in a low level of compliance with the corporate governance rules contained in the Turkish Corporate Governance Code among Turkish listed firms.

Using a sample of 160 listed companies in 2002, Krambia-Kapardis and Psaros (2006) report that only a small minority of Cypriot listed firms complied with the provisions of the local corporate governance code. A possible explanation for the low level of compliance is the study period, which coincided with the release of the Cyprus Corporate Governance Code in 2002. This implies that the corporate governance reforms did not have sufficient time to result in improved corporate governance practices (Renders *et al.,* 2010).

Within the African corporate context, Tsamenyi *et al*. (2007) construct a corporate governance index to examine the level of compliance among 22 listed firms in Ghana from 2001 to 2002. The average disclosure and transparency score is 52%. Samaha *et al*. (2012) find a low level of voluntary corporate disclosure among Egyptian firms using a 2009 sample of 100 Egyptian listed firms. They use a disclosure index consisting of 53 governance provisions. More recently, Schiehll *et al*. (2013) examine the degree of voluntary disclosure with Executive Stock Option (ESO) plans released in 2007 by the Brazilian stock market authority. Using 68 publicly traded firms, they find that the firms disclosed very limited information about the ESO plans. Specifically, on average, the firms complied with 10 out of 23 recommended provisions.

In contrast, other studies have found a relative improvement in the level of compliance in some developing countries following the release of a corporate governance code. For instance, Alves and Mendes (2004) report that the publication of the Portuguese Corporate Governance Code in 1999 led to a significant increase in the level of voluntary corporate disclosure. Similarly, when corporate governance principles were developed in Kenya in 1999, there was a gradual increase in the level of compliance by all 54 listed firms (Barako *et al.,* 2006). In the same vein, Chalevas (2011) finds that compliance with

corporate governance standards improved among Greek companies from 2000 to 2003. Similarly, Ntim *et al*. (2012a) examine the influence of the King II Report on corporate governance practices in 169 South African listed firms. They construct an index consisting of 50 corporate governance provisions. Their results suggest that corporate governance standards have generally improved since the release of the report in 2002. More precisely, the level of compliance increased from 47% in 2002 to 69% in 2006.

Apart from the studies focusing on a single country, there are a number of cross-country studies. For instance, Patel *et al*. (2002) investigate the compliance levels of 354 firms in 19 emerging markets[21] from 1998 to 2000. They report that Asian and South African markets have significantly higher transparency and disclosure levels compared to Latin American, Eastern European and Middle Eastern markets. Additionally, Klapper and Love (2004) find a wide variation in firm-level governance disclosures in a sample of firms drawn from 14 developing countries in 2000, using the Credit Lyonnais Securities Asia (CLSA) index. As discussed above in Section 3.2, the variances in level of compliance with corporate governance standards among countries can be attributed to the differences in the legal, economic, cultural and social systems in these countries (Haniffa and Hudaib, 2006; Bauwhede and Willekens, 2008; Ntim *et al.,* 2012a).

In conclusion, existing evidence generally suggests that there has been some improvement in the level of compliance with corporate governance practices in some countries following the issuance of a code of good corporate governance. Bozec *et al.* (2010) argue that developing countries generally suffer from weak legal systems, and therefore are more likely to adopt a code of good corporate governance practice in order to attract potential investors and reduce the cost of capital.

3.2.1.3 Level of Compliance in Saudi Arabia

A number of studies have attempted to statistically examine the level of compliance with corporate governance standards in Saudi Arabia (e.g., Alsaeed, 2006; Hussainey and Al-Nodel, 2008; Al-Moataz and Hussainey, 2012; Al-Moataz and Lakhal, 2012; Al-Janadi *et al.,* 2013). In general, these studies report a relative improvement in the level of compliance after the corporate governance reforms. More specifically, before the establishment of the Capital Market Authority (CMA) in 2003, Naser and Nuseibeh (2003) examined 52 listed firms in 1998 and 1999. They report that the level of voluntary

[21] These countries are China, India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Thailand, Argentina, Brazil, Chile, Mexico, Peru, the Czech Republic, Hungary, Israel, Poland, Turkey and South Africa. That study does not include any Arab countries, although they constitute the majority of Middle Eastern countries.

disclosure is relatively low. Similarly, Alsaeed (2006) finds that the level of compliance with voluntary corporate disclosure is 30%. He constructs a disclosure index consisting of 20 provisions drawn from prior literature to assess the degree of compliance with 20 provisions by 40 listed firms in 2003.

Unlike Alsaeed (2006), who focuses on general voluntary disclosure, Hussainey and Al-Nodel (2008) examine the extent to which Saudi listed firms report information on their websites about good corporate governance practices. They find that the level of online reporting of corporate governance varied between sectors, with banks providing the highest level of voluntary information about their corporate governance practices. The key weakness of Hussainey and Al-Nodel's study is that it focuses on online disclosure, which only represents one aspect of corporate governance disclosure.

More recently, Al-Moataz and Hussainey (2012) and Al-Moataz and Lakhal (2012) use a similarly constructed corporate governance index consisting of nine corporate governance provisions to examine the level of compliance with good corporate governance practices in 52 and 48 listed firms, respectively. They find that the level of compliance with corporate governance standards is, on average, 53% in 2006 and 2007. Although Al-Moataz and Hussainey (2012) and Al-Moataz and Lakhal (2012) employ a corporate governance index, it consist of a limited number of corporate governance provisions contained in the Saudi Corporate Governance Code (SCGC).

In addition, they use small samples, and the study duration is limited to two years. Thus, the level of compliance found may not necessarily accurately represent the corporate governance practices among all listed firms. Similarly, Al-Janadi *et al*. (2013) construct a limited corporate governance index to examine the level of compliance with good corporate governance practices in 87 firms in 2006 and 2007. They report that 42% of Saudi listed firms disclosed information on their corporate governance practices. Al-Janadi *et al*. use an ordinal measure using three levels of disclosure (scored 2 if fully disclosed; 1 if slightly disclosed; and 0 if not disclosed). This scoring approach, however, requires high levels of judgment in evaluating the level and quality of governance disclosures (Beattie *et al.*, 2004; Hassan and Marston, 2010). The high levels of judgment and subjectivity involved in the scoring process can impact negatively on the replicability and reliability of the resulting governance disclosure index, and consequently the reliability and generalisability of the findings (Beattie *et al.*, 2004).

As discussed in Chapter One, this study is distinct from previous studies conducted on Saudi Arabia in several ways. First, previous studies using a corporate governance index focus either on a small number of governance provisions (e.g., Alsaeed, 2006) or just

on one aspect of corporate governance. For example, Al-Moataz and Hussainey (2012) and Al-Moataz and Lakhal (2012) focus mainly on corporate governance provisions relating to the board and directors. Hussainey and Al-Nodel (2008) concentrate primarily on online reporting of firms' governance information and practices. In contrast, this study investigates a larger set of 65 corporate governance provisions classified into four sub-indices: (i) board of directors and board sub-committees; (ii) disclosure and transparency; (iii) internal control and risk management; and (iv) shareholders' rights and the general assembly, with differences in the number of items based on the importance of each sub-index. The governance information is also collected from different sources, including annual reports, firms' websites, Ministry of Commerce and Industry's archives and national newspapers. Arguably, the sources of data for this study are much richer than in previous studies.

Second, most previous studies employing a corporate governance index do not necessarily follow the national corporate governance code when constructing their corporate governance index. For example, Alsaeed (2006) relies on ratings developed by other studies, while Hussainey and Al-Nodel (2008) draw their governance disclosure items mainly from prior literature. This raises questions regarding the applicability of those indices to the Saudi corporate context. This study employs a self-constructed governance index derived directly from the 2006 SCGC, which is more applicable to the Saudi corporate context. Finally, this study uses balanced panel data over a longer period (2004-2010), whereas previous studies use noticeably smaller sample sizes and unbalanced panel data over a shorter period (e.g., Alsaeed, 2006; Hussainey and Al-Nodel, 2008; Al-Moataz and Hussainey, 2012; Al-Moataz and Lakhal, 2012; Al-Janadi *et al.*, 2013). This improves the generalisability of the findings for Saudi listed firms.

The following subsection presents a discussion on the potential factors influencing voluntary corporate disclosure.

3.3 DETERMINANTS OF VOLUNTARY CORPORATE DISCLOSURE

The literature on corporate governance shows that there are differences in the level of voluntary disclosure among listed firms (Weir and Laing, 2000; Bouwman, 2011). The evidence also suggests that board characteristics and corporate ownership structure are the main determinants of the level and quality of corporate governance disclosure (Ho and Wong, 2001; Haniffa and Cooke, 2002; Eng and Mak, 2003; García-Meca and Sánchez-Ballesta, 2010; Chalevas, 2011; Samaha *et al.*, 2012; Allegrini and Greco, 2013; Ntim and

Soobaroyen, 2013). Until the 1990s, most studies empirically examine corporate governance and voluntary disclosure in American firms (Bebchuk and Weisbach, 2010; Bozec and Bozec, 2012). Later, La Porta *et al*. (1997, 1999, 2002) led a large number of studies exploring different countries in order to make international comparisons (Bebchuk and Weisbach, 2010). Due to the limited number of studies done on developing countries, this study contributes to the corporate governance literature on developing countries by investigating the determinants of voluntary corporate disclosure in Saudi Arabia.

The following subsection reviews the literature on the board of directors' characteristics and ownership structures that can influence voluntary corporate disclosure. These are independent directors, board size, audit firm size, the presence of a corporate governance committee, government ownership, institutional ownership, block ownership and director ownership. The structure of the review is as follows. For each selected variable, the relevant theoretical literature will be briefly referred to. Second, the applicable international empirical literature relating to the variable will be discussed. Third, the relevant literature relating to Saudi Arabia will be discussed, with particular focus on highlighting the differences between existing studies and the current study. Finally, an appropriate hypothesis relating to the variable will be made.

3.3.1 Board of Directors' Characteristics

The characteristics of the board of directors are important in determining voluntary corporate disclosure (Beasley, 1996; Davidson *et al.,* 1996; Soobaroyen and Mahadeo, 2012; Allegrini and Greco, 2013). In this study, the corporate governance mechanisms investigated include: (i) independent directors; (ii) board size; (iii) audit firm size; and (iv) the presence of a corporate governance committee. Both theoretical and empirical literature regarding the relationship between these mechanisms and corporate disclosure is, therefore, reviewed in the following subsections.

3.3.1.1 Proportion of Independent Directors and Voluntary Corporate Disclosure

In recent years, independent boards have received much attention from corporate governance regulations and academic research (Johanson and Ostergren, 2010; Chen *et al.*, 2011). Agency theory suggests that independent boards have a greater capacity to limit managerial opportunism (Jensen and Meckling, 1976; Fama and Jensen, 1983; Allegrini and Greco, 2013). An independent board has the capacity to protect shareholders and help reduce agency costs (Lipton and Lorsch, 1992; Chalevas, 2011). Agency theory also

predicts that the presence of independent directors can reduce information asymmetry (La Porta *et al.*, 2002; Allegrini and Greco, 2013).

Similarly, independent board membership can enhance good governance by providing a better representation of stakeholders' interests (Clarke, 1998; Solomon, 2010). Haniffa and Cooke (2002) and Barako *et al*. (2006) argue that independent directors can support the board and committees through their knowledge and experience. In addition, they are better able to monitor managers. In contrast, Bozec (2005) suggest that a high proportion of independent directors on the board may lead to excessive managerial monitoring, which could potentially hinder managerial initiatives.

Empirical studies mainly indicate a positive association between the proportion of independent directors and voluntary corporate disclosure. Haniffa and Cooke (2002) examine a 1995 sample of 167 Malaysian companies listed on the Kuala Lumpur Exchange (KLSE). Their findings support the theoretical prediction that the presence of independent directors improves the accountability and transparency of the board. Similarly, García-Meca and Sánchez-Ballesta (2010) apply a meta-analysis to review 27 studies and find that board independence provides a high level of protection to shareholders. Similarly, Chau and Gray (2010) investigate the link between board independence and corporate governance disclosure in a sample of 273 Hong Kong listed firms in 2002. They find that independence of both the board and chairperson reduced exploitation by executives.

Recently, and consistent with previous studies, Samaha *et al.* (2012) report that disclosure has significantly increased in 100 Egyptian listed firms with a higher proportion of independent directors. Similarly, Hussainey and Al-Najjar (2012) use a Corporate Governance Quotient (CGQ) index with 130 listed UK firms from 2003 to 2009. They find that the independence of the board of directors is associated with corporate disclosure. Regarding corporate social responsibility disclosure, Ntim and Soobaroyen (2013) report that a high percentage of independent directors positively influences good corporate governance practices. Their study is based on 75 large South African listed firms from 2003 to 2009. Despite the importance of their study to corporate governance disclosure literature, the governance index used in their study represents one aspect of corporate governance, which is 'social responsibility' (see Ammann *et al.*, 2013). However, Allegrini and Greco (2013) examine the relationship between independence of the board of directors and corporate governance practices among Italian listed firms. They find no significant relationship between the presence of independent directors and corporate governance disclosure.

The attention paid to independent directors in Saudi listed firms is relatively new (see Ezzine, 2011; Mahadeo *et al.,* 2012). The 2006 SCGC recommends that the majority of board directors should be non-executive (Article 12). Also, the number of independent members should be not less than two or one third of the board, whichever is greater (Article 12). Al-Moataz and Lakhal (2012) and Al-Moataz and Hussainey (2012) examine the relationship between the presence of independent directors and good corporate governance practices in Saudi listed firms, using the same constructed corporate governance index containing only nine governance provisions.

Al-Moataz and Lakhal use a sample of 48 listed firms from 2006 and 2007, while Al-Moataz and Hussainey use a sample of 52 listed firms from the same period. Al-Moataz and Lakhal report a weak relationship between independent directors and voluntary disclosure, while Al-Moataz and Hussainey (2012) find a negative relationship. As discussed in Subsection 3.2.1.3, these two studies use relatively small samples and are restricted to two years. In addition, Al-Moataz and Hussainey (2012) focus mainly on firm characteristics (financial variables) rather than corporate governance mechanisms. This may limit the applicability and generalisability of their findings to all Saudi listed firms. Since most of the theoretical and empirical literature suggests a positive relationship (e.g., Haniffa and Cooke, 2002; Chau and Gray, 2010; Chen, 2011; Hussainey and Al-Najjar, 2012; Samaha *et al.,* 2012; Ntim and Soobaroyen, 2013), the first hypothesis to be tested is formulated as follows:

> ***H_1***: There is a significant and positive relationship between the proportion of independent board members and the level of voluntary compliance with, and disclosure of, corporate governance practices.

3.3.1.2 Corporate Board Size and Voluntary Corporate Disclosure

From an agency theory perspective, shareholders expect a high level of disclosure from the board of directors, as they have been selected to represent their interests (Davidson *et al.,* 1996). Agency theory proposes that board size is a crucial factor in monitoring management behaviour (Fama and Jensen, 1983; Allegrini and Greco, 2013). Ntim and Soobaroyen (2013) argue that increased managerial monitoring positively affects voluntary disclosure. Haniffa and Cooke (2002) indicate that the existence of experienced, knowledgeable and independent directors is related to board size. Thus, due to the complexity of their activities, large firms are more likely to have a larger number of directors in order to improve firm monitoring and control (Coles *et al.,* 2008).

In contrast, increasing the number of directors may lead to poor communication, co-ordination and interaction among directors (Beasley, 1996; Yermack, 1996), which may adversely affect the accountability of the directors and management (Lipton and Lorsch, 1992; Jensen, 1993). Similarly, Vafeas (1999a) argues that CEOs of large boards may be easily controlled by an overbearing CEO due to issues of poor communication and excessive director free-riding.

Empirically, prior studies indicate a positive relationship between board size and voluntary corporate disclosure. Akhtaruddin *et al*. (2009) use an index developed by Meek *et al.* (1995) to investigate the extent of voluntary disclosure using a 2002 sample of 94 Malaysian listed firms. They find that a larger board size is associated with more corporate governance disclosure. It can be noted that a limitation of their study is that it adopts Meek *et al.*'s index, which is constructed for studies that focus on developed countries. Therefore, Akhtaruddin *et al.* could not take into account the contextual differences between developed and developing countries, such as legal, cultural and economic systems (see Haniffa and Cooke, 2002; Haniffa and Hudaib, 2006; Piesse *et al.*, 2012; Kim and Lu, 2013; Robertson *et al.*, 2013).

Ntim *et al*. (2012a) find that board size is a key determinant of voluntary corporate disclosure. More precisely, they report a positive and significant relationship between board size and voluntary corporate disclosure among 169 South African firms. Further, using a sample of 100 Egyptian companies, Samaha *et al.* (2012) report that Egyptian listed firms with larger boards are more likely to disclose more corporate governance information than their smaller counterparts. More recently, Schiehll *et al.* (2013) investigate the impact of board size on voluntary executive stock option plans. Using 68 listed companies on the São Paulo Stock Exchange, their study finds that voluntary executive stock option disclosure practices in Brazilian firms are positively associated with board size. Similarly, Allegrini and Greco (2013) examine 177 listed companies on the Italian Stock Exchange in 2007. They report that larger boards tend to disclose more information about firms' strategic objectives than smaller boards. In contrast, Hussainey and Al-Najjar (2012) find no significant relationship between board size and corporate disclosure among 130 listed firms in the UK.

In the Saudi corporate context, the relationship between board size and voluntary corporate disclosure is not well documented. Al-Moataz and Lakhal (2012) find no significant relationship between board size and corporate governance practices. As discussed in the previous subsection, it is interesting to note that their study suffered from a number of limitations, including using a smaller sample size and focusing on a limited

number of governance provisions, as well as covering a short sample period. The SCGC specifies that corporate boards should have a minimum of three members and a maximum of eleven members. This gives firms some flexibility in composing a board of a suitable size. Given the positive impact of board size on voluntary disclosure found by previous studies (e.g., Meek *et al.,* 1995; Akhtaruddin *et al.,* 2009; Samaha *et al.,* 2012; Ntim *et al.,* 2012a; Allegrini and Greco, 2013), the second hypothesis to be tested is formulated as follows:

> ***H_2*:** There is a significant and positive relationship between board size and the level of voluntary compliance with, and disclosure of, corporate governance practices.

3.3.1.3 Audit Firm Size and Voluntary Corporate Disclosure

Although firms' management is fully responsible for the content of disclosure, agency and stakeholder theories predict that audit firms can influence the level and quality of corporate governance disclosure (Barako *et al.,* 2006). Audit firms are an external corporate governance mechanism important in monitoring managers by examining firm financial performance and disclosure (Haniffa and Hudaib, 2007; Han *et al.,* 2012). It can be argued that audit firms can limit agents' opportunistic behaviour, which may help reduce agency conflicts (Haniffa and Cooke, 2002). Therefore, it can be argued that the quality of external auditing can improve the level of corporate governance disclosure (Eng and Mak, 2003). It is found that large audit firms (big-four) have better auditing performance standards than small audit firms (Depoers, 2000; Alsaeed, 2006). Therefore, large audit firms are more likely to have highly experienced, trained and qualified auditors (Barako *et al.,* 2006).

Arguably, large audit firms are expected to be more independent (Haniffa and Cooke, 2002). Also, big-four audit firms may require a high level of disclosure to protect themselves against shareholders who might damage their reputations (Depoers, 2000; DeAngelo, 1981). In contrast, due to potential financial constraints (e.g., the risk of losing a client), small audit firms may have a weaker capacity to negotiate for high-quality disclosures, including those relating to governance, than their larger counterparts (Alsaeed, 2006).

The empirical literature on the relationship between the quality of external auditing and voluntary corporate disclosure suggests either a positive or no significant relationship. Raffournier (1995) examines 161 industrial and commercial Swiss listed firms in 1992 to investigate this relationship. The study reports that audit firm size is positively related to

corporate governance disclosure. In the same vein, Ntim *et al*. (2012a) report that audit firm size is positively associated with the level of voluntary corporate disclosure among 169 South African listed firms. Similarly, Schiehll *et al.* (2013) find that firms in Brazil audited by a big-four audit firm are more likely to increase voluntary executive stock option disclosure.

However, Wallace *et al*. (1994) investigate the influence of audit firm size on corporate governance practices in Spain. Using a sample of 50 firms for the year 1991, they find no evidence that audit firm size significantly affects corporate governance disclosure. In addition to the one-year cross-sectional nature of their data, their study is conducted on both listed and unlisted firms. Using listed and unlisted firms may understandably lead to mixed results. This is because listed firms are subject to different rules and requirements than unlisted firms (El Mehdi, 2007). Hossain *et al*. (1995) report that firms audited by large audit firms did not disclose significantly more than their non-big-four audited counterparts, using a sample of 55 publicly listed firms in New Zealand. They suggest that their results could have been affected by the multicollinearity between audit firm size and some of the other explanatory variables in their model. Additionally, Barako *et al*. (2006) report that audit firm size does not have a significant relationship with the level of corporate governance disclosure using a sample of Kenyan listed companies.

In Saudi Arabia, Alsaeed (2006) finds that audit firm size has no significant impact on the level of corporate governance disclosure. This study suffers from a number of weaknesses, including: (i) the disclosure index focuses mainly on corporate transparency provisions, with little attention paid to other corporate governance aspects, such as board composition, board sub-committees and shareholders' provisions; and (ii) the number of observations is relatively small, consisting of only 40 firm-year observations. In contrast, the current study employs a corporate governance index consisting of 65 corporate governance provisions drawn from the SCGC. In addition, it considers 80 listed firms over a seven-year sample period (resulting in a total of 560 firm-year observations). Since agency and stakeholder theories suggest a positive relationship between audit firm size and voluntary corporate disclosure, previous empirical studies also found a positive relationship (e.g., Raffournier, 1995; Ntim *et al.,* 2012a; Schiehll *et al.,* 2013), the third hypothesis to be tested is formulated as follows:

> ***H*$_3$**: There is a significant and positive relationship between audit firm size and the level of voluntary compliance with, and disclosure of, corporate governance practices.

3.3.1.4 The Presence of a Corporate Governance Committee and Voluntary Corporate Disclosure

The presence of a corporate governance committee is one of the recommendations recently made by a number of corporate governance codes. The main purpose of the committee is to help implement corporate governance standards, which can increase voluntary corporate disclosure (Ntim *et al.,* 2012a). Stakeholder theory is based on the notion that the role of corporate governance is to protect stakeholders and shareholders equally (Clarke, 1998; Solomon, 2010). Thus, the presence of a corporate governance committee can further protect stakeholders' rights. Furthermore, the presence of a corporate governance committee can reduce variations in information, sending a signal to the market about the company's commitment to good corporate governance practices (Akhtaruddin *et al.,* 2009).

The empirical literature on corporate governance shows a general lack of studies examining the relationship between the presence of corporate governance committees and voluntary corporate disclosure (Ntim *et al.,* 2012a). The only exception is a study by Ntim *et al*. (2012a). Ntim *et al*. (2012a) use a sample of 169 listed firms in South Africa and find that the establishment of a corporate governance committee is positively associated with voluntary disclosure of corporate governance practices.

In Saudi Arabia, no study on the impact of a corporate governance committee on voluntary corporate disclosure has yet been conducted; this provides an opportunity to contribute to the international literature by extending the evidence to the Saudi corporate context. Given the positive impact of corporate governance committees on voluntary disclosure found by Ntim *et al*. (2012), the fourth hypothesis to be tested is formulated as follows:

> ***H_4***: There is a significant and positive relationship between the presence of a corporate governance committee and the level of voluntary compliance with, and disclosure of, corporate governance practices.

3.3.2 Ownership Structure and Voluntary Corporate Disclosure

Ownership structure is found to be an important determinant of better governance practices (La Porta *et al.,* 1999; Konijn *et al.,* 2011). The theoretical expectation is that large shareholders have the ability to monitor managers, which can enhance governance practices, including voluntary disclosure (Jensen and Meckling, 1976; Edmans and Manso, 2011). For example, institutional ownership can lead to an improvement in corporate governance practices, including disclosure, in order to further attract foreign investors

(Ruiz-Mallorquí and Santana-Martín, 2011). However, empirical studies on the relationship between ownership structure and voluntary corporate disclosure are inconclusive (Bebchuk and Weisbach, 2010). The discussion in this subsection focuses on four types of ownership structure within Saudi listed firms: (i) government ownership; (ii) institutional ownership; (iii) block ownership; and (iv) board ownership.

3.3.2.1 Government Ownership and Voluntary Corporate Disclosure

From a stakeholder theory perspective, state (government) ownership is a key factor influencing corporate governance disclosure, particularly in emerging countries where concentrated ownership structures are widespread (Shleifer, 1998; Cornett *et al.*, 2010; Al-Moataz and Hussainey, 2012). Eng and Mak (2003) argue that agency problems are more likely to arise with large ownership, such as government ownership. In addition, it has been argued that government ownership normally leads to intervention by the government in the running of the firm, which can lead to poor corporate governance practices (e.g., Bolton and Thadden, 1998; Konijn *et al.*, 2011). For example, a government can use its power to appoint directors and CEOs, regardless of the individuals' qualifications and experience (Tsamenyi *et al.*, 2007; Cornett *et al.*, 2010).

In contrast, stewardship theory predicts that CEOs and executive directors may not be affected by government ownership because their interests are aligned with those of every corporate owner (Davis *et al.*, 1997; Siebels and Knyphausen-Aufseb, 2012). Specifically, CEOs seek to improve firm performance with the aim of improving their own future job opportunities, as well as protecting their own reputations (Donaldson and Davis, 1991; Conyon and He, 2011). From a resource dependence theory perspective, however, government ownership may grant access to critical resources, such as finance, government contracts and tax subsidies , which can improve firm performance and disclosure (Nicholson and Kiel, 2007; Bauwhede and Willekens, 2008; Hermalin and Weisbach, 2012).

Empirically, the relationship between government ownership and corporate governance disclosure has not been extensively examined (Eng and Mak, 2003; Ntim *et al.*, 2012a), and thus remains a fertile area of research, where a contribution can be made to the international literature. The findings of a considerable number of studies suggest a positive relationship. Eng and Mak (2003) examine the association between government ownership and voluntary disclosure using a 1995 sample of 158 firms listed on the Singapore Stock Exchange. They find that large government ownership is positively related to voluntary corporate disclosure. In a similar vein, Conyon and He (2011) find that

state ownership enhanced corporate governance practices in a large sample consisting of 1,342 Chinese firms over the 2001-2005 period. Similarly, Ntim *et al*. (2012a) report that government ownership is positively related to voluntary corporate disclosure among 169 South African listed firms.

As discussed in Chapter Six, the Saudi government has high ownership stakes in a considerable number of firms, representing an average of 42% of the total value of the Saudi stock market. Apart from Al-Moataz and Lakhal (2012), however, no study has explored the impact of government ownership on voluntary corporate disclosure. Al-Moataz and Lakhal (2012) find that state ownership improved voulantry corporate governance disclosure in Saudi listed firms. Their study uses a corporate governance index consisting of only nine provisions, and a small sample consisting of 42 listed firms. The current study seeks to contribute to the literaure by expanding and improving on the evidence of Al-Moataz and Lakhal (2012). Given the positive relationship found in prior studies (e.g., Eng and Mak, 2003; Conyon and He, 2011; Ntim *et al.*, 2012a; Al-Moataz and Lakhal, 2012), the fifth hypothesis to be tested is formulated as follows:

> $\boldsymbol{H_5}$: There is a significant and positive relationship between government ownership and the level of voluntary compliance with, and disclosure of, corporate governance practices.

3.3.2.2 Institutional Ownership and Voluntary Corporate Disclosure

Institutional investors are capable of monitoring firms and helping to improve corporate governance disclosure (Barako *et al.*, 2006; Aggarwal *et al.*, 2011). Agency theory predicts that monitoring is useful in reducing conflicts of interest between directors and investors (Jensen and Meckling, 1976; Solomon, 2010). Chung and Zhang (2011) suggest that institutional investors have a much stronger incentive to protect their investment, especially if exit is costly. Therefore, the presence of institutional shareholders ensures that a degree of accountability exists between shareholders and top management (Haniffa and Hudaib, 2006, Aggarwal *et al.*, 2011). This suggests that the presence of institutional ownership can reduce agency costs.

Healy and Palepu (2001) and Ntim *et al.* (2012a) suggest that improvement in voluntary disclosure may lead to a higher share price and increased firm value. Thus, institutional shareholders can help reduce information asymmetry and improve firm value (Aggarwal *et al.*, 2011). This is consistent with Chung and Zhang's (2011) argument that the proportion of institutions holding a firm's shares increases with the quality of

governance. On the other hand, Ruiz-Mallorquí and Santana-Martín (2009 and 2011) argue that institutional investors are not necessarily an influential factor in improving the level of transparent disclosure. More precisely, they may play a weak role in motivating good corporate governance practices as a result of a short-term focus of their investment.

According to empirical studies, a positive relationship between institutional ownership and voluntary corporate disclosure exists (e.g., Barako *et al.,* 2006; Aggarwal *et al.*, 2011; Chung and Zhang, 2011; Ntim *et al.*, 2012a). Using a small sample of 53 Kenyan listed firms, Barako *et al*. (2006) find that the level of institutional ownership had a positive and significant effect on a firm's transparency. Similarly, Bushee *et al.* (2010) find evidence that high institutional ownership improves corporate governance practices. The sample used in their study consists of firms from the Investor Responsibility Research Centre database between 1995 and 1997. Using a large sample consisting of 12,093 firm-year observations from 2001 to 2006,[22] Chung and Zhang (2011) investigate institutional investor preferences in the US financial market. They find that firms with high voluntary corporate governance compliance are highly attractive to institutional investors.

Similarly, Ntim *et al*. (2012a) examine 169 listed firms in South Africa during the period 2002-2006. They report that firms with higher institutional ownership disclosed considerably more than firms with lower institutional ownership. Hussainey and Al-Najjar (2012) find a positive relationship between institutional ownership and corporate governance using 130 UK firms from 2003 to 2009. Additionally, the findings of a number of cross-country studies support the positive association found in previous studies on a single country. For example, Aggarwal *et al.* (2011) study a sample of 23 countries[23] during the period 2003-2008. They suggest that corporate governance practices are better in firms with higher institutional ownership. Thus, it seems that there is consensus among most existing studies on the positive role of institutional ownership in the promotion of voluntary corporate disclosure.

In the Saudi corporate context, the relationship between institutional ownership and voluntary corporate governance has not yet been examined. Therefore, the current study offers, for the first time, evidence on this particular relationship in Saudi listed firms. Despite the importance of institutional ownership as an external corporate governance

[22] The study sample includes all stocks which are listed on the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX). The data sources are both the Center for Research in Security Prices (CRSP) and the NYSE's Trade and Quote (TAQ) database. The accounting data was obtained from Standard & Poor's (S&P's).

[23] Countries under study are dispersed over more than one continent, as follows: the US, Canada, the UK, France, Germany, Switzerland, Italy, Spain, the Netherlands, Sweden, Finland, Belgium, Norway, Denmark, Greece, Austria, Ireland, Portugal, Japan, Australia, Hong Kong, Singapore and New Zealand.

mechanism, the Saudi stock market is still dominated by individual investors (ROSC, 2009). With respect to corporate governance regulations, the SCGC has recommended that institutional investors should disclose information about their investment policies (Article 6). It also encourages institutional investors to exert pressure on corporations to engage in corporate governance disclosure and good corporate governance practices. Evidence from both developed and developing economies indicates a positive relationship between institutional ownership and voluntary corporate disclosure (e.g., Barako *et al.*, 2006; Aggarwal *et al.*, 2011; Ntim *et al.*, 2012a; Hussainey and Al-Najjar, 2012). Thus, the sixth hypothesis to be tested is formulated as follows:

> ***H_6***: There is a significant and positive relationship between institutional ownership and the level of voluntary compliance with, and disclosure of, corporate governance practices.

3.3.2.3 Block Ownership and Voluntary Corporate Disclosure

From a stakeholder theory perspective, block holders[24] have a powerful influence on voluntary corporate disclosure (Tsamenyi *et al.*, 2007; Konijn *et al.*, 2011; Ntim *et al.*, 2014). Conyon and He (2011) and Konijn *et al*. (2011) argue that outside block holders, due to their considerable power, can limit excessively large compensation. In this regard, Shleifer and Vishny (1997) explain that block shareholders have an advantage over small shareholders in their ability to discipline managers and limit their opportunistic behaviour, which can reduce agency costs. Similarly, Konijn *et al*. (2011) suggest that large shareholders, due to their significant interests, have higher incentives to monitor managerial performance, thereby reducing free-rider problems. In the same vein, block holders have the financial ability to fund the firm's needs to improve firm performance (Chen *et al.*, 2009). However, Ntim *et al*. (2014) indicate that large shareholders may connive with managers in order to expropriate corporate resources, to the disadvantage of small or minority shareholders.

Empirical studies on the relationship between block ownership and level of corporate governance disclosure suggest either a negative or no significant relationship. For example, Barako *et al*. (2006) and Ntim and Soobaroyen (2013) find a negative association between block ownership and voluntary disclosure. However, Konijn *et al*. (2011) examine a sample of US firms representing 3,722 firm-year observations during the period 1996-2001. They find no explicit relationship between block holders' presence and

[24] Corporate governance literature generally defines block holders as shareholders owning 5% or more of a firm's stocks (Mitton, 2002; Konijn *et al*., 2011).

shareholders' rights. It is argued that the variation in the findings of past studies may be attributed to contextual differences (Salterio *et al.,* 2013, Robertson *et al.,* 2013). Whereas developing countries generally suffer from weak legal systems (Bauwhede and Willekens, 2008), developed economies have an effective external governance mechanism, such as an active market for corporate control that can enhance voluntary corporate disclosure (Haniffa and Hudaib, 2006).

In Saudi Arabia, Alsaeed (2006) examines the level of disclosure in 40 Saudi listed firms in 2003 by constructing a disclosure index consisting of 20 voluntary provisions. He reports that some firm characteristics, such as block ownership, are not significantly associated with voluntary disclosure. Furthermore, block holders are not statistically related to corporate governance practices in Saudi listed firms. However, Alsaeed's findings are subject to a number of limitations, including using a limited sample of firms, thus impeding generalisability of the findings. Consistent with the findings of a number of empirical studies in a number of developing countries, which suggest a negative relationship between block ownership and voluntary disclosure (e.g., Barako *et al.,* 2006; Ntim and Soobaroyen, 2013), the seventh hypothesis to be tested is formulated as follows:

> ***H*$_7$**: There is a significant and negative relationship between block ownership and the level of voluntary compliance with, and disclosure of, corporate governance practices.

3.3.2.4 Director Ownership and Voluntary Corporate Disclosure

The importance of director ownership stems from the significant role that the board of directors plays regarding corporate governance disclosure policies (Jensen and Meckling, 1976; Eng and Mak, 2003; Chalevas, 2011). From an agency theory perspective, the relationship between director ownership and voluntary corporate disclosure is not conclusive (Haniffa and Hudaib, 2006). McConnell and Servaes (1990) argue that directors may seek to maximise their wealth by using inside information only in matters where their own interest is served, and not necessarily for the best interests of the firm. However, if director ownership is low, this can reduce directors' incentives to improve performance, and can consequently lead to lower corporate governance disclosure (Eng and Mak, 2003; Fama and Jensen, 1983). Shareholders can monitor board behaviour to mitigate agency problems (Jensen and Meckling, 1976), but this may increase monitoring costs. Therefore, voluntary disclosure may be considered as an alternative to directly monitoring directors,

which can equally improve corporate governance practices (Eng and Mak, 2003; Allegrini and Greco, 2013).

In contrast, Jensen and Meckling (1976) argue that director ownership results in similar protection for directors and outside shareholders. This is due to an alignment of interests between directors and shareholders (Samaha *et al.,* 2012). This implies that directors seek to enhance corporate transparency and disclosure in order to increase firm value.

Empirical studies on director ownership suggest a negative relationship between director ownership and corporate governance disclosure. For instance, in 158 Singaporean listed firms, Eng and Mak (2003) report that lower board ownership is associated with a high level of disclosure. On a cross-country level, Bauwhede and Willekens (2008) examined 130 firms from 14 European countries in 2000. They find that the percentage of shares closely held by insiders is negatively related to corporate governance practices. More recently, Samaha *et al.* (2012) examine the board ownership-disclosure relationship among a sample of 100 Egyptian listed firms. Their result does not generally support the hypothesis of a positive relationship between director ownership and voluntary disclosure. Similarly, Hussainey and Al-Najjar (2012) find a negative relationship of managerial ownership with corporate disclosure, proxied by a corporate governance index, among 130 firms in the UK.

In Saudi listed firms, the association between director ownership and voluntary corporate disclosure has not yet been investigated. A large proportion of listed firms' shares are owned by families, who thus control membership of boards (ROSC, 2009; Soliman, 2013a and b). This is expected to have an impact on corporate governance practices. Based on previous studies that suggest a negative relationship between director ownership and voluntary corporate disclosure (e.g., Eng and Mak, 2003; Bauwhede and Willekens, 2008; Hussainey and Al-Najjar, 2012), the eighth hypothesis to be tested is formulated as follows:

> ***H_8***: There is a significant and negative relationship between board ownership and the level of voluntary compliance with, and disclosure of, corporate governance practices.

The previous section presented a review of compliance with corporate governance codes and determinants of voluntary corporate disclosure in developed and developing countries, including Saudi Arabia. The determinants of voluntary corporate disclosure were also examined to investigate the differences among corporate governance practices. These

determinants included independent directors, board size, audit firm size, presence of a corporate governance committee and ownership structure.

The next section of this chapter investigates the relationship between corporate governance mechanisms and firm financial performance. Two different approaches are used to explore this particular relationship: the equilibrium-variable model and the compliance-index model.

3.4 CORPORATE GOVERNANCE, FIRM FINANCIAL PERFORMANCE AND HYPOTHESES DEVELOPMENT

As discussed in Section 3.1, governance theories, particularly agency theory, suggest that enhancement of corporate governance mechanisms improves firm financial performance. The empirical literature investigating the relationship between corporate governance mechanisms and firm financial performance either uses the equilibrium-variable model (e.g., Vafeas and Theodorou, 1998; Weir and Laing, 2000; Haniffa and Hudaib, 2006; Chalevas, 2011; Mangena *et al.,* 2012) or the compliance-index model (e.g., Black, 2001; Gompers *et al.,* 2003; Cremers and Nair, 2005; Morey *et al.,* 2009; Bauer *et al.,* 2010; Renders *et al.,* 2010; Giroud and Mueller, 2011; Black and Kim, 2012; Ammann *et al.,* 2013; Munisi and Randoy, 2013; Tariq and Abbas, 2013; van Essen *et al.,* 2013). The equilibrium-variable model helps to explore the influence of individual corporate governance mechanisms on firm financial performance. In contrast, the compliance-index model involves an examination of the relationship between corporate governance and firm performance using a broad composite Saudi governance index containing 65 corporate governance provisions.

The remaining parts of this chapter are organised as follows. Subsection 3.4.1 reviews empirical studies that use the equilibrium-variable model, whereas Subsection 3.4.2 reviews the literature on the compliance-index model.

3.4.1 The Equilibrium-Variable Model and Firm Financial Performance

The board of directors is an essential part of corporate governance which can influence firm performance (Goodstein *et al.,* 1994; Monks and Minow, 2011; Westphal and Zajac, 2013). Six characteristics of a board of directors are reviewed based on relevant prior literature. These are CEO duality, the proportion of independent directors, board size, the frequency of board meetings, board sub-committees and director ownership. These board characteristics were selected because of their important effect on board effectiveness

(Solomon, 2010; Monks and Minow, 2011; Allegrini and Greco, 2013). Moreover, the Saudi Corporate Governance Code (SCGC) considers these mechanisms to be central to good corporate governance practices.

To investigate each of the six mechanisms, four main elements are considered: (i) a review of the theoretical literature on the association between a particular corporate governance mechanism and firm performance; (ii) a review of empirical studies conducted in developed countries; (iii) a review of studies on developing countries; and (iv) a review of studies on Saudi listed firms and related corporate governance rules in Saudi Arabia. Finally, on the basis of these reviews, hypotheses are developed.

3.4.1.1 CEO Duality

i) The theoretical association between CEO duality and firm financial performance

CEO duality is considered an important corporate governance mechanism due to the sensitive nature of the relationship between agents and principals (Davis *et al.*, 1997; Krause *et al.*, 2014). Agency theory suggests that CEOs should run the firm in the best interest of shareholders (Jensen and Meckling, 1976; Chen *et al.*, 2011). Jensen (1993) and Blackburn (1994) argue that combining the roles of chairperson and CEO may undermine the board's monitoring power. As discussed in Section 3.1, weak monitoring may lead to expropriation of a firm's resources by self-serving managers by, for example, awarding themselves compensation packages regardless of their performance (Berle and Means, 1932). Also, because they tend to have access to better information relating to the operations of the firms than non-executive directors, CEOs can exploit such information to their advantage (Jensen and Meckling, 1976; Black *et al.*, 2006a; Chalevas, 2011). Lipton and Lorsch (1992) and Mashayekhi and Bazaz (2008) suggest that role duality can offer opportunities for self-serving CEOs to dominate board meetings, which can impact negatively on corporate financial performance.

In contrast, stewardship theory suggests that CEOs tend to work in the best interests of shareholders (Davis *et al.*, 1997). This is because the interests of the CEO and those of shareholders are aligned. Furthermore, CEOs seek to maintain their reputation and future job opportunities (Conyon and He, 2011). Thus, they tend to make good use of firms' resources, and thus can lead to an increase in the value of the firm (Davis *et al.*, 1997; Nicholson and Kiel, 2007; Siebels and Knyphausen-Aufseb, 2012).

ii) The empirical association between CEO duality and firm financial performance in developed economies

Existing empirical studies show mixed evidence about the relationship between CEO duality and financial performance in developed countries. A negative relationship is observed by a number of studies. For example, Dahya *et al.* (1996) report a positive association between separating the roles of chairperson and CEO and financial performance. Specifically, they use a sample of 124 UK companies from 1989 to 1992 and find an improvement in firm performance in the year following separation of the roles of CEO and board chairperson.

Similarly, Daily and Dalton (1994) use a sample of matching pairs of 57 bankrupt and surviving firms in the US from 1972 to 1982. They find that CEO duality was a significant factor for the firms that faced bankruptcy. Daily and Dalton's finding supports the importance of splitting the CEO and chairperson positions in monitoring and controlling the firm's management (Lipton and Lorsch, 1992; Blackburn, 1994). In addition, Dey *et al.* (2011) report that splitting the roles of CEO and chairperson is positively associated with returns for a sample of 760 firms between 2001 and 2009. Christensen *et al*. (2014) find that the separation of the roles of CEO and chairperson is significantly associated with higher earnings quality among 660 Australian companies from 2001 to 2004.

On the other hand, some studies show a positive relationship between CEO duality and firm financial performance. Donaldson and Davis (1991) examine a cross-sectional sample of 321 firms in the US from 1985 to 1987. They report that return on equity (ROE) is higher in companies with CEO duality. Similarly, using 192 US firms' data between 1980 and 1984, Boyd (1995) finds evidence that return on investment (ROI) is higher in firms with CEO duality. In the same vein, Brickley *et al*. (1997) investigate a 1988 sample of 737 US listed firms. They find that CEO role duality impacts positively on financial performance.

Finally, a number of studies indicate that CEO duality does not affect firm financial performance. For example, using data from 375 US listed firms from 1980 to 1991, Baliga *et al*. (1996) find that the US stock market return is not affected by CEO duality. Similarly, Daily and Johnson (1997) examine 100 US firms between 1987 and 1990 and find that CEO duality had an insignificant impact on firm performance, as measured by ROE and ROI. In addition, Bozec (2005) finds no statistical impact of CEO duality on firm performance in a sample of 25 Canadian firms between 1976 and 2000. More recently,

Castaner and Kavadis (2013) examine a small sample of 59 French corporations from 2000 to 2006. They find no statistical relationship between CEO duality and firm performance.

iii) The empirical association between CEO duality and firm financial performance in developing economies

Prior empirical studies have reported mixed evidence about the impact of CEO duality on firm performance in developing countries. The findings of one stream of studies suggest a negative relationship between CEO duality and firm financial performance. For example, Haniffa and Hudaib (2006) examine 347 Malaysian listed firms from 1996 to 2000 to investigate the link between CEO duality and firm performance. They report that CEO duality had a negative association with ROA. Similarly, Jackling and Johl (2009) find that CEO duality had a detrimental effect on market value, as measured by Tobin's Q, among a sample of 180 Indian listed firms in 2006. Hearn (2011) finds that splitting the roles of CEO and chairperson improved firm value. Hearn's study examines a small sample of 37 listed firms across West Africa between 2000 and 2009.

Mangena and Chamisa (2008) report no association between CEO duality and suspended firms among 81 South African listed firms from 1999 to 2005. Similarly, Mashayekhi and Bazaz (2008) find no association between leadership structure and firm performance in 240 Iranian listed firms from 2005 to 2006.

iv) Studies on Saudi Arabia and Saudi Corporate Governance Regulations

Al-Abbas (2009) examines the influence of CEO duality on shareholders' returns. Using data of 78 listed firms in 2005, 2006 and 2007 (a total of 106 firm-year observations), he finds no evidence of improvement in the performance of firms that split CEO and chairperson positions. However, Ezzine (2011) finds a negative relationship between CEO duality and stock price performance using 96 firm-year observations in Saudi Arabia between 2006 and 2008. Both Al-Abbas and Ezzine use unbalanced panel data from a small sample. As discussed in Chapter Five and Seven, endogeneity problems arising from potential unobserved firm-level heterogeneity may be exacerbated by the use of unbalanced panel data (Henry, 2008; Guest, 2009; Ntim *et al.,* 2012b). The relatively small sample size can also limit generalisability of their findings for Saudi listed firms. Unlike their studies, this study involves both cross-sectional and time-series observations using a balanced and larger sample of 80 listed firms over seven years (i.e., giving a total of 560 firm-year observations).

The SCGC recommends splitting CEO and chairperson positions to enhance the accountability of a firm's management. Since agency theory suggests a negative relationship between CEO duality and firm financial performance, and most empirical studies also found a negative relationship (e.g., Haniffa and Hudaib, 2006; Jackling and Johl, 2009; Dey *et al.*, 2011; Christensen *et al.,* 2014), the ninth hypothesis to be tested is formulated as follows:

H₉: There is a significant and negative relationship between CEO duality and firm financial performance, as measured by ROA and Tobin's Q.

3.4.1.2 Proportion of Independent Directors

i) The theoretical association between the proportion of independent directors and firm financial performance

A multiple-theoretical approach is adopted to investigate the relationship between proportion of independent directors and firm performance. Agency theory indicates that, owing to the conflict of interest between agents and principals, the presence of independent directors may act to reduce the agency problem (Berle and Means, 1932; Fama, 1980; Bebchuk and Weisbach, 2010). For instance, executives' and CEOs' performance can be reasonably assessed by an independent chairperson and directors (Fama, 1980; Weir and Laing, 2000; Haniffa and Hudaib, 2006; Chalevas, 2011). In addition, the presence of independent board members can improve board decisions (Pearce and Zahra, 1992; Chen *et al.,* 2011).

Furthermore, non-executives[25] are deemed to be additional resources in terms of expertise, knowledge, prestige and contacts (Haniffa and Hudaib, 2006; Nicholson and Kiel, 2007; Chen, 2011; Ntim and Soobaroyen, 2013). Consequently, this can help the board of directors in improving the competitive advantage of the company (Chen and Roberts, 2010). Additionally, from a managerial signalling theory perspective, the presence of independent members (non-executives) on the board can serve as a signal of the existence of fewer agency problems (Black *et al.*, 2006b).

In contrast, Weir and Laing (2000) indicate that independent directors tend to have limited knowledge about the nature of a firm's operations and activities. In this regard,

[25] An independent director is a member of a board of directors with complete independence. The SCGC points out some cases in which the independency of a director is compromised, such as: (i) owning a controlling stake in the company and/or its subsidiaries; (ii) having been an executive of the company or one of its subsidiaries during the last two years; and (iii) being a close relative of any of the members of the board of directors or the executive management. A non-executive director is a member of the board of directors that does not work for the company on a full-time basis. On the other hand, non-executive members work part-time, but still have an interest in the company, (i.e. hold shares).

Goodstein *et al*. (1994) suggest that a high number of independent directors may increase monitoring, which may restrict managerial performance. This may have a negative impact on firm profitability. Independent members may not have adequate time to exercise their role effectively, which may adversely affect firm performance (Jiraporn *et al.*, 2009).

ii) The empirical association between the proportion of independent directors and firm financial performance in developed economies

The link between independent directors and firm financial performance in developed countries has generally been mixed. A positive relationship is noted by Millstein and MacAvoy (1998). They examine the influence of board independence on returns and investment among 154 listed firms in the US. They report that firms with a higher proportion of independent board members show a better ROI. Similarly, using 311 UK firms in 1996, Weir *et al.* (2002) find that the presence of independent directors in a board's structure attracts investors and increases the firm's value, as measured by Tobin's Q. In the same vein, Gupta and Fields (2009) investigate a sample of 744 US firms between 1990 and 2003 and examine the independent directors' resignations. They suggest that the resignation of an independent director adversely affected the firms' value. Similarly, Upadhyay *et al*. (2014) find a positive relationship between independent directors and Q-ratio among 660 Australian firms from 2001 to 2004.

Other studies showed a negative relationship between independent directors and firm performance in developed countries. For example, Agrawal and Knoeber (1996) examine a sample of about 400 large US firms in 1987 using Tobin's Q, as a market-based measure. They report that the percentage of independent directors is negatively related to firm value. Additionally, Bozec (2005) examines a sample of 25 Canadian firms between 1976 and 2000 with different performance measures: ROA, return on sales and Tobin's Q. He finds that firm profitability and productivity were lower in companies that had a board dominated by independent board members. This is in line with the theoretical prediction that non-executive directors interact less with a firm's management and are often less knowledgeable about the firm's operations (e.g., Davis *et al.*, 1997; Bozec, 2005; Nicholson and Kiel, 2007).

The final stream of research suggests that independent directors have no influence on firm performance. Vafeas and Theodorou (1998) investigate the relationship between independent directors and firm value. They use a sample of 250 UK firms for 1994 and find that ROA had no significant relationship with board independence. Similarly, Klein (1998) suggests that there is no effect of independent directors on financial performance in

486 US firms between 1992 and 1993 using both accounting- and market-based performance measures. Recently, Christensen *et al*. (2014) show that there is generally no significant relationship between independent directors and ROA or earnings quality variables.

iii) The empirical association between the proportion of independent directors and financial performance in developing economies

In developing countries, the results regarding the relationship between independent board members and firm performance are similar to those in developed economies, suggesting mixed results. A positive relationship is suggested by El Mehdi (2007), who analyses 24 Tunisian listed firms between 2000 and 2005. El Mehdi (2007) finds that the presence of independent directors is positively associated with firm value. Similarly, Mangena and Tauringana (2007) examine unbalanced data from Zimbabwe for 2002 and 2003 with samples of 51 and 67 firms, respectively. They report that the proportion of independent members is significantly and positively associated with an increase in foreign investment in the sampled firms. This implies that foreign investors are attracted to firms that have a higher proportion of independent board members.

Similarly, Mangena and Chamisa (2008) find that the likelihood of a firm being suspended from the South African Stock Exchange is lower in public firms with a higher proportion of non-executives, using a sample of 81 South African firms. Similarly, Conyon and He (2011) employ a large sample of 1,342 Chinese firms from 2001 to 2005 to investigate the relationship between independent directors and firm performance. They report a positive relationship between independent directors and ROA. Hui (2012) examines 318 Chinese small and medium sized firms for three years from 2006 to 2008. He finds that ROE is negatively related to the proportion of independent directors. Similarly, Mahadeo *et al*. (2012) find that the proportion of independent directors is negatively associated with firm performance in Mauritius. They examine a small sample of 42 firms in 2007. They suggest that the concept of board independence is very recent in developing countries which recently adopted corporate governance reforms, leading to a negative relationship.

On the other hand, Haniffa and Hudaib (2006) find no significant relationship between independent directors and firm performance, as measured by ROA and Tobin's Q. They employ a sample of 347 Malaysian firms between 1996 and 2000. Similarly, Sanda *et al*. (2010) analyse a sample of 93 Nigerian firms from 1996 to 1999. Using different performance proxies (ROA, ROE, Tobin's Q and PE ratio), they find that independent

directors do not have a significant relationship with firm performance. This implies that having independent directors on a board does not necessarily lead to good financial performance.

iv) Studies on Saudi Arabia and Saudi Corporate Governance Regulations

Al-Abbas (2009) examines the effect of independent directors on firm performance in Saudi listed firms. The study finds no significant relationship between firm performance and proportion of independent directors. Similarly, Ezzine (2011) reports no evidence of an association between board independence and firm value using Saudi listed firms. As discussed in Subsection 3.4.1.1, these studies by Al-Abbas and Ezzine have limitations in terms of methods and samples, which can limit the generalisability of their findings for Saudi listed firms. Regarding the corporate governance rules, Article 12 of the SCGC recommends that: (i) a majority of board members in listed firms should be non-executive directors; (ii) two members or one third of the board should be independent, whichever is greater; and (iii) committees should be composed of a sufficient number of independent members. Given the positive relationship found in previous studies (e.g., El Mehdi, 2007; Mangena and Tauringana, 2007; Mangena and Chamisa, 2008; Gupta and Fields, 2009; Upadhyay *et al.,* 2014), the tenth hypothesis to be tested is formulated as follows:

> $\boldsymbol{H_{10}}$: There is a significant and positive relationship between the proportion of independent directors and firm financial performance, as measured by ROA and Tobin's Q.

3.4.1.3 Corporate Board Size

i) The theoretical association between board size and firm financial performance

Theoretically, the relationship between board size and firm performance in general remains inconclusive (Upadhyay *et al.,* 2014). Specifically, agency theory suggests that a larger board may increase managerial costs and thus adversely affect firm profitability (Yawson, 2006). For example, a large board may increase board expenses, such as annual remuneration, bonuses, travel and other allowances (Vafeas, 1999a). This can lead to an increase in agency costs and a reduction in firm value (Jensen and Meckling, 1976). Similarly, a large number of directors may lead to communication and coordination problems, which can negatively affect firm performance (Beasley, 1996; Yermack, 1996).

On the other hand, resource dependence theory indicates a positive relationship between board size and financial performance. Pearce and Zahra (1992) and Goodstein *et*

al. (1994) suggest that when a board is large, firm financial performance can be improved because critical resources are more easily secured, such as finance and business contracts. Similarly, Yawson (2006) and Dalton *et al*. (1998) demonstrate that larger boards can attract more qualified members, which could improve the board's decisions. Similarly, the presence of a large board can help establish effective board sub-committees that improve firm performance (Jiraporn *et al.,* 2009). In addition, large boards can mean that stakeholders are better represented in the board of directors (Pfeffer, 1973; Ntim and Soobaroyen, 2013).

ii) The empirical association between board size and firm financial performance in developed economies

A review of the empirical literature presents no consistent direction of a relationship between board size and firm performance in developed countries. A negative relationship is documented by a number of studies. For example, Yermack (1996) examines a sample of 452 large industrial firms in the US between 1984 and 1991. They find a negative relationship between board size and firm value. Eisenberg *et al.* (1998, p.36) criticise Yermack's use of a sample consisting of only large firms. Consequently, Eisenberg *et al.* use a sample of 879 small and medium sized Finnish firms from 1992 to 1994 to examine the relationship between board size and firm value. They find that ROA is negatively related to board size, which is consistent with Yermack's result. The finding of Eisenberg *et al.* shows that there is no difference in the result regardless of whether a sample of large or small companies is used to investigate the influence of board size on financial performance.

Guest (2009) presents evidence from a large sample of 2,746 UK firms from 1981 to 2002. Guest's study reports that board size has a significantly negative impact on profitability, Tobin's Q and share returns. Another important study is by Cheng (2008), who investigates a large sample of 2,980 US firms between 1996 and 2004. He finds that firms with larger boards have lower annual accounting returns on assets. Recently, Upadhyay *et al*. (2014) find a negative relationship between board size and each of Q-ratio and ROA using a US sample from 2000 to 2003.

In contrast to studies focusing on a single country, Conyon and Peck (1998) analyse a sample of five European countries[26] to examine the relationship between board size and ROE. Their finding indicates that larger boards impact negatively on firm growth and financial performance. These studies showing a negative impact of a large board of

[26] Denmark, France, Italy, the Netherlands and the UK are examined in this study.

directors on financial performance are consistent with the theoretical prediction that smaller boards of directors are more capable of running a firm successfully. It is interesting to note that a possible explanation could be that interaction among directors in small firms is more meaningful than that of a large board of directors (e.g., Lipton and Lorsch, 1992; Jensen, 1993; Yawson, 2006).

In contrast to the studies finding a negative relationship, Haleblian and Finkelstein (1993) report that firms with larger boards and management teams performed better than their smaller counterparts. They examine 47 US firms from 1978 to 1982 in gas and computer industries. In addition to using a small sample, another key problem with their study is that it is restricted to the two sectors. Thus, the sample is not completely representative of all industries, which can lead to sample selection bias (see Eisenberg *et al.*, 1998). Similarly, Kiel and Nicholson (2003) analyse cross-sectional data from 348 large Australian publicly-owned companies in 1996. They find that larger boards are helpful in improving both firm value and performance, as measured by ROA and Tobin's Q.

In addition, Coles *et al*. (2008) report a positive relationship between board size and Tobin's Q in a sample of 8,165 firm-year observations from 1992 to 2001 in the US. Recently, Wang (2012) uses unbalanced panel data from 1,618 firms from 1992 to 2004 to investigate the impact of board size on financial performance. Wang finds that firms with smaller boards invest more heavily in risky assets. These results suggest a positive impact of larger boards on firm performance. This is in line with the theoretical expectation that larger boards are better than smaller boards at strategic decision-making (e.g., Dalton *et al.*, 1998; John and Senbet, 1998).

iii) The empirical association between board size and firm financial performance in developing economies

There are a limited number of studies on emerging economies that have investigated the relationship between board size and financial performance (Mangena and Chamisa, 2008). The findings from developing countries suggest a positive, a negative or no significant relationship. Haniffa and Hudaib (2006) find a positive relationship between board size and ROA using 347 Malaysian listed firms. Similarly, Jackling and Johl (2009) find that Indian firms with large boards performed better. This is because large firms have a high level of access to financial resources.

Mashayekhi and Bazaz (2008) report that larger boards impact negatively on firm value. Specifically, they examine a sample of 240 Iranian firms for 2005 and 2006, and

find that large boards have lower ROA, EPS and ROE. Similarly, Sanda *et al*. (2010) examine the relationship between board size and firm performance among a sample of 93 listed firms in the Nigerian stock market from 1996 to 1999. They find that larger boards impact negatively on firm performance. Recently, Hui (2012) finds that ROE is negatively related to board size in a sample consisting of 318 Chinese listed firms. Finally, Mangena and Chamisa (2008) find that there is no significant relationship between board size and firm performance. They examine the effect of board size on suspended listed firms in South Africa. They use a sample of 81 firms suspended between 1999 and 2005, and find no significant relationship between suspended companies and board size.

iv) Studies on Saudi Arabia and Saudi Corporate Governance Regulations

Al-Nodel and Hussainey (2010) examine the relationship between board size and firm performance in Saudi listed firms. Using a small sample of 37 listed firms between October 2005 and January 2006, they find that board size is positively related to debt-to-equity ratio. Al-Nodel and Hussainey (2010) highlight a number of limitations: (i) using a small sample; and (ii) focusing only on one year of cross-sectional data, amongst others. In contrast, the current study examines a balanced and large sample of 560 firm-year observations over seven years. Furthermore, it uses mainly annual reports, a highly reliable source of corporate governance information (Botosan, 1997; Alsaeed, 2006; Omar and Simon, 2011; Ntim *et al.,* 2012a; Samaha *et al.,* 2012). The SCGC recommends that boards should have between three and eleven members, depending on the size of a firm. Based on the findings from most of the reviewed studies that show a negative relationship between board size and financial performance (e.g., Yermack, 1996; Mashayekhi and Bazaz, 2008; Hansson *et al.,* 2011; Hui, 2012), the eleventh hypothesis to be tested is formulated as follows:

> $\boldsymbol{H_{11}}$: There is a significant and negative relationship between board size and firm financial performance, as measured by ROA and Tobin's Q.

3.4.1.4 Frequency of Board of Directors' Meetings

i) The theoretical association between frequency of board meetings and firm financial performance

The theoretical association between the frequency of board meetings and financial performance is mixed. Lipton and Lorsch (1992) and Schwartz-Ziv and Weisbach (2013) argue that frequent board meetings are positively associated with financial performance. In

other words, regular board meetings grant directors opportunities to discuss firm performance. Monitoring of the firm's operation is a key board responsibility (Soobaroyen and Mahadeo, 2012; Siddiqui *et al.,* 2013). Hence, frequent board meetings make it easier to monitor managers (Vafeas, 1999a). Therefore, frequent board meetings can improve firm performance by mitigating agency problems (Schwartz-Ziv and Weisbach, 2013).

In contrast, stewardship theory suggests that executive directors are trustworthy (Donaldson and Davis, 1991; Letza *et al.*, 2004; Siebels and Knyphausen-Aufseb, 2012), which means that more frequent board meetings may not improve firm performance. This argument supports the notion that the board of directors should limit their participation in day-to-day activities of the firm (Monks and Minow, 2011). This is also supported by Jensen (1993), who argues that frequent board meetings are only required in difficult times. Similarly, Vafeas (1999a) points out that a high frequency of board meetings can increase agency costs, such as meeting expenses, allowances and travel expenses, which can impact negatively on firm performance (Fama and Jensen, 1983).

ii) The empirical association between frequency of board meetings and firm financial performance in developed economies

Empirical studies conducted in developed countries show mixed results for the impact of board meetings on firm financial performance. A considerable number of studies showed a positive impact of frequent board meetings on firm performance. For example, Karamanou and Vafeas (2005) report that frequent board meetings help improve earnings forecasts in US firms. They use a sample of 275 large firms between 1995 and 2000. This implies that firms with effective boards are likely to improve their decision-making. Recently, Chen and Chen (2012) examine a large US sample of 22,366 firm-year observations. They find that capital allocation is highly efficient in firms with frequent board of directors' meetings. Also, Upadhyay *et al*. (2014) report a positive association between the frequency of meetings and firm performance using a sample of US firms.

Some studies have reported a negative relationship between the frequency of board meetings and firm financial performance. Vafeas (1999a) examines 307 US listed firms from 1990 to 1994. He finds that an increase in the number of board meetings is inversely related to firm value. Similarly, Fich and Shivdasani (2006) report that frequency of board meetings impacts negatively on firm performance. They use a sample of 508 US listed firms from 1989 to 1995. A recent study by Christensen *et al*. (2014) also finds a negative impact of the frequency of board meetings on Q-ratio in large Australian firms.

iii) The empirical association between frequency of board meetings and firm financial performance in developing economies

Few studies have examined the effect of the frequency of board meetings on financial performance in developing countries (Black *et al.*, 2006a; Mangena and Chamisa, 2008). The results from existing studies suggest mixed findings. A negative relationship is reported by Jackling and Johl (2009), who find that an increase in board meetings reduced firm value in a sample of 180 Indian firms in 2005-2006. This supports the idea that the frequency of board meetings on its own is not enough to improve firm performance (Vafeas, 1999a). Finally, El Mehdi (2007) finds that the frequency of board meetings has no effect on firm performance, using a small sample of 24 Tunisian listed firms between 2000 and 2005. It can be noted that the generalisability of this finding to other developing countries generally and Arab countries in particular is limited because of the small sample used by El Mehdi (2007).

iv) Studies on Saudi Arabia and Saudi Corporate Governance Regulations

The effect of the frequency of board meetings on firm financial performance has not yet been examined in Saudi Arabia. The SCGC does not recommend a specific number of board meetings in a year. Article 16 points out that the board shall convene its ordinary meetings as requested by the board chairperson. In addition, the chairperson must call the board for a meeting following unforeseen developments, especially if a written request is made by at least two board members. Similarly, the Saudi Companies Act does not stipulate the number of board meetings that a company should have in a year. Based on the finding of a positive relationship between the frequency of board meetings and firm performance by a number of prior studies (e.g., Mashayekhi and Bazaz, 2009; Chen and Chen, 2012; Upadhyay *et al.*, 2014), the twelfth hypothesis to be tested is formulated as follows:

> H_{12}: There is a significant and positive relationship between frequency of board meetings and firm financial performance, as measured by ROA and Tobin's Q.

3.4.1.5 Presence of Board Sub-committees

i) The theoretical association between board sub-committees and financial performance

The separation between ownership and management in modern corporations creates agency problems (Upadhyay *et al.*, 2014). A major way in which shareholders can minimise such agency problems is to establish board sub-committees that can closely

assess and monitor managerial actions and behaviour (Harrison, 1987; Main and Johnston, 1993; Klein, 1998; Jiraporn *et al.,* 2009). From an agency theory perspective, board sub-committees can improve internal control systems (Harrison, 1987; Klein, 1998). This suggests that companies that have effective board sub-committees should perform better financially (Upadhyay *et al.*, 2014). Harrison (1987) argues that audit committees are supposed to support external auditors in assessing the effectiveness of the internal control system, thereby helping to improve the quality of financial information. Similarly, Sun and Cahan (2009) suggest that remuneration committees have a positive effect on financial performance by limiting managerial compensation.

However, Vafeas (1999a) argues that establishing board sub-committees can increase costs, including travelling costs and sitting allowances, and thus impact negatively on performance. In the same vein, Conger *et al*. (1998) indicate that the establishment of board sub-committees can lead to excessive managerial monitoring, which can limit managerial initiative, and thus impact negatively on firm profitability.

ii) The empirical association between board sub-committees and firm financial performance in developed economies

Literature examining the relationship between the presence of board sub-committees and firm financial performance in developed countries suggests either a positive or no significant relationship. Wild (1994) finds a positive relationship between the establishment of an audit committee and share returns using a sample of 260 US firms between 1966 and 1980. Similarly, Vafeas (1999b) examines 606 US listed firms and finds that the presence of a nomination committee helps in improving the quality of a board's decisions. In the same vein, Karamanou and Vafeas (2005) use a sample of 275 US listed firms in 1995 and find that the presence of board sub-committees is likely to improve corporate governance practices and thereby impact positively on firm performance. Chhaochharia and Grinstein (2009) find that the presence of a remuneration committee led to a reduction in executive compensation among 865 US firms from 2000 to 2005.

Other studies suggest that there is no significant relationship between the presence of a board sub-committee and financial performance. For example, Vafeas and Theodorou (1998) report that there is no significant relationship between board sub-committees and firm profitability among 250 UK listed firms in 1994. Similarly, Klein (1998) finds that board sub-committees played a marginal role in improving firm performance among a sample of 486 US firms between 1992 and 1993. Additionally, Dulewicz and Herbert (2004) report that audit and remuneration committees did not have a statistically significant

impact on financial performance among 86 UK firms. Recently, Christensen *et al*. (2014) examine two samples of large and small Australian firms. They find that audit committees had no significant relationship with Q-ratio in both large and small firms.

iii) The empirical association between board sub-committees and firm financial performance in developing economies

Empirical studies investigating the relationship between board sub-committees and financial performance in developing countries report mixed findings. Mangena and Chamisa (2008) find that the presence of an audit committee reduces the likelihood of being suspended for South African listed firms. This evidence supports agency theory, which suggests board sub-committees are an important monitoring mechanism (Harrison, 1987; Main and Johnston, 1993; Klein, 1998; Jiraporn *et al.,* 2009). However, Hearn (2011) finds that the presence of board sub-committees does not help in improving firm valuation, using data from 37 Initial Public Offerings (IPOs) of firms across West Africa.

iv) Studies on Saudi Arabia and Saudi Corporate Governance Regulations

The relationship between board sub-committees and firm performance has not been statistically examined within the Saudi corporate context. The SCGC recommends listed firms establish at least audit, nomination and remuneration committees to help the board of directors perform its tasks successfully. Given the positive relationship between the presence of board sub-committees and firm performance as reported by previous studies conducted in developed and developing countries (e.g., Karamanou and Vafeas, 2005; Mangena and Chamisa, 2008; Upadhyay *et al.,* 2014), the thirteenth hypothesis to be tested is formulated as follows:

> ***H_{13}***: There is a significant and positive relationship between the existence of board sub-committees (audit, remuneration and nomination) and firm financial performance, as measured by ROA and Tobin's Q.

3.4.1.6 Director Ownership

i) The theoretical association between director ownership and financial performance

Demsetz and Lehn (1985) argue that inside and outside shareholders may have conflicting interests. Thus, director ownership may exacerbate agency problems. Similarly, directors holding a high proportion of shares make a company more vulnerable to collusion

between directors and the firm's management (Vafeas and Theodorou, 1998; Konijn *et al.*, 2011). However, Piesse *et al*. (2012) argue that a high proportion of director ownership motivates boards of directors to improve firm performance. In contrast, managerial signalling theory suggests that directors have more information about the firm than outside shareholders (Kapopoulos and Lazaretou, 2007; Bebchuk and Weisbach, 2010). Therefore, directors might be more likely to exploit insider information to the disadvantage of outside shareholders (Demsetz and Lehn, 1985), which can have a negative impact effect on financial performance and firm value (Chung and Zhang, 2011; Ntim *et al.*, 2012b).

ii) The empirical association between director ownership and firm financial performance in developed economies

A number of empirical studies examine the relationship between director ownership and firm performance. A non-linear relationship is reported by Morck *et al.* (1988). Using a sample of 371 US firms in 1980, they find that a low level of director ownership had a positive effect on firm value. Similarly, McConnell and Servaes (1990) analyse a large sample of more than 1,000 US firms. They report a significant and positive curvilinear relationship between the proportion of common stock owned by directors and Q-ratio.

No significant relationship between director ownership and firm performance has been reported by Vafeas and Theodorou (1998). They use a sample of 250 publicly traded companies in the UK in 1994. Their results show no significant relationship between director ownership and ROA. Similarly, Davies *et al.* (2005) find no significant relationship between proportion of director ownership and Q-ratio among UK firms in 1996 and 1997. Demsetz and Lehn (1985), Hermalin and Weisbach (1991) and Short and Keasey (1999) also find no significant relationship between director ownership and Q-ratio.

Another stream of studies finds a negative relationship between director ownership and financial performance. Konijn *et al.* (2011) examine a sample of 3,722 firm-year observations from 1996 to 2001 in the US. They find that firm value measured by Tobin's Q is negatively correlated with high director shareholding. Recently, Upadhyay *et al*. (2014) find a significant and positive relationship between director shareholding and ROA among US firms between 2000 and 2003.

iii) The empirical association between director ownership and firm financial performance in developing economies

Studies examining the relationship between director ownership and firm performance in emerging countries suggest mixed findings. Kapopoulos and Lazaretou (2007) find that concentrated ownership (i.e., director ownership) is positively related to higher firm profitability in 175 Greek listed firms. Similarly, Mangena and Tauringana (2007) report that director ownership in Zimbabwean firms is positively related to both ROE and liquidity ratios. On the other hand, studies that find a negative relationship between director ownership and performance include Ho and Williams (2003), Haniffa and Hudaib (2006) and Sanda *et al*. (2010). Ho and Williams (2003) find a negative relationship between board ownership and corporate performance using a cross-country sample of 84 South African listed firms. Similarly, Haniffa and Hudaib (2006) report a negative relationship between director ownership and ROA in 347 Malaysian listed firms. Recently, Sanda *et al.* (2010) use four different performance measures (ROA, ROE, Tobin's Q and PE ratio) to examine the influence of high director ownership among 93 Nigerian firms. They find that high director ownership had a negative relationship with all four performance measures. Finally, El Mehdi (2007) finds no significant relationship between director ownership and firm value for Tunisian firms.

iv) Studies on Saudi Arabia and Corporate Governance Regulations

The relationship between director ownership and firm performance has not been tested in Saudi Arabia. As discussed in Chapter Two, the 2004 Listing Rules stipulate that firms should disclose board and director ownership in their annual reports. Given the negative relationship between director ownership and firm performance reported by previous studies (e.g., Ho and Williams, 2003; Haniffa and Hudaib, 2006; Kapopoulos and Lazaretou, 2007; Sanda *et al.,* 2010; Upadhyay *et al.,* 2014), the fourteenth hypothesis to be tested is formulated as follows:

> ***H_{14}***: There is a significant and positive relationship between director ownership and firm financial performance, as measured by ROA and Tobin's Q.

In sum, the last subsection attempted to review the theoretical and empirical literature relating to the relationship between individual corporate governance mechanisms (also known as the equilibrium-variable model) and firm financial performance. The corporate governance mechanisms examined are CEO duality, proportion of independent directors, board size, frequency of board meetings, presence of board sub-committees and

director ownership. Using the equilibrium-variable model, empirical studies on both developed and developing countries showed mixed findings for the relationship between corporate governance mechanisms and firm financial performance.

The next subsection presents a review of prior literature relating to the compliance-index model, which involves an examination of the relationship between a broad composite Saudi Corporate Governance Index (SCGI) and financial performance. Studies conducted on both developed and developing countries will be reviewed.

3.4.2 The Compliance-Index Model and Firm Financial Performance

As discussed in Section 3.4, the findings of recent studies suggest that the relationship between composite corporate governance indices (compliance-index model) and firm performance is generally mixed (e.g., Black, 2001; Gompers *et al.*, 2003; Cremers and Nair, 2005; Morey *et al.*, 2009; Bauer *et al.*, 2010; Renders *et al.*, 2010; Giroud and Mueller, 2011; Black and Kim 2012; Ammann *et al.*, 2013; Munisi and Randoy, 2013; Tariq and Abbas, 2013; van Essen *et al.*, 2013). As previously explained, the compliance-index model involves an examination of the relationship between a composite corporate governance index and firm financial performance.

The remainder of this chapter presents a review of studies that examine the relationship between corporate governance indices and financial performance in developed and developing countries, as well as cross-country studies. Specifically, Subsection 3.4.2.1 presents evidence relating to North America (i.e., the US and Canada). Subsection 3.4.2.2 investigates studies conducted in Western Europe and other developed countries. Subsection 3.4.2.3 reviews the literature relating to emerging countries. Subsection 3.4.2.4 examines cross-country studies. Subsection 3.4.2.5 discusses the differences among the empirical findings, while Subsection 3.4.2.6 presents an overview of the study's constructed compliance-index model and indicates the related hypothesis.

3.4.2.1 The Compliance-Index Model and Firm Financial Performance in the US and Canada

Table 3.1 contains a summary of the findings of previous studies that were conducted in the US and Canada. Generally, the findings from studies conducted in the US and Canada are relatively similar. This may be due to the comparatively similar nature of the countries' external corporate governance mechanisms, such as the effectiveness of the market for corporate control and the legal system (Bozec and Bozec, 2012). The findings of a number of prior studies contained in Table 3.1 suggest mixed relationship between

corporate governance and financial performance (e.g., Gompers *et al.,* 2003; Cremers and Nair, 2005; Brown and Caylor, 2006; Bauer *et al.,* 2010; Giroud and Mueller, 2011; Jiraporn *et al.,* 2011; Gordon *et al.,* 2012; Jayachandran *et al.,* 2013).

Gompers *et al.* (2003) is considered to be a pioneering study investigating the relationship between a composite corporate governance index and firm performance (Bauer *et al.,* 2010). They construct the Gompers, Ishii and Metrick index (GIM), consisting of 24 governance provisions extracted from the Investor Responsibility Research Centre (IRRC). Using a sample of 1,500 large US firms from 1990 to 1999, Gompers *et al.* (2003) find that good corporate governance practices improve firm value, profitability and sales growth. Subsequently, a number of studies adopted the GIM index to further investigate the governance-performance relationship among US listed firms (e.g., Cremers and Nair, 2005; Core *et al.,* 2006; Lehn *et al.,* 2007; Bhagat and Bolton, 2008; Bebchuk *et al.,* 2009; Giroud and Mueller, 2011). For example, Brown and Caylor (2006) find a significant and positive link between the constructed governance index and Tobin's Q among 1,868 US firms.

Similarly, Bauer *et al.* (2010) adopt a Corporate Governance Quotient index (CGQ)[27] consisting of 61 provisions to examine its relationship with financial performance, using a sample of about 210 US firms from 2003 to 2005. They find a significant and positive relationship between CGQ index and financial performance. Giroud and Mueller (2011) and Jiraporn *et al.* (2011) use governance ratings of GIM and ISS, respectively, to examine the relationship for US firms. They find that weak corporate governance practices lead to lower equity returns, poor operating performance, lower firm value and lower propensity to pay dividends. Recently, Gordon *et al*. (2012) find that financial performance measured by Q-ratio is positively related to a constructed corporate governance index in a small sample of Canadian firms. Interestingly, Jayachandran *et al*. (2013) examine the impact of corporate social performance[28] on firm performance among 518 US firms and find that corporate social performance had a strong positive impact on firm value. These findings are consistent with the theoretical expectation that a high level of compliance with corporate governance standards can help reduce agency costs and increase shareholders' returns (e.g., Jensen and Meckling, 1976; Shleifer and Vishny, 1997).

[27] The CGQ index is provided by the Institutional Shareholder Services (ISS). It is based on public disclosure documents, which are used to collect data on 61 different governance provisions in the following categories: (i) board of directors; (ii) audit; (iii) charter and bylaw provisions; (iv) anti-takeover provisions; (v) executive and director compensation; (vi) progressive practices; (vii) ownership; and (viii) director education.

[28] The corporate social performance index consists of seven major areas, including community, corporate governance, diversity, employee relations, environment, human rights and product lines.

Table 3.1: Summary of existing studies on the relationship between corporate governance index and firm performance: Empirical studies in the US and Canada

Direction of Relationship	Authors	Country	Sample	Governance Measure	Empirical Findings	Performance Measure(s)
Positive	Gompers *et al.* (2003)	US	1,500 large firms from IRRC 1990 – 1999	Constructing GIM index extracted from IRRC	Significant positive relationship with firm value and financial performance	Tobin's Q Net profit margin ROE Sales growth
	Foerster and Huen (2004)	Canada	270 largest public listed firms 2002	Using ROB index constructed by the *Globe and Mail* Report on Business	Corporate governance (CG) statistically and significantly linked to firm performance	Stock returns
	Cremers and Nair (2005)	US	1,500 firms per year 1990 – 2001	Adopting GIM index and constructing Takeover Protection Index (ATI)	Positive relationship with abnormal returns and firm value	Tobin's Q Stock returns
	Brown and Caylor (2006)	US	1,868 firms February 2003	Constructing Gov-Score based on provisions provided by ISS	Significant and positive association with firm value	Tobin's Q
	Bauer *et al.* (2010)	US	509 firm-year observations 2003 – 2005	Using CGQ index provided by ISS based on public disclosure documents	Significant and positive relation with firm value and financial performance	Tobin's Q ROA, ROE, net profit margin and sales growth
	Giroud and Mueller (2011)	US	3,241 firms from IRRC 1990 – 2006	Using GIM index (Gompers, Ishii and Metrick 2003)	CG positively related to financial performance and firm value	Tobin's Q ROA, ROE, and net profit margin
	Jiraporn *et al.* (2011)	US	All firms in ISS (16,013 observations) 2001 - 2004	Using broad-based governance metrics provided by ISS	Positive relationship with dividends paid	Ratio of dividends to total assets and net income
	Gordon *et al*. (2012)	Canada	Small listed firms 2004	Constructed CG index consisting of 14 provisions of Toronto Stock Exchange (TSX) guidelines	CG is significantly correlated with firm value	Tobin's Q
	Jayachandran *et al*. (2013)	US	518 firms from Domini 400 Social Index and S&P 500	Using Kinder, Lydenberg and Domini (KLD) rating consisting of seven major areas	Corporate Social Performance (CSP) has a stronger positive impact on firm value	Tobin's Q
Negative	Chhaochharia and Grinstein (2007)	US	312 firms 2001 – 2002	Self-constructed CG index	Negative association with abnormal returns in large firms.	Stock returns

Table 3.1(Continued): Summary of existing studies on the relationship between corporate governance index and firm performance: Empirical studies in the US and Canada

Direction of Relationship	Authors	Country	Sample	Governance Measure	Empirical Findings	Performance Measure(s)
	Bebchuk *et al.* (2009)	US	IRRC firms 1990 – 2003	Constructing Entrenchment Index (E-Index) followed by the IRRC	E-Index negatively associated with firm value and abnormal returns	Tobin's Q Stock returns
No Relation	Koehn and Ueng (2005)	US	106 large firms from *Forbes* 500 2004	Using CG scores generated by ISS	No significant positive correlation with high-quality earnings	Earning Quality (EQ)
	Klein *et al.* (2005)	Canada	263 firms 2002	Adopting ROB index constructed by the *Globe and Mail* Report on Business	No evidence that the overall governance index affects firm value	Tobin's Q
	Lehn *et al.* (2007)	US	1,500 firms from IRRC between 1990 - 2002	Using both GIM index and BCF index (Bebchuk, Cohn, and Ferrel 2004)	No significant relation exists with firm value	Market to book ratio
	Epps and Cereola (2008)	US	230 firms from the S&P 500 2002 - 2004	Using CGQ rating created by Institutional Shareholders Services ISS	No statistical evidence supporting a relationship with operating performance	ROA ROE
	Daines *et al.* (2010)	US	6,827 firms from GMI, ISS, TCL and AGR databases 2005 - 2007	Using four commercial governance indices: CGQ, GMI, TCL and AGR	No predictive ability to enhance firms' performance	Tobin's Q ROA Stock returns
	Gupta *et al.* (2009)	Canada	158 firms 2002 – 2005	Using ROB index constructed by the *Globe and Mail* Report on Business	No association with financial performance and firm value	Tobin's Q ROA Market to book ratio
Mixed Relation	Core *et al.* (2006)	US	9,917 firm-year observations 1990 - 1999	Using GIM index (Gompers, Ishii and Metrick 2003)	Positive relationship with operating performance and no significant relationship with stock returns	ROA Stock returns
	Bhagat and Bolton (2008)	US	Varies with sample period 1990 – 2004	Using seven different governance measures	Mixed relationship with different financial measures	Tobin's Q ROA Stock returns
	Bozec *et al.* (2010)	Canada	188 firms 2001 – 2005	Using ROB index published by the *Globe and Mail*	Positively related with financial performance and no relation with firm value	Tobin's Q Data Envelopment Analysis (DEA)

Sources: Compiled by the researcher.

In contrast to the findings of previous US studies reviewed above, Chhaochharia and Grinstein (2007) find a negative relationship between corporate governance and firm performance. They construct a governance index of five main provisions to examine a sample of 312 US firms in 2001 and 2002. Similarly, Bebchuk *et al.* (2009) find that there is a negative relationship between a composite corporate governance index (Entrenchment-Index 'E-Index') and firm value. This negative relationship may imply that the costs of implementing good corporate governance practices possibly outweigh the associated benefits (see Ammann *et al.*, 2011).

However, other studies conducted in the US and Canada suggest that there is no significant relationship between corporate governance indices and firm performance (e.g., Klein *et al.*, 2005; Koehn and Ueng, 2005; Lehn *et al.*, 2007; Gupta *et al.*, 2009; Epps and Cereola, 2008; Daines *et al.*, 2010). Lehn *et al.* (2007) use both GIM and Bebchuk, Cohen and Ferrel's (BCF)[29] indices to examine 1,500 firms in a six-year window from 1990 to 2002. They report that there is no significant relationship between corporate governance practices and firm performance, as measured by market-to-book ratio. Similarly, Epps and Cereola (2008) find no statistically significant evidence to support the correlation between CGQ index and firms' operating performance, as measured by ROA and ROE among 230 US listed firms from 2002 to 2004. In Canada, Klein *et al.* (2005) and Gupta *et al.* (2009) use the Report on Business index (ROB), and both find no evidence of overall governance mechanisms helping to improve firm performance. Interestingly, Daines *et al.* (2010) use four corporate governance indices, CGQ, GMI, AGR and TCL,[30] to study a large sample of 6,827 US listed firms. They find no significant relationship between compliance with good corporate governance practices and firm value.

Finally, a number of studies report mixed findings. For example, Core *et al.* (2006) use the GIM index to investigate the relationship between corporate governance practices and firm performance for 9,917 firm-year observations from 1990 to 1999. They find that firms complying with shareholders' rights had lower operating performance, as measured by ROA. However, they also find no evidence of the effect of corporate governance practices on abnormal stock returns. Bozec *et al.* (2010) adopt the Report on Business (ROB) index[31] to examine the effect of corporate governance behaviour on firm performance in 188 Canadian firms from 2001 to 2005. Overall, their results suggest that

[29] The BCF index is constructed by Bebchuk, Cohen and Ferrell (2004).
[30] AGR is Accounting and Governance Risk ranking and TCL is The Corporate Library.
[31] The ROB index is constructed by summing four sub-indices: (i) board composition; (ii) shareholding and compensation policies; (iii) policies relating to shareholders' rights; and (iv) disclosure policies. The ROB developed the measures based on best practices and the recommendations of US and Canadian corporate governance regulators.

firms with a high level of compliance with governance provisions perform better financially. However, they find that Tobin's Q is not related to corporate governance practices. Importantly, Bhagat and Bolton (2008) use seven different corporate governance indices and measures[32] to investigate whether results are different based on the employed indices. The study shows different signs of the relationship based on the type of corporate governance index and financial performance measures used.

3.4.2.2 The Compliance-Index Model and Firm Financial Performance in Western Europe and Other Developed Countries

Table 3.2 provides of the findings of studies conducted in Western Europe/other developed countries on the relationship between composite governance indices and firm performance. Generally, and in contrast to the mixed results observed in the studies on the US and Canada, evidence from Western Europe and other developed countries suggests a positive relationship between corporate governance and financial performance. For instance, Drobetz *et al.* (2004) construct a broad corporate governance rating index (CGR) consisting of 30 governance provisions. Using a sample of 91 publicly traded German firms in 2002, they find that firms with better corporate governance showed good financial performance.

In the UK, Clacher *et al.* (2008) find a positive relationship between the level of compliance with corporate governance and Tobin's Q/ROA for a sample of 63 firms from 2003 to 2005. To investigate this relationship, they develop a corporate governance index derived from the main recommendations by the London Stock Exchange (2003 UK Combined Code). Their finding is consistent with agency theory's prediction that high compliance with corporate governance principles enhances shareholders' wealth.

Beiner *et al.* (2006) and Toledo (2010) develop indices consisting of 38 governance provisions of the Swiss code and 25 governance provisions of the Spanish code, respectively. These two studies use Tobin's Q and market-to-book ratio as proxies for market-based performance measures. Both find that firms with higher corporate governance standards received higher market valuation. Similarly, Bauer *et al.* (2008) find a positive relationship between corporate governance and firm performance among 315 Japanese firms in 2004. They employ the Metrics Institutional Index consisting of six different governance dimensions for their study. Henry (2008) constructs a self-regulated governance index extracted from local governance regulations to examine 116 Australian

[32] These seven governance measures include GIM by Gompers, Ishii and Metrick (2003), BCF by Bebchuk, Cohen and Ferrell (2004), Gov-Score by Brown and Caylor (2006), TCL by The Corporate Library, board independence, board ownership and CEO duality.

firms from 1992 to 2002. He finds that firm value, as proxied by Tobin's Q, is positively associated with good governance practices.

3.4.2.3 The Compliance-Index Model and Firm Financial Performance in Emerging Countries

A number of studies have examined the link between governance compliance indices and financial performance in emerging economies (e.g., Black, 2001; Bai *et al.*, 2004; Black *et al.*, 2006a and b; Cheung *et al.*, 2007; Garay and Gonzalez, 2008; Price *et al.*, 2011; Black *et al.*, 2012; Munisi and Randoy, 2013; Tariq and Abbas, 2013). Table 3.3 offers a summary of the findings of previous studies that were conducted in emerging countries on the relationship between composite corporate governance indices and firm financial performance. Generally, the evidence in Table 3.3 suggests that the findings of the majority of previous studies conducted in emerging economies show a positive association with firm financial performance. Black's (2001) study is one of the first studies conducted in a developing country that constructed a compliance-index model to examine the relationship between corporate governance and firm performance. Black analyses data from 21 major Russian firms in 1999 and adopts the Brunswick Warburg Investment Bank index. He finds that corporate governance practices impacted positively on firm value. Similarly, Black *et al*. (2006b) investigate the same relationship for a sample of Russian firms. Their study consists of a sample of 99 firms for a seven-year period from 1999 to 2005. They find a significant relationship between corporate governance and firm value, which is consistent with Black (2001).

Similarly, Bai *et al.* (2004) report a positive effect of corporate governance on firm value, as measured by Tobin's Q, among 1,051 Chinese listed firms from 1999 to 2001. In the same context, Cheung *et al.* (2007) analyse 168 large Hong Kong firms and construct a corporate governance index based on the Organization for Economic Co-operation and Development (OECD) standards and the Hong Kong Code. They find a positive governance-performance relationship using the market-to-book ratio.

Garay and Gonzalez (2008) construct a corporate governance index of 17 provisions using 46 Venezuelan listed firms in 2004. They report a positive effect of governance on performance. Recently, Black *et al*. (2012) find that good corporate governance practices have a positive impact on firm value, as measured by Q-ratio, among Brazilian firms.

Table 3.2: Summary of existing studies on the relationship between corporate governance index and firm performance: Empirical studies in Western Europe and other developed countries

Direction of Relationship	Authors	Country	Sample	Governance Measure	Empirical Findings	Performance Measure(s)
Positive	Drobetz *et al.* (2004)	Germany	91 public firms 2002	Constructing a broad CG index (CGR)	CG is highly correlated with operating performance and market valuation	Tobin's Q Market to book ratio Historical returns Dividends yields Sales and assets growth
	Fernandez-Rodrignez *et al.*, (2004)	Spain	57 listed firms 1998 – 2000	Constructing CG index extracted from the Spanish Code of Best Practices	The market reacts positively to announcements of compliance with CG	Daily abnormal returns
	Beiner *et al.* (2006)	Switzerland	109 firms 2002	Constructing CG index extracted from the Swiss Code of Best Practices	High CG standards receive higher market valuations	Tobin's Q Market to book ratio
	Clacher *et al.* (2008)	UK	63 firms from FTSE 100 2003 – 2005	Constructing governance index derived explicitly from the 2003 Combined Code	Compliance with the Combined Code positively impacts firm value and performance	Tobin's Q IAROA (Industry Adjusted Return on Assets)
	Henry (2008)	Australia	116 firms (1,127 observations) 1992 – 2002	Adopted CG index, extracted from Australian regulations	Positive relationship with market value	Tobin's Q Tobin's Q adjusted
	Bauer *et al.* (2008)	Japan	315 firms 2004	Employing Governance Metrics Institutional Index	Positive and significant association with firm performance	Stock returns
	Toledo (2010)	Spain	106 firms 2007	Constructing GOV-I index based on the Spanish Code of Best Practices	An overall positive impact on firm value	Tobin's Q Market to book ratio

Sources: Compiled by the researcher.

Table 3.3: Summary of existing studies on the relationship between corporate governance index and firm performance: Empirical studies in emerging countries

Direction of Relationship	Authors	Country	Sample	Governance Measure	Empirical Findings	Performance Measure(s)
Positive	Black (2001)	Russia	21 major firms 1999	Using governance index developed by the Brunswick Warburg Investment Bank	CG behaviour has a powerful positive effect on market value	Market to book value.
	Bai *et al.* (2004)	China	1,051 Listed firms 1999 - 2001	Self-constructed CG index	CG mechanisms positively affect market value	Tobin's Q
	Black *et al.* (2006b)	Russia	99 firms (964 observations) 1999 – 2005	Using six governance indices: Brunswick, Troika Dialog, S&P Governance, S&P Disclosure, ICLG and RID	Positive and significant relationship with market value	Tobin's Q Market to book ratio Market to sales ratio
	Cheung *et al.* (2007)	Hong Kong	168 largest listed firms 2002	Constructing CG index based on the OECD principles and Hong Kong Code	Positive and significant association with market value	Market to book ratio
	Garay and Gonzalez (2008)	Venezuela	46 listed firms from CSE 2004	Constructing CG index extracted from Leal and Carvalhal-da-Silva (2005)	Positive impact on market valuation	Tobin's Q Dividend Payout Ratio Price to book ratio
	Tariq and Abbas (2013)	Pakistan	119 firms 2003 – 2010	Constructing CG index extracted from Pakistani CG Code issued in 2002	Positive relationship between CG and different financial measures	ROA ROE ROCE
No Relation	Price *et al.* (2011)	Mexico	107 firms (518 observations) 2000 – 2004	Constructing CG index based on Mexico Code of Best Practices	No association with firm performance	ROA Tobin's Q Sales growth Stock market returns
Mixed Relation	Black *et al.* (2006a)	Korea	515 firms 2001	Constructing governance index KCGI	Positive correlation with market value and no significant relationship with financial performance	Tobin's Q Market to book ratio Market to sales ratio Ordinary income EBIT EBITPA

Sources: Compiled by the researcher.

Tariq and Abbas (2013) examine the relationship between corporate governance practices and firm performance among 119 listed firms from 2003 to 2010. Using a multi-dimensional performance framework, they find a significantly positive impact of compliance on firm performance. Findings obtained from previous studies by Black (2001), Black *et al.* (2006b), Bai *et al.* (2004), Cheung *et al.* (2007), Black *et al.* (2012) and Tariq and Abbas (2013) suggest that good corporate governance practices impact positively on firm performance.

In contrast to the evidence of a positive effect of good corporate governance on firm performance reported by studies conducted in developing countries, Price *et al.* (2011) find that firm performance is not affected by good corporate governance practices among a sample of Mexican listed firms. Specifically, they study 107 Mexican firms from 2000 to 2004 using firm and market performance measures.

3.4.2.4 The Compliance-Index Model and Firm Financial Performance in Cross-Country Studies

The findings from cross-country studies are largely consistent with the single-country studies conducted in Western Europe and emerging markets. Table 3.4 contains a summary of the findings of previous cross-country studies on the link between composite corporate governance indices and firm financial performance. Generally, the findings in Table 3.4 suggest a positive relationship between better governance practices and firm performance (e.g., Klapper and Love, 2004; Durnev and Kim, 2005; Chen *et al.*, 2009; Morey *et al.*, 2009; Bruno and Claessens, 2010; Renders *et al.*, 2010; Ammann *et al.*, 2011; Ammann *et al.*, 2013; Munisi and Randoy, 2013; Krafft *et al.*, 2013).

The literature on cross-country studies can be divided into three main groups, including studies conducted in: (i) developed countries; (ii) developing countries; and (iii) both developed and developing countries. Ammann *et al.* (2013) use a sample of about 852 firms from 14 European countries[33] from 2003 to 2007. They construct a corporate governance index based on the Governance Metrics International Index (GMI), consisting of 64 governance attributes divided into six sub-sections. They report a positive link between good corporate governance practices and firm performance. Similarly, Ammann *et al.* (2011) use the same dataset and sample adopted by Ammann *et al.* (2013). They use three indices named CG1, CG2 and CG3[34] and find a significant and positive relationship

[33] The 14 EU countries are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden and the UK.
[34] Ammann *et al.* (2011) derived the three alternative additive corporate governance indices of the GMI index used in Ammann *et al.* (2013), consisting of 64 provisions.

with firm value, as measured by Tobin's Q. However, Ikaheimo *et al.* (2011) investigate Nordic countries and find that improvement in governance behaviour is negatively correlated with firm value, but positively influences ROE and the profit margin.

Other cross-country studies on developing countries find a positive relationship between compliance with good governance standards and firm performance. The Credit Lyonnais Securities Asia (CLSA) index is a commercial governance rating index that has been adopted in many cross-country studies conducted in emerging economies (e.g., Klapper and Love, 2004; Durnev and Kim, 2005; Chen *et al.*, 2009). The CLSA governance index consists of 57 provisions covering seven broad categories: (i) management discipline; (ii) transparency; (iii) independence; (iv) accountability; (v) responsibility; (vi) fairness; and (vii) social awareness. Using the CLSA governance index, Klapper and Love (2004) examine the association between good governance practices and firm value using a sample of 374 listed firms from 14 emerging economies for the years 1998 and 1999. They show that corporate governance, as proxied by the CLSA index, is closely related to better operating performance and firm value, as measured by ROA and Tobin's Q, respectively.

Similarly, Durnev and Kim (2005) use the CLSA index to investigate the influence of corporate governance on firm performance in 27 emerging countries from 1999 to 2000. They find that firms with higher governance rankings have higher market valuation than those with lower governance rankings. Additionally, Munisi and Randoy (2013) study the relationship between good governance standards and financial performance using data on firms from Sub-Saharan African countries from 2005 to 2009. They find a positive association between good governance practices and firm financial performance.

There are a few cross-country studies whose samples are from both developed and developing economies. Bruno and Claessens (2010) construct three indices, Board-Committee Index, Board-Entrenchment Index and Board-Independence Index, to examine the association between good governance practices and firm value in a large cross-country sample of 2,350 firms from 2003 to 2005. This large sample represents firms from 23 developed and developing countries.[35] Using different performance proxies, including Tobin's Q and ROA, the study reports that, in general, the relationship between governance indices and firm financial performance is statistically significant and positive.

[35] The 23 countries are from Europe, Asia and the US. More specifically, the sample included Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US.

Table 3.4: Summary of existing studies on the relationship between corporate governance index and firm performance: Cross-country empirical studies

Direction of Relationship	Authors	Country	Sample	Governance Measure	Empirical Findings	Performance Measure(s)
Positive	Klapper and Love (2004)	Cross-country (14 emerging countries [36])	374 firms from CLSA 1998 – 1999	Using Credit Lyonnais Securities Asia Index (CLSA)	Significant positive correlation with operating performance and market valuation	Tobin's Q ROA
	Durnev and Kim (2005)	Cross-country (27 emerging countries[37])	859 firms from CLSA 1999 – 2000	Using CLSA index	Positive association with market value	Tobin's Q
	Chen *et al.* (2009)	Cross-country (17 emerging countries)	559 firm-year observations from CLSA 2001 - 2002	Using CLSA index, excluding social responsibility category	CG has a significantly positive effect on the low cost of equity	Estimating the ex ante of equity
	Morey *et al.* (2009)	Cross-country (21 emerging countries[38])	200 firms (390 observations) 2001 – 2006	Using governance index compiled by AllianceBernstein	Positive link with firm value	Positive link with firm value
	Bruno and Clsessens (2010)	Cross-country (23 countries[39])	2,350 firms from ISS 2003 – 2005	Constructing three CG indices, including committee, independence board and Entrenchment index	Positive relationship with firm performance	Tobin's Q ROA Market to book ratio
	Renders *et al.* (2010)	Cross-country (14 European countries)	240 firms from the FTSEurofirst 300 (1,199 observations) 1999 - 2003	Using Deminor index based on provisions comprising over 300 criteria	CG leads to better financial performance and market value	Tobin's Q ROA ROE Market to book ratio
	Ammann *et al.* (2011)	Cross-country (22 developed countries[40])	6,663 firm-year observations from GMI 2003 – 2007	Constructing three CG indices from GMI	Positive relationship with market value	Tobin's Q

[36] These countries are Brazil, Chile, Hong Kong, India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Singapore, South Africa, Taiwan, Thailand and Turkey.
[37] The 27 emerging countries are from different continents, including Asia, Europe, Africa and Latin America.
[38] The 21 countries are Argentina, Brazil, Chile, China, the Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, the Philippines, Poland, Russia, South Africa, Taiwan, Thailand, Turkey and Venezuela.
[39] The 23 countries include European and Asian countries and the US. More specifically: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US.
[40] These countries include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the UK.

Table 3.4 (Continued): Summary of existing studies on the relationship between corporate governance index and firm performance: Cross-country empirical studies

Direction of Relationship	Authors	Country	Sample	Governance Measure	Empirical Findings	Performance Measure(s)
	Ammann *et al.* (2013)	Cross-country (14 European countries)	3,102 firm-year observations from GMI 2003 – 2007	Constructing CG index based on Governance Metrics International Index (GMI)	CG significantly increases firm value and capital expenditures	Tobin's Q Capital expenditures
	Krafft *et al*. (2013)	Cross-country (24 continental countries)	8,487 firm-year observations 2003 – 2008	Corporate Governance Quotient (CGQ) index from RiskMetrics/Institutional Shareholder Services	CGQ significantly improves firm value	Tobin's Q
Mixed Relation	Bauer *et al.* (2004)	Cross-country (15 European countries[41])	260 firms from FTSE Euro top 300 1996 – 2001	Using Deminor index	Positive relationship with firm value and negative relationship with financial performance	Tobin's Q REO Net profit margin
	Ikaheimo *et al.* (2011)	Cross-country (Nordic countries)	545 firms (3,277 observations) 1999 – 2004	Using governance index extracted from GIM	Positive influence on operating performance, negative impact on firm value and no effect on stock return	Tobin's Q Net sales growth REO Net profit margin
	Munisi and Randoy (2013)	Sub-Saharan African[42]	273 and 307 firm-year observations 2005 - 2009	Constructed CG index of 39 provisions consisting of four sub-indices	Positive relationship with firm profitability and negative relationship with firm value	Tobin's Q ROA

Sources: Compiled by the researcher.

[41] The 15 European countries include: Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK.
[42] The sample includes all Sub-Saharan countries, excluding South Africa, Zimbabwe and Mozambique.

Similarly, Renders *et al.* (2010) study 14 European economies and adopt the Deminor Governance Index. They examine a sample of 240 firms from 1999 to 2003. Their findings show that improvement in corporate governance ratings is associated with better performance. Similarly, Krafft *et al*. (2013) examine the association between corporate governance and performance using a sample of continental data consisting of 24 countries from 2003 to 2008. They find a positive association between good corporate governance practices and firm value.

3.4.2.5 Variations among Results using the Compliance-Index Model

As the above discussion suggests, the evidence on the relationship between corporate governance indices and firm performance using the compliance-index model is generally mixed and there are noticeable differences. Specifically, North American (US and Canada) studies have mixed results. Regarding Western Europe and other developed countries, the majority of studies report a positive effect of good governance practices on financial performance. The relationship between good governance standards and firm value in emerging markets and cross-country studies is positive.

While there are some observable variations in the evidence, especially the US evidence, limited studies have focused on the factors that may explain the mixed findings. Variability in results may, however, be explained by a number of factors. First, the relationship may be affected by econometric problems, such as endogeneity, selection bias and a lack of statistical power (Renders *et al.,* 2010). In addition, there are differences among findings based on the performance measure used, such as ROA and ROE (Bozec *et al.,* 2010).

Second, differences in the effectiveness of the market for corporate control, the implementation and enforcement of the law, economic development and the cultural environment explain differences in governance quality and performance (Aguilera and Cuervo-Cazurra, 2009; Filatotchev and Boyd, 2009; Toledo, 2010; Judge, 2011; Black *et al.,* 2012; Salterio *et al.,* 2013). For example, studies employing samples from emerging economies show a positive correlation (e.g., Black, 2001; Black *et al.,* 2006a; Cheung *et al.,* 2007; Garay and Gonzalez, 2008; Tariq and Abbas, 2013) despite the legal requirements and market behaviour being generally weak in these countries (Klapper and Love, 2004). Bozec *et al.* (2010) explain that developing countries seek to attract potential investors and reduce the cost of capital by adopting good corporate governance practices. However, in some developed countries, such as the US and Canada, governance mechanisms are mainly adopted on a mandatory basis, ‘comply or else’, which leads to

convergence of governance standards at the firm level. The statistical implication is that there is limited variability in governance that explains differences in financial performance at firm level. Thus, any additional improvement in governance may not necessarily translate into a noticeable improvement in performance (Bozec and Bozec, 2012).

Third, using different indices can create mixed findings. Ammann *et al.* (2011) shed light on the fact that despite an increase in the use of the compliance-index model, there is no consensus on how to construct corporate governance indices. This problem is apparent, given the different indices used in the literature and whether local/global or self-constructed/analysts' ratings governance indices are appropriate to be used.

Consequently, corporate governance indices used in the literature are subject to criticism (Bhagat and Bolton, 2008; Daines *et al.,* 2010; Ammann *et al.,* 2013). First, some corporate governance ratings, such as the Corporate Governance Rating (CGR) index used by Drobetz *et al.* (2004), are developed based on surveys. These may be biased, as firms might overestimate the quality of their governance or might not respond properly if they have poor governance (Bozec and Bozec, 2012). Second, proxy-advising institutions that provide a 'ready-to-use' governance index, such as the CLSA, GMI and ROB, are confined to the largest public firms (e.g., Klein *et al.,* 2005; Koehn and Ueng, 2005; Chhaochharia and Grinstein, 2007; Epps and Cereola, 2008; Chen *et al.,* 2009). Therefore, limiting the data to large firms and neglecting small and medium firms may impair the generalisability of the resulting findings.

3.4.2.6 The Compliance-Index Model and the Saudi Corporate Governance Index (SCGI)

As discussed in Subsection 3.4.1, the compliance-index model is a relatively new approach. Therefore, it has not yet been used in studies conducted in Saudi Arabia. Consequently, the current study seeks to contribute to the existing literature on developing countries generally and Saudi Arabia particularly by examining the association between governance practice and corporate financial performance among Saudi listed firms. In order to examine the governance-performance relationship in Saudi listed firms, the Saudi Corporate Governance Index (SCGI) is constructed of 65 provisions.[43] The SCGI consists of four broad corporate governance sections (sub-indices), including: (i) the board of directors and board sub-committees; (ii) disclosure and transparency; (iii) the internal control system; and (iv) the rights of shareholders and general assembly.

[43] The Saudi Corporate Governance Index (SCGI) is discussed in detail in Chapter Five in terms of its sources, provisions, validity and reliability.

As the empirical evidence from emerging economies mainly suggests a positive relationship between good corporate governance indices and firm performance (e.g., Black, 2001; Bai *et al.,* 2004; Cheung *et al.,* 2007; Garay and Gonzalez, 2008; Black *et al.,* 2012; Tariq and Abbas, 2013), the fifteenth and final hypothesis to be tested is formulated as follows:

H_{15}: There is a significant and positive relationship between the SCGI and firm financial performance, as measured by ROA and Tobin's Q.

3.5 CHAPTER SUMMARY

This chapter presented a review of theoretical and empirical literature on the relationship between corporate governance and firm financial performance. To review the relevant studies, the chapter was divided into three main sections: (i) a relevant and critical review of corporate governance theories; (ii) investigation of the level of compliance with and determinants of voluntary corporate governance disclosure; and (iii) investigation of the relationship between corporate governance mechanisms and firm financial performance. The first section examined corporate governance theories related to both voluntary corporate governance disclosure and corporate financial performance. This study adopts a multiple-theoretical framework to conduct the research analysis. Agency theory is primarily considered, while managerial signalling, stakeholder, stewardship and resource dependence theories are also reviewed. This helps develop an understanding of corporate governance behaviour and also helps in the subsequent interpretation of the empirical results.

In the second section, the level of compliance with corporate governance codes and determinants of voluntary corporate governance disclosure were investigated. The evidence suggests that developed countries comply with corporate governance codes better than developing countries. This can be attributed to differences in the development and effectiveness of the legal, economic and cultural systems between developed and developing countries. The evidence from both developed and developing countries showed that there are a number of governance mechanisms that determine the level of compliance with good corporate governance codes, such as ownership structure, independence of directors, board size and audit firm size.

The third section examined the relationship between corporate governance mechanisms and financial performance. The existing literature showed that empirical studies on both developed and developing countries use two different models: the

equilibrium-variable model and the compliance-index model. Both models were reviewed. The equilibrium-variable model helps explore the influence of individual corporate governance mechanisms on financial performance. In contrast, the compliance-index model involves an examination of the relationship between corporate governance and firm performance. Generally, existing studies have failed to establish conclusive results on the relationship between corporate governance and firm financial performance, either in developed and developing countries.

The next chapter sheds light on the research design, including the mixed-methods research approach used in this study.

CHAPTER FOUR

RESEARCH METHODOLOGY

4. INTRODUCTION

An appropriate research approach is vital in developing and conducting a research project. The importance of the selection of the research method stems from its role in achieving reliable results. Thus, this chapter presents the research design and methods used in this study. It specifically seeks to achieve three main objectives. First, this chapter explores the philosophical assumptions of the research paradigms that underpin the study. Second, it presents the compatibility of the selected research design with the research objectives and questions. Third, this chapter addresses the challenges in using a mixed-methods research design in the current study. The remaining part of the chapter is organised as follows. Section 4.1 presents the theoretical assumptions underlying each research paradigm. Section 4.2 presents a discussion on the selection of the research design used in this research. Section 4.3 addresses the challenges of using a mixed-methods design, while Section 4.4 presents the chapter summary.

4.1 THEORETICAL ASSUMPTIONS UNDERLYING THE RESEARCH PARADIGMS

Collis and Hussey (2009) define a research paradigm as a framework that guides how research is conducted, based on individual philosophies, perceptions, attitudes and assumptions about the world and the nature of knowledge. They review the history of research paradigms and state that there has been only one research paradigm for hundreds of years, because the scientific method of conducting research referred to a single approach only. Later, with the initiation of industrialisation and capitalism, researchers realised the importance of distinguishing between *natural sciences* and *social sciences*. Thus, the emergence of the social sciences opened up space for other research paradigms (Morgan and Smircich, 1980).

Two main research paradigms have emerged: positivism and interpretivism, which are mostly used in management research (Bryman, 2012). Positivists support scientists' view that the nature of knowledge is based on realism. On the other hand, interpretivists rely on the principles of idealism, and explore the understanding of social phenomena. The following subsection presents the details of each paradigm and its assumptions.

4.1.1 Positivism

The positivism paradigm was developed in the late eighteenth century in the work of some of the early positivists; for example, August Comte, Mill, Durkheim and Locke (Creswell, 2009). Positivists believe that reality is independent of social norms and assumptions, and develop theories based on empirical research, such as observation and experimentation (Hesse-Biber and Leavy, 2011). Walliman (2005) indicates that positivism generates knowledge that is based on scientific logic and mathematical proof. Collis and Hussey (2009, p.56) explain positivism in management research thus: "*Today, researchers conducting business research under a paradigm that stems from positivism still focus on theories to explain and/or predict social phenomena"*. Thus, positivists still work with logical reasoning, precision and objectivity based on evidence and observation rather than subjectivity and intuitive interpretations.

Positivists explain causal relationships between variables that can help in developing theories from the findings. Furthermore, positivists are of the view that social phenomena can be measured, and thus they can be interpreted using quantitative methods of analysis (Bryman, 2012; Saunders *et al.,* 2007). In this regard, Creswell and Clark (2011) suggest that researchers can make claims to knowledge based on: (i) determinism or cause-and-effect thinking; (ii) reductionism, by narrowing and focusing on selecting variables to interrelate; and (iii) detailed observations and measurement of the variables. The positivist paradigm is used in the current research to examine the empirical relationship among corporate governance mechanisms, voluntary corporate governance disclosure and firm financial performance.

4.1.2 Interpretivism

Interpretivism is based on the principles of idealism and social reality not being objective. Rather, interpretation of social phenomena is highly subjective and shaped by individuals' perceptions and beliefs (Morgan and Smircich, 1980; Collis and Hussey, 2009). Following an increase in attention to social phenomena, some scholars, such as Dilthey, Weber and Kant, advocated for interpretivism and began a countermovement to the positivist tradition in the late nineteenth century (Creswell, 1994).

However, Morgan and Smircich (1980) and Collis and Hussey (2009) argue that interpretivism was developed in response to the perceived inadequacy of positivism in meeting the needs of social scientists. They identified criticisms of the positivism paradigm, which raised the following ideas about the interpretive paradigm: (i) it is impossible to separate people from the social contexts in which they exist; (ii) people

cannot be understood without examining the perceptions they have of their own activities; (iii) a highly structured research design imposes constraints on the results and may ignore other relevant findings; (iv) research is not an objective activity, but part of what researchers observe; and (v) capturing complex phenomena with a single measure is misleading. For example, a positivist cannot measure perceptions and beliefs in the depth required to explore the social issues of a phenomenon. Thus, the interpretive paradigm opens up the social world in innovative ways.

Table 4.1: Approaches within the two main paradigms

Panel A: Common terms used to describe the paradigms	
Positivism	**Interpretivism**
Quantitative	Qualitative
Objective	Subjective
Scientific	Humanist
Traditionalist	Phenomenological
Panel B: Features of the paradigms	
Positivism	**Interpretivism**
Large sample is involved	Used with small samples
Concerned with hypothesis testing	Helpful in generating theories
Produces precise, objective and quantitative data	Produces 'rich' subjective and qualitative data
Produces results with high reliability but low validity	Produces findings with low reliability but high validity
Allows results to be generalised from the sample to the population	All findings can be generalised from one setting to another setting

Source: Collis and Hussey (2009, pp.58, 62).

While positivists focus on measuring social phenomena, interpretivism suggests exploring the complexity of social phenomena to develop an understanding (Bryman, 2012). Creswell and Clark (2011) point out that the interpretivism paradigm tends to explore, explain and develop an understanding in order to clarify or illustrate the meaning of terms. This paradigm does not relate to the quantitative measures of phenomena that occur logically (scientifically) in the social world. As the interpretive paradigm is usually associated with the qualitative approach, this study uses semi-structured interviews in addition to the statistical analysis of quantitative data. Therefore, the interviews are useful in filling the gaps of the quantitative analysis of data, comparing and supporting the results from two methods (Saunders *et al.,* 2007), and helping develop a deep understanding of the empirical results (Saunders *et al.,* 2007; Boyd *et al.,* 2012). Section 4.2 presents details of the fundamental reasons for using each paradigm.

Panel *A* of Table 4.1 shows common terms of these two paradigms. Panel *B* presents a summary of the features of each paradigm, including sample size, hypotheses, theories, data, reliability, validity and generalisability of data.

4.1.3 Criteria for Selecting Paradigms

Creswell (2009) suggests that there are four areas one must look at when selecting a research paradigm. These are: (i) the researcher's worldview; (ii) the researcher's experience; (iii) the researcher's psychological attributes; and (iv) the nature of the problem. Table 4.2 presents the criteria for choosing a positivist or interpretivist research paradigm. First, researchers bring a certain worldview to the research, an outlook that favours either the positivist or the interpretivist paradigm regarding ontological, epistemological, axiological, rhetorical and methodological assumptions. In this regard, some researchers see reality as subjective, while others may take a more objective stance, using surveys or an experimental approach. Second, training and experience may be related to the first factor. A research paradigm can be selected according to the skills that researchers possess, such as quantitative and qualitative data analysis, writing and computer skills.

Table 4.2: Criteria for selecting a paradigm

Criteria	Positivism	Interpretivism
Researcher's worldview	A researcher's comfort with the ontological, epistemological, axiological, rhetorical and methodological assumptions of the positivism paradigm.	A researcher's comfort with the ontological, epistemological, axiological, rhetorical, and methodological assumptions of the interpretivism paradigm.
Training and experience of researcher	Technical writing skills, computer statistical skills, library skills.	Literary writing skills, computer text-analysis skills, library skills.
Researcher's psychological attributes	Comfort with rules and guidelines for conducting research, low tolerance for ambiguity and time for a study of short duration.	Comfort with a lack of specific rules and procedures for conducting research, high tolerance for ambiguity and time for lengthy study.
Nature of the problem	Previously studied by other researchers so that a body of literature exists, along with known variables and existing theories.	Exploratory research, variables unknown, context important, may lack a theoretical base for study.

Source: Creswell (1994, p.9).

Third, psychological attributes are very important in deciding which research paradigm to select. Creswell and Clark (2011) indicate that positivism is a traditional mode of research, with carefully worked-out procedures and rules. In contrast, an interpretive research design requires more time because procedures are flexible.

Fourth, the nature of the research problem is another important factor. Creswell and Clark (2011) suggest that if the nature of the problem calls for: (i) the identification of factors that influence an outcome; (ii) the utility of an intervention; or (iii) an understanding of the best predictors of an outcome, then the positivism paradigm is more

desirable and beneficial. On the other hand, interpretivism is more appropriate than positivism for exploring any social phenomena that have not been previously researched.

4.1.4 Paradigms and Application to the Study

Johnstone (2004) and Bryman (2012) suggest five types of philosophical assumptions that underpin these two paradigms. As shown in Table 4.3, these are ontological, epistemological, axiological, rhetorical and methodological assumptions. First, ontology is concerned with the nature of reality (Saunders *et al.*, 2007). Collis and Hussey (2009) point out that positivists consider social reality as objective and external to social factors. Also, quantitative research measures objectivity using statistical analysis (Molina-Azorin, 2012). In contrast, interpretivists believe that social reality is subjective because it is constructed in a social context. Therefore, multiple realities exist in a situation, such as the researcher's and the interviewee's (Creswell, 1994).

This study is conducted in the particular business context and culture of Saudi Arabia. This environment contains an integrated framework including regulators, legislations, firms and stakeholders. One key aspect of this study is to consider the corporate governance practices in the Saudi corporate context. Therefore, a quantitative approach is used to measure the level of corporate governance disclosure and firm financial performance. In contrast, key stakeholders' perceptions are required to interpret the statistical findings through investigating the level of awareness and appreciation of the importance of corporate governance. This also implicates multiple realities experienced by the practitioners. Therefore, semi-structured interviews are an appropriate choice to support the quantitative findings.

Second, the epistemological issue concerns the question of what is (or should be) acceptable knowledge in a discipline (Bryman, 2012). Epistemological research examines the relationship between the researcher and what is being researched. In this regard, Creswell (2009) states that the researcher should be independent of what he/she researches in this paradigm. Therefore, quantitative researchers attempt to reduce bias by using an appropriate sampling approach, and seek to be objective in carrying out the research process, for example during data collection and analysis.

In contrast, interpretivism limits the distance between the researcher and that being researched (Collis and Hussey, 2009). Thus, qualitative research is different from quantitative research because it allows for closer interaction with human beings in the social context, or observing social phenomena over a long period of time (see Table 4.2).

In this study, corporate governance practices in Saudi Arabia are examined empirically using the firms' annual reports. This allows the researcher to be independent of what is being researched. In contrast to testing corporate governance disclosure and firm financial performance, exploring the effects of corporate governance reforms requires interaction with practitioners. Therefore, the interpretivist paradigm suggests semi-structured interviews to develop a researcher's interaction with interviewees.

Third, the axiological assumption underpins the role of values in this study. Saunders *et al*. (2007) argue that researchers demonstrate axiological skills to express these values as a foundation for making judgments about the research they are carrying out and how they set about doing it. Positivists consider the subjects under study unaffected by their research activities, but there may be some effect after the study is conducted. However, interpretivists believe that researchers should exhibit ethical and moral values (Collis and Hussey, 2009). Therefore, qualitative research is more value-laden and considers research ethics substantially more than quantitative research (Creswell, 2009).

This study constructed a corporate governance index to evaluate firms' compliance with the Saudi Corporate Governance Code (SCGC) and its impact on financial performance. Thus, the results of this evaluation are expressed in numbers. Other parts of the study investigate the level of awareness and appreciation of good corporate governance practices among key stakeholders; they are not expressed in numbers, but through a descriptive assessment of interviewees.

Fourth, the rhetorical assumption focuses on the language used in the research. Each paradigm has different rhetorical perspectives. The positivism paradigm is usually expressed in impersonal and formal language based on accepted terms, such as relationships and comparisons between variables, where concepts and variables are clearly defined (Creswell, 2009). In contrast, Collis and Hussey (2009) suggest that the interpretive design prefers a writing style reflecting the immediacy of the research and the researcher's involvement.

Fifth, the methodological assumption is concerned with how research should be undertaken, including the theoretical and philosophical framework and its implications for the chosen methods (Saunders *et al.*, 2007). As shown in Table 4.3, positivism uses a deductive process to test hypotheses based on a cause-and-effect relationship.

Table 4.3: Positivism and interpretivism paradigm assumptions

Assumption	Concept	Positivism	Interpretivism
Ontological	The nature of reality.	Reality is objective and singular, separate from the researcher.	Reality is subjective and multiple, as seen by participants.
Epistemological	The relationship of the researcher to that being researched.	Researcher is independent from that being researched.	Researcher interacts with that being researched.
Axiological	The role of values.	Research is value-free and unbiased.	Researcher acknowledges that research is value-laden and biases are present.
Rhetorical	The language of research.	Researcher writes in a formal style and uses the passive voice, accepted quantitative words and set definitions.	Researcher writes in an informal style and uses the personal voice, accepted qualitative terms and limited definitions.
Methodological	The process of research.	Deductive process Study of cause and effect with static design (categories are isolated beforehand) Research is context-free Generalisations leading to prediction, explanation and understanding Results are accurate and reliable through validity and reliability.	Inductive process Study of mutual simultaneous shaping of factors with emerging design (categories identified during research process) Research is context-bound Patterns and/or theories are developed for understanding Findings are accurate and reliable through verification.

Source: Creswell (1994, p.5) and Collis and Hussey (2009, p.58).

Before conducting the study, positivists determine the concepts, variables and hypotheses. In the positivist approach, the methodology seeks to develop generalisability that contributes to finding clear predictions, explanations and understandings of some phenomena (see Table 4.3). This requires that the information and instruments remain valid and reliable (Johl *et al.,* 2012). However, interpretivists use an inductive approach where information is generated from groups within data. This provides rich information and theories which help in interpreting social phenomena (Liew, 2007; Collis and Hussey, 2009; Johl *et al.,* 2012).

This study employs both deductive and inductive approaches to explore the influence of corporate governance reforms in Saudi Arabia. Through the deductive process, corporate governance theories, such as agency, managerial signalling, stakeholder and resource dependence theories, are tested. The study also developed hypotheses to explain corporate governance practices. On the other hand, it was necessary to supplement an interpretative part of the study that explores corporate governance in the Saudi corporate context. This helps in developing an understanding of the statistical results. Thus, the qualitative part of this study employs an inductive approach using semi-structured interviews.

4.2 THE RESEARCH DESIGN

This section discusses mixed-methods research, including quantitative and qualitative methods, according to the research objectives and questions. Therefore, this section sheds light on mixed-methods and why this approach was chosen.

4.2.1 Mixed-Methods Research Design

Saunders *et al*. (2007) define mixed-methods as using both quantitative and qualitative data in one study at the same time (parallel) or one after the other (sequential). This type of research has been welcomed because it achieves integration through analysing quantitative and qualitative data (Cassell *et al.*, 2005; Boyd *et al.*, 2012; Johl *et al.*, 2012). An examination of previous mixed-methods studies suggests that mixed-methods research is beneficial in developing an understanding of corporate governance reforms and their relationship with voluntary corporate governance disclosure and firm financial performance (e.g., Boyd *et al.*, 2012; Molina-Azorin, 2012; Johl *et al.*, 2012; McNulty *et al.*, 2013; Zattoni *et al.*, 2013).

Mixed methodology appeared in the late 1980s, when a number of publications focused on explaining what is now known as mixed-methods research design (Molina-Azorin, 2012). This approach initially emerged in Western English-speaking countries, especially the US and the UK, in a number of disciplines, such as sociology, management and education (Creswell and Clark, 2011).

Collis and Hussey (2009) point out that social science researchers mostly used only positivism or interpretivism paradigms before mixed-methods achieved popularity in the field of social sciences. For that reason, researchers in the middle of the 19th century had no mechanism for dealing with a mix of quantitative and qualitative data in the same study. Creswell and Clark (2011) state that Campbell and Fiske first raised the idea of using two different types of data in one study in 1959. In particular, they discuss the inclusion of multiple sources of quantitative information to validate psychological traits. From that time, mixed-methods appeared in social science to enable researchers to deal with both quantitative and qualitative data. Thus, the importance of mixed-methods research has grown during the past twenty years (Molina-Azorin, 2012).

Creswell and Clark (2011) suggest reasons for choosing mixed-methods as a research methodology. They explain that a mixed-methods approach helps overcome the deficiencies in a study if only a quantitative or qualitative approach is used. For example, quantitative research is less likely to answer ‘why’ a social phenomenon happens. Moreover, a quantitative approach does not provide detailed interpretation of the obtained

results (Cohen *et al.,* 2002). Morgan and Smircich (1980) and Johl *et al*. (2012) argue that a qualitative approach alone provides less reliable and less credible findings. Thus, a mixed-methods design provides in-depth explanation and understanding of phenomena (Johl *et al.,* 2012; Bryman, 2012).

In recent years, management studies have paid close attention to mixed-methods designs because of the excessive attention given to the behaviour of individuals and firms (Clarke, 1998). It is widely agreed that mixed-methods designs generate more reliable and credible findings than any single method used in a study (Boyd *et al.,* 2012; Molina-Azorin, 2012). Molina-Azorin (2012) find that mixed-methods articles published in the *Strategic Management Journal* from 1980 to 2006 tend to be cited more often than single method articles. This means that mixed-methods studies are appreciated by researchers. Therefore, the mixed-methods design in this study makes a valuable contribution to corporate governance literature and studies on emerging economies (Mengoli *et al.,* 2009; Johl *et al.,* 2012; Molina-Azorin, 2012; McNulty *et al.,* 2013; Zattoni *et al.,* 2013).

Quantitative approaches are the most popular approaches in corporate governance work (Skinner *et al.,* 2000; Cassell *et al.,* 2005; Boyd *et al.,* 2012). For example, the literature on voluntary corporate governance disclosure (e.g., Haniffa and Cooke, 2002; Alsaeed, 2006; Ntim *et al.,* 2012a; Allegrini and Greco, 2013), the relationship between corporate governance and financial performance (e.g., Haniffa and Hudaib, 2006; Al-Abbas, 2009; Ntim *et al.,* 2012b; Munisi and Randoy, 2013; Tariq and Abbas, 2013), and ownership structure (e.g., Davies *et al.,* 2005; Kapopoulos and Lazaretou, 2007; Chhaochharia and Grinstein, 2009; Soliman, 2013a and b) rely extensively on quantitative data. Also, the literature suggests that few corporate governance studies use qualitative methods (Boyd *et al.,* 2012).

Cassell *et al*. (2005) claim that qualitative research in management studies is deficient for two main reasons. First, there is a lack of knowledge and expertise in using qualitative methods in business studies. This is because most of the research to date has used quantitative methods (Skinner *et al.,* 2000; Boyd *et al.,* 2012). Also, Cassell *et al*. (2005, p.5) argue that "*... it is crucial that management researchers in both policy and academic areas have opportunities to be able to develop skills in the area of qualitative research, and be aware of the different assessment criteria available to evaluate the validity of qualitative research in the field*". Second, the inappropriate assessment criteria used by the reviewers of journals in qualitative business research hinders the expansion of research in this area (Cassell *et al.,* 2005). Some reviewers demand that research articles using qualitative methods have to use high level of analysis of qualitative data and

excellent descriptive writing. Therefore, there is inadequate research into business studies that uses qualitative data (Soobaroyen and Mahadeo, 2012).

4.2.2 Principles for Designing Mixed-Methods Research

Creswell and Clark (2011) suggest key principles for designing mixed-methods research. First, the level of interaction between the quantitative and qualitative methods is an important principle. There are two levels of interaction: (i) the independent level; and (ii) the interactive level. The independent level relies on separating the quantitative and qualitative research questions and the processes of data collection and data analysis. The independent approach mixes the two methods in the study's conclusion. The interactive approach happens at different stages during the study, usually before the final interpretation of the results. Thus, one research method depends on the other, or follows the other, during the data collection and analysis processes.

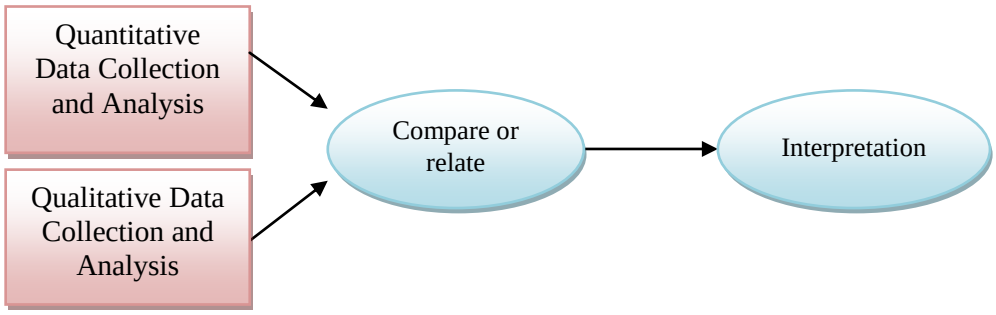
Second, the researcher has to make sure that the methods used are appropriate for meeting the research objectives and research questions of the study (Morgan, 1998). The researcher needs to determine explicitly which method is more important (Greene *et al.*, 1989; Morgan, 1998). Creswell and Clark (2011) suggest three possible options to weight mixed-methods designs: equal priority, quantitative priority and qualitative priority. Third, the timescale of the research is another key principle. Timing within the mixed-methods design can be in one of three forms: concurrent, sequential or a multiphase combination.

The current study initially focuses on the quantitative method because of the nature of the research problem, objectives and questions. This approach is desirable in examining the effect of issuing the Saudi governance code on voluntary corporate governance disclosure and financial performance. Also, the study employs the two methods separately at the independent level, initiating the quantitative method and drawing insight from the qualitative method later. In doing so, the study uses sequential timing by collecting and analysing quantitative data first.

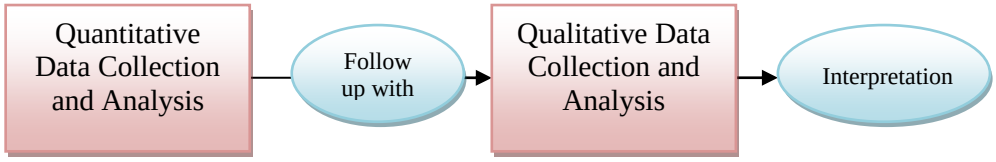
The importance of mixed-methods design was fundamental in designing the framework for this study. Creswell and Clark (2011) point out that there are four main mixed-methods designs: (i) the convergent parallel design; (ii) the explanatory sequential design; (iii) the exploratory sequential design; and (iv) the embedded design (see Figure 4.1).

Figure 4.1: Prototypical versions of the four major research designs

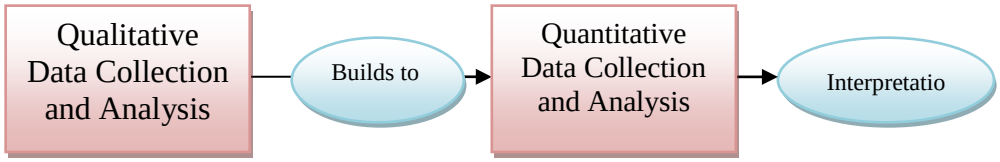
(a) The convergent parallel design



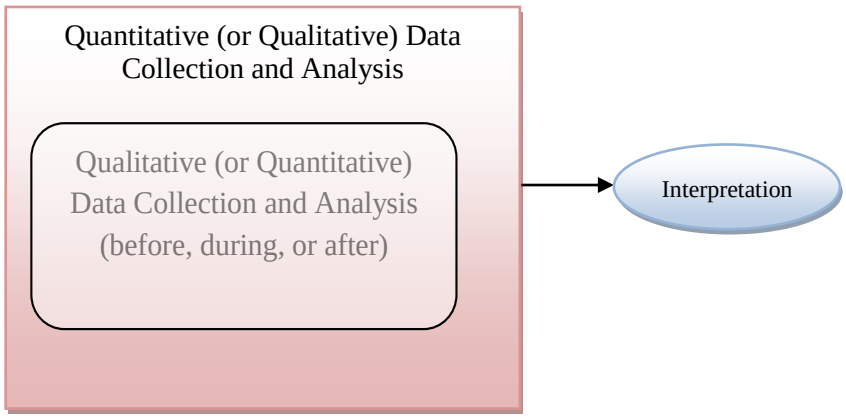
(b) The explanatory sequential design



(c) The exploratory sequential design



(d) The embedded design



Source: Creswell and Clark (2011, p.69).

First, the convergent parallel design relies on conducting quantitative and qualitative methods simultaneously (see Figure 4.1.a). In this design, the researcher processes the methods equally and keeps them independent throughout data analysis, and then mixes the results to interpret them overall. Second, the explanatory sequential design depends on two distinct interaction phases (see Figure 4.1.b). Researchers use sequential timing, starting with the quantitative design, to collect and analyse data. Then, the qualitative method follows the empirical results to interpret the initial findings; for example, if a researcher conducts interviews to gain in-depth insights from quantitative results (e.g., Haniffa and Hudaib, 2007; Johl *et al.,* 2012).

Third, the exploratory sequential design is the opposite of the explanatory sequential design. It starts with qualitative data in the first phase (see Figure 4.1.c). Fourth, the embedded design occurs when the researcher collects and analyses quantitative and qualitative data within a traditional quantitative or qualitative design (see Figure 4.1.d). For example, the researcher may add a quantitative method to a qualitative one, such as a case study, or add a qualitative method within a quantitative one, such as an experiment.

This study employs the explanatory sequential design. The rationale for using this design (two sequential stages) is summarised as follows. First, the qualitative method (interviews) provides additional analysis to explore the effect of corporate governance reforms on actual practices (Boyd *et al.,* 2012; Molina-Azorin, 2012). Second, it seeks to increase the robustness of the empirical findings (Mengoli *et al.,* 2009). Third, it aims to shed light on corporate governance reforms that are not developed in the quantitative analysis (Mengoli *et al.,* 2009).

The explanatory sequential design is considered the most straightforward mixed-methods design (Creswell and Clark, 2011). As discussed above, this design is conducted in two phases. In the current study, the first phase started with the quantitative method, through collecting and analysing quantitative data. In the second phase, some of the quantitative findings needed additional explanation (see Mengoli *et al.,* 2009; Johl *et al.,* 2012). Therefore, these results were used to develop the qualitative method. More precisely, the quantitative results were used to develop some of the qualitative research questions, interview process and data collection procedures.

To sum up, although the literature on mixed-methods research on corporate governance is limited, this study offers new insights into corporate governance research. Thus, the mixed-methods approach is desirable in achieving the research objectives and examining the research questions, as discussed in the following section.

Table 4.4: Association of research methods with research objective and questions

Research Objectives	Research Questions	Methods
1- Exploring the level of compliance with the SCGC among Saudi listed firms	1- What is the level of compliance with the 2006 SCGC?	Quantitative data obtained from firms' annual reports
2- Investigating whether the introduction of the SCGC has improved corporate governance practices	2- Has the introduction of the 2006 SCGC improving corporate governance practices?	Quantitative data obtained from firms' annual reports
3- Attempting to explore the factors affecting voluntary corporate governance disclosure	3- What are the factors that influence the level of compliance with the 2006 SCGC?	Quantitative data obtained from firms' annual reports
4- Estimating the link between a number of individual corporate governance mechanisms and firm financial performance using equilibrium-variable model	4- What is the association between individual corporate governance mechanisms and firm financial performance?	Quantitative data obtained from firms' annual reports
5- Investigating the relationship between the level of compliance with the SCGC and firm financial performance using compliance-index model	5- What is the relationship between compliance with the 2006 SCGC and firm financial performance?	Quantitative data obtained from firms' annual
6-Examining the level of awareness and appreciation of good corporate governance practices among key internal and external stakeholders of firms in Saudi Arabia by employing a qualitative research design. In addition, using a qualitative research design provides a unique opportunity to further understand and explain the quantitative findings	6- What is the level of awareness and appreciation of importance of good corporate governance practices in Saudi Arabia among key stakeholders following corporate governance reforms?	Qualitative data obtained from Semi-structured interviews

Source: Chapter One of the thesis.

4.2.3 The Research Objectives and the Chosen Method

As discussed in Chapter One, Saudi Arabia embarked upon corporate governance reforms in 2003, and the Capital Market Authority (CMA) released the SCGC in 2006. As shown in Table 4.4, the study seeks to achieve a number of objectives to explore the effect of such reforms in the Saudi corporate context. The study explores quantitatively the level of compliance with the Saudi Corporate Governance Code (SCGC) and the ability of the code, as a voluntary regulation, to improve corporate governance practices in Saudi Arabia. Also, it aims to determine the factors influencing good corporate governance practices among Saudi listed firms. Furthermore, the study provides empirical evidence

from Saudi Arabia, as an emerging economy, to explain the relationship between compliance with the corporate governance code and firm financial performance.

This study seeks to explore the impact of corporate governance reforms on key stakeholders' awareness and appreciation of good governance practices. Semi-structured interviews are used to achieve this purpose. This enriches interpretation of the empirical results and exploration of corporate governance reforms in Saudi Arabia (Clarke, 1998; Johl *et al.*, 2012). The next subsection discusses the methods used to answer each research question individually.

4.2.4 The Quantitative and Qualitative Research Questions

The research questions, to a large extent, motivated the choice of methodology. As presented in Chapter One, the central research question in the current study is: Has the publication of the Saudi Corporate Governance Code (SCGC) in 2006 helped in improving corporate governance practices and does it impact on corporate performance in Saudi listed firms? The central question is divided into six sub-questions. The study reviewed the literature on corporate governance in choosing an appropriate approach to answer the sub-questions. As shown in Table 4.4, the first five sub-questions are answered using quantitative data. In order to answer these questions, statistical analysis techniques are used to ensure results that are accurate, valid and reliable (Creswell, 2009; Collis and Hussey, 2009).

The first sub-question: What is the level of compliance with the 2006 SCGC? The second sub-question is: Has the introduction of the 2006 SCGC improving corporate governance practices? These two sub-questions attempt to investigate to what extent Saudi listed firms comply with the Saudi code, and whether introducing the Saudi code led to good corporate governance practices. The study follows prior literature by constructing a corporate governance index to examine the level of compliance among Saudi listed firms (Alsaeed, 2006; Tsamenyi *et al.*, 2007; Ntim *et al.*, 2012a; Allegrini and Greco, 2013).

The third sub-question is: What are the factors that influence the level of compliance with the 2006 SCGC? In exploring this question, the study provides evidence of factors influencing compliance with the corporate governance code. As suggested by the corporate governance literature, board of directors' characteristics and firm ownership structure are the main determinants of voluntary corporate governance disclosure (e.g., Haniffa and Cooke, 2002; Eng and Mak, 2003; Chalevas, 2011; Samaha *et al.*, 2012; Allegrini and Greco, 2013; Ntim and Soobaroyen, 2013). This sub-question is answered by exploring a cause-and-effect relationship. Specifically, board of directors' characteristics

and firm ownership are explanatory variables, and the Saudi Corporate Governance Index (SCGI) is the dependent variable.

The fourth sub-question is: What is the association between individual corporate governance mechanisms and firm financial performance? This model is also known as the equilibrium-variable model, and is the traditional approach (e.g., Vafeas and Theodorou, 1998; Weir and Laing, 2000; Haniffa and Hudaib, 2006; Mangena *et al.*, 2012).The fifth sub-question is: What is the relationship between compliance with the 2006 SCGC and firm financial performance? The study constructed a compliance-index model to answer this question[44]. In line with recent studies (e.g., Black, 2001; Gompers *et al.*, 2003; Cremers and Nair, 2005; Morey *et al.*, 2009; Bauer *et al.*, 2010; Renders *et al.*, 2010; Giroud and Mueller, 2011; Ammann *et al.*, 2013; Munisi and Randoy, 2013; Tariq and Abbas, 2013), the compliance-index model involved an examination of the association between a composite corporate governance index and firm financial performance.

The sample used to answer the first five sub-questions represents 80 Saudi listed firms over seven years (560 firm-year observations). The corporate governance and firm financial performance variables are manually extracted from firms' annual reports, obtained from Tadawul's websites, companies' websites, national newspapers and the Ministry of Commerce and Industry archives, which are reliable sources of data (Omar and Simon, 2011).

The other part of the study investigates the impact of corporate governance reforms on the Saudi corporate environment. Therefore, the sixth sub-question is: What is the level of awareness and appreciation of the importance of good corporate governance practices in Saudi Arabia among key stakeholders following the corporate governance reforms? In addition, investigating this qualitative research question provides a unique opportunity to improve the ability to understand and explain the quantitative findings. This sub-question is answered using qualitative data. Fifteen semi-structured interviews were conducted with five different stakeholder groups. As seen in descriptive studies on corporate governance (e.g., Judge and Zeithaml, 1992; Cohen *et al.*, 2002; Lambert and Sponem, 2005; Liew, 2007; Johl *et al.*, 2012; Piesse *et al.*, 2012), semi-structured interviews are desirable in exploring the impact of corporate governance reforms on key stakeholders.

To sum up, mixed-methods are considered appropriate for answering the research questions. Moreover, quantitative and qualitative methods are beneficial in providing a clear representation of corporate governance in Saudi Arabia. Chapters Five and Eight present the details on the quantitative and qualitative methods used, respectively.

[44] Section 3.4 in Chapter Three discusses the differences between these two approaches.

4.3 THE CHALLENGES OF USING MIXED-METHODS RESEARCH

Despite the increased attention given to mixed-methods research, it poses some challenges (Bryman, 2007; Johl *et al.,* 2012). Creswell and Clark (2011) argue that mixed-methods may not be able to overcome all research problems. Also, using solely quantitative or qualitative methods does not necessarily mean diminish the value of a study.

This section addresses the challenges in using mixed-methods research. These challenges are: (i) the absence of an agreed philosophical framework; (ii) achieving integration between the quantitative and qualitative methods; and (iii) issues related to practical considerations. The first challenge is the absence of an agreed philosophical framework for mixed-methods research designs and mixed-methods as a research paradigm (Smith and Heshusius, 1986; Morgan, 1998). Bryman (2004, p.453) evaluates the quantitative and qualitative approaches as paradigms that are not inextricable, but intertwined in terms of epistemological assumptions, values and methods. Morgan (1998) argues that prior literature ignores the absence of the mixed-methods paradigm.

Molina-Azorin (2012) indicates that mixed-methods design is relatively new compared to using a single method in research. Creswell and Clark (2011, p.15) suggest that "*One way to help convince others of the utility of mixed-methods is to locate exemplary mixed-methods studies in the literature on a topic or in a content area and share studies to educate others*". Thus, people need education to understand the value of mixed-methods, because mixed-methods are a novel approach.

The second challenge is to achieve integration between quantitative and qualitative research. Bryman (2007) suggests that the development of mixed-methods studies collides with the inability of researchers to integrate the findings of quantitative and qualitative results. Greene *et al*. (1989) examine this problem by reviewing 57 mixed-method studies to examine the level of integration between quantitative and qualitative approaches. Their findings indicate that 44% of the studies achieved no integration between the two methods. However, 32% featured integration when they interpreted the findings, while only five studies (about 9%) achieved integration during the analysis and interpretation.

Bryman (2007) indicates two reasons for this lack of integration. First, the integration of quantitative and qualitative findings may not always be intended. For instance, when researchers use mixed-methods, each approach is designed in isolation from the other, and integration may not be the priority of the researcher. Second, there are gaps in the literature in terms of analysis and interpretation of mixed-methods research (Cassell *et al.,* 2005; Bryman, 2007). The other challenge involves practical considerations

in conducting mixed-methods research. Creswell and Clark (2011) point out a number of important issues that should be taken into account before conducting such research. For example, mixed-methods research demands certain skills, time and resources for extensive data collection and analysis.

Data analysis for mixed-methods research requires certain skills. Creswell and Clark (2011) argue that mixed-methods design is a realistic approach if researchers have the requisite skills. Therefore, researchers must have in-depth understanding of quantitative and qualitative approaches separately before designing mixed-methods research (Morgan, 1998). Also, researchers should develop an understanding of data collection and analysis techniques for each method. More specifically, Collis and Hussey (2009) indicate that researchers using quantitative methods should be aware of the logic of hypothesis testing and should have the ability to perform statistical analysis. In addition, they should be familiar with important issues such as reliability and validity (see Chapters Five and Eight). As well, there are certain skills required to conduct qualitative data collection and data analysis. For example, researchers should be familiar with the process of conducting semi-structured interviews (Molina-Azorin, 2012). In addition, other skills, such as coding qualitative data and developing terms and descriptions based on these codes, are also necessary.

These skills alone are not sufficient to conduct mixed-methods research. It is necessary to ensure that mixed-methods research can be done within the specific timeframe of the research (Creswell and Clark, 2011). Also, it is argued that mixed-methods data collection is demanding in terms of time and effort, which is a limitation of this approach. Data collection takes time because different data is used in the different approaches (Morgan, 1998). Furthermore, the cost of data collection is another important issue, where mixed-methods may entail a greater cost than a single method (Creswell, 2009). For example, an interviewer may need to travel to conduct interviews, which may be financially costly. In contrast, the researcher may obtain quantitative data directly from websites at a lower cost. These are the important issues to consider before choosing a mixed-methods approach.

4.4 CHAPTER SUMMARY

This chapter introduced the mixed-methods research that appears in this study examining corporate governance reforms and their influence on voluntary corporate governance disclosure and firm financial performance in Saudi Arabia. This chapter

discussed the research design used. First, it discussed the philosophical assumptions of the research methodology. This study employs positivist and interpretivist paradigms. These research paradigms were selected because of their suitability for the nature of the research problem, the research questions, the researcher's worldview and the researcher's psychological attributes. Also, this chapter presented an explanation of positivism and interpretivism and their applications within the context of the study.

Second, the chapter presented a discussion of the mixed-methods research design and explained why this approach was chosen. There are four reasons for choosing mixed-methods: (i) it helps overcome the weaknesses of a single method; (ii) it provides a detailed understanding of the research problem; (iii) it is appropriate to answer the research questions; and (iv) mixed-methods improve the reliability of the findings in corporate governance studies, as they examine the behaviour of individuals and firms alike. The explanatory sequential mixed-methods design was chosen in this study. The study uses sequential timing, first using a quantitative design for collecting and analysing data. Then, qualitative data from semi-structured interviews follows the statistical results.

This chapter shed light on the use of quantitative and qualitative research methods to answer the research questions. Finally, the chapter discussed the difficulties in using a mixed-methods research design, including: (i) the absence of a philosophical framework; (ii) achieving integration between quantitative and qualitative research; and (iii) the resulting expense in terms of time and resources.

The next chapter discusses the quantitative research design, the empirical data, the sample selection and the method of analysis to examine voluntary corporate governance disclosure and firm financial performance.

CHAPTER FIVE

QUANTITATIVE RESEARCH DESIGN

5. INTRODUCTION

As discussed in Chapters One and Four, this study uses a mixed-methods research design, involving quantitative and qualitative data. This chapter presents the research design, methodology and data used in the quantitative part of this study to answer the first five research sub-questions. As discussed in Chapters One and Four, these questions aim to examine the relationship among corporate governance mechanisms, voluntary corporate governance disclosure and firm financial performance. The chapter is structured according to the following four objectives. First, it explains the data, variables, data sources and research methodology used in conducting the quantitative part of the study. Second, it presents a justification of the rationale behind the chosen data and research design. Third, it discusses the strengths and weaknesses of the chosen data and methodology. The remaining part of the chapter is organised as follows. Section 5.1 presents the details of the quantitative data and the selected sample. Section 5.2 discusses the quantitative research methodology used in the current study. Section 5.3 explains the voluntary corporate governance disclosure model. Section 5.4 discusses the models used to examine the relationship between corporate governance mechanisms and firm financial performance, while Section 5.3 provides a summary of this chapter.

5.1 DATA COLLECTION

This section explains the population, data sources and the sample selected to conduct the quantitative analysis in the current study. This section is divided into three subsections: Subsection 5.1.1 discusses population and Saudi listed firms. Subsection 5.1.2 addresses the data sources for this study, while Subsection 5.1.3 sheds light on the study sample and selected data.

5.1.1 Sample Population and Saudi Listed Firms

The sample used to investigate the relationship among corporate governance mechanisms, voluntary corporate governance disclosure and financial performance is selected from Saudi listed firms. A total of 145 firms were listed on the Saudi Stock Exchange (Tadawul) as of 31 December, 2010. Table 5.1 provides insight into the sample

selection mechanism. Panel *A* of the table presents Saudi listed firms (population) on Tadawul as of the 31st of December, 2010, classified by industry.[45] More than 69% of the listed firms fall into three industries: consumer services, consumer goods and financials. However, other industries, including basic materials, industrials, telecommunications and utilities, represent about 31% of the total listed firms. The final sample includes all the industries in the Tadawul's database.

Table 5.1: Summary of the sample selection

Panel A: Industrial composition of firms listed on the Tadawul available to be sampled as of 31/12/2010		*No. in each industry*	*Percentage of sample*
Basic Materials		14	9.66
Consumer Goods		27	18.62
Consumer Services		31	21.38
Financials		42	28.97
Industrials		25	17.24
Telecommunications		4	2.76
Utilities		2	1.38
Total firms available to be sampled		145	100.0
Less: Suspended and merged firms	4		
Firms with no yearly data available	34		
Firms listed recently (2009 to 2010)	27		
Total excluded firms		65	44.8
Final selected sample		80	55.2
Panel B: Industrial composition of sampled firms with full data		*No. in each industry*	*Percentage of sample*
Basic Materials		8	10.00
Consumer Goods		11	13.75
Consumer Services		22	27.50
Financials		11	13.75
Industrials		23	28.75
Telecommunications		3	3.75
Utilities		2	2.50
Final selected sample		80	100.0

Source: The Saudi Stock Exchange (Tadawul).

Despite the fact that existing studies exclude financial firms, the present study incorporates them for four reasons. First, both financial and non-financial firms are subject to similar disclosure requirements by the Capital Market Authority (CMA). More precisely, corporate governance regulations in Saudi Arabia, including the Listing Rules, the Companies Act and the Saudi Corporate Governance Code (SCGC), are applicable to all companies (Companies Act, 1965; Listing Rules, 2004; SCGC, 2006). Therefore, it was anticipated that there would be general convergence regarding the content of disclosure across all industries. Second, most existing studies on corporate governance, especially in the US, focus on few industries, for example manufacturing firms (Ammann *et al.*, 2013).

[45] The firms have been classified according the Tadawul's industry classification, which is driven by the nature of their operations and activities.

Therefore, the current study seeks to examine all sectors (both financial and non-financial) to fill this gap in corporate governance literature (Ammann *et al.*, 2013).

Third, studies that exclude financial firms were conducted in developed countries and the US in particular, where there are a large number of firms. In contrast, there are far fewer listed firms in emerging countries, including Saudi Arabia. Therefore, excluding financial firms from studies on developing countries would limit the sample size. Furthermore, incorporating both financial and non-financial firms is consistent with a number of studies in the corporate governance literature[46] (e.g., Eng and Mak, 2003; Kouwenberg, 2006; Tsamenyi *et al.*, 2007; Al-Moataz and Lakhal, 2012; Ammann *et al.*, 2013). As discussed in Subsection 5.1.3 below, Panel *B* of Table 5.1 shows the final sample, consisting of 80 listed firms that met all the sample selection criteria.

5.1.2 Data Sources

To investigate the relationship among corporate governance mechanisms, voluntary corporate governance disclosure and financial performance, two different types of data were used: (i) corporate governance variables; and (ii) firms' financial and market performance. First, the corporate governance variables were manually extracted from firms' annual reports[47] using content analysis. These annual reports were collected from different sources: (i) the Tadawul database, in electronic format from 2005 to 2010, constituting 480 reports (80 firms over six years each), which represents 86% of the total reports; and (ii) company website, national newspapers and the archives of the Ministry of Commerce and Industry (MCI), as the source of 2004 annual reports which were not available on the Tadawul's website. Eighty annual reports were collected directly from the aforementioned sources, constituting 14% of the total sampled firms. Second, firm financial performance variables were obtained from audited firms' financial statements, which were obtained from the Tadawul's database. The firms' market information was obtained from the Tadawul's Annual Statistical Reports.

[46] The findings in Chapter Six show that the level of compliance of financial firms is not the best; the firms in telecommunications, utility and basic materials industries do better. In addition, models for a sample excluding financial firms were estimated. The results obtained are similar to the results for the whole sample. There is no evidence of significant differences according to whether financial firms are included or excluded. Barber and Lyon (1997) and Eng and Mak (2003) conduct further analyses for non-financial firms to investigate corporate governance practices. Their findings indicate similar results whether financial firms are included or excluded.

[47] Where appropriate, annual report data is supplemented with data available on company websites, the Tadawul's websites, national newspapers and the MCI's archives.

5.1.3 Study Sample and Selected Data

This study selected the final sample based on two criteria: (i) the firm's annual reports have to be available for all seven years from 2004 to 2010, either in Tadawul's website, the MCI's archives, the firm's website or national newspapers; (ii) the availability of firms' financial statements and firms' stock market information for the seven-year period. These important criteria were set for many reasons. First, the criteria helped to satisfy the requirements of balanced panel data analysis (Henry, 2008; Ntim *et al.,* 2012a). Using balanced panel data has a number of advantages, including: (i) having both cross-sectional and time-series observations; (ii) improving degrees of freedom; (iii) minimising the effect of multicollinearity problems (Gujarati, 2003; Ntim *et al.,* 2012a); (iv) helping ascertain whether cross-sectional association among corporate governance practices, voluntary governance disclosure and financial performance hold over time (Ntim *et al.,* 2012b); and (v) helping minimise the potential endogeneity problems that may arise from potential unobserved firm-level heterogeneity (Henry, 2008; Guest, 2009; Ntim *et al.,* 2012b).

Second, in line with Chen and Zhang (2014), the sample period spans both pre- and post-2006, the year in which the SCGC was released. This helps in assessing whether the introduction of the SCGC has helped in improving corporate governance standards in Saudi Arabia. Third, using cross-sectional and time-series data is consistent with the literature on corporate governance (e.g., Tsamenyi *et al.,* 2007; Henry, 2008; Chalevas, 2011; Ntim *et al.,* 2012a), which also facilitates comparison of the results with those of previous studies.

All Saudi listed firms' annual reports became publicly accessible in 2004 after the establishment of the CMA. This allowed the researcher to collect data from 2004. Also, starting from 2004 helped the researcher in comparing the level of corporate governance compliance before and after the release of the 2006 Saudi governance code. The sample ends in 2010 because this is the most recent year for which data is available, as the data collection occurred between April 2011 and September 2011. Thus, the final sample consists of 80 out of 145 firms. The overall sample represents about 55% of all the Saudi firms listed on the Tadawul as of 31 December, 2010, and provides 560 firm-year observations from seven major industries.

Regarding the 65 excluded firms, as shown in Panel *A* of Table 5.1, two firms were suspended and another two firms were merged into one firm between 2006 and 2009. Of the remaining 61 excluded firms, the data for 34 firms was not available for all seven

years. The remaining 27 firms were listed between 2009 and 2010, with insufficient data. Details of the names and industries of the selected firms are provided in Appendix 1.

The sample size used in the present study is comparatively larger than those used in existing Saudi studies (e.g., Alsaeed, 2006; Hussainey and Al-Nodel, 2008; Al-Abbas, 2009; Al-Nodel and Hussainey, 2010; Al-Moataz and Hussainey, 2012; Al-Moataz and Lakhal, 2012; Al-Janadi *et al.*, 2013). For instance, Alsaeed (2006) investigates the level of compliance with corporate governance principles using a sample of 40 firms in 2003 (i.e., 40 firm-year observations). Similarly, Hussainey and Al-Nodel (2008) use one-year cross-sectional data consisting of 64 observations, and examine the extent to which Saudi listed firms disclose information online. Similar to these studies, Al-Nodel and Hussainey (2010) use a very small sample of 37 firms in 2005 to investigate the association between corporate governance and financial performance. Al-Moataz and Hussainey (2012) and Al-Moataz and Lakhal (2012) use the same data for about 50 listed firms over two years. Al-Abbas (2009) and Al-Janadi *et al.* (2013) employ samples consisting of 78 and 87 observations, respectively. Consequently, the sample size used in this study is another improvement on previous Saudi studies.

In addition, the study includes size variables to classify firms as large, medium or small. This is unlike prior studies, which focus on only a few firms. Eisenberg *et al*. (1998) argue that analysing one size alone can impair the generalisability of the research findings. The literature on corporate governance provides reasons why firm size might be an important factor in voluntary corporate governance disclosure: (i) the cost of compliance, which is more likely to be higher for small firms than large firms (MacNeil and Li, 2006); (ii) large firms have multiple lines of operations and activities, which inherently leads to greater disclosure (Jensen and Meckling, 1976; Eng and Mak, 2003); and (iii) large firms have more complex capital structure, and thus are more likely to need to engage in high levels of voluntary corporate governance disclosure in order to reduce information asymmetry (Haniffa and Cooke, 2002).

5.2 THE QUANTITATIVE RESEARCH METHODOLOGY

This section discusses the quantitative research methodology used to answer the third, fourth and fifth research sub-questions, including: (i) What are the factors that influence the level of compliance with the 2006 Saudi Corporate Governance Code (SCGC)?; (ii) What is the association between individual corporate governance mechanisms and firm financial performance?; and (iii) What is the relationship between

compliance with the 2006 SCGC and firm financial performance? In particular, it discusses the three main models examining the relationship among corporate governance mechanisms, voluntary corporate governance disclosure and financial performance. The remaining sections of the chapter are organised as follows. Section 5.3 investigates the voluntary corporate governance disclosure model, which analyses the relationship between corporate governance mechanisms and voluntary corporate governance disclosure. Section 5.4 presents the models that examine the association between corporate governance mechanisms and firm financial performance. Two main corporate governance models are employed for this particular relationship, the equilibrium-variable model, in Subsection 5.4.1, and the compliance-index model, in Subsection 5.4.2.

5.3 THE VOLUNTARY CORPORATE GOVERNANCE DISCLOSURE MODEL

This model seeks to examine the determinants of voluntary corporate governance disclosure in Saudi listed firms. Table 5.2 contains a summary of variables used in this model, while the following three subsections discuss the regression model. Specifically, Subsection 5.3.1 explains the dependent variable: the Saudi Corporate Governance Index (SCGI). Subsection 5.3.2 presents the explanatory variables, while Subsection 5.3.3 discusses the control variables.

Table 5.2: Summary of variables used for the voluntary corporate governance disclosure model

Dependent variables	
SCGI	Corporate governance (CG) compliance and disclosure index consisting of 65 provisions from the SCGC, which take a value of 1 if each corporate governance provision is disclosed, and 0 otherwise; scaled to have a value between 0% and 100%.
Independent Variables	
INDD%	Percentage of independent director members on the board of directors.
BSZ	The number of board members at the end of the financial year.
AFZ	1, if a firm is audited by a big-four audit firm (PricewaterhouseCoopers, Deloitte & Touche, Ernst & Young and KPMG), and 0 otherwise.
CGC	1, if a firm has set up a corporate governance committee, and 0 otherwise.
GONR%	Percentage of shares held by government shareholders.
IONR%	Percentage of shares held by institutional shareholders.
BONR%	Percentage of shares held by shareholders with at least 5% of the total company shareholdings.
DONR%	Percentage of shares held by director shareholders.
Control Variables	
FSZ	Natural log of the book value of a firm's assets.
SGR%	Current year's sales minus last year's sales to last year's sales.
LVG%	Ratio of total debt to total assets.
CEXC%	Percentage of total capital expenditure to total assets.
DV	1, if a firm paid dividends during the financial year, and 0 otherwise.
INDU	A dummy variable for each industry on the stock market (classified to seven industries).
YDU	A dummy variable for each year of the sample period (seven years) from 2004 to 2010, inclusive.

5.3.1 The Dependent Variable: The Saudi Corporate Governance Index (SCGI)

The Saudi Corporate Governance Index (SCGI) is used to explore the level of compliance with the Saudi Corporate Governance Code (SCGC). Also, the SCGI is the key variable used to examine the factors influencing voluntary corporate governance disclosure among Saudi listed firms. In addition, the SCGI is used to investigate the relationship between corporate governance mechanisms and firm financial performance using the compliance-index model. As shown in Table 5.3, the SCGI contains 65 corporate governance provisions covering four broad aspects (sub-indices), namely: (i) the board of directors and board sub-committees; (ii) disclosure and transparency; (iii) internal control and risk management; and (iv) the rights of shareholders and the general assembly.

The main source for constructing the index is the 2006 SCGC. However, as discussed in Chapter Two, the 2004 Listing Rules and the 1965 Companies Act are also used as additional sources for developing the index. As discussed in Section 2.4 of Chapter Two, Saudi listed firms are required to comply with these corporate governance regulations or provide justification for non-compliance, as part of the 'comply or explain' regime (SCGC, 2006, p.8). A definition and source of each provision included in the SCGI is provided in Appendix 2.

Using a corporate governance index is consistent with recent studies on developed countries (e.g., Gompers *et al.,* 2003; Chhaochharia and Grinstein, 2007; Gupta *et al.,* 2009; Bozec *et al.,* 2010; Allegrini and Greco, 2013; Al-Janadi *et al.,* 2013) and emerging countries (e.g., Black, 2001; Price *et al.,* 2011; Ntim *et al.,* 2012a; Samaha *et al.,* 2012; Munisi and Randoy, 2013; Tariq and Abbas, 2013). These studies use either self-constructed indices based on national codes (e.g., Fernandez-Rodriguez *et al.,* 2004; Price *et al.,* 2011; Allegrini and Greco, 2013) or use analysts' ratings, such as the Credit Lyonnais Securitas Asia Index (CLSA), the Report on Business index (ROB) and the index provided by Institutional Shareholders Services (ISS), which are based on general governance principles (e.g., Cheung *et al.,* 2007; Clacher *et al.,* 2008; Henry, 2008; Toledo, 2010). In line with previous studies (e.g., Ntim *et al.,* 2012a; Allegrini and Greco, 2013), the provisions of the SCGI are dominated by the most important corporate governance mechanisms, especially board of directors and board sub-committees (see Table 5.3). These provisions constitute about 54% of the total provisions (35 out of 65).

The relationship between the SCGI and voluntary corporate governance disclosure is examined by a set of explanatory variables: independent directors, board size, audit firm size, presence of a corporate governance committee, government ownership, institutional ownership, block ownership and director ownership.

The remaining part of this subsection discusses the issues related to the construction of the SCGI. Specifically, Subsection (i) investigates corporate governance disclosure and the SCGI sources. Subsection (ii) addresses the critical issues related to corporate governance indices and reasons behind the use of a self-constructed index. Subsection (iii) discusses the SCGI coding process and weighting schemes. Subsection (iv) examines the reliability and validity of the SCGI, while Subsection (v) explains the limitations of sampling and the constructed index.

i) Corporate Governance Disclosure and the SCGI Sources

There are a number of sources of information about corporate governance disclosure.[48] Knutson (1992, p.22) indicates that "*the annual report is the major reporting document and every other report is in some respect subsidiary or supplementary to it*". In the current study, the SCGI relied largely on firms' annual reports as the main source for several reasons. First, as discussed in Section 2.4 of Chapter Two, the Companies Act (Article 89) and the Listing Rules (Article 27) mandate listed firms to issue annual reports at the end of the financial year, including the board of directors' report and financial statements. Because these reports are obligatory and are followed up by the supervisory and regulatory bodies, such as the CMA and the MCI, this makes them a highly reliable source for corporate governance disclosure (Botosan, 1997; Alsaeed, 2006; Omar and Simon, 2011; Ntim *et al.,* 2012a; Tariq and Abbas, 2013).

Second, firms' annual reports are mainly directed at shareholders (Alsaeed, 2006), to whom the directors are accountable. This increases the reliability of the annual reports (Botosan and Plumlee, 2002; Samaha *et al.,* 2012). Third, the annual reports provide both financial and non-financial information, and listed firms are obliged to publish their annual reports formally on the Tadawul website. This provides full accessibility to the required data and helps in using balanced panel data. This also minimises missing data. Finally, consistent with previous studies conducted either in Saudi Arabia (e.g., Alsaeed, 2006; Al-Abbas, 2009; Al-Moataz and Hussainey, 2012; Al-Janadi *et al.,* 2013) or in other countries (e.g., Elzahar and Hussainey, 2012; Samaha *et al.,* 2012; Allegrini and Greco, 2013), the use of annual reports improves comparability.

[48] Botosan (1997), Botosan and Plumlee (2002) and Omar and Simon (2011) argue that firms' annual reports are considered to be a formal and comprehensive source of corporate governance disclosure. Quarterly and interim information and firms' websites are additional sources.

ii) Analysts' Ratings versus Self-Constructed Indices

As discussed in Subsection 5.3.1, investigation of corporate governance disclosure can be done either by using analysts' ratings or self-constructed indices. The analysts' ratings approach may be influenced by the subjectivity of the analysts evaluating the corporate governance disclosure (Bhagat and Bolton, 2008; Bozec and Bozec, 2012; Ammann *et al.*, 2013). Predominantly, such evaluations are provided by proxy-advising institutions, such as Institutional Shareholders Services (ISS), and are widespread in developed nations that introduced governance principles earlier (e.g., the 1992 Cadbury Report in the UK; the 2002 Sarbanes-Oxley Act in the US). In the case of the self-constructed index approach, researchers often develop their own corporate governance indices by extracting provisions directly from firms' annual reports (Beattie *et al.*, 2004; Elzahar and Hussainey, 2012; Ntim *et al.*, 2012a; Allegrini and Greco, 2013; Tariq and Abbas, 2013).

Using analysts' ratings has several advantages. First, the providers of these ratings are professionally experienced and knowledgeable, which may not be the case with all researchers adopting self-constructed indices (Hassan and Marston, 2010). Second, these analysts' ratings are constructed based on a wide range of disclosure sources; for example, firms' websites, quarterly reports and firms' announcements (Lang and Lundholm, 1993; Alsaeed, 2006). Third, as shown in Chapter Three, a considerable number of studies use an analysts' rating index; this facilitates comparing the results with existing studies.

Although analysts' ratings have the aforementioned advantages, the current study adopts a self-constructed index for a number of reasons. First, unlike most of the analysts' rating indices that cover certain corporate governance aspects, such as board characteristics (e.g., Yermack, 1996) and ownership structure (e.g., Chung and Zhang, 2011), the SCGI is designed to include most corporate governance aspects using a broadly constructed index consisting of 65 provisions, categorised into board of directors and board sub-committees, disclosure and transparency, internal control system, and rights of shareholders and the general assembly. Consequently, this may help fully assess corporate governance practices among the listed firms.

Second, the selected provisions for analysts' rating can be affected by analysts' views (Bhagat and Bolton, 2008; Bozec and Bozec, 2012; Ammann *et al.*, 2013). However, using a local governance code to select the provisions makes the SCGI more reliable and objective (Lang and Lundholm, 1993; Omar and Simon, 2011). Furthermore, some analysts' ratings were developed based on surveys, such as the Corporate Governance Rate (CGR) developed by Drobetz *et al.* (2004). These ratings may be biased

due to firms overestimating or under-reporting the quality of their governance (Bozec and Bozec, 2012). In contrast, the SCGI is coded manually by the researcher and is directly extracted from the firms' annual reports, which arguably offer a more reliable source (see Omar and Simon, 2011).

Third, indices provided by proxy-advising institutions, such as CLSA and ROB, are confined to certain industries, and focus on the largest publicly traded firms (e.g., Klein *et al.,* 2005; Koehn and Ueng, 2005; Chhaochharia and Grinstein, 2007; Epps and Cereola, 2008; Chen *et al.,* 2009). On the other hand, adopting a self-constructed index with firms of different sizes avoids the possibility of sample bias and improves the generalisability (Omar and Simon, 2011). Additionally, all industries are embedded to ensure low cross-sectional variation in corporate governance disclosure (Ntim *et al.,* 2012a).

Fourth, prior studies that use analysts' ratings do not take into account the variances in the external governance mechanisms and legal systems among countries (Bauer *et al.,* 2004; Klapper and Love, 2004; Renders *et al.,* 2010; Piesse *et al.,* 2012; Kim and Lu, 2013; Robertson *et al.,* 2013). Therefore, using the Saudi governance code illustrates how the SCGI considers these relevant. Furthermore, as most analysts' ratings were constructed on developed countries (Ammann *et al.,* 2011), it may not be appropriate to use their provisions in the Saudi context; for example, the US adopts a 'comply or else' regime. In addition, the CLSA rating, which includes a number of Asian countries, may not be feasible to adopt in Saudi Arabia because of cultural and institutional differences. Finally, analysts' ratings are not frequently updated according to the ongoing developments in corporate governance across countries (Hassan and Marston, 2008).

iii) The SCGI Scoring and Weighting Schemes

There are two widely-used approaches for scoring voluntary corporate governance disclosure indices (Beattie *et al.,* 2004). These are binary coding and weighted scoring. A simple binary coding scheme is often adopted for scoring a corporate governance disclosure index extracted from firms' annual reports (Beattie *et al.,* 2004; Ntim *et al.,* 2012a). A large number of studies use this approach, whether these are conducted on developed countries (e.g., Gompers *et al.,* 2003; Ammann *et al.,* 2013) or developing countries (e.g., Haniffa and Cooke, 2002; Ntim *et al.,* 2012a; Samaha *et al.,* 2012). This method relies on examining the presence or absence of corporate governance provisions. The provision is scored 1 if it is disclosed in the firm's annual report and 0 otherwise. Weighted corporate governance provisions distinguish the influence of each item and assign a different weight based on the importance of the provisions. Weightings of

corporate governance provisions can be developed by surveys of expert analysts and specialists (Beattie *et al.,* 2004; Hassan and Marston, 2010).

The current study adopts the binary scoring scheme despite criticism of this approach, including: (i) unlike weighted scoring, binary coding does not allow for assessing the quality of disclosed information (Beattie *et al.,* 2004; Allegrini and Greco, 2013; Tariq and Abbas, 2013); and (ii) the binary scoring method does not pay attention to variation in the importance of provisions (Hassan and Marston, 2010). There are six main reasons that justify using the binary scoring scheme rather than weighted coding. First, as shown in Table 5.3, the provisions of the SCGI are generally tested by asserting their existence or absence. Therefore, using the binary scoring scheme seems to be appropriate to examining the level of compliance with the SCGC's provisions. Appendix 3 presents a sample of coded provisions (first 10 out of 65) for the first five firms in alphabetical order. This shows the procedure of coding corporate governance provisions for all 560 firm-year annual observations (80 firms over seven years).

Second, in line with Ntim *et al*. (2012a), the coding mechanism in this study is designed to measure the qualitative differences in corporate governance information across the firms' annual reports. Some studies (e.g., Barako *et al.,* 2006; Tsamenyi *et al.,* 2007; Samaha *et al.,* 2012) assign a point if a firm has board sub-committees, such as an audit committee. However, the developed index seeks to measure other corporate governance mechanisms associated with the board sub-committees. More precisely, the company gains one point if the audit committee exists, and gets another point if the chairperson of the committee is independent. Furthermore, it is given another point if the majority of committee members are non-executive (see Table 5.3).

Third, different from weighted coding, binary scoring is often less biased, given that it does not need the researcher's judgement to give weight to the provisions (Beattie *et al.,* 2004; Hassan and Marston, 2010). Therefore, this helps in constructing an objective index. More precisely, there are two critical issues related to the use of weighted coding: (i) the required a lot of subjectivity and judgment, but the skill required that junior researchers may not have, and thus can put the reliability the resulting constructed index into question; and (ii) constructing a weighted index requires the use of experts opinion, which can be costly in terms of time and finance (Beattie *et al.,* 2004).

Fourth, for the weighted index, there is no theoretical base to measure the weight of the provisions and give different weights to each provision (Barako *et al.,* 2006). To overcome the problem of weighting the index, the study has taken a number of steps: (i) the corporate governance index is extended to 65 provisions, which reduces the disparity

between the weight of the provisions (Beattie *et al.,* 2004); and (ii) the study classified the 65 provisions into four sub-sets. Specifically, the index consists of board of directors and board sub-committees (35 provisions, 54%), disclosure and transparency (16 provisions, 25%), internal control system (6 provisions, 9%), and rights of shareholders and general assembly (8 provisions, 12%). Finally, using an un-weighted index is consistent with most corporate governance disclosure studies (e.g., Alsaeed, 2006; Barako *et al.,* 2006; Ntim *et al.,* 2012a; Samaha *et al.,* 2012), which improves the comparability of the findings with these studies.

Table 5.3: Full list of the Saudi Arabian corporate governance disclosure index provisions based on the SCGC

Corporate governance disclosure index (SCGI)				
SCGI theme/type		**SCGI item**	**Range of scores**	**Total score per them**
(i) Board of Directors and Board Sub-Committees		**Board of directors**		
	1.	Whether the roles of chairperson and CEO are split	0-1	
	2.	Whether the chairperson is an independent	0-1	
	3.	Whether the majority of directors are non-executive	0-1	
	4.	Whether directors are clearly classified into executive, NED and independent.	0-1	
	5.	Disclosure of directors' biography	0-1	
	6.	Drafting policies of board and committees appointment	0-1	
	7.	Whether directors' membership on other firms' boards is disclosed	0-1	
	8.	Whether board of directors are not act as a member of board of directors of more than five listed firms	0-1	
	9.	Whether the board of directors' meetings are disclosed	0-1	
	10.	Whether individual directors' meeting records are disclosed	0-1	
		Audit committee		
	11.	Whether the committee has been established	0-1	
	12.	Whether the committee's jurisdiction is disclosed	0-1	
	13.	Whether the committee is composed of a sufficient number of non-executives	0-1	
	14.	Whether the committee chairperson is disclosed	0-1	
	15.	Whether the committee chairperson is independent	0-1	
	16.	Whether the committee comprises at least three members	0-1	35
	17.	Whether the committee members are disclosed	0-1	
	18.	Whether the committee meetings are disclosed	0-1	
	19.	Whether the committee meetings record is disclosed	0-1	
		Nomination committee		
	20.	Whether the committee has been established	0-1	
	21.	Whether the committee's jurisdiction is disclosed	0-1	
	22.	Whether the committee is composed of a sufficient number of non-executives	0-1	
	23.	Whether the committee chairperson is disclosed	0-1	
	24.	Whether the committee chairperson is independent	0-1	
	25.	Whether the committee members are disclosed	0-1	
	26.	Whether the committee meetings are disclosed	0-1	
	27.	Whether the committee meetings record is disclosed	0-1	
		Remuneration committee		
	28.	Whether the committee has been established	0-1	
	29.	Whether the committee's jurisdiction is disclosed	0-1	
	30.	Whether the committee is composed of a sufficient number of non-executive members	0-1	
	31.	Whether the committee chairperson is disclosed	0-1	
	32.	Whether the committee chairperson is independent	0-1	

Table 5.3: Full list of the Saudi Arabian corporate governance disclosure index provisions based on the SCGC

Corporate governance disclosure index (SCGI)				
SCGI theme/type		**SCGI item**	**Range of scores**	**Total score per them**
	33.	Whether the committee members are disclosed	0-1	
	34.	Whether the committee meetings are disclosed	0-1	
	35.	Whether the committee meetings record is disclosed	0-1	
(ii) Disclosure and Transparency	36.	Whether the firm's ownership structure is disclosed	0-1	
	37.	Whether the firm's directors own at least 1,000 firm shares	0-1	
	38.	Whether the board's detailed compensation is disclosed	0-1	
	39.	Whether the board's compensation exceeds the maximum	0-1	
	40.	Whether the CEO's compensation is disclosed	0-1	
	41.	Whether the top management's compensation is disclosed	0-1	
	42.	Whether the firm's operation performance is disclosed	0-1	
	43.	Whether the firm's loans are disclosed	0-1	
	44.	Whether the performance of five-year are compared	0-1	16
	45.	Whether the firm's strategies and objectives are disclosed	0-1	
	46.	Whether the principal activities of the firm are disclosed	0-1	
	47.	Whether the policy of dividends is disclosed	0-1	
	48.	Whether the related party transactions are disclosed	0-1	
	49.	Whether the firm is subjected to punishment by a supervisory body	0-1	
	50.	Whether a narrative as a going concern is provided	0-1	
	51.	Whether a narrative regarding compliance/non-compliance with SCGC is provided	0-1	
(iii) Internal Control and Risk Management	52.	Whether the result of auditing the effectiveness of the internal control system is disclosed	0-1	
	53.	Whether the firm has clear control procedures for risk management	0-1	
	54.	Whether the risks facing the firm are disclosed	0-1	
	55.	Whether the financial reports are approved by the board of directors, CEO and CFO	0-1	6
	56.	Whether the firm provides a statement about not departing from the accounting standards	0-1	
	57.	Whether the firm drafted a corporate governance code	0-1	
(iv) Rights of Shareholders and General Assembly (GA)	58.	Whether the GA meets at least once a year	0-1	
	59.	Whether the GA meeting agenda was disclosed on the Tadawul website	0-1	
	60.	Whether the shareholders have the right to appoint others to attend the GA on their behalf	0-1	
	61.	Whether the firm applies a one vote one share policy	0-1	
	62.	Whether the firm announces a GA meeting at least 20 days prior to the date of the meeting	0-1	8
	63.	Whether the firm immediately informs the Stock Exchange website about the results of the GA meeting	0-1	
	64.	Whether the GA convenes within six months following the end of the firm's financial year	0-1	
	65.	Whether the firm discloses social contributions	0-1	
Total		**65 SCGI**		65

Source: Constructed by the researcher.

iv) Reliability and Validity of the Constructed Index

Two particular concerns regarding measuring the quality of the instrument are reliability and validity (Sekaran, 2003; Saunders *et al.*, 2007; Omar and Simon, 2011; Allegrini and Greco, 2013). These two important issues are discussed in this subsection. Reliability is defined as "*the ability of a measurement instrument to reproduce consistent*

results on repeated measurements" (Hassan and Marston, 2010, p.24); in other words, the ability of an instrument to measure consistently. In this context, two related issues are discussed to assess the reliability of the coding procedure: stability and consistency (Sekaran, 2003).

Stability refers to the ability of the measurement to be repeated, with the results sustained over time. For example, the constructed index is stable if it can be repeated by the same researcher over time (Sekaran, 2003). Consistency, on the other hand, is the extent to which all subparts of a measurement instrument are measuring the same thing (Hassan and Marston, 2010).

There are three common ways of examining the reliability of the disclosure index: (i) inter-coder reliability; (ii) test-retest; and (iii) internal consistency (Sekaran, 2003; Hassan and Marston, 2010). Inter-coder reliability is when the coding results are similar after coding has been performed by more than one coder. Test-retest reliability is used to ensure the stability of the measuring instrument, and internal consistency measures consistency in reliability. In the current study, the developed disclosure index, test-retest and internal consistency methods were employed to improve the reliability of the developed disclosure index. However, inter-coder reliability could not be employed because this study was carried out by a single researcher.

Three steps were followed to ensure the stability of the scoring when using the test-retest form. First, the entire contents of the annual reports of each firm from 2004 to 2010 were read before starting the coding procedure. This assisted in identifying the applicable and non-applicable items in the annual reports (Omar and Simon, 2011). Second, seven years worth of data was coded for each firm respectively. This method made it easier to read the annual reports constantly and accurately. The first round of coding lasted five months, from April to August 2011. Third, after scoring the annual reports of all firms (560 observations), re-reading the annual reports ensured no relevant corporate governance information was missed (Omar and Simon, 2011). Highlighting the captured corporate governance provisions in the annual reports during the first round of coding facilitated re-reading and thus maximised the scoring accuracy. The second round of coding involved re-reading all 560 annual reports. The second round of coding lasted for six weeks in August and September 2011. In general, the results of the second round showed largely similar results with the first round, which proves the stability of the coding procedure.

Internal consistency is another popular technique for assessing the reliability of a measurement (Hassan *et al*., 2009). The common statistical measure to examine internal consistency is Cronbach's alpha, which shows whether the different items (groups/indices)

complement each other in constructing a reliable measurement (Hassan and Marston, 2010). The Cronbach's alpha value falls between 0 and 1; the higher the coefficient value of alpha obtained, the higher the reliability. An alpha value over 0.80 suggests that the entire test is internally consistent (Allegrini and Greco, 2013). In line with Lapointe-Antunes *et al*. (2006), Hassan *et al*. (2009) and Allegrini and Greco (2013), the current study uses Cronbach's alpha test for measuring the reliability of the constructed index using SPSS software. As shown in Table 5.4, the Cronbach's alpha value is about 83%, indicating high reliability of the disclosure index. Furthermore, as shown in the table, the values of "Cronbach's alpha if item deleted" show that excluding/deleting any part of the index (sub-indices) can significantly harm the reliability of the index.

Table 5.4: Cronbach's alpha for reliability test

Sub-indices of SCGI	No. of provisions	Corrected item – Total correlation	Cronbach's alpha value	Cronbach's alpha if item deleted
1-Board of Directors and Board Sub-Committees	35	0.813	0.827	0.702
2-Disclosure and Transparency	16	0.804		0.706
3-Internal Control and Risk Management	6	0.722		0.749
4-Rights of Shareholders and General Assembly (GA)	8	0.340		0.891

Validity is also a very important issue in measuring quality of the instrument. Validity is defined as: "*the extent to which data collection methods accurately measure what they were intended to measure*" (Saunders *et al.*, 2007, p.614). In other words, the index is valid if it exhibits the same thing that the researcher intends (Marston and Shrives, 1991; Omar and Simon, 2011). There are generally three issues related to validity: (i) criterion-related validity; (ii) content validity; and (iii) construct validity (Saunders *et al.*, 2007; Hassan and Marston, 2010). Criterion-related validity "*is established when the measure differentiates individuals on a criterion it is expected to predict*" (Sekaran, 2003, p.206). Content validity indicates that the measure is adequate and representative of the set of items (Sekaran, 2003). Construct validity is the validity of inferences that are actually represented by measurement instrument (Sekaran, 2003).

In this study, the validity of the corporate governance disclosure index was improved using three methods. First, the corporate governance disclosure index was constructed by the researcher instead of using analysts' ratings. This enables the index to reflect accurately on the corporate governance practices among Saudi listed firms.

Furthermore, the main sources of the index are the Saudi corporate governance regulations. These improve the content validity of the constructed index.

Second, the disclosure index was developed to enhance the construct validity by paying close attention to the board of directors' provisions. This is also consistent with many corporate governance disclosure studies (e.g., Barako *et al.*, 2006; Tsamenyi *et al.*, 2007; Ntim *et al.*, 2012a). In this constructed index, about 54% of the items cover the board of directors and board sub-committee structures. Third, the checklist was improved through revising the draft twice before making it final, to enhance the criterion and content validity. These two revisions were conducted in two stages: (i) the draft governance provisions were discussed in annual doctoral conferences,[49] where comments were received from experienced researchers in the field of corporate governance and disclosure; and (ii) the draft governance provisions were also carefully revised based on comments and discussions with the researcher's experienced supervisors.

v) The Limitations of Sampling and the Constructed Index

Despite attempts to improve the reliability and validity of the constructed corporate governance disclosure index, a number of limitations were identified. First, the constructed index uses a binary coding method that considers all corporate governance provisions as equally important. Therefore, the validity of the developed index could have been improved if a weighted index had been used. Second, the reliability of the disclosure index could have been improved if the index was re-coded by another researcher, using the inter-coder consistency form (Hassan and Marston, 2010). Inter-coder consistency could not be implemented because this study was conducted by a single researcher.

Third, despite the final sample of 80 Saudi listed firms over a seven year period being large compared with other studies conducted on Saudi Arabia (e.g., Alsaeed, 2006; Al-Abbas, 2009; Hussainey and Al-Nodel, 2008; Al-Nodel and Hussainey, 2010; Alzharani *et al.*, 2011; Ezzine, 2011; Al-Moataz and Hussainey, 2012; Al-Moataz and Lakhal, 2012; Al-Janadi *et al.*, 2013), the generalisability of the findings could be improved if all of the 145 firms listed in December 2010 were used. As discussed in Subsection 5.1.3, a number of criteria determined the final sample of 80 listed firms. Fourth, in line with prior literature, the current study relied mainly on firms' annual reports to obtain corporate governance information (e.g., Botosan and Plumlee, 2002; Ntim *et al.*, 2012a; Samaha *et al.*, 2012). However, there are other sources, such interim reports, which

[49] Presentations were made at the 2011 Welsh Accounting and Finance Workshop, the 2011, 2012 and 2013 British Accounting and Finance Doctoral Colloquia, and the 2012 Scottish Doctoral Colloquia.

could provide additional data for coding the disclosure index (Beattie *et al.*, 2004; Hassan and Marston, 2010; Omar and Simon, 2011). Finally, the designed disclosure index does not involve measuring stakeholders' behaviour, such as interactions between the board of directors and management, or between the board of directors and shareholders. This is because firms' annual reports do not include such information.

5.3.2 The Main Explanatory Variables: Corporate Governance Mechanisms

As suggested by corporate governance literature, board of directors' characteristics and ownership structure represent the main factors influencing the level and quality of corporate governance disclosure (Ho and Wong, 2001; Haniffa and Cooke, 2002; Eng and Mak, 2003; García-Meca and Sánchez-Ballesta, 2010; Chalevas, 2011; Allegrini and Greco, 2013; Ntim and Soobaroyen, 2013). Therefore, in line with these studies, this model employed two main sets of variables as explanatory variables: corporate board structure and ownership structure (see Table 5.2).

The corporate board of directors' characteristics variables include: independent directors (*INDD*), board size (*BSZ*), audit firm size (*AFZ*) and presence of corporate governance committee (*GCC*). The current study follows previous studies to define and measure these explanatory variables (see Table 5.2). The second set of explanatory variables constitutes ownership structure. These variables consist of four types of ownership: government ownership (*GONR*), institutional ownership (*IONR*), block ownership (*BONR*) and director ownership (*DONR*). These ownership structures are defined and measured according to previous empirical studies that examine voluntary corporate governance disclosure (see Table 5.2). Both theoretical and empirical literature regarding the relationship between these mechanisms and corporate governance disclosure are, therefore, reviewed in Section 3.3 in Chapter Three.

5.3.3 The Control Variables: Firm Characteristics

This study employed a number of control variables to reduce potential omitted variables bias (Ntim *et al.*, 2012a and b). These variables are firm size (*FSZ*), firm growth (*SGR*), leverage (*LVG*), capital expenditure (*CEXC*), Dividends (*DV*), industry dummies (*INDU*) and year dummies (*YDU*). Table 5.2 shows definitions and how control variables are measured. The variables were chosen based on theoretical expectation, and are in line with previous empirical studies examining the relationship among corporate governance, voluntary corporate governance disclosure and firm performance. Arguably, there may be other variables that can influence voluntary corporate governance disclosure and financial

performance, which are not included in the used model. More precisely, there are three reasons for limiting the study to these variables: (i) some variables lack a theoretical link with voluntary corporate governance disclosure and financial performance; (ii) non-availability of data, which limits the use of other variables; and (iii) it is in line with prior studies that widely use these specific variables, which can facilitate comparison of the findings with those of previous studies.

The next subsection discusses the theoretical basis for selecting the control variables and the empirical evidence from previous studies.

i) Firm Size (FSZ)

Firm size is an important factor influencing good corporate governance practices and firm financial performance (Eisenberg *et al.*, 1998; Samaha *et al.*, 2012). Larger firms have greater agency problems due to the complexity of their capital structure (Jensen and Meckling, 1976; Bebchuk and Weisbach, 2010). Therefore, they are more likely to improve voluntary corporate governance disclosure in order to reduce information asymmetry (Jensen and Meckling, 1976; Eng and Mak, 2003). However, Klapper and Love (2004) argue that smaller firms tend to improve corporate governance practices due to the greater potential for growth and to obtain external financing.

Empirically, prior studies have indicated a positive relationship between firm size and voluntary corporate governance disclosure (e.g., Eng and Mak, 2003; Alsaeed, 2006; Omar and Simon, 2011; Elzahar and Hussainey 2012; Ntim *et al.*, 2012a; Samaha *et al.*, 2012; Allegrini and Greco, 2013). Thus, it is hypothesised that there is a positive relationship between firm size (*FSZ*), as proxied by the natural log of the book value of a firm's assets, and corporate governance practices/firm financial performance.

ii) Firm Growth (SGR)

Theoretically, the growth of a firm is accompanied by an increase in its business activities (Henry, 2008). Consequently, growth in firms implies an increased need for external capital (Beiner *et al.*, 2006; Chung and Zhang, 2011). To reduce financing costs, growing firms may need to improve their corporate governance practices (Klapper and Love, 2004; Bozec *et al.*, 2010). Furthermore, the growth of a firm is usually accompanied by the presence of a good management team and an active board of directors that attracts potential investors (Chen, 2011). Those investors may demand an increase in voluntary corporate governance disclosure to protect their investments (Eng and Mak, 2003; Allegrini and Greco, 2013).

Empirically, existing studies support the above argument and find a positive and significant relationship among firm growth, voluntary corporate governance disclosure and firm performance (e.g., Gompers *et al.*, 2003; Haniffa and Hudaib, 2006; Henry, 2008; Laidroo, 2009; Ntim and Soobaroyen, 2013). Therefore, it is hypothesised that the relationship between firm growth (*SGR*), as proxied by the growth of sales, and corporate governance disclosure/firm performance is expected to be positive.

iii) Leverage (LVG)

Agency theory suggests that a higher level of debt raises the 'free cash flows' that may increase the agency problem (Jensen,1986). Haniffa and Cooke (2002) argue that firms' existing debt may help the board of directors in their monitoring role. More precisely, banks prefer to lend to firms that have high levels of accountability and transparency. Similarly, borrowing firms may seek to increase their disclosure and enhance transparency to reduce financing costs (Klapper and Love, 2004; Bozec *et al.*, 2010). Thus, firms with higher leverage are more likely to disclose corporate governance information to legitimise their actions to creditors (Ntim and Soobaroyen, 2013).

Empirical studies find mixed results in examining the relationship between leverage and voluntary corporate governance disclosure. Some studies suggest a positive relationship (e.g., Alsaeed, 2006; Barako *et al.*, 2006; Omar and Simon, 2011). However, other studies find that the impact of leverage on voluntary corporate disclosure is weak (e.g., Ho and Wong, 2001; Haniffa and Cooke, 2002; Akhtaruddin *et al.*, 2009; Ntim *et al.*, 2012a; Samaha *et al.*, 2012; Allegrini and Greco, 2013). Other studies suggest a negative relationship between leverage and firm financial performance (Haniffa and Hudaib, 2006; Jackling and Johl, 2009; Mangena *et al.*, 2012). After looking at the mixed findings, it is hypothesised that there is a statistical relationship between leverage (*LVG*), as proxied by percentage of the increasing debt used to finance firms' assets, and voluntary corporate governance disclosure/firm performance.

iv) Capital Expenditure (CEXC)

The corporate governance literature suggests that capital expenditure is related with firm growth (Pfeffer, 1972; Pearce and Zahra, 1992). Because of the existence of firm growth, it appears that there is a need to increase expenditure. This requires more monitoring by the board of directors and enhanced accountability to protect shareholders' wealth (Nicholson and Kiel, 2007; Conyon and He, 2011). Therefore, theoretically, an

increase in capital expenditure may improve corporate governance practices and firm financial performance.

Empirically, prior literature suggests the existence of a weak relationship between capital expenditure and voluntary corporate governance disclosure (Ntim and Soobaroyen, 2013). On the other hand, mixed findings appear upon examining the relationship between capital expenditure and firm performance. Weir *et al*. (2002), Hossain *et al*. (2001) and Haniffa and Hudaib (2006) find a positive relationship between capital expenditure and firm performance. However, Jackling and Johl (2009) and Mangena *et al*. (2012) find a negative relationship. Thus, it is hypothesised that there is a statistical relationship between capital expenditure (*CEXC*), as proxied by the percentage of total capital expenditure to total assets, and corporate governance practices/firm financial performance.

v) Dividends (DV)

Adjaoud and Ben-Amar (2010) argue that firms with high dividends may disclose more corporate governance information. Agency and managerial signalling theories provide three forms of empirical support: (i) to justify the payment of compensation, managers of profitable firms may increase disclosure (Ntim and Soobaroyen, 2013); (ii) to display the firm's financial ability and contribution to society (Ntim *et al.*, 2012a); and (iii) to gain shareholders' confidence and attract potential investors (Haniffa and Cooke, 2002). Empirically, some corporate governance studies support the positive relationship between dividends and good governance practices (e.g., Archambault and Archambault (2003); Adjaoud and Ben-Amar (2010). Therefore, it is hypothesised that there is a statistically significant association between dividends and corporate governance practices/firm financial performance. Firm dividends is measured by a dummy variable that takes a value of 1 if a firm paid dividends during the financial year, and 0 otherwise.

vi) Industry Dummies (INDU)

The level of compliance with corporate governance standards and firm performance differs among firms based on industry (Haniffa and Cooke, 2002; Hussainey and Al-Nodel, 2008). This variation can be attributed to differences in financing structure, ownership structure and business nature (Hussainey and Al-Nodel, 2008). Moreover, there is variation in the regulations between industries, where some are subject to additional rules (Tsamenyi *et al*., 2007). For example, some firms whose operations have the potential to damage the environment, such as oil and gas, are obliged to disclose more information about their operations (Arcay and Vazquez, 2005).

Consistent with prior literature (e.g., Haniffa and Cooke, 2002; Barako *et al.*, 2006; Ntim *et al.*, 2012a; Samaha *et al.*, 2012), this study includes industry dummies as control variables to capture potential and unobserved industry type heterogeneity. The designed model includes six industry dummies so that the dummy variable trap could be avoided.

vii) Year Dummies (YDU)

The literature indicates that voluntary corporate governance disclosure and firm performance vary across firms over years (e.g., Conyon, 1994; Haniffa and Hudaib, 2006; Chalevas, 2011). For instance, Conyon conducted a survey of 400 UK listed firms and found firms complied more in some years than others. This positive relationship is supported by Chalevas (2011), who suggests that the level of voluntary corporate governance disclosure among Greek listed firms improved over the four years from 2000 to 2003. Similarly, Ntim *et al*. (2012a) conduct a study on 169 South African listed firms between 2002 and 2006, and find that compliance with King II is related to time.

Furthermore, the global economy may has an impact on a firm's voluntary corporate governance disclosure and performance. For example, the profits of many international firms were affected negatively by the economic global recession in 2008. This led them to disclose more about the repercussions of the crisis on their firm's performance (Mangena *et al.*, 2012). Therefore, year dummy variables are included in the model to capture potential unobserved firm-level heterogeneity over the seven-year period from 2004 to 2010 (e.g., Haniffa and Cooke, 2002; Barako *et al.*, 2006; Ntim *et al.*, 2012a; Samaha *et al.*, 2012). Six year dummy variables are included in the model to avoid the dummy variable trap.

Following prior literature, and assuming that all relations are linear, OLS regression is employed to investigate whether variations in the SCGI are explained or predicted (i.e., to answer the third research sub-question) by the above variables, as follows:

Model 1

$$SCGI_{it} = \alpha_0 + \beta_1 INDD_{it} + \beta_2 BSZ_{it} + \beta_3 AFZ_{it} + \beta_4 CGC_{it} + \beta_5 GONR_{it} + \beta_6 IONR_{it} + \beta_7 BONR_{it} + \beta_8 DONR_{it} + \sum_{i=1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it} \quad (1)$$

Where

SCGI	The constructed Saudi Corporate Governance Disclosure Index
a_0	Constant term
INDD	Independent directors
BSZ	Board size
AFZ	Audit firm size
CGC	Presence of corporate governance committee
GONR	Government ownership
IONR	Institutional ownership
BONR	Block ownership
DONR	Director ownership
CONTROLS	Control variables for firm size (*FSZ*), firm growth (*SGR*), capital expenditure (*CEXC*), leverage (*LVG*), dividends (*DV*), industry dummies (*INDU*) and year dummies (*YDU*)
ε	Error term or residual

The following section describes the details of two models exploring the relationship between corporate governance mechanisms and firm financial performance (i.e., to answer the fourth and fifth research sub-questions).

5.4 CORPORATE GOVERNANCE MECHANISMS AND FIRM FINANCIAL PERFORMANCE MODELS

This section investigates the constructed models to examine the relationship between corporate governance mechanisms and firm financial performance. Two models are adopted to examine this particular association: the equilibrium-variable model, to answer the fourth research sub-question, and the compliance-index model, to answer the fifth research sub-question.[50] This section is organised as follows. Subsection 5.4.1 discusses the variables used in the equilibrium-variable model, and Subsection 5.4.2 investigates the developed compliance-index model.

[50] Section 3.3 of Chapter Three discusses the differences between these two models. A number of studies use the equilibrium-variable model to examine the relationship between individual corporate governance mechanisms and firm performance (e.g., Vafeas and Theodorou, 1998; Weir and Laing, 2000; Haniffa and Hudaib, 2006; Mangena *et al*., 2012). In contrast, some recent studies adopt the compliance-index model as a set of provisions to examine this particular relationship (e.g., Black, 2001; Gompers *et al*., 2003; Cremers and Nair, 2005; Morey *et al.*, 2009; Bauer *et al*., 2010; Renders *et al.*, 2010; Giroud and Mueller, 2011; Black and Kim, 2012; Ammann *et al.*, 2013; Munisi and Randoy, 2013; Tariq and Abbas, 2013; van Essen *et al*., 2013). Thus, the two different models assist in exploring the differences in findings and their implications.

5.4.1 The Equilibrium-Variable Model

5.4.1.1 The Dependent Variables: Financial Performance

To examine the relationship between corporate governance mechanisms and firm financial performance, two different financial performance measures are used: return on assets (ROA), as an accounting-based measure, and Tobin's Q (Q-ratio), as a market-based measure. Table 5.5 describes the variables used in the model.

The current study adopts two different measures for three main reasons. First, there appears to be a lack of consensus in the literature about the optimal measurement to evaluate firm financial performance (Mangena *et al.,* 2012). Therefore, this study focuses on ROA and Q-ratio, as they are more widely used in corporate governance studies (e.g., Klapper and Love, 2004; Haniffa and Hudaib, 2006; Andres and Vallelado, 2008; Bhagat and Bolton, 2008; Gupta *et al.,* 2009; Jackling and Johl, 2009; Bruno and Claessens, 2010; Renders *et al.,* 2010; Price *et al.,* 2011; Mangena *et al.,* 2012; Munisi and Randoy, 2013). Second, these two measures were adopted to improve comparability with existing studies. Third, using the accounting and market-based measures provides a robustness check for the results (see Haniffa and Hudaib, 2006; Mangena *et al.,* 2012; Ntim *et al.,* 2012b). Therefore, ROA and Q-ratio, as firm performance proxies, help in measuring the impact of corporate governance mechanisms on both accounting and market performance.

ROA is used to measure how a firm's profitability is relative to its total assets (the efficiency of management in using assets to generate earnings) (Haniffa and Hudaib, 2006). It is calculated as the operating profit divided by the value of total assets (Yermack, 1996; Munisi and Randoy, 2013). From an agency theory perspective, higher ROA indicates effective use of company assets in achieving the greatest return for shareholders (Haniffa and Hudaib, 2006).

Using the ROA ratio has a number of advantages. Lev and Sunder (1979) argue that financial performance expressed in the form of ratios act as control for the systematic effect of size on the variables under examination. Also, Mangena *et al*. (2012) argue that ROA is a more powerful operating financial measure than other accounting measures, such as return on equity (ROE), because ROA possesses distributional properties. For example, a firm's total assets are strictly positive, but equity can be negative or zero. This measure is also commonly used as a dependent variable in previous corporate governance studies (e.g., Haniffa and Hudaib, 2006; Bhagat and Bolton, 2008; Price *et al.,* 2011; Mangena *et al.,* 2012; Ntim *et al.,* 2012b; Munisi and Randoy, 2013). Despite the aforementioned advantages of ROA, it can be noted that ROA has received some criticism for: (i) being dependent on the estimated value of a firm's assets; (ii) the use of ROA as a measure has

been criticized because the value of assets can change based on changes in accounting policies (i.e., depreciation rates); and (iii) the possibility of being manipulated by companies' management (Lev and Sunder, 1979).

Tobin's Q indicates the ratio of a firm's market value to its replacement cost (Ammann *et al.,* 2011 and 2013). Following prior studies and as shown in Table 5.5, it is calculated as (a firm's total assets minus total book value of equity plus total market value) divided by total assets (e.g., Haniffa and Hudaib, 2006; Mangena *et al.,* 2012). Tobin's Q helps measure the impact of corporate governance practices on improving shareholders' market returns (Klapper and Love, 2004; Gupta *et al.,* 2009).

Table 5.5: Summary of variables used for the equilibrium-variable model

Dependent variables	
ROA	Percentage of operating profit to total assets value.
Tobin's Q	Ratio of total assets minus book value of equity plus market value of equity to total assets.
Independent Variables	
BDUAL	1 if the roles of chairperson and CEO of the firm are split; 0 otherwise.
INDD%	Percentage of independent directors on the board of directors.
BSZ	Number of board members at the end of the financial year.
BFM	Number of board meetings during the current financial year.
BCOM	1 if a firm has three board sub-committees, including audit, remuneration and nomination; 0 otherwise.
DONR%	Percentage of shares held by director shareholders.
Control Variables	
FSZ	Natural log of the book value of a firm's assets.
SGR%	Current year's sales minus last year's sales to last year's sales.
LVG%	Ratio of total debt to total assets.
CEXC%	Percentage of total capital expenditure to total assets
DV	1if a firm paid dividends during the financial year; 0 otherwise.
INDU	A dummy variable for each industry on the stock market (classified to seven industries).
YDU	A dummy variable for each year of the sample period (seven years) from 2004 to 2010, inclusive.

Although Tobin's Q is a commonly used measure of financial performance in corporate governance studies (e.g., Cremers and Nair, 2005; Haniffa and Hudaib, 2006; Renders *et al.,* 2010; Mangena *et al.,* 2012; Ntim *et al.,* 2012b; Ammann *et al*., 2013), it has faced some criticism. For example, just because a company has a high market value does not necessarily mean that its directors are efficient in managing the firm's assets (Beattie and Thomson, 2007). Consequently, speculation about certain companies may lead to some of them being overvalued. As with ROA, Q-ratio is also affected by unfair assessment of a firm's assets (Lev and Sunder, 1979). Moreover, the market value of firms is closely associated with the status of the global economy; a recession may adversely influence financial markets (Mangena *et al.,* 2012). To overcome these limitations in both proxies, the current study uses a set of control variables that take into account the influences of industry, time, leverage and growth on firm financial performance.

5.4.1.2 The Explanatory Variables: Individual Corporate Governance Mechanisms

As discussed in Chapter Three, an effective board of directors is essential to firm financial performance (Goodstein *et al.,* 1994; Monks and Minow, 2011; Chen and Chen, 2012). Therefore, the selected explanatory variables include CEO duality (*BDUAL*), proportion of independent directors (*INDD*), corporate board size (*BSZ*), frequency of board meetings (*BFM*), presence of board sub-committees (*BCOM*) and director ownership (*DONR*). These variables are defined and measured in line with existing studies, as shown in Table 5.5. Section 3.4 in Chapter Three discusses both theoretical and empirical literature regarding the relationship between these mechanisms and firm financial performance.

5.4.1.3 The Control Variables: Firm Characteristics

The control variables used in the equilibrium-variable model to examine the relationship between corporate governance mechanisms and firm financial performance are firm size (*FSZ*), firm growth (*SGR*), leverage (*LVG*), capital expenditure (*CEXC*), dividends (*DV*), industry dummies (*INDU*) and year dummies (*YDU*). Subsection 5.3.3 explains the rationale for selecting these particular variables. Following prior corporate governance studies, it is assumed that all relationships are linear; OLS regression is employed to investigate whether firm financial performance is explained (i.e., to answer the fourth research sub-question) by the above variables using the equilibrium-variable model, as follows:

Model 2

$$FP_{it} = \alpha_0 + \beta_1 BDUAL_{it} + \beta_2 INDD_{it} + \beta_3 BSZ_{it} + \beta_4 BFM_{it} + \beta_5 BCOM_{it} + \beta_6 DONR_{it} + \sum_{i=1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it} \quad (2)$$

Where

FP	Firm financial performance measured by return on assets (ROA), as an accounting-based measure, and Tobin's Q (Q-ratio), as a market-based measure
a_0	Constant term
BDUAL	Role duality
INDD	Independent directors
BSZ	Board size
BFM	Frequency of board meetings
BCOM	Board sub-committees
DONR	Director ownership
CONTROLS	Control variables for firm size (*FSZ*), firm growth (*SGR*), leverage (*LVG*), capital expenditure (*CEXC*), dividends (*DV*), industry dummies (*INDU*) and year dummies (*YDU*)
ε	Error term or residual

5.4.2 The Compliance-Index Model

5.4.2.1 The Dependent Variables: Financial Performance

The proxies for financial performance used in this model are the same as those adopted for the equilibrium-variable model. These are return on assets (ROA) and Tobin's Q (Q-ratio), as an accounting-based measure and a market-based measure, respectively. Table 5.6 presents a summary of the variables used in this model.

Table 5.6: Summary of variables used for the compliance-index model

Dependent variables	
ROA	Percentage of operating profit to total assets value.
Tobin's Q	Ratio of total assets minus book value of equity plus market value of equity to total assets.
Independent Variables	
SCGI	Corporate governance (CG) compliance and disclosure index, consisting of 65 provisions from the SCGC that take a value of 1 if each corporate governance provision is disclosed, and 0 otherwise; scaled to a value between 0% and 100%.
Control Variables	
FSZ	Natural log of the book value of a firm's assets.
SGR%	Current year's sales minus last year's sales to last year's sales.
LVG%	Ratio of total debt to total assets.
CEXC%	Percentage of total capital expenditure to total assets.
DV	1 if a firm paid dividends during the financial year, 0 otherwise.
INDU	A dummy variable for each industry on the stock market (classified to seven industries).
YDU	A dummy variable for each year of the sample period (seven years) from 2004 to 2010, inclusive.

5.4.2.2 The Explanatory Variable: The Saudi Corporate Governance Index (SCGI)

The main independent variable used in the compliance-index model is the Saudi Corporate Governance Index (SCGI). Unlike the equilibrium-variable model, which examines corporate governance mechanisms individually, the compliance-index model adopts the SCGI. The SCGI contains 65 provisions extracted mainly from the 2006 Saudi Corporate Governance Code (SCGC).

5.4.2.3 The Control Variables: Firm Characteristics

The control variables used in the compliance-index model are the same as those employed in Model 1 and 2 (equilibrium-variable model). These control variables are firm size (*FSZ*), firm growth (*SGR*), leverage (*LVG*), capital expenditure (*CEXC*), dividends (*DV*), industry dummies (*INDU*) and year dummies (*YDU*). The rationale for selecting these particular variables is explained in Subsection 5.3.3. Table 5.6 shows the definitions and how the control variables are measured.

Following prior corporate governance literature, it was anticipated that all of the variables follow linear relationships. Therefore, OLS regression is employed to examine

whether firm financial performance is explained (i.e., to answer the fifth research sub-question) by the above variables using the compliance-index model, as follows:

Model 3

$$FP_{it} = \alpha_0 + \beta_1 SCGI_{it} + \sum_{i=1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it} \quad (3)$$

Where

FP	Firm financial performance measured by return on assets (ROA), as an accounting-based measure, and Tobin's Q (Q-ratio), as a market-based measure
a_0	Constant term
SCGI	The constructed Saudi Corporate Governance Disclosure Index
CONTROL	Control variables for firm size (*FSZ*), firm growth (*SGR*), leverage (*LVG*), capital expenditure (*CEXC*), dividends (*DV*), industry dummies (*INDU*) and year dummies (*YDU*)
ε	Error term or residual

5.5 CHAPTER SUMMARY

This chapter presented the details of the data and methodology used in the quantitative part of the study to answer the first five research sub-questions. Specifically, it attempted to address three main issues related to examining the relationship among corporate governance mechanisms, voluntary corporate governance disclosure and firm financial performance. First, the chapter attempted to describe the quantitative data sources and the methodology used in the study. There are two main types of data used in the current study: (i) corporate governance variables; and (ii) firm financial and market performance. The data was mainly collected from the Tadawul database and the MCI archives. The firms' corporate governance and financial performance data were extracted mainly from the firms' annual reports. The firms' market information was obtained from the Tadawul Annual Statistical Report. Complete data was collected for 80 firms out of 145 firms listed on the Saudi Stock Exchange (Tadawul) as of 31 December, 2010. The final sample covers seven years of data, from 2004 to 2010, resulting in a total of 560 firm-year observations (80 firms over seven years).

Second, this chapter further explained the rationale behind the choice of quantitative methods used. It discussed the rationale for the selection of data, sources of obtaining data and the sampling procedure. In addition, the chapter explained the three different models employed: the voluntary corporate governance disclosure model, the equilibrium-variable model and the compliance-index model. The voluntary corporate governance disclosure model investigates the determinants of corporate governance

disclosure, while the equilibrium-variable and compliance-index models examine the relationship between corporate governance mechanisms and firm financial performance. In addition, the chapter discussed the validity and reliability of the constructed governance index. Third, this chapter discussed the strengths and limitations of the selected quantitative methods. Specifically, this discussion shed light on the strengths and weaknesses of the data, data sources, models employed and measurement of the dependent, independent and control variables.

The next chapter explains the summary descriptive statistics of the three statistical models used in the study. More precisely, it presents the descriptive statistics of the voluntary corporate governance disclosure model, including the Saudi Corporate Governance Index (SCGI), corporate governance mechanisms and control variables. Furthermore, it discusses the summary descriptive statistics of the firm financial performance models, including dependent, explanatory and control variables.

CHAPTER SIX

SAUDI CORPORATE GOVERNANCE INDEX AND DESCRIPTIVE STATISTICS

6. I NTRODUCTION

This chapter presents the descriptive statistics of the variables used in the regression analysis. More precisely, this chapter seeks to achieve the following objectives. First, it presents the descriptive statistics of the constructed Saudi Corporate Governance Index (SCGI). It reports the analyses of the level of compliance with the constructed SCGI from the complete sample to answer the first two research sub-questions. Furthermore, it presents the analyses of the level of compliance based on sub-indices, firm size, audit firm size and industry type. The rationale is to explore the potential factors influencing the variation in the level of compliance with the SCGC among the sampled firms. Second, the chapter seeks to determine whether the introduction of the Saudi Corporate Governance Code (SCGC) has helped improve corporate governance practices in the Saudi corporate context. Third, this chapter reports the descriptive statistics of the financial proxies, corporate governance mechanisms and control variables used in the empirical models.

The rest of the chapter is divided into four sections. Section 6.1 addresses descriptive statistics of the level of compliance with the SCGC. Section 6.2 reports the statistical summaries of the explanatory and control variables used in the voluntary corporate governance disclosure model. Section 6.3 presents the dependent and explanatory variables employed in the models that examine the relationship between corporate governance mechanisms and firm financial performance, while Section 6.4 presents a summary of this chapter.

6.1 DESCRIPTIVE STATISTICS OF THE CONSTRUCTED SAUDI CORPORATE GOVERNANCE INDEX (SCGI)

This section presents a detailed descriptive analysis of the level of compliance with the SCGC to answer the following research sub-questions: (i) What is the level of compliance with the 2006 SCGC?; and (ii) Has the introduction of the 2006 SCGC improving corporate governance practices? Also, the corporate governance literature argues that firm characteristics, such as firm size, auditor quality and industry type, influence the level of compliance with corporate governance standards (Haniffa and

Cooke, 2002; Eng and Mak, 2003; Klapper and Love, 2004; Samaha *et al.*, 2012; Allegrini and Greco, 2013; Ntim and Soobaroyen, 2013). Therefore, in line with the literature, this study carried out a detailed analysis of the effect of firm characteristics on the level of corporate governance compliance. To achieve this objective, and in line with prior studies, a number of proxies for firm size, audit firm size and industry type are selected (e.g., Werder *et al.*, 2005; Bauer *et al.*, 2008). These variables help to determine whether corporate governance scores can be explained by firm characteristics. The remainder of this section develops as follows. Subsection 6.1.1 reports statistical analysis for the SCGI based on the complete sample. Subsection 6.1.2 presents the descriptive statistical summary of the level of compliance based on the sub-indices. Subsection 6.1.3 explains the descriptive statistical summary of the level of compliance based on firm size. Subsection 6.1.4 presents the descriptive summaries based on audit firm size, and Subsection 6.1.5 presents the descriptive statistical summary based on industry type.

6.1.1 Descriptive Statistics of the SCGI based on the Full Sample

As discussed in Chapter Five, the current study developed a corporate governance index to examine the level of compliance among a balanced sample consisting of 80 Saudi listed firms from 2004 to 2010. The SCGI consists of 65 corporate governance provisions, which were derived mainly from the SCGC. As shown in Figure 6.1, the level of compliance has improved over the sample period. For example, as shown in Panel *A* of Table 6.1, the aggregate corporate governance score for the SCGI is 17% in 2004, and significantly increased up to 73% in 2010 (a 56% improvement), with an average level of compliance over the seven years of 44%. This percentage is consistent with the finding of Al-Moataz and Lakhal (2012). They report that the level of compliance with corporate standards among Saudi listed firms is 53%.

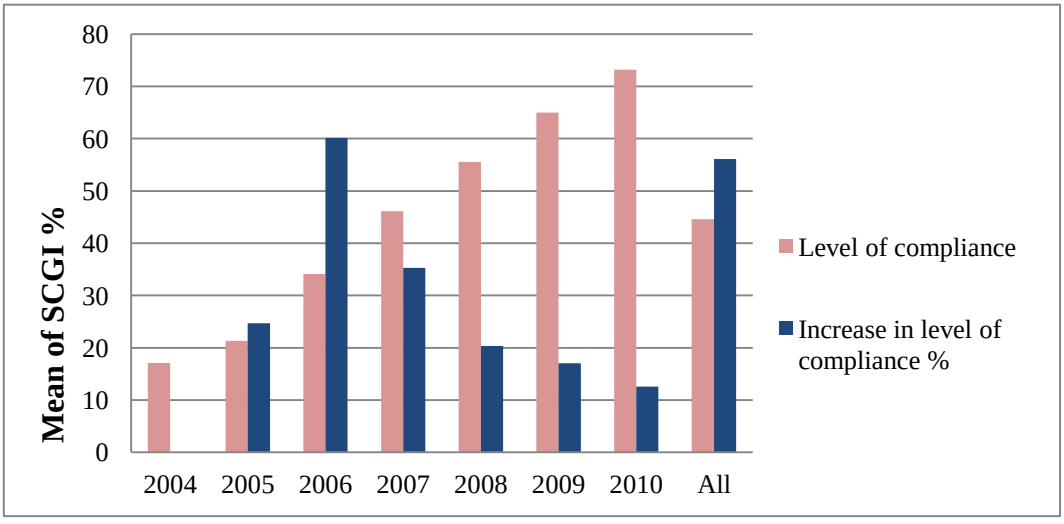


Figure 6.1: Level of compliance with the SCGC between 2004 and 2010 using computed means

Also, this result is consistent with studies conducted in other emerging countries. For example, Tsamenyi *et al*. (2007) report a level of compliance with voluntary corporate governance standards of 52% among Ghanaian listed firms. Similarly, Garay and Gonzalez (2008) and Price *et al*. (2011) find that 40% of Venezuelan and 46% of Mexican listed firms complied with the local corporate governance codes. In addition, Ntim *et al*. (2012a) report that 61% of South African firms complied voluntarily with the King II Report.

The improvement in the level of compliance over the sample period can be traced to corporate governance reforms in Saudi Arabia.[51] The introduction of the SCGC improved corporate governance disclosure and brought about a reduction in information asymmetry (Hussainey and Al-Nodel, 2008; Al-Abbas, 2009; Al-Nodel and Hussainey, 2010; Alshehri and Solomon, 2012). Nevertheless, some studies cast doubt on the ability of a voluntary compliance regime to improve corporate governance practices in developing countries (Aguilera and Cuervo-Cazurra, 2009). This improvement may prove the feasibility of adopting a UK style 'comply or explain' of corporate governance in the Saudi context.

In line with Chen and Zhang (2014), Panel *B* in Table 6.1 reports results of the paired sample *t-test* to examine voluntary corporate governance disclosure pre- and post-2006, when the SCGC was introduced. It has been found that the null hypothesis suggesting equality of the average of compliance among listed firms pre and post introducing the governance code is rejected at the 1% level of significance. However, the average corporate governance scores for 2009 and 2010 are higher than the averages for 2006 and 2007, which is consistent with theoretical expectation. In this regard, Ntim *et al*. (2012b) argue that corporate governance reforms, such as introducing the SCGC, take time to reflect in good corporate governance practices.

Conyon (1994) investigates 400 UK listed firms during the period 1988-1993. He reports that the level of compliance improved over the study period. Similarly, Alves and Mendes (2004) find that the level of compliance with governance standards increased after the Portuguese Corporate Governance Code was released in 1999. In the same vein, Ntim *et al*. (2012a) examine the influence of the King II Report on good corporate governance practices using 169 South African listed firms from 2002 to 2006. They report that the level of compliance generally improved over the five years examined. Specifically, the level of compliance increased from 47% in 2002 to 69% in 2006.

[51] As discussed in detail in Chapter Two, Saudi Arabia started corporate governance reforms in 2003, when the Capital Market Authority (CMA) was established. The CMA released the important corporate governance regulation known as the Saudi Corporate Governance Code (SCGC) in 2006, which encouraged firms to improve corporate governance standards.

Table 6.1: Summary descriptive statistics for the Saudi Corporate Governance Index (SCGI)

	All	2004	2005	2006	2007	2008	2009	2010
Panel A:SCGI for all firm years								
Mean	44.61	17.08	21.29	34.10	46.13	55.52	64.98	73.15
Median	44.62	16.92	20.00	35.38	46.15	53.85	66.92	73.85
STD	22.33	4.86	7.04	11.29	13.82	12.21	10.93	8.39
Min	3.08	3.08	7.69	6.15	10.77	16.92	40.00	47.69
Max	90.77	33.85	38.46	61.54	83.08	87.69	90.77	90.77

Panel B: All Firm Years before Releasing the SCGC		*All Firm Years after Releasing the SCGC*	
Average	Years 04-05	Years 06-07	Years 09-10
Mean	19.18	40.12	69.07
Median	19.23	41.15	69.23
T-test		18.14***	47.95***
STD	5.40	11.37	8.53
Min	7.69	9.23	46.92
Max	33.85	63.85	90.77

Notes: This table shows descriptive statistics of the aggregate levels of compliance with SCGI based on the complete sample from 2004 to 2010. In Panel *B*, the paired sample *t-test* is used for equality of mean. A mean difference with *** (1% significant level) indicates that the null hypothesis can be rejected assuming equality of means.

Table 6.2 shows the level of compliance with the SCGC. The comparison between the provisions shows that each provision has a range between 0% and 100%. A provision that reported 100% indicates perfect compliance by all 80 firms, for example measuring the right of shareholders to appoint directors (*SCSA*)[52] over the sample period. However, a provision reporting 0% implies no compliance by any of the sampled firms during the study period, for example drafting board policies and appointing committee members (*BDPA*).

Table 6.2 shows that there are 13 provisions with relatively high levels of compliance (70% or more). This indicates that about 70% of the sampled firms complied with these provisions; for example, the majority of the board is non-executive (*BMBD*), frequency of board meetings (*BFBM*), existence of an audit committee (*AEX*), disclosure of operation performance (*DOP*), disclosure of the principle activities (*DPA*) and disclosure of policy of dividends (*DPD*) all have compliance levels above 70%.

However, 24 of the provisions had compliance scores of 30% or less. Thus, 30% of the sampled firms complied with the provisions, such as the drafting of board policies and appointing committee members (*BDPA*), disclosure of ownership structure (DOS), disclosure of CEO compensation (*DCEOC*), narrative on compliance/non-compliance with the SCGC (*DCNC*), disclosure of firm's risk (*IFR*), setting control procedures for company risk management (*ICRM*) and one-share-one-vote policy (*SGAV*). Also, Table 6.2 indicates that compliance with 78% of the provisions (51 out of 65) improved significantly during the sample period. It can be noted from the table that there was slight improvement in 12% of the provisions. In contrast, there is no change observed for about 10% of them.

[52] The definitions of all corporate governance provisions included in the SCGI are presented in Appendix 2.

There are three possible reasons for the variation in the level of compliance with the SCGC among the listed firms. First, the provisions with high scores are required by the 1965 Companies Act as well as recommended by the SCGC. For example, the frequency of general assembly meetings (*SGFM*), which is required to be held at least once a year (*SGFM*), scored 93%, 95%, 100%, 100%, 98%, 98% and 98% during the years from 2004 to 2010, respectively, and the right of shareholders to appoint directors (*SGSA*) scored 100% for the entire sample period.

Second, most of the provisions gradually improved over the sample period due to the impact of introducing the corporate governance code in 2006 (e.g., Conyon, 1994; Allegrini and Greco, 2013). Predominantly, the sampled firms' compliance with the provisions is low during 2004 and 2005, and improved from 2006 onwards. As shown in Table 6.2, the average compliance before the introduction of the governance code for directors' classification (*BDCL*), disclosure of directors on other firms' boards (*BMOB*) and individual directors' meeting attendance (*BDMA*) are 1.25%, 2.25% and 8.13%, respectively. In contrast, compliance with these particular provisions increased after the release of the code, to averages of 81%, 86% and 83%, respectively.

Third, there was a low level of compliance with some of the provisions over the sample period; for example, the disclosure of CEO compensation (*DCEOC*), one-share-one-vote policy (*SGAV*) and drafting policies of board and appointing committee members (*BDPA*). The low level of compliance with these governance mechanisms may be explained by: (i) weak implementation and enforcement by regulatory bodies, such as the Ministry of Commerce and Industry (MCI) and the Capital Market Authority (CMA) (see La Porta *et al.*, 1999; Ararat and Ugur, 2003; Bauwhede and Willekens, 2008; ROSC, 2009); and (ii) unwillingness by firms to comply with some corporate governance provisions. For example, some of the firms pointed out in their annual reports that they are not able to apply a one-share-one-vote policy (*SGAV*) due to its incompatibility with their articles of association. Furthermore, weakness in external corporate governance mechanisms, such as the market for corporate control, appears to be behind the level of compliance with some governance provisions (Haniffa and Hudaib, 2006; Bozec and Bozec, 2012).

Table 6.2: The level of compliance with the SCGC provisions among the sampled firms (%)

		Pre-2006			Post-2006 (i.e., after SCGC was released)						Avg. of
	Saudi Corporate Governance Index (65 Provisions)	**2004**	**2005**	***Average***	**2006**	**2007**	**2008**	**2009**	**2010**	***Average***	**7 Years**
	Yearly Average of level of Compliance	**17.08**	**21.29**	***19.18***	**34.10**	***46.13***	***55.52***	***64.98***	***73.15***	***54.78***	**44.61**
	1- Board of Directors and Board Sub-Committees										
1	Role duality (BDUAL)	51	48	***49.38***	55	69	84	88	90	***77.00***	**69.11**
2	Board chairperson classification (BCP)	9	9	***8.75***	18	24	31	36	40	***29.75***	**23.75**
3	Majority of board is non-executive (BMBD)	50	50	***50.00***	58	78	93	98	100	***85.00***	**75.00**
4	Directors' classification (BDCL)	1	1	***1.25***	53	69	88	96	100	***81.00***	**58.21**
5	Disclosure of directors' biography (BDB)	0	0	***0.00***	0	0	1	1	1	***0.25***	**0.54**
6	Drafting policies of board and appointing committee members (BDPA)	0	0	***0.00***	0	0	0	0	0	***0.00***	**0.00**
7	Disclosure of directors on other firms' boards (BMOB)	3	3	***2.50***	66	78	91	96	99	***86.00***	**62.14**
8	Number of membership of directors in other boards' firms (BMBN)	3	3	***2.50***	66	78	90	96	99	***85.75***	**61.96**
9	Frequency of board meetings (BFBM)	80	81	***80.63***	84	94	98	100	100	***95.00***	**90.89**
10	Individual directors' meetings attendance (BDMA)	3	14	***8.13***	43	79	95	99	100	***83.00***	**61.61**
11	Existence of audit committee (AC) (AEX)	20	43	***31.25***	83	91	96	99	98	***93.25***	**75.54**
12	Description of the jurisdictions & duties of AC (ADJD)	3	6	***4.38***	34	48	64	75	89	***61.75***	**45.36**
13	Majority of AC is non-executive (ACOM)	1	3	***1.88***	20	28	33	41	48	***33.75***	**24.64**
14	Identify AC's chairperson (ACP)	1	4	***2.50***	20	20	29	40	44	***30.50***	**22.50**
15	AC's chairperson is independent (can)	6	16	***11.25***	59	71	78	91	94	***78.50***	**59.29**
16	AC's members are three or more (ACNM)	6	26	***16.25***	73	84	86	94	95	***86.25***	**66.25**
17	Disclosure of AC members' names (ADM)	6	26	***16.25***	66	80	90	99	96	***86.25***	**66.25**
18	Frequency of AC meetings (AFM)	5	9	***6.88***	46	65	79	95	96	***76.25***	**56.43**
19	Individual AC members' meeting attendance (AMMA)	0	0	***0.00***	5	15	23	35	40	***23.50***	**16.79**
20	Existence of nomination committee (NC) (NEX)	0	0	***0.00***	3	28	45	69	94	***47.50***	**33.93**
21	Description of the jurisdictions & duties of NC (NDJD)	0	0	***0.00***	3	16	28	53	84	***36.50***	**26.07**
22	Majority of NC is non-executive (NCOM)	0	0	***0.00***	0	10	20	33	56	***23.75***	**16.96**
23	Identify NC's chairperson (NCP)	0	0	***0.00***	0	4	5	19	28	***11.00***	**7.86**
24	NC's chairperson is independent (NCN)	0	0	***0.00***	3	25	36	56	84	***40.75***	**29.11**
25	Disclosure of NC members' names (NDM)	0	0	***0.00***	3	25	41	68	93	***45.75***	**32.68**
26	Frequency of NC meetings (NFM)	0	0	***0.00***	1	11	26	60	79	***35.50***	**25.36**
27	Individual NC members' meeting attendance (NMMA)	0	0	***0.00***	0	5	13	25	35	***15.50***	**11.07**
28	Existence of remuneration committee (RC) (REX)	3	3	***2.50***	5	29	45	69	94	***48.25***	**35.18**
29	Description of the jurisdictions & duties of RC (RDJD)	0	0	***0.00***	3	18	29	53	84	***37.00***	**26.43**
30	Majority of RC is non-executive (RCOM)	0	0	***0.00***	0	10	20	33	56	***23.75***	**16.96**
31	Identify RC's chairperson (RCP)	0	0	***0.00***	0	4	5	19	28	***11.00***	**7.86**
32	RC's chairperson is independent (RCN)	1	1	***1.25***	5	26	36	56	84	***41.50***	**30.00**
33	Disclosure of RC members' names (RDM)	1	1	***1.25***	5	26	41	68	93	***46.50***	**33.57**

Table 6.2 (Continued): The level of compliance with the SCGC provisions among the sampled firms (%)

		Pre-2006			Post-2006 (i.e., after SCGC was released)						Avg. of
	Saudi Corporate Governance Index (65 Provisions)	**2004**	**2005**	***Average***	**2006**	**2007**	**2008**	**2009**	**2010**	***Average***	**7 Years**
34	Frequency of RC meetings (RFM)	0	0	***0.00***	3	13	28	60	79	***36.25***	**25.89**
35	Individual RC members' meeting attendance (RMMA)	0	0	***0.00***	0	5	13	25	35	***15.50***	**11.07**
	2- Disclosure and Transparency										
36	Disclosure of ownership Structure (DOS)	1	1	***1.25***	5	19	24	34	40	***24.25***	**17.68**
37	Director ownership (DBO)	0	1	***0.63***	9	45	65	78	84	***56.00***	**40.18**
38	Detailed disclosure of board's compensation (DBC)	66	69	***67.50***	80	88	95	98	99	***91.75***	**84.82**
39	Value of board's compensation (DVBC)	51	54	***52.50***	69	70	68	74	73	***70.50***	**65.36**
40	Disclosure of CEO/MD/GM compensation (DCEOC)	1	5	***3.13***	9	10	15	13	15	***12.25***	**9.64**
41	Disclosure of top management compensation (DTMC)	0	0	***0.00***	24	34	86	93	99	***67.00***	**47.86**
42	Disclosure of operation performance (DOP)	65	65	***65.00***	84	93	100	100	100	***95.25***	**86.61**
43	Disclosure of the firm's loans (DFL)	16	33	***24.38***	48	66	75	81	88	***71.50***	**58.04**
44	Comparison of five years performance (DPFY)	19	48	***33.13***	63	89	96	98	100	***89.00***	**73.04**
45	Disclosure of strategies and objectives (DSO)	29	36	***32.50***	58	73	76	84	90	***76.00***	**63.57**
46	Description of the principal activities (DPA)	45	50	***47.50***	63	83	86	88	90	***81.75***	**71.96**
47	Disclosure policy of dividends (DPD)	40	51	***45.63***	71	88	98	96	98	***90.00***	**77.32**
48	Disclosure of related party transactions (DRP)	9	24	***16.25***	46	75	86	90	96	***78.75***	**60.89**
49	Retraction/Punishment by supervisory body (DSP)	1	5	***3.13***	16	35	50	58	71	***46.00***	**33.75**
50	Narrative on the firm as a going concern (DGC)	4	23	***13.13***	45	76	89	90	95	***79.00***	**60.18**
51	Narrative on compliance/non compliance with SCGC (DCNC)	1	3	***1.88***	8	24	36	58	68	***38.50***	**28.04**
	3- Internal Control and Risk Management										
52	Effectiveness of internal control system (ICEF)	1	14	***7.50***	21	29	39	59	71	***43.75***	**33.39**
53	Control procedures for company risk management (ICRM)	3	3	***2.50***	6	9	16	18	24	***14.50***	**11.07**
54	Disclosure of firm's risks (IFR)	1	3	***1.88***	3	25	49	61	69	***41.25***	**30.00**
55	Firm's financial report approved (IFRA)	4	16	***10.00***	28	36	48	56	61	***45.75***	**35.54**
56	Applicable of accounting standards (ICAS)	0	9	***4.38***	21	43	56	65	76	***52.25***	**38.57**
57	Drafting firms' corporate governance code (ICGC)	1	1	***1.25***	3	6	9	19	30	***13.25***	**9.82**
	4- Rights of Shareholders and General Assembly GA										
58	Frequency of GA meetings (SGFM)	93	95	***93.75***	100	100	98	98	98	***98.50***	**97.14**
59	GA meeting agenda announced before meeting (SGMA)	48	48	***47.50***	53	50	53	54	53	***52.25***	**50.89**
60	Right of shareholders to appointment directors (SGSA)	100	100	***100.00***	100	100	100	100	100	***100.00***	**100.00**
61	One share one vote policy (SGAV)	0	0	***0.00***	0	0	0	1	4	***1.00***	**0.71**
62	GA meeting announced 20 days in advance (SGMN)	68	83	***75.00***	88	90	95	95	99	***93.25***	**88.04**
63	GA meeting results announced immediately (SGMR)	91	95	***93.13***	98	99	98	99	98	***98.00***	**96.61**
64	GA meeting within six months of year end (SGMT)	90	93	***91.25***	100	99	98	96	98	***98.00***	**96.07**
65	Firms' social contributions (SFSC)	11	16	***13.75***	25	28	33	35	44	***32.75***	**27.32**

6.1.2 Descriptive Statistics of the SCGI based on the Sub-Indices

This subsection presents the descriptive statistical summaries of the level of compliance with the SCGC based on the sub-indices. As shown in Table 6.2, and in line with existing studies (e.g., Munisi and Randoy, 2013), the provisions that constitute the SCGI consist of four sub-indices, which are: board of directors and board sub-committees (BOD), with 35 provisions, disclosure and transparency (DAT), with 16 provisions, internal control and risk management (IRM), with 6 provisions, and rights of shareholders and general assembly (ROS), with 8 provisions.

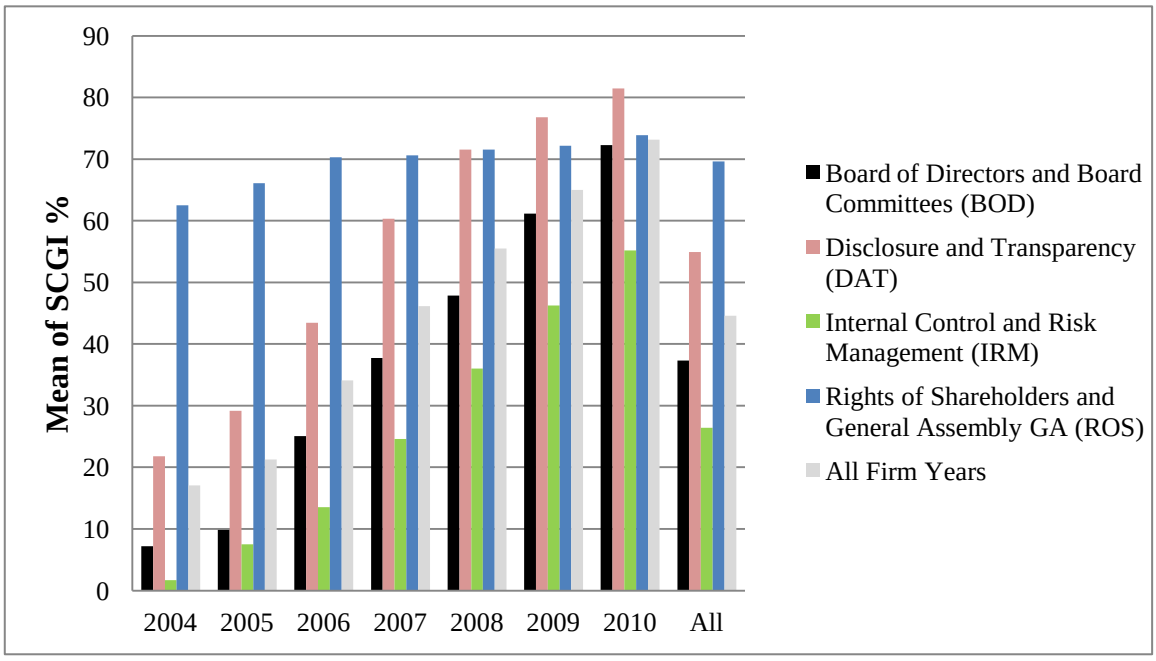


Figure 6.2: A comparison of the level of compliance with the SCGC between firms based on the SCGI sub- indices using computed means.

As shown in Figure 6.2, and in line with Ntim *et al*. (2012a) there are variations in the aggregated level of compliance based on the sub-indices. The key observations can be summarised as follows. First, the sampled firms show greater compliance with the provisions related to the rights of shareholders. Specifically, 70% of the listed firms complied with the rights of shareholders' provisions, whilst 55% complied with the provisions relating to disclosure and transparency. However, the level of compliance with the provisions relating to the board of directors and board sub-committees is 37%, whilst the level of compliance with the internal control provisions is 26%. As discussed in Subsection 6.1.1, the high level of compliance with the rights of shareholders provisions relates to the nature of these provisions, which have been imposed by regulatory bodies, such as the MCI, to protect shareholders' interests (Al-Twaijry *et al.,* 2002). For example, the level of compliance with the frequency of general assembly meetings (*SGFM*), the

right of shareholders to appoint others (*SGMA*) and general assembly meeting within six months of the end of year (*SGMT*) are 97%, 100% and 96%, respectively.

In contrast, the low level of compliance with the board of directors and board sub-committees' provisions is due to the absence of good corporate governance practices prior to governance reforms. As shown in Table 6.3, the average compliance scores for 2004 and 2005 are low compared with the average for the years between 2006 and 2010, which witnessed the introduction of the code.

Table 6.3: Summary descriptive statistics of levels of compliance with the SCGC and sub-indices (%)

	All	2004	2005	2006	2007	2008	2009	2010
Panel A: SCGI								
Mean	44.61	17.08	21.29	34.10	46.13	55.52	64.98	73.15
Median	44.62	16.92	20.00	35.38	46.15	53.85	66.92	73.85
STD	22.33	4.86	7.04	11.29	13.82	12.21	10.93	8.39
Min	3.08	3.08	7.69	6.15	10.77	16.92	40.00	47.69
Max	90.77	33.85	38.46	61.54	83.08	87.69	90.77	90.77
Panel B:Board of directors and committees								
Mean	37.30	7.18	9.82	25.07	37.75	47.86	61.14	72.25
Median	34.29	5.71	8.57	28.57	37.14	42.86	65.71	74.29
T-test	6.95***	6.40**	1.40	4.94***	4.37***	4.00***	4.90***	6.19***
STD	27.31	5.82	8.04	15.20	18.66	18.77	17.35	12.91
Min	0.00	0.00	0.00	0.00	0.00	5.71	31.43	34.29
Max	94.29	34.29	34.29	62.86	88.57	94.29	94.29	91.43
Panel C:Disclosure and transparency								
Mean	54.93	21.80	29.14	43.44	60.31	71.56	76.80	81.48
Median	56.25	18.75	31.25	43.75	62.50	75.00	81.25	81.25
T-test	18.80***	17.30***	10.55***	12.57***	12.31***	14.07***	11.36***	10.24***
STD	25.60	9.11	13.52	15.85	17.57	11.85	11.94	9.30
Min	6.25	6.25	6.25	6.25	6.25	43.75	43.75	43.75
Max	100.00	50.00	62.50	81.25	100.00	100.00	93.75	100.00
Panel D:Internal control and Risk Management								
Mean	26.40	1.67	7.50	13.54	24.58	36.04	46.25	55.21
Median	16.67	0.00	0.00	16.67	16.67	33.33	50.00	50.00
T-test								
STD	25.14	5.03	12.41	14.30	18.75	19.20	20.88	20.98
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67
Max	100.00	16.67	50.00	50.00	66.67	83.33	100.00	100.00
Panel E:Rights of shareholders								
Mean	69.60	62.50	66.09	70.31	70.63	71.56	72.19	73.91
Median	75.00	62.50	62.50	75.00	75.00	75.00	75.00	75.00
T-test	36.73***	32.84***	28.23***	29.07***	19.81***	14.18***	10.26***	7.31***
STD	11.85	15.79	13.81	10.02	8.46	11.25	8.66	9.16
Min	12.50	12.50	12.50	37.50	50.00	12.50	50.00	37.50
Max	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50

Notes: This table shows descriptive statistics of the aggregate levels of compliance with SCGI based on sub-indices from 2004 to 2010. The *t-test* values in Panel *B*, *C*, and *E* are the independent sample *t-test* for equality of mean. A mean difference with ***, ** (1% and 5% significant level) indicates that the null hypothesis is rejected indicating the equality of means.

Second, unlike the provisions relating to the rights of shareholders' sub-index, the level of compliance with board of directors, disclosure and transparency, and internal control sub-indices have improved gradually over the sample period. More precisely, the scores of board of directors and board sub-committees' provisions increased from 7% in

2004 to 72% in 2010, whereas the scores for the disclosure and transparency sub-index and the internal control sub-index improved from 21% and 2% in 2004 to 81% and 55% in 2010, respectively. Furthermore, the scores for the rights of shareholders sub-index improved slightly over the study period, from 62% in 2004 to 74% in 2010. This can be interpreted as a result of the corporate governance reforms in Saudi Arabia (see Al-Matari *et al.*, 2012). As shown in Panels *B*, *C* and *E* in Table 6.3, independent sample *t-test* values show that the mean aggregate level of compliance of the internal control sub-index is significantly different from the three sub-indices at the 1% significance levels.

6.1.3 Descriptive Statistics of the SCGI based on Firm Size

Firm size is an important factor to consider in exploring good corporate governance practices (Eisenberg *et al.*, 1998; Samaha *et al.*, 2012; Tariq and Abbas, 2013). Jensen and Meckling (1976) suggest that firm size is positively associated with voluntary corporate governance disclosure. Consistent with the corporate governance literature (e.g., Werder *et al.*, 2005; Bauer *et al.*, 2008), the complete sample is divided into two sub-samples based on firm size. This analysis assists in explaining the differences in levels of compliance among the sampled firms.

For comparison, the complete sample is split into 40 large and 40 small firms based on the firms' total assets. Figure 6.3 shows that large firms complied more with corporate governance standards than small firms. The average level of compliance by large firms is 46%; that of small firms is 41%. This finding is supported by the corporate governance literature. For example, Alsaeed (2006), using a Saudi sample in 2003, indicates that large firms comply more with corporate governance standards. Similarly, Elzahar and Hussainey (2012), Ntim *et al*. (2012a), Samaha *et al*. (2012) and Allegrini and Greco (2013) find a positive relationship between large firms and the level of compliance with good corporate governance practices.

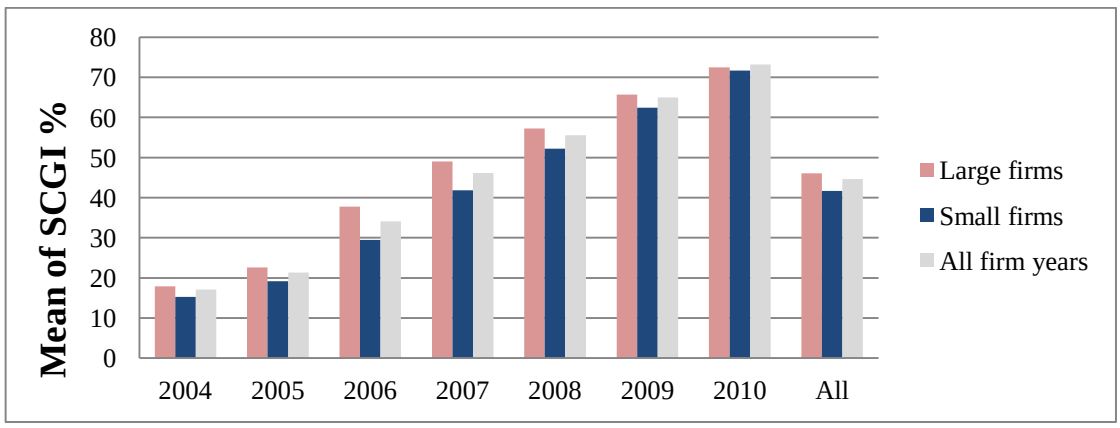


Figure 6.3: A comparison of the level of compliance with the SCGC between large and small firms using computed means

From Table 6.4, the independent sample *t-test* value indicates that the aggregate means are significantly different at the 1% level. However, the difference in mean is not significant in 2009 and 2010 as compared to 2004 to 2008. The differences in the level of compliance among large and small firms can be explained as follows. First, large firms are more likely to obtain external capital than small firms (Eng and Mak, 2003; Bozec *et al.*, 2010). Therefore, large firms tend to improve their voluntary corporate governance disclosure with a view to reducing cost of capital (Klapper and Love, 2004; Chen *et al.*, 2009). Second, agency problems are predominantly greater in larger firms than small firms due to the complexity of their capital structure (Chung and Zhang, 2011). This implies that large firms are more determined to comply with corporate governance codes to mitigate such agency problems (Laidroo, 2009).

Table 6.4: Summary descriptive statistics of levels of compliance with the SCGC and samples based on firm size (%)

	All	2004	2005	2006	2007	2008	2009	2010
Panel A:SCGI								
Mean	44.61	17.08	21.29	34.10	46.13	55.52	64.98	73.15
Median	44.62	16.92	20.00	35.38	46.15	53.85	66.92	73.85
STD	22.33	4.86	7.04	11.29	13.82	12.21	10.93	8.39
Min	3.08	3.08	7.69	6.15	10.77	16.92	40.00	47.69
Max	90.77	33.85	38.46	61.54	83.08	87.69	90.77	90.77
Panel B:All small firms								
Mean	41.70	15.22	19.14	29.44	41.87	52.20	62.39	71.64
Median	41.79	15.67	19.40	32.09	43.28	52.24	62.69	71.64
T-test								
STD	22.48	4.62	6.33	11.02	15.06	12.55	10.95	7.80
Min	1.49	1.49	5.97	4.48	8.96	16.42	38.81	52.24
Max	88.06	28.36	37.31	44.78	74.63	85.07	88.06	88.06
Panel C:All large firms								
Mean	46.10	17.92	22.62	37.77	49.04	57.23	65.65	72.46
Median	46.92	18.46	22.31	37.69	49.23	53.85	67.69	72.31
T-test	2.37***	2.43**	2.25**	3.52***	2.40**	1.89*	1.35	0.44
STD	21.57	5.27	7.44	10.14	11.52	11.33	10.66	8.78
Min	6.15	6.15	9.23	20.00	26.15	38.46	43.08	47.69
Max	86.15	33.85	36.92	61.54	83.08	83.08	83.08	86.15

Notes: This table shows descriptive statistics of the aggregate levels of compliance with SCGI based on firm size 2004 to 2010. The *t-test* values in Panel *C* are the independent sample *t-test* for equality of mean. A mean difference with ***, **, * (1%, 5%, and 10% significant level) indicates that the null hypothesis can be rejected assuming equality of means.

Third, the variation can be attributed to the cost of implementing corporate governance standards. Ammann *et al*. (2011) indicate that large firms are more capable of affording the cost of compliance than smaller firms. Finally, this variation can also be seen as an indication of 'adoption timing' in the sense that larger firms adopted the SCGC out of their own volition earlier than smaller firms. In other words, corporate governance practices in some large firms were established before the release of the governance code in 2006.

Table 6.4 presents comparisons from 2004 to 2010. First, the level of compliance with the SCGC is not high for either large or small firms in 2004 and 2005 (before the corporate governance code was introduced in 2006). Second, the level of compliance has significantly increased since 2006 for both larger and smaller firms. Third, the increase in the levels of compliance for larger and smaller firms is consistent with the improvement in the whole sample (see Figure 6.3). This suggests that there has been improvement in the firms' corporate governance standards regardless of firm size.

6.1.4 Descriptive Statistics of the SCGI based on Audit Firm Size

The literature on corporate governance argues that quality of compliance with voluntary corporate governance disclosure differs among firms based on audit firm size (Barako *et al.*, 2006; Ntim *et al.*, 2012a). Haniffa and Cooke (2002) suggest that audit firms act as mechanisms for limiting agents' opportunistic behaviour. According to an agency theory perspective, audit firm size can be considered a determinant of the level of compliance with some of the SCGI provisions, such as a firm's going concern (*DGC*) and effectiveness of internal control system (*ICEF*). Consequently, the impact of audit firms on the level of compliance is examined by dividing the full sample into two groups, firms audited by one of the big-four audit firms (Deloitte & Touche, Ernst & Young, KPMG and Pricewaterhouse Coopers) and those audited by a non-big-four audit firm.

Figure 6.4 shows the aggregate level of compliance based on the type of audit firm from 2004 to 2010. There are three key observations. First, the level of compliance of the firms audited by the big-four is higher than that of non-big four audit firms, which is in line with past studies (e.g., Raffournier, 1995; Ntim *et al.*, 2012a; Schiehll *et al.*, 2013). As shown in Table 6.5, the level of compliance of the sampled firms audited by the big-four is 46%, compared with 42% for firms audited by non-big-four firms. Second, similar to the level of compliance based on firm size, the first two years' scores are low; for example, in 2004, 17% and 16% of the large and small firms were audited by big-four firms, respectively.

Third, the improvement in the level of compliance over the sample period is consistent with the improvement of the complete sample (see Figure 6.4). From Panel *B* in Table 6.5, independent sample *t-test* values show the mean for firms audited by big-four and non-big-four audit firms are significantly different from each other at the 5% level of significance. On a yearly basis, 2005, 2007 and 2008 showed significant differences at the 5% level of significance, while the means of 2004, 2006, 2009 and 2010 show no differences.

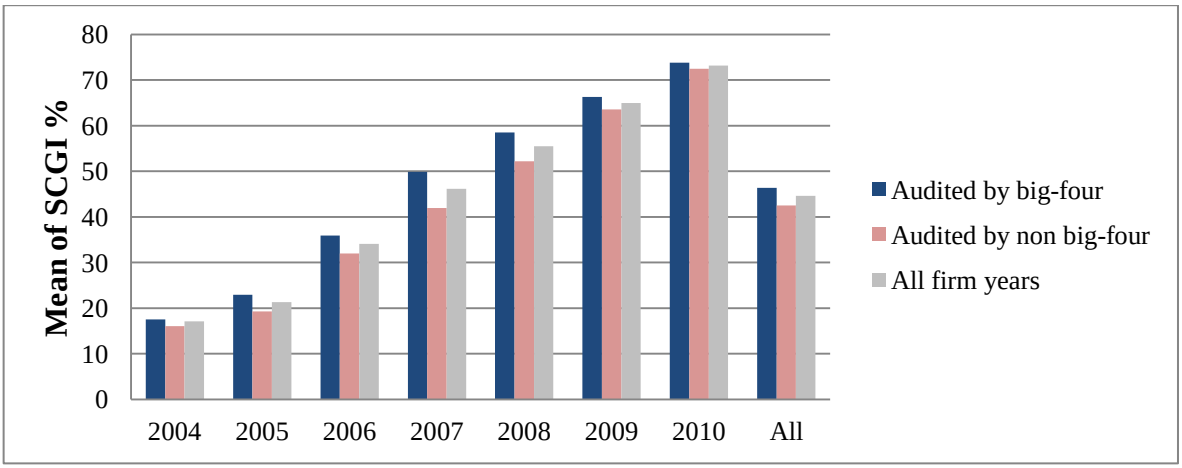


Figure 6.4: A comparison of the level of compliance with the SCGC between firms audited by big-four and non-big-four audit firms using computed means.

There are two possible explanations for the slight variation in compliance levels with corporate governance standards based on audit firm size. First, big-four audit firms exhibit a higher level of independence because they have to maintain their reputations (DeAngelo, 1981; Depoers, 2000). Second, the big-four are financially more able to provide high-quality auditing (Alsaeed, 2006). In other words, they can attract qualified staff and can easily train them adequately. Therefore, firms audited by the big-four can be expected to be more compliant with corporate governance provisions.

Table 6.5: Summary descriptive statistics of levels of compliance with the SCGC and samples based on audit firm size (%)

	All	2004	2005	2006	2007	2008	2009	2010
Panel A:SCGI								
Mean	44.61	17.08	21.29	34.10	46.13	55.52	64.98	73.15
Median	44.62	16.92	20.00	35.38	46.15	53.85	66.92	73.85
STD	22.33	4.86	7.04	11.29	13.82	12.21	10.93	8.39
Min	3.08	3.08	7.69	6.15	10.77	16.92	40.00	47.69
Max	90.77	33.85	38.46	61.54	83.08	87.69	90.77	90.77
Panel B:All firm audited by big-four								
Mean	46.40	17.51	22.89	35.93	49.85	58.53	66.30	73.77
Median	46.15	16.92	23.08	36.92	49.23	55.38	67.69	75.38
T-test	2.07**	1.30	2.34**	1.57	2.64**	2.40**	1.14	0.70
STD	22.52	5.83	7.80	10.74	13.64	11.95	11.90	8.55
Min	4.62	6.15	6.15	4.62	12.31	40.00	40.00	47.69
Max	90.77	33.85	38.46	60.00	83.08	87.69	90.77	90.77
Panel C:All large firms non-audited by big-four								
Mean	42.49	16.03	19.27	31.98	41.94	52.19	63.52	72.47
Median	43.08	16.92	19.23	33.08	44.62	53.08	64.62	73.08
T-test								
STD	22.17	4.13	5.76	11.75	13.14	11.75	9.69	8.28
Min	1.54	1.54	9.23	12.31	9.23	16.92	40.00	52.31
Max	86.15	26.15	30.77	61.54	66.15	76.92	80.00	86.15

Notes: This table shows descriptive statistics of the aggregate levels of compliance with SCGI based on audit firm size 2004 to 2010. The *t-test* values in Panel *C* are the independent sample *t-test* for equality of mean. A mean difference with *** and ** (1% and 5% significant level) indicates that the null hypothesis can be rejected assuming equality of means.

6.1.5 Descriptive Statistics of the SCGI based on Industry Type

Industry type is one factor that can influence levels of corporate governance disclosure (Haniffa and Cooke, 2002; Krafft *et al.*, 2013; Ntim *et al.*, 2014). Hussainey and Al-Nodel (2008) find that firms in the financial sector are more compliant with the disclosure requirements in Saudi Arabia. To examine the level of compliance with the SCGC among the sampled firms, and to determine whether the variation can be attributed to industry type, the full sample is classified into seven industries, as provided by the Saudi Stock Exchange (Tadawul). These include: industrials, consumer services, financials, consumer goods, basic materials, telecommunications and utilities industries.

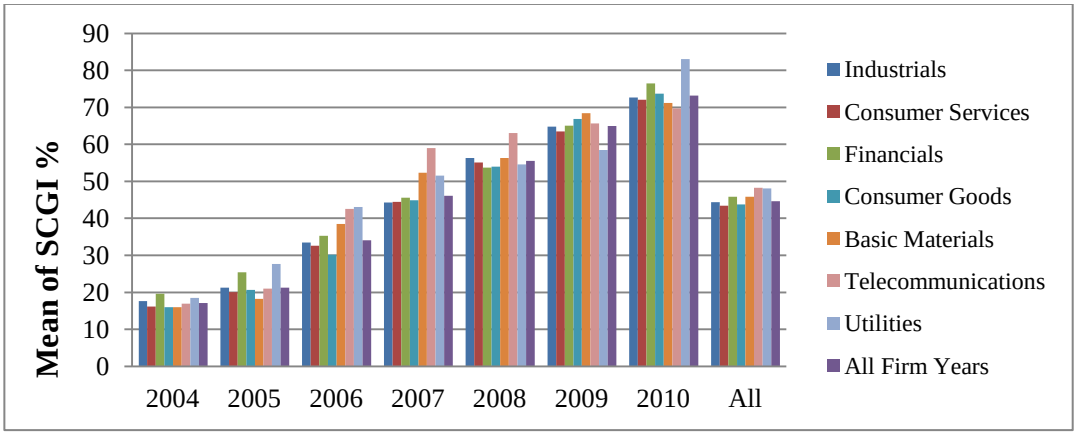


Figure 6.5: A comparison of the level of compliance with the SCGC between firms based on industry type using computed means.

Figure 6.5 shows the levels of compliance with the SCGC based on industry. There are three main observations. First, there is a convergence in terms of the level of compliance with corporate governance standards among sampled firms over the period. The level of compliance is higher in telecommunications and utilities firms, at 48%. After that, financials and basic materials industries each scored 46%. Industrial firms scored 44%, while consumer goods and services each scored 43%. Second, in line with the full sample, the level of compliance of all industries increased over the sample period. For example, as shown in Table 6.6, the levels of compliance by the sampled firms in industrials, financials, telecommunications and utilities firms are 17%, 19%, 17% and 18%, respectively, in 2004, compared with 72%, 76%, 70% and 83% in 2010.

Table 6.6: Summary descriptive statistics of levels of compliance with the SCGC and sampled based on industry type (%)

	All	2004	2005	2006	2007	2008	2009	2010
Panel A:SCGI								
Mean	44.61	17.08	21.29	34.10	46.13	55.52	64.98	73.15
Median	44.62	16.92	20.00	35.38	46.15	53.85	66.92	73.85
STD	22.33	4.86	7.04	11.29	13.82	12.21	10.93	8.39
Min	3.08	3.08	7.69	6.15	10.77	16.92	40.00	47.69
Max	90.77	33.85	38.46	61.54	83.08	87.69	90.77	90.77
Panel B:All industrials firms								
Mean	44.28	17.39	21.20	33.44	44.21	56.32	64.75	72.64
Median	43.08	18.46	20.00	33.85	46.15	55.38	64.62	73.85
T-test	0.36	0.93	0.58	0.24	0.43	0.31	0.39	0.27
STD	22.22	3.75	5.16	10.74	15.45	13.08	10.38	8.27
Min	10.77	10.77	10.77	13.85	18.46	32.31	40.00	52.31
Max	83.08	23.08	30.77	52.31	83.08	83.08	80.00	83.08
Panel C:All consumer services								
Mean	43.32	15.87	19.86	32.45	44.41	55.10	63.50	72.03
Median	44.62	16.92	19.23	34.62	45.38	56.15	64.62	73.85
T-test								
STD	22.70	6.72	8.57	13.40	15.16	13.05	11.27	6.89
Min	1.54	1.54	6.15	4.62	9.23	16.92	40.00	55.38
Max	83.08	33.85	38.46	61.54	66.15	75.38	80.00	83.08
Panel D:All financial firms								
Mean	45.79	19.02	25.45	35.24	45.59	53.71	65.03	76.50
Median	44.62	20.00	30.77	35.38	44.62	52.31	67.69	76.92
T-test	0.79	1.55	1.65	0.57	0.23	0.32	0.35	1.90*
STD	21.27	5.43	9.67	11.31	8.03	9.34	12.96	5.24
Min	6.15	6.15	10.77	21.54	30.77	40.00	43.08	69.23
Max	84.62	26.15	36.92	60.00	58.46	69.23	83.08	84.62
Panel E:All consumer goods								
Mean	43.70	15.80	20.42	30.21	44.90	53.99	66.85	73.71
Median	443.08	16.92	23.08	32.31	46.15	53.85	64.62	73.85
T-test	0.17	0.10	0.22	0.50	0.07	0.27	0.80	0.54
STD	23.55	4.19	6.27	11.74	15.35	14.16	11.74	10.91
Min	10.77	10.77	10.77	13.85	13.85	33.85	52.31	53.85
Max	90.77	26.15	29.23	43.08	75.38	87.69	90.77	90.77
Panel F:All basic materials firms								
Mean	45.82	15.77	18.27	38.46	52.31	56.35	68.46	71.15
Median	48.46	16.15	17.69	37.69	52.31	53.08	68.46	71.54
T-test	0.69	0.08	0.58	1.20	1.40	0.24	1.15	0.30
STD	21.88	3.46	3.63	5.58	8.22	9.23	7.31	7.70
Min	9.23	9.23	13.85	32.31	41.54	47.69	53.85	56.92
Max	80.00	20.00	23.08	46.15	67.69	75.38	78.46	80.00
Panel J:All telecommunications firms								
Mean	48.21	16.41	21.03	42.56	58.97	63.08	65.64	69.74
Median	46.15	16.92	20.00	44.62	60.00	60.00	67.69	78.46
T-test	0.91	0.19	0.18	1.25	1.54	0.95	0.29	0.43
STD	24.17	8.47	3.20	9.40	18.48	18.65	18.55	19.24
Min	7.69	7.69	18.46	32.31	40.00	46.15	46.15	47.69
Max	83.08	24.62	24.62	50.77	76.92	83.08	83.08	83.08
Panel H:All utilities firms								
Mean	48.13	18.46	27.69	43.08	51.54	54.62	58.46	83.08
Median	51.54	18.46	27.69	43.08	51.54	54.62	58.46	83.08
T-test	0.42	0.72	1.25	1.10	0.65	0.05	0.62	2.20**
STD	20.50	2.18	4.35	2.18	1.09	1.09	2.18	4.35
Min	16.92	16.92	24.62	41.54	50.77	53.85	56.92	80.00
Max	86.15	20.00	30.77	44.62	52.31	55.38	60.00	86.15

Notes: This table shows descriptive statistics of the aggregate levels of compliance with SCGI based on industry type 2004 to 2010. The *t-test* values in Panel *B, D, E, F, J,* and *H* is the independent sample *t-test* values for equality of mean. A mean difference with ** and * (5% and 10% significant level) indicates that the null hypothesis can be rejected assuming the equality of means.

Third, the compliance levels of all of the industries are low (average 20%) in the first two years, 2004 and 2005. However, the scores increased steadily from 2006, to an average of 75% in 2010. As discussed in Subsection 6.1.1, this is because the corporate

governance reforms in Saudi Arabia enhanced corporate governance practices. Table 6.6 indicates that independent sample *t-test* values examine whether the means of level of compliance of the other industries are significantly different from consumer services firms. It shows that there are no significant differences between the mean values among the industries. Thus, the null hypothesis is not rejected. This finding differs from Hussainey and Al-Nodel (2008), who find that there is a variation in governance disclosure among industries. This difference can be attributed to Hussainey and Al-Nodel because: (i) using a small sample; (ii) focusing only on one year cross-sectional data; and (iii) using online disclosure as a source of data. In contrast, this study examines a balanced and large sample of 560 firm-year observations over seven years. Also, it uses mainly annual reports as a highly reliable source of corporate governance information (Botosan, 1997; Alsaeed, 2006; Omar and Simon, 2011; Ntim *et al.*, 2012a; Samaha *et al.*, 2012).

Table 6.7 shows an analysis of the level of compliance with the 65 individual corporate governance provisions that form the SCGI. There are differences among industries in terms of which provisions they comply with. For instance, the level of compliance with disclosure of ownership structure (*DOS*) by utilities firms is 43%. In contrast, only 9% of firms in the basic materials industry complied with this provision. Similarly, the level of compliance with disclosure of CEO compensation (*DCEOC*) is 21% and 0% for utilities and telecommunications firms, respectively. In the same vein, compliance levels with drafting the firms' corporate governance code (*ICGC*) is 43% and 0% for telecommunications and utilities industries.

Ten provisions out of the 65 (15% out of 65) scored over 70% among all industries. However, 11 provisions (17%) were complied with by fewer than 30% of all sampled firms. Moreover, 44 provisions (68%) were varied in the level of compliance among industries. Utilities firms had the highest scores of all industries. More precisely, the utilities industry achieved the highest level of compliance with 25 provisions out of 65, followed by the telecommunications industry, with 16 provisions; the other industries achieved compliance with fewer than seven provisions.

Table 6.7: The average level of compliance with the SCGC provisions among the sampled firms based on industry type (%)

	Saudi Corporate Governance Index (65 Provisions)	Indust-rials	Con. Services	Financ-ials	Con. Goods	Basic Materials	Teleco.	Utilities
	Average of level of Compliance	**44.33**	**43.42**	**45.87**	**43.76**	**45.85**	**48.28**	**48.13**
	1- Board of Directors and Board Sub-Committees							
1	Role duality (BDUAL)	71	61	77	74	55	90	86
2	Board chairperson classification (BCP)	31	12	49	26	5	14	0
3	Majority of board is non-executive (BMBD)	75	73	70	69	93	76	79
4	Directors' classification (BDCL)	57	58	56	52	71	62	64
5	Disclosure of directors' biography (BDB)	2	0	0	0	0	0	0
6	Drafting policies of board and appointing committee members (BDPA)	0	0	0	0	0	0	0
7	Disclosure of directors on other firms' boards (BMOB)	59	58	65	61	75	71	71
8	Number of membership of directors in other boards of listed firm (BMBN)	59	58	68	60	71	71	71
9	Frequency of board meetings (BFBM)	94	87	91	86	96	100	93
10	Individual directors' meetings attendance (BDMA)	60	62	60	56	68	67	93
11	Existence of audit committee (AC) (AEX)	74	73	88	71	75	67	93
12	Description of the jurisdictions & duties of AC (ADJD)	39	45	58	44	43	43	71
13	Majority of AC is non-executive (ACOM)	14	23	30	34	38	24	43
14	Identify AC's chairperson (ACP)	16	19	29	35	18	29	36
15	AC's chairperson is independent (ACN)	58	58	68	51	71	48	57
16	AC's members are three or more (ACNM)	66	64	81	52	71	67	79
17	Disclosure of AC members' names (ADM)	66	69	60	62	70	67	79
18	Frequency of AC meetings (AFM)	58	53	60	49	63	57	71
19	Individual AC members' meeting attendance (AMMA)	24	14	10	13	20	19	14
20	Existence of nomination committee (NC) (NEX)	35	37	34	29	36	33	14
21	Description of the jurisdictions & duties of NC (NDJD)	25	24	29	27	29	33	14
22	Majority of NC is non-executive (NCOM)	14	18	19	19	18	19	14
23	Identify NC's chairperson (NCP)	4	7	10	13	5	19	14
24	NC's chairperson is independent (NCN)	28	35	30	19	32	29	14
25	Disclosure of NC members' names (NDM)	34	37	29	29	36	29	14
26	Frequency of NC meetings (NFM)	24	30	26	18	27	29	14
27	Individual NC members' meeting attendance (NMMA)	16	9	10	9	4	24	7
28	Existence of remuneration committee (RC) (REX)	34	39	34	29	36	48	14
29	Description of the jurisdictions & duties of RC (RDJD)	25	24	29	27	29	43	14
30	Majority of RC is non-executive (RCOM)	14	18	19	19	18	19	14
31	Identify RC's chairperson (RCP)	4	7	10	13	5	19	14
32	RC's chairperson is independent (RCN)	27	37	30	19	32	43	14
33	Disclosure of RC members' names (RDM)	33	39	29	29	36	43	14

Table 6.7 (Continued): The average level of compliance with the SCGC provisions among the sampled firms based on industry type (%)

	Saudi Corporate Governance Index (65 Provisions)	Indust-rials	Con. Services	Financ-ials	Con. Goods	Basic Materials	Teleco.	Utilities
34	Frequency of RC meetings (RFM)	24	30	26	18	27	43	14
35	Individual RC members' meeting attendance (RMMA)	16	9	10	9	4	24	7
	2- Disclosure and Transparency							
36	Disclosure of ownership Structure (DOS)	18	10	35	17	9	14	43
37	Director ownership (DBO)	43	45	29	44	34	19	50
38	Detailed disclosure of board's compensation (DBC)	82	77	91	91	93	100	86
39	Value of board's compensation (DVBC)	78	59	29	66	88	81	79
40	Disclosure of CEO/MD/GM compensation (DCEOC)	11	11	9	12	2	0	21
41	Disclosure of top management compensation (DTMC)	48	47	45	45	54	52	50
42	Disclosure of operation performance (DOP)	88	81	88	88	86	95	100
43	Disclosure of the firm's loans (DFL)	72	54	40	71	41	57	36
44	Comparison of five years performance (DPFY)	70	71	71	77	82	71	79
45	Disclosure of strategies and objectives (DSO)	52	72	43	82	66	76	93
46	Description of the principal activities (DPA)	59	75	74	94	59	86	93
47	Disclosure policy of dividends (DPD)	83	72	83	70	71	81	93
48	Disclosure of related party transactions (DRP)	56	61	69	58	68	62	57
49	Retraction/Punishment by supervisory body (DSP)	30	36	35	32	36	29	43
50	Narrative on the firm as a going concern (DGC)	59	60	57	57	64	71	71
51	Narrative on compliance/non compliance with SCGC (DCNC)	29	25	25	26	34	29	57
	3- Internal Control and Risk Management							
52	Effectiveness of internal control system (ICEF)	25	24	61	36	34	43	43
53	Control procedures for company risk management (ICRM)	7	4	44	12	2	0	7
54	Disclosure of firm's risks (IFR)	28	30	12	40	36	48	50
55	Firm's financial report approved (IFRA)	31	35	47	34	39	33	29
56	Applicable of accounting standards (ICAS)	40	38	51	27	36	10	79
57	Drafting firms' corporate governance code (ICGC)	6	8	17	8	9	43	0
	4- Rights of Shareholders and General Assembly GA							
58	Frequency of GA meetings (SGFM)	99	97	99	92	96	95	100
59	GA meeting agenda announced before meeting (SGMA)	81	47	0	44	46	67	50
60	Right of shareholders to appointment directors (SGSA)	100	100	100	100	100	100	100
61	One share one vote policy (SGAV)	0	1	0	4	0	0	0
62	GA meeting announced 20 days in advance (SGMN)	86	87	88	87	93	90	100
63	GA meeting results announced immediately (SGMR)	99	95	99	91	96	95	100
64	GA meeting within six months of year end (SGMT)	99	95	99	88	96	95	100
65	Firms' social contributions (SFSC)	24	18	51	27	36	29	7

To sum up, this section showed that the aggregate level of compliance is consistent with the level of compliance in other emerging countries. Corporate governance standards have improved over the study period from 2004 to 2010. An obvious improvement is noted following the introduction of the SCGC in 2006. At the provision level, the findings suggest variation in the level of compliance according to sub-indices. Consistent with existing literature, larger firms and firms audited by big-four audit firms are found to have better compliance with the SCGC. However, the analysis finds that industry type does not influence level of compliance with corporate governance.

6.2 DESCRIPTIVE STATISTICS OF THE VOLUNTARY GOVERNANCE CORPORATE DISCLOSURE MODEL

This section presents the descriptive statistics of the voluntary corporate governance disclosure model. Also, it reports the descriptive summaries of the explanatory and control variables. Subsection 6.2.1 discusses the presence of extreme values. Subsection 6.2.2 reports the explanatory variables, divided into two main sets, board characteristics and ownership structure. Board of directors characteristics include independent directors (*INDD*), board size (*BSZ*), audit firm size (*AFZ*) and the presence of a corporate governance committee (*GCC*). The second set of explanatory variables consists of ownership structure mechanisms, including: government ownership (*GONR*), institutional ownership (*IONR*), block ownership (*BONR*) and director ownership (*DONR*). Finally, Subsection 6.2.3 presents the descriptive statistics of the control variables, which include firm size (*FSZ*), firm growth (*SGR*), leverage (*LVG*), capital expenditure (*CEXC*) and dividends (*DV*).

6.2.1 Extreme Values in Financial Performance Proxies and Control Variables

The financial performance proxies and control variables contain extreme values. For example, the maximum value of ROA is 47%, whereas the minimum value was -31%. Similarly, Tobin's Q maximum and minimum values were 14 and 0.66, respectively, which indicates very large variation between the highest and lowest values. The control variables also show extreme values. For instance, it can be observed that the highest value of firm growth (*SGR*) is 832% and the lowest value is -87%. In addition, the maximum and minimum values of leverage (*LVG*) are 88% and 0%. Capital expenditure (*CEXC*) also

shows high variation between the sampled firms, where the highest expenditure is 265% and the lowest is 0%.

There are two reasons behind the emergence of the outliers: (i) the sample contains large, medium and small firms in order to improve generalisibility of the findings, which generated variation in the distribution of the variables (e.g., Eisenberg *et al.,* 1998); and (ii) some firms were affected by the 2007-2008 global economic recession (Haniffa and Hudaib, 2006; Mangena *et al.,* 2012). As shown in Table 6.8, the mean values of capital expenditure dropped to 7% and firm growth dropped to -1.4% in 2009, while they were at 10% and 15% in 2008.

These extreme values can lead to bias in the findings and can potentially violate the Ordinary Least Squares (OLS) assumptions (Brown and Tucker, 2011; Ntim *et al.,* 2012a). To minimise the impact of the outliers, and in line with the literature on corporate governance (e.g., Black, 2006; Ammann *et al.,* 2011; Ntim *et al.,* 2012a; Ammann *et al.,* 2013), the financial proxies and control variables are winsorised at 5% and 95% levels. These variables are ROA, Tobin's Q, leverage, firm growth, firm size and capital expenditure. The entire sample (80 firms over seven years) is ordered from the highest value to the lowest. Thus, the 28 highest and 28 lowest values are replaced with the 29^{th} and 532^{nd} values, respectively. Therefore, the descriptive statistics for these variables are investigated as winsorised values.

6.2.2 Descriptive Statistics of the Explanatory Variables

Panels *B*, *C*, *D* and *E* of Table 6.8 contain the analysis of board characteristics variables. Specifically, Panel *B* shows that the proportion of independent directors among Saudi corporate boards ranges between 100% and 0%, with an average of 67%. The mean shows a steady increase over the sample period. It is noteworthy that it is 64% in 2004 and increases to 73% in 2010. This implies that the corporate governance reforms as well the launch of the corporate governance code in Saudi Arabia in 2006 assisted in increasing the independence of corporate boards. Al-Abbas (2009) reports that the proportion of independent directors is 81% among Saudi listed firms, which is relatively higher than the current findings. One reason may be Al-Abbas's use of an unbalanced small sample (78 observations from 2005 to 2007).

Despite Al-Abbas's different findings, the result of this study is consistent with some of the literature on corporate governance in emerging countries. For example, Haniffa and Cooke (2002) find that independent directors constituted 45% of Malaysian firms' boards of directors. Similarly, Samaha *et al*. (2012) report that the proportion of

independent directors is 65% in Egyptian listed firms. However, some prior studies show relatively low representation for independent directors. For instance, Henry (2008) and Chen (2011) report that independent directors make up 25% and 10% of the boards of directors in Australia and Taiwan, respectively.

Panel *C* of Table 6.8 shows analysis of board size variable as measured by the number of directors on firms' boards. The board size among the sampled firms ranges from 4 to 13 members, with an average of 8.42 members. This average is in line with the Saudi Corporate Governance Code (SCGC), which recommends in Article 12 that the board of directors should be between three and eleven members. Furthermore, it is in line with the findings of Al-Abbas (2009), Al-Nodel and Hussainey (2010) and Al-Janadi *et al.* (2013), who report that the board size in Saudi firms is about 8.3, 7.9 and 8.4, respectively. It is also consistent with other corporate governance literature.

According to Henry (2008), Akhtaruddin *et al*. (2009) and Schiehll *et al*. (2013), the average number of directors on firms' boards is 8.06, 7.97 and 7.40 in Australia, Malaysia and Brazil, respectively. However, Ntim *et al*. (2012a) and Samaha *et al*. (2012) report relatively higher numbers in South Africa and Egypt, of 11.31 and 10.4. Finally, Panels *D* and *E* in Table 6.8 report the descriptive statistics of audit firm size and the presence of a corporate governance committee. These two categorical variables use a binary scoring scheme. As shown in Table 6.8, 58% of the firms are audited by a big-four audit firm; however, only 10% of the firms have a corporate governance committee.

The second set of variables includes corporate ownership structure. Panel *F* of Table 6.8 shows that government ownership as a percentage of the total number of shares ranges between 0% and 84%, with an average of 42%. As shown in Table 6.8, government ownership is characterised by relatively stable conditions during the sample period, where it was 44% in 2004 and decreased slightly to 40% in 2010. This high government ownership in listed firms is consistent with studies conducted on Saudi Arabia by Al-Abbas (2009) and Al-Nodel and Hussainey (2010). However, Al-Moataz and Lakhal (2012) and Al-Janadi *et al.* (2013) find that government ownership in Saudi listed firms is 10.8% and 11.2%, respectively. Their results might be different from the finding of this study because: (i) the sample used by these two studies covers the same period (only two years – 2006 and 2007); and (ii) their studies used fewer than 90 observations.

Table 6.8: Summary descriptive statistics of variables of the voluntary corporate governance disclosure model

Variables	All	2004	2005	2006	2007	2008	2009	2010
Dependent variable								
Panel A: SCGI								
Mean	44.61	17.08	21.29	34.10	46.13	55.52	64.98	73.15
Median	44.62	16.92	20.00	35.38	46.15	53.85	66.92	73.85
STD	22.33	4.86	7.04	11.29	13.82	12.21	10.93	8.39
Min	3.08	3.08	7.69	6.15	10.77	16.92	40.00	47.69
Max	90.77	33.85	38.46	61.54	83.08	87.69	90.77	90.77
Explanatory variables								
Panel B: Independent directors (%)								
Mean	67.31	64.00	63.91	64.11	65.12	68.63	72.15	73.28
Median	66.67	62.50	61.25	62.50	63.64	66.67	71.43	73.86
STD	19.63	21.31	21.31	21.04	20.34	17.99	16.21	16.63
Min	0.00	0.00	0.00	0.00	22.22	25.00	33.33	33.33
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Panel C:Board size								
Mean	8.42	8.31	8.33	8.39	8.46	8.46	8.46	8.53
Median	9.00	8.00	8.00	8.50	9.00	9.00	9.00	9.00
STD	1.76	1.80	1.81	1.83	1.76	1.77	1.73	1.71
Min	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Max	13.00	13.00	13.00	13.00	12.00	12.00	12.00	12.00
Panel D: Audit firm size (%)								
Mean	58.00	51.00	55.00	59.00	59.00	61.00	59.00	59.00
Median	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STD	49.00	50.00	50.00	50.00	50.00	49.00	50.00	50.00
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Panel E: presence of Corporate governance committee (%)								
Mean	10.00	1.00	1.00	3.00	6.00	9.00	19.00	30.00
Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STD	30.00	11.00	11.00	16.00	24.00	28.00	39.00	46.00
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Panel F: Government ownership (%)								
Mean	42.17	44.76	44.25	44.29	42.10	41.22	40.52	40.35
Median	42.22	45.00	44.00	44.00	42.00	41.00	41.00	40.00
STD	19.69	19.25	19.25	19.40	19.71	20.03	20.35	20.42
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	83.69	81.15	81.15	82.30	82.61	83.28	83.69	83.69
Panel G: Institutional ownership (%)								
Mean	6.98	5.82	5.70	5.90	6.66	7.86	7.84	7.84
Median	7.00	6.00	6.00	6.00	7.00	8.00	8.00	8.00
STD	11.03	10.75	10.75	10.75	11.24	11.34	11.36	11.36
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Panel H: Block ownership (%)								
Mean	61.96	61.57	61.13	61.47	61.33	62.45	62.60	62.51
Median	62.00	62.00	61.00	61.00	61.00	62.00	63.00	63.00
STD	24.83	24.57	24.58	24.75	25.23	25.20	25.11	25.08
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	85.21	84.76	84.76	85.19	85.21	83.28	83.69	83.69

Table 6.8 (Continued): Summary descriptive statistics of variables of the voluntary corporate governance disclosure model

Variables	All	2004	2005	2006	2007	2008	2009	2010
Panel I: Director ownership (%)								
Mean	13.06	11.23	11.43	11.53	12.84	13.61	14.46	14.56
Median	13.00	11.00	11.00	12.00	13.00	14.00	14.00	15.00
STD	16.82	17.05	17.06	17.06	16.77	16.79	16.88	16.73
Min	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Max	71.60	71.60	71.60	71.60	68.63	68.77	67.03	66.60
Control variables								
Panel J:Firm Size								
Mean	21.42	21.21	21.35	21.47	21.65	21.74	21.79	21.82
Median	21.36	21.05	21.13	21.27	21.47	21.54	21.59	21.61
STD	8.84	8.74	8.77	8.79	8.83	8.89	8.9	8.9
Min	18.61	18.61	18.61	18.61	18.61	18.61	18.61	18.61
Max	25.53	25.53	25.53	25.53	25.53	25.53	25.53	25.53
Panel K: Firm growth (%)								
Mean	14.54	15.21	23.80	20.59	14.25	14.82	-1.46	10.31
Median	9.32	11.95	18.90	13.48	10.44	12.06	-3.03	3.40
STD	29.62	27.08	30.96	25.50	28.21	26.51	28.57	33.92
Min	-37.62	-37.62	-37.62	-19.15	-37.62	-37.62	-37.62	-37.62
Max	89.66	89.66	89.66	89.66	89.66	89.66	89.66	89.66
Panel L: Leverage (%)								
Mean	21.46	18.71	20.09	20.23	23.00	25.27	25.25	23.93
Median	8.85	7.12	7.14	6.97	11.85	14.87	11.19	10.17
STD	27.27	26.88	26.98	26.62	27.09	27.63	27.97	27.94
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15
Panel M: Capital expenditure (%)								
Mean	8.57	8.46	9.68	9.26	9.70	9.88	6.95	6.05
Median	5.87	5.10	7.14	5.89	7.04	7.67	5.00	3.82
STD	8.25	8.71	8.63	8.55	9.23	8.11	6.78	6.87
Min	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Max	28.83	28.83	28.83	28.83	28.83	28.83	28.83	28.83
Panel N: Paid dividends (%)								
Mean	65.00	68.00	58.00	64.00	69.00	68.00	64.00	66.00
Median	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STD	48.00	47.00	50.00	48.00	47.00	47.00	48.00	48.00
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Notes: the details of the variables is as follows: the Saudi Corporate Governance Index (*SCGI*), independent directors (*INDD*), board size (*BSZ*), audit firm size (*AFZ*), presence of a corporate governance committee (*CGC*), government ownership (*GONR*), institutional ownership (*IONR*), block ownership (*BONR*), director ownership (*DONR*), firm size (*FSZ*), leverage (*LVG*), firm growth (*SGR*), capital expenditure (*CEXC*) and paid dividends (*DV*). Chapter Five presented definitions of all the variables used.

Panel *G* shows the institutional ownership in Saudi listed firms that measured by shares held by institutional shareholders. Over the 560 observations, the maximum and minimum values are 40% and 0%, with an average of 6%. There is an apparent decrease in institutional ownership in the capital structure of Saudi listed firms, which is consistent with some studies on corporate governance. For example, Aggarwal *et al*. (2011) indicate that the average institutional ownership in Greece, Hong Kong and New Zealand is 8%, 8% and 9%, respectively. In contrast, Barako *et al*. (2006), Chung and Zhang (2011) and Ntim *et al*. (2012a) report high levels of institutional ownership (over 50%) in Kenya, the US and South Africa. As discussed in Chapter Nine, the apparent low level of institutional

investment in the Saudi stock market can be attributed to the dominance of individuals' investments.

Panel *H* shows the statistical analysis for the block ownership variable that is used as a proxy for the ownership of major shareholders who own 5% or more. The maximum percentage of shares owned by large shareholders is 85% and the minimum is 0%; the average is 62%. This average is consistent with the findings from other emerging countries. Barako *et al*. (2006), Ntim *et al*. (2012a) and Samaha *et al*. (2012) report that block shareholders constitute 72%, 62% and 57% of firms' capital structure in Kenya, South Africa and Egypt, respectively. Regarding director ownership, Panel *I* in Table 6.8 shows that the highest percentage of director ownership is 71%, while the lowest percentage is 0%. Also, the analysis shows that the average director ownership over the complete sample is 15%. This low average is in line with both developed and developing countries; for instance, Eng and Mak (2003) report that the percentage of shares held by directors is 14% in Singapore. Similarly, Samaha *et al*. (2012) find that director ownership made up only 9% of total shares in Egyptian firms. However, Yermack (1996) and Henry (2008) report that director ownership constitutes 9% and 6% of ownership in US and Australian firms, respectively.

6.2.3 Descriptive Statistics of the Control Variables

Panel *J* of Table 6.8 presents the analysis of firm size measured by the natural log of firms' total assets. The range of the firm size variable is between 25.53 ($33 bn) and 18.61 ($32 ml), with an average of 21.42 ($613 ml). The mean of firm size slightly increases over the sample period. Panel *K* shows that the firms' growth, proxied by sales growth, is a maximum of 89% and a minimum of -37%, with a mean of 15%. The average value of the firm growth of the sampled firms reveals high levels of variation. Specifically, the mean is 15.21% in 2004, and drops dramatically to -1.46% in 2009, then increases to 10.31% in 2010. As discussed in Subsection 6.2.1, a possible explanation for this fluctuation is the repercussions of the global economic recession in 2008 (Haniffa and Hudaib, 2006; Mangena *et al.*, 2012).

Panel *L* of Table 6.8 reports that, overall, the leverage among Saudi listed firms is 21%, with a maximum value of 84% and a minimum value of 0%. Also, Alsaeed (2006), Al-Abbas (2009) and Al-Nodel and Hussainey (2010) find leverage values of 25%, 18% and 25%, respectively, which is consistent with the findings from the current study.

In other emerging economies, the leverage ratio is comparable with the finding from the current study. Haniffa and Cooke (2002) and Barako *et al*. (2006) report that the

leverage ratio is 20% and 27% among Malaysian and Kenyan firms, respectively. Panel *M* shows a summary of the capital expenditure, measured by capital expenditure to total assets. The maximum value is 28.83% and the minimum is 0.11%, with an average of 8.57%. This average value is almost consistent with Ntim *et al*. (2012a), who report capital expenditure among South African firms of 13%. Similar to firm growth, the capital expenditure for 2009 decreased in comparison with 2008 by 30%, which provides evidence of the impact of the global economic recession in 2008.

The next section presents the descriptive statistics for the firm financial performance models. In particular, it presents the descriptive summaries of the financial proxies and the individual corporate governance mechanisms.

6.3 DESCRIPTIVE STATISTICS OF THE FIRM FINANCIAL PERFORMANCE MODELS

As discussed in Chapter Five, two different models are adopted to examine the relationship between good corporate governance practices and firm financial performance: the equilibrium-variable model and the compliance-index model. In both models, the dependent variables (financial proxies) are return on assets (ROA) and Tobin's Q (Q-ratio). The equilibrium-variable model employs a number of corporate governance mechanisms as explanatory variables. However, the SCGI is used as an explanatory variable in the compliance-index model. The control variables for both models are similar to those used in the voluntary corporate governance disclosure model presented in Subsection 6.2.3.

Given that the analyses of the SCGI and the control variables have been discussed in the above sections, the following presents the analysis of the financial proxies (ROA and Q-ratio) and explanatory variables used in the equilibrium-variable model, including: CEO duality (*BDUAL*), proportion of independent directors (*INDD*), corporate board size (*BSZ*), frequency of board meetings (*BFM*), presence of board sub-committees (*BCOM*) and director ownership (*DONR*).

6.3.1 Descriptive Statistics for Financial Proxies

Panel *A* of Table 6.9 shows the descriptive statistics of ROA as defined by the operation profit to the total assets. The aggregated ROA ranges between 23% and -3%, with an average of 6.7%. Focusing on the yearly analysis, an increase can be observed in the mean values between 2004 and 2006, followed by a decrease between 2008 and 2010.

This can be ascribed to the effect of the economic recession in 2008 (Haniffa and Hudaib, 2006; Mangena *et al.*, 2012).

Table 6.9: Summary descriptive statistics of variables of the firm financial performance models

Variables	All	2004	2005	2006	2007	2008	2009	2010
Dependent variable								
Panel A: Return on Assets ROA (%)								
Mean	6.71	6.85	7.08	7.75	7.62	6.76	5.58	6.00
Median	4.84	4.56	5.11	5.90	5.20	5.55	3.72	4.56
STD	8.27	7.43	7.40	7.16	7.04	6.67	6.82	6.38
Min	-3.44	-3.44	-3.44	-3.44	-3.44	-3.44	-3.44	-3.44
Max	23.31	23.31	23.31	23.31	23.31	23.31	23.31	23.31
Panel B: Tobin's Q								
Mean	2.63	2.71	4.90	2.55	2.71	1.41	1.71	1.61
Median	1.88	2.37	5.36	2.10	2.29	1.19	1.33	1.32
STD	2.01	1.21	1.67	1.23	1.29	0.66	0.99	0.93
Min	0.94	0.94	1.54	1.03	1.08	0.94	0.94	0.94
Max	6.49	6.49	6.49	6.49	6.49	4.85	5.90	5.79
Explanatory variables								
Panel C: CEO duality (%)								
Mean	31.00	49.00	52.50	45.00	31.25	16.25	12.50	10.00
Median	0.00	0.00	100.00	0.00	00.00	0.00	0.00	0.00
STD	46.00	50.03	50.25	50.00	47.00	37.12	33.28	30.20
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Panel D: Independent directors (%)								
Mean	67.31	64.00	63.91	64.11	65.12	68.63	72.15	73.28
Median	66.67	62.50	61.25	62.50	63.64	66.67	71.43	73.86
STD	19.63	21.31	21.31	21.04	20.34	17.99	16.21	16.63
Min	0.00	0.00	0.00	0.00	22.22	25.00	33.33	33.33
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Panel E: Board size								
Mean	8.42	8.31	8.33	8.39	8.46	8.46	8.46	8.53
Median	9.00	8.00	8.00	8.50	9.00	9.00	9.00	9.00
STD	1.76	1.80	1.81	1.83	1.76	1.77	1.73	1.71
Min	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Max	13.00	13.00	13.00	13.00	12.00	12.00	12.00	12.00
Panel F: Frequency of board meetings								
Mean	5.17	5.08	4.95	5.15	5.21	5.03	5.23	5.53
Median	5.00	4.50	4.00	4.00	4.50	4.50	5.00	5.00
STD	2.16	2.03	1.98	2.41	2.20	2.12	1.79	2.53
Min	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.00
Max	14.00	13.00	11.00	14.00	12.00	11.00	11.00	14.00
Panel G: Board sub-committees (%)								
Mean	50.18	10.00	15.00	31.25	58.75	65.00	78.75	92.50
Median	100.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00
STD	50.04	30.19	35.93	46.64	49.54	48.00	41.17	26.51
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Panel H: Director ownership (%)								
Mean	13.06	11.23	11.43	11.53	12.84	13.61	14.46	14.56
Median	13.00	11.00	11.00	12.00	13.00	14.00	14.00	15.00
STD	16.82	17.05	17.06	17.06	16.77	16.79	16.88	16.73
Min	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Max	71.60	71.60	71.60	71.60	68.63	68.77	67.03	66.60

Notes: Variables are defined as follows: return on assets (ROA), Tobin's Q (*Q-ratio*), CEO duality (*CEO*), independent directors (*INDD*), board size (*BSZ*), frequency of board meetings (*BFBM*), presence of board sub-committees (*BCOM*) and director ownership (*DONR*). The explanatory variable of the equilibrium-variable model, the SCGI, and control variables for both models have been analysed in Table 6.8. Chapter 5 presented definitions of all variables used.

The average of the ROA over the sample period is in line with existing studies on developing countries. Klapper and Love (2004) use cross-country data and find an ROA of

9%, 10%, 5% and 5% in Hong Kong, Malaysia, Thailand and Turkey. Furthermore, recent studies by Price *et al*. (2011), Mangena *et al*. (2012) and Ntim *et al*. (2012a) report averages of 3.2%, 4.8% and 11% in Mexico, Zimbabwe and South Africa, respectively. However, Gupta *et al*. (2009) and Renders *et al*. (2010) find an ROA of 3.3% and 6% in Canada and across European countries.

Panel *B* of Table 6.9 shows statistical analysis of the results of the Q-ratio, defined by the ratio of a firm's market value to its replacement cost. The highest average ratio among the sampled firms is 6.49, whilst the lowest is 0.94 and the average is 2.51. Comparing the mean over the sample years shows a high level of variation. The Q-ratio increased by 80% in 2005 and dropped by 48% in 2006 .Then, it continued on a downward trajectory in 2010 to 1.61. The obvious reason behind that is the crash of the Saudi stock market in 2006, where it lost about 53% of its value (Al-Abbas, 2009; Alshehri and Solomon, 2012). The aggregated mean of the Q-ratio is consistent with studies in emerging economies. For instance, Klapper and Love (2004) report Q-ratios for cross-country samples of 2.82, 2.23, 1.9 and 2.07 in India, Indonesia, South Africa and Thailand. Also, Price *et al*. (2011) and Mangena *et al*. (2012) find a Q-ratio equal to 1.00, while Gupta *et al*. (2009) and Renders *et al*. (2010) find Q-ratios of 1.72 and 1.82 in Canada and across European countries.

6.3.2 Descriptive Statistics of the Individual Corporate Governance Mechanisms

As discussed above, the explanatory variables used in the equilibrium-variable model are corporate governance mechanisms. Table 6.9 contains the descriptive statistics of the variables, as follows. Panels *D*, *E* and *H* present the independent directors (*INDD*), board size (*BSZ*) and director ownership (*DONR*), which have been discussed in Table 6.8 and Subsection 6.2.2 as explanatory variables for the voluntary corporate governance disclosure model. Panel *C* statistically describes CEO duality, which is defined by combining the roles of chairperson and CEO.

Table 6.9 shows that 31% of the firms combine these two positions. It can be noted from yearly comparisons that there has been an improvement in the percentage of firms that practice splitting the roles of CEO and chairperson. While the percentage of CEO duality is 49% in 2004, it decreased to 10% in 2010. This improvement supports the growing attention paid to this mechanism to limit agency problems and exploitation by executive management (Monks and Minow, 2011; Krause *et al.,* 2014). Furthermore, this is consistent with the Saudi Corporate Governance Code (SCGC), which recommends splitting these two responsibilities. The aggregated mean is in line with Al-Abbas (2009).

He reports that 33% of Saudi listed firms had CEO duality. Similarly, Haniffa and Hudaib (2006), Mangena and Chamisa (2008) and Samaha *et al*. (2012) report that CEO duality is 26%, 36% and 61% among Malaysian, South African and Egyptian firms. However, Daily and Dalton (1994) and Bozec (2005) show this to be 45% and 23% in the US and Canada, respectively.

Panel *F* shows that the frequency of board meetings ranges between one and 14 meetings annually, with an average of 5.17 meetings per year. The mean value is moderately stable over the sample period and is consistent with studies in developing countries. El Mehdi (2007) and Jackling and Johl (2009) report 4 and 6.32 annual board meetings in Tunisia and India, respectively. However, previous studies find that US firms have meetings more often (e.g., Vafeas, 1999a; Karamanou and Vafeas, 2005; Fich and Shivdasani, 2006). Finally, Panel *G* reports the statistical summary of board sub-committees, which is used in this study as a categorical variable. The aggregated mean indicates that 50% of the listed firms have three board sub-committees: audit, remuneration and nomination. The attention paid to establishing board sub-committees increases over the sample period. The average is 10% in 2004, and rises to 92% in 2010. This coincides with the introduction of the SCGC, which sheds light on the importance of establishing audit, remuneration and nomination committees.

6.4 CHAPTER SUMMARY

This chapter presented the summary descriptive statistics of the constructed Saudi Corporate Governance Index (SCGI) and the variables used in employed models. These variables are used to examine the relationship among corporate governance, voluntary corporate governance disclosure and firm financial performance. Specifically, the chapter aimed to achieve three objectives. First, it presents a detailed analysis of the SCGI. Second, it investigates whether the introduction of the SCGC has helped improve the level of compliance with corporate governance standards. Third, descriptive statistics are presented for the financial proxies, the explanatory variables and the control variables used in the employed models.

The chapter was divided into three sections. The first section showed the statistical analysis of the SCGI and identified the factors influencing the level of compliance with corporate governance standards. The results indicate that the aggregated corporate governance score is 44%, while the level of compliance showed a gradual improvement during the study period from 2004 to 2010.

Additionally, the results show that compliance with 78% of the provisions (51 out of 65) improved significantly during the sample period. Furthermore, the analysis showed a high level of compliance with provisions relating to the rights of shareholders and general assembly, with an average of 69% of firms complied, followed by the disclosure and transparency sub-index, with a 55% average. Although the level of compliance with board of directors and committees' provisions is 37%, the compliance score for internal control and risk management provisions is the lowest, at 26% of firms complied.

To identify the factors influencing the level of compliance among the sampled firms, the complete sample is divided into large and small firms, firms audited by big-four and non-big-four audit firms, and according to industry type. The results are in line with existing studies, which indicate that large firms are more likely to comply with governance rules than small firms. In addition, firms audited by the big-four show high levels of disclosure. Regarding industry type, the results showed a substantial convergence in the level of compliance among firms.

The second section initially addressed the extreme values for each of the financial proxies and control variables, and the treatment of winsorising the data to avoid violating the OLS assumptions. Subsequently, it presented the analysis of the variables used in the voluntary corporate governance disclosure model. As the findings of the SCGI were reported in the first part of the chapter, this subsection was limited to explanatory (corporate governance mechanisms) and control variables. The results showed great similarity with studies conducted in developed and developing economies. The third section provided the summary descriptive statistics for firm financial performance. Specifically, it investigated the financial proxies (ROA and Q-ratio) and corporate governance mechanism variables.

In the next chapter, the results from the OLS assumptions of multicollinearity, autocorrelation, normality, homoscedasticity and linearity are presented. A multivariate regression analysis is subsequently used to investigate whether the introduction of the SCGC has helped improve corporate governance practices, voluntary corporate governance disclosure and firm financial performance. Finally, it also presents the findings from a number of robustness analyses, and discusses the potential endogeneity problem.

CHAPTER SEVEN

QUANTITATIVE EMPRIRICAL FINDINGS AND DISCUSSION

7. INTRODUCTION

Chapter Six presented the descriptive statistical summaries of the constructed Saudi Corporate Governance Index (SCGI) and the other variables used in the empirical models. This chapter presents the results obtained by estimating the multivariate regression. The chapter particularly seeks to achieve the following four objectives. First, it conducts diagnostic analyses relating to the variables used in examining the relationship among corporate governance practices, voluntary corporate governance disclosure and firm financial performance. Second, the chapter discusses the results obtained from the Ordinary Least Squares (OLS) estimation technique used to assess the determinants of voluntary corporate governance disclosure to answer the third research sub-question. Third, it discusses the results from the OLS regressions relating to both the equilibrium-variable model and the compliance-index model to answer the fourth and fifth research sub-questions. Fourth, it examines the robustness of the results and tests for the existence of potential endogeneity problems.

This chapter is organised as follows. Section 7.1 presents the results of bivariate correlation and the OLS assumptions. Section 7.2 reports the findings from the multivariate regression analyses for the empirical models, while Section 7.3 discusses the robustness analysis and endogeneity problems in the models.

7.1 BIVARIATE CORRELATION AND OLS ASSUMPTIONS

As discussed in Chapters Five and Six, multivariate regression was used to investigate the relationship among corporate governance practices, voluntary corporate governance disclosure and firm financial performance. Consistent with corporate governance studies (e.g., Black, 2001; Gompers *et al.*, 2003; Haniffa and Hudaib, 2006; Ntim *et al.*, 2012a; Samaha *et al.*, 2012; Ntim and Soobaroyen, 2013), OLS assumptions including normality, multicollinearity, autocorrelation, heteroscedasticity and linearity were tested. This helps to develop the "best" model in the sense that all the estimated coefficients have the "right" signs (Gujarati, 2003, p.516).

To begin, the normality of continuous variables was tested to check whether the variables are normally distributed (Cooke, 1998; Black, 2001). Following Ntim *et al*. (2012a), this study examined the normality of data using probability-probability (P-P), quintile-quintile (Q-Q) and histograms. The constructed Saudi Corporate Governance Index (SCGI) appeared to be normally distributed. However, the ownership variables showed mixed results. For example, government and institutional ownership suffered from slightly non-normal distribution, while director and block ownership were fairly normally distributed. Also, the findings suggest that most of the corporate governance variables employed in this study are relatively normally distributed. With regard to the financial proxies, while return on assets (ROA) is slightly normally distributed, Tobin's Q (Q-ratio) follows a non-normal distribution. Furthermore, some of the control variables, such as leverage and capital expenditure, are not normally distributed.[53]

In addition, the Skewness and Kurtosis tests corroborate the finding of fairly normal distribution of most of the variables. Specifically, the normal distribution of the Saudi Corporate Governance Index (SCGI) was investigated using Skewness and Kurtosis tests. For Skewness, the value of symmetrical distribution is zero (Gujarati, 2003; Brooks, 2008). Table 7.2 shows that the Skewness of the SCGI is 0.09 (slightly skewed to the right), which is an approximate symmetric curve (a normal distribution). For Kurtosis, the hypothesis of non-normality can be rejected if its value is 3 (Gujarati, 2003; Brooks, 2008). Table 7.2 shows that the Kurtosis value of the SCGI is -1.22, which implies that the data is flatly distributed. Regarding ROA, the statistical analysis in Table 7.2 presents a Skewness of 0.52, indicating a slightly positive skew. The Kurtosis value of 2.43 indicates an approximately perfect distribution. However, Table 7.2 shows a Skewness value of the Q-ratio of 2.16, indicating a highly positive Skewness. This implies that the hypothesis of non-normality cannot be rejected, whereas a Kurtosis value of 5.93 indicates that the Q-ratio is not normally distributed.[54]

Regarding other variables, Table 7.2 shows that the Skewness values for most of the continuous variables fall between 0.05 and 1.31, except government and institutional ownership, whose values are over 2. For Kurtosis test statistics, the variables fall between 0.18 and 3.44, indicating Skewness in some of the data. Gujarati (2003) argues that it is difficult for any research data to be perfectly normally distributed. Therefore, a level of non-normality in some of the data is expected.

[53] Because of the large dataset and for brevity reasons, some of the test results are not reported here, but are available upon request.

[54] As explained further below, the non-normality problem was addressed by transforming and winsorising the affected variables.

Table 7.1: Pearson and Spearman correlation matrices of all variables for all (560) firm years

Variable	SCGI	GONR	IONR	BONR	DONR	BDUAL	INDD	BSZ	BFM	CGC	BCOM	AFZ	ROA	Q ratio	FSZ	LVG	SGR	CEXC	DV
SCGI	1	.130***	.061	.119***	.077*	.451***	.054	.073*	.122***	.326***	.673***	.117***	-.012	-.566***	.209***	.166***	-.159***	-.016	.093**
GONR	.144***	1	.015	.628***	-.057	.185***	.082*	.312***	.333***	.043	.031	.302***	.226***	-.154***	.635***	.177***	-.002	.315***	.435***
IONR	.045	.004	1	.354***	.089*	-.050	.000	.230***	-.111***	-.009	.022	.280***	-.112***	-.247***	.302***	.285***	.020	.069	.096**
BONR	.125***	.662***	.361***	1	.493***	.142***	-.185***	.343***	.225***	.059	.079*	.481***	.255***	-.140***	.684***	.365***	.087**	.347***	.392***
DONR	.063	-.159***	.059	.411***	1	.120***	-.276***	.259***	-.056	-.009	.186***	.243***	.207***	.017	.227***	.236***	.109**	.179***	.144***
BDUAL	.456***	.176***	-.032	.155***	.086**	1	.052	-.023	.114***	.143***	.308***	.074*	.110***	-.243***	.164***	.051	-.028	.066	.198***
INDD	.053	.085*	.004	-.146***	-.231***	.065	1	.017	.006	.082*	-.051	-.102**	-.083**	-.021	-.158***	-.088**	-.098**	-.171***	-.121***
BSZ	.066*	.260***	.225***	.318***	.253***	-.032	-.014	1	.000	.099**	.146***	.297***	.110***	-.162***	.526***	.226***	-.003	.248***	.251***
BFM	.129***	.358***	-.110***	.251***	-.070*	.107**	.013	-.015	1	.103**	.052	.013	.044	.023	.147***	.030	-.035	.131***	.164***
CGC	.321***	.082*	-.014	.070*	.009	.143***	.093**	.092**	.113***	1	.197***	.065	-.056	-.220***	.119***	.021	-.111***	.028	.003
BCOM	.648***	.006	.045	.063	.175***	.308***	-.026	.132***	.054	.197***	1	.083*	.021	-.403***	.189***	.205***	-.095**	.054	.130***
AFZ	.117***	.295***	.296***	.477***	.223***	.074*	-.066	.301***	.030	.065	.083*	1	.124***	-.149***	.524***	.412***	.081*	.308***	.217***
ROA	-.008	.251***	-.110***	.274***	.246***	.117***	-.100**	.146***	.039	-.053	.024	.136***	1	.251***	.198***	-.098**	.182***	.179***	.530***
Q ratio	-.514***	-.128***	-.227***	-.129***	.068	-.246***	-.026	-.131***	.033	-.208***	-.398***	-.137***	.223***	1	-.387***	-.276***	.113***	-.035	-.102**
FSZ	.214***	.624***	.304***	.698***	.189***	.175***	-.156***	.490***	.176***	.099**	.194***	.523***	.231***	-.373***	1	.580***	.113***	.430***	.420***
LVG	.153***	.166***	.355***	.378***	.216***	.061	-.056	.212***	.033	.014	.208***	.408***	-.108**	-.262***	.592***	1	.101**	.314***	.023
SGR	-.133***	-.004	.024	.083*	.105**	-.039	-.088**	.024	-.036	-.098**	-.096**	.077*	.196***	.109***	.100**	.077*	1	.206***	.040
CEXC	-.015	.286***	.076*	.326***	.167***	.058	-.167***	.245***	.138***	.018	.056	.306***	.189***	-.014	.413***	.285***	.198***	1	.224***
DV	.097**	.419***	.102**	.389***	.132***	.198***	-.117***	.260***	.175***	.003	.130***	.217***	.539***	-.095**	.432***	.037	.043	.221***	1

Notes: The bottom left half of the table contains Pearson's parametric correlation coefficients, whereas the upper right half of the table shows Spearman's non-parametric correlation coefficients. ***, ** and * indicate significance at 1%, 5% and 10% levels, respectively. Variables are defined as follows: the Saudi Corporate Governance Index (*SCGI*), government ownership (*GONR*), institutional ownership (*IONR*), block ownership (*BONR*), director ownership (*DONR*), CEO duality (*BDUAL*), proportion of independent directors (*INDD*), board size (*BSZ*), frequency of board meetings (*BFM*), the presence of a corporate governance committee (*CGC*), the presence of board sub-committees (*BCOM*), audit firm size (*AFZ*), return on assets (*ROA*), Tobin's Q (Q-ratio), firm size (*FSZ*), leverage (*LVG*), firm growth (*SGR*), capital expenditure (*CEXC*) and dividends (*DV*). Chapter Five presents the detailed definitions of variables employed.

However, Brooks (2008, p.164) suggests that "*for sample sizes that are sufficiently large, violation of the normality assumption is virtually inconsequential*". Thus, the large sample in this study (560 firm-year observations) can mitigate the negative impact of the existing non-normality of some variables. The histograms for those variables are presented in Appendix 4. Furthermore, and in line with existing studies, non-normality in some of the variables was mitigated by transforming and winsorising the data (e.g., Haniffa and Hudaib, 2006; Ramly, 2012). As suggested by the literature, the variables were transformed to: (i) avoid violation of the OLS assumptions; (ii) moderate the problems of non-normality, and (iii) check homogeneity and outliers (Haniffa and Hudaib, 2006; Ntim *et al.,* 2012a; Ramly, 2012).

A correlation matrix was used to test the direction and magnitude of the linear relationship between the variables. This test helps discover the potential presence of multicollinearity among the variables. There could be multicollinearity if a correlation coefficient between two variables is large.[55] Following Ntim *et al*. (2012a) and Ntim and Soobaroyen (2013), the Pearson correlation coefficients (parametric) and Spearman correlation coefficients (non-parametric) are reported in Table 7.1. The table shows the correlation matrix for the dependent, explanatory and control variables employed for the voluntary corporate governance disclosure and firm financial performance models. However, the magnitude and direction of both the Pearson correlation coefficients (parametric) and Spearman correlation coefficients (non-parametric) appear to be relatively similar. This adds to the evidence that there is no major problem of non-normality among the variables in the models (Ntim and Soobaroyen, 2013). In addition, both report that the correlations among the variables are fairly low, indicating that there is not a serious multicollinearity problem (see Haniffa and Hudaib, 2006; Dam and Scholtens, 2012; Ntim *et al.,* 2012a; Ramly, 2012).

On the other hand, Pryce (2005) argues that multicollinearity may still pose a threat even after running all the tests related to normality and transforming the data. Therefore, in line with Dam and Scholtens (2012) and Kajananthan (2012), two additional methods are used to investigate the presence of multicollinearity among the variables. These are Variance Inflation Factor (VIF) and tolerance statistics tests. Multicollinearity may be a problem when VIF values are over 10 (Gujarati, 2003) and tolerance levels are near 0 (Kajananthan, 2012). Table 7.2 shows that the VIF values of variables used in the models fall between a maximum of 7.37 and a minimum of 1.09, which suggests that there is no

[55] Haniffa and Hudaib (2006) and Ramly (2012) point out that multicollinearity may be a problem when the correlation exceeds 0.80 (as cited by Gujarati, 2003).

serious problem of multicollinearity. In terms of the tolerance statistics test, most of the variables show tolerance values between 0.13 and 0.91. Therefore, both the VIF and tolerance values show that there is no serious problem of multicollinearity in interpreting the results of the OLS regressions.

After performing the normality and multicollinearity tests on the individual variables, other OLS assumptions are tested to ascertain whether the OLS technique can be estimated properly, including heteroscedasticity, autocorrelation and linearity. First, heteroscedasticity means that the variance of the error term in the estimated model is not constant. Therefore, if the errors do not have constant terms, the model is heteroscedastic. Cooke (1998) suggests that heteroscedasticity can be assessed by the Breusch-Pagan test. Thus, in line with Ramly (2012), the Breusch-Pagan test was conducted to diagnose heteroscedasticity. The test result suggests that the model suffers from heteroscedasticity. Gujarati (2003) points out that performing an OLS regression in the presence of heteroscedasticity can lead to incorrect standard errors; hence, any inferences made could be misleading. Following Mitton (2002) and Bharath *et al*. (2013), to account for the presence of heteroscedasticity, the robust standard errors method was used to estimate the OLS regression.

Table 7.2: The OLS assumptions tests

Variable	VIF	Tolerance	Skewness	Kurtosis		Cook's distances	
						Min	Max
SCGI	1.092	0.916	0.09	-1.22			
GONR	6.141	0.163	2.02	3.44			
IONR	2.352	0.425	2.00	2.89	*VCGD*	.00	.22
BONR	7.374	0.136	0.26	-1.13			
DONR	3.271	0.306	1.18	0.76	*EVM-ROA*	.00	.04
INDD	1.334	0.749	-0.45	-0.22			
BSZ	1.722	0.581	-0.05	-0.38			
BFM	1.279	0.782	1.31	2.02	*EVM-Q*	.00	.08
ROA	1.877	0.533	0.52	2.43			
Q-ratio	2.525	0.396	2.16	5.93			
FSZ	5.429	0.184	0.55	-0.46	*CIM-ROA*	.01	.09
LVG	2.307	0.434	1.19	0.18			
SGR	1.162	0.861	0.81	0.81	*CIM-Q*	.01	.09
CEXC	1.506	0.664	1.07	0.18			

Notes: Variables and models are defined as follows: Voluntary Corporate Governance Disclosure model (*VCD*), Equilibrium-Variable Model ROA (*EVM-ROA*), Equilibrium-Variable Model Q-ratio (*EVM-Q*-ratio), Compliance-Index Model ROA (*CIM-ROA*), Compliance-Index Model Q-ratio (*CIM-Q*-ratio), the Saudi Corporate Governance Index (*SCGI*), government ownership (*GONR*), institutional ownership (*IONR*), block ownership (*BONR*), director ownership (*DONR*), proportion of independent directors (*INDD*), board size (*BSZ*), frequency of board meetings (*BFM*), return on assets (*ROA*), Tobin's Q (*Q-ratio*), firm size (*FSZ*), leverage (*LVG*), firm growth (*SGR*) and capital expenditure (*CEXC*). Chapter Five presents the detailed definitions for all employed variables.

Second, the existence of autocorrelation or serial correlation could lead to incorrect standard errors. Consistent with Kajananthan (2012) and Ntim *et al*. (2012a), the Durbin-Watson test was used to check for autocorrelation. This test is used to test for a relationship between an error and its lagged value. The null hypothesis of no autocorrelation could not be rejected if the Durbin-Watson value is equal or close to 2 (Gujarati, 2003). Specifically, the Durbin-Watson values are between 0.65 (minimum value) and 1.38 (maximum value) among the models used. Although, the Durbin-Watson values are relatively low for some of the estimated models, the results of the correlation test do not indicate the presence of serious violation of the autocorrelation or multitcollinearity problems.

Third, following Haniffa and Hudaib (2006) and Ntim *et al*. (2012a), Cook's distance tests were carried out to check the linearity of the variables used. Non-linearity exists if the Cook's distance value exceeds 1 (Pryce, 2005; Maddala and Lahiri, 2009). Table 7.2 shows that the Cook's distance values for the five models are between 0.00 (minimum value) and 0.22 (maximum value). Therefore, the Cook's distance values do not exceed the critical value. This implies that there is substantial evidence of linear association amongst the variables used in the models.

To sum up, a number of diagnostic tests were carried out, including: (i) the P-P and Q-Q; (ii) histograms; (iii) Skewness and Kurtosis; (iv) Variance Inflation Factor; (v) tolerance statistics; (vi) Durbin-Watson; (vii) Breusch-Pagan; and (viii) Cook's distance. The results from these tests suggest that some of the variables do not follow a normal distribution, and they were transformed to correct this. In addition, the estimated models show evidence of heteroscedasticity, which is corrected using the robust standard errors method. Though evidence of violation of the normality assumption of the error terms in the models is found, this violation does not pose a major threat to the estimated coefficients, given the large sample size used in this study.

7.2 MULTIVARIATE REGRESSION ANALYSES

Following the discussion on the OLS assumptions in Section 7.1, this section presents a discussion of the empirical results. A multivariate OLS regression examining determinants of voluntary corporate governance disclosure is estimated. Also, the relationship between corporate governance and firm financial performance is investigated using two different approaches: the equilibrium-variable model and the compliance-index model, as proxied by the accounting-based measure (ROA) and market-based measure (Q-

ratio), respectively. This section ends by presenting comparisons between the findings obtained from the equilibrium-variable and compliance-index models.

7.2.1 Empirical Results of the Voluntary Corporate Governance Disclosure Model

As explained in Chapter Five, the voluntary corporate governance disclosure model explores the determinants of voluntary corporate governance disclosure among Saudi listed firms. Specifically, this model aims to answer the third research sub-question: What are the factors that influence the level of compliance with the 2006 Saudi Corporate Governance Code (SCGC)? The constructed Saudi Corporate Governance Index (SCGI) is the dependent variable, which proxies corporate governance practices. The explanatory variables include eight board characteristics and ownership structure variables.

Table 7.3 contains a summary of the hypotheses tested and the findings from the regression analysis of the relationships between corporate governance mechanisms and the SCGI. The finding of a positive coefficient on board size, audit firm size, presence of a corporate governance committee, government ownership and institutional ownership are consistent with the formulated hypotheses. Block ownership shows a negative impact on voluntary corporate governance disclosure, which is also in line with the hypothesis. However, the hypotheses for the proportion of independent directors and director ownership are rejected. The following part of this subsection discusses each variable in detail, with particular reference to how they compared to the results of previous studies.

Table 7.3: A summary of all of the hypotheses and findings for the voluntary corporate governance disclosure model

Dependent Variable		The Saudi Corporate Governance Index (SCGI)			
Explanatory variable	No. Hypot-hesis	Expect-ed sign	Finding sign	Finding significance	Hypothesis status
Board of Directors' Characteristics					
Independent Directors	1	+	-	Significant at the 1% level	Rejected
Board Size	2	+	+	Significant at the 1% level	Accepted
Audit Firm Size	3	+	+	Significant at the 5% level	Accepted
Presence of CG Committee	4	+	+	Significant at the 1% level	Accepted
Ownership Structure					
Government Ownership	5	+	+	Significant at the 1% level	Accepted
Institutional Ownership	6	+	+	Significant at the 10% level	Accepted
Block Ownership	7	-	-	Significant at the 10% level	Accepted
Director ownership	8	-	+	Significant at the 10% level	Rejected
Control Variables					
Firm size		+	-	Significant at the 1% level	Rejected
Leverage		+/-	+	Significant at the 10% level	Accepted
Firm growth		+	+	Insignificant	Rejected
Capital expenditure		+/-	+	Insignificant	Rejected
Dividends		+/-	-	Insignificant	Rejected

Notes: The hypotheses are presented in Chapter Three.

Beginning with board and corporate governance characteristics, the first hypothesis is that there is a positive relationship between the proportion of independent directors and voluntary corporate governance disclosure. Table 7.4 shows an inverse relationship between the proportion of independent directors and voluntary corporate governance disclosure. This finding led to the rejection of the first hypothesis. The finding is not consistent with agency theory that suggests the presence of independent directors improves corporate governance practices (Jensen and Meckling, 1976; Fama and Jensen, 1983) and information asymmetry (La Porta *et al.,* 2002). In addition, stakeholder theory suggests that independent directors provide better representation of stakeholders' interests (Clarke, 1998). However, Jiraporn *et al*. (2009) suggest that independent directors may not have enough time to participate actively in the board, which negatively affects corporate governance.

Empirically, the current finding is different from the findings in previous studies that show a positive relationship between independence of the board and governance practices. For example, Haniffa and Cooke (2002) report a positive relationship, suggesting that independence of the board of directors improves the board's accountability in Malaysian listed firms. Other studies conducted in emerging countries by Chen (2011), Samaha *et al*. (2012) and Ntim and Soobaroyen (2013) show positive associations in Taiwan, Egypt and South Africa, respectively.

As discussed in Chapter Nine, the interviewees explain that the appointment of independent directors in Saudi firms is not sufficiently transparent. Ezzine (2011) points out that the appointment of independent directors in Saudi listed firms is questionable. In this regard, Mahadeo *et al.* (2012) argue that the concept of independence of boards is very new in developing countries that recently adopted corporate governance reforms. Furthermore, as discussed in Chapter One, political connections and informal social relations still influence the Saudi corporate environment on a large scale (Al-Twaijry *et al.*, 2002; Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008; Alshehri and Solomon, 2012). This may affect the appointment of directors and may make the independence of boards in listed firms questionable.

Table 7.4: OLS regression findings of the voluntary corporate governance disclosure model (VCGD)

Model	Expect-ed Sign	All firms years	Yearly estimations						
			2004	2005	2006	2007	2008	2009	2010
Explanatory Variables									
Board of Directors' Characteristics									
Independent Directors	+	-.187(.006)***	-.003(.849)	.002(.941)	-.054(.063)*	-.239(.041)**	-.450(.088)*	-.485(.085)*	-.112(.795)
Board Size	+	.206(.009)***	-.037(.051)*	-.060(.015)**	-.104(.007)***	.099(.496)	.277(.360)	.634(.098)*	.751(.060)*
Audit Firm Size	+	.341(.012)**	-.008(.770)	.045(.215)	.036(.520)	.233(.239)	.728(.092)*	.554(.314)	.217(.749)
Presence of CG Committee	+	.273(.006)***	.263(.010)***	.122(.344)	.421(.001)***	-.009(.976)	.166(.720)	.252(.538)	.603(.073)*
Ownership Structure									
Government Ownership	+	.526(.002)***	.048(.269)	.098(.066)*	.115(.097)*	.444(.064)*	.832(.005)***	.301(.054)*	-.158(.863)
Institutional Ownership	+	.194(.063)*	.013(.675)	.042(.267)	.053(.383)	.337(.086)*	.816(.056)*	.115(.833)	-.471(.479)
Block Ownership	-	-.267(.068)*	-.067(.058)*	-.102(.058)*	-.181(.026)**	-.483(.082)*	-.940(.063)*	-.388(.638)	.563(.557)
Director ownership	-	.186(.048)*	.068(.017)**	.088(.015)**	.106(.051)*	.308(.085)*	.722(.064)*	.371(.444)	-.307(.597)
Control Variables:									
Firm size	+	-.353(.010)***	.041(.240)	.070(.100)*	.208(.005)***	.010(.970)	-.044.(.060)*	-1.375(.045)**	-.310(.697)
Leverage	+/-	.160(.063)*	.027(.229)	.035(.266)	-.042(.398)	-.028(.893)	.261(.532)	.776(.067)*	-.089(.883)
Firm growth	+	.021(.385)	.014(.485)	.013(.585)	.072(.063)*	-.063(.599)	.243(.333)	.086(.790)	-.040(.906)
Capital expenditure	+/-	.048(.273)	-.021(.258)	-.041(.073)*	-.034(.380)	.185(.091)*	-.079(.799)	-.200(.590)	-.002(.995)
Dividends	+/-	-.076(.265)	.052(.079)*	.057(.055)*	-.013(.824)	-.079(.688)	-.386(.365)	-.131(.816)	-.215(.744)
Industry dummies		Included	Included	Included	Included	Included	Included	Included	Included
Year dummies		Included	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded
Constant		1.812***	0.364***	0.472***	0.762***	1.158***	1.682***	2.629***	3.811***
Durbin-Watson statistics		0.975	1.934	2.403	2.309	2.127	2.148	2.119	2.282
F- value		18.206***	1.740*	1.795**	2.622***	1.294	1.154	0.896	0.969
Adjusted R^2		43.5%	15.1%	16.1%	28.1%	6.6%	3.6%	2.6%	.07%
No. of observations		560	80	80	80	80	80	80	80

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Chapter Five provides a detailed definition of the measurement method of all the variables used for the estimation. To avoid the dummy variable trap, 2009 is excluded from regression analysis, while 2004, 2005, 2006, 2007, 2008 and 2010 are included. In addition, basic material, financial institutions, consumer goods, consumer services, telecommunications and utility industries are included.

As shown in Table 7.4, the second hypothesis predicts that board size is positively related to good corporate governance practices. The table shows a positive and statistically significant relationship between board size and good corporate governance practices at the 1% level of significance. This result indicates an acceptance of the second hypothesis. This finding is supported by resource dependence theory. In this regard, Fama and Jensen (1983) and Haniffa and Cooke (2002) explaining that a large board is more capable of monitoring management behaviour than a small board because of the directors' knowledge and the diversity of their experiences. Ntim and Soobaroyen (2013) suggest that an increase in the number of directors improves firms' control systems and enhances corporate governance practices. In addition, empirical studies by Akhtaruddin *et al*. (2009), Allegrini and Greco (2013) and Schiehll *et al*. (2013) find that large boards have a positive influence on good corporate governance practices in Malaysia, Brazil and Italy, respectively. Similarly, Ntim *et al*. (2012a) and Samaha *et al*. (2012) find that large boards in South African and Egyptians firms, respectively, are more likely to disclose corporate governance information. Board size is discussed in the Saudi Corporate Governance Code (SCGC). It recommends a board size of between three and eleven directors, according to the needs and size of the company.

The third hypothesis indicates that there is a positive relationship between audit firm size and corporate governance disclosure. The coefficient shown in Table 7.4 is a significant and positive relationship between audit firm size and voluntary corporate disclosure. Therefore, the hypothesis cannot be rejected. Managerial signalling theory suggests that firms with a corporate governance committee expect to adopt good corporate governance practices. Establishing such a committee offers equal opportunities to both large and small shareholders to access information, which may help in reducing agency problems and the cost of capital (Morris, 1987; Hearn, 2011; Sharma, 2013). The result corroborates empirical findings from previous studies which suggest that large audit firms (big-four firms)[56] seem to be more independent than small ones, and are more able to limit managers' opportunistic behaviour due to their experience (Haniffa and Cooke, 2002; Eng and Mak, 2003). Furthermore, big-four firms may require the disclosure of further information in order to protect their reputation (DeAngelo, 1981; Depoers, 2000).

The current finding is consistent with prior studies suggesting a positive relationship between audit firm size and voluntary corporate governance disclosure, such as studies by Raffournier (1995), Ntim *et al*. (2012a) and Schiehll *et al*. (2013) on Swiss, South African and Brazilian firms, respectively. Contrary to previous studies showing a

[56] The big-four audit firms are PricewaterhouseCoopers, Deloitte & Touche, Ernst & Young and KPMG.

positive relationship between the two variables, some studies find no significant relationship. For example, Wallace *et al*. (1994) and Hossain *et al*. (1995) report that there is no significant relationship between audit firm size and voluntary corporate governance disclosure among Spanish and New Zealand firms, respectively. Similarly, Alsaeed (2006) finds no significant impact of audit quality on voluntary corporate disclosure in Saudi Arabia. The difference between Alsaeed's (2006) finding and this study's finding can be ascribed to the small sample size used by Alsaeed and the use of a one-year study period. Despite the importance of the audit firm in improving compliance with governance standards, the SCGC does not explicitly outline the role of audit firms regarding disclosure in firms' annual reports.

The fourth hypothesis examines the relationship between the presence of a corporate governance committee and corporate governance practices. Table 7.4 shows that the hypothesis predicted that the presence of a corporate governance committee is positively related to corporate governance disclosure. As shown in Table 7.4, the results of multivariate OLS regression report that the presence of a corporate governance committee has a positive and significant impact on voluntary corporate governance disclosure at the 1% level of significance. The finding is consistent with theoretical and empirical studies on corporate governance. In this regard, it is suggested that firms with a corporate governance committee are more likely to engage in good corporate governance practices (Core, 2001; Ntim *et al.*, 2012a). In addition, stakeholder theory suggests that the presence of a corporate governance committee is essential to protecting stakeholders' rights (Morris, 1987; Clarke, 1998; Healy and Palepu, 2001; Solomon, 2010). Ntim *et al*. (2012a) suggest that there are few studies that investigate the influence of a corporate governance committee on corporate disclosure. They examine a sample of 169 South African listed firms from 2002 to 2006, and find a positive and significant relationship between the presence of a corporate governance committee and voluntary corporate governance disclosure.

The second set of explanatory variables is related to ownership structures. These variables are used to analyse the relationship between ownership structures and voluntary corporate disclosure. As shown in Table 7.4, the fifth hypothesis indicates a positive impact of government ownership on voluntary corporate disclosure. The table contains the results from multivariate regression, leading us to accept the fifth hypothesis. This finding provides empirical support for the literature that suggests that government ownership is an important mechanism in improving board effectiveness and corporate disclosure (Conyon and He, 2011). The reported result is in line with existing empirical studies in emerging countries. For example, Eng and Mak (2003), Conyon and He (2011) and Ntim *et al*.

(2012a) find that government ownership is significantly related to increased corporate disclosure in Singapore, China and South Africa, respectively. As shown in Chapter Six, government ownership in Saudi listed firms is concentrated in large and profitable listed firms, such as petrochemical and telecommunication firms. As discussed in Chapter Nine, these firms have stable boards of directors and seek voluntary governance disclosure to signal their success. This explains the positive and significant relationship between government ownership and voluntary corporate governance disclosure in Saudi listed firms.

The sixth hypothesis predicts that institutional ownership is positively associated with good corporate governance practices. As shown in Table 7.4, the hypothesis is accepted at the 10% level of significance. Agency theory explains this finding by suggesting that the presence of institutional investors ensures a degree of accountability (Haniffa and Hudaib, 2006; Aggarwal *et al.,* 2011). Empirically, this finding is consistent with existing studies (e.g., Barako *et al.,* 2006; Bushee *et al.,* 2010; Aggarwal *et al.,* 2011; Ntim *et al.,* 2012a) that report a positive and significant relationship.

As reported in Table 7.4, the result for the seventh hypothesis indicates that there is a negative and significant relationship between block ownership and voluntary corporate governance disclosure. The negative relationship is supported by stakeholder theory, which suggests that large block shareholders can jeopardize stakeholders' interests (Solomon, 2010). This problem is more obvious in developing countries, such as Saudi Arabia, that suffer from a weak legal system (Bauwhede and Willekens, 2008). This explains the negative relationship between block ownership and voluntary corporate governance disclosure. In addition, the absence of external corporate governance mechanisms, like a market for corporate control, makes the firms' management work towards large shareholders' interests (Allegrini and Greco, 2013). The finding of this study offers further support to existing studies on emerging economies; for example, Barako *et al*. (2006) and Ntim and Soobaroyen (2013) find a negative relationship between block ownership and voluntary corporate governance disclosure in Kenyan and South African firms, respectively. Similarly, Alsaeed (2006) uses a small sample of 40 listed firms in 2003 and finds that block holders have a negative influence on good corporate governance practices in Saudi Arabia.

The last hypothesis tests the relationship between director ownership and good governance practices. As shown in Table 7.4, the result from the multivariate OLS regression reports that the coefficient is positive and significant at the 10% level of significance. There are two different explanations for the relationship between director ownership and voluntary corporate governance disclosure. From an agency theory

perspective, McConnell and Servaes (1990) suggest that the board of directors may seek to maximise their wealth by using insider information, which leads to poor corporate governance practices. However, Samaha *et al*. (2012) indicate that the board of directors seeks to improve corporate governance practices in order to increase the competitive position of their firms. This is consistent with stewardship theory's expectation that boards of directors' interests are aligned with other shareholders' (Davis *et al*., 1997). In Saudi listed firms, there is ownership concentration by family firms (ROSC, 2009). Given that these families are strategic investors, they have an incentive to improve corporate governance practices to improve the competitive position of their firms (see Samaha *et al*., 2012).

As discussed in Chapter Five, a number of control variables were employed in the model to reduce the impact of potential omitted variables and endogeneity (Ntim *et al.*, 2012a). Following corporate governance studies (e.g., Barako *et al.*, 2006; Mangena *et al.*, 2012; Ntim *et al.,* 2014; Upadhyay *et al*., 2014), firm size (*FSZ*), leverage (*LVG*), firm growth (*SGR*), capital expenditure (*CEXC*) and dividends (*DV*) are included as control variables. A hypothesis was formulated that firm size is positively related to voluntary corporate governance disclosure. As shown in Table 7.4, the coefficient on firm size is negative and significant at the 1% level of significance.

This result is not supported by Eng and Mak (2003), Omar and Simon (2011), Elzahar and Hussainey (2012), Ntim *et al*. (2012a), Samaha *et al*. (2012) and Allegrini and Greco (2013), who find a positive relationship between firm size and good governance practices. However, Klapper and Love (2004) suggest that small firms tend to enhance corporate governance due to the greater opportunities for growth and the possibility of getting external financing. Therefore, a possible explanation for the negative finding could be attributed to the recent listing of many Saudi firms on the stock market. Such listing can lead to improvement in corporate governance disclosure and transparency, with the aim of improving their financial positions.

Table 7.4 shows that leverage is positively related to good governance performance. This positive relationship is in line with Haniffa and Cooke (2002). They suggest that firms with high operating leverage may need to improve their monitoring. In addition, creditors require high disclosure to protect their funds (Jensen, 1986). Also, firms with higher leverage seek to disclose corporate governance information to legitimise their actions to creditors and shareholders alike (Ntim and Soobaroyen, 2013). Some empirical studies, such as Ho and Wong (2001), Haniffa and Cooke (2002), Akhtaruddin *et al.* (2009), Ntim *et al.* (2012a), Samaha *et al.* (2012) and Allegrini and Greco (2013) find no significant relationship between leverage and voluntary corporate governance disclosure.

However, Studies by Barako *et al*. (2006) and Omar and Simon (2011) find a positive relationship, which is consistent with the current study. Alsaeed (2006) also finds a positive relationship between leverage and voluntary corporate governance in Saudi listed firms.

The results suggest that firm growth is positively but insignificantly related to voluntary corporate governance disclosure, as reported in Table 7.4. This positive result is supported by theoretical explanation that growth in firms means an increase in investment opportunities, which requires more corporate disclosure (Beiner *et al.,* 2006; Chung and Zhang, 2011). This result offers additional empirical support to previous studies suggesting a positive relationship between firm growth and voluntary corporate governance disclosure (e.g., Gompers *et al.,* 2003; Henry, 2008; Laidroo, 2009; Ntim and Soobaroyen, 2013). Table 7.4 reveals that capital expenditure has no significant influence on corporate disclosure. This finding is in line with previous literature suggesting the existence of a weak relationship between capital expenditure and corporate disclosure (Ntim *et al.,* 2012a; Ntim and Soobaroyen, 2013).

Furthermore, the empirical results in Table 7.4 show that dividends are not associated with corporate governance disclosure. The finding of no significant relationship between dividends and good corporate governance practices is not in line with existing studies, such as Archambault and Archambault (2003) and Adjaoud and Ben-Amar (2010). The variation in findings can be attributed to the sample used. For example, the current study uses balanced panel data, while Archambault and Archambault (2003) and Adjaoud and Ben-Amar (2010) use unbalanced data. Furthermore, Archambault and Archambault (2003) use cross-country data from 41 countries. However, Adjaoud and Ben-Amar (2010) use a sample of listed firms from Standard and Poor's index. The different institutional and legal systems in Saudi Arabia and other countries may lead to the differences in the findings ofthose studies (Bozec *et al*., 2010).

It is suggested that voluntary corporate governance disclosure varies over time and across industries (Conyon, 1994; Haniffa and Cooke, 2002; Ntim *et al.,* 2012a). The result of the OLS regression indicates that all of the year dummies are significant at the 1% level of significance. This is consistent with Conyon (1994), Chalevas (2011) and Ntim *et al*. (2012a), who find that firms' level of compliance with corporate governance standards has improved over the years. In terms of the industry dummies, consumer goods and utility industries are significant at 1% and 10%, respectively.[57] This is consistent with Hussainey

[57] Since there are many year and industry dummy variables employed, these are not reported in Table 7.4 for brevity.

and Al-Nodel's (2008) finding of variation in corporate disclosure among Saudi listed firms based on industry.

Finally, Table 7.4 shows that the adjusted R^2 is 43.5%, while the *F-value* is 18.206, which is significant at 1% and indicates the rejection of the null hypothesis, suggesting that the coefficients of all eight corporate governance variables are jointly not equal to zero.[58] The result of the goodness of fit test is in line with other studies on corporate disclosure conducted on developing countries. Barako *et al*. (2006) find an adjusted R^2 of 53% for Kenyan firms. Similarly, Ntim *et al*. (2012a) report an adjusted R^2 for South African firms of 45% using time-series and cross-sectional data over five years. Alsaeed (2006) and Samaha *et al*. (2012) examine cross-sectional data for one year and find an adjusted R^2 of 61% and 67% in Saudi Arabian and Egyptian firms, respectively.

7.2.2 Empirical Results of the Firm Financial Performance Models

This subsection presents the empirical results from the estimation of the relationship between corporate governance mechanisms and firm financial performance. As explained in Chapter Five, existing studies have investigated this relationship using two different approaches: (i) the equilibrium-variable model (e.g., Vafeas and Theodorou, 1998; Weir and Laing, 2000; Haniffa and Hudaib, 2006; Chalevas, 2011; Mangena *et al.*, 2012); and (ii) the compliance-index model (e.g., Black, 2001; Gompers *et al.*, 2003; Cremers and Nair, 2005; Morey *et al.*, 2009; Bauer *et al.*, 2010; Renders *et al.*, 2010; Giroud and Mueller, 2011; Ntim *et al.*, 2012b; Ammann *et al.*, 2013; Munisi and Randoy, 2013; Tariq and Abbas, 2013; van Essen *et al.*, 2013).

Despite the fact that previous studies on corporate governance mainly use only one of the two approaches, the current study uses both. One of the contributions that this study makes to the corporate governance literature is, thus, the use of both the equilibrium-variable and compliance-index approaches, which allows us to examine the differences in the findings and their implications. The first part of this subsection reports the findings of the equilibrium-variable model, while the second part presents the findings of the compliance-index model.

[58] The study investigated the potential bias caused by omitted variables in the three main models. The voluntary corporate governance disclosure, equilibrium-variable and compliance-index models were re-estimated without control variables. The results reveal a relative convergence between the models whether the control variables are excluded or included.

7.2.2.1 Empirical Results of the Equilibrium-Variable Model

In this section, the relationship between corporate governance mechanisms and firm financial performance is examined by using return on assets (ROA) as an accounting-based measure, and Tobin's Q as a market-based (Q-ratio) measure. This model aims to answer the fourth research sub-question: What is the association between individual corporate governance mechanisms and firm financial performance? The variables investigated by the equilibrium-variable model include CEO duality (*BDUAL*), proportion of independent directors (*INDD*), board size (*BSZ*), frequency of board meetings (*BFM*), presence of board sub-committees (*BCOM*) and director ownership (*DONR*).[59]

Table 7.5: A summary of all of the hypotheses and findings for the financial performance models

Dependent Variable	The accounting based measure (ROA) and market based measure (Q-ratio)				
Explanatory variable	No. Hypothesis	Expected sign	Finding sign	Finding significance	Hypothesis status
Panel A: *EVM –ROA*					
CEO duality	09	-	+	Significant at the 5% level	Rejected
Independent Directors	10	+	+	Significant at the 10% level	Accepted
Board Size	11	-	-	Significant at the 1% level	Accepted
Frequency of board meetings	12	+	-	Insignificant	Rejected
Board sub-committees	13	+	+	Significant at the 1% level	Accepted
Director ownership	14	-	+	Significant at the 1% level	Rejected
Panel B: *EVM –Q-ratio*					
CEO duality	09	-	-	Insignificant	Rejected
Independent Directors	10	+	+	Significant at the 5% level	Accepted
Board Size	11	-	+	Significant at the 10% level	Rejected
Frequency of board meetings	12	+	+	Significant at the 1% level	Accepted
Board sub-committees	13	+	-	Insignificant	Rejected
Director ownership	14	-	+	Significant at the 1% level	Rejected
Panel C: *Compliance- Index Model –ROA*					
The Saudi CG Index (SCGI)	15	+	+	Significant at the 5% level	Accepted
Panel D: *Compliance- Index Model -Q-ratio*					
The Saudi CG Index (SCGI)	15	+	-	Insignificant	Rejected

Notes: The details of the hypotheses are presented in Chapter Three.

i) OLS regression findings based on accounting measure ROA

Panel *A* of Table 7.5 shows a summary of the hypotheses developed to examine the relationship between corporate governance mechanisms and ROA. CEO duality, board size and director ownership were hypothesised to be negatively related to ROA, whereas independent directors, frequency of board and presence of board sub-committees were hypothesised to be positively associated with ROA.

As shown in Table 7.6, the coefficient on CEO duality is positive and significant, leading us to reject the hypothesis. This positive association is supported by stewardship theory. Vafeas and Theodorou (1998) suggest that CEO duality reduces the board's remuneration and compensation. Similarly, Haniffa and Hudaib (2006) suggest that CEO

[59] Chapter Five provides the detailed definition and method of measuring corporate governance mechanisms used in this model.

duality is better than two separate roles in achieving firms' objectives and strategies. Therefore, this finding supports stewardship theory, which suggests that CEOs are trustworthy and highly capable of running a firm and maximising shareholders' value (Davis *et al.*, 1997; Bozec, 2005; Nicholson and Kiel, 2007).

This finding is also empirically consistent with empirical studies that report a positive relationship between CEO duality and financial performance (e.g., Donaldson and Davis, 1991; Boyd, 1995; Brickley *et al.*, 1997; Hearn, 2011). However, Al-Abbas (2009) finds no evidence in Saudi listed firms regarding CEO duality improving firm financial performance. The difference between the findings of this study and Al-Abbas's study is related to methodology and sample size. While the current study employs ROA, Al-Abbas uses earnings management as an accounting measure. In addition, he uses an unbalanced sample consisting of 78 observations over three years, whereas this study uses a balanced sample of 560 observations over seven years. The Saudi Corporate Governance Code (SCGC) recommends splitting the CEO and chairperson positions. However, the positive and significant relationship observed in this study seems to indicate that this duality is financially better for Saudi companies.

According to the tenth hypothesis, the proportion of independent directors is hypothesised to have a positive and significant relationship with ROA. Table 7.6 shows that the proportion of independent directors is positively related to ROA at the 10% level of significance. The positive impact of board independence is explained by agency, stakeholder and resource dependence theories. In this regard, the presence of independent directors on the board can reduce managerial opportunistic behaviour, and therefore possibly mitigate the agency problem (Berle and Means, 1932; Fama, 1980; Bebchuk and Weisbach, 2010). Furthermore, resource dependence theory suggests that independent directors are able to secure additional financial resources and contribute meaningfully to board strategic discussions (Nicholson and Kiel, 2007; Chen, 2011). This implies that the presence of independent directors may help facilitate rapid growth, thereby improving financial performance.

Mangena and Chamisa (2008) find that firms with a small number of non-executive directors are more likely to be suspended in South Africa. Conyon and He (2011) use a large sample of 1,342 Chinese firms and report a positive relationship between board independence and ROA. However, the finding in this study supports the SCGC's recommendations, including: (i) a majority of board members must be non-executive; (ii) two members or one third of the board members should be independent, whichever is greater; and (iii) the board sub-committees should be composed of a sufficient number of independent members.

Table 7.6: OLS regression findings of the equilibrium-variable model (EVM) based on accounting measure ROA

Model	Expected Sign	All firms years	Yearly estimations						
			2004	2005	2006	2007	2008	2009	2010
Explanatory Variables									
Corporate Governance Mechanisms:									
CEO duality	-	.016(.022)**	-.012 (.526)	.004 (.830)	.026 (.072) *	.035 (.060)*	.022(.431)	.037 (.284)	.027 (.440)
Independent Directors	+	.008(.068) *	.007(.615)	.016 (.278)	.015 (.275)	-.007(.608)	-.006(.726)	.019 (.292)	.024 (.078) *
Board Size	-	-.025(.000)***	-.022(.079)*	-.014 (.397)	-.026(.086)*	-.028(.082)*	-.021(.280)	-.044(.022)**	-.025 (.084) *
Frequency of board meetings	+	-.003(.295)	.017(.309)	.010 (.527)	-.002 (.880)	-.015(.282)	-.010(.515)	.004 (.797)	-.010 (.507)
Board sub-committees	+	.023(.007)***	-.001(.977)	.022 (.490)	.035 (.059) *	-.002(.920)	.028(.228)	.028 (.298)	.040 (.320)
Director ownership	+	.027(.000)***	.028(053)*	.026(.097)*	.013 (.352)	.021(.065) *	.024(.061) *	.035(.021)**	.043(.005)***
Control Variables									
Firm size	+	.027(.002)***	.010(.688)	.042(.095)*	.037(.055) *	.011(.640)	.026(.371)	.023 (.461)	.027 (.312)
Leverage	+/-	-.033(.000)***	-.021(.237)	-.034 (.054) *	-.043(.024)**	.004(.827)	-.010(.707)	-.014 (.600)	-.069(.004)***
Firm growth	+	.019(.000)***	.023(.077)*	.021 (.212)	.044 (.020)**	.034(.013)**	.010(.529)	.046(.007)***	.006 (.696)
Capital expenditure	+/-	-.005(.171)	.013(.422)	-.005 (.779)	.008 (.616)	-.013(.370)	-.032(.056) *	-.017 (.354)	-.014(.418)
Dividends	+/-	.059(.000)***	.079(.001)***	.068(.006)***	.058(.010)***	.076(.001)***	.036(.194)	.042 (.083) *	.069 (.015)**
Industry dummies		Included	Included	Included	Included	Included	Included	Included	Included
Year dummies		Included	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded
Constant		0.134***	0.114***	0.153***	0.156***	.0155***	0.139***	0.123***	0.083***
Durbin-Watson statistics		0.676	2.020	2.215	2.060	2.015	2.223	1.918	1.790
F- value		26.654***	4.859***	4.504***	5.990***	6.853***	4.903***	5.014***	4.330***
Adjusted R^2		51.4%	45.4%	43.0%	51.8%	55.7%	45.6%	46.3%	41.7%
No. of observations		560	80	80	80	80	80	80	80

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Chapter Five provides a detailed definition of the measurement method of all the variables used for the estimation. To avoid the dummy variable trap, 2005 is excluded from regression analysis, while 2004, 2006, 2007, 2008, 2009 and 2010 are included. In addition, basic material, financial institutions, consumer goods, telecommunications and utility industries are included.

The eleventh hypothesis predicts that board size is negatively related to ROA. As shown in Table 7.6, the relationship is negative at the 1% level of significance. The result is consistent with the explanation provided by Yawson (2006). He suggests that a large board may place a high financial burden on a firm, thereby reducing its profitability. This implies that an increase in the number of directors could result in an increase in board expenses, such as annual remuneration, bonuses, travel and other allowances (Vafeas, 1999a). Similarly, Beasley (1996) and Yermack (1996) suggest that large boards are usually inefficient in terms of communication amongst members, and this lack of coherent interaction may result in weak financial performance.

A number of empirical studies conducted on both developed and developing countries have found a negative association between board size and ROA. Eisenberg *et al*. (1998) and Hansson *et al*. (2011) report that Finnish firms with small boards have better ROA. Guest (2009) examines a large sample of 2,746 UK firms and finds a negative impact of board size on firms' profitability. Similarly, in developing economies, Mashayekhi and Bazaz (2008) and Sanda *et al*. (2010) report a negative relationship between board size and firm performance in Iranian and Nigerian listed firms. The finding in this study is consistent with the recommendation of the SCGC that board size be limited to a maximum of eleven members.

Table 7.6 shows that the frequency of board meetings has no significant association with ROA. The theoretical explanation by Monks and Minow (2011) suggests that the board of directors should not participate in day-to-day activities. This is consistent with stewardship theory, which expects executive mangers to be trustworthy (Donaldson and Davis, 1991; Letza *et al.,* 2004). Empirically, the finding of this study is in line with El Mehdi (2007). He finds no significant influence of frequent board meetings on firms' performance among Tunisian listed firms. Also, the lack of a relationship that has been found in this study is consistent with the SCGC, which does not address this issue because the relationship does not exist.

The obtained result suggests a positive and significant relationship between board sub-committees and firm financial performance, leading to the acceptance of the thirteenth hypothesis. As reported in Table 7.6, this finding supports the theoretical explanations in previous studies on corporate governance. Specifically, from agency theory perspective, it is argued that board sub-committees enhance the internal control system (Klein, 1998) and improve firms' profitability (Main and Johnston, 1993). For example, audit and remuneration committees play vital roles in reducing excessive compensation for directors and executives (Harrison, 1987; Sun and Cahan, 2009). Therefore, the finding of this study provides further empirical evidence of the importance of board sub-committees. For

example, Wild (1994) finds that formation of an audit committee increases share returns. Similarly, Vafeas (1999b) reports that the selection of directors by the nomination committee positively affects firm performance. The SCGC recognises the importance of board sub-committees and also recommends listed firms have at least three committees, namely audit, remuneration and nomination committees.

Similarly, as reported in Table 7.6, a positive and significant relationship is observed between director ownership and firm performance. The finding is supported by resource dependence theory, which suggests that the board of directors is an essential link between the firm and the financial and non-financial resources that are crucial for the firm's growth (Pfeffer, 1972; Pearce and Zahra, 1992). However, this result is different from some existing literature which suggests that director ownership negatively affects firm performance. Hansen and Hill (1991) suggest that the duration of board of directors' membership should be limited to a certain period of time. This can make directors seek to maximise their interests while sitting on the board. In the same vein, Vafeas and Theodorou (1998) and Konijn *et al*. (2011) find that the existence of director ownership increases the likelihood of collusion between directors and the firm's management. Furthermore, managerial signalling theory suggests that directors have more information about the firm than outside shareholders (Kapopoulos and Lazaretou, 2007; Bebchuk and Weisbach, 2010).

However, some empirical studies support the positive relationship found in the current study. For example, Mangena and Tauringana (2007) and Mangena *et al*. (2012) suggest that director ownership is positively and significantly associated with firm financial performance in Zimbabwean and South African firms, respectively. This suggests that directors with large ownership seek to improve the firm's performance to maximise their own interests, consequently working in the interest of other shareholders. As discussed in Chapter Nine, this positive relationship can be explained by the fact that board ownership is a form of strategic ownership mainly controlled by family members. Therefore, they aim to improve firm performance to maximise their wealth.

As discussed in Chapter Five, the control variables are included to reduce the potential effects of omitted variables (Ntim *et al.,* 2012a). In line with other corporate governance studies, control variables associated with firm performance are selected (e.g., Haniffa and Hudaib, 2006; Chalevas, 2011; Mangena *et al.,* 2012; Munisi and Randoy, 2013; Jayachandran *et al.,* 2013). These variables are firm size (*FSZ*), leverage (*LVG*), firm growth (*SGR*), capital expenditure (*CEXC*) and dividends (*DV*). Table 7.6 shows that firm size, firm growth and dividends are positively and significantly related to return on assets

(ROA). However, leverage impacts negatively on financial performance, and capital expenditure does not show any significant relationship with firm financial performance.

As shown in Table 7.6, the firm size coefficient is positive at the 1% level of significance. This finding is consistent with Chalevas (2011) and Mangena *et al*. (2012), who find that firm size is positively related to ROA. In this regard, Haniffa and Hudaib (2006) explain that large firms have highly qualified managers that helps reduce investment risk. However, leverage shows a negative relationship with firm performance at the 1% level of significance. This result is supported by prior empirical studies. Haniffa and Hudaib (2006) report that leverage is negatively associated with financial performance measured by ROA among Malaysian firms. Similarly, Chalevas (2011) and Mangena *et al*. (2012) find a negative but insignificant relationship in Greek and South African firms. The presence of a negative relationship between leverage and ROA can be arguably attributed to the existing conflict between creditors and equity holders over risk and return (Haniffa and Hudaib, 2006).

Firm growth measured by sales growth is positively associated with financial performance. Table 7.6 shows that the hypothesis is accepted at the 1% level of significance. Haniffa and Hudaib (2006) and Chalevas (2011) find that firm growth increases accounting return proxied by ROA. On the other hand, capital expenditure is expected to influence firm financial performance. Table 7.6 shows that the coefficient of correlation is negative but not significant. This finding is consistent with Jackling and Johl (2009), who report that there is no influence of capital expenditure on ROA. Dividends have a positive relationship with ROA at the 1% level of significance. This positive relationship supports the hypothesis that dividend payment is associated with firm profitability (La Porta *et al.*, 2000).

In terms of the year dummy variables, the results show that year 2007 and year 2008 are significant at the 10% level of significance; therefore, ROA is different (higher) in those years as compared to the base year. This is consistent with studies that find that financial performance is affected by year (e.g., Haniffa and Hudaib, 2006). However, the industry dummy variables show significant coefficients supporting the notion that accounting return is different across various industries (Vafeas, 1999a). Since there are many year and industry dummy variables employed, for brevity, their coefficients are not reported in Table 7.6.

Finally, to provide a general test for corporate governance mechanisms' influence on firm financial performance, Table 7.6 shows that the *F-value* of 26.654 at the 1% level of significance indicates that the null hypothesis of coefficients being jointly significant is

rejected. This suggests that the influence of corporate governance on firm performance is not equal to zero. The adjusted R^2 is 51.4%, which indicates that about 51% of the variations in ROA can be explained by the covariates used in this model. This result is similar to other studies on firm financial performance. For example, Chalevas (2011) finds an adjusted R^2 of 51.7% in a sample consisting of 386 Greek firms over a four-year period. However, Al-Abbas (2009) reports an adjusted R^2 of 37% among a sample of Saudi listed firms.

ii) OLS regression findings based on market measure Q-ratio

Panel *B* of Table 7.5 shows a summary of the hypotheses developed to investigate the relationship between corporate governance mechanisms and Q-ratio. The results from the regression indicate a positive and significant relationship between firm value and proportion of independent directors, board size, frequency of board meetings and director ownership. CEO duality and the presence of board sub-committees are reported as having no significant relationship with Q-ratio. A discussion of the results from the OLS regression regarding the relationship between corporate governance mechanisms and firm value appears below.

To begin, CEO duality is hypothesised to be inversely related to firm value as proxied by Q-ratio. Table 7.7 shows that the coefficient on CEO duality is insignificant, indicating that there is no significant relationship between CEO duality and firm value. Thus, the hypothesis can be rejected. The weak relationship between CEO duality and firm value is supported by the literature. Monks and Minow (2011) argue that splitting these two positions does not necessarily lead to an increase in market returns. The finding is consistent with previous studies. For example, Baliga *et al*. (1996) find that the US stock market return is not affected by combining the roles of CEO and board chairperson. Similarly, Mangena and Chamisa (2008) report that there is no association between CEO duality and suspended listed firms in South African firms.

The hypothesis suggests a positive relationship between the proportion of independent directors and Q-ratio. As shown in Table 7.7, the multivariate OLS regression reports that the relationship is positive at the 5% level of significance. This finding is in line with managerial signalling theory. Black *et al*. (2006b) suggest that the presence of an independent board signals to investors that information asymmetry is low. This positive relationship between the proportion of independent directors and Q-ratio is empirically consistent with prior studies. For example, Millstein and MacAvoy (1998) and Weir *et al*. (2002) find that the existence of independent directors in a board's structure attracts potential investors and increases firm value in US and UK firms, respectively.

Table 7.7: OLS regression findings of the equilibrium-variable model (EVM) based on market measure Q-ratio

Model	Expect-ed Sign	All firms years	Yearly estimations						
			2004	2005	2006	2007	2008	2009	2010
Explanatory Variables									
Corporate Governance Mechanisms:									
CEO duality	-	-.016(.421)	-.224(.085)*	-.172 (.590)	-.112 (.456)	.145 (.381)	.087 (.467)	.079 (.682)	.143(.512)
Independent Directors	+	.106(.020)**	-.044(.709)	.154 (.495)	.203(.078)*	.212(.070)*	.095 (.079)*	.082(.403)	.041(.691)
Board Size	-	.078(.094)*	.171(.211)	.280 (.288)	.053 (.672)	-.005 (.975)	-.005 (.949)	.026(.809)	.022(.847)
Frequency of board meetings	+	.200(.000)***	.085(.560)	-.084 (.747)	.420(.000)***	.339(.008)***	.049 (.440)	.213(.028)**	.118(.218)
Board committees	+	-.110(.113)	-.084(.813)	-.801 (.111)	.086 (.646)	-.034 (.851)	-.041 (.676)	-.074 (.617)	-.104(.676)
Director ownership	-	.243(.000)***	.259(.041)**	.369 (.138)	.258(.029)**	.232(.063)*	.189(.005)***	.099 (.238)	.162(.080)*
Control Variables									
Firm size	+	-.447(.000)***	.005(.981)	-.813(.048)**	-.513(.009)***	-.678(.002)***	-.300(.017)**	-.681(.000)***	-.392(.019)**
Leverage	+/-	-.300(.000)***	-.601(.000)***	-.089(.001)***	-.052(.739)	.005(.980)	.029 (.792)	.015 (.916)	-.073 (.607)
Firm growth	+	.034(.244)	.197(.080)*	.104 (.694)	-.273 (.082)*	.045(.715)	.075 (.262)	.060 (.520)	-.081 (.357)
Capital expenditure	+/-	.030(.297)	.119(.385)	-.043 (.888)	-.139 (.280)	-.089(.514)	-.030 (.713)	.031 (.767)	-.006 (.955)
Dividends	+/-	-.075(.190)	-.131(.523)	-.279 (.459)	-.081(.663)	-.013(.948)	.189(.052)*	.152(.366)	.130(.448)
Industry dummies		Included	Included	Included	Included	Included	Included	Included	Included
Year dummies		Included	Included	Included	Included	Included	Included	Included	Included
Constant		1.342***	1.400***	3.290***	1.535***	1.638***	0.575***	0.843***	0.689***
Durbin-Watson statistics		1.388	2.249	2.188	1.740	1.810	1.968	2.033	2.241
F- value		34.442***	2.465***	3.503***	3.469***	3.436***	1.678*	2.725***	1.530
Adjusted R^2		58.3%	24.0%	35.0%	34.7%	34.4%	12.7%	27.1%	10.2%
No. of observations		560	80	80	80	80	80	80	80

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Chapter Five presents the provides a detailed definition of the measurement method of all the variables used for the estimation. To avoid the dummy variable trap, 2009 is excluded from regression analysis, while 2004, 2005, 2006, 2007, 2008 and 2010 are included. In addition, basic material, financial institutions, consumer goods, telecommunications and utility industries are included.

Similarly, Gupta *et al*. (2009) report that the resignation of independent directors adversely impacts on firm value in US stock markets. In addition, El Mehdi (2007) and Mangena *et al*. (2012) find that investors' confidence increased for Tunisian and South African firms with independent directors on their boards. Similarly, Mangena and Tauringana (2007) indicate that foreign ownership increases in Zimbabwean firms where board independence is very high.

Also, the relationship between board size and Q-ratio is hypothesised to be negative. Table 7.7 shows a positive and significant coefficient on board size, leading to the rejection of the hypothesis. The positive finding is consistent with resource dependence theory. Yawson (2006) and Dalton *et al*. (1998) suggest that decisions are better in large boards due to the diversity of experiences and knowledge of the directors. Kiel and Nicholson (2003) examine large Australian public firms and find that a large board shows a positive relationship with firm value. Recently, Jackling and Johl (2009) and Mangena *et al*. (2012) find that Q-ratio is positively associated with board size in a sample of Indian and South African listed firms.

Frequent board meetings are predicted to increase shareholders' value. As shown in Table 7.7, the coefficient is positive at the 1% level of significance. This is in line with agency, stakeholder and resource dependence theories. Lipton and Lorsch (1992) suggest that board activities are positively associated with firm financial performance. Furthermore, frequent board meetings help directors to monitor the firm's operation and protect shareholders' and stakeholders' interests (Solomon, 2010). This implies that participants within stock markets react positively to firms having active boards. Empirically, Karamanou and Vafeas (2005) examine 275 large firms in the US and find that firms that have a large number of board meetings are more likely to make or update accurate earnings forecasts. Similarly, Jackling and Johl (2009) find a positive relationship between frequency of board meetings and Q-ratio in a sample of Indian firms.

The hypothesis predicts a positive relationship between the presence of board sub-committees and Q-ratio. As shown in Table 7.7, the results from the empirical analysis indicate no significant relationship between board sub-committees and Q-ratio. This result seems to suggest that a board sub-committee does not explain variations in firm value measured using Q-ratio. As discussed in Chapter Nine, the absence of a relationship can be attributed to the weakness of the market for corporate control as an external corporate governance mechanism in the Saudi stock market. In addition, the awareness and appreciation of good corporate governance practices among individual investors may lead to a weak relationship between the presence of board sub-committees and market value. This finding is consistent with the studies of Vafeas and Theodorou (1998), who report no

significant relationship between the presence of board sub-committees and financial performance using data from 250 listed firms in the UK. Similarly, Klein (1998) finds a marginal role of board sub-committees in improving board of directors' performance using a sample of 486 firms in the US. Additionally, Dulewicz and Herbert (2004) suggest that audit and remuneration committees in 86 UK firms appeared to have no impact on company performance.

However, the hypothesis predicts a negative relationship between director ownership and firm value. Table 7.7 shows that the coefficient is positive at the 1% level of significance. The current finding is consistent with empirical studies conducted on data from emerging countries (e.g., Haniffa and Hudaib, 2006; Mangena *et al.*, 2012).

Following existing literature on corporate governance, a number of control variables (firm characteristics) are included in this model (e.g., Hossain *et al.*, 2001; Weir *et al.*, 2002; Haniffa and Hudaib, 2006; Jackling and Johl, 2009; Ntim *et al.*, 2014; Upadhyay *et al*., 2014). Similar to the previous model, this model includes firm size (*FSZ*), leverage (*LVG*), firm growth (*SGR*), capital expenditure (*CEXC*) and dividends (*DV*) as control variables. As shown in Table 7.7, firm size and leverage are negatively and significantly associated with Q-ratio at the 1% level of significance. However, firm growth, capital expenditure and dividends show no significant relationship with firm value.

The negative and significant coefficient on firm size, which is measured by the natural log of total assets, is consistent with findings from prior studies; for example, Jackling and Johl (2009) report a negative and significant relationship between firm size and Q-ratio. Recently, Mangena *et al*. (2012) find a negative relationship among South African firms. Leverage is also negatively related to firm value at the 5% level of significance. This negative coefficient is in line with a number of studies on corporate governance. Weir *et al*. (2002) conduct a study on 311 firms in the UK. They also find a significant and negative relationship between leverage and Q-ratio. Similarly, Jackling and Johl (2009) report a negative relationship in India. However, Haniffa and Hudaib (2006) and Mangena *et al*. (2012) find a negative association in Malaysian and South African firms. This implies that potential investors are concerned with existing high leverage in firms, which can have a negative implication for the firm's financial performance, (Mangena *et al.*, 2012).

On the other hand, the result reveals that firm growth has no significant relationship with Q-ratio. This result is contrary to some existing corporate governance studies that find firm growth has some explanatory power in determining changes in firm value. For

example, Weir *et al*. (2002), Haniffa and Hudaib (2006) and Gupta and Fields (2009) find a negative and statistically significant relationship between firm growth and Q-ratio using data samples from the UK, Malaysia and Canada, respectively. Also, as shown in Table 7.7, capital expenditure has no statistically significant relationship with firm value. This result is also different from some previous studies which show a positive and significant relationship (e.g., Weir *et al.*, 2002; Haniffa and Hudaib, 2006).

The multivariate OLS regression results show that dividends have a negative but insignificant relationship with Q-ratio. This result is in line with Officer (2011). He find that firms with a low Tobin's Q have significantly more positive dividend initiation announcement returns than other firms. Finally, the OLS regression results indicate that the year and industry dummy variables are statistically significant for most of the study period. This is again in line with studies that find that firm value is different across different financial years and industries (e.g., Millstein and MacAvoy, 1998). Since there are many year and industry dummy variables employed, for brevity, their coefficients are not reported in Table 7.7.

Finally, Table 7.7 shows the goodness of fit of the model, with an adjusted R^2 of 58.3% and an *F-value* of 34.442, significant at the 1% level of significance. This finding is consistent with the literature examining the relationship between corporate governance mechanisms and Q-ratio. For example, Millstein and MacAvoy (1998) report an adjusted R^2 of 51% in a sample of 154 listed firms in the US over five years. In the same vein, Haniffa and Hudaib (2006) and Jackling and Johl (2009) find an adjusted R^2 of 27% and 32% in Malaysian and Indian firms. However, Andres and Vallelado (2008) find an adjusted R^2 of 39% in a cross-country study.

iii) Comparison of Results using ROA and Q-ratio Measures

The relationship between corporate governance mechanisms and financial performance shows variations based on the measures used. The differences in the results between accounting and market measures are consistent with previous studies. For example, Haniffa and Hudaib (2006) investigate the association between corporate governance mechanisms using both ROA and Q-ratio. They find that CEO duality is negatively related to ROA and positively related to Q-ratio. Similarly, Munisi and Randoy (2013) find that corporate governance practices are positively related to ROA, but negatively associated with Q-ratio.

From Table 7.5, the differences can be summarised as follows. First, CEO duality shows a significant positive relationship with ROA and a weak relationship with Q-ratio.

This difference explains the lack of consensus in the literature about the optimal measure with which to assess firm financial performance (Mangena *et al.,* 2012). Also, it explains the need to adopt a multiple-theoretical perspective to provide a richer basis for interpreting findings (Turnbull, 1997; van Ees *et al.,* 2009; Ntim and Soobaroyen, 2013). For example, agency theory suggests that CEO duality may increase agency costs and reduce firm performance (Jensen and Meckling, 1976). On the other hand, stewardship theory suggests that CEOs can be trusted to run a firm and maximise shareholders' value (Davis *et al.,* 1997; Bozec, 2005; Nicholson and Kiel, 2007).

Second, the proportion of independent directors shows a positive relationship with both ROA and Q-ratio. This is consistent with corporate governance theories. In relation to agency and resource dependence theories, the presence of independent directors may improve the effectiveness of board monitoring and increase firm performance (Berle and Means, 1932; Fama, 1980). In addition, managerial signalling theory predicts that the presence of independent directors could reduce asymmetric information and thus attract potential investors (Black *et al.,* 2006b). Third, board size and frequency of board meetings are reported to have a negative relationship with ROA and a significantly positive relationship with Q-ratio. This suggests that large boards and frequent board meetings are not essential in improving accounting returns. This is consistent with Weir and Laing (2000) and Jiraporn *et al*. (2009), who suggest that the board of directors is not required to participate in a firm's routine activities but should draw up the firm's strategies and policies. On the other hand, large board size and a high number of board meetings send a signal to investors regarding the effectiveness of the board of directors. This explains the positive relationship obtained between both board size and frequent board meetings and Q-ratio.

Fourth, the results show a difference in the influence of board sub-committees on ROA and Q-ratio. For instance, the results reveal that board sub-committees have a positive and statistically significant relationship with firm profitability, but a negative and insignificant relationship with firm value. This significant positive relationship with ROA is in line with corporate governance codes, such as the Cadbury Report and the SCGC, which recommend listed firms establish at least three committees: audit, remuneration and nomination committees. Finally, contrary to the theoretical expectation of agency theory, the OLS regression results show that director ownership is positively and significantly related to both ROA and Q-ratio.

7.2.2.2 Empirical Results of the Compliance-Index Model

As explained in Chapters Three and Five, the compliance-index model uses a constructed corporate governance index. This model helps in examining the influence of corporate governance as a set of provisions on firm performance. This model aims to answer the fifth research sub-question: What is the relationship between compliance with the 2006 SCGC and firm financial performance? In this study, the Saudi Corporate Governance Index (SCGI) was constructed, consisting of 65 governance provisions derived from the Saudi governance code. Results from the multivariate OLS regression examining the relationship between the SCGI and firm financial performance are discussed in the following subsections.

i) OLS regression findings based on accounting measure ROA

The fifteenth hypothesis predicts that the relationship between the SCGI and ROA is positive and statistically significant. Panel *A* of Table 7.8 reports that the coefficient is positive at the 5% level of significance. Agency theory suggests that compliance with corporate governance standards improves internal control systems and board performance (Jensen and Meckling, 1976; Harrison, 1987; Klein, 1998; Allegrini and Greco, 2013). This reduces agency costs and consequently improves firm financial performance (Haniffa and Hudaib, 2006; Solomon, 2010). Also, managerial signalling theory suggests that improvement of corporate governance standards can lead to reduced asymmetric information and market uncertainty (Jensen and Meckling, 1976). From a resource dependence theory perspective, it can be argued that good corporate governance practices lead to a better board's composition. This helps firms to acquiring financial and non-financial resources (Pfeffer, 1972; Pearce and Zahra, 1992). This positive relationship is consistent with prior studies on corporate governance; for example, Bauer *et al*. (2010) and Giroud and Mueller (2011) examine the relationship between a constructed corporate governance index and ROA among US firms. They find that good corporate governance practices are positively associated with firm performance.

Similarly, Clacher *et al*. (2008) develop an index derived from the 2003 Combined Code and report a positive relationship. Klapper and Love (2004), Renders *et al*. (2010) and Munisi and Randoy (2013) use a cross-country sample to investigate this relationship in developing countries. All report a positive coefficient between the level of compliance with corporate governance standards and ROA. In addition, Tariq and Abbas (2013) find a positive relationship between corporate governance practices and ROA among 119 Pakistani firms.

As discussed in relation to the equilibrium-variable model, year and industry dummy variables are included to examine the relationship between corporate governance index and firm financial performance. The findings are consistent with those obtained from the equilibrium-variable model, which reveal that type of industry exerts a more significant influence on ROA than year dummies. Since there are many year and industry dummy variables employed, for brevity, their coefficients are not reported in Table 7.8.

Finally, as shown in Panel *A* of Table 7.8, the *F-value* is 15.434, which is significant at the 1% level of significance, leading us to reject the null hypothesis. This suggests that most of the variables used in this model have jointly significant explanatory power in explaining variations in firm financial performance when measured by ROA. On the other hand, the table shows that the adjusted R^2 for the full sample is 31.7%. This finding is consistent with studies which use a corporate governance index to examine the impact of corporate governance mechanisms on financial performance.

For example, Giroud and Mueller (2011) find an adjusted R^2 of 32% in a sample of 3,241 firms in the US. Also, Tariq and Abbas (2013) report an adjusted R^2 of 41% in a sample of 119 Pakistani firms. However, Klapper and Love (2004), Bruno and Claessens (2010) and Renders *et al*. (2010) use cross-country samples and find adjusted R^2 results of 20%, 20% and 18%, respectively.[60]

ii) OLS regression findings based on market measure Q-ratio

The relationship between the SCGI and Q-ratio is hypothesised to be positive. Panel *B* in Table 7.8 shows that there is no significant relationship between the SCGI and Q-ratio. More precisely, the correlation coefficient is very low and insignificant. This means that the hypothesis that there is a significant positive relationship between good corporate governance practices and firm value is rejected. The theoretical expectation in corporate governance literature suggests a positive relationship between good corporate governance practices and firm value (Solomon, 2010). However, this may not apply to the Saudi stock market. As discussed in Chapter Nine, there are three main reasons that can explain the lack of a relationship between the SCGI and Q-ratio in the Saudi stock market: (i) the presence of a high volume of speculative trading; (ii) the dominance of individual investors over institutional investment; and (iii) the low number of listed firms, which limits the options for trading for investors. Chapter Nine discussed in detail the key stakeholders' perceptions of the relationship between corporate governance and firm value in the Saudi stock market.

[60] These studies include Asian countries and other developing countries, but do not include Saudi Arabia.

Table 7.8: OLS regression findings of the compliance-index model (CIM) based on both accounting measure (ROA) and market measure (Q-ratio)

Model	Expect-ed Sign	All firms years	Yearly estimations						
			2004	2005	2006	2007	2008	2009	2010
Panel A: CIM -ROA									
Saudi CG Index (SCGI)	+	.239 (.016)**	.513(.095)*	.032(.929)	.166(.597)	.254(.339)	.244(.456)	.003(.994)	.412(.167)
Control Variables									
Firm size	+	.056 (.300)	-.105(.673)	.349(.250)	.120(.653)	-.178(.495)	-.105(.765)	-.084(.834)	.205(.492)
Leverage	+/-	- .179(.023)**	-.189(.341)	-.311(.215)	-.257(.246)	.356(.069)*	.287(.361)	.012(.973)	-.578(.033)**
Firm growth	+	.255(.000)***	.176(.338)	.343(.085)*	.449(.047)**	.448(.006)***	.248(.221)	.576(.012)**	-.061(.692)
Capital expenditure	+/-	-.105(.068)*	.256(..064)*	-.170(.467)	.125(.495)	-.258(.155)	-.560(.022)**	-.192(.446)	-.171(.375)
Dividends	+/-	.588(.000)***	.508(.068)*	.551(.066)*	.546(.041)**	.859(.002)***	.556(.051)*	.500(.215)	.657(.044)**
Industry dummies		Included	Included	Included	Included	Included	Included	Included	Included
Year dummies		Included	Included	Included	Included	Included	Included	Included	Included
Constant		1.606***	1.948***	1.549***	1.592***	1.651***	1.897***	2.077***	0.856**
Durbin-Watson statistics		0.654	2.120	2.055	1.884	1.790	2.091	1.705	1.747
F- value		15.434***	4.489***	3.404***	3.756***	5.052***	4.083***	2.731***	3.104***
R^2/Adjusted R^2		31.7%	34.6%	26.7%	29.5%	38.1%	31.9%	20.8%	24.2%
No. of observations		560	80	80	80	80	80	80	80
Panel B: CIM –Q-ratio									
Saudi CG Index (SCGI)	+	-.092 (.152)	-.358 (.128)	-.116 (.804)	-.100 (.677)	-.110 (.598)	.019 (.864)	.038 (.796)	.143 (345)
Control Variables									
Firm size	+	-.352(.000)***	.133 (.490)	-.755(.061)*	- .452(.029)**	-.673(.002)***	-.258(.035)**	-.628(.000)***	- .337(.029)**
Leverage	+/-	-.284(.000)***	-.541(.001)***	- .976(.004)***	-.074 (.659)	.004 (.982)	.040 (.709)	.007 (.963)	-.044 (.746)
Firm growth	+	-.026(.301)	.248 (.081)*	.127 (.626)	-.168 (.324)	-.023(.857)	.082 (.239)	.035 (.697)	-.080 (.308)
Capital expenditure	+/-	.077(.088)*	.228 (.079)*	.006 (.984)	-.061 (.662)	.040(.778)	-.033 (.688)	.063 (.535)	.017 (.864)
Dividends	+/-	-.052(.275)	-.097 (.647)	-.273 (.484)	-.066 (.741)	.064(.759)	.217(.065)*	.221 (.088)*	.184 (.262)
Industry dummies		Included	Included	Included	Included	Included	Included	Included	Included
Year dummies		Included	Included	Included	Included	Included	Included	Included	Included
Constant		2.067***	1.145***	3.635***	1.426***	1.594***	0.596***	0.877***	0.530**
Durbin-Watson statistics		1.304	2.395	2.174	1.549	1.513	1.900	2.017	2.205
F- value		39.821***	2.873***	4.106***	2.528***	3.226***	1.274	3.176***	1.900**
R^2/Adjusted R^2		55.6%	22.2%	32.1%	18.8%	25.3%	4.0%	24.8%	12.0%
No. of observations		560	80	80	80	80	80	80	80

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Chapter Five provides a detailed definition of the measurement method of all the variables used for the estimation. To avoid the dummy variable trap, 2005 and 2009 are excluded from regression analysis as year dummy variables in ROA and Q-ratio model respectively. The customer service industry is excluded from the ROA and Q-ratio models, respectively.

Regardless of the theoretical explanation suggesting a positive relationship, the finding in this study is consistent with a number of studies conducted on both developed and developing countries. For instance, Klein *et al*. (2005), Gupta *et al*. (2009) and Bozec *et al*. (2010) report no significant relationship between their constructed corporate governance index and Q-ratio in Canadian firms. Similarly, Price *et al*. (2011) develop a corporate governance index based on Mexico's corporate governance code and find that the index shows no significant relationship with Q-ratio among 107 Mexican listed firms. Consistent with the equilibrium-variable model, year and industry dummy variables were employed. The result indicates that there are significant differences in Q-ratio values across years and industries. Since there are many year and industry dummy variables employed, for brevity, their coefficients are not reported in Table 7.8.

Finally, the regression model reports that the *F-value* is 39.821 and significant at the 1% level of significance. In addition, the adjusted R^2 is 55.6%, indicating that approximately 56% of the variations in Q-ratio can be explained by the model. This finding is consistent with previous studies on corporate governance. For example, Daines *et al*. (2010) use four governance indices to examine their relationship with Q-ratio. They find an adjusted R^2 between 57% and 66% in US firms. Similarly, Beiner *et al*. (2006) report an adjusted R^2 of 42% among firms in Switzerland. In developing countries, Black *et al*. (2006a and b) and Garay and Gonzalez (2008) find an adjusted R^2 of 33%, 68% and 35% for Korean, Russian and Venezuelan samples, respectively.

iii) Comparison of ROA and Q-ratio results

As shown in Panels *C* and *D* in Table 7.5, the OLS regression shows that good corporate governance practices, proxied by the SCGI, are significantly and positively related to ROA, but have no significant relationship with Q-ratio. As discussed in the literature on corporate governance, compliance with corporate governance standards improves both firm profitability and firm value. This is not the case among Saudi listed firms in terms of firm value. However, these findings are consistent with a number of prior studies on both developed and developing countries where a constructed governance index was used. For example, Black *et al*. (2006a) report that corporate governance standards are positively related to firm value and not related to firm performance. Bauer *et al*. (2004) find that firm financial performance has an inverse relationship with good governance practices, and a positive relationship with firm value. In contrast, Ikaheimo *et al*. (2011) report that the constructed governance index is positively related to financial performance, though negatively related to firm value. Munisi and Randoy (2013) use a multi-

dimensional performance framework to examine the relationship between corporate governance practices and firm performance. They find that corporate governance practices are positively related with ROA and negatively related with Q-ratio.

7.2.3 The Results of a Comparison of Equilibrium-Variable and Compliance-Index Models

As discussed in Chapter Five and Subsection 7.2.2, this study used two different models to examine the relationship between corporate governance and financial performance: (i) the equilibrium-variable model; and (ii) the compliance-index model. While the equilibrium-variable model employed eight corporate governance mechanisms, the compliance-index model used a constructed corporate governance index consisting of 65 provisions as measures of corporate governance practices. The following subsection compares the findings obtained from these two models.

First, Panel *A* of Table 7.9 shows that the equilibrium-variable model is better at explaining the ROA than the compliance index model. The adjusted R^2 is 51.4%, whereas for the compliance-index model it is 31.7%. Additionally, the *F-value* is 26.654 in the equilibrium-variable model, and 15.434 in the compliance-index model, with similar Durbin-Watson values. Panels *B, C, D, E, F, G* and *H* in Table 7.9 show the comparisons based on the fully specified model based on yearly estimations. The equilibrium-variable model shows a higher adjusted R^2 value and *F-value* than the values in the compliance-index model.

Second, regarding the relationship between corporate governance and firm value measured by Q-ratio, Panel *A* shows that there is a relative convergence in adjusted R^2 among the equilibrium-variable model and the compliance-index model. Precisely, the adjusted R^2 is 55.6% in the compliance-index model and 58.3% in the equilibrium-variable model. The convergence in R^2 implies that the six variables used (CEO duality, proportion of independent directors, board size, frequency of board meetings, board sub-committees and director ownership) significantly explain the changes in corporate governance behaviour and their impact on firm value. Therefore, both the equilibrium-variable model and the compliance-index model have similar explanatory power in evaluating the relationship between corporate governance mechanisms and firm value. Based on the yearly estimations in Panels *B, C, D, E, F, G* and *H,* the adjusted R^2 in the equilibrium-variable model is better than that of the compliance-index model in analysing the relationship between corporate governance and Q-ratio.

Table 7.9: Comparison of the financial performance models used

Models	Equilibrium -variable model		Compliance-index model	
	ROA	Q-ratio	ROA	Q-ratio
Panel *A*: All firms including control variables				
Adjusted R^2	51.4%	58.3%	31.7%	55.6%
F-value	26.654***	34.442***	15.434***	39.821***
Durbin-Watson statistics	0.676	1.388	0.654	1.304
Panel *B*: 2004 all firms				
Adjusted R^2	45.4%	24.0%	34.6%	22.2%
F-value	4.859***	2.465***	4.489***	2.873***
Durbin-Watson statistics	2.020	2.249	2.120	2.395
Panel *C*: 2005 all firms				
Adjusted R^2	43.0%	35.0%	26.7%	32.1%
F-value	4.504***	3.503***	3.404***	4.106***
Durbin-Watson statistics	2.215	2.188	2.055	2.174
Panel *D*: 2006 all firms				
Adjusted R^2	51.8%	34.7%	29.5%	18.8%
F-value	5.990***	3.469***	3.756***	2.528***
Durbin-Watson statistics	2.060	1.740	1.884	1.549
Panel *E*: 2007 all firms				
Adjusted R^2	55.7%	34.4%	38.1%	25.3%
F-value	6.853***	3.436***	5.052***	3.226***
Durbin-Watson statistics	2.015	1.810	1.790	1.513
Panel *F*: 2008 all firms				
Adjusted R^2	45.6%	12.7%	31.9%	4.0%
F-value	4.903***	1.678*	4.083***	1.274
Durbin-Watson statistics	2.223	1.968	2.091	1.900
Panel *G*: 2009 all firms				
Adjusted R^2	46.3%	27.1%	20.8%	24.8%
F-value	5.014***	2.725***	2.731***	3.176***
Durbin-Watson statistics	1.918	2.033	1.705	2.017
Panel *H*: 2010 all firms				
Adjusted R^2	41.7%	10.2%	24.2%	12.0%
F-value	4.330***	1.530	3.104***	1.900**
Durbin-Watson statistics	1.790	2.241	1.747	2.205

Notes: ***, ** and * denote significance at 1%, 5% and 10% levels, respectively.

To summarise the above discussion, the equilibrium-variable model clearly shows greater explanatory power than the compliance-index model for the relationship between corporate governance practices and accounting returns. However, the equilibrium-variable and compliance-index models have the same explanatory power in explaining the relationship between corporate governance and firm value. Hence, there is no ideal methodology to investigate the relationship between corporate governance and firm financial performance. Therefore, this study employed these two models to provide deeper insight into the varying effects of using different methods.

7.3 ROBUSTNESS IN FINDINGS AND ENDOGENEITY

This section presents the sensitivity analysis, particularly with regards to potential endogeneity problems. Subsection 7.3.1 reports the robustness of the main results and Subsection 7.3.2 provides a discussion relating to potential endogeneity problems.

7.3.1 Robustness of the Main Results

The results from the voluntary corporate governance disclosure and the compliance-index models are tested to check whether they are robust. In line with the recent literature (e.g., Henry, 2008; Ammann *et al.,* 2011; Ntim *et al.,* 2012a and b), this study uses four different tests: (i) estimating the voluntary corporate governance disclosure pre- and post-2006, when the Saudi Corporate Governance (SCGC) was introduced; (ii) using weighted index of the SCGI; (iii) using sub-indices of the SCGI; and (iv) running firm level fixed-effects. First, as discussed in Chapter Five, the sample period covers the years 2004 to 2010, inclusive. The SCGC was introduced in 2006. This study attempts to explore whether there are differences in the results with respect to the period under investigation. Therefore, the regressions model is re-estimated by splitting the sample into two sub-samples: pre-2006 (from 2004 to 2005) and post-2006 (from 2006 to 2010).

Table 7.10 shows the robustness test results for the voluntary corporate governance disclosure model. Models II and III reveal that the results are different in terms of the impact of corporate governance mechanisms on corporate disclosure pre- and post-2006. Specifically, the post-2006 ownership structure variables are marginally significant, and the pre-2006 ones are more significant. The coefficients of block ownership and director ownership are statistically significant at 1% in the pre-2006 period, while they are significant at 10% in the post-2006 period. Furthermore, institutional ownership has a positive and significant effect on voluntary corporate governance disclosure after the release of the corporate governance code.

The sign of the coefficient on board size, however, changes. In this regard, the result seems to suggest a negative and significant relationship between voluntary corporate governance disclosure and board size pre-2006, and a positive and significant effect post-2006. In addition, audit firm size has a positive and significant influence on good corporate governance practices. A practical implication of this finding is the increase in the awareness of the importance of audit firms in improving the quality of disclosed information.

Additionally, the coefficients of firm characteristics (control variables) show different levels of significance. For example, capital expenditure and dividends are

statistically significant in the pre-2006 period but insignificant in the post-2006 period with a changing sign. In addition, there are variations in the signs of coefficients of firm size, with stability in the level of significance. This indicates that the relationship between these variables and corporate governance mechanisms varies, depending on whether they are measured before or after the introduction of the 2006 SCGC.

Table 7.11 presents the results from examining the relationship between corporate governance and firm financial performance before and after the introduction of SCGC in 2006 for the compliance-index model. Panel *A* reports the results obtained from using ROA as an accounting measure. Specifically, Models II and III show a variation in the results based on the sample period. The SCGI is positively and significantly related to ROA post-2006 at the 5% level of compliance (*P-value* is .024), whereas it was significant before the introduction of the SCGC in 2006 at the 10% level of compliance (*P-value* is .094). This implies that the improvement in corporate governance practices led to improved financial performance.

Table 7.10: Robustness analysis of the impact of board characteristics and ownership structure at the extent of voluntary corporate governance disclosure

Model	Model I	Model II	Model III	Model IV	Model V
Independent Variable	Main-index-SCGI	Pre-2006	Post-2006	Weighted-SCGI	Fixed-effects
Board of Directors' Characteristics					
Independent Directors	-.187 (.006)***	-.001 (.460)	-.273 (.006)***	-.158 (.014)**	.088 (.300)
Board Size	.206 (.009)***	-.047 (.000)***	.319 (.006)***	.213 (.005)***	.007 (.489)
Audit Firm Size	.341 (.012)**	.018 (.200)	.308 (.037)**	.199 (.043)**	-.019 (.456)
CG Committee	.273 (.006)***	.194 (.007)***	.352 (.014)**	1.061 (.000)***	.399 (.008)***
Ownership Structure					
Government Ownership	.526 (.002)***	.074 (.012)**	.716 (.002)***	.455 (.005)***	.001 (.500)
Institutional Ownership	.194 (.063)*	.028 (.107)	.233 (.093)*	.136 (.132)	1.246 (.006)***
Block Ownership	-.267 (.068)*	-.086 (.005)***	-.321 (.099)*	-.148 (.196)	-.602 (.135)
Director ownership	.186 (.048)**	.077 (.000)***	.234 (.070)*	.057 (.305)	.375 (.207)
Control Variables:					
Firm size	-.353 (.010)***	.052 (.023)**	-.517 (.009)***	-.280 (.028)**	-.299 (.214)
Leverage	.160 (.063)*	.031 (.039)**	.217 (.084)*	.167 (.049)**	.026 (.430)
Firm growth	.021 (.385)	.014 (.155)	.018 (.425)	.043 (.264)	.015 (.411)
Capital expenditure	.048 (.273)	-.027 (.038)**	.054 (.317)	.059 (.223)	.160 (.047)**
Divid. payment status	-.076 (.265)	.055 (.006)***	-.138 (.214)	.063 (.294)	-.193 (.099)*
Industry dummies	Included	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included	Included
Firm dummies	Excluded	Excluded	Excluded	Excluded	Included
Constant	1.812***	0.374***	2.272***	1.786***	4.400**
Durbin-Watson statistics	0.975	1.677	1.023	1.099	1.199
F- value	18.206***	4.548***	9.965***	23.057***	8.931***
Adjusted R^2	43.5%	30.9%	34.1%	49.7%	58.2%
No. of observations	560	160	400	560	560

Notes: *P*-values are in parentheses. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively. Chapter Five provides a detailed definition of the measurement method of all of the variables.

However, Panel *B* shows that the relationship between corporate governance practices proxied by the SCGI and Q-ratio remains insignificant, but the magnitude of the

coefficient increases. Quantitatively, the coefficient is -0.210 in Model II (pre-2006 period), and increases to -0.018 in Model III (post-2006 period). In addition, it can be seen from the table that there are also variations in the magnitude and significance of the estimated coefficients of the control variables. From this, one can conclude that there seems to be an improvement in the level of compliance with the corporate governance code, which led to improved firm financial performance.

Second, as discussed in Chapters Five and Six, the Saudi Corporate Governance Index (SCGI) consists of four sub-indices. Each sub-index has a different number of provisions, and also varies in the weights assigned to each sub-index: board of directors (54%); disclosure and transparency (25%); internal control and risk management (9%); and the rights of shareholders and the general assembly (12%). The weighted SCGI was constructed to ascertain whether the main results are robust to the weighting in these four sub-indices. Following Beiner *et al.* (2006), each index is awarded an equal weight of 25%.

Model IV of Table 7.10 presents the weighted SCGI used in the voluntary corporate governance disclosure model. In terms of board characteristics, the results show that there is no significant difference between the estimated coefficients of the un-weighted index (Model I) and the weighted index (Model IV). Specifically, independent directors, board size, audit firm size and presence of corporate governance committee are found to be unchanged in terms of the level of statistical significance and the signs of the estimated coefficients. The results from the weighted and un-weighted index models reveal slight variations, particularly with respect to the ownership variables, including institutional ownership, block ownership and director ownership. Government ownership remains relatively similar in terms of the significance and magnitude of the estimated coefficients in these two models. Of the control variables, all variables except dividends are similar in the weighted and un-weighted indices.

Similarly, a weighted index was used with the compliance-index model for estimating the relationship between corporate governance practices and each of ROA and Q-ratio. Models I and IV of Panel *A* of Table 7.11 show that there is a fair similarity in relation to the significance and magnitude of the coefficients in both the weighted and un-weighted indices. Specifically, the coefficient on the SCGI relating to ROA is positive at the 5% level of significance in these two models. Also, the control variables remain unchanged in terms of the level of statistical significance and the signs of the estimated coefficients. On the other hand, the adjusted R^2 and *F-value* show some degree of similarity (31.7% and 15.434 at the 1% level of significance for the un-weighted index, and 31.3% and 15.151 at the 1% level of significance for the weighted index).

Table 7.11: The effect of corporate governance practices on firm financial performance: Fixed-Effect regressions

Compliance-Index Model	Model I	Model II	Model III	Model IV	Model V
Panel *A*: Accounting return	ROA	ROA	ROA	ROA	ROA
SCGI	.239 (.016)**				
SCGI Pre-2006		.298 (.094)*			
SCGI Post-2006			.259 (.024)**		
Weighted-SCGI				.124 (.036)**	
Firm Fixed-effects					.107 (.132)
Control Variables:					
Firm size	.056 (.300)	.090 (.315)	-.006 (.483)	.064 (.275)	.284 (.135)
Leverage	- .179 (.023)**	-.253 (.049)**	-.110 (.167)	-.164 (.034)**	-.482 (.000)***
Firm growth	.255 (.000)***	.222 (.040)**	.281 (.000)***	.259 (.000)***	.225 (.000)***
Capital expenditure	-.105 (.068)*	-.093 (.242)	-.170 (.024)**	-.103 (.072)*	-.043 (.256)
Divid. payment status	.588 (.000)***	.499 (.005)***	.646 (.000)***	.591 (.000)***	.287 (.003)***
Industry dummies	Included	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included	Included
Firm dummies	Excluded	Excluded	Excluded	Excluded	Included
Constant	1.606***	1.731***	1.489***	1.580***	0.714**
Durbin-Watson statistics	0.654	1.309	0.634	0.644	1.482
F- value	15.434***	7.240***	12.559***	15.151***	15.413***
Adjusted R^2	31.7%	33.8%	31.7%	31.3%	70.1%
No. of observations	560	160	400	560	560
Panel *B*: Firm value	Q-ratio	Q-ratio	Q-ratio	Q-ratio	Q-ratio
SCGI	-.092 (.152)				
SCGI Pre-2006		-.210 (.220)			
SCGI Post-2006			-.018 (.402)		
Weighted-SCGI				-.139 (.062)*	
Firm Fixed-effects					-.038 (.352)
Control Variables:					
Firm size	-.352 (.000)***	-.281 (.106)	-.457 (.000)***	-.346 (.000)***	-.862 (.000)***
Leverage	-.284 (.000)***	-.759 (.000)***	-.001 (.496)	-.287 (.000)***	-.250 (.009)***
Firm growth	-.026 (.301)	.128 (.199)	-.044 (.152)	-.026 (.303)	-.039 (.205)
Capital expenditure	.077 (.088)*	.072 (.326)	.002 (.483)	.077 (.086)*	.014 (.416)
Divid. payment status	-.052 (.275)	-.224 (.168)	.125 (.049)**	-.042 (.312)	-.123 (.124)
Industry dummies	Included	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included	Included
Firm dummies	Excluded	Excluded	Excluded	Excluded	Included
Constant	2.067***	1.263***	0.949***	2.057***	1.451***
Durbin-Watson statistics	1.304	1.995	0.892	1.305	1.945
F- value	39.821***	12.321***	15.533***	39.990***	13.902***
Adjusted R^2	55.6%	48.1%	36.8%	55.7%	67.7%
No. of observations	560	160	400	560	560

Notes: *P*-values are in parentheses. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively. Chapter Five provides a detailed definition of the measurement method of all the used variables.

The weighted index used to examine firm value is different from the main model. From Models I and IV of Panel *B* in Table 7.11, the results show slight changes in the level of significance, though the direction remains the same (negative with Q-ratio). In addition, the control variables used in both models display great similarity in terms of the estimated coefficients and the fit, as well as the joint explanatory powers of the models. The great similarity in results obtained from the compliance-index model support the validity and reliability of the constructed index (see Sekaran, 2003; Hassan and Marston, 2010).

Third, as discussed above, the constructed corporate governance index consists of four sub-indices constituting 65 provisions.[61] These are: board of directors (*BOD*), with 35 provisions, disclosure and transparency (*DAT*), with 16 provisions, internal control and risk management (*IRM*), with 6 provisions, and rights of shareholders and general assembly (*ROS*), with 8 provisions. The main results suggest that cross-sectional variations in the constructed index can be explained by the explanatory variables. Since the SCGI contains different categories, it is possible to develop a link between each category and the explanatory variables. This helps to ensure whether the relationships between the sub-indices and the explanatory variables show convergence. Therefore, Equation 1 in Chapter Five, examining the factors influencing voluntary corporate governance disclosure, is re-formulated to replace the SCGI with BOD, DAT, IRM and ROS.

Table 7.12: The impact of board characteristics and ownership structure on the extent of voluntary disclosure of corporate governance practices

Model	Model I	Model II	Model III	Model IV
Independent Variable	BOD *sub-index*	DAT *sub-index*	IRM *sub-index*	ROS *sub-index.*
Board of Directors' Characteristics				
Independent Directors	-.201 (.005)**	-.108 (.067)*	-.068 (.135)	-.147 (.007)***
Board Size	.198 (.013)**	.054 (.257)	-.035 (.312)	.033 (.316)
Audit Firm Size	.229 (.032)**	.141 (.110)	.168 (.045)**	.038 (.344)
Presence of CG Committee	-.006 (.483)	.101 (.217)	1.649 (.000)***	.069 (.258)
Ownership Structure				
Government Ownership	.405 (.015)**	.463 (.004)***	-.003 (.493)	.317 (.015)**
Institutional Ownership	.195 (.067)*	.350 (.002)***	.016 (.441)	-.085 (.201)
Block Ownership	-.280 (.064)*	-.575 (.000)***	.070 (.318)	.044 (.379)
Director ownership	.228 (.027)**	.314 (.003)***	-.137 (.075)*	-.195 (.017)**
Control Variables:				
Firm size	-.360 (.011)**	.055 (.352)	.013 (.459)	.268 (.014)**
Leverage	.182 (.045)**	-.099 (.162)	.083 (.168)	-.088 (.147)
Firm growth	.049 (.248)	.131 (.026)**	.008 (.447)	.029 (.301)
Capital expenditure	-.036 (.332)	.184 (.009)**	.080 (.112)	-.162 (.006)***
Dividends	-.083 (.252)	-.067 (.283)	.232 (.010)**	.098 (.156)
Industry dummies	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included
Constant	1.832***	1.856***	1.684***	1.566***
Durbin-Watson statistics	1.025	1.099	1.314	1.204
F- value	15.034***	16.304***	28.653***	7.813***
Adjusted R^2	38.6%	40.6%	55.3%	23.4%
No. of observations	560	560	560	560

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Variables are defined as follows: Saudi Corporate Governance Index (*SCGI*), board of directors sub-index (*BOD*), disclosure and transparency sub-index (*DAT*), internal control and risk management sub-index (*IRM*) and rights of shareholders and the general assembly sub-index (*ROS).* Chapter Five provides a detailed definition of the measurement method of all the variables used.

Noticeably, the findings from the four indices examining the relationship between corporate governance mechanisms and corporate disclosure in Models I to IV in Table 7.12 are relatively similar, thereby suggesting that the previous results relating to the SCGI are robust. As shown in Table 7.12, the significance and magnitude of the coefficients of board characteristics and ownership structure in the four indices are moderately similar, except in

[61] Table 5.3 in Chapter Five provides a full list of the Saudi Corporate Governance Index (SCGI) provisions derived mainly from the Saudi Corporate Governance Code (SCGC).

Model III. Also, the control variables show slight differences based on the index used. Furthermore, the adjusted R^2 falls between about 39% and 55%, excepting Model IV, at 23%. Table 7.13 shows the relationship between firm financial performance and the sub-indices. Regarding the accounting returns, Panel *A*, which reports the sub-indices, shows that the ROA remains positive and significant, with the exception of the estimated coefficient on DAT. Also, the control variables show similar magnitudes and signs over the four indices.

Panel *B* also shows negative relationship between the firm value measured by Q-ratio and the four sub-indices. Apart from the coefficients on DAT and IRM, the other indices remain insignificant in relation to Q-ratio. Additionally, the control variables show a convergence in direction and magnitude for all four indices. Also, the adjusted R^2 for the four models are largely similar, equal to about 55%. The results show the stability and robustness in the relationship between the sub-indices and financial performance.

Finally, voluntary corporate governance disclosure and firm performance may be determined by unobserved firm-specific characteristics (Henry, 2008; Ntim *et al.,* 2012a). The panel data is used to run the fixed-effects model for possible unobserved firm-specific heterogeneity. This is done by constructing 79 dummies to represent 80 sampled firms. Model V of Table 7.10 shows the re-estimation of the voluntary corporate governance disclosure model using a fixed-effects model. This model shows that the magnitudes of the estimated coefficients are different in comparison with Model I (main-index SCGI). Whilst the proportion of independent directors, board size and audit firm size were significant in the main model, they become insignificant in the firm fixed-effects model. The control variables show a slight similarity between the main model and the fixed-effects model. This suggests that the findings are statistically sensitive to the potential unobserved firm-specific heterogeneity in voluntary corporate governance disclosure.

However, coefficients in the compliance-index model (Model I in Table 7.11) are relatively similar to the firm fixed-effects results (Model V). Particularly, Panel *A* of Table 7.11 reports that the firm fixed-effects model is positively but not significantly related to ROA. The control variables, on the other hand, are largely the same in the two models. Similarly, the firm fixed-effects model in Panel *B* shows a slight stability in coefficients using Q-ratio. Also, the control variables are similar in their significance and magnitude of the estimated coefficients in the two models.

Table 7.13: The impact of corporate governance practices on firm financial performance: Fixed- Effect regressions

Compliance-Index Model	Model I	Model II	Model III	Model IV
Panel *A*: Accounting return	ROA	ROA	ROA	ROA
BOD *sub-ind*ex	.245 (.008)***			
DAT *sub-index*		-.057 (.294)		
IRM *sub-index*			.240 (.011)**	
ROS *sub-index*				.204 (.003)***
Control Variables:				
Firm size	.058 (.293)	.082 (.219)	.083 (.216)	.025 (.407)
Leverage	-.182 (.021)**	-.161 (.037)**	-.161 (.035)**	-.147 (.050)**
Firm growth	.258 (.000)***	.265 (.000)***	.260 (.000)***	.259 (.000)***
Capital expenditure	-.108 (.063)*	-.101 (.076)*	-.095 (.088)*	-.084 (.117)
Dividends	.598 (.000)***	.606 (.000)***	.625 (.000)***	.566 (.000)***
Industry dummies	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included
Constant	1.539***	1.541***	1.519***	1.582***
Durbin-Watson statistics	0.651	0.638	0.660	0.652
F- value	15.533***	15.075***	15.488***	15.678***
Adjusted R^2	31.9%	31.2%	31.8%	32.1%
No. of observations	560	560	560	560
Panel *B*: Firm value	Q-ratio	Q-ratio	Q-ratio	Q-ratio
BOD *sub-ind*ex	-.011 (.449)			
DAT *sub-index*		-.250 (.002)***		
IRM *sub-index*			-.179 (.017)**	
ROS *sub-index*				-.035 (.280)
Control Variables:				
Firm size	-.360 (.000)***	-.334 (.000)***	-.356 (.000)***	-.369 (.000)***
Leverage	-.290 (.000)***	-.292 (.000)***	-.292 (.000)***	-.288 (.000)***
Firm growth	-.029 (.286)	-.012 (.405)	-.030 (.276)	-.029 (.281)
Capital expenditure	.076 (.090)*	.080 (.077)*	.081 (.076)*	.079 (.083)*
Dividends	-.058 (.251)	-.052 (.270)	-.043 (.309)	-.065 (.228)
Industry dummies	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included
Constant	1.353***	2.033***	2.061***	1.351***
Durbin-Watson statistics	1.306	1.325	1.303	1.309
F- value	39.686***	40.830***	40.268***	39.728***
Adjusted R^2	55.5%	56.2%	55.8%	55.5%
No. of observations	560	560	560	560

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Variables are defined as follows: Return on assets *(ROA)*, Saudi Corporate Governance Index (*SCGI*), board of directors sub-index (*BOD*), disclosure and transparency sub-index (*DAT*), internal control and risk management sub-index (*IRM*) and rights of shareholders and the general assembly sub-index (*ROS*). Chapter Five provides a detailed definition of the measurement method of all the used variables.

To conclude, the sensitivity tests show that the results are robust. For testing, the sample was split into two sub-samples: the pre- and post-2006 periods. The findings suggest that the introduction of the 2006 code helped improve corporate governance practices. The use of the weighted index shows that the results remain the same. Additionally, replacing the SCGI with the four sub-indices generally shows similar results to those of the main model. Nonetheless, the results obtained through the firm fixed-effects model suggest the presence of unobserved firm-specific characteristics.

7.3.2 Endogeneity Problems

When using a multiple regression model, endogeneity is said to occur if the dependent and explanatory variables have a high correlation with the error term (van Lent,

2007; Ntim *et al.,* 2012b). Ammann *et al*. (2011) indicate that endogeneity may pose a crucial problem in examining the effect of corporate governance on voluntary corporate governance, disclosure and firm financial performance. According to studies, there are three main factors that can cause endogeneity in the regression model: (i) measurement errors; (ii) omitted variables; and (iii) simultaneity (Chenhall and Moers, 2007; Ammann *et al.,* 2011; Ntim *et al.,* 2012b). Thus, endogeneity could be a threat if caused by a weak econometric model (Larcker and Rusticus, 2010).

The causes of endogeneity are discussed below. First, the main cause of endogeneity is measurement errors (Borsch-Supan and Koke, 2002; Omar and Simon, 2011). Regarding the corporate governance disclosure index, the explanatory variable may be endogenous if it cannot be adequately constructed. For example, measuring corporate governance disclosure by a developed index heavily focuses on financial disclosure rather than non-financial disclosure. Second, another cause is the omission of control variables; for example, unavailability of data (van Lent, 2007; Ntim *et al.,* 2012b). Black *et al*. (2006a) point out that corporate governance is likely to correlate with economic variables; this makes the selection of control variables important in reducing omitted variables which may cause endogeneity. Third, simultaneity emerges when the explanatory variable is simultaneously determined by the dependent variable (Ghosh and Sirmans, 2005; Jo and Harjoto, 2011; Ntim *et al.,* 2012b). An example is whether high CEO compensation leads to a firm showing good financial performance or vice versa; this suggests that high corporate profitability leads to high CEO compensation (Ghosh and Sirmans, 2005).

Endogeneity can increase the bias in the results of the regression model (Chenhall and Moers, 2007; Larcker and Rusticus, 2010; Ammann *et al.,* 2011; Jo and Harjoto, 2011). It can be noted that existing studies do not discuss the problems of endogeneity adequately (Black *et al.,* 2006a). This study, however, attempts to address the potential endogeneity problems. This helps to ensure the robustness and stability of the estimated coefficients. In this regard, and in line with Larcker and Rusticus (2010) and Ntim *et al*. (2012b), this study used alternative approaches of statistical and econometric methods to check the endogeneity problems. First, one of the statistical methods is to use cross-sectional and time-series data. Borsch-Supan and Koke (2002) suggest that panel data helps solve the simultaneity problem. They state that "*panel data can provide instruments that are not available in cross-sectional data*" (Borsch-Supan and Koke, 2002, p.301).

Also, in line with Black *et al*. (2006a), the study uses a set of control variables to reduce the problem caused by omitted variables.[62]

To mitigate the potential problem of measurement errors, the study follows two approaches: (i) constructing a broad composite governance index, which consists of 65 corporate governance provisions; and (ii) using a governance index constructed by the researcher rather than analysts' ratings. This enables the governance index to accurately measure corporate governance practices of Saudi firms.

Second, this study follows recent studies in addressing endogeneity problems by using two econometric methods (e.g., Renders *et al.,* 2010; Ammann *et al.,* 2011; Ntim *et al.,* 2012b). The first method is to use a lagged structure, which is considered appropriate to deal with omitted variables and simultaneity problems (Ammann *et al.,* 2011; Ntim *et al.,* 2012b). The second method is to use Instrumental Variable (IV), which deals with the potential problems caused by measurement errors and omitted variables (e.g., Black *et al.,* 2006a; Renders *et al.,* 2010).

7.3.2.1 Estimation of a Lagged Structure

To address the potential omitted variables and simultaneity problems, the main models are re-estimated with a one-year lag between the dependent variables and the explanatory variables (e.g., Ntim *et al.,* 2012b). This is because the dependent variables may also be influenced by the previous years' corporate governance practices (the explanatory variables). For example, when the CEO and chairperson roles are split, this may not influence the governance practices and financial performance in the same year. Therefore, this sample excluded 2004 as the first year, thereby reducing the entire sample from 560 to 480 observations. This subsection reports and discusses the results obtained by estimating the lagged structure for the voluntary corporate governance disclosure model and firm financial performance models. The subsection is organised into three parts: (i) estimation of the lagged structure for the voluntary corporate governance disclosure model; (ii) estimation of the lagged structure for the equilibrium-variable model; and (iii) estimation of the lagged structure for the compliance-index model.

i) Lagged structure and voluntary corporate governance disclosure model

Table 7.14 shows the comparison between results obtained from the lagged structure regression and main regression models (un-lagged) to examine the relationship between corporate governance mechanisms and voluntary corporate governance

[62] This study used extensive data available from the Saudi Stock Exchange (Tadawul) database to select a number of control variables.

disclosure. More precisely, Panel *A* shows the statistical results obtained from an un-lagged structure model, while Panel *B* shows the results of the estimated lagged structure. The main equation presented in Chapter Five (Equation 1) of the voluntary corporate governance disclosure model is re-estimated and shown below:

$$SCGI_{it} = \alpha_0 + \beta_1 INDD_{it-1} + \beta_2 BSZ_{it-1} + \beta_3 AFZ_{it-1} + \beta_4 CGC_{it-1} + \beta_5 GONR_{it-1} + \beta_6 IONR_{it-1} + \beta_7 BONR_{it-1} + \beta_8 DONR_{it-1} + \sum_{i=1}^{n} \beta_i CONTROLS_{it-1} + \varepsilon_{it-1} \quad (4)$$

SCGI refers to the constructed corporate governance index derived from the Saudi Corporate Governance Code (SCGC). As discussed in Chapter Five and Section 7.2, the explanatory variables consist of two sets of variables: board characteristics and ownership structure. These variables are proportion of independent directors (*INDD*), board size (*BSZ*), audit firm size (*AFZ*), presence of corporate governance committee (*GCC*), government ownership (*GONR*), institutional ownership (*IONR*), block ownership (*BONR*) and director ownership (*DONR*). *CONTROLS* are control variables including firm size, leverage, firm growth, capital expenditure, dividends, and industry and year dummy variables. As the estimated lagged structure model depends on re-estimation by a one-year lag, the sample period has been reduced to six years (excluding 2004), representing 480 observations.

As shown in Table 7.14, coefficients of explanatory variables in the un-lagged model have a similar significance and magnitude with the lagged structure estimation model. Specifically, board size, audit firm size, presence of corporate governance committee, government ownership, institutional ownership and director ownership are found to be positive and to have same level of significance. However, proportion of independent directors and block ownership have an inverse and statistically significant relationship with the SCGI. Concerning the control variables, the coefficients in both un-lagged and lagged structures are relatively similar. Particularly, leverage has a positive and significant relationship with the SCGI in both models. In contrast, firm size shows a negative and significant relationship with the corporate governance index. The results show that firm growth and capital expenditure are positively but not significantly related, while dividends show a negative but insignificant relationship with the SCGI in both models.

The adjusted R^2 shows slight variation between un-lagged and lagged structure models reported in Panels *A* and *B* in Table 7.14, respectively. Specifically, it is about 44% and 40% in the un-lagged and lagged structures, respectively. The *F-value* in the un-lagged

structure is 18.206 at the 1% level of significance. Similarly, the *F-value* is 14.076 at the 1% level of significance in the estimated lagged structure. Therefore, the results show that there is relative similarity among the main regression model (un-lagged) and the estimated lagged structure model. This implies the robustness of the findings and also supports the results reported in Section 7.2, related to the voluntary corporate governance disclosure model.

Table 7.14: Regression results of the estimated lagged stricture for the voluntary corporate governance disclosure model

Independent Variables	Panel *A*: Main regression un-lagged structure	Panel *B*: Estimation lagged structure regression
Board of Directors' Characteristics		
Independent Directors	-.187 (.006)***	-.221 (.006)***
Board Size	.206 (.009)***	.247 (.006)***
Audit Firm Size	.341 (.012)**	.293 (.019)**
Presence of CG Committee	.273 (.006)***	. 344 (.009)***
Ownership Structure		
Government Ownership	.526 (.002)***	.604 (.001)***
Institutional Ownership	.194 (.063)*	.213 (.074)*
Block Ownership	-.267 (.068)*	-.297 (.077)*
Director ownership	.186 (.048)*	.210 (.058)*
Control Variables:		
Firm size	-.353 (.010)***	-.406 (.012)**
Leverage	.160 (.063)*	.173 (.085)*
Firm growth	.021 (.385)	.020 (.403)
Capital expenditure	.048 (.273)	.056 (.275)
Dividends	-.076 (.265)	-.111 (.216)
Industry dummies	Included	Included
Year dummies	Included	Included
Constant	1.812***	1.284***
Durbin-Watson statistics	0.975	0.992
F- value	18.206***	14.076***
Adjusted R^2	43.5%	39.6%
No. of observations	560	480

Notes: *P*-values are in parentheses. ***, ** and * denote significance at the 1%, 5% and 10% levels of significance, respectively. Chapter Five provides a detailed definition of the measurement method of all the used variables. Panel *B* introduced 2004 as a one year lag. To avoid the dummy variable, 2009 is excluded as a dummy variable from Panel *A*, and 2005 is excluded from Panel *B*. In addition, the industry sector dummy variable is excluded from Panel *A* and Panel *B*.

ii) Lagged structure and equilibrium-variable model

This subsection presents the findings from both the lagged and the un-lagged models to examine the relationship between corporate governance mechanisms and firm financial performance using the equilibrium-variable model. Panel *A* of Table 7.15 shows the results based on the un-lagged structure, while Panel *B* shows the estimated lagged structure model. As shown below, the main equation presented in Chapter Five (Equation 2) of the equilibrium-variable model for both accounting measure ROA and market measure Q-ratio is re-estimated as follows:

$$FP_{it} = \alpha_0 + \beta_1 BDUAL_{it-1} + \beta_2 INDD_{it-1} + \beta_3 BSZ_{it-1} + \beta_4 BFM_{it-1} + \beta_5 BCOM_{it-1} + \beta_6 DONR_{it-1} + \sum_{i=1}^{n} \beta_i CONTROLS_{it-1} + \varepsilon_{it-1} \quad (5)$$

FP constitutes the firm financial performance measured by ROA, as an accounting-based measure, and Q-ratio, as a market-based measure. The explanatory variables are corporate governance mechanisms. In particular, these variables include CEO duality (*BDUAL*), proportion of independent directors (*INDD*), corporate board size (*BSZ*), frequency of board meetings (*BFM*), presence of board sub-committees (*BCOM*) and director ownership (*DONR*). *CONTROLS* are control variables including firm size, leverage, firm growth, capital expenditure, dividends, and industry and year dummy variables.

First, Panels *A* and *B* report the findings obtained from the un-lagged and lagged structure models, respectively, to examine the influence of corporate governance mechanisms and ROA. Specifically, the results show an enormous similarity in statistical significance and magnitude. CEO duality, proportion of independent directors, presence of board sub-committees and director ownership show a positive and significant relationship with ROA in both models. However, board size is negatively and significantly related to ROA, while frequency of board meetings has no significant relationship with firm performance in both models. This means that the selected explanatory variables in both models show the same power and direction in their relationship with firm financial performance.

Excluding capital expenditure, the coefficients and magnitudes of control variables for un-lagged and lagged structure models seem to be similar. Specifically, leverage shows a significant and negative association with ROA in both models. However, firm size, firm growth and dividends show a significantly positive relationship with ROA. Capital expenditure is negative but not significantly related to ROA in the un-lagged structure model, while it is significantly and positively related to ROA in the lagged structure model.

The adjusted R^2 is similar in both models. Panels *A* and *B* show that the R^2 is 51% and 52% in the un-lagged and lagged structures, respectively. This implies that 51% of the variation can be explained by the examined variables. The *F-value* is 26.654 and 24.397 at the 1% level of significance in the un-lagged and lagged structures, respectively. This great similarity in the results shows that the obtained results in the main model are robust, and suggests that firms with high levels of compliance with corporate governance standards have higher financial performance measured by ROA.

Second, for Q-ratio, Panels *A* and *B* in Table 7.15 show that the results from the un-lagged and lagged structure models are relatively similar. Regarding the explanatory variables, all variables except for CEO duality show similar coefficients and magnitudes. On the other hand, the control variables show a change in the magnitudes of the results for

firm size, leverage, firm growth and capital expenditure. There is slight similarity for the adjusted R^2 between the un-lagged and lagged structure models. Specifically, the R^2 in the un-lagged structure is about 58%, while it is 62% in the estimated lagged structure. The *F-value* is 34.442 in the un-lagged structure model and 35.968 in the lagged structure model, both at the 1% level of significance. This offers further support for the robustness of the equilibrium-variable model.

Table 7.15: Regression results of estimated lagged stricture for the equilibrium-variable model

	Panel *A*: Main regression results un-lagged structure		Panel *B*: Estimation lagged structure regression	
Independent Variables	ROA	Q-ratio	ROA	Q-ratio
CEO duality	.016 (.022)**	-.016 (.421)	.023 (.005)***	.011 (.452)
Independent Directors	.008 (.068)*	.106 (.020)**	.009 (.059)*	.136 .(008)***
Board Size	-.025 (.000)***	.078 (.094)*	-.025 (.000)***	.057 (.188)
Frequency of board meetings	-.003 (.295)	. 200 (.000)***	-.005 (.171)	.209 (.000)***
Board sub-committees	.023 (.007)***	-.110 (.113)	.024 (.006)***	-.112 (.117)
Director ownership	.027 (.000)***	.243 (.000)***	.027 (.000)***	.236 (.000)***
Control Variables:				
Firm size	.027 (.002)***	.447 (.000)***	.029 (.002)***	-.510 (.000)***
Leverage	-.033 (.000)***	.300 (.000)***	-.034 (.000)***	-.227 (.003)***
Firm growth	.019 (.000)***	.034 (.244)	.020 (.000)***	-.073 (.083)*
Capital expenditure	-.005 (.171)	.030 (.297)	-.008 (.088)*	-.009 (.446)
Dividends	.059 (.000)***	-.075 (.190)	.057 (.000)***	-.044 (.318)
Industry dummies	Included	Excluded	Included	Included
Year dummies	Included	Included	Included	Included
Constant	0.134***	1.342***	0.143***	2.363***
Durbin-Watson statistics	0.676	1.388	0.756	1.534
F- value	26.654***	34.442***	24.397***	35.968***
Adjusted R^2	51.4%	58.3%	51.8%	61.6%
No. of observations	560	560	480	480

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Chapter Five presents the detailed definition measurement method of all the variables used. 2004 is introduced as a one year lag. To avoid the dummy variable, 2009 is excluded as a dummy variable from the main regression (un-lagged structure), while 2005 is excluded from the estimation lagged structure. In addition, the consumer services industry is excluded as an industry dummy variable from all of the regression models.

iii) Lagged structure and compliance-index model

Table 7.16 shows the findings obtained from the main regression model (un-lagged) and the lagged structure regression for the compliance-index model. Panel *A* reports the findings based on the un-lagged structure model, while Panel *B* reports the findings from the estimated lagged structure model. As shown below, the main equation presented in Chapter Five (Equation 3) of the compliance-index model for both accounting measure ROA and market measure Q-ratio is re-estimated as follows:

$$FP_{it} = \alpha_0 + \beta_1 SCGI_{it-1} + \sum_{i=1}^{n} \beta_i CONTROLS_{it-1} + \varepsilon_{it-1} \quad (6)$$

FP refers to firm financial performance measured by both ROA and Q-ratio. The *SCGI* is the constructed Saudi Corporate Governance Index, consisting of 65 provisions. As in the previous models, *CONTROLS* are the control variables used in the model,

including firm size, leverage, firm growth, capital expenditure, dividends, and industry and year dummy variables.

First, Panels *A* and *B* in Table 7.16 report the findings obtained from the un-lagged and lagged structure models using ROA, respectively. Panel *A* shows the SCGI is significantly and positively related to ROA at the 5% level of significance. Similarly, in Panel *B*, which includes the estimated lagged structure, this particular relationship is positive at the 5% level of significance. This means that the SCGI in both models has the same explanatory power (regarding significance and magnitude). Moreover, the coefficients of the control variables for both the un-lagged and lagged structure models are similar in terms of significance and magnitude. Particularly, leverage and capital expenditure show a significant and positive relationship with ROA in these two models. Firm growth and dividends show a significant and positive association with ROA, while firm size shows no significant relationship in both models.

The adjusted R^2 is approximately similar in the un-lagged and lagged structure models, as shown in Panels *A* and *B*, respectively. More precisely, the R^2 is about 32% and 31%, respectively. The *F-value* in the un-lagged structure model is 15.434 at the 1% level of significance. The *F-value* in the estimated lagged structure is 13.912, also at the 1% level of significance. The consistency in findings from the two models supports the results reported in Section 7.2 indicating that firms with good corporate governance show higher financial performance measured by ROA.

Second, Panels *A* and *B* in Table 7.16 report the findings obtained from the un-lagged and lagged structure models using Q-ratio, respectively. The main regression (un-lagged) in Panel *A* shows that there is no significant relationship between the SCGI and Q-ratio. Similarly, in Panel *B*, the result for the estimated lagged structure indicates no association between the two variables. This means that the SCGI has no explanatory power in explaining changes in corporate governance and firm value. Furthermore, the control variables in both the un-lagged and lagged structure models are similar in their significance and magnitude of the estimated coefficients, except for capital expenditure. Specifically, firm size and leverage are reported to be significantly and negatively related to Q-ratio. Firm growth and dividends show a negative but non-significant relationship with Q-ratio.

The adjusted R^2 is relatively similar in the un-lagged and lagged structure models, as shown in Panels *A* and *B*, respectively. In the main regression, the R^2 is about 56%, while it is 59% in the estimated lagged structure. The *F-value* is 39.821 at the 1% level of significance and 41.598 at the 1% level of significance in the un-lagged and lagged structure models, respectively. This implies that the similarity between the results obtained

from both models supports the robustness of the main findings. Also, the empirical findings support the robustness of the main findings, including that there is no significant relationship between corporate governance practices and firm value in the Saudi stock market.

Table 7.16: Regression results of estimated lagged stricture for the compliance-index model

	Panel *A*: Main regression - un-lagged structure		Panel *B*: Estimation lagged structure regression	
Independent Variables	ROA	Q-ratio	ROA	Q-ratio
SCGI	.239 (.016)**	-.092 (.152)	.288 (.030)**	-.063 (.257)
Control Variables:				
Firm size	.056 (.300)	-.352 (.000)***	.065 (.289)	-.436 (.000)***
Leverage	-.179 (.023)**	-.284 (.000)***	-.159 (.058)*	-.210 (.005)***
Firm growth	.255 (.000)***	-.026 (.301)	.270 (.000)***	-.067 (.109)
Capital expenditure	-.105 (.068)*	.077 (.088)*	-.157 (.023)**	.030 (.317)
Dividends	.588 (.000)***	-.052 (.275)	.604 (.000)***	-.011 (.454)
Industry dummies	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included
Constant	1.606***	2.067***	1.528***	1.296***
Durbin-Watson statistics	0.654	1.304	0.650	1.455
F- value	15.434***	39.821***	13.912***	41.598***
Adjusted R^2	31.7%	55.6%	31.4%	59.0%
No. of observations	560	560	480	480

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Chapter Five provides a detailed definition of the measurement method of all the variables used. 2004 is introduced as a one year lag. To avoid the dummy variable, 2005 and 2009 are excluded as dummy variables in the main regression (un-lagged structure) for ROA and Q-ratio models, respectively, while 2005 is excluded from the estimation lagged structure for both ROA and Q-ratio models. In addition, the consumer services industry is excluded as an industry dummy variable from all of the regression models.

7.3.2.2 Results of the Compliance-Index Model based on Instrumental Variable (IV)

As discussed in Subsection 7.3.2, to address the potential endogeneity problems in the model by using the econometric method, the Instrumental Variable method (IV) is estimated. This helps to deal with potential omitted variables and measurement errors causing endogeneity. Larcker and Rusticus (2010) argue that the IV estimation is helpful in corporate governance and corporate disclosure research when the independent variables are endogenous. Therefore, this section presents the results estimating the IV model and compares them with the findings from the multivariate OLS regression of the compliance-index model. Here, the focus is on the compliance-index model because the Saudi Corporate Governance Index (SCGI) is the main interest in this study. Furthermore, the SCGI consists of a set of corporate governance mechanisms, including the variables used in the equilibrium-variable model.

In line with Larcker and Rusticus (2010), the key explanatory variables are examined using the exogeneity test to check whether the variables are endogenous or not. Therefore, following Black *et al*. (2006a) and Ntim *et al*. (2012b), the Durbin-Wu-Hausman exogeneity test was used to examine the existence of an endogenous relationship

between the SCGI and financial performance. The study conducted the test in two steps. First, because the SCGI is expected to be endogenous in the main model (Equation 3), the residuals from the main model regression (R_SCGI) are saved as follows:

$$SCGI_{it} = \alpha_0 + \beta_1 FSZ_{it} + \beta_2 SGR_{it} + \beta_3 LVG_{it} + \beta_4 CEXC_{it} + \beta_5 DV_{it} + \sum_{i=1}^{n} \beta_i INDU_{it} + \sum_{i=1}^{n} \beta_i YDU_{it} + \varepsilon_{it} \quad (7)$$

Second, after obtaining the R_SCGI from the above formula (Equation 7), the R_SCGI was added to the main model (compliance-index model) to find the Durbin-Wu-Hausman statistic (t-statistic), as follows:

$$FP_{it} = \alpha_0 + \beta_1 SCGI_{it} + \beta_2 R\_SCGI_{it} + \sum_{i=1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it} \quad (8)$$

The Durbin-Wu-Hausman exogeneity test indicates that the SCGI is endogenously associated with firm financial performance; this may suggest that some important variables are probably omitted from the main compliance-index model.[63] Therefore, the study constructs an instrumental variable method by using an instrument that is highly correlated with the SCGI and weakly correlated with the predicted value (P_SCGI). To identify an appropriate instrument, the study follows Beiner *et al.* (2006) and Ntim *et al*. (2012b) to generate the instrument variable (P_SCGI) in two steps. In the first step, it is assumed that the constructed SCGI will be determined by alternative corporate governance mechanisms, which is used in predicting the P_SCGI as follows:

$$SCGI_{it} = \alpha_0 + \beta_1 BSZ_{it} + \beta_2 IONR_{it} + \beta_3 BONR_{it} + \beta_4 AFZ_{it} + \beta_5 CGC_{it} + \beta_6 BFM_{it} + \sum_{i=1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it} \quad (9)$$

The following alternative variables were used to analyse the effect of corporate governance mechanisms on voluntary corporate governance disclosure, including corporate board size (*BSZ*), institutional ownership (*IONR*), block ownership (*BONR*), audit firm size (*AFZ*), presence of a corporate governance committee (*CGC*) and frequency of board meetings (*BFM*). According to agency theory, board size is essential in monitoring management behaviour and mitigating agency problems (Fama and Jensen, 1983; Allegrini and Greco, 2013). It can be argued that a large board of directors may reduce the likelihood of collusion between directors on the board (Haniffa and Cooke,

[63] The coefficient on the R_SCGI shows that it is insignificant for the ROA model, which means that the SCGI is exogenously related to the ROA. This implies that the constructed Saudi Corporate Governance Index is exogenous with ROA. However, the coefficient on the R_SCGI is significant at the 1% level of significance for the Q-ratio. This suggests that the SCGI is endogenous with the Q-ratio.

2002). Therefore, it is expected that a large board size could improve corporate governance disclosure.

The presence of institutional investors ensures that a degree of accountability exists for executive management (Haniffa and Hudaib, 2006; Aggarwal *et al*., 2011). This is because they have a greater incentive to monitor firm performance to protect their investment (Chung and Zhang, 2011). Therefore, institutional investors prefer to invest in firms with a high level of transparency and disclosure, to reduce the cost of investment (Chen *et al*., 2009). Thus, it is hypothesised that institutional ownership has a positive impact on corporate governance. The presence of block shareholders may exacerbate the agency problem due to their considerable power in the appointment of directors, which puts small shareholders at risk (Fama and Jensen, 1983). Therefore, it is hypothesised that block ownership is negatively associated with corporate governance.

It is expected that audit firms limit agents' opportunistic behaviour (Haniffa and Cooke, 2002). Large audit firms have high standards that can improve the quality of auditing (Depoers, 2000; Alsaeed, 2006). Therefore, firms audited by big-four audit firm may have better voluntary corporate governance disclosure (Barako *et al*., 2006). Corporate governance committee can help in implementing good corporate governance practices (Ntim *et al*., 2012a). Thus, the relationship between corporate governance committee and corporate governance can be expected to be positive. From an agency theory perspective, board activities are positively linked with frequent board meetings (Lipton and Lorsch, 1992). Board meetings provide adequate time for directors to monitor firms' performance (Vafeas, 1999a).

After estimating the regression model in Equation 9, the P_SCGI is replaced with the SCGI in the main formula (Equation 3) to re-estimate the compliance index model (see Equation 10). Before that, the P_SCGI has to be examined to check whether it is an appropriate instrument to be replaced with the SCGI. During this check, the P_SCGI is supposed to be positively correlated with the SCGI, while it is supposed to be weakly or not correlated with the residual R_SCGI or structural error term (ε_t) (Larcker and Rusticus, 2010). This assumption is tested through finding the correlations matrix. As shown in Table 7.18, Pearson and Spearman correlations indicate that the P_SCGI is highly correlated with the SCGI, at .791 and .839, respectively. However, the P_SCGI is weakly correlated with R_SCGI, at .050 and -.317 for the Pearson and Spearman correlations, respectively. This means that the P_SCGI is an appropriate instrument to be replaced with the SCGI.

Therefore, in the second step, the main formula for the compliance index model (Equation 3) is re-estimated as follows:

$$FP_{it} = \alpha_0 + \beta_1 P\_SCGI_{it} + \sum_{i=1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it} \quad (10)$$

Panels *A* and *B* in Table 7.17 present the results obtained from the main OLS regression model using ROA and Q-ratio. The result of the SCGI is relatively similar with the P_SCGI in the instrumental variable estimation for ROA, where both are significant and positive. However, the coefficient of the SCGI is slightly changed in the Q-ratio model. Specifically, it is negative but insignificant, while the P_SCGI remained negative but significant in the instrumental variable estimation.

Table 7.17: Regression results of estimated instrumental variable for the compliance-index model

	Panel *A*: Instrumental variables estimation		Panel *B*: Main OLS regression model	
Independent Variables	ROA	Q-ratio	ROA	Q-ratio
SCGI			.239 (.016)**	-.092 (.152)
R_SCGI				
P_SCGI	.659 (.006)***	-.690 (.000)***		
Control Variables:				
Firm size	.087 (.406)	-.372 (.000)***	.056 (.300)	-.352 (.000)***
Leverage	-.128 (.155)	-.325 (.000)***	-.179 (.023)**	-.284 (.000)***
Firm growth	.254 (.000)***	-.021 (.677)	.255 (.000)***	-.026 (.301)
Capital expenditure	-.034 (.650)	.004 (.950)	-.105 (.068)*	.077 (.088)*
Dividends	.600 (.000)***	-.052 (.539)	.588 (.000)***	-.052 (.275)
Industry dummies	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included
Constant	1.400***	2.248***	1.606***	2.067***
Durbin-Watson statistics	0.663	1.317	0.654	1.304
F- value	15.676***	41.360***	15.434***	39.821***
Adjusted R^2	32.1%	56.5%	31.7%	55.6%
No. of observations	560	480	560	560

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Variables are defined as follows: the Saudi Corporate Governance Index (*SCGI*); R_SCGI is the saved residuals of regression of the SCGI; and the P_SCGI is the saved predicted values of regression of the SCGI. Chapter Five provides a detailed definition of the measurement method for the control variables.

In terms of the control variables, the coefficients and directions of the OLS regression model and instrumental variable estimation are relatively similar. More precisely, for the ROA model, firm size, firm growth and dividends remained positive at the same level of significance, whereas leverage and capital expenditure remained negative, but with a change in the level of significance. For the Q-ratio model, firm size, leverage, firm growth and dividends remained negative and kept the same level of significance. Although capital expenditure was significant and positive in the OLS regression model, it became insignificant in the instrumental variable estimation.

Table 7.18: Pearson and Spearman correlation matrices of alternative corporate governance mechanisms for all (560) firm year

Variable	SCGI	R_SCGI	P-SCGI	GONR	IONR	BONR	DONR	BSZ	BFM	CGC	BCOM	AFZ	ROA	Q ratio	FSZ	LVG	SGR	CEXC	DV
SCGI	1	.077*	.839***	.130***	.061	.119***	.077*	.073*	.122***	.326***	.673***	.117***	-.012	-.566***	.209***	.166***	-.159***	-.016	.093**
R_SCGI	.368***	1	-.317***	-.035	.074*	-.007	.095**	.093**	-.047	.022	.086**	.061	.074*	.137***	.009	-.002	.096**	-.085**	.063
P-SCGI	.791***	.050	1	.126***	.047	.148***	.063	.163***	.227***	.381***	.540***	.150***	-.065	-.519***	.157***	.138***	-.200***	.021	.028
GONR	.144***	.050	.119***	1	.015	.628***	-.057	.312***	.333***	.043	.031	.302***	.226***	-.154***	.635***	.177***	-.002	.315***	.435***
IONR	.045	.028	.036	.004	1	.354***	.089*	.230***	-.111***	-.009	.022	.280***	-.112***	-.247***	.302***	.285***	.020	.069	.096**
BONR	.125***	.040	.130***	.662***	.361***	1	.493***	.343***	.225***	.059	.079*	.481***	.255***	-.140***	.684***	.365***	.087**	.347***	.392***
DONR	.063	.042	.047	-.159***	.059	.411***	1	.259***	-.056	-.009	.186***	.243***	.207***	.017	.227***	.236***	.109**	.179***	.144***
BSZ	.066*	.101**	.134***	.260***	.225***	.318***	.253***	1	.000	.099**	.146***	.297***	.110***	-.162***	.526***	.226***	-.003	.248***	.251***
BFM	.129***	.072*	.211***	.358***	-.110***	.251***	-.070*	-.015	1	.103**	.052	.013	.044	.023	.147***	.030	-.035	.131***	.164***
GC	.321***	.096**	.438***	.082*	-.014	.070*	.009	.092**	.113***	1	.197***	.065	-.056	-.220***	.119***	.021	-.111***	.028	.003
BCOM	.648***	.178***	.525***	.006	.045	.063	.175***	.132***	.054	.197***	1	.083*	.021	-.403***	.189***	.205***	-.095**	.054	.130***
AFZ	.117***	.081*	.129***	.295***	.296***	.477***	.223***	.301***	.030	.065	.083*	1	.124***	-.149***	.524***	.412***	.081*	.308***	.217***
ROA	-.008	-.056	-.087**	.251***	-.110***	.274***	.246***	.146***	.039	-.053	.024	.136***	1	.251***	.198***	-.098**	.182***	.179***	.530***
Q ratio	-.514***	.041	-.476***	-.128***	-.227***	-.129***	.068	-.131***	.033	-.208***	-.398***	-.137***	.223***	1	-.387***	-.276***	.113***	-.035	-.102**
FSZ	.214***	009	.136***	.624***	.304***	.698***	.189***	.490***	.176***	.099**	.194***	.523***	.231***	-.373***	1	.580***	.113***	.430***	.420***
LVG	.153***	-.002	.103**	.166***	.355***	.378***	.216***	.212***	.033	.014	.208***	.408***	-.108**	-.262***	.592***	1	.101**	.314***	.023
SGR	-.133***	.096**	-.192***	-.004	.024	.083*	.105**	.024	-.036	-.098**	-.096**	.077*	.196***	.109***	.100**	.077*	1	.206***	.040
CEXC	-.015	-.085**	-.010	.286***	.076*	.326***	.167***	.245***	.138***	.018	.056	.306***	.189***	-.014	.413***	.285***	.198***	1	.224***
DV	.097**	.063	.024	.419***	.102**	.389***	.132***	.260***	.175***	.003	.130***	.217***	.539***	-.095**	.432***	.037	.043	.221***	1

Notes: The bottom left half of the table contains Pearson's parametric correlation coefficients, whereas the upper right half of the table shows Spearman's non-parametric correlation coefficients. ***, ** and * indicate that correlation is significant at 1%, 5% and 10% levels, respectively. Variables are defined as follows: the Saudi Corporate Governance Index (*SCGI*), Residual-SCGI (*R_SCGI*), Predicted-SCGI (*P_SCGI*), government ownership (*GONR*), institutional ownership (*IONR*), block ownership (*BONR*), board of director ownership (*DONR*), board size (*BSZ*), frequency of board meetings (*BFM*), the presence of a corporate governance committee (*CGC*), the presence of board committees (*BCOM*), audit firm size (*AFZ*), return on assets (*ROA*), Tobin's Q (Q-ratio), firm size (*FSZ*), leverage (*LVG*), firm growth (*SGR*), capital expenditure (*CEXC*) and dividends (*DV*). Chapter Five presents the detailed definitions of variables employed.

Finally, as shown in Panels *B* and *C*, the *F-value* and adjusted R^2 are mainly similar among the OLS regression and instrumental variable estimation. Particularly, for both ROA and Q-ratio, the *F-values* are significant at the 1% level of significance, and the adjusted R^2 remains mostly similar. In addition, the adjusted R^2 for ROA and Q-ratio in the OLS regression is 31.7% and 55.6%, respectively, whereas the adjusted R^2 for ROA and Q-ratio are 32.1% and 56.5%, respectively. This implies that the P-SCGI and control variables have similar explanatory power to explain the variation in financial performance. Therefore, despite the slight change in the coefficient among a few variables when comparing the OLS regression and the instrumental variable estimation, the great similarity in most of the explanatory variables, the *F-values* and the adjusted R^2 indicate that the findings obtained from the compliance-index model are robust.

7.4 CHAPTER SUMMARY

This chapter reported and discussed the empirical results. Specifically, it sought to achieve three main objectives. First, this chapter examined the important assumptions of the OLS methodology, including: normality, multicollinearity, autocorrelation, heteroscedasticity and linearity. The normality test suggests some variables show slightly non-normal distribution. Data were winsorised and transformed to address the non-normality issue. After winsorising and transforming the variables, a number of diagnostic tests were carried out, including: (i) P-P and Q-Q scatter plots; (ii) histograms to test normality; (iii) Skewness and Kurtosis; Variance Inflation Factor; (iv) tolerance statistics; (v)Breusch-Pagan ; (vi) Durbin-Watson; and (vii) Cook's distance. The results of these tests suggest that there is no major threat regarding non-normality, multicollinearity and linearity, whereas some models suffered from heteroscedasticity. To account for the presence of heteroscedasticity, the robust standard errors method was used to estimate OLS regression. Therefore, it can be noted that there is no major violation of the results obtained from the multivariate OLS regression.

Second, this chapter presents the empirical results of three main models. The first model is the voluntary corporate governance disclosure model. This model examines the relationship between eight corporate governance mechanisms and voluntary corporate governance disclosure. The findings suggest that most of the governance mechanisms examined result in a statistically significant relationship with voluntary corporate governance disclosure. The second model is the equilibrium-variable model, investigating

the association between individual corporate governance mechanisms and financial performance using two different financial measures. The findings show a difference in results regarding the relationship between the corporate governance variables and firm performance, as measured by two different proxies.

While some of the examined corporate governance mechanisms show a significant positive relationship with ROA, others showed a negative relationship with Q-ratio. The third model investigated is the compliance-index model, which examines the relationship between compliance with the SCGC and firm financial performance using a constructed corporate governance index. The results showed that the constructed governance index related positively to ROA, but had no relationship with Q-ratio. In addition, this study compares the results from the equilibrium-variable and the compliance-index models. This also helps in examining the methodology used to investigate the relationship between corporate governance and financial performance.

Third, this chapter discusses the tests used to check robustness and examines the existence of potential endogeneity problems. Four tests were employed to check whether the results are robust, including: (i) estimating pre- and post-2006 regression models; (ii) using sub-indices; (iii) using weighted indices; and (iv) estimating the firm level fixed-effects. The first three tests support the robustness of the findings. However, the fixed-effects model is found to be sensitive to the results for potential unobserved firm-specific characteristics. Lagged structure and Instrumental Variable were used to examine potential endogeneity problems. The results based on re-estimation of the main models to the lagged structure model show great similarity with the findings of the main regression model (un-lagged regression). Also, examining the potential endogeneity problems using the Instrumental Variable method shows that the findings obtained from the compliance-index model are relatively robust. Therefore, the potential endogeneity problems in this regression model do not seem to be harmful to the results based on the lagged structure and instrumental variable tests.

The next chapter presents the qualitative research design. In particular, the process of data collection using semi-structured interviews is explained. Furthermore, the chapter explains the technique used to analyse the interview data.

CHAPTER EIGHT

QUALITATIVE RESEARCH DESIGN

8. INTRODUCTION

As discussed in Chapter Four, this study adopts mixed-methods in investigating corporate governance reforms in Saudi Arabia. Chapter Five discussed the quantitative research design used in this study to investigate the relationship among corporate governance mechanisms, voluntary corporate governance disclosure and firm financial performance. This chapter discusses the qualitative method used to answer the sixth research sub-question, which investigates the awareness and appreciation of good corporate governance practices among key stakeholders following corporate governance reforms in Saudi Arabia. Furthermore, investigating this qualitative research sub-question helps to understand and explain the quantitative findings. The chapter intends to achieve three aims. First, it explains the theoretical framework employed in the qualitative analysis. Second, it discusses the qualitative design and interview data used in examining the level of awareness and appreciation of good corporate governance practices among key stakeholders. Third, the chapter presents the interview analysis process.

The chapter is organised as follows. Section 8.1 discusses the theoretical framework of the qualitative research. Section 8.2 explains the design and data collection process of the semi-structured interviews. Section 8.3 presents the interview analysis procedure, while Section 8.4 presents a chapter summary.

8.1 THEORETICAL FRAMEWORK FOR QUALITATIVE RESEARCH

Qualitative research investigating human behaviour has received much attention in social science, as well as in the corporate governance literature (Morgan and Smircich, 1980; Cassell *et al.*, 2005; Saunders *et al.*, 2007; Boyd *et al.*, 2012; Soobaroyen and Mahadeo, 2012). Zattoni *et al.* (2013) state that the varied findings in studies using agency theory serve as motivation for governance scholars to employ qualitative designs. Thus, in this case a qualitative research design can help in exploring the interaction among key corporate governance practitioners in Saudi Arabia. McNulty *et al.* (2013) suggest that a qualitative research design explores how governance actors and institutions actually engage with governance practices. Furthermore, qualitative research can increase the robustness of quantitative results through comparison of the findings (Mengoli *et al.*,

2009). Thus, the following subsections address the theoretical framework of qualitative research and the methods used in this study.

8.1.1 Overview of Qualitative Research

In the early 1970s, qualitative research approaches became popular among researchers in social sciences (Morgan and Smircich, 1980; Scott and Garner, 2013). The attention given to qualitative research methods has increased, and suggests that the need to discover social reality is greater than it used to be (Gilbert, 2008; Collis and Hussey, 2009). Hesse-Biber and Leavy (2011) suggest the increasing use of qualitative research in recent years reflects the importance of closely studying human behaviour in the business environment. Thus, qualitative research in business studies aims to provide detailed interpretations of quantitative results by exploring how, why and what (Creswell and Clark, 2011).

Lichtman (2013, p.7) defines qualitative research as: "*a way of knowing in which a researcher gathers, organizes, and interprets information obtained from humans using his or her eyes and ears as filters. It can be contrasted with quantitative research, which relies heavily on hypothesis testing, cause and effect, and statistical analyses*". Hence, it can be noted that qualitative research is a holistic approach as well as an interdisciplinary landscape that generates knowledge from different angles (Hesse-Biber and Leavy, 2011).

Hesse-Biber and Leavy (2011) indicate three purposes for conducting qualitative research: (i) exploring and understanding social reality; (ii) offering a rich description of social life; and (iii) explaining social phenomena. Bryman (2012) suggests three main steps to conducting qualitative research. The first step is determining the research problem and identifying the research questions. The second step is the selection of an appropriate data collection method. The third step is analysing and interpreting the data using selected data analysis techniques.

Some considerations can be taken into account when conducting qualitative research (Lichtman, 2013). First, there is no single method in qualitative studies that fits every research project. Second, qualitative research simply employs the inductive approach; therefore, it does not aim to examine hypotheses (see Bryman, 2012). Third, qualitative research is used to explore social phenomena in detail. Thus, qualitative research methods explore a limited number of themes and cases in depth rather than a large number of samples.

Qualitative research is characterised as a flexible approach in studying human behaviour and experiences (Silverman, 2011). Therefore, the current study aims to explore

qualitatively the corporate governance reforms in Saudi Arabia and their influence on corporate disclosure and firm financial performance. Furthermore, as discussed in Section 4.2 in Chapter Four, a qualitative research design can help in overcoming the limitations of using a quantitative research design alone (Cohen *et al.,* 2002; Creswell and Clark, 2011).

8.1.2 Reliability and Validity in Qualitative Research

Reliability and validity are important in qualitative research (Bryman, 2004). Due to the different natures of qualitative and quantitative data, reliability and validity in qualitative studies rely heavily on the data collection and analysis processes (Golafshani, 2003; Hesse-Biber and Leavy, 2011). This indicates that there are no specific tests that can be applied to all qualitative methods to examine reliability and validity (Bryman, 2004).

Reliability refers to the possibility of reproducing the same results if the research were repeated (Collis and Hussey, 2009). Though reliability is often related to quantitative research methods, the idea is applicable to qualitative methods as well (Golafshani, 2003). It is argued that this interest is shared by both approaches (Golafshani, 2003; Silverman, 2011). Silverman (2011) suggests three main criteria to enhance the reliability of interviews. First, an interview guide should be developed which is clear and understandable for interviewees. Also, an interview guide can ensure precision in the coding and analysis of the data. Second, to make the findings more reliable, accurate taping and transcribing is required. Third, inter-coding reliability needs to be maintained. Hence, it is important to avoid any ambiguity when data is coded; for example, an overlap among the coding categories or simple coding errors.

Validity in qualitative research is as important as reliability (Golafshani, 2003). Here, validity indicates the extent to which the interpretation of the results accurately reflects the phenomena under consideration (Collis and Hussey, 2009). Barriball and While (1994) argue that validity of interviews is determined by the extent to which interviewees are willing to provide knowledgeable data. Therefore, careful selection of interviewees is important. Triangulation is applied by adopting two or more methods in exploring the answers to the research questions, to verify the findings. Furthermore, Hesse-Biber and Leavy (2011) and Silverman (2011) suggest that triangulation of various methods improves research validity. As this study benefits from using a mixed-methods approach, triangulation helps in verifying whether the qualitative findings match the results of the quantitative methods.

As discussed above, there are no specific tests to gauge reliability and validity in qualitative research. Both rely on the interview process and the quality of data collection,

transcription and analysis. The reliability and validity of the interview data will be discussed when the process of conducting the interviews is described in the following subsections.

8.1.3 Interviews

Interviews are important within a qualitative research design (Bryman, 2004; Scott and Garner, 2013). Scott and Garner (2013) define an interview as a research method to obtain data (life narratives) through the experiences and perceptions of individuals or groups. Bryman (2004) suggests that the interview is one of the most widely used methods in qualitative research. This is because interviews allow for flexibility in data collection and analysis. For example, McNulty *et al*. (2013) reviewed 78 qualitative studies on corporate governance and found that the majority used interviews.

There are three different forms of interviews: structured, semi-structured and unstructured (Collis and Hussey, 2009; Silverman, 2011). Structured interviews are designed to be used with a specified set of research questions (Bryman, 2012). In semi-structured interviews, the interviewer has a list of questions, with the flexibility to pursue other topics that arise during the interview (Collis and Hussey, 2009). Such interviews are not limited to the prepared questions. This allows the researcher to develop follow-up questions during the interview (Collis and Hussey, 2009).

Structured interviews are frequently used in quantifying results because they rely on specific answers (Scott and Garner, 2013). In contrast, semi-structured interviews allow the interviewer the freedom to ask, and diversify, questions based on given answers (Haniffa and Hudaib, 2007; Liew, 2007; Johl *et al.,* 2012). Therefore, the semi-structured interview is the most appropriate type of interview with which to explore corporate governance in detail (Liew, 2007; Piesse *et al.,* 2012; Bailey and Peck, 2013).

Bryman (2004) suggests that use of semi-structured interviews is increasing because they help explore answers to research questions in detail. For this reason, it can be noted that semi-structured interviews are preferred by researchers (Bryman, 2004; Soobaroyen and Mahadeo, 2012; McNulty *et al.,* 2013). Using semi-structured interviews, the researcher develops a list of questions, called the interview guide, which helps guide discussion about the issue from all aspects. However, interviewees have the right to share their thoughts; it is important for interviewees to have the opportunity to share their views (Bryman, 2004; Humphrey and Lee, 2004).

The current study employed semi-structured interviews to explore the recent corporate governance reforms in Saudi Arabia and examine the level of awareness and

appreciation of good corporate governance practices among key stakeholders within the Saudi corporate context. The interviews help to improve the explanation of quantitative findings. Semi-structured interviews were selected for three reasons. First, they are used to provide deep understanding of corporate governance phenomena (e.g., Haniffa and Hudaib, 2007; Liew, 2007; Johl *et al.,* 2012; Piesse *et al.,* 2012; Soobaroyen and Mahadeo (2012); Bailey and Peck, 2013).

Second, previous studies demonstrate a connection between the corporate governance regime and other systems, such as political, economic and legal systems (La Porta *et al.,* 1997; Klapper and Love, 2004; Aguilera and Cuervo-Cazurra, 2009). Semi-structured interviews are a better means of discussing the connections between these systems and corporate governance behaviour. Also, they ensure a full understanding of the incentives and barriers to corporate governance reforms. Third, semi-structured interviews allow the researcher to assess the reliability of interviews and explore underlying motives directly (Humphrey and Lee, 2004). There were three phases of the interview process: (i) designing the interview guide; (ii) conducting the interviews; and (iii) analysing the interviews. These procedures are discussed in detail in the following sections.

8.2 SEMI-STRUCTURED INTERVIEWS DESIGN AND DATA COLLECTION

This section presents the design and data collection process of the semi-structured interviews used in the current study. Particularly, Subsection 8.2.1 addresses the selection of interviewees, Subsection 8.2.2 explains the design of the interview guide, Subsection 8.2.3 discusses the procedure of conducting the interviews and Subsection 8.2.4 addresses the ethical issues related to the interview process.

8.2.1 Selection of Interviewees

Corbin and Strauss (2008) suggest that data collection using theoretical sampling can help the researcher identify concepts and themes pertinent to the research problem. In this study, theoretical sampling was used to select the interviewees using two sequential phases. In the first phase, targeted groups of interviewees were identified (practitioners). The interviews targeted five key groups of internal and external stakeholders: (i) boards of directors; (ii) executive management; (iii) audit firm partners; (iv) regulators; and (v) shareholders. These groups were selected for the following reasons. First, the need to understand corporate governance reforms requires interviewing both internal and external key stakeholders. Second, a review of the corporate governance literature suggest these

five groups are essential to good corporate governance practices, and important partners in the corporate governance reforms in Saudi Arabia (see Haniffa and Hudaib, 2007; Liew, 2007; Alshehri and Solomon, 2012; Piesse *et al.*, 2012; Bailey and Peck, 2013).

The literature suggests the board of directors represents the most important mechanism in enhancing the accountability of firms and protecting shareholders' rights (Lipton and Lorsch, 1992; Soobaroyen and Mahadeo, 2012); as such, the interview sample included boards of directors. The Chief Executive Officer (CEO) and the Chief Financial Officer (CFO) were identified as key executives of listed firms because of their roles in good governance practices (Ntim *et al.*, 2014). Audit firms were selected because of their very influential effect on the quality of corporate disclosure (Barako *et al.*, 2006). Haniffa and Cooke (2002) point out that audit firms act as a mechanism for limiting agents' opportunistic behaviour.

Officers at the Capital Market Authority (CMA) and the Saudi Stock Exchange (Tadawul) were selected as representatives of regulatory and supervisory bodies of the capital market (Haniffa and Hudaib, 2007). Finally, shareholders were selected as the cornerstone of corporate governance reforms (Jensen and Meckling, 1976). As a result, the five groups were identified as having a direct impact on good corporate governance practices. This provided reliable information about corporate governance reforms in Saudi Arabia and their influence on corporate disclosure and firm financial performance.

Since the quality of findings depends on the quality of data (Sekaran, 2003; Saunders *et al.*, 2007), criteria for the selection of practitioners were carefully constructed. First, the practitioners' knowledge about corporate governance in Saudi Arabia was considered; this helped in obtaining expert and informed opinions and experiences (Bailey and Peck, 2013). Second, the selected boards of directors' members and executive managers were from listed firms (see Bailey and Peck, 2013). Third, the selected audit firms also had listed firms as clients. This study focuses on quality of data through the careful selection of interviewees, rather than focusing on the number of interviewees (see Haniffa and Hudaib, 2007). These decisions enhanced the reliability of the data in this study.

In the second phase, after the targeted groups were identified, the researcher communicated with the targeted candidates to check their availability. The researcher used telephone and e-mail to communicate with them, and provided an offer letter explaining: (i) the objective of the study; (ii) the purpose of the interview; (iii) information about the researcher and the university; (iv) the time required for the interview; and (v) how confidentiality would be ensured. Furthermore, a copy of the interview questions was

provided. These procedures aimed to increase credibility and encourage willingness from the practitioners to participate in the study (e.g., Bailey and Peck, 2013).

Table 8.1: Summary of the final sample of semi-structured interviews

	No	Group	Acr.	Practitioner's Position	Category	Type
Internal key stakeholders	1	Board of Directors	B-1	Board of Directors	Listed firm	Face-to-face
	2		B-2	Board of Directors	Listed firm	Face-to-face*
	3		B-3	Board of Directors	Listed firm	Face-to-face
	4	Key Executives	E-1	CEO	Listed firm	Face-to-face
	5		E-2	CEO	Listed firm	By Telephone
	6		E-3	CFO	Listed firm	Face-to-face
External key stakeholders	7	Audit Firms	I-1	Audit Firm Partner	Big-four	Face-to-face
	8		I-2	Audit Firm Partner	Big-four	Face-to-face *
	9		I-3	Audit Firm Partner	Non big-four	Face-to-face
	10	Regulators	R-1	Regulatory body representative	Capital Market Authority	Face-to-face
	11		R-2	Regulatory body representative	Capital Market Authority	Face-to-face*
	12		R-3	Regulatory body representative	Saudi Stock Exchange	Face-to-face
	13	Shareholders	S-1	Shareholder	In listed firms	Face-to-face
	14		S-2	Shareholder	In listed firms	Face-to-face
	15		S-3	Shareholder	In listed firms	By Telephone

* The practitioner did not allow taping of the interview.

There were some restrictions that limited the number of interviewees. The study made a conscious effort to seek out the views of all members of all five identified key stakeholder groups in order to obtain a balanced view of the perceptions and experiences of the practitioners regarding the governance reforms (Haniffa and Hudaib, 2007). However, the main limiting factor regarding the actual number of participants and interviews within each targeted stakeholder group was accessibility to, and the willingness of, the practitioners to voluntarily participate in the research. In this regard, various techniques were adopted, which aimed at enhancing access to practitioners and maximising the number of participants. In particular, the researcher's personal contacts[64] and snowballing techniques in recruiting participants and securing interview appointments were crucial in the ability to successfully implement the qualitative research design. After using these techniques, a total of fifteen practitioners agreed to be interviewed, which were evenly distributed across the five key stakeholder groups. Table 8.1 presents details about the interviewees.

[64] Until embarking upon his PhD studies, the researcher was the CFO of a medium sized Saudi listed firm, a role which not only involved regular interaction with boards of directors, audit partners and shareholders internally, but also with the CMA and Saudi Stock Exchange (Tadawul) authorities. The researcher is also a qualified member of the Saudi Organisation for Certified Public Accountants (SOCPA), which is the only professional accounting body in Saudi Arabia. Personal contacts and interactions with members of these bodies were, therefore, helpful in recruiting participants and securing interview appointments for the study.

8.2.2 Designing the Interview Guide

An interview guide is used to organise the research questions in semi-structured interviews (Corbin and Strauss, 2008). Bryman (2012) suggests that an interview guide for semi-structured interviews should be a brief list of questions that address the research problem. This study follows Gilbert (2008) in designing the interview guide following three steps. The first step is to determine the framework of the interview guide, which is derived from the research problem. The guide is designed to clearly identify the themes to be used in analysing the interview data. As shown in Tables 8.2 and 8.3, it consists of five main sections, including: (i) board structure and sub-committees; (ii) Saudi corporate governance code and corporate disclosure; (iii) rights of shareholders and general assembly; (iv) regulatory bodies and legal system; and (v) the relationship between corporate governance and firm financial performance. These five sections were used as a basis to formulate the resulting interview questions.

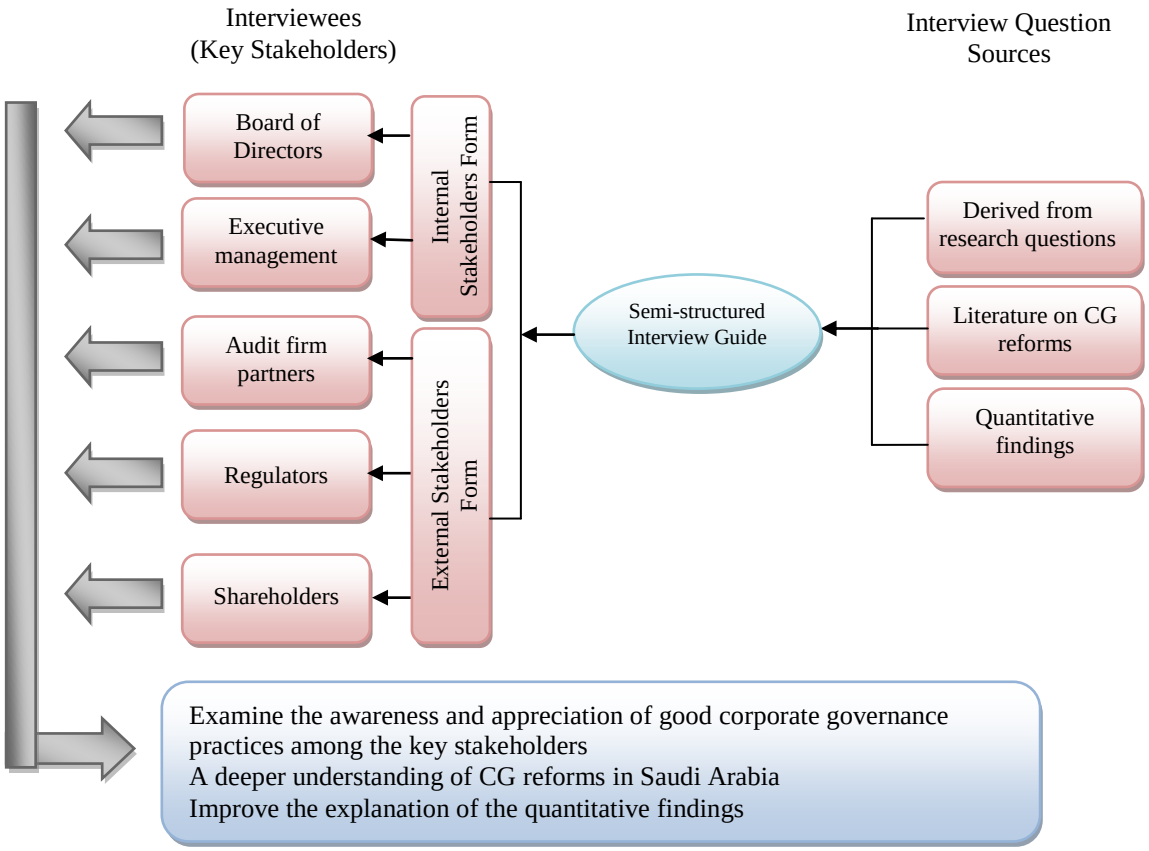


Figure 8.1: Semi-structured interview guide and the five key stakeholder groups (Source: researcher's design).

As discussed previously and as shown in Figure 8.1, the researcher conducted interviews with five different groups (internal and external key stakeholders). Therefore, two guides were constructed, according to the differences between the interviewees' backgrounds, to help deepen understanding of the topic. The first form is a semi-structured guide used with internal stakeholders, including board of directors' members and key firm

executives (CEO and CFO). The second form was used with external stakeholders, including audit firm partners, regulatory bodies and shareholders. Tables 8.2 and 8.3 present these two interview guides.

Three main sources were used to generate the interview questions and discuss the topic from different aspects: (i) questions derived from the research problem (Gilbert, 2008); (ii) questions derived from the literature on corporate governance, especially corporate governance reforms in emerging countries (Lichtman, 2013); and (iii) questions that emerged from quantitative findings in this study (Creswell and Clark, 2011).

The second step is formulating the interview questions. Lichtman (2013) indicates that the questions should be designed to: (i) demonstrate an understanding of the actual knowledge of the individuals; (ii) reveal the interviewees' views; (iii) explore their emotional responses; and (iv) reveal participants' personal experiences. According to Charmaz (2002), questions asked during the interview can be of three types: (1) opening questions that start the discussion; (2) intermediate questions that investigate the issues in detail; and (3) concluding questions that assist in obtaining advice and recommendations (as cited by Bryman, 2004).

A number of considerations were taken into account when formulating the questions. First, the researcher formulated interview questions in a way that helped elicit more accurate answers (Bryman, 2004). Second, the questions were designed not to be too narrow, because that may limit follow-up questions or clarifications of the main issue during interviews (Bryman, 2004). Third, the questions were ordered, to ensure a reasonable flow so that the research issue could be discussed properly (Bryman, 2004). Fourth, as this study employs a mixed-methods approach, the questions were designed to help achieve integration between quantitative and qualitative approaches (Creswell and Clark, 2011).

The third step is reviewing the proposed interview guide (Gilbert, 2008; Lichtman, 2013). It can be said that there is no standardised interview guide (Gilbert, 2008); thus, the constructed guide in this study was reviewed by the researcher's supervisor and discussed with colleagues in doctoral colloquium conferences. Their reviews helped identify issues that had not previously been considered. Also, their reviews were useful in ensuring the validity and reliability of the interview data (Lichtman, 2013). After the review process, the proposed amendments were taken into account, and the final design was eventually developed.

Table 8.2: Semi-structured interview guide: internal stakeholders form

***Panel A*: Board Structure and Sub-committees**	
1	What do you think about the effect of board composition on corporate governance (CG)?
2	What is your view about board sub-committees and their role in good governance practices?
3	Would you please share your thoughts on the level of concentration in your firm's ownership structure?
4	How do you evaluate your firm's shareholders' awareness of the board's performance and governance practices?
***Panel B:* Disclosure, Transparency and Internal Control System**	
1	In your opinion, how adequate are the SCGC disclosure and transparency requirements?
2	Would you like to talk about the level of transparency and disclosure in your firm?
3	In your opinion, to what extent are the internal control systems in your firm effective?
***Panel C:* Rights of Shareholders and General Assembly**	
1	How does your firm protect shareholders' rights generally and minority rights particularly?
2	What protection is offered to shareholders by the existing legislation?
3	What mechanisms do you use to encourage your shareholders to exercise their rights?
***Panel D:* Regulatory Bodies and Legal System**	
1	Would you please describe how you assess corporate governance reforms that have been pursued in Saudi Arabia?
2	Would you please talk about stakeholders' awareness and appreciation of good CG practices?
3	How successful is the co-ordination and interaction between regulatory bodies?
4	To what extent do you believe the current legal system supports such reforms?
***Panel E:* Level of Compliance and Financial Performance**	
1	How do you evaluate the level of compliance with the SCGC in your firm?
2	In your view, what are the most influential factors in good governance practices?
3	How would you assess the relationship between CG and financial performance?

Source: Developed by the researcher

Table 8.3: Semi-structured interview guide: external stakeholders form

***Panel A*: Board Structure and Sub-committees**	
1	What is your view about board independence in Saudi listed firms?
2	What is your view about board sub-committees and their role in good governance practices?
3	How do you generally evaluate the concentration of ownership in Saudi listed firms?
***Panel B:* Disclosure, Transparency and Internal Control System**	
1	In your opinion, how adequate are the SCGC disclosure and transparency requirements?
2	Have the corporate governance reforms increased attention to disclosure and transparency?
3	To what extent do you think the internal control systems in Saudi listed firms are effective?
***Panel C:* Rights of Shareholders and General Assembly**	
1	How well do you think Saudi listed firms protect their shareholders?
2	What protection do you think the existing legislation offers to shareholders?
3	To what extent do Saudi listed firms help shareholders exercise their rights?
***Panel D:* Regulatory Bodies and Legal System**	
1	How do you assess corporate governance reforms?
2	Would you please describe how you evaluate stakeholders' awareness and appreciation of good CG practices?
3	What do you think about the interaction and co-ordination between regulatory bodies?
4	To what extent do you believe the current legal system supports good CG reforms and practices?
***Panel E:* Level of Compliance and Financial Performance**	
1	How do you evaluate the level of compliance with the SCGC among listed firms?
2	In your opinion, what are the most influential factors in good governance practices?
3	How would you assess the relationship between CG and firm financial performance?

Source: Developed by the researcher.

The interviews were conducted in Arabic because the practitioners, from Saudi Arabia, were only fluent in Arabic. Therefore, the question guide was translated from English into Arabic. To ensure the validity of the translation, this was done in three stages. First, the interview questions were translated into Arabic by the researcher, who is a native Arabic speaker. In the second stage, an Arabic colleague studying corporate governance at the same university was asked to translate the questions. Finally, the two translations were compared to ensure the accuracy of the translation. These procedures improved the content and construct validity (see Saunders *et al*., 2007). The interview questions in Arabic appear in Appendices 5 and 6.

8.2.3 Semi-structured Interviews: Process and Reflection

Building on the above discussion, this section addresses the procedure of conducting the interviews. Specifically, it discusses the type of interviews and the stages in which they were conducted. In this study, one-to-one interviews, instead of a focus group, were employed for three reasons. First, the interview questions sought information about the practitioners' workplaces. Focus groups interviews conflict with the confidentiality that may be required by interviewees (Saunders *et al.*, 2007). Second, one-to-one interviews allow interviewees to be able to freely express themselves without restrictions that may be imposed by the presence of third parties that may be associated with focus groups (Bryman, 2004). In other words, interviewees can expand on issues they see as important. Third, there are practical difficulties with gathering practitioners in one place at one time, due to the tight schedules associated with their high job profiles (mainly senior corporate executives, such as CEOs, board of directors, audit firm partners and regulators).

Moreover, the researcher was keen to conduct face-to-face interviews rather than online or telephone interviews because: (i) body language is important in dialogue, such as facial expressions that cannot be captured in telephone interviews (Bryman, 2004; Yazdifara *et al.*, 2008); and (ii) face-to-face interviews develop an atmosphere of ease and trust between interviewer and interviewees (Bryman, 2004).

Conducting the interviews took approximately one month: from December 15, 2011, to January 13, 2012. Although this period covers the year-end Christmas and New Year holidays of banks and firms in most countries, this is not the case in Saudi Arabia. These were working days in these companies, because the Saudi government follows the *Hijri* calendar. By considering these circumstances, the researcher took advantage of this time to conduct the interviews. As shown in Table 8.1, 13 face-to-face interviews were

conducted, while two interviews were conducted over the telephone because the practitioners were unavailable for face-to-face interviews.

Interviews lasted between 30 and 75 minutes. All of the interviews were conducted in a mutually agreed place chosen by the practitioners. Also, the interviews were taped after obtaining consent from the interviewees. Three of the interviewees refused to allow taping because of the sensitivity of their positions (these included one board director, a member of the CMA and a big-four audit firm partner[65]). Taping the interviews helped ensure accurate data and reduced mistakes in transcribing the interviews (Barriball and While, 1994).

The interviews were conducted in three stages. The first stage was the preparation before starting the interview. In this stage, the researcher obtained further information about the organisations the practitioners belonged to; for example, the organisational structure and level of disclosure were discovered from the firms' profile and annual reports. Each practitioner's background and experience were also reviewed. More information about the regulatory bodies and policy makers was collected. Having this information improved the interaction with the interviewees (see Liedtka, 1992).

In the second stage, before asking questions, the practitioners were asked to allow taping of the interview. They were assured of the confidentiality of the information used by the researcher. After that, the practitioner was asked briefly about his professional background (e.g., Bailey and Peck, 2013). Then, practitioners were given an overview of the research objectives and themes. This helped give them a general idea about the information the researcher was seeking, which assisted in maintaining the conversation during the interview process (Coleman *et al.,* 2010).

After the introduction, the researcher opened up the inquiry through the three types of questions presented in the interview guide in Subsection 8.2.2. During the interview, the practitioner was given the freedom to express his opinions and ideas even if they were not directly linked to the questions asked. Therefore, the semi-structured interviews obtained rich data (Creswell and Clark, 2011). The interview guide was followed to ensure that all of the questions were asked, and notes were taken in order to record the essential points in the interview (Corbin and Strauss, 2008).

In the third stage, at the end of the interview, the researcher expressed his gratitude to the interviewees for their time, and reassured them about the confidentiality of the information. They were offered a copy of the thesis, if desired. After the interview was

[65] As discussed in Section 8.3, detailed notes were taken immediately after conducting the interviews. This helped in recording the interviewees' answers accurately.

complete and the venue was vacated, the researcher made detailed notes to summarise what had been discussed. These notes allowed the researcher to record the information safely; they also helped improve the quality of the transcripts (Yazdifara *et al.,* 2008).

8.2.4 Ethical Issues Related to the Interviews

Ethical issues are important to consider in a qualitative approach where interviewer and interviewees interact (Bryman, 2012). Research ethics can be considered in three stages, as follows: (i) before conducting the interviews; (ii) during the data collection; and (iii) after conducting the interviews (Saunders *et al.,* 2007). The first stage involves accessibility to organisations, data sources and participants. This starts with exploring the organisational contexts and providing interviewees with an understanding of the issues surrounding the research problem (Liedtka, 1992; Saunders *et al.,* 2007). In the second stage, research ethics are considered during data collection, informed by the principle of informed consent. Bryman (2012) suggests that interviewees should be informed about: (i) what the research is about; (ii) its objectives; (iii) who is sponsoring it; (iv) the nature of their participation in the research; and (v) their right to withdraw from the interview at any time.

The third stage, after conducting the interviews, considers research ethics during the data analysis and results reporting; for example, maintaining the confidentiality of data during analysis and interpretation of the results. The interviewees should have a reasonable expectation that the information provided will be treated confidentially (Lichtman, 2013). The researcher must ensure that the interviewees' privacy will not be violated, such as by revealing their identity in this thesis or any other later publication (Bryman, 2012). Commitment to ethics makes for better research. Also, ethics are considered in accurately reflecting the interviewees' viewpoints when results are reported and coded (Liedtka, 1992). Lichtman (2013) suggests some other ethical considerations during the interviews, such as behaving appropriately and avoiding questions about interviewees' personal lives.

8.3 ANALYSIS OF SEMI-STRUCTURED INTERVIEWS

The current study uses a thematic analysis approach in analysing qualitative data (Boyatzis, 1998; Bailey and Peck, 2013). As discussed in Chapter Four, a mixed-methods approach is used in this study, based on the explanatory sequential design. This means that conducting the interviews is the second stage after obtaining quantitative findings. This explains why the hypotheses were not developed (Creswell and Clark, 2011). Using

thematic analysis in this study helps explore, in depth, corporate governance reforms and their influence on firm financial performance in Saudi Arabia (Boyatzis, 1998; Bailey and Peck, 2013).

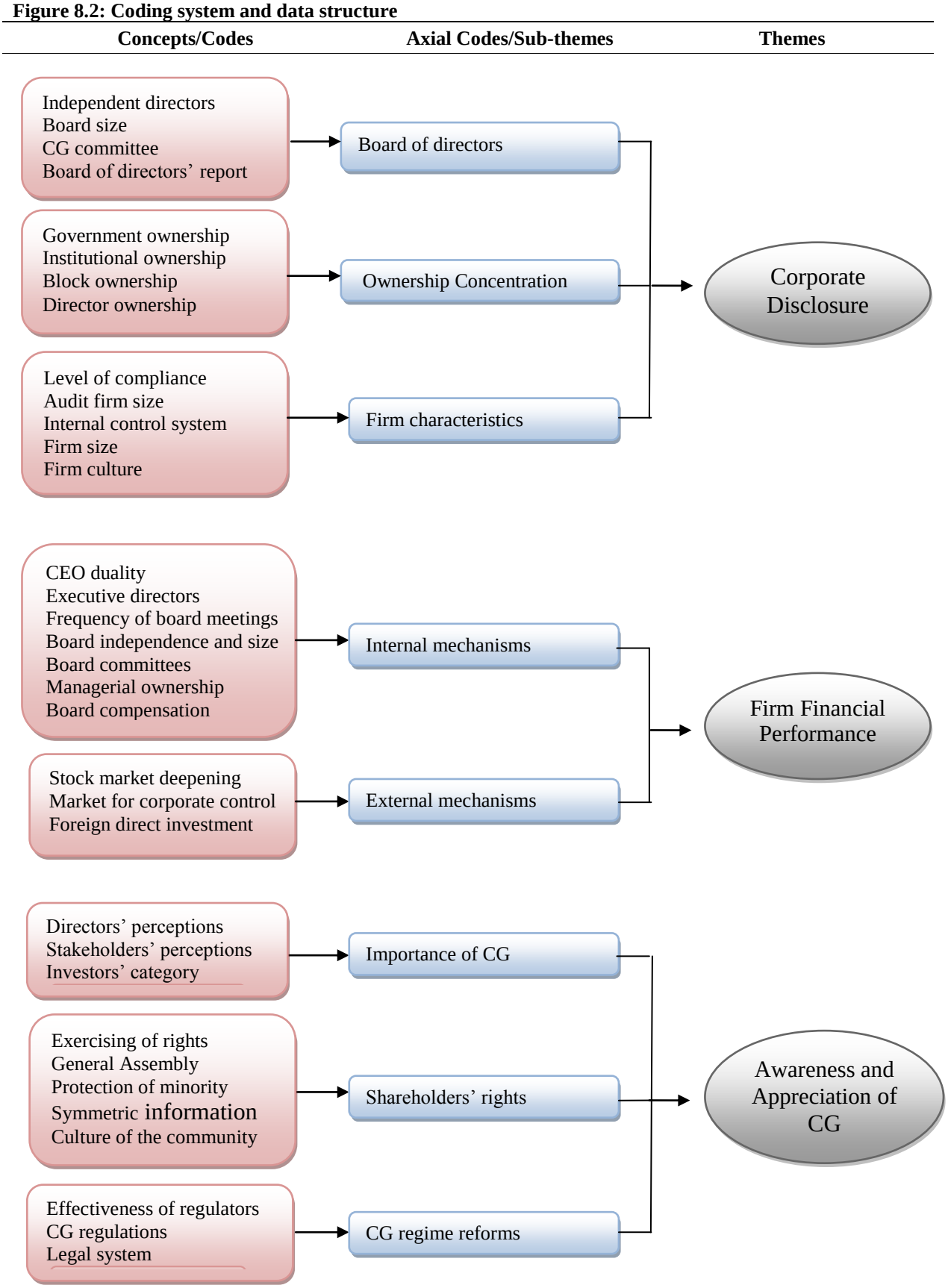
In terms of analysis procedures, Corbin and Strauss (2008) argue that each researcher 'analyst' develops their own style during data analysis, such as using memos, coding cards and diagrams to make notes. This study used two phases of data analysis, in line with the corporate governance literature (e.g., Haniffa and Hudaib, 2007; Bailey and Peck, 2013). These two phases are, first, the pre-coding phase, and second, the coding or categories phase.

In the first phase, the interviews were transcribed. All of the interviews took place in Arabic, so they were first transcribed in Arabic. The researcher himself transcribed the interviews to ensure the quality of the transcripts. During the transcription, some points were not clear. Specifically, some of the words were not clear in the tape, or the practitioner was hard to understand. To overcome this problem, clarification was elicited from the practitioners by phone or e-mail after the interview (e.g., Yazdifara *et al.*, 2008; Bailey and Peck, 2013).

The study has not adopted a verbatim approach in transcribing the interviews, but recorded the main ideas discussed. Arguably, not everything mentioned in the interviews is worth coding (Cohen *et al.*, 2002; Saldana, 2013). Bryman (2012) points out that some explanations are extensive and can complicate the process of coding; therefore, it is not valuable to include these in the data. Each interview took about three to five hours to transcribe. In total, each interview was an average of four pages, transcribed. To ensure accuracy, the transcription was read while listening to the tape.

After all of the interviews had been transcribed, the researcher started reading memos and the interviews to build up an initial conceptual framework to identify concepts and categories (e.g., Bailey and Peck, 2013). In doing so, the researcher read all the transcripts twice, to develop a general idea, and wrote in the margins and underlined the fundamental and pertinent issues in the data (Corbin and Strauss, 2008). From the first reading, preliminary concepts emerged through the use of memos (the researcher's notes during and after the interview process), which helped establish reliable and clear coding cards (Saldana, 2013). Saldana (2013) argues that it is not possible to implement a coding system from an initial reading of the data; at least two cycles of reading are required to get a good coding framework. Thus, the researcher re-read the transcripts to filter the concepts; this also enhanced the validity of coding.

Figure 8.2: Coding system and data structure



Source: Constructed by the researcher based on the approach of Bailey and Peck (2013, p.138).

In the second phase, the data was coded. Before starting this phase, the preliminary conceptual framework and concepts had been determined (Corbin and Strauss, 2008; Saldana, 2013). The coding process can be defined as "*extracting concepts from raw data and developing themes of their properties and dimensions*" (Corbin and Strauss, 2008, p.159). Through breaking up the data by open coding, 34 concepts were identified, as shown in Figure 8.2. Concepts are the basic units of coding. There were three main sources of identifying concepts in this study: (i) the research problem; (ii) the literature on corporate governance reforms; and (iii) the results obtained from the quantitative part of this study. These sources are also presented in Section 8.2.2, in discussion of the interview guide.

Corbin and Strauss (2008) define codes as words that stand for groups of events and actions which have common characteristics or threads. Coding cards were used to determine similarities, differences, frequency, sequence and causation in transcripts and memos (Saldana, 2013). Specifically, the analysis adopted the constant comparisons approach by examining the similarities and differences between the groups. This also helped to support or reject inferences obtained from cases in the data. Corbin and Strauss (2008) argue that the constant comparisons approach is important because: (i) it helps in understanding the meaning of events and eliminating ambiguity about the issues; (ii) it stimulates the researcher to explore the concepts used in data analysis; (iii) it helps the researcher test basic assumptions, biases and perspectives; (iv) it helps the researcher examine the obtained results; and (v) it develops the link between themes and subthemes using 'axial coding'.

After analysing the interview data and identifying similarities and differences using the constant comparisons approach (Corbin and Strauss, 2008), the researcher started assembling 'concepts' using memos to determine axial codes. These axial codes relate concepts to the patterns and themes in the data. Figure 8.2 shows the coding structure used in this study. The axial codes (sub-themes) are identified to achieve integration (linking the concepts to the central themes). Themes can be defined as central issues derived from the coded data (Lichtman, 2013). Corbin and Strauss (2008) point out that the integration process relies on the following conditions: (i) the theme should be relevant and link to other themes; (ii) the theme should appear frequently in the data cases, and be a common denominator in most of the cases; and (iii) the theme must be logical and consistent with the data. Hence, to improve the reliability of the coding system, a constructed diagram of

themes emerging from the interview data was discussed with the researcher's supervisor and academic colleagues.[66]

Additionally, the interview transcripts were analysed with the help of software programs, such as Microsoft Word for data management. The researcher did not use any other software programs in coding the interview data, because such programs are time-consuming, ineffective in interpreting the results and do not help explain the research issues in depth. For example, Gallagher (2007) and her research team used a software program in their study and found that the "*software was effective for data management, but inadequate for nuanced and complex work of data analysis. The software package gave us style, but not substance… In effect, we returned to a manual coding system that respected the sheer quantity and complexity of qualitative data and the surrounding contexts*" (as cited by Saldana, 2013, p.26).

8.4 CHAPTER SUMMARY

This chapter presented a discussion of qualitative methods used in this study to examine the awareness and appreciation of good corporate governance practices among key stakeholders to answer the sixth research sub-question. In addition, interviews were used to improve explanations of the findings obtained from qualitative data. The chapter addressed a number of issues. First, the theoretical framework of qualitative research and its importance in investigating the business environment generally and corporate governance particularly was discussed. The study employed qualitative methods to explore real-life governance issues. Also, reliability and validity in qualitative research were discussed briefly in the first section.

Second, this chapter presented the data collection process using semi-structured interviews. More precisely, it discussed the selection of the interviewees. A total of fifteen interviews were conducted with members of five groups representing internal and external key stakeholders. These are the: (i) board of directors; (ii) executive management; (iii) audit firm partners; (iv) regulators; and (v) shareholders. The researcher developed two different interview guides for the interview questions. One was for internal key stakeholders and the other for external key stakeholders. Due to the interviewees' positions

[66]As previously noted the researcher presented and discussed the questions, the coding and the approach to analysis with colleagues and experienced researchers at several doctoral conferences and workshops, in addition to careful guidance and direction received from supervisors.

and the nature of the interviewer's questions, one-to-one interviews were conducted. The chapter also discussed ethical issues considered before and after conducting the interviews.

Third, the chapter discussed the data analysis procedure. The thematic analysis approach was used to analyse the interview data. The data was analysed in two phases: pre-coding reading of interview transcripts and emerging themes, and, subsequently, analysing the emerging themes based on codes from the interviews.

The next chapter presents the findings obtained from the interview data. Specifically, it explores stakeholders' perceptions and appreciation of good corporate governance practices. In addition, it explores (qualitatively) the corporate governance reforms and their influence on firm financial performance in Saudi Arabia.

CHAPTER NINE

QUALITATIVE EMPIRICAL ANALYSES, FINDINGS AND DISCUSSION

9. INTRODUCTION

This chapter presents an analysis of the data gathered from interviews targeting five different key stakeholder groups, including boards of directors and executive management, as internal stakeholders, and audit firm partners, regulators and shareholders, as external stakeholders. Specifically, the chapter attempts to achieve four objectives. First, it explores the views of key stakeholders about corporate governance disclosure and transparency in Saudi listed firms. Particularly, the analysis explores the level of compliance with voluntary corporate governance disclosure and practitioners' views on factors that influence the level of compliance. This analysis follows the corporate governance reforms through the establishment of the Capital Market Authority (CMA) and the release of the Saudi Corporate Governance Code (SCGC).[67]

Second, this chapter explores the interviewees' perceptions about the relationship between corporate governance mechanisms and financial performance. It looks at the influence of internal and external corporate governance mechanisms on firm financial performance and firm value in Saudi Arabia. Third, it explores the key stakeholders' awareness and appreciation of good corporate governance practices in the context of Saudi business. Thus, it specifically investigates the impact of recent reforms in the governance regime on increasing awareness of good governance practices. Fourth, this chapter seeks to discuss the integration between the results from the interviews and the quantitative findings to provide richer insights into corporate governance developments in Saudi Arabia.

This chapter is structured to analyse the three main themes extracted from the coding system discussed in Chapter Eight, including: (i) disclosure and transparency; (ii) financial performance; and (iii) stakeholders' awareness and appreciation of good corporate governance practices. Therefore, the chapter is organised as follows. Section 9.1 discusses how practitioners evaluate corporate disclosure and transparency in Saudi listed firms. Section 9.2 investigates the assessment of the relationship between corporate governance mechanisms and firm financial performance. Section 9.3 reviews the impact of

[67] As discussed in Chapter Two, the Saudi government started broad economic reforms at the beginning of the 2000s, which included reorganising the capital market and establishing the CMA in 2003, and issuing a number of corporate governance legislations, such as the Listing Rules in 2004 and the SCGC in 2006.

corporate governance reforms on the key stakeholders' awareness and appreciation of good corporate governance practices. Section 9.4 discusses the integration between the quantitative results and the qualitative findings, while Section 9.5 presents a summary of the chapter.

9.1 CORPORATE GOVERNANCE DISCLOSURE AND TRANSPARENCY

Since the CMA was founded, corporate governance reforms have been pursued to penetrate the market and improve voluntary corporate governance disclosure. The most prominent reforms are those of the internal corporate governance framework, through issuing legislation, such as the SCGC, as guidelines to improve good governance practices. In this section, the level of compliance with the SCGC and voluntary corporate governance disclosure in Saudi listed firms is investigated from the key stakeholders' perspectives. In addition, this section examines the factors that influence the level of compliance with corporate governance. In doing so, three main issues are addressed: (i) the board of directors; (ii) ownership concentration; and (iii) firm characteristics. The analysis of the interview data shows that the board of directors is the main driver in enhancing corporate governance, and performs a fundamental role in improving firms' disclosure and transparency. Also, the key stakeholders' views show that ownership concentration and firm characteristics are important factors in promoting accountability and establishing good corporate governance standards.

The key stakeholders' views on the above issues are presented as follows. Subsection 9.1.1 addresses the role of the board of directors in voluntary corporate governance disclosure. Subsection 9.1.2 examines the impact of ownership concentration on the level of compliance. Subsection 9.1.3 presents a view of the influence of firm characteristics on corporate governance.

9.1.1 Board of Directors

These subsections present the key internal and external stakeholders' views about the relationship between: (i) independence of the board of directors; (ii) board size; (iii) the presence of a corporate governance committee; and (iv) the content of firms' annual reports, and levels of compliance. A growing call in corporate governance literature to further understand boards of directors' behaviour has led to a focus on boards of directors' characteristics (Soobaroyen and Mahadeo, 2012).

(i) Independence of the Board of Directors

As discussed in the corporate governance literature, the structure of the board of directors plays a central role in its effectiveness (Jensen and Meckling, 1976; Allegrini and Greco, 2013). In this regard, most of the internal stakeholders' views show that the independence of the board is important in reducing the personal interests of executives or management and protecting shareholders' rights. In addition, independent directors are more capable of monitoring the firm's management. Similarly, their presence helps ensure stakeholders' interests are represented on the board.

A member of a board of directors, B3, reports that firms with independent board members have better voluntary corporate governance disclosure. From his point of view, this indicates that the independence of board members helps establish good governance practices. However, B3 argues that large shareholders have the power to select the independent directors in some listed firms. Thus, he explains that large shareholders may appoint members who may be close relations as independents to achieve their interests, which is incompatible with real independence. This is in line with Piesse *et al*. (2012) explaining that large shareholders in Saudi listed firms have the apparent power to select directors. Therefore, from Piesse *et al.*'s point of view, independence and composition of the board of directors depends on large shareholders' orientation. Article 2 of Part One of the Saudi Corporate Governance Code (SCGC) defines independent directors as members of the board of directors with no direct interests in the company that may affect their independence. However, the code does not address a mechanism for verifying candidates' independence. Similarly, B1 was of the view that the appointment of independents must be more transparent and should be controlled by the CMA to make it more objective. However, B1 reports,

> *Specifying the criterion of being independent in the SCGC is a good step toward activating the role of the board. It is more likely that if the awareness of stakeholders is increased, the independence of boards of directors in Saudi listed firms will improve, especially when the shareholders exercise their rights regarding accountability and appoint directors through the general assembly*.
>
> (Interviewee B1)

In the same vein, B2 shows that his firm had sought to enhance the independence of the board when the family firm transformed into a listed firm. Particularly, they appointed independent directors instead of some family members, and this enhanced investor confidence in their firm. However, B2 emphasises that the concept of independence is

relatively new in the context of Saudi business. This is supported by Ezzine (2011), who indicates that the concept of board of directors' independency is still questionable. B2 suggests that awareness of the importance of board independence may improve with time. In addition, key executive managers E2 and E3 agree that the absence of independence in the board may weaken a firm's control system and adversely affect good governance practice. Hence, it can be noted from the key stakeholders' views that there is a need to increase awareness among directors and shareholders about the importance of the role of independents and the mechanisms of their appointment. This is consistent with descriptive studies that attempt to understand corporate governance behaviour (e.g., Soobaroyen and Mahadeo, 2012; Alshehri and Solomon, 2012).

Contrary to the interviewees' views reported above, E1 argues that appointing independent directors instead of executive directors may not benefit the firm. E1 is of the view that independent directors may not have direct interests in the firm, and therefore may have a weak attachment to the firm, especially when they realise that their presence on the board is temporary.

The key external stakeholders agree on the importance of independent directors. However, I2 explains that voluntary corporate governance disclosure does not necessarily depend only on the presence of independent members. I1 reported, fairly similarly, that independence is a good indicator of the effectiveness of the board, but is not enough to assess its success. This is in line with Solomon (2010), who suggests that some companies have a culture of disclosure and transparency; thus, the presence of independent directors may not increase the level of voluntary disclosure.

Shareholder S3 points out that independence of the board is influenced by firm size. He emphasises that boards of directors of bigger firms, such as telecommunications and electricity companies, are more independent and have better levels of voluntary corporate governance disclosure than those of smaller firms. This is because of the efficiency of the company's operation, the nature of their products and the presence of strategic plans. However, S3 suggests that directors in small firms focus more on their personal interests and the pursuit of individual gains during their time on the board. R1 is of the view that independence of the board makes investors more confident in the board's performance. Thus, the stakeholders praise the SCGC's recommendation to appoint independent directors[68] as well as identify the independent directors in the firms' annual reports. A

[68] The SCGC, in Article 12e, stipulates that the number of independent members of the board of directors shall not be less than two, or one third of all of the members, whichever is greater.

number of practitioners, B1, B3, E3, S1 and S2, are of the view that regulatory bodies should be more effective in ensuring the independence of directors.

In this regard, Piesse *et al*. (2012) find that Saudi corporate governance legislation aims to enhance boards' independence, but the reality is that large shareholders still control boards, which influences the boards' effectiveness. However, the CMA notes the difficulty of finding a mechanism to examine the independence of directors. Similarly, R1 and R2, from the CMA, indicate that the SCGC identifies independence standards and seeks to increase awareness among stakeholders about the importance of independence of the board. Consequently, a nominations committee has to verify a candidate's independence. Similar to this, R2 reflected that one Saudi listed firm appointed a CEO who was a brother of the chairperson. R2 feels that the shareholders should have objected to the appointment in the general assembly by exercising their right to accountability. This is supported by Vafeas (1999b) indicating that a nomination committee can contribute to effectively verifying the independence of directors.

(ii) Board Size

The key internal and external stakeholders agree on the importance of board size. Specifically, most of the interviewees' views indicate that board size is associated with the expertise of board members, the number of board sub-committees, firm size and business activities. B3 is of the view that board size determines the quality of the board.

> *Board composition is very critical; for example, there should be one or more specialists in finance, experts in business activities and other specialists in strategic planning in the board structure. Thus, diversifying directors' experiences compensates for large board size*. (Interviewee B3)

This suggests that with larger boards, quality can be maintained if the directors' composition is diverse, according to their area of expertise. Similarly, B1 is of the view that three factors determine board size: (i) the number of sub-committees formed by the board, and how well they are represented by the directors; (ii) firm size, related to the complexity of the capital structure; and (iii) the proportion of independent directors on the board, as recommended by the SCGC. Regarding this, I1 indicates that

> *The board size should be judged on the grounds of quality, not quantity. It is important to achieve a balance within the board structure. For instance, some firms have very large boards, and this negatively impacts on decision-making*

> *processes. Particularly, strategic decision-making is difficult in terms of achieving consensus inside the boardroom. However, a small board comes at the cost of the firm failing to take advantage of experience. Therefore, achieving a balance according to the size and needs of firms is important.* (Interviewee I1)

S1 and S3 agree about the importance of diversification of knowledge among board members. They explain that board size is important because of the board of directors' ability to lead the firm to success. Contrary to the interviewees' views reported above, I2 is of the view that a large board may be an obstacle to establishing good governance because of the difficulty of interaction among directors. Moreover, I2 suggests that a small board is better than a large board in terms of interaction and harmony among board members. Therefore, according to his view, small boards are better at exercising their monitoring role. Thus, I2 is of the opinion that executive directors are more likely to control and dominate the board orientations and agenda in large boards.

However, S2 expresses concern that increasing the number of directors on the board may reduce the chance of directors prioritising their interests at the expense of outside shareholders. S2 relates a personal experience about large shareholders seeking to control small boards inside small firms. Interestingly, they remained members for a certain period, and then moved to the boards of other companies after achieving their personal interests. Thus, large boards might decrease the possibility of board members becoming allied with a firm's management. In this regard, Soobaroyen and Mahadeo (2012) indicate the importance of corporate governance reforms by introducing codes to limit the dominance of executive directors on the board.

R2, from the CMA, states that a regulatory body cannot force companies to have a certain number of directors, due to the variation among firms in terms of the nature and complexity of their business. However, the SCGC determines appropriate board size as between three and eleven members. The participants report fairly similar views on the difficulty of imposing a certain number of directors in companies. They note the importance of diverse qualifications in improving board quality.

(iii) Presence of Corporate Governance Committee

The corporate governance committee aims to ensure the effective implementation of corporate governance mechanisms (Ntim *et al.,* 2012a). Some Saudi listed firms have recently formed corporate governance committees. It is important to note that the internal and external stakeholders held similar views on this matter, claiming that the presence of a

corporate governance committee can improve corporate governance practices and corporate disclosure in particular. However, B2 responds that the presence of an active internal control system eliminates the need for such a committee. Also, B2 mentions that compliance should be a part of firm culture, to ensure permanent compliance with corporate governance standards. Similar to the above views, I2 states,

> *Encouraging and achieving good governance practices must stem from the conviction of the board of directors; the committee may not be successful without this motivation. Therefore, corporate governance is made up of practices, not the instructions and decisions of committees*. (Interviewee I2)

Similarly, E3 is of the view that a large number of committees is not in the interest of firms; on the contrary, the presence of a corporate governance committee may be useful if it is temporary and created for the establishment of good governance practices.

B3 maintains that the implementation of corporate governance is supposed to be part of the internal control system in a firm. Also, he reports that implementing a good governance system in the firm can be achieved by introducing a governance code. Furthermore, B3 explains that he is a director in two firms which have their own governance codes. These governance codes helped the firms to establish good governance and corporate disclosure practices. This is also consistent with the findings of Al-Matari *et al*. (2012), who note that releasing governance codes helps top management and the board of directors become aware of their responsibilities and obligations in terms of the principles of corporate governance.

R3, from the Saudi Stock Exchange (Tadawul), reports that a corporate governance committee may impact positively on the level of compliance, but the increased cost should be considered. However, R3 indicates that an audit committee can supervise the implementation of corporate governance, if it has the ability and strength to supervise. This is not consistent with Al-Twaijry *et al*. (2002), who find that audit committees in Saudi companies have not performed as expected. This implies that tasking the audit committee with monitoring corporate governance standards can overburden them. They might not be able to perform their own duties properly. Thus, it may not be appropriate to assign an audit committee to follow up the implementation of corporate governance standards.

(iv) Contents of Firms' Annual Reports

With respect to voluntary corporate governance disclosure in firms' annual reports, the interviewees are of the view that there has been clear improvement in the content of these reports since 2006. This is due to the governance reforms and some legislation, such as the Listing Rules in 2004, serving as a guide to improve the content of the reports.[69] In addition, the 2006 SCGC constitutes guidelines for adopting corporate governance standards.

S2 points out that there has been an apparent improvement in firms' annual reports have become include financial and non-financial information. It is noted that the reports issued before the governance reforms were brief and did not contain meaningful disclosure. Similar to the view mentioned above, E3 states that the following up by the CMA has contributed to improving the firms' annual reports, specifically their compliance with voluntary disclosure. This is in line with Alshehri and Solomon (2012), who claim that the recent corporate governance regulations guided Saudi firms to improve their annual reports significantly.

B3 states that firms' current annual reports contain more disclosure; for example, disclosure about the ownership structure and details of compensation and remuneration paid to directors and top management, which was not previously disclosed. Furthermore, parts of the reports describe and assess the firms' internal control systems. However, E2 expresses that there is variation between sectors in terms of disclosure volume. For example, financial firms and most industrial firms have more voluntary corporate governance disclosure in their annual reports. Contrary to the interviewees' views reported above, E2 argues that those reports still do not contribute to enhancing investment decisions, despite the improvement in the volume of information. Similar to E2's view, I3 reports,

> *Looking at the firms' annual reports for a long time, I have noticed that some firms comply with the mandatory provisions, while the indicative provisions still have limited compliance. This means that compliance is at the minimum level to satisfy and fulfil the CMA's requirements*. (Interviewee I3)

I2 is of the view that external auditors' opinions about the content of firms' annual reports should be added to the reports. This is consistent with Haniffa and Hudaib (2007), who indicate that auditors are trusted by shareholders in the Saudi stock market. Therefore,

[69] Article 27 of the Listing Rules determines the minimum disclosure requirements in the annual reports of all listed companies, both financial and non-financial.

information included in the annual reports can be reviewed by auditors to increase confidence in the reports and improve the quality of information. R2, from the CMA, explains that the CMA has established the Continuous Disclosure Department to review firms' reports annually, so that it can provide observations about the weaknesses of reports and ways to improve them. In addition, R2 responds that improvement can be seen in the reports after 2006, as a result of the corporate governance reforms in Saudi Arabia.

Overall, it can be noted from the key internal and external stakeholders' views that independence of the board of directors is an important factor in improving governance practices. However, the majority of interviewees emphasise the need to develop a mechanism for appointing independent directors to make the process transparent in Saudi listed firms. In addition, the interviewees are of the view that board size is related to diversity of experiences, number of board sub-committees and firm size. Thus, it is important to achieve a balance between board size and the monitoring role of the board.

The interviewees agree that the presence of a corporate governance committee can improve corporate disclosure and transparency. However, the stakeholders argue that governance practices should be part of the firm culture. Thus, it is not necessary to establish a corporate governance committee, as the presence of an effective internal control system and internal governance code can be enough. It can be noted from the practitioners' views that a gradual improvement in firms' annual reports has recently been noted. However, some of the interviewees reported that there is variation in the volume of information in these reports, according to industry type.

9.1.2 Ownership Concentration

This subsection presents the interviewees' views about the relationship between voluntary corporate governance disclosure and ownership concentration, including government, institutional, block and director ownership. There is a high proportion of government ownership among firms on the Saudi stock market.[70] The interviewees are of the view that government ownership of listed firms provides stability in the firms' boards and performance. S1 claims that government investment in certain companies increases investor confidence in these companies; investors expect that these firms are low-risk firms. Similar to the views mentioned above, S3 points out that firms with high government ownership have more independent boards of directors, since personal interests

[70] As discussed in Chapter Six, government ownership is concentrated in a number of listed firms, representing about 42% of the total stock market value in 2010. Government ownership is concentrated in strategic firms, such as telecommunications, electricity and petrochemical firms.

are no longer in conflict with public interest. Furthermore, I3 is of the view that government ownership in the board helps to secure necessary funding sources for the firm. It is also noted from S3's and I3's views that government representatives in boards of directors usually act in the public's interest and mitigate interventions of other large shareholders. This is not consistent with Mahadeo and Soobaroyen (2012), who find that firms with high government ownership in emerging countries must make greater efforts in improving voluntary governance disclosure.

Some interviewees reported that the board's functioning in these firms is characterised by bureaucracy, despite the fact that government-owned firms are often successful. B2 is of the view that government ownership hinders firm growth due to slow decision-making. However, B2 also believes that the success of these firms is attributed to the fact that they almost dominate the industry. For example, government ownership in the Saudi Basic Industries Corporation (SABIC), one of the largest petrochemical companies in the world, is 70%. Executive director E1 describes the relationship between his firm and government ownership,

> *It was an agreement with the government to establish a subsidiary company to accomplish a vital project. The representation in the board of directors is a mix of the government and our company representation. As a result, the representatives of the government hinder the board's performance due to their government background*. (Interviewee E1)

Similar to E1's view, I2 agrees that the government's slow decision-making and bureaucratic working style reduces the productivity of the board of directors. This is in line with Piesse *et al*. (2012). They point out that political connections and social norms influence the appointment of qualified directors in firms with high government ownership. Interestingly, though government ownership is not a condition to improve firm performance, it possibly helps stabilise the board and improve disclosure.

Institutional investors were given much attention in the literature on governance as key players in the stock market (Aggarwal *et al.*, 2011). The practitioners also point out the importance of institutional investment, despite the fact that there is no significant institutional investment in the Saudi stock market. B1 reports,

> *The institutional investors in Saudi listed firms are still performing as short-term investors. Therefore, they are not contributing to improving corporate voluntary disclosure and the level of compliance.* (Interviewee B1)

Also, I2 emphasises the importance of institutional ownership to small investors, claiming,

> *When I decide to make an investment in a company, I prefer and have more confidence in a company in which institutional investors have invested*.
>
> (Interviewee I1)

I2 is also of the view that if the CMA requires the disclosure of institutional ownership, it should impose such a regulation even if the institutional ownership is less than 5%.[71] This could help small investors make decisions about investing in such companies.

Block ownership is a key factor influencing the level of compliance with corporate governance (Ntim and Soobaroyen, 2013). B1's views indicate that block ownership usually impacts negatively on good governance practices. Specifically, block holders have the power to appoint directors who work in their interest. In this regard, B3's views suggest that block ownership may affect the independence of the board. He reports a story of a listed firm where he was a board member,

> *The block shareholders appointed a CEO (and managing directors as well); however, such appointment usually causes a decrease of the board's independence and also weakens the board's role in monitoring firm's management*.
>
> (Interviewee B3)

I3 is of the view that block shareholders influence board decisions and the agenda of the general assembly. Thus, the influence of block shareholders on the board of directors adversely reflects on the interests of small shareholders.

On the other hand, the key internal and external stakeholders argue that director ownership improves board performance. S3's views indicate that board ownership is an incentive to improve firm value. Furthermore, the board of directors seeks to increase voluntary corporate disclosure to attract potential investors. This is supported by Piesse *et al*. (2012), who indicate that board ownership in Saudi firms is concentrated among families as strategic investors. This helps in enhancing the board of directors' performance. S3 reports an example of a company which performed well financially when directors

[71] The CMA requires that listed firms disclose any ownership that is equivalent to 5% or more of the firm's shares.

made up a high proportion of the firm's capital structure. This firm became a loss-making firm after the directors reduced their ownership and left the board. This is because it was managed by new directors, who did not have a direct interest in the company.

S2 reports that directors' interests are not supposed to conflict with outside shareholders' interests, as they all have the same goal (high firm value). In the same vein, I3 is of the view that directors with high ownership should appoint qualified directors and a management team. This is in line with Soobaroyen and Mahadeo (2012), who indicate that the corporate governance reforms in Mauritius led to the increased directors' awareness of corporate governance.

However, I2 describes that the presence of board members with more ownership may reduce the overall independence of the board. I2 is also of the view that this is not a severe problem when looking at a number of successful Saudi companies which have high board ownership. These firms generally perform better, as observed from their growing market value.

The board of directors' interviewees point out that director ownership enhances firm performance and improves corporate disclosure and transparency. For example, B2 reports,

> *An increase in voluntary corporate governance disclosure is protection for directors' investments. In addition, compliance with corporate governance standards is strong, from both the internal and external shareholders alike. This is because it protects the board and firm from any accountability which may damage the board and firm's reputation*. (Interviewee B2

B3 explains that the spread of ownership leads to a lack of control over the firm's management, given that the board may not perform its monitoring role efficiently. In contrast, S1 argues that high board ownership is important, but may not alone ensure the firm's success. Therefore, the board of directors is required to maintain a certain degree of professionalism and good governance. Furthermore, the board should have plans and objectives to be achieved in the future. This is supported by Baydoun *et al*., (2013), who point out that international banks hesitated to lend money to a particular Saudi company because of the absence of good corporate governance practices among its board of directors.

To summarise, the interviewees agree that the level of compliance and corporate disclosure are better in firms with high government ownership, despite government ownership hindering firm growth due to its bureaucratic work style. Interviewees'

responses indicate that government ownership is usually concentrated in large listed firms, decreasing uncertainty and increasing investor confidence. The key stakeholders point out that institutional investment in Saudi listed firms is still below the desired level, indicating that institutional investors, though by definition long-term investors, act like short-term investors. Therefore, institutional investment does not affect the improvement of corporate disclosure and transparency. Additionally, the interviewees emphasise that block ownership is usually negatively associated with good governance practices because block owners are devoted to their own interests, at the expense of small investors' interests. However, all practitioners agree that board ownership leads to an active and efficient board of directors, improved firm performance and growth in market value.

9.1.3 Firm Characteristics

This subsection addresses the interviewees' perceptions about firm characteristics, including: (i) level of compliance; (ii) audit firm size; (iii) firm internal control system; and (iv) firm size and culture, and their influence on good corporate governance practices. First, as discussed in Chapters One and Two, in early 2006, the Saudi stock market witnessed a dramatic crash[72] which pushed the supervisory body to introduce the SCGC in November 2006. Liew (2007) finds that the 1997/1998 Asian crisis created an urgent need to issue corporate governance codes in Asian countries. The interviewees agree that the level of compliance with corporate governance standards in listed firms has improved. B1 responds that there has been progress in strengthening compliance with the code's provisions. This, in his view, is due to a rise in boards of directors' appreciation of good corporate governance practices.

Furthermore, B2's views indicate that the CMA sought to increase confidence in the stock market after the crash by issuing governance legislation. B2 reports that the CMA's performance is fairly convincing in this regard, specifically by raising awareness among shareholders and directors alike about the importance of corporate governance. Also, E1 and E2 argue that the improvement in voluntary corporate governance disclosure can be noted by looking at firms' annual reports. These reports, in recent years, have become more comprehensive by including financial and non-financial information. This is consistent with Al-Matari *et al*. (2012) indicating that releasing corporate governance

[72] As discussed in Chapter Two, the Saudi stock market witnessed a dramatic drop in 2006. Specifically, it lost about 53% of its market value. The index was about 16,700 at the beginning of 2006, and dropped to about 7,900 by the end of 2006 (SFG, 2009; Tadawul, 2012).

regulations in Saudi Arabia has improved the quality of firms' annual report. From the above argument, it can be deduced that such improvement in corporate disclosure has helped reduce information asymmetry. Audit firm partners also find that the levels of disclosure and transparency have gradually improved in recent years. I1 reports,

> *I can refer the improvement to either: (i) the company's culture, and therefore the recent governance reforms will strengthen that commitment; or (ii) compliance only to meet the requirements of the CMA and the fear of fines, and this may affect the quality of compliance.* (Interviewee I1)

However, E2 emphasises that the regulatory authority and firms still need to work together to improve the quality of voluntary governance disclosure. On the other hand, E3 explains that it is unclear whether the improvement in compliance is due to awareness of board of directors. In this regard, E2 was of the view that a lack of social responsibility may be evidence that Saudi firms comply with the minimum requirements of the legislation. Liew (2007) indicates that Asian countries that adopt a shareholders-based system do not widely focus on social responsibility. Thus, it is important to establish good corporate governance as a culture, rather than complying because of a fear of consequences.

I3 expresses that there is variation among firms in terms of compliance, where some are committed to most of the provisions and some adhere only to the mandatory provisions. In interviews, the shareholders point out that the level of compliance is relatively good considering the short time since the governance reforms. Nevertheless, they are still looking forward to more compliance with corporate governance and an increase in voluntary disclosure. For example, S2 states,

> *It is true that we have been noticing improvement in corporate disclosure, but we wish to increase penalties for non-compliant firms by the CMA, especially those firms that do not comply with the provisions that are directly related to shareholders' rights. This makes them comply more with important provisions in the SCGC.* (Interviewee S2)

Similarly, S1 suggests that a mechanism should be developed to reduce the variation in the level of compliance between firms, where some firms need more transparent disclosure. On the other hand, R2, from the CMA, argues that investors play a central role in forcing firms to improve their level of disclosure; he states,

> *The investors have a responsibility to assess the firm's governance practices. However, when they find disclosure or transparency lacking, it is supposed that the demand for that company can decrease. Thus, whenever investors look for companies that have good voluntary disclosure, this may force poorly governed firms to improve their disclosure to attract investors*. (Interviewee R2)

R1 indicates that the CMA had conducted a study about the obligation of listed firms to publish their quarterly financial statements within 15 working days after the end of the financial period. The CMA found that the compliance rate was 40% in 2005, and increased to 95% in 2009, after its establishment in 2003. It can be noted that the level of compliance with the SCGC improved among listed firms since the initiation of the governance reforms. This is supported by Soobaroyen and Mahadeo (2012), who find that implementing corporate governance codes can increase compliance in devolving countries.

Second, the literature on corporate governance suggests that audit firm size affects the quality of auditing and the level of corporate disclosure (Barako *et al.*, 2006; Schiehll *et al.*, 2013). In the interviews, some stakeholders identify the significant role of audit firms in increasing the reliability of information. S2 emphasises that investors and shareholders have become aware of the importance of appointing reputable audit firms. S2 explains that it has recently been noticed that shareholders require firms to appoint big audit firms. This implies that audit firm size is essential in enhancing confidence in corporate disclosure. I3 emphasises the necessary differentiation between big and small audit firms. For example, small audit firms confine their work to the minimum requirements of the profession; however, big audit firms examine the client's internal control system to evaluate its efficiency before approving the procedures.

Similarly, I1 explains how one firm refused to engage with a big-four audit firm because the auditor objected to how the firm treated the Drop-in Securities Value provision. I1 points out that big-four audit firms ask to view a company's profile and documents, including their annual report, before signing the engagement letter. One of the issues raised by I1 is that the governance legislation does not explain exactly what is required from audit firms regarding disclosure in firms' annual reports. It can be suggested from I2's views that audit firms should offer their observations on the quality of disclosure in the firms' annual reports. This is supported by Haniffa and Hudaib (2007), who find that in Saudi Arabia, shareholders' confidence in firm performance relies on auditors' reports. Therefore, the auditor's role should not be limited to examining financial statements, but should also ensure the quality of governance disclosure.

Third, most respondents assumed that a firm's corporate governance system is related to its internal control system. B1 suggests that a good internal control system emerges from the board of directors' belief that a control system can protect their firm's assets. B1 states,

> *The board of directors should work to strengthen internal control because this will reflect positively on the board of directors' performance. Furthermore, the interaction between the board and internal control should be regular and transparent*. (Interviewee B1)

B2 and I2 point out that strengthening the internal control system helps protect shareholders' rights; in addition, they emphasise the importance of the audit committee in activating the internal control system. I1 claims that the internal control system is one of the components of good governance practices. Thus, companies that have an active internal control system imply that they have good corporate governance. E1's views indicate that his firm has an internal control system that has been linked directly to the board of directors. He explains,

> *The existence of an active internal control system benefits firm top management in two ways: (i) the existence of an internal auditor as an independent party to assess management performance; and (ii) to evaluate the firm's general performance continuously*. (Interviewee E1)

On the other hand, I3 talks about his experience of nearly 20 years in internal auditing before moving to external auditing. He says,

> *Saudi firms do not have documentation of an internal control system. This weakens their role due to the absence of a mechanism that could possibly adjust its work*. (Interviewee I3)

This is supported by Haniffa and Hudaib (2007), who find that most Saudi listed firms do not pay attention to the internal control system.

The interviewees' views indicate that shareholders should make a point of looking at a firm's internal control system to protect their rights. S2 asserts that a good control system enhances confidence in the management's performance. Moreover, S2 explains that shareholders cannot ask directors about their daily business activities. Thus, the internal control system performs on behalf of shareholders in protecting the firm's resources. In the same vein, S1 reports a story of a listed firm where an internal auditor had objected to

paying undeserved incentives to the board chairperson. This objection was appreciated by the firm's shareholders and potential investors.

However, R3 states that despite the regulators' efforts to raise awareness of the concept of internal control, some companies still do not acknowledge or work with this concept. For example, it has been noted that internal auditors are structurally connected to the board of directors, but in practice work under the CEO's control, which limits achievement of the objectives of the internal control system.

Fourth, firm size and culture are considered to influence the level of compliance with governance standards (Haniffa and Cooke, 2002). B3 is of the view that firm size is usually associated with the number of qualified directors in the firm; he notes that large firms are more able to attract eligible board members. Also, eligible directors do not risk their reputations by participating in small firms. Furthermore, large firms are less affected by the personal interests of directors. B2 argues that large firms provide better protection of stakeholders' interests by increasing their representation on the board. Similarly, S3 is of the view that boards of directors in large firms are more stable than those in small ones. These views indicate that the boards of directors in large firms improve firm performance. On the other hand, B3 is of the view that a firm's culture, presence of vision and mission improve its performance. B3 reports,

> *The presence of a company's identity and strategic plan, and increasing incentives, would enhance the board function and increase the efficiency of management*.
>
> (Interviewee B3)

I1's views indicate that the culture of a firm with regards to its appreciation of corporate governance helps shareholders exercise their rights. For example, some firms allow shareholders to vote remotely, thus giving them the opportunity to participate in the general assembly from outside the meeting room. This is consistent with Liew's (2007) suggestion that corporate governance is a culture rather than only a practice, which ensures better compliance with governance standards.

Overall, the interviewees agree that the level of compliance with the SCGC has shown gradual improvement since its introduction in 2006. However, the interviewees' views suggest that investors should invest in companies that have good disclosure. Moreover, interviewees are of the view that internal control is part of a firm's corporate governance system. Thus, implementation of an internal control system can improve corporate governance practices. However, some practitioners point out the importance of firm size and culture in voluntary corporate governance disclosure. Also, they identify that

large firms are attractive to qualified directors and explain that a firm's culture helps shareholders exercise their rights.

9.2 FIRM FINANCIAL PERFORMANCE

This section explores the key stakeholders' perceptions of the impact of corporate governance mechanisms on the financial performance of Saudi listed firms. Particularly, Subsection 9.2.1 presents an analysis of the key stakeholders' perceptions of the relationship between internal corporate mechanisms and firm performance. Subsection 9.2.2 addresses the key stakeholders' perceptions about the relationship between external corporate governance mechanisms and firm performance.

9.2.1 Internal Corporate Governance Mechanisms

There are a number of key internal governance mechanisms that can improve firm performance and maximise shareholders' profit. Specifically, this subsection investigates: (i) the influence of the presence of executives on the board; (ii) CEO duality; (iii) the frequency of board meetings; (iv) board independence; (v) board size; (vi) presence of board sub-committees; and (vii) managerial ownership and board compensation.

It is found that stakeholders held different views regarding the presence of executives on the board. Some report that executive directors are usually less accountable. However, B2, a non-executive director, argues that executive directors have more information about firms. He suggests that non-executives could be utilised by making them attending board meetings as non-members. B2 and E3 are of the view that the board acts as a supervisory authority over executives' performance. These views suggest that the presence of executives weakens the board's role as a monitor. Shareholder S1 is of the view that executives' membership in the board reduces shareholders' and investors' confidence in the board. He reports,

> *Executive directors have the ability to influence board meeting agendas and determine the subjects under discussion. They also possess the power to pass whatever they want or to reject what they do not want*. (Interviewee S1)

This is in line with Soobaroyen and Mahadeo (2012), who find that it is difficult for non-executive members to criticise executives' performance or assess their performance impartially.

However, B1 states that the creation of active committees can limit the influence of the executives on the board of directors. Similar to the view above, E1 points out that it is necessary to include executives on the board of directors to develop the link between the board and top management. However, E1 stresses the need for the active accountability of executive directors, even if they are board members. In addition, there is an obvious need to draw a line between the board and executive directors. E1 highlights the importance of the role of the chairperson in addressing any attempt by executives to abuse their power. Similarly, E2's and I2's views support the presence of CEOs as board members; for example, E2 reports,

> *It is in the interest of the company and accelerates the decision-making. Also, this helps the company achieve its goals*. (Interviewee E2)

In contrast, key internal stakeholders do not support CEO duality. Practitioners B1, B2, B3, E2 and E1 are of the view that CEO duality reduces board power and may marginalise some board members, especially independent directors. The practitioners' views are generally positive on the relationship between the frequency of board meetings and firm financial performance. For example, I1 reports,

> *During the past years, there has been growing awareness about the importance of board meetings among directors, and firms have been meeting continually. For example, boards of directors discuss the quarterly financial statements in detail*.
>
> (Interviewee I1)

Furthermore, he states that frequent board meetings are essential during expansions or difficulties faced by the company. However, there is no need for many meetings during normal performance, with no operating problems.

Conversely, I2 is of the view that a firm may have many meetings but their productivity may be weak, and vice versa. Therefore, I2 suggests that it is important for the remuneration committee to evaluate board performance. I2 reports an incident within a firm where the company had consecutive meetings and high productivity. But when a new board of directors was elected, the number of meetings was reduced, yet the firm's performance continued progressively. This is in line with Vafeas (1999a) indicating that the number of meetings should depend on the strategy set up by the board and its implementation.

Shareholders S2 and S3 are of the view that companies are greatly affected by their local and global surroundings, which reflect on their financial performance. They believe

boards of directors are required to meet frequently. Also, B3 reports that the number of meetings in his firm is determined by two aspects, the strategic plan and the volume of projects. He reports,

> *The effectiveness of meetings is more important than the number of meetings. Therefore, it is important to inform members about the meeting agenda and provide them with sufficient time for the paperwork. Furthermore, the results of board sub-committee meetings must be robustly presented in board meetings*.
>
> (Interviewee B3)

B2, E1, E3 and I3 are of the view that the minimum number of meetings should normally be four in a year, on a quarterly basis, to discuss the quarterly financial statements. They also point out the importance of deciding a schedule of meetings at the start of the year. This ensures that meeting times do not conflict with other events. The interviewees' views indicate that this strategy ensures attendance at meetings by most of the members, if not all of them. R2, from the CMA, explains that the exact number of meetings in a year is not specified by the governance code. It encourages a number of meetings, in accordance with the firm's needs and its circumstances. Generally, the practitioners believe that the frequency of board meetings does not necessarily impact on firm financial performance.

Some stakeholders address the influence of independent directors on firm financial performance. B2 is of the view that appointing independent directors improves firm performance by protecting outside shareholders' interests. Also, B1 highlights that the CMA did well in mandating that a third of every board must be made up of independent directors to limit exploitation by inside directors.

It is important to note that some of the interviewees distinguish between large and small firms when examining the relationship between independence of the board of directors and financial performance. S3 argues that independent directors are more preferred in small firms than in large firms, where executive directors are more capable of influencing firm policies. Furthermore, shareholders do not exercise their right of making directors of large firms accountable in general assemblies.

With respect to the relationship between board size and firm performance, some practitioners prefer to balance between the number of members and the availability of expertise and knowledge. B2 and I1 are of the view that large boards face difficulties working inside the boardroom and making decisions. Furthermore, B1 reports that the number of board sub-committees is an important element in determining appropriate board size. However, S2 argues that a larger board may be most efficient in protecting

shareholders' rights. Thus, the stakeholders' views indicate that directors of small boards are more likely to have collusion than those of large boards.

On the other hand, the interviewees agree on the importance of board sub-committees in improving board performance. This is consistent with Al-Twaijry *et al*. (2002), who find that stakeholders in Saudi Arabia were of the view that board sub-committees, such as audit committees, provide protection for shareholders. In this regard, B2 emphasises that board sub-committees are part of the board of directors, and contribute to its effectiveness. B2 also reports that his firm has four board sub-committees: audit, remuneration and nominations, executive, and investment. All of these committees include one or more members from the board of directors. Similarly, I1 mentions that the role of committees helps the board in making decisions:

> *For example, the audit committee provides reliable information to the board of directors, which helps the board improve its financial performance*.
>
> (Interviewee I1)

B1 and B3 point out the importance of the presence of directors in committees. According to them, this assists in building communication channels with the board and increases the interaction between the board and the committees. Similar to this, E1's views indicate that committees should include experts from outside the board to ensure their success. E2 suggests that the efficient performance of committees reduces the need for frequent board meetings, so board costs affect firm financial performance less.

On the other hand, I3 is of the view that some committees may not be significantly important or necessarily required:

> *The executive committee or 'mini board' conflicts with board tasks because their responsibilities are similar. Perhaps this committee is useful for temporary purposes or when its objective is to pursue tasks that are not permanent*.
>
> (Interviewee I3)

In this regard, S1 and S2 emphasise that the membership of executives makes committees work in accordance with the directions from the board of directors. For example, if the remuneration committee includes executive directors, they may be influenced by their direct interests in higher compensation. In the same vein, R1and R3, from the CMA, emphasise the need to examine the independence of committee members before appointing them. S3 agrees with all other participants on the importance of committees, and he suggests considering the size of a firm when determining the number of committees. For

example, small firms probably do not need many committees, while large firms may require many committees; for example, an investment committee to assist the board of directors.

However, I1 and E3 respond that there are three main committees, audit, nominations and remuneration. Thus, an increase in the number of committees may not necessarily benefit the firm. In this regard, R2 reports,

> *The Saudi governance code requires the establishment of three key committees. Furthermore, the governance legislation seeks to increase awareness of the importance of the committees.* (Interviewee R2)

Thus, the interviewees report fairly similar views that the effectiveness of the committees may reduce the burden on the board and speed up board decisions. Therefore, firms should be concerned about the number, size and quality of committees. Since 2008, the Saudi Corporate Governance Code has forced listed firms to establish an audit committee, while nominations and remuneration committees were made mandatory staring in 2011. Regarding this, Piesse *et al*. (2012) find that board sub-committees in Saudi listed firms are still in the early stages, and stakeholders must develop greater awareness of their importance.

The majority of interviewees agree that managerial ownership has a positive influence on firm financial performance. Additionally, they reveal that a number of profitable firms have directors with high ownership in the firm. B3 argues that the absence of managerial ownership may weaken board performance and exploit firms' resources. Also, E2, I1 and I2 maintain that managerial ownership can help a company achieve its objective of maximising profit.

Shareholders noted that investors care about director ownership, especially strategic ownership. S3 is of the view that directors who have shares in the firm are more motivated to improve its performance. Similar to the views in Subsection 9.1.2, S2 suggests that there is no conflict of interest between managers and shareholders because they have similar aspirations of maximising firm value.

Some participants consider board compensation a sensitive issue in firm performance. B1's views link board compensation with firm profitability:

> *Paying the directors as a proportion of the firm's profit instead of a fixed amount*[73] *would motivate the board to perform better. Moreover, regulatory bodies hold the board of directors responsible for the firm's assets and equity. Therefore, the current compensation system is not relative to the volume of responsibilities.*
>
> (Interviewee B1)

Similarly, S1 argues that some firms pay higher board compensation, even when it does not match the board's achievements.

In sum, it is interesting to observe a variation between the views of internal and external stakeholders about the relationship between the presence of executives on the board of directors and firm financial performance. Some practitioners believe that CEO duality may eliminate the role of independent directors on the board. In contrast, there is agreement among the interviewees about increasing awareness of the importance of board meetings. Also, the majority of stakeholders prefer a balance between board size and the presence of experts and committees. The stakeholders indicate that board sub-committees help the board in making decisions. They also agree that the independence of committees and annual assessment of their performance helps increase their effectiveness. Also, stakeholders point out that managerial ownership is positively associated with firm performance and leads the firm to achieve its goals. However, some stakeholders point out the importance of connecting board compensation with firm performance, which stimulates the board to work efficiently.

9.2.2 External Corporate Governance Mechanisms

This subsection presents an analysis of the interviewees' perspectives on the influence of external corporate governance mechanisms on firm performance among Saudi listed firms. Specifically, it addresses three important external governance mechanisms, including: (i) the market for corporate control; (ii) strengthening the financial market; and (iii) allowing foreign investment.

The majority of key internal and external stakeholders agreed that the Saudi stock market is still inefficient, where the market value is not associated with firm financial performance and voluntary corporate governance disclosure. The majority of stakeholders' views indicate that the corporate control mechanism may not be appropriately effective in the Saudi stock market. I1 reports,

[73] As discussed in Chapter Two, the 1965 Companies Act stipulates that the annual board compensation should be a maximum of $53,000 for each member, with a maximum of 10% of the total profits for all of the firms' members.

> *There is supposed to be a positive relationship between firm value and firm performance. Therefore, firm performance is expected to reflect the preferences of investors. Despite this fact, this is not the case with all of the firms in the Saudi stock market.* (Interviewee I1)

In the same spirit, it can be noted from E2's view that the lack of awareness among investors impacts negatively on their preferences. E2's views indicate that although the CMA is striving to change investors' perceptions about corporate governance and corporate disclosure, there is insufficient awareness of investment decisions. S1 and S2 maintain that the stock market still does not act as a mechanism to improve corporate governance. Though there are some companies with high market value, their corporate governance practices are poor. This is supported by Alshehri and Solomon (2012), who point out that the Saudi stock market needs to expand its market base (i.e. increase the number of listed firms) to strengthen the market for corporate control as an external governance mechanism.

Consistent with the shareholders' view, members of boards of directors believe that the Saudi stock market still does not effectively penalise non-compliant companies. B1 and B2 are of the view that the presence of speculators in the market hinders the maturity of the market as an external mechanism – 'market for corporate control'. B3 stresses that the CMA made an effort to reduce the impact of speculation by restricting the change in prices of shares by 10% to the upper and lower bounds daily. B3 reveals that gradual improvement in investors' awareness about their investment in successful companies has been observed. From the above argument, it can be noted that investment in companies with good corporate disclosure will make poorly governed companies improve their performance or suffer a decrease in firm value. This is in line with Liew (2007), who indicates that potential investors are attracted to firms with good corporate governance practices.

The CMA emphasises symmetric information, so that investors can make decisions based on the same available and reliable information. R1 mentions that shareholders were greatly influenced by informal information in the past. However, a good proportion of investors are currently looking for official sources of information on the stock market website. Furthermore, R2 explains that the regulatory body is working to penalise companies that do not comply with some corporate governance standards. R2, from the CMA, admits that they have not reached the required level of symmetric information, but are proceeding in the right direction through the recent governance reforms.

Additionally, R2 is of the view that some non-compliant companies suffer from a weak demand for their shares because of the absence of disclosure and transparency. R2 claims the market has begun to perform its role (albeit partially) as an external governance mechanism. E1 argues that the CMA is anticipated to activate some external governance mechanisms to strengthen the role of market corporate control:

> *The stock market still needs to be more organised. For example, it is necessary to increase institutional investment. Individual investment is dominating the current investment environment, which leads the market to be inefficient. Furthermore, it is important to activate the policy of treasury shares, strengthen the stock market and allow foreign direct investment.* (Interviewee E1)

To strengthen the stock market, S1 is of the view that there is a need to increase the number of companies in the stock market. He explained that the CMA has been able to increase the number of listed firms in the last few years, with a 100% increase from 2006 to 2010, but it still needs to increase stock market liquidity. B2 believes that market depth can ensure the presence of long-term investors and limit the speculation in some companies.

However, the Saudi stock market currently prevents foreign direct investment (except for citizens of the Arab Gulf states[74]). In this regard, B2 suggests that the presence of foreign direct investment increases liquidity in the market, and this is important to improve firms' market value. E3's views indicate that the importance of foreign investment cannot be ignored in providing financial and non-financial resources, such as experience and transfer of knowledge. Liew (2007) and Piesse *et al*. (2012) support the view that foreign investment is necessary for emerging economies in general and Saudi Arabia in particular. E1 emphasises the feasibility of opening the Saudi stock market to foreign investors, though this requires efforts from the CMA to develop confidence in the Saudi stock market. E1 and I2 are of the view that the number of companies and the level of liquidity in the stock market, compared to the Saudi economy, are still not encouraging.

In sum, the internal and external stakeholders agree that the Saudi stock market is still inefficient, as there is no significant relationship between firm financial performance and firm market value. Also, they point out that the market still does not fully punish companies that do not comply with corporate governance. However, the interviewees'

[74] In August 2009, the CMA allowed non-Saudi foreigners to invest in shares trading through swap agreements with locally approved and licensed intermediaries (SFG, 2009). Recently, the CMA has embarked on a process of allowing foreign investors to invest directly in companies listed on the Saudi market (Okaz, 2013).

responses indicate that the CMA is putting effort into increasing awareness among investors. They are also of the view that the CMA should activate external governance mechanisms, such as increasing the market depth and allowing foreign direct investment. According to their views, this can help to secure non-financial resources, such as transfer of knowledge.

9.3 AWARENESS AND APPRECIATION OF CORPORATE GOVERNANCE

As discussed in Chapters One and Two, despite the fact that the Saudi stock market is the largest of Middle East and North African (MENA) countries (Hearn *et al.*, 2011), the concept of corporate governance was not well known among stakeholders there until the early 2000s (Al-Motairy, 2003). In 2003, the CMA was established in order to reorganise the stock market and issue legislation ensuring good corporate governance practices (Al-Nodel and Hussainey, 2010). This section addresses the interviewees' views about stakeholders' awareness and appreciation of good corporate governance practices, and the impact of the recent governance reforms. Specifically, Subsection 9.3.1 discusses the stakeholders' perceptions of the importance of corporate governance. Subsection 9.3.2 explores practitioners' perceptions of shareholders' rights. Subsection 9.3.3 looks at the views of stakeholders regarding the governance reforms in the Saudi context.

9.3.1 Importance of Corporate Governance

As suggested in previous studies on corporate governance, stakeholders' awareness of the importance of governance is essential in establishing good practices (Sternberg, 1997; Clarke, 1998). Particularly, directors' appreciation of good corporate governance practices is important in improving voluntary corporate governance disclosure, and the awareness of shareholders helps them exercise their role effectively. E3 explains that directors' appreciation of corporate governance enhances firm control systems. B1 agrees with E3 about the gradual development of managers' awareness of the importance of their role, stating,

> *I am a member of the board of directors in three companies, and I find that members are starting to recognise their responsibilities. Moreover, they have developed an understanding that their membership is not a formality, but requires continuous attention to manage performance, discuss firm management and request periodic reports*. (Interviewee B1)

I3 and E3 illustrate in their views that the improvement in the content of firms' annual reports is an indicator of the attention given by the board of directors to developing voluntary governance corporate disclosure. They also emphasise that the recent corporate governance regulations, such as the Listing Rules and the SCGC, help directors understand the tasks they should undertake. I1 describes that an increase in the number of board meetings in recent years for most companies provides evidence of the attention given to board duties. Soobaroyen and Mahadeo (2012) find that the corporate governance reforms improved directors' awareness of their responsibility in developing countries. However, a member of a board of directors, B2, and an audit firm partner, I2, argue that there are still some directors who consider their membership to represent their share ownership, without being aware of their duties and responsibilities. Given that, B3 is of the view that some directors run for board membership without being sentient of the company's business or having a plan of action to achieve in the event of their candidacy.

It can be summarised that participants report fairly similar views about the improvement in directors' awareness of corporate governance. However, there is still a need to raise awareness about corporate governance among some members. The participants illustrate that promoting voluntary corporate governance disclosure requires directors to realise corporate governance standards, such as accountability, shareholders rights and social responsibility.

Regarding shareholders' perceptions of corporate governance, a number of interviewees indicated that they have changed in recent years. B2 reports,

> *When our firm issued an annual report recently, many inquiries came to us from shareholders about what is stated in the report. In addition, some of them discussed the financial performance in detail. Also, increased interaction of shareholders in the general assembly has been noted. This also implies an increase in shareholders' perceptions of their rights*. (Interviewee B2)

S3 supports this view that the recent governance reforms have helped increase shareholders' awareness, such as by asking for the results of board meetings, which did not happen before the governance reforms. B1 reports,

> *We are one of the developing countries suffering from weakness in the understanding of the culture and application of rights. Therefore, the CMA and governance regulations should be able to achieve the desired outcome if culture develops in society to make people aware of their rights*. (Interviewee B1)

E1 adds that shareholders' awareness of corporate governance depends on their background and level of education. E1 explains that some shareholders invest in companies without being informed or knowledgeable about those companies. S3 discusses this particular issue on the basis of shareholders' ownership, and states that large shareholders have greater awareness about the importance of corporate governance. In contrast, small shareholders are less aware of corporate governance because they are mostly short-term investors. I2 criticises the regulatory bodies for failing to educate small shareholders about the importance of corporate governance and their role in the success of governance practices.

Contrary to the interviewees' views reported above, R2, of the CMA, argues that the authorities are working to increase the awareness and appreciation of shareholders and companies alike. He further adds that the CMA established the Corporate Governance Practices Development Department in 2009, which is tasked with raising awareness and appreciation of corporate governance among stakeholders. In line with this, R1 expresses that shareholders' awareness of corporate governance has improved, and some shareholders have started practising accountability. The views above indicate that there has been progress in promoting good corporate governance practices.

It is important to note that the majority of interviewees realise that shareholders' awareness of their rights can force firms to comply with corporate governance. Therefore, it is important to stimulate shareholders to exercise their rights; this also makes the board of directors consider their responsibilities more effectively. This is consistent with Alshehri and Solomon (2012), who note that corporate governance reforms in Saudi Arabia should focus on increasing awareness of corporate governance among stakeholders.

To sum up, the interviewees report that there has been improvement in stakeholders' awareness and appreciation of good corporate governance practices, which supports recent implementation and advancement in corporate governance reforms. This improvement reflects positively on voluntary corporate governance disclosure and encourages shareholders to exercise their rights. Although the CMA is struggling to increase governance awareness, the practitioners believe that there is a need for greater awareness, and suggest holding workshops for various stakeholders.

9.3.2 Shareholders' Rights

The internal governance framework in Saudi Arabia focuses on the Anglo-American model[75] of shareholders' interests (Alshehri and Solomon, 2012; Piesse *et al*., 2012). Thus, the interviewees' perceptions were mainly focused on the influence of corporate governance reforms on shareholders' interests. This subsection explores the key stakeholders' perceptions of shareholders' rights in Saudi listed firms. Specifically, it addresses how shareholders can exercise their rights meaningfully in terms of general assemblies, information asymmetry and protection of the minority shareholders. S2 states,

> *Shareholders increasingly search for information to get news about the company. Also, this makes it easier for them to practice their rights. However, a concern is noted that small shareholders still do not attend the general assembly meetings due to their belief their presence is useless. And this attendance does not influence the meeting decisions*. (Interviewee S2)

Closely related to this view, I1 and E3 note that some shareholders do not discuss the company's performance during the general assembly meetings, but attend to vote on the dividends. This is in line with Piesse *et al*. (2012), who state that shareholder activism is particularly low in the Saudi stock market. Therefore, they believe that the dominance of large shareholders may lead to the majority of shareholders failing to exercise their rights. I3 describes that some firms do not help shareholders in exercising their rights. He states,

> *I have been attending general assembly meetings and found that firm management is trying to finish the meeting as soon as possible. In addition, they are unwilling to open the discussion for shareholders by answering their inquiries briefly*.
>
> (Interviewee I1)

Contrary to the above view, I1 describes that some companies seek to encourage shareholders to play their role through remote voting. Similarly, B3 emphasises the importance of activating the one-share-one-vote policy. I1 reports,

> *Vote per share encourages shareholders to attend the general assemblies and is influential. Also, firms should provide them with the firm corporate governance code to let them know about their rights and duties*. (Interviewee I1)

[75] As discussed in Chapter Two, the internal governance framework is based on an Anglo-American model. This is apparent when looking at how the Companies Act and the SCGC address shareholders' rights.

The majority of the interviewees agree with the importance of differentiating between large and small shareholders and between long- and short-term shareholders in exercising shareholders' rights. In this regard, CEO E1 is of the view that the majority of large shareholders in his company attends the general assembly and discusses issues in detail. E3 supports that strategic large shareholders in listed firms are more inclined to seek out information to protect their investments. B2 and S3 argue that small shareholders try to find a balance between their desire to exercise their rights and the costs that they must assume, such as moving from one area to another to attend the general assembly meeting. I1 explains that ownership concentration may limit shareholders' ability to exercise their rights. He gives the example that 70% of shares in the Saudi Electricity Company are owned by the government, and the rest of the shares are distributed among small shareholders. Thus, from his view their vote is almost meaningless, as they have so little control.

From the above argument, it can be noted that there is a need to activate mechanisms to ensure a large proportion of shareholders practice their role in corporate governance. This may result in improved control over management and enhanced firm performance. Similarly, Al-Twaijry *et al*. (2002) find that the assemblies themselves cannot exercise any role in making the board accountable.

Another subject discussed by the practitioners is the use of financial and non-financial information by shareholders and investors. E3 and B2 indicate that investors formerly made decisions based on informal information. However, they have now begun requesting information from official sources. Furthermore, there is a clear shift in shareholders' and investors' views about their desire to seek firm news. S3 adds that shareholders became aware of the quality of information, while the CMA could to some extent limit the impact of informal (unofficial) information on investors' decisions. Thus, interviewees' views indicate that the market's official website, the Tadawul, has become the most significant source of information because companies accelerate publishing their news on the website. This is due to the sanctions imposed if news is leaked before being published on the Tadawul.

R1, of the CMA, states that the authority obliges companies to disclose the results of board and general assembly meetings immediately on the Tadawul website, making it available to everyone at the same time. R1 emphasises that representatives of the CMA attend general assembly meetings to make sure that no information is leaked to the audience at the expense of the shareholders who do not attend; for example, information related to management's expectations for the next financial results. This shows how the

CMA has been relatively able to limit information asymmetry and encourage shareholders to rely on formal information. The audit firm partners, on the other hand, discuss how corporate governance principles can protect minority shareholders. I2 suggests the need to provide greater protection for the minority shareholders. He reports,

> *The CMA is supposed to exercise its disciplinary role more effectively. Yes, some exploitative behaviour of directors is punished, but it looks like symbolic punishment that does not protect minorities*. (Interviewee I2)

He cites a story of a suspended firm in 2007. He said that when the firm was facing financial difficulties, the large insider shareholders sold all of their shares; therefore, the ownership structure became divided among small shareholders. I2 expresses his wonder at why insider shareholders were allowed to leave the company immediately, before it was suspended.

Similarly, I3 criticises the role of the CMA in protecting small shareholders in Saudi companies. He reports that the SCGC[76] emphasises non-discrimination among shareholders in providing information, but there is in fact a distinction. I3's views indicate that large shareholders have easy access to firm information through good relationships with the management. In contrast, small shareholders often have difficulty getting information and answers to their questions. I3 explains that many companies have a Shareholders Affairs Department, but they do not interact with all shareholders equally. I3 suggests that the CMA should be stricter about this particular issue. In this regard, Liew (2007) finds that good corporate governance practices require an enforcement mechanism by regulatory bodies to protect the rights of shareholders in emerging countries.

On the whole, the interviewees' views indicate that small shareholders exercise their rights to a lesser extent with respect to attending general assembly meetings and voting on resolutions. In contrast, large shareholders exercise their rights more, in order to maintain their investments. However, information asymmetry is relatively reduced because of the CMA's efforts to improve corporate disclosure and transparency. However, the stakeholders believe that minority shareholders need greater protection.

9.3.3 Corporate Governance Regime Reforms

This subsection explores stakeholders' assessment of the efforts of regulatory bodies in corporate governance reforms. Particularly, it addresses legislators' performance

[76] Part Two of the SCGC focuses on shareholders' provisions, including a statement on the public rights of shareholders, facilitating the exercise of their rights and access to information.

and evaluates existing governance legislation and the legal system in the Saudi business context. In this regard, B1, E3, I2 and S3 report that the CMA has managed to reorganise and strengthen the stock market to some extent since its establishment in 2003. Since then, the number of listed firms has increased by nearly 100%. As discussed in Chapter Two, it also issued a number of governance legislations to organise stock market performance, such as the Listing Rules in 2004, the Market Law in 2004 and the Saudi Corporate Governance Code (SCGC) in 2006. I2 reports,

> *The CMA's performance is persuasive considering the short life of the body and specifically the enhancement of voluntary corporate governance disclosure. Despite that, we are still waiting for more work in improving the quality of disclosure*. (Interviewee I2)

Similar to the above, R1, from the CMA, illustrates that the authority is making efforts to improve companies' disclosure. He reveals that there are penalties for companies that do not comply with some mandatory corporate governance provisions. Moreover, the CMA forces companies to disclose such offenses in their annual report and in the income statement, separately. It can be noted from the companies' apprehensions that they fear the effect on their reputations of disclosing such offenses; therefore, they avoid them.

E3 explains that firms' annual reports have improved as a result of the follow-up by the CMA; for example, ownership structure and compensation of directors are disclosed. The reports also provide an analysis of the risk management faced by the firm. From his perspective, the establishment of the CMA reassured both companies and shareholders. E3 reports,

> *Companies began to realise that there is an authority that seeks to protect shareholders' rights. It is true that there are still some gaps, but I think that the work of the CMA in this issue is not bad*! (Interviewee E3)

Contrary to the views reported above, B2 criticises the CMA for not emphasising institutional investment. Similar to the view above, E1 makes the following suggestion,

> *It is best to make the market efficient by focusing on institutional investment. In developed countries, institutional investors are the largest proportion, unlike in Saudi Arabia and other emerging countries, in which the market is dominated by individuals. Therefore, the authority should stimulate shareholders to invest through institutional investment*. (Interviewee E1)

I2 reports that good corporate governance practices among listed firms require raising stakeholders' awareness and understanding of their rights. Importantly, B2 and E3 suggest that the CMA has to make companies comply with governance through conviction, not just because of the fear of penalties. A possible explanation for the above argument voiced by interviewees is that good governance practices are a culture, and must be part of the firm's identity to ensure effective compliance. This is consistent with Soobaroyen and Mahadeo (2012), who find that good corporate governance practice stems from the desire of the company and board of directors specifically.

However, S2 and E1 argue that the CMA should benefit from other financial markets' experiences in accelerating corporate governance reforms. For example, E1 explains that the lack of coordination between the CMA and other bodies, such as the Central Bank, caused a great market crash in 2006. E1 wonders why banks were allowed to give customers large loans to invest in market shares without any guarantee. This resulted in a large percentage of citizens investing in the shares market, which caused the stocks index to inflate before losing 53% of its value. Overall, E1 emphasises coordination between the CMA and the Central Bank to protect both investors and the stock market.

Another important issue related to the CMA's performance discussed by interviewees is Initial Public Offerings (IPOs). S3 and B2 describe IPOs as being unfair for some companies. A member of a board of directors, B2, states,

> *The CMA did not perform as anticipated regarding this particular issue. I think the authority is greatly affected by the pressures of being non-independent. Our company was influenced by such an evaluation, although it is working in a vital sector and has domestic and foreign investment.* (Interviewee B2

The monitoring side of the CMA is criticised by some practitioners. S2 explains that when companies disclose signing of a Memorandum of Understanding (MoU), this possibly reflects positively on the share price. However, the firm may not be serious about this agreement. He believes it may be a manipulation by the company's management to influence the share price.

In a similar vein, S1 is of the view that legislators sometimes do not intervene in a timely manner. For example, there was a company facing the threat of bankruptcy due to the presence of financial corruption. Nevertheless, the intervention of the Ministry of Commerce and Industry (MCI) and the CMA unfortunately happened too late, after the company's bankruptcy and the loss of shareholders' funds. R1, of the CMA, explains that the CMA is working to protect shareholders and achieve the aspirations of stakeholders.

However, he explains that the CMA was established recently and is still in the development phase.

With respect to the existing corporate governance regulations, most of the interviewees' views indicate that the current regulations, in general, could lead to good corporate governance practices. However, they suggest the importance of modernising the 1967 Companies Act to make it compatible with the governance regulations issued recently. In this regard, B2 and I3 explain that the Listing Rules and the SCGC, as guidelines, have recently helped companies improve voluntary corporate governance disclosure.

However, S3 and B3 argue that the current legislation does not stipulate the criminalisation of certain violations by directors which harm outside shareholders' interests. Liew (2007) points out that criminalising some directors' behaviour has helped eliminate corruption in some firms in Malaysia that suffer from weak internal control systems. B3 reports:

> *One of the companies bought a large portion of private company equity owned by the chairperson without approval from the general assembly. The shareholders filed a court case against the directors of the MCI. Consequently, the case was resolved through the invalidity of the bargain, with a nominal fine to some directors, without consideration of their crime.* (Interviewee B3)

B3 explains that the new Companies Act, which is expected to be issued soon, may reduce such abuses because it is mandatory. I3 reports that the Companies Act that was issued decades ago is not consistent with the developments of the modern business environment.[77] Despite issues over nearly five decades and ongoing revisions to this Act, it does not include many provisions related to corporate governance. The central issue in the above argument described by participants is the importance of achieving integration between legislators. In this regard, B1 reports,

> *The presence of two legislators responsible for listed firms represented by the MCI and CMA causes duplication between regulatory bodies and weakens their monitoring role.* (Interviewee B1)

[77] As discussed in Chapter Two, the new Companies Act was prepared by the MCI as a replacement for the current 1965 Act. The act is currently pending approval by the Council of Ministers. The most prominent features of the new act include expansion of the powers of the general assembly (Alriyadh, 2011a).

I1, I3, S1 and S2 agree about the lack of coordination between regulatory bodies. This, from their point of view, may weaken the corporate governance reforms. This is consistent with Haniffa and Hudaib (2007), who find that there is a need to unify the efforts of legislators in Saudi Arabia. They point out that the dual legal system causes problems, undermines the effectiveness of the regulatory bodies and hinders the governance reforms. CMA representative R1 recognises the existence of that conflict. He states that some companies have been taken to court over issues related to shareholders' rights. Those issues have not been decided yet because of conflict between the authorities. In addition, audit firm partner I1 raises an important issue, which is adding auditors' opinions about the level and quality of disclosure in the firms' annual reports. He reports,

> *Despite the importance of the auditor in adding more confidence to financial statements, the existing legislation omits the auditor's role in a firm's corporate governance practices*. (Interviewee I1)

While the majority of interviewees indicate that the CMA has succeeded in introducing legislation to some extent, it has failed to activate the market as a corporate control mechanism and strengthen it more broadly. In this regard, B2 and E1 argue that the authority did not effectively stimulate some external governance mechanisms, such as allowing foreign direct investment and increasing institutional investment. From their point of view, adopting these mechanisms can help make the stock market more efficient and activate it for corporate control. Furthermore, E3 suggests that the presence of foreign investment helps in securing financial and non-financial resources for companies. However, I2, S3 and B2 reveal that there is a need to deepen the market to restrain speculation on stocks and expand options for investors. Moreover, they report that the number of Saudi listed firms does not currently match the volume of the Saudi stock market, and is not representative of the Saudi economy. In this regard, Liew (2007) finds that a lack of corporate governance reforms in emerging countries would make foreign investment uninterested in these firms, or likely to withdraw their assets from the firms. Corporate governance reforms also help to stabilise the economy and strengthen competitive advantage. Thus, such reforms are not an option in emerging countries, but a necessity.

To sum up, the interviewees' views indicate that the CMA has been able to reorganise the stock market, issue corporate governance legislation and increase the number of companies. They also show that the authority performs well, given its short lifespan. However, they believe that the CMA still has not activated the role of the market

as a mechanism for corporate control. Some of the interviewees claim that there is a need to open the stock market to foreign investors, as well as making legislation stricter in order to protect both the stock market and the interests of shareholders.

9.4 INTEGRATION BETWEEN QUANTITATIVE AND QUALITATIVE FINDINGS

The previous sections presented an analysis of interview data regarding corporate governance disclosure, firm financial performance and stakeholders' awareness and appreciation of good corporate governance practices. As discussed in Chapters One and Four, the study adopts mixed-methods, using quantitative and qualitative data (see Figure 4.1 in Chapter Four). This section seeks to achieve integration between the interviewees' perceptions and the quantitative results. Specifically, by using the Explanatory Sequential Design proposed by Creswell and Clark (2011), the integration: (i) helps in exploring and understanding corporate governance behaviour in Saudi Arabia (Boyd *et al.,* 2012; McNulty *et al.,* 2013; Zattoni *et al.,* 2013); and (ii) improves the explanation of the quantitative findings (Saunders *et al.,* 2007; Creswell and Clark, 2011).

First, as reported in Chapter Six, the level of compliance with the Saudi Corporate Governance Code (SCGC) improved from 17% in 2004 to 73% in 2010. This gradual improvement is due to the corporate governance reforms, which started in 2003 with the establishment of the CMA and the introduction of governance regulations. This finding is consistent with the literature that highlights the importance of corporate governance reforms in improving corporate governance disclosure (Cuervo, 2002; Hermalin and Weisbach, 2012). Empirical findings in previous studies show a positive influence of the release of a governance code on the level of compliance with governance regulations (e,g., Chalevas, 2011; Ntim *et al.,* 2012a; Tariq and Abbas, 2013).

Similarly, the interviewees agree that the level of voluntary corporate governance disclosure has improved in Saudi firms in recent years. They attribute that to the clear development in compliance with the SCGC's provisions since it was issued in 2006 (e.g., B1). Also, some of the interviewees report that firms' annual reports have also recently shown improvement, which helps reduce information asymmetry (e.g., E1 and E2).

Second, the descriptive analysis shows that the level of compliance with the SCGC by firms audited by the big-four is significantly higher than that of other firms. This positive relationship can be found in previous studies (e.g., Raffournier, 1995; Ntim *et al.,* 2012a; Schiehll *et al.,* 2013). In this study, this particular relationship can be explained by

interviewees' views that big-four audit firms are more qualified to limit management's opportunistic behaviour (I1, I3, R2 and S2). Furthermore, shareholders and investors in Saudi listed firms became relatively aware of the importance of high-quality auditing (S2). The stakeholders are of the view that high-quality auditing increases the reliability of firms' information (I1). Moreover, they believe that being audited by the big-four indicates that a firm's internal control system is reliable and effective.

Quantitative results show a positive role of a corporate governance committee in increasing the level of compliance with the SCGC, consistent with Ntim *et al.* (2012a). This positive relationship can be explained by the stakeholders' perceptions that the presence of a corporate governance committee can help the firm to improve the level of voluntary corporate governance disclosure and provide protection for stakeholders' interests (I2). This is because the governance committee derives its power from being part of the board structure (B2). This explains the recent attention given to this committee in corporate governance legislation (Ntim *et al.*, 2012a).

Third, it can be noted that the quantitative and qualitative results are integrated regarding the influence of ownership concentration. In this study, four different proxies for ownership, including government, institutional, block and board ownership, were examined. As is evident from Chapter Seven, the regression analysis shows a significant positive relationship between the presence of government ownership and voluntary corporate governance disclosure, consistent with Eng and Mak (2003) and Conyon and He (2011). The analysis of interview data supports the quantitative data results. For example, the interviewees explain that government ownership may not help improve financial performance, but its presence is linked with the highest levels of corporate disclosure (B1, B2, E1, E2, E3 and R1). They explain that government ownership provides better protection for shareholders (S1).

Regarding institutional ownership, the empirical findings show a significantly positive relationship between institutional ownership and corporate governance, consistent with empirical studies (e.g., Barako *et al.*, 2006; Chung and Zhang, 2011; Ntim *et al.*, 2012a). Moreover, some of the stakeholders explain that institutional investors are more willing to invest in firms with good corporate disclosure to protect their investment. Therefore, the key stakeholders believe that institutional investment enhances accountability and improves transparency (B1 and I2). The statistical data analysis in Chapter Six shows that the proportion of institutional investment in the Saudi stock market is around 7% of the total market value. This implies that the Saudi stock market depends on individual investors. Therefore, given the importance of institutional investment, the

stakeholders call for more institutional investment to enhance the market as a corporate control mechanism (B1 and I2).

The quantitative data shows a negative relationship between block ownership and voluntary corporate governance disclosure in Saudi listed firms, consistent with Alsaeed (2006) and Ntim and Soobaroyen (2013). The interviewees explain that large shareholders in Saudi listed firms have the ability to influence board composition and board policy, possibly to maximise their interests (B1, B2 and I1).

With respect to board ownership and its influence on voluntary corporate governance disclosure, it can be noted that there is integration between the quantitative results and the interviewees' perceptions of a significant positive relationship between board ownership and corporate governance. However, it is interesting to note that some studies have found this relationship to be negative (e.g., Eng and Mak, 2003; Bauwhede and Willekens, 2008), while some studies find no significant relationship (Samaha *et al.*, 2012). The stakeholders show that director ownership in Saudi firms is a strategic ownership concentrated among family members (B2, S1, S2, S3, I2 and I3). They explain that boards of directors increase corporate disclosure and transparency to maintain their interests (e.g., B2, S2 and S3). It is suggested that poor corporate governance practices may harm a firm's reputation and value. Therefore, the directors see their ownership as a long-term investment.

Fourth, as discussed in Chapter One, the study aims to examine the relationship between corporate governance mechanisms and firm financial performance among Saudi listed firms. To achieve this objective, and in line with recent studies (e.g., Bozec *et al.*, 2010; Giroud and Mueller, 2011; Price *et al.*, 2011; Ntim *et al.*, 2012b), the study constructed a corporate governance index, containing a set of governance provisions. Specifically, two different financial measures were used to investigate these relationships. These measures are accounting-based measure Return on Assets (ROA) and market-based measure Tobin's Q (Q-ratio).

The quantitative analysis shows a significant positive relationship between the Saudi Corporate Governance Index (SCGI) and firm financial performance measured by ROA, which is consistent with previous studies (e.g., Klapper and Love, 2004; Clacher *et al.*, 2008; Bauer *et al.*, 2010; Renders *et al.*, 2010; Giroud and Mueller, 2011; Munisi and Randoy, 2013). The interviewees agree that good corporate governance practices lead to firms' higher financial performance. Thus, the interview data supports the quantitative findings, indicating a significant positive relationship between the governance index and firm profitability in Saudi listed firms.

However, the regression analysis shows that there is no significant relationship between voluntary corporate governance disclosure and firm value measured by Tobin's Q. This is in line with some studies which also indicate the lack of such a relationship (e.g., Klein *et al.,* 2005; Gupta *et al.,* 2009; Bozec *et al.,* 2010; Ezzine, 2011; Price *et al.,* 2011). In this regard, stakeholders report that firm share price is not affected by voluntary corporate governance disclosure in Saudi listed firms. They explain that the absence of this relationship is due to the fact that the Saudi stock market is still inefficient (I2 and S1). Some interviewees also emphasise the importance of increasing institutional investment to reduce the impact of speculation on the stock market (E1 and B2). They also emphasise allowing foreign direct investment in the stock market (E3 and I2). Adopting the above mechanisms would help the market become more efficient and exercise its role as an external corporate governance structure.

Fifth, the empirical results show a negative relationship between the independence of the board of directors and voluntary corporate governance disclosure. However, this finding is not consistent with previous studies which find a positive relationship (e.g., Haniffa and Cooke, 2002; Chen, 2011; Samaha *et al.,* 2012; Ntim and Soobaroyen, 2013). The interviewees suggest that Saudi firms are different in terms of board composition. This is because most of the firms have recently been listed on the Saudi stock market[78] (e.g., E1 and I3).

More precisely, the variation can be due to the following: (i) many of the firms were family firms before being listed on the stock exchange, so family members have retained ownership and membership of the board of directors (B1 and S3); (ii) the appointment of independent directors in Saudi firms is not transparent, and there is no mechanism for the CMA to verify the independence of firms' boards (e.g., B3); and (iii) some independent directors do not have experience and knowledge of the firm's business, though their presence on the board is prestigious for the firm. The above explanation is in line with Ezzine (2011). He indicates that the selection of independent directors in Saudi listed firms is questionable. This is consistent with the results of Mahadeo *et al.* (2012). They find that developing countries have recently adopted corporate governance reforms; therefore, the concept of independence of boards is still very new in listed firms in these countries.

This explains the differences between the quantitative results of this study and prior studies on the negative relationship between independent directors and corporate disclosure

[78] As discussed in Chapter Two and Subsection 9.2.2, the number of listed firms has increased sharply over the past couple of years. More specifically, the number of listed firms grew by 100% from 2006 to 2010 due to the capital market and governance reforms that have been pursued in Saudi Arabia.

in Saudi firms. The interviewees suggest that the supervisory bodies should play an active role in examining the independence of members, and not rely on what is disclosed in firms' annual reports about the independence of members.

Unlike the findings from the quantitative data, the interviewees are of the view that the positive relationship between board size and good corporate governance practices cannot be generalised to all of the companies. The interviewees suggest that there are a number of factors determining board size, such as firm size and board sub-committees (B3). For example, for small firms whose business is not complex, a small board may be better for ensuring uniformity among members. However, large firms may need a larger board to assist in monitoring firm performance (B3, S1 and S3). I1 suggests achieving a balance in board size by appointing a sufficient number of independent and executive directors. The SCGC recommends that boards should comprise between three and eleven members, due to the differences among firms' characteristics.

9.5 CHAPTER SUMMARY

This chapter presented interview data that explain the key stakeholders' perceptions of corporate governance in Saudi Arabia. The Saudi government began reforming its corporate governance regime by establishing the CMA in 2003 and introducing a number of governance regulations. Therefore, the analysis follows the corporate governance reforms by addressing four main issues. First, it examined the interviewees' views about the level of voluntary corporate governance disclosure in Saudi listed firms and the impact of governance reforms in improving the level of compliance. Also, the factors affecting corporate disclosure have been discussed, including board of directors, ownership concentration and firm characteristics.

Second, this chapter presented an analysis of stakeholders' perceptions of the relationship between governance mechanisms and firm financial performance. Specifically, the impact of internal and external governance mechanisms on firms' profitability and value was addressed. Third, this chapter explored the key stakeholders' awareness and appreciation of good corporate governance practices. More specifically, an attempt has been made to explore the key stakeholders' views to assess the influence of corporate governance reforms in increasing attention to corporate governance within the Saudi corporate governance context. Thus, this chapter analysed the interviewees' perceptions about the performance of regulatory bodies and their role in the protection of shareholders' rights.

Fourth, this chapter sought integration between the quantitative results and the interview findings. This assisted in interpreting the statistical results and enabled deep understanding of corporate governance behaviour.

The next chapter presents the conclusion of this study. More specifically, it presents a summary of the quantitative and qualitative findings and policy implications in the Saudi business context. It also addresses the limitations and recommendations of the study.

CHAPTER TEN

SUMMARY AND CONCLUSIONS

10. INTRODUCTION

This study investigates the corporate governance reforms in the Saudi business context and their influence on voluntary corporate governance disclosure and firm financial performance. As discussed in Chapters One and Four, to achieve its objectives, the study employed a mixed-methods research design as a new way of studying corporate governance behaviour, with a view of gaining a complete understanding of the effects of corporate governance reforms on corporate performance and voluntary governance disclosure (Boyd *et al.,* 2012; Johl *et al.,* 2012; McNulty *et al.,* 2013; Zattoni *et al.,* 2013).

More precisely, the study used quantitative data to: (i) examine the level of compliance with, and disclosure of, corporate governance provisions contained in the 2006 Saudi Corporate Governance Code (SCGC) among Saudi listed firms; (ii) ascertain whether the publication of the 2006 SCGC has helped in improving corporate governance standards in Saudi listed firms; (iii) investigate the factors influencing good governance practices; (iv) assess the association between a number of individual corporate governance mechanisms and firm financial performance, using the equilibrium variable model (EVM); and (v) explore the relationship between the level of compliance with the 2006 SCGC and firm financial performance, using the compliance index model (CIM). Additionally, the study used qualitative data (semi-structured interviews) to explore stakeholders' perceptions of the corporate governance reforms that have been pursued in Saudi Arabia, as well as their awareness and appreciation of good corporate governance practices.

This chapter seeks to achieve four main objectives. First, it presents a summary of the empirical findings regarding the level of compliance with the 2006 SCGC and sheds light on the determinants of good corporate governance practices. The chapter also presents a summary of the findings obtained relating to the association between corporate governance and financial performance. Second, this chapter summarises stakeholders' views about the Saudi corporate governance reforms. Third, it discusses attempts at integrating the findings from the quantitative and qualitative data. Fourth, this chapter highlights the implications of the findings for corporate governance policy-makers and practitioners. Finally, this chapter addresses the contributions and limitations of the study, and offers suggestions for future research.

This chapter is organised as follows. Section 10.1 provides an overview of all the chapters in the thesis. Section 10.2 presents a summary of the quantitative data findings. Section 10.3 presents a summary of the findings from the interview data. Section 10.4 presents how integration between quantitative and qualitative data is achieved. Section 10.5 discusses the implications of this study for policy-makers and practitioners. Section 10.6 addresses the contributions of this study to the literature on corporate governance. Section 10.7 explicitly discusses the limitations of the study, while Section 10.8 presents suggestions for future research.

10.1 OVERVIEW OF THE THESIS

As discussed in Chapters One and Two, the Saudi government began corporate governance reforms in 2003, when the Capital Market Authority (CMA) was established (Al-Abbas, 2009; Alshehri and Solomon, 2012; Al-Moataz and Hussainey, 2012). Saudi Arabia is an Islamic state, where the rules of Shariah originated (Hussainey and Al-Nodel, 2008; Safieddine, 2009; Al-Matari *et al.,* 2012). As a result, Islamic rules seem to have a direct impact on corporate governance practices.[79] Corporate governance practices are also greatly affected by the informal social norms that are still popular and highly socially valued in Saudi society (Hussainey and Al-Nodel, 2008; Boytsun *et al.*, 2011; Baydoun *et al.,* 2013). Thus, the uniqueness of the Saudi corporate environment, as well as the importance of its economy, served as an important motivation in investigating the corporate governance reforms. Political connections also influence corporate governance practices, such as board appointments (Hussainey and Al-Nodel, 2008). These differences between Saudi religious, social and political systems and those of developed countries distinguish the Saudi corporate context, and could have significant implications on corporate governance, disclosure, accountability and performance.

In addition, the level of ownership concentration in Saudi listed firms is another obstacle to good corporate governance practices. Ownership concentration is a strong feature of Saudi firms (ROSC, 2009; Soliman, 2013a and b). This can impair the effectiveness of the market for corporate control as an external governance mechanism

[79] As noted previously, whereas some contextual factors (e.g., ownership concentration and board characteristics) were operationalised and tested, due to difficulties in obtaining data, other unique contextual factors and challenges (e.g., political connections, Islamic values, Islamic business transactions and social norms, amongst others) were not operationalised and empirically tested in the various regression models. However, because of their relevance, they have been articulated normatively as part of the key motivations of the study. As discussed in Section 10.7, this is explicitly acknowledged as part the study's limitations, and thus suggested as a potential avenue for future research.

(Jensen and Meckling, 1976; Haniffa and Hudaib, 2006; Ntim *et al.*, 2012b).[80] However, the Saudi corporate governance regime is voluntary; it is based on the UK's 'comply or explain' style, which is expected to operate effectively in a diffuse shareholding environment (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Seidl *et al.*, 2013). This raises questions as to the applicability of a voluntary corporate governance regime for the Saudi corporate context. Given the differences between Western and Eastern environments in terms of effective governance mechanisms, legal systems and cultural aspects (Haniffa and Hudaib, 2006; Bozec *et al.*, 2010; Kamla and Roberts, 2010), this study examines whether the UK style voluntary compliance regime could be effective in raising corporate governance standards in the Middle Eastern firms in general and Saudi Arabian corporations in particular.

As discussed in Chapter One, Saudi Arabia is one of the largest emerging economies (Al-Filali and Gallarotti, 2012). It has achieved an important economic position as a member of the world's largest 20 economies (G20) (Al-Matari *et al.*, 2012). This implies that any weakness in corporate governance practices in such an economy could have serious implications for countries far beyond Saudi Arabia, the Middle East and developing countries.

This thesis was organised into ten chapters. Chapter One introduced corporate governance in Saudi Arabia, highlighting its background briefly. Chapter One also discussed the research problem, presented the research questions and discussed the motivation for conducting this research. The internal and external corporate governance frameworks in Saudi Arabia were presented in Chapter Two, shedding light on the regulatory bodies and the existing regulations relating to corporate governance in the Saudi business context. Chapter Three discussed the relevant literature by reviewing the relevant corporate governance theories. The literature review included empirical studies on the level of compliance with codes of corporate governance for both developed and developing countries, and the determinants of voluntary corporate governance disclosure. Moreover, studies addressing the relationship between corporate governance mechanisms and firm financial performance were also reviewed using two different models, namely the equilibrium-variable model and the compliance-index model.

Chapter Four discussed the mixed-methods approach used in this study, which includes the positivist and the interpretivist paradigms. Also, the chapter discussed the research design and the challenges of using a mixed-methods research design. In Chapter

[80] As shown in Chapter Six, the government owned more than 70% of some firms' equity, with an average of 42% of the stock market value.

Five, the quantitative research design was presented by explaining the data collection process and the methods used in the statistical analysis. Chapter Six presented the results from the summary descriptive statistics from the quantitative data. Chapter Seven presented the empirical findings and the results from the robustness tests, and also discussed the results of testing the existence of potential endogeneity problems.

After discussing the findings from the quantitative data, Chapter Eight addressed the theoretical framework for the qualitative research method, the design of the semi-structured interviews and the interview data collection process. In Chapter Nine, stakeholders' perceptions of governance reforms in Saudi Arabia were reported and discussed. Integration between the interview findings and the quantitative findings was presented. Chapter Ten presents a summary of the results from the quantitative and qualitative data, and the implications for policy and practice based on these findings. Also, it discusses the contributions and limitations of the study and offers suggestions for future research.

10.2 SUMMARY OF QUANTITATIVE FINDINGS

This section summaries the findings obtained from the quantitative data (see Chapters Six and Seven). Previous empirical studies suggest that good corporate governance leads to improved voluntary corporate governance disclosure and financial performance (Ntim *et al.*, 2012a and b; Samaha *et al.*, 2012). Also, most previous studies on Saudi Arabia shed light on corporate disclosure, and few investigate issues relating to financial performance (e.g., Alsaeed, 2006; Hussainey and Al-Nodel, 2008; Al-Moataz and Hussainey, 2012; Al-Moataz and Lakhal, 2012). Therefore, this study aims to achieve integration by analysing voluntary corporate governance disclosure and firm financial performance in Saudi listed firms. It empirically examines whether listed firms complying with governance standards perform better financially or not. Thus, the hypotheses were formulated in light of prior relevant studies. Suitable statistical tests were used to answer the first five research sub-questions, which are: (i) What is the level of compliance with the 2006 Saudi Corporate Governance Code (SCGC)?; (ii) Has the introduction of the 2006 Saudi Corporate Governance Code improving Saudi corporate governance practices?; (iii) What are the factors influencing the level of compliance with the 2006 SCGC?; (iv) What is the relationship between individual corporate governance mechanisms and firm financial performance?; and (v) What is the relationship between compliance with the 2006 SCGC and firm financial performance?

In order to answer these sub-questions, balanced panel data analysis was used, including financial and non-financial information collected manually from firms' annual reports, among other sources. The sample included 80 listed firms on the Saudi Stock Exchange (Tadawul) over seven years, from 2004 to 2010, resulting in a total of 560 firm-year observations. This study empirically constructed the Saudi Corporate Governance Index (SCGI) to explore the level of compliance with, and disclosure of, corporate governance provisions, and to examine the relationship between governance mechanisms and firm financial performance.

To investigate the relationship between corporate governance and firm financial performance, two different models were used. Existing studies use either the equilibrium-variable model (e.g., Vafeas and Theodorou, 1998; Weir and Laing, 2000; Haniffa and Hudaib, 2006; Chalevas, 2011; Mangena *et al.*, 2012) or the compliance-index model (e.g., Black, 2001; Gompers *et al.*, 2003; Cremers and Nair, 2005; Morey *et al.*, 2009; Bauer *et al.*, 2010; Renders *et al.*, 2010; Giroud and Mueller, 2011; Black and Kim 2012; Ammann *et al.*, 2013; Munisi and Randoy, 2013; Tariq and Abbas 2013; van Essen *et al.*, 2013). As discussed further in the following sections, this study contributes to the literature by using these two different models. This helps in exploring the influence of the employed methods on the findings and their implications for future research.

For clarity, this section is further divided into three subsections. Subsection 10.2.1 presents a summary of the findings on voluntary corporate governance disclosure among Saudi listed firms. Subsection 10.2.2 shows the findings obtained by the equilibrium-variable model, while Subsection 10.2.3 shows the results obtained from the compliance-index model.

10.2.1 Voluntary Corporate Governance Disclosure

This subsection presents a summary of the findings from the quantitative data that is used to answer the first three research sub-questions, which examine: (i) the level of compliance with corporate governance standards; (ii) whether governance standards have improved following the introduction of the SCGC in 2006; and (iii) the factors influencing such compliance. As discussed in Chapter Six, the statistical analysis shows that the level of compliance with the SCGC among Saudi listed firms has improved over the sample period from 2004 to 2010. More precisely, the aggregate corporate governance scores for the SCGI are 17% in 2004, and significantly increased up to 73% in 2010, with 56% improvement. This improvement in the level of compliance can be attributed to the corporate governance reforms (Al-Abbas, 2009; Al-Moataz and Lakhal, 2012; Alshehri

and Solomon, 2012). This finding supports the studies conducted on emerging countries which find improvement in the level of compliance with governance standards. Specifically, they find an increase in the level of compliance after the publication of local governance codes (e.g., Alves and Mendes, 2004; Tsamenyi *et al.,* 2007; Price *et al.,* 2011; Ntim *et al.,* 2012a; Allegrini and Greco; 2013). Also, this improvement offers further support for the feasibility of adopting a 'comply or explain' style voluntary corporate governance code to enhance corporate governance in Saudi Arabia.

Despite the improvement in the level of compliance, as evidenced in the aggregated sample, differences among firms are observed. In this regard, the literature on corporate governance explains the differences in the level of compliance among firms based on their characteristics, such as firm size, audit firm size and industry type (Ntim *et al.,* 2012a; Samaha *et al.,* 2012; Allegrini and Greco, 2013). As shown in Chapter Six, the study finds a significant positive relationship between firm size and level of compliance with good corporate governance practices, which is consistent with studies by Alsaeed (2006) and Elzahar and Hussainey (2012). The results also show that firms audited by the big-four have a higher level of compliance than others, which is consistent with the studies of Barako *et al*. (2006) and Ntim *et al*. (2012a). However, consistent with Haniffa and Cooke (2002) and Hussainey and Al-Nodel (2008), the level of compliance varies among industries.

For the factors influencing the level of voluntary corporate governance disclosure reported in Chapter Seven, regression results are in line with prior studies. Specifically, the study examined eight explanatory variables. Board size, audit firm size, presence of corporate governance committee, government ownership, institutional ownership and director ownership show a positive relationship with corporate disclosure. These findings are mostly in line with the following studies: Haniffa and Cooke (2002), Eng and Mak (2003), Barako *et al*. (2006), Akhtaruddin *et al*. (2009), Ntim *et al*. (2012a) and Samaha *et al*. (2012). On the other hand, the results show a negative impact of block ownership on corporate governance practices, which is consistent with Alsaeed (2006) and Ntim and Soobaroyen (2013).

Also, findings from the analysis of quantitative data reveal a negative relationship between proportion of independent directors and voluntary corporate governance disclosure, which is inconsistent with existing literature that suggests a positive relationship between the two (e.g., Haniffa and Cooke, 2002; Ntim and Soobaroyen, 2013). The interview data explain that the appointment of independent directors in Saudi firms is not a transparent process. Ezzine (2011) argues that the independence of boards of

directors in Saudi listed firms may be questionable. In this regard, Mahadeo *et al.* (2012) point out that the concept of board independence is very new in developing countries that recently adopted corporate governance reforms. Importantly, as discussed in Chapter One, political connections and informal social relations still largely influence the Saudi corporate environment (Al-Twaijry *et al.*, 2002; Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008; Alshehri and Solomon, 2012). Theoretically, this may influence, to some extent, the appointment and therefore independence of boards of directors.

10.2.2 Firm Financial Performance and the Equilibrium-Variable Model

This subsection summarises the findings obtained from the quantitative data to investigate the fourth research sub-question. It examines the relationship between corporate governance and firm financial performance. As discussed in Chapter Five, the equilibrium-variable model helps in exploring the influence of individual corporate governance mechanisms on firm financial performance. The literature shows few studies conducted on Saudi Arabia, such as Al-Abbas (2009), Alzharani *et al*. (2011) and Ezzine (2011) that examine the relationship between corporate governance and firm financial performance. However, these studies are different from the current study. Alzharani *et al*. (2011) heavily focus on firm characteristics as explanatory variables. Al-Abbas (2009) uses a different accounting measure, which is earning management, while Ezzine (2011) uses only a market-based measure.

In the current study, in line with the literature, six corporate governance variables were examined to investigate their impact on firm performance (e.g., Haniffa and Hudaib, 2006; Mangena *et al.*, 2012; Ntim *et al.*, 2012b). These variables include CEO duality, proportion of independent directors, corporate board size, frequency of board meetings, presence of board sub-committees and director ownership. To examine the relationship, two measures were used, return on assets (ROA), as an accounting-based measure, and Tobin's Q (Q-ratio), as a market-based measure. These variables are widely used in corporate governance studies (e.g., Bruno and Claessens, 2010; Mangena *et al.*, 2012; Munisi and Randoy, 2013). The use of two different measures helps to extend the comparison with the existing literature and ensure the robustness of the findings (see Haniffa and Hudaib, 2006; Ntim *et al.*, 2012b).

First, as shown in Chapter Seven, it is empirically found that CEO duality is positively associated with ROA. Despite some studies showing a negative relationship between CEO duality and firm financial performance, the positive relationship obtained in

this study is consistent with other studies, such as Donaldson and Davis (1991), Boyd (1995), Brickley *et al*. (1997) and Hearn (2011). However, this study finds no relationship between CEO duality and firm value that is consistent with previous studies (e.g., Baliga *et al.,* 1996; Mangena and Chamisa, 2008).

Second, independent directors have a significant relationship with firm profitability using ROA, in line with the findings of Mangena and Chamisa (2008) and Conyon and He (2011). The positive influence of board independence is explained theoretically by the literature. It can be argued that independent directors are more able to mitigate the agency problem by reducing managerial opportunism (Fama, 1980; Bebchuk and Weisbach, 2010). Similarly, the results from the multivariate OLS regression show a positive relationship between independent directors and Q-ratio. The positive relationship can be explained by the argument that the presence of independent directors can signal, to both the market and potential investors, information asymmetries at lower levels (Black *et al.,* 2006b). This finding offers further support to studies, such as Millstein and MacAvoy (1998), Weir *et al*. (2002), El Mehdi (2007), Mangena and Tauringana (2007) and Gupta *et al*. (2009).

Third, the findings show that board size has a negative relationship with ROA. Theoretically, this means that a large board may increase board expenses, such as remuneration (Vafeas, 1999a), and may indicate a lack of interaction among directors (Beasley, 1996; Yermack, 1996). This finding supports the literature (e.g., Eisenberg *et al.,* 1998; Guest, 2009; Hansson *et al.,* 2011). Also, the regression analysis shows a positive relationship between board size and Q-ratio, consistent with Jackling and Johl (2009) and Mangena *et al*. (2012).

Fourth, as shown in Chapter Seven, the frequency of board meetings does not significantly affect ROA. This suggests that the participation of directors in a firm's daily activities is not necessary (Monks and Minow, 2011). However, directors should focus on implementing long-term strategies (Vafeas, 1999a), since the board represents the highest level in the firm's structure (Jiraporn *et al.,* 2009). However, the findings indicate a positive relationship between frequency of board meetings and firm value. This supports the argument by Lipton and Lorsch (1992) that the financial market reacts positively to firms having active boards. This is in line with Jackling and Johl (2009), who also find a positive influence of frequency of board meetings on firm value using Q-ratio.

Fifth, the data analysis shows that board sub-committees improve firms' profitability. This is consistent with the notion that existing board sub-committees enhance internal control systems. Thus, the presence of board sub-committees positively reflects on

firm financial performance (Harrison, 1987). Empirically, this finding is supported by Chhaochharia and Grinstein's (2009) indication that remuneration committees reduce CEOs' and executives' compensation, and it is also consistent with the findings of Wild (1994) and Vafeas (1999b). On the other hand, the findings show that there is no significant impact of board sub-committees on firm value. This finding is in line with Hearn (2011) explaining that board sub-committees are officially under the board of directors' control. Therefore, complete independence of board sub-committees cannot be expected.

Finally, the results from statistical tests performed in the current study show that there is a positive relationship between director ownership and firm profitability. The positive finding is consistent with empirical studies in emerging countries (e.g., Mangena and Tauringana, 2007; Mangena *et al.*, 2012). Similarly, director ownership is positively associated with firm value, consistent with prior studies (e.g., Haniffa and Hudaib, 2006; Mangena *et al.*, 2012). This suggests that directors with a large share of ownership improve the firm's performance to maximise their own interests as well as the interests of other shareholders.[81]

10.2.3 Firm Financial Performance and the Compliance-Index Model

As discussed in Section 10.2, the study employed two different approaches to examine the relationship between corporate governance mechanisms and firm financial performance. While Subsection 10.2.2 summarises the findings from the equilibrium-variable model, this subsection presents a summary of the results obtained from the compliance-index model to answer the fifth research sub-question. The Saudi Corporate Governance Index (SCGI) was constructed to examine the influence of corporate governance as a set of provisions on firm performance. The proxies for financial performance that were used in this model are similar to those employed in the equilibrium-variable model: ROA and Q-ratio as the accounting-based measure and market-based measure, respectively.

As discussed in Chapters Three and Five, the compliance-index model is a relatively new approach, and has not been used yet in studies focusing on Saudi Arabia. However, developed countries introduced codes of best governance practice much earlier

[81] In the interviews analysis in Chapter Nine, the key stakeholders explained that director ownership leads to improved control over firm management.

than emerging countries[82] (e.g., the Cadbury Report in the UK, 1992; the Sarbanes-Oxley Act in the US, 2002). Therefore, most studies using the compliance-index model are performed on developed economies (Renders *et al.*, 2010; Bozec and Bozec, 2012). This study sought to fill the gap in the existing literature, particularly with regards to Saudi Arabia. It was hypothesised that the relationship between the SCGI and firm financial performance is significantly positive.

As analysed in Chapter Seven, it is found that there is a significantly positive association between corporate governance practices proxied by the SCGI and firm profitability measured by ROA. This is consistent with the theoretical expectation that good corporate governance practices lead to enhanced accountability and improve internal control systems in firms, which reduces agency costs (Jensen and Meckling, 1976; Harrison, 1987; Klein, 1998; Solomon, 2010). Empirical findings are in line with studies using a governance index to examine the relationship between corporate governance and ROA (e.g., Bauer *et al.*, 2010; Giroud and Mueller, 2011; Clacher *et al.*, 2008; Klapper and Love, 2004; Renders *et al.*, 2010; Munisi and Randoy, 2013; Tariq and Abbas, 2013).

Contrary to the above findings, the results show that there is no significant relationship between the SCGI and firm value measured by Q-ratio. This finding is not consistent with some literature that suggests a positive impact of corporate governance practices on firm value. For example, potential investors prefer firms with higher governance standards (Chung and Zhang, 2011; Buskirk, 2012). Although this finding is not theoretically supported by the literature, it is in line with many studies conducted on both developed and developing countries. For example, Klein *et al*. (2005), Gupta *et al*. (2009) and Bozec *et al*. (2010) find no significant relationship between corporate governance index and Q-ratio in the Canadian market. Similarly, Price *et al*. (2011) construct a corporate governance index based on Mexico's governance code and find no significant relationship with Q-ratio in 107 Mexican listed firms.

As discussed in Chapter Nine, the key stakeholders are of the view that there exists no significant relationship between voluntary corporate governance disclosure and firm value in the Saudi stock market. They explain that the Saudi stock market is still inefficient and does not effectively penalise companies not complying with voluntary corporate governance disclosure. Therefore, the CMA should activate external governance mechanisms, such as increasing market depth, enhancing institutional investment and

[82] As discussed in Chapters One and Three, the European Corporate Governance Institute (ECGI) reported that 91 countries around the world had released their own codes of governance by the middle of 2013 (ECGI, 2013).

allowing foreign investors. This could help improve the market for corporate control as a corporate governance mechanism.

10.3 SUMMARY OF FINDINGS FROM INTERVIEW DATA

This section presents a summary of the key stakeholders' perceptions about their awareness and appreciation of good corporate governance practices. It summaries the stakeholders' understanding and evaluation of corporate governance reforms in Saudi Arabia. Following Haniffa and Hudaib (2007), Liew (2007), Johl *et al*. (2012), Piesse *et al*. (2012), Soobaroyen and Mahadeo (2012) and Bailey and Peck (2013), semi-structured interviews were used to answer the sixth research sub-question: 'What is the level of awareness and appreciation of the importance of good corporate governance practices in Saudi Arabia among key stakeholders following corporate governance reforms?' In addition, investigating this qualitative research sub-question improved understanding of the quantitative findings. Interviews were conducted with fifteen key stakeholders representing five different groups, including internal and external key stakeholders. Three themes emerged from the interview data: disclosure and transparency, financial performance, and stakeholders' awareness and appreciation of good corporate governance practices.

To summarise the results, this section is further divided into two subsections. Subsection 10.3.1 presents the interviewees' perceptions of voluntary corporate governance disclosure and firm performance. Subsection 10.3.2 presents a summary of the stakeholders' views regarding their level of awareness and appreciation of good corporate governance practices.

10.3.1 Voluntary Corporate Governance Disclosure and Firm Financial Performance

This subsection first presents a summary of the key stakeholders' perceptions about governance mechanisms influencing voluntary corporate governance disclosure. The interviewees' perceptions were summarised in three sub-themes: board of directors' characteristics, ownership concentration and firm characteristics.

First, regarding the board of directors' characteristics, the internal and external stakeholders believe that the presence of independent directors limits exploitation by executives and helps protect shareholders' rights. However, large shareholders in Saudi listed firms have the power to nominate independent directors, which is incompatible with the concept of independence. Thus, the interview data analysis indicates that the

appointment of independent directors must be highly transparent and objective and should be controlled by the legislator.

In terms of board size, the stakeholders report that board size should be compatible with the number of board sub-committees and firm size, making it more effective. Recently, attention to corporate governance committees has increased (Ntim *et al.,* 2012a). Despite the importance of corporate governance committee, the interviewees state that the effectiveness of a firm's internal control systems and the presence of an internal governance code can compensate for the establishment of a corporate governance committee. In terms of the firms' annual reports, the key stakeholders note that there has been an apparent improvement in their content since 2006, especially after the CMA released the Listing Rules and introduced the SCGC as guidelines in adopting corporate governance standards.

Second, the key stakeholders are of the view that the ownership concentration (of various kinds) influences corporate governance practices. Although government ownership may hinder firm growth due to bureaucracy (Cornett *et al.,* 2010; Al-Filali and Gallarotti, 2012), corporate governance practices are still better in these firms. In addition, the stakeholders explain that the government invests in large and profitable listed firms, such as petrochemical and telecommunication firms. Therefore, these firms have stable boards of directors and seek voluntary disclosure to signal their success.

The interviewees also indicate that institutional investment in Saudi listed firms focuses on short-term investment. Furthermore, the Saudi stock market is dominated by individual investors. Therefore, the stakeholders are of the view that institutional investment should be prioritised over individual investment in the Saudi stock market. In terms of block ownership, large shareholders have the power to appoint directors who can maximise their interests. This adversely affects the interests of small shareholders in particular and corporate governance in general. Contrary to the above, most of the internal and external key stakeholders suggest that director ownership improves corporate disclosure and firm performance. This can be explained by the directors seeking to attract potential investors to increase the firm's value. It is noted that there is no conflict between the directors' interests and external shareholders' interests, because all of them seek to maximise the firm's value.

Third, the interviewees' views suggest that firm characteristics, such as level of compliance, audit firm size, internal control system, firm size and firm culture, influence corporate governance practices. The internal and external stakeholders agree that the level of compliance with corporate governance standards has improved gradually since the

release of the SCGC in 2006. They point out that although the level of compliance among firms is fairly convincing, considering the short time since the introduction of the governance reforms, there is still a need to improve the quality of voluntary governance disclosure. Regarding audit firm size, the auditors' role is important in increasing the reliability of disclosed information. However, the corporate governance regulations in Saudi Arabia do not explicitly outline the role of audit firms regarding firms' disclosure in annual reports.[83]

Internal and external key stakeholders are of the view that the firm's internal control system is part of good corporate governance practices. Indeed, a good internal control system helps protect shareholders' rights and increases confidence in the firm's management. However, they argue that internal control systems do not perform appropriately in Saudi listed firms. For example, some listed firms formally link the internal auditor to the board of directors, even though he/she actually works under the CEO's control. Stakeholders also believe firm size influences good corporate governance practices. Large firms specifically are more capable in terms of appointing qualified directors than small firms. Thus, large firms are less influenced by directors' personal interests. However, firms with a clear mission and identity (firm culture) can enhance the board's function and improve corporate governance within the firm.

Regarding the relationship between corporate governance mechanisms and firm financial performance, internal governance mechanisms have been analysed, including the impact of executives on the board, the frequency of board meetings, CEO duality, board independence, board size, board sub-committees, managerial ownership and board compensation. As shown in Chapter Nine, interviewees have different opinions on the presence of executives on the board of directors. Some report that executive directors have more inside information than independent directors, which makes them more capable of improving board performance.

However, other stakeholders argue that executive directors are usually less accountable. Thus, the presence of executive directors on the board may weaken the board's monitoring of management's performance. In particular, their views show that independent 'non-executive' directors face difficulty in criticising executives' performance or being impartial when evaluating them. Similarly, they argue that CEO duality may marginalise the board of directors, especially independent directors. Members of boards of directors note that the appointment of independent directors increases board experience

[83] Some corporate governance regulations, such as Article 281 of the Omani Capital Market Law, require listed firms to add auditors' assessments about the firm's corporate governance to their opinions on the financial statements.

and improves firm performance. Moreover, they appreciate the CMA's recommendation that (at least) one third of the board of directors be comprised of independent directors. This helps to limit collusion between inside directors and firm management.

In terms of the frequency of board meetings, interviewees agree on the importance of frequent board meetings. They suggest that meetings should be held a minimum of four times per year (quarterly) to discuss quarterly performance. In relation to board size, it has been noted that board size should be determined by the knowledge and experience of the directors as well as firm size and the number of board sub-committees.

The key internal and external stakeholders' views show that they generally agree on the importance of board sub-committees in enhancing firm performance. In particular, the committees' composition is an essential factor in their effectiveness. The stakeholders emphasise the importance of mixing executive and independent members in the committees. For example, if executives make up the majority of the remuneration committee, this may lead to higher remuneration. Most stakeholders held fairly similar views that firm size should be considered in forming board sub-committees. For instance, the executive committee acts as a mini-board in small firms, which conflicts with the board's tasks. Beyond the three main committees (audit, remuneration and nomination), other committees may be a burden on firm performance. Also, the interviewees suggest that director ownership positively influences firm financial performance. Thus, most profitable Saudi firms have high director ownership. However, low director ownership may weaken the monitoring role of the board of directors, and may lead to a firm's resources being exploited.

The relationship between external corporate governance mechanisms and firm financial performance was investigated with the key stakeholders. The findings indicate that the majority of key internal and external stakeholders agree that the Saudi stock market is still inefficient, where the market value is not related to voluntary corporate governance disclosure and financial performance. Despite a theoretically expected positive relationship between good corporate governance practices and firm value (Solomon, 2010), this is not the case in the Saudi stock market. There are three main reasons for this: (i) the presence of speculative trading hinders the efficiency of the stock market; (ii) the dominance of individual investors over institutional investors; and (iii) the small number of listed firms, which limits the investing options for investors. In this regard, the interviewees are of the view that the CMA is making efforts to enhance the market as a corporate control mechanism. For example, the CMA tries to reduce the impact of

speculation.[84] Also, it works to increase the breadth of the stock market by increasing the number of listed firms. Furthermore, the CMA has sought to improve investors' awareness about investment in profitable and well-governed firms.

Nevertheless, the key stakeholders indicate that additional reforms are needed in the stock market as part of the general corporate governance reforms. They suggest increasing institutional investment to ensure the existence of long-term investors. Similarly, as discussed in Chapters Two and Nine, the market authority prevents direct foreign investment. Therefore, it is important to open the stock market to foreign investors. This helps bring financial and non-financial benefits, such as experience and transfer of knowledge. However, these changes require efforts from regulatory bodies to develop confidence in the Saudi financial market. Specifically, the number of listed firms and the volume of trading (liquidity) in the stock market are still not encouraging, considering the size of the Saudi economy.

10.3.2 Awareness and Appreciation of Corporate Governance

As discussed in Chapters One and Two, the concept of corporate governance was not well known among stakeholders in Saudi Arabia until the early 2000s (Al-Motairy, 2003; Alshehri and Solomon, 2012). Due to the importance of good corporate governance practices, the Saudi government started to reform the governance system in 2003 (Al-Nodel and Hussainey, 2010). This subsection summarises the internal and external stakeholders' perceptions about three main issues: (i) the appreciation of good corporate governance practices; (ii) awareness of shareholders' rights; and (iii) evaluation of the corporate governance reforms.

First, awareness of corporate governance on the part of the board of directors and shareholders is essential. The majority of interviewees report fairly similar views about the improvement in directors' awareness of the importance of corporate governance. Most of the interviewees refer to corporate governance reforms, such as the introduction of the Listing Rules and the SCGC, which assisted directors in understanding their tasks. However, they point out that awareness about accountability and social responsibility should increase among directors.

Regarding shareholders' awareness and appreciation of good corporate governance practices, large shareholders are found to be relatively aware of corporate governance. This is due to their keenness in protecting their investments. Small shareholders are mostly

[84] After the stock market crash in 2006, the CMA restricted the change in prices of shares by 10% to the upper and lower bounds daily.

short-term investors. In this particular issue, the CMA has been criticised for failing to educate small shareholders about the importance of exercising their role in successful corporate governance. From the key stakeholders' views, it is important to note that shareholders' awareness of their rights forces firms to comply with corporate governance standards. Thus, the CMA should encourage small shareholders to exercise their rights so that boards of directors can execute their responsibilities seriously.

Second, as discussed in Chapters Two and Nine, the corporate governance regime in Saudi Arabia is geared more towards the Anglo-American model, where governance legislation mainly focuses on protecting shareholders' interests (Alshehri and Solomon, 2012; Seidl *et al.,* 2013). Therefore, this subsection addresses how shareholders can exercise their rights meaningfully in the general assembly, towards reducing information asymmetry and protecting the interests of minority shareholders.

The key internal and external stakeholders are of the view that the exercising of shareholders' rights, such as attending general assemblies and accessing information, has improved as a result of the corporate governance reforms. Members of boards of directors indicate that there has been an apparent increase in the number of shareholders who attend general assembly meetings. Furthermore, they have started searching for financial and non-financial information. Nevertheless, a number of stakeholders suggest further protection for small shareholders. They report that small shareholders' attendance at general assembly meetings is not useful enough because they do not have decision-making power. For example, some companies are 70% owned by the government; therefore, in these companies, small shareholders have minimal power.

However, implementing legislation ensures that the majority of shareholders exercise their rights, such as through remote voting. Also, the implementation of a one-share-one- vote[85] policy would stimulate small shareholders to participate in general assembly meetings. Also, the stakeholders suggest governance legislation criminalising certain violations by directors to protect small shareholders.

Third, the interview data shows the interviewees' assessment of the regulatory bodies' performance and evaluation of the existing governance legislation and legal system. The interviewees show that the CMA's efforts in reforming corporate governance have been persuasive and meaningful, especially considering the short time that has elapsed since they have been active. They report that the CMA has succeeded fairly well in

[85] Theoretically, this corporate governance mechanism may increase the opportunity to appoint small shareholders' representatives to the board (Adams and Ferreira, 2008). A number of developed countries have adopted a one-share-one-vote policy (e.g., the UK and the US). In Saudi Arabia, in January 2012, the MCI issued a resolution to mandate listed firms to apply accumulative voting (one-share-one-vote) during board elections in general assembly meetings (Al-jazirah, 2012).

re-organising and strengthening the stock market after its dramatic drop in February 2006. From the interviewees' point of view, the CMA accelerated the release of the governance code in November 2006 and has worked to increase the number of listed firms by 100% between 2007 and 2010.[86] As discussed in Section 10.1, these attempts restored confidence in the stock market after its dramatic drop.

With respect to corporate governance legislation, the key stakeholders believe that the current governance regulations could lead to good governance practices generally. However, some of the interviewees express their concerns about the importance of updating other regulations, such as the Companies Act[87] issued in 1965, specifically to make it compatible with the new governance regulations and consistent with the modern business environment. As discussed in Subsection 10.3.1, although the CMA has been successful in introducing governance legislation, it has still several shortcomings. It is interesting to note that there is a need to increase institutional investment and stock market depth, and to allow foreign investment, which is still restricted by swap agreements. It is noted that the implementation of these mechanisms may help the stock market to become efficient and compatible with the size of the Saudi economy, which is the largest in the region.

Furthermore, the stakeholders suggest that there is a need to achieve integration between regulatory bodies, such as the Ministry of Commerce and Industry (MCI), the Capital Market Authority (CMA) and the Saudi Arabian Monetary Agency (SAMA). The lack of co-operation among these authorities hinders quick implementation of governance reforms. For example, the stakeholders' views suggest that the main reason behind the falling stock market in 2006 was a lack of co-ordination between the CMA and the SAMA. More precisely, several banks' customers were allowed to take out large loans from banks to invest in the stock market without sufficient guarantees. This caused the stock index to inflate before losing 53% of its value. Also, an overlap is noted between the responsibilities of the regulatory bodies, which delayed appropriate intervention by the authorities. This can lead the companies towards bankruptcy, which is also harmful for shareholders.

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[86] As discussed in Chapter One and Two, there were about 14 listed firms by 1975. As a result of the growth of oil-producing countries and the expansion of their economies, the number of Saudi listed firms increased to 75 firms in the early 2000s. Between 2003 and 2006, the Saudi government introduced corporate governance and stock market reforms, resulting in an increase in the number of listed firms, from 75 to 145 firms in 2010 (Tadawul, 2012).

[87] As discussed in Chapter Two, the new Companies Act was prepared by the MCI as a substitute for the current 1965 Act. The Act is pending approval by the Council of Ministers. The most prominent feature of the new Act involves expanding the power of the general assembly (Alriyadh, 2011a).

10.4 INTEGRATION BETWEEN QUANTATIVE AND QUALITATIVE FINDINGS

The previous sections presented separate summaries of the findings from the quantitative and qualitative data. As discussed in Chapters One and Four, this study employs a mixed-methods approach. This approach is very useful for explaining results when both quantitative and qualitative data are used (Creswell and Clark, 2011; Boyd *et al*., 2012). Recently, the mixed-methods approach has been widely welcomed in the corporate governance literature and is considered very effective for developing a deep understanding of corporate governance behaviour (McNulty *et al*., 2013; Zattoni *et al*., 2013). The study employed the Explanatory Sequential Design (two sequential stages) proposed by Creswell and Clark (2011). As discussed in Chapter Four, the Explanatory Sequential Design depends on two distinct interaction phases. Specifically, after obtaining the statistical findings, the study explored deep insights from interviews. This provided a unique opportunity to improve our ability to understand and explain the statistical results. This section outlines the integration of the results from the quantitative and qualitative data.

Most of the findings from the interviews support and explain the results obtained from the statistical analysis. As discussed in Chapter Six, the level of compliance with the SCGC increased from 17% in 2004 to 73% in 2010. This gradual improvement is attributed to the corporate governance reforms. The interviewees agree that the level of voluntary corporate disclosure has improved in Saudi listed firms in recent years. Furthermore, the interviewees show that the content of the firms' annual reports has also recently improved. This improvement applies both to financial and non-financial information in the annual reports. The interviewees also show that directors' awareness of the importance of corporate governance has increased. This can explain the gradual improvement shown by statistical analysis in the level of compliance with the SCGC since it was introduced in 2006.

Regarding the factors affecting voluntary corporate governance disclosure, the descriptive analysis shows that the corporate governance practices of firms audited by one of the big-four are significantly better than those of their counterparts not audited by one of the big-four auditing firms. This could be explained by the interviewees' perception that big-four audit firms are more qualified to limit management's opportunistic behaviour. Also, the interviewees show that investors in the Saudi stock market became relatively more aware of the importance of appointing a big-four audit firm. This explains the positive relationship between audit firm size and voluntary corporate governance in Saudi

listed firms. In addition, findings from the quantitative and qualitative data are integrated to explain the role of the corporate governance committee in improving voluntary corporate disclosure. The quantitative findings show that the presence of a corporate governance committee improves the level of compliance with governance standards. The interviews explain this result, as the stakeholders mention that corporate governance committees derive their power from being part of the board structure. This makes them highly effective.

In terms of the relationship between voluntary corporate governance disclosure and ownership structure, the quantitative findings show that government, institutional and director ownership positively influence corporate governance practices. The stakeholders are of the view that government ownership can improve the independence of the board of directors and ensure better protection for shareholders. Similarly, they are of the view that large institutional investment and director ownership could enhance accountability and improve transparency. Despite most of the literature on corporate governance showing a negative impact of director ownership on corporate disclosure, the key stakeholders suggest that this is not the case for Saudi listed firms. They explain that director ownership in Saudi firms is a strategic ownership based on long-term investment. Thus, the boards of directors attempt to improve corporate disclosure and transparency to maintain their interests and protect the firms' reputation. However, the interviewees support the results of the quantitative data, which show that block ownership negatively affects voluntary corporate disclosure. The interviewees explain that large shareholders in Saudi listed firms have the power to appoint directors, which influences board policy and performance.

The quantitative data analysis shows a positive relationship between corporate governance index and ROA. This result is consistent with the key stakeholders' perceptions of the relationship between corporate governance practices and firm performance. Specifically, the stakeholders suggest that effective internal corporate governance mechanisms could improve accountability, which would positively affect shareholders' rights. However, the results of regression analysis show that there is no significant relationship between voluntary corporate disclosure and firm value measured by Tobin's Q. The stakeholders explain that the Saudi stock market is inefficient, which consequently leads to a weak relationship between good corporate governance practices and firm value. Therefore, they point out that there is a need to encourage institutional investment, breadth of the market and foreign investment to enhance the external corporate governance mechanisms.

However, the interviewees are of the view that the relationship between independent directors and good corporate governance practices is theoretically positive. They also suggest that the independence of the board of directors improves the board's monitoring role and improves corporate performance. As discussed in Chapter Nine, the interviewees explain that this is not the case in Saudi listed firms, for two main reasons: (i) many firms recently listed on the stock market were successful family firms before they were listed. Thus, family members (who are non-independent) maintain high ownership and membership on the board of directors; and (ii) the appointment of independent directors in Saudi firms is not transparent, and there is no mechanism for the CMA to verify the independence of a firm's board. This explains the quantitative findings showing a negative relationship between independent directors and corporate governance in Saudi listed firms.

10.5 CONTRIBUTIONS OF THIS STUDY

As discussed in Chapter One, the current study contributes to the literature on corporate governance in several ways. First, business studies in general and corporate governance studies in particular are dominated by quantitative studies (Molina-Azorin, 2012). Boyd *et al*. (2012) suggest that the literature on corporate governance could greatly benefit from the use of additional qualitative methods or mixed-methods research approaches in order to enhance understanding of corporate governance practices. It can be argued that quantitative data alone does not present an explanation of the findings from statistical tests. More precisely, quantitative findings do not provide sufficient interpretation of the findings, and are less likely to shed light on the insights of 'why' a social phenomenon happens (Morgan and Smircich, 1980; Cohen *et al.*, 2002; Creswell and Clark, 2011).

In this regard, Zattoni *et al.* (2013) indicate that the lack of agreement in corporate governance findings refers to the inability of quantitative data to provide explanations of the results. This serves as motivation for researchers to use interviews along with quantitative data (mixed-methods research) to explore interactions among key stakeholders (Boyd *et al.*, 2012; Molina-Azorin, 2012; Zattoni *et al.*, 2013).

Boyd *et al*. (2012) and Molina-Azorin (2012) argue that mixed-methods research generates more reliable and credible findings than any single method used. In response to the recent call for more mixed-methods research, this study uses mixed-methods as a new approach to studying corporate governance (Boyd *et al.*, 2012; McNulty *et al.*, 2013;

Zattoni *et al.,* 2013). As discussed in Chapter One, the study provides evidence that it is empirically possible to conduct research on corporate governance reforms using mixed-methods. Therefore, this study contributes to the corporate governance literature by showing how the findings from quantitative and qualitative data can be integrated to examine corporate governance behaviour. This paves the way for future research in the context of corporate governance.

Second, the study contributes to the literature by adopting a multiple-theoretical framework to interpret the empirical findings and to understand corporate governance behaviour in depth. More precisely, it is argued that most existing studies on corporate governance concentrate on agency theory, though they mention other corporate governance theories (Filatotchev and Boyd, 2009; Chalevas, 2011; Zattoni *et al.,* 2013). Zattoni *et al*. (2013) suggest that the mixed findings obtained from corporate governance studies can be attributed to adopting an agency-based perspective. Furthermore, this study responds to the recent calls to use complementary theories in empirical governance studies to enhance understanding of corporate governance behaviour. In addition, the corporate governance phenomenon is related to a variety of disciplines, such as sociology, economics, law and business (Rwegasira, 2000; Bebchuk and Weisbach, 2010), which are inherently multi-theoretically oriented. Therefore, adopting a multiple-theoretical perspective in this study helps in explaining how to use multiple theories to interpret the empirical findings.

Third, the SCGC is used as a main source in constructing the governance index. To the researcher's best knowledge, this study is the first to show evidence of the level of compliance with the SCGC, as well as comparing compliance before and after the introduction of the 2006 SCGC. However, compliance with the SCGC is voluntary in nature, carefully mimicking the UK's 'comply or explain' style voluntary compliance regime (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Piesse *et al.,* 2012). Given the differences between the UK and Saudi Arabia in terms of the effectiveness of governance mechanisms (Aguilera and Cuervo-Cazurra, 2009), legal systems (Bozec *et al.,* 2010) and cultural values (Haniffa and Hudaib, 2006; Kamla and Roberts, 2010), it is not certain whether a voluntary code will be effective in raising governance standards, or applicable to the Saudi corporate environment. In light of the above reasons, this study contributes to the literature by investigating the feasibility of adopting Western legislation aimed at enhancing corporate governance mechanisms in developing Arabic countries, especially Saudi Arabia.

Fourth, the study provides empirical evidence of the determinants of compliance with corporate governance standards in Saudi listed firms, including internal corporate

governance mechanisms and ownership structure. This contributes to the existing literature by shedding light on the main factors that influence the level of voluntary compliance with, and disclosure of, corporate governance provisions in Saudi Arabia.

Fifth, this study contributes to the extant literature by offering evidence on the relationship between corporate governance and firm financial performance in Saudi listed firms. The literature examining this relationship suggests the use of either the equilibrium-variable model or the compliance-index model. This study also contributes to the literature by adopting these two approaches, and helps explore the influence of the chosen methods on the findings and their implications for future research. Moreover, this study uses two different measures, accounting and market-based measures, and thereby serving as a robustness check for the findings (see Haniffa and Hudaib, 2006; Ntim *et al.*, 2012b).

Sixth, by conducting in-depth interviews, the study contributes to the literature by assessing the awareness and appreciation of good corporate governance practices among key stakeholders in Saudi Arabia. The interview data provides insights about the views of board members, regulators, auditors, professionals and general stakeholders regarding the recent corporate governance reforms that have been pursued in Saudi Arabia.

Seventh, as shown in Chapter Three, most empirical studies that adopt a corporate governance index use 'analysts' ratings'. The differences in governance structures and legal systems among countries are not taken into account when such ratings are used (Renders *et al.*, 2010). In addition, those ratings usually broadly focus on the board of directors' provisions and ownership structure (Ammann *et al.*, 2013). Thus, to the researcher's best knowledge, this study is innovative in Saudi Arabia because it employs a broad self-constructed index consisting of 65 provisions, derived from local governance legislation. The constructed index includes four sub-indices investigating corporate governance mechanisms from different governance aspects. Thus, this study contributes to the literature by using a self-constructed index that is arguably more applicable to the Saudi context, and thus opens up new avenues for future studies.

Eighth, it can be noted that the corporate governance literature focuses heavily on developed countries (Bozec and Bozec, 2012; Baydoun *et al.*, 2013; Ntim and Soobaroyen, 2013). To the best of the researcher's knowledge, no study has investigated corporate governance reforms either in developed or developing countries using an integrated framework. Specifically, this study considers three main perspectives: (i) voluntary corporate governance compliance and disclosure; (ii) firm financial performance; and (iii) awareness and appreciation of good corporate governance practices. Therefore, the integrated framework contributes new insights to the study of corporate governance

reforms. Thus, the findings of this study pioneer the use of the integrated approach by establishing evidence of the effects of corporate governance reforms on corporate performance and disclosure in Saudi Arabia.

Finally, the findings suggest recommendations to policy-makers in assessing corporate governance reforms, such as: (i) to improve coordination among regulatory bodies in order to avoid a conflict of responsibilities which seems to hinder the implementation of reforms; (ii) to ensure better protection for small shareholders through the criminalisation of certain violations by members of boards of directors; (iii) to enforce the mechanisms that encourage small shareholders to exercise their rights; (iv) to create and promote awareness among stakeholders of the importance of good corporate governance practices through holding workshops; (v) the CMA should increase awareness about institutional investment in order to help the stock market develop further; (vi) to provide foreign investors with access to the stock market, which may help in increasing market capitalisation, turnover, liquidity and visibility; and (vii) the CMA should work to strengthen and widen the breadth of the stock market by increasing the number of listed firms, which could improve the external market as a corporate control mechanism.

10.6 RESEARCH FINDINGS AND IMPLICATIONS FOR POLICY-MAKERS

This section presents the implications for policy-makers based on the findings. Specifically, Subsection 10.6.1 presents implications for voluntary corporate governance disclosure. Subsection 10.6.2 sheds light on the implications for firm financial performance.

10.6.1 Voluntary Corporate Governance Disclosure and Implications for Policy-Makers

As discussed in the findings, the level of compliance with corporate governance standards shows gradual improvement during the sample period from 2004 to 2010. This finding has the following implications. First, corporate governance reforms in Saudi Arabia, specifically the release of the Saudi Corporate Governance Code (SCGC) in 2006, have helped to improve voluntary corporate governance disclosure. This suggests that despite the weak legal system in emerging countries (Bozec *et al.,* 2010), the issuance of governance regulations is able to improve corporate governance practices in these countries in general and in Saudi Arabia in particular.

Second, as shown in Table 6.1 in Chapter Six, the findings indicate a low level of compliance with some provisions. For example, firms rarely disclose information on

CEOs' compensation. This implies that there the need for regulatory authorities to enforce compliance among Saudi firms, especially relating to important corporate governance provisions that could affect shareholders' rights. The level of compliance with internal control and risk management's provisions is the lowest. Thus, given the importance of these provisions in protecting firms' assets and resources (Wang, 2012), the CMA needs to be more precise in monitoring firms' compliance with those provisions. Furthermore, external auditors can be assigned to assess firms' internal control systems and report on these to shareholders.

Third, despite the improvement in the level of compliance for the entire sample, variations in compliance are observed based on firm size and industry type. The findings show that larger firms provide more voluntary corporate governance disclosure. This is because large firms are more able to afford the costs of governance implementation than smaller firms (Ammann *et al.*, 2011). Also, large firms have more agency problems due to the complexity of capital structure; thus, they are required to provide additional disclosure (Jensen and Meckling, 1976; Bebchuk and Weisbach, 2010). Therefore, it is worth distinguishing between large and small firms when introducing legislation to achieve a balance between costs and benefits of compliance (see Ammann *et al.*, 2011). For example, establishing board sub-committees should depend on a firm's size (i.e., small firms might not need a remuneration committee).

On the other hand, the findings also show differences in the level of disclosure based on industry type. It can be argued that the nature of firms' activities may require different levels of disclosure, according to industry type. Therefore, it may be appropriate for annual reports to feature two levels of disclosure: (i) general disclosures for all firms; and (ii) industry-specific disclosures which provide essential information about the firm's status and future in relation to its industry.

The results show a number of remarkable implications regarding the factors and mechanisms affecting voluntary corporate governance disclosure. These implications can be taken into account to improve internal and external corporate governance mechanisms. First, the findings show that independence of the board of directors is negatively related to voluntary corporate governance disclosure. As discussed in Chapter Nine and Section 10.2, this is contrary to the suggestion in the literature that the presence of independent directors limits opportunistic executives (Fama and Jensen, 1983), protects stakeholders' welfare (Clarke, 1998) and ensures benefits from more knowledge and experience (Barako *et al.*, 2006). The negative relation could imply the following: (i) the mechanism for selecting independent directors is not transparent in Saudi firms because the power to appoint

directors rests with large shareholders; and (ii) some independent directors in Saudi listed firms do not have the required experience and knowledge. These two factors adversely affect the independence of the board of directors. Therefore, it is important that the CMA establishes criteria for the selection of independents and verifies the independence of candidates to ensure that their contribution is effective and substantial.

Second, the results show that institutional ownership is positively associated with corporate disclosure in Saudi listed firms. This is consistent with the literature that suggests that institutional investors usually have higher incentives to monitor firms' performance and protect their investments, especially when their exit is costly (Chung and Zhang, 2011). Institutional investment is very low in Saudi listed firms, only about 6% of the market value. This may explain the need to enhance institutional ownership to improve good corporate governance practices. Specifically, the CMA needs to encourage individuals to invest through institutional investment rather than direct investment. This can improve the external corporate governance mechanism.

Third, audit firm size has a positive impact on firm corporate governance disclosure. Although the role of audit firms is important, the existing Saudi governance regulations do not explicitly outline their role in improving disclosure. Therefore, it is appropriate to add the auditor's assessment of a firm's governance practices to its annual report. This may ensure compliance with corporate governance standards by the firm's management. Finally, the presence of a corporate governance committee helps establish good governance practices (Ntim *et al.,* 2012a), especially in countries that recently adopted the governance concept, such as Saudi Arabia. The findings indicate that a small number of firms have formed such committees. Therefore, the CMA should encourage listed firms, especially big firms, to establish corporate governance committees so that they can implement and monitor good governance practices.

10.6.2 Firm Financial Performance and Implications for Policy-Makers

The results obtained from examining the relationship between internal corporate governance mechanisms and firm financial performance have a number of implications. First, it is theoretically expected that the presence of director ownership may increase the free-rider problem due to the possibility of collusion between directors and firm management (Vafeas and Theodorou, 1998). However, this is not the case in Saudi listed firms, because a positive relationship is found between director ownership and firm financial performance measured by ROA and Q-ratio. This could be because director

ownership in Saudi firms is a strategic ownership mainly controlled by family members, whose aim is to improve firm performance so that their interests can be maximised.

The major implication of these findings is that the existing legislation, specifically the 1965 Companies Act, requires directors to maintain a minimum of 1,000 shares, and they must hold these while they are sitting on the board. This minimum limit of shareholding for sitting directors seems quite small; it is not certain that directors would have the incentive to perform their professional best. Therefore, it is important for the legislation to require higher ownership by directors, especially executive directors, making them active board members. This may also make directors keen to enhance the firm's financial performance.

Second, the findings show a positive relationship between board sub-committees and firm profitability, while there is no association with firm value. Board sub-committees are essential in making the board's decisions effective (Harrison, 1987). Despite the growing attention given to such committees globally over the past two decades (Jiraporn *et al.*, 2009), they are still in their infancy and are not much appreciated in Saudi listed firms. Therefore, the finding indicates the lack of a significant relationship between board sub-committees and Q-ratio. The main implication is that there is a need to raise awareness and appreciation of the importance of board sub-committees generally among stakeholders and particularly among investors.

Finally, for the relationship between corporate governance index (the SCGI) and firm financial performance, the findings suggest a positive relationship between corporate governance index and firm profitability measured by ROA. This supports the notion that good corporate governance practices can mitigate monitoring and bonding costs and improve firm financial performance (Fama and Jensen, 1983; Monks and Minow, 2011). Moreover, the findings show no significant relationship between the SCGI and firms' value measured by Q-ratio. These findings suggest that the lack of a relationship is due to the absence of an external corporate governance mechanism. As discussed in Subsection 10.5.2, the CMA should activate external governance mechanisms, such as increasing market depth and institutional investment and allowing foreign direct investment to make the stock market efficient. This may lead to a positive relationship between corporate governance practices and firm value.

10.7 LIMITATIONS OF THE STUDY

The previous sections addressed the contributions of the study and implications for policy in Saudi Arabia. However, this study has a number of limitations. The limitations are discussed from three main aspects: (i) the general framework of the research; (ii) the quantitative research design; and (iii) the qualitative research design.

Regarding the general framework of the research, the study has the following limitations. First, although listed firms are important, there are other firms that significantly contribute to the Saudi economy and are worthy of being studied, such as family firms. The current study focuses on listed firms due to the importance of good governance practices in these firms, as they have a large number of shareholders who need to be protected. Furthermore, it is more difficult to obtain data for non-listed firms. Second, given the diverse nature of corporate governance, the theoretical framework of the study relied on multiple theoretical perspectives to explain corporate governance mechanisms (Rwegasira, 2000; Solomon, 2010). Analysis of the quantitative and qualitative data is limited to main theories, such as agency, shareholders, stewardship, managerial signalling and resource dependence theories. This is because the governance system (Anglo-American model) in Saudi Arabia mainly focuses on shareholders' interests (ROSC, 2009; Alshehri and Solomon, 2012; Seidl *et al.,* 2012). Thus, adopting additional theories could extend the multiple theoretical perspective and provide a richer basis for understanding and exploring corporate governance reforms.

Using mixed-methods research involves a number of challenges in terms of the time and cost needed to design and conduct the research (Creswell and Clark, 2011). Regarding the quantitative research design, there are some limitations that need to be addressed. First, the quantitative sample size of 80 listed firms is relatively small when compared to the 145 firms listed as of 31 December, 2010. The selection of the firms was subject to two criteria: (i) the firms had to meet the criteria for balanced panel data analysis, which is important in assessing whether cross-sectional associations between corporate governance practices and each of voluntary corporate governance disclosure and firm financial performance hold over the study period (Ntim *et al.*, 2012b); and (ii) annual reports for the firms had to be available for the seven years of the study period.

The data were extracted manually from the firms' annual reports using content analysis, which requires substantial time and effort. In spite of this, the sample size (560 observations) is larger than the samples used in previous studies on Saudi firms. Previous studies also did not use balanced panel data. For example, as reviewed in Chapters Three and Five, Alsaeed (2006) examines 40 firms in 2003, while Hussainey and Al-Nodel

(2008) and Al-Nodel and Hussainey (2010) use 64 and 37 firms in 2005, respectively. Furthermore, Al-Moataz and Hussainey (2012) examine 52 firms over two years, and Al-Moataz and Lakhal (2012) use a sample consisting of 48 firms covering two years. Also, Al-Abbas (2009) uses a sample of 106 observations over three years between 2005 and 2007. Alzharani *et al.* (2011) examine 392 observations over four years, while Soliman (2013a and b) uses a sample of 64 observations over three years. Although the sample used in this study is large compared to previous studies, the generalisability of the findings could be improved if the sample size was even larger.

Second, the study relies on the firms' annual reports as the main source of financial and non-financial data. However, there are other sources of disclosure, such as firms' websites (Hussainey and Al-Nodel, 2008). Although the study is limited to mainly one source, this source is more reliable than others (Omar and Simon, 2011). According to Knutson (1992, p.22), "*the annual report is the major reporting document and every other report is in some respect subsidiary or supplementary to it*". All listed firms are obliged to publish their reports formally on the Saudi Stock Exchange (Tadawul) website. This allows for complete access to the required data and helps in creating a balanced panel and minimising missing data. Furthermore, the use of the firms' annual reports is in line with prior studies conducted either in Saudi Arabia (e.g., Al-Abbas, 2009; Al-Moataz and Lakhal, 2012; Al-Janadi *et al.*, 2013) or in other emerging countries (e.g., Elzahar and Hussainey, 2012; Samaha *et al.*, 2012; Ntim *et al.*, 2012a; Tariq and Abbas, 2013). On the other hand, the study used interviews to explore key stakeholders' perceptions of voluntary corporate governance disclosure. This could help to minimise the limitations of using only one source (i.e. annual reports).

Third, as discussed in Chapter Five, the study uses a corporate governance index developed by the researcher to examine the relationship between governance mechanisms and each of corporate governance disclosure and firm financial performance. However, analysts' ratings are professionally developed based on the experience and knowledge of analysts (Hassan and Marston, 2010). Therefore, unlike analysts' ratings, the self-constructed index used in this study could perhaps have been influenced by the researcher's subjectivity. Despite this, the researcher worked to improve the validity of the index through: (i) relying on corporate governance legislation in Saudi Arabia, especially the corporate governance code as a source of provisions (see Aguilera and Cuervo-Cazurra, 2009; Renders *et al.*, 2010; Allegrini and Greco, 2013); (ii) selecting provisions which constitute the main aspects of corporate governance mechanisms; and (iii) passing the checklist of proposed provisions through two phases before making them final. As

noted previously in Chapter Five, the first draft was discussed with junior and senior colleagues in several annual doctoral conferences, and was then revised based on the researcher supervisors' comments. These processes helped minimise any problems or shortcomings of the constructed corporate governance index.

Fourth, binary coding was used for scoring the governance index. Although binary coding is highly common in most corporate disclosure studies (Gompers *et al.,* 2003; Ammann *et al.,* 2013), there are some limitations to this technique (Beattie *et al.,* 2004). For example, unlike weighted scoring, the binary method does not distinguish between provisions in terms of their importance (Hassan and Marston, 2010). However, the use of binary coding is justified by the following reasons: (i) there is no theoretical basis or concurrence among analysts and experts about how to weight governance provisions (Barako *et al.,* 2006); (ii) the weighted approach requires experienced judgment, which may not be available to all researchers; (iii) the development of a weighted index requires conducting surveys among relevant user groups, which also requires extra time and additional costs (Beattie *et al.,* 2004); (iv) although there are few provisions in the developed index requiring the researcher's judgment, most of the coded provisions are substantiated by confirming their presence or absence; and (v) adopting an un-weighted index is in line with existing studies on corporate governance disclosure (e.g., Alsaeed, 2006; Barako *et al.,* 2006; Ntim *et al.,* 2012a; Samaha *et al.,* 2012), which allows for comparisons between the findings.

To mitigate the problem of weighting the index, the researcher took a number of steps, namely: (i) having a relatively large number of provisions (65) in the SCGI reduced the variation between the provisions (Beattie *et al.,* 2004); (ii) the study classified the provisions into four sub-indices; the more important the sub-index was, the more items that sub-index had in the overall SCGI; and (iii) consistent with Ntim *et al*. (2012a), the coding scores were designed to measure the qualitative differences in governance information across the firms' annual reports. This is unlike some studies that examined only the existence of a few provisions (e.g., Barako *et al.,* 2006; Tsamenyi *et al.,* 2007; Samaha *et al.,* 2012). For example, these studies assign a point if a firm has an audit committee; however, the constructed SCGI seeks to measure other corporate governance mechanisms associated with the audit committee, such as the committee composition and chairperson classification.

Fifth, although the study minimises the impact of omitted variables by focusing on the most influential explanatory variables, some variables could not be examined due to unavailability of data. In particular, and due to unavailable data, interesting contextual

variables and challenges, such as political connections, social norms, Islamic values and Islamic business transactions, were not operationalised and empirically tested. These were, however, normatively articulated as part of the key motivations of the study. As discussed below, future research can incorporate such issues in their research design.

There are some limitations of the qualitative research design. First, the interviews focus only on key stakeholders, especially those who can influence good corporate governance practices, such as members of boards of directors, executive managers, audit firm partners and a representative of regulatory bodies, in addition to shareholders (see Haniffa and Hudaib, 2007; Solomon, 2010). However, other important stakeholders involved with the firms' ownership structure and having a similar potential impact on governance mechanisms and performance were not interviewed, such as government representatives, institutional investors and family owners. This was largely due to accessibility constraints.

Second, some interviewees, specifically members of boards of directors, CEOs and CFOs, avoided responding more directly to some of the questions concerning their firms' performance and management. Thus, it is noted that their answers may be insufficient on some issues. Third, unlike quantitative research, the researcher in a qualitative study faces the problem of subjectivity while analysing the research problem (Collis and Hussey, 2009). Therefore, the collection and analysis of the interview data may be influenced by the researcher's subjectivity (Creswell and Clark, 2011). However, and arguably, the use of mixed-methods research design has helped in minimising such subjectivity problems. Finally, due to accessibility problems, only fifteen interviews were conducted; further insights could have potentially been gleaned if more participants were interviewed.

10.8 SUGGESTIONS FOR FUTURE RESEARCH

The previous section addressed the limitations of the study. The limitations themselves open up new avenues for further corporate governance research. Some suggestions and ideas for future research are offered, as follows. First, much attention has been recently paid to the use of mixed-methods in exploring corporate governance behaviour, and researchers are encouraged to employ this approach in their analyses (McNulty *et al.,* 2013; Zattoni *et al.,* 2013). Creswell and Clark (2011, p.15) suggest that "*One way to help convince others of the utility of mixed-methods is to locate exemplary mixed-methods studies in the literature on a topic or in a content area and share studies to educate others*". This may help to overcome the limitations in using mixed-methods, such

as the need to develop a clear theoretical framework (Smith and Heshusius, 1986; Morgan, 1998). Moreover, mixed-methods research helps achieve integration between the findings from quantitative and qualitative data. Greene *et al*. (1989) examine integration by reviewing 57 mixed-methods studies. Their findings indicate that 44% of the studies did not show any integration between the quantitative and qualitative methods used. Therefore, wider use of this promising field in management research can improve findings and conclusions.

Second, future studies can examine non-listed firms' level of compliance with corporate governance standards. While most existing empirical studies are conducted on listed firms, a study examining non-listed firms may be an innovative opportunity to compare the level of compliance among listed and non-listed firms. Additionally, one can investigate whether corporate governance mechanisms have similar impacts on all companies (listed and non-listed). Third, future studies can examine both balanced and unbalanced panel data. This can help determine whether the findings are different based on the methodology used; this can also help in generalising the results.

Fourth, corporate governance is related to different disciplines and is explained by many theories (Rwegasira, 2000). Existing studies have focused on a number of governance theories, such as agency, stakeholders, shareholders, resource dependence, managerial signalling and stewardship theories, in investigating the relationship between corporate governance and firm performance (see Ntim *et al.,* 2013). Therefore, future studies could shed light on some other governance theories, for example legitimacy, political and transaction cost theories, among others, to develop multiple theoretical frameworks in examining the relationship between corporate disclosure and firm performance. This can assist in achieving integration between theoretical and practical frameworks, thereby providing a deeper understanding of corporate governance practices.

Fifth, new research may possibly improve the construction of a corporate governance index by developing a weighted index. New research may conduct surveys of groups and other professional organisations that could help in examining the weighting of provisions and their relative importance. Such research may improve the validity and reliability of the constructed index, and these new findings could be compared with empirical studies that have already used un-weighted indices. In addition, future research may seek to capture and operationalise Saudi specific contextual factors, such as political connections, social norms, Islamic values and Islamic business transactions, in constructing the corporate governance index.

Sixth, future research could explore other aspects of corporate governance, such as social responsibility. Much attention has recently been paid to social responsibility and its impact on firm performance over the long term. Although social responsibility has been addressed in existing studies in developed countries, this topic has not been researched widely in emerging countries (Ntim and Soobaroyen, 2013). Also, it would be interesting to conduct a study in Saudi Arabia investigating the influence of social norms and Islamic principles on firms' social responsibility.

Finally, as Saudi firms suffer from ownership concentration problems, future research using qualitative methods can focus on studying awareness and appreciation of good corporate governance practices among large shareholders, such as representatives of the government, families and institutional investors. This may help in providing a deeper understanding of the effect of corporate governance reforms on corporate performance and disclosure practices.

Appendix 1: A List of the Names and Industries of the 80 Sampled Firms

Full Company Name		No. in Tadawul	Chosen Code	Industry
1	Al Ahsa Development Co.	2140	SAH	Consumer Services
2	Al Baha for Development & Investment Co.	4130	SBH	Consumer Services
3	Al Rajhi Bank	1120	FRJ	Financials
4	Al Babtain Power & Telecommunication Co.	2320	TBT	Telecommunications
5	Aldrees Petroleum & Transport Services Co.	4200	SAD	Consumer Services
6	Al Jouf Agriculture Development Co.	6070	GJF	Consumer Goods
7	Almarai Company	2280	GMR	Consumer Goods
8	Alujain Corporation	2170	BLU	Basic Materials
9	Anaam International Holding Group CO.	4061	GAN	Consumer Goods
10	Arab National Bank	1080	FAN	Financials
11	Arabian Cement Co.	3010	IAR	Industrials
12	Arabian Pipes Company	2200	IPI	Industrials
13	Arriyadh Development Co.	4150	SAR	Consumer Services
14	Aseer Trading and Contracting Co.	4080	SAS	Consumer Services
15	Ash-Sharqiyah Development Company	6060	GSH	Consumer Goods
16	Bank Al Bilad	1140	FBL	Financials
17	Bank Al Jazira	1020	FJA	Financials
18	Banque Saudi Fransi	1050	FSF	Financials
19	Dar Alarkan Real Estate Development Company	4300	SDA	Consumer Services
20	Eastern Province Cement Co.	3080	IES	Industrials
21	Etihad Etisalat Co	7020	TET	Telecommunications
22	Filing & Packing Materials Manufacturing Co.	2180	IFP	Industrials
23	Fitaihi Holding Group	4180	SFT	Consumer Services
24	Jarir Marketing Co	4190	SJR	Consumer Services
25	Jazan Development Co.	6090	GJA	Consumer Goods
26	Makkah Construction & Development Co.	4100	SMK	Consumer Services
27	Middle East Specialized Cables Co	2110	ICB	Industrials
28	Nama Chemicals Co.	2210	BNM	Basic Materials
29	National Agriculture Development Co.	6010	GNA	Consumer Goods
30	National Agriculture Marketing Co.	4160	GTH	Consumer Goods
31	National Gas & Industrialization Co.	2080	UGA	Utilities
32	National Gypsum Company	2090	IGP	Industrials
33	National Industrialization Co	2060	BIN	Basic Materials
34	National Metal Manufacturing and Casting Co.	2220	IMD	Industrials
35	Qassim Agriculture Co.	6020	GQA	Consumer Goods
36	Riyad Bank	1010	FRI	Financials
37	SABB	1060	FSB	Financials
38	Sahara Petrochemical Co.	2260	BSH	Basic Materials
39	Samba Financial Group	1090	FSM	Financials
40	Saudi Advanced Industries Co.	2120	SSA	Consumer Services
41	Saudi Arabia Fertilizers Co.	2020	BSF	Basic Materials
42	Saudi Arabian Amiantit Co.	2160	IAM	Industrials
43	Saudi Arabian Refineries Co.	2030	SSR	Consumer Services
44	Saudi Automotive Services Co.	4050	SSS	Consumer Services
45	Saudi Basic Industries Corp	2010	BSB	Basic Materials
46	Saudi Cement Co.	3030	ISA	Industrials
47	Saudi Ceramic Co.	2040	ICE	Industrials
48	Saudi Chemical Company	2230	ISC	Industrials
49	Saudi Electricity Company	5110	UEL	Utilities
50	Saudi Fisheries Co.	6050	GFI	Consumer Goods
51	Saudi Hollandi Bank	1040	FSH	Financials
52	Saudi Hotels & Resort Areas Co.	4010	SHO	Consumer Services
53	Saudi Industrial Development Co.	2130	ISD	Industrials
54	Saudi Industrial Export Co	4140	ISE	Industrials
55	Saudi Industrial Investment Group	2250	BSG	Basic Materials
56	Saudi Industrial Services Co.	2190	SSI	Consumer Services
57	Saudi International Petrochemical Co	2310	BSP	Basic Materials

Appendix 1 (Continued): A List of the Names and Industries of the 80 Sampled Firms

Full Company Name		No. in Tadawul	Chosen Code	Industry
58	Saudi Pharmaceutical Indust. Corp.	2070	IPH	Industrials
59	Saudi Public Transport Co.	4040	SAP	Consumer Services
60	Saudi Real Estate Co.	4020	SRE	Consumer Services
61	Saudi Research and Marketing Group	4210	SRG	Consumer Services
62	Saudi Telecom	7010	TST	Telecommunications
63	Saudi Transport and Investment Company	4110	SMB	Consumer Services
64	Saudia Dairy & Foodstuff Co.	2270	GFO	Consumer Goods
65	Food Products Co.	2100	ISF	Industrials
66	Savola Group	2050	ISG	Industrials
67	Southern Province Cement Co.	3050	ISU	Industrials
68	Tabouk Cement Co.	3090	ITB	Industrials
69	Tabuk Agriculture Development Co.	6040	GTB	Consumer Goods
70	Taiba Holding Co.	4090	STI	Consumer Services
71	The Company for Cooperative Insurance	8010	FTA	Financials
72	The National Co. for Glass Industries	2150	IGL	Industrials
73	The National Shipping Co. of Saudi Arabia	4030	SSH	Consumer Services
74	The Qassim Cement Co.	3040	IQA	Industrials
75	The Saudi Investment Bank	1030	FSI	Financials
76	Tihama Advertising & Public Relations Co.	4070	STM	Consumer Services
77	Tourism Enterprise Co.	4170	SSM	Consumer Services
78	Yamamah Saudi Cement Co.	3020	IYM	Industrials
79	Yanbu Cement Co.	3060	IYN	Industrials
80	Zamil Industrial Investment Co.	2240	IZA	Industrials

Appendix 2: Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
1- Board of Directors			
A- Board Structure			
Role Duality	BDUAL	SC 12/D (P.13)	A binary number of 1 if the CEO position is separate from the chairperson position, 0 otherwise.
Board Chairperson Classification	BCP	SC 12/D (P.14)	A binary number of 1 if the chairperson of a firm is an independent director, 0 otherwise.
Majority of Board of Directors	BMBD	SC 12/E (P.13)	A binary number of 1 if the majority of the members are non-executive, 0 otherwise.
Directors' Classification	BDCL	SC 9/C (P.8)	A binary number of 1 if there is a clear narrative that classifies directors into executive, non-executive and independent directors in the firm's annual report, 0 otherwise.
Directors' Biography	BDB	OECD 1/5 (P.22)	A binary number of 1 if a firm discloses the directors' biography in the firm's annual report, 0 otherwise.
Policies of Directors' Appointment	BDPA	SC 9&10 (P.9-11)	A binary number of 1 if a firm drafts policies of board and committee appointments, 0 otherwise.
Membership of Directors in other Firms' Boards of directors	BMOB	SC 9/B (P.8)	A binary number of 1 if a firm discloses in its annual report information about directors who are members in other listed firms at the same time, 0 otherwise.
Directors' membership in other Boards of Listed Firm	BMBN	SC 12/H (P.14)	A binary number of 1 if a firm's directors are not board members of more than five listed firms at the same time, 0 otherwise.
Frequency of Board Meetings	BFBM	SC 16/B (P.17)	A binary number of 1 if a firm discloses the number of board meetings in the firm's annual report, 0 otherwise.
Individual Directors' Meetings Attendance	BDMA	LR 27/16 (P.26)	A binary number of 1 if meeting attendance of individual directors is disclosed in the firm's annual report, 0 otherwise.

Appendix 2 (Continued): Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
B- Board Sub-Committees			
Audit Committee			
Existence	AEX	SC 13/A&B (P.14)	A binary number of 1 if a firm has an audit committee, 0 otherwise.
Description of the Jurisdictions & Duties (Charter)	ADJD	SC 12/A (P.13)	A binary number of 1 if a firm briefly describes the jurisdiction and duties of the audit committee in the firm's annual report, 0 otherwise.
Committee Composition	ACOM	SC 13/C (P.14)	A binary number of 1 if an audit committee has a sufficient number of non-executive members, 0 otherwise.
Committee Chairperson Classification	ACP	SC 9/D (P.8)	A binary number of 1 if the chairperson of the audit committee is independent, 0 otherwise.
Identify Committee Chairperson	ACN	SC 9/D (P.9)	A binary number of 1 if the audit committee chairperson's name is disclosed, 0 otherwise.
Number of Committee Members	ACNM	SC 14/A (P.15)	A binary number of 1 if a firm's audit committee is not less than three members, 0 otherwise.
Disclosure of Membership	ADM	SC 9/D (P.8)	A binary number of 1 if the membership of the audit committee is disclosed in the firm's annual report, 0 otherwise.
Frequency of Committee Meetings	AFM	SC 9/D (P.8)	A binary number of 1 if a firm discloses the number of audit committee meetings in the firm's annual report, 0 otherwise.
Individual Members' Meeting Attendance	AMMA	SC 9/D (P.8)	A binary number of 1 if meeting attendance of individual members is disclosed in the firm's annual report, 0 otherwise.
Nomination Committee			
Existence	NEX	SC 13/B (P.14) 9/D/8 (P.14)	A binary number of 1 if a firm has a nomination committee, 0 otherwise.
Description of the Jurisdictions & Duties (Charter)	NDJD	SC 12/A (P.13)	A binary number of 1 if a firm briefly describes the jurisdiction and duties of the nomination committee in the firm's annual report, 0 otherwise.

Appendix 2 (Continued): Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
Committee Composition	NCOM	SC 13/C (P.14)	A binary number of 1 if the nomination committee has a sufficient number of non-executive members, 0 otherwise.
Committee Chairperson Classification	NCP	SC 9/D (P.8)	A binary number of 1 if the chairperson of the nomination committee is independent, 0 otherwise.
Identify Committee Chairperson	NCN	SC 9/D (P.8)	A binary number of 1 if the nomination committee chairperson's name is disclosed, 0 otherwise.
Disclosure of Membership	NDM	SC 9/D (P.8)	A binary number of 1 if the membership of the nomination committee is disclosed in the firm's annual report, 0 otherwise.
Frequency of Committee Meetings	NFM	SC 9/D (P.8)	A binary number of 1 a firm discloses the number of nomination committee meetings in the firm's annual report, 0 otherwise.
Individual Members' Meeting Attendance	NMMA	SC 9/D (P.8)	A binary number of 1 if the meeting attendance of individual members is disclosed in the firm's annual report, 0 otherwise.
Remuneration Committee			
Existence	REX	SC 9/D/8 (P.14) 13/B (P.14)	A binary number of 1 if a firm has a remuneration committee, 0 otherwise.
Description of the Jurisdictions & Duties (Charter)	RDJD	SC 12/A (P.13)	A binary number of 1 if a firm briefly describes the jurisdiction and duties of the remuneration committee in the firm's annual report, 0 otherwise.
Committee Composition	RCOM	SC 13/C (P.14)	A binary number of 1 if the remuneration committee has a sufficient number of non-executive members, 0 otherwise.
Committee Chairperson Classification	RCP	SC 9/D (P.8)	A binary number of 1 if the chairperson of the remuneration committee is independent, 0 otherwise.

Appendix 2 (Continued): Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
Identify Committee Chairperson	RCN	SC 9/D (P.9)	A binary number of 1 if the remuneration committee chairperson's name is disclosed, 0 otherwise.
Disclosure of Membership	RDM	SC 9/D (P.8)	A binary number of 1 if the membership of the remuneration committee is disclosed in the firm's annual report, 0 otherwise.
Frequency of Committee Meetings	RFM	SC 9/D (P.8)	A binary number of 1 a firm discloses the number of remuneration committee meetings in the firm's annual report, 0 otherwise.
Individual Members' Meeting Attendance	RMMA	SC 9/D (P.8)	A binary number of 1 if the meeting attendance of individual members is disclosed in the firm's annual report, 0 otherwise.
2- <u>Disclosure and Transparency</u>			
Disclosure of Ownership Structure	DOS	LR 30 (P.26-28)	A binary number of 1 if a firm discloses its ownership structure in the firm's annual report, 0 otherwise.
Director Ownership	DBO	CA 68 (P.11)	A binary number of 1 if each of the firm's board of directors owns at least 1,000 of the firm's shares at the end of the financial year, 0 otherwise.
Board's Compensation	DBC	SC 9/E (P.8)	A binary number of 1 if a firm discloses details of compensation and remuneration paid to board members in the firm's annual report, 0 otherwise.
Value of the Board's Compensation	DVBC	AC 1071/74 (P.12)	A binary number of 1 if the value of annual compensation of each director is equal to or less than $53,000 or 10% of the firm's profit for all members, whichever is lower, 0 otherwise.
CEO/MD/GM Compensation	DCEOC	SC 9/E (P.8)	A binary number of 1 if a firm discloses details of compensation and remuneration paid to CEO/MD/GM in the firm's annual report, 0 otherwise.

Appendix 2 (Continued): Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
Top Management Compensation	DTMC	SC 9/E (P.8)	A binary number of 1 if a firm discloses details of compensation and remuneration paid to top management in the firm's annual report, 0 otherwise.
Disclosure Operation Performance (Charter)	DOP (was DPI)	LR 27/B/5 (P.23) LR 27/B/1 (P.25)	A binary number of 1 if a firm's annual report includes details about the firm's operation and explanation for any material differences with the previous year, 0 otherwise.
Disclosure of the Firm's Loans	DFL	LR 27/B/12 (P.26)	A binary number of 1 if a firm discloses all loans in a statement of the aggregate indebtedness of the firm and its group together with any amounts paid by the firm as repayment of loans during the year (if there are no loans outstanding, the firm must provide an appropriate statement), 0 otherwise.
Disclosure of Firm's Performance During last Five Years (Charter)	DPFY	LR B/3 (P.23)	A binary number of 1 if a firm provides a comparative summary of its assets and liabilities for the last five financial years or from incorporation, whichever is shorter, 0 otherwise.
Disclosure Strategies and Objectives (Charter)	DSO	SC 10/A (P.10) LR 27/B/2 (P.25)	A binary number of 1 if a firm provides strategic plans and main objectives of the company in the firm's annual report, 0 otherwise.
Description of the Principal Activities (Charter)	DPA	LR 27/B/1 (P.25)	A binary number of 1 if a firm provides a description of the principal activities of the firm and its group. If two or more activities are described, a statement must be included giving the turnover and contribution to trading results attributable to it for each activity, 0 otherwise.
Disclosure Policy of Dividends	DPD	SC 7/A (P.7) LR 27/B/9 (P.24)	A binary number of 1 if a firm discloses a clear policy of dividends in the firm's annual report, 0 otherwise.

Appendix 2 (Continued): Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
Disclosure of Related Party Transactions	DRP	LR 27/B/17 (P.25)	A binary number of 1 if a firm provides information relating to any contract to which the firm is party and in which the directors, the CEO, the CFO or any associate is or was materially interested, or if there are no such contracts, the firm must submit an appropriate statement, 0 otherwise.
Retraction/Punishment by Supervisory Body	DSP	SC 9/F (P.10)	A binary number of 1 if a firm discloses in its annual report any punishment, plenary or preventive retraction imposed on the firm by any supervisory body, or if there are no such activities, the firm must submit an appropriate statement, 0 otherwise.
Narrative on the Firm as a Going Concern	DGC	LR 27/22 (P.27)	A binary number of 1 if a firm's directors provide a clear narrative about no significant doubts concerning the firm's ability to continue as a going concern, 0 otherwise.
Narrative on Compliance/Non-Compliance with SCGC	DCNC	SC 1/C (P.3)	A binary number of 1 if a firm provides a positive statement on the compliance or non-compliance with the provisions of the SCGC in the annual report, 0 otherwise.
3- <u>Internal Control and Risk Management</u>			
Effectiveness of Internal Control System	ICEF	SC 9/G (P.9)	A binary number of 1 if a firm discloses the results of the annual audit of the effectiveness of the internal control system in the firm's annual report, 0 otherwise.
Control Procedures for Company Risk Management	ICRM	SC 10/B/3 (P.11)	A binary number of 1 if a firm provides clear control procedures for risk management in the firm's annual report, 0 otherwise.
Disclosure of Firm's Risks	IFR	SC 3/B (P.11) LR P 27B/2 (P.25)	A binary number of 1 if a firm provides a description about the firm's risks, both actual and potential, whether at firm or economy level, 0 otherwise.

Appendix 2 (Continued): Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
Firm's Financial Report Approved	IFRA	RL 26/A (P.24)	A binary number of 1 if a firm's financial report is approved by the board of directors and signed by the 1- authorised director, 2- CEO and 3- CFO, prior to circulation to shareholders , 0 otherwise.
Applicable of Accounting Standards	ICAS	RL 27/B/6 (P.25)	A binary number of 1 if the firm provides a statement in its annual report that there is no departure from the accounting standards applicable to Saudi listed firms, 0 otherwise.
Drafting Firms' CG Code	ICGC	SC 10/C (P.12)	A binary number of 1 if a firm drafts its own CG code which does not contradict the SCG Code, 0 otherwise.
4- Rights of Shareholders and General Assembly			
Frequency of GA Meeting	SGFM	SC 5/A (P.5)	A binary number of 1 if a firm convenes at least once a year during the firm's financial year, 0 otherwise.
GA Meeting Agenda	SGMA	SG 5/G&H (P.7)	A binary number of 1 if a firm discloses its GA meeting agenda in a meeting announcement on the Tadawul website, 0 otherwise.
Right of Shareholders to Appoint Others	SGSA	SC 6/C (P.8)	A binary number of 1 if a firm's GA meeting announcement indicates the right of shareholders to appoint others to attend the GA on their behalf, 0 otherwise.
Accumulative Voting	SGAV	SC 6/C (P.8)	A binary number of 1 if a firm applies the accumulative voting method in voting for the nomination of members to the board, 0 otherwise.
GA Meeting Announcement	SGMN	SC 5/C (P.5)	A binary number of 1 if a firm announces a meeting by a notice at least 20 days prior to the date of meeting, 0 otherwise.
GA Meeting Results Announcement	SGMR	SC 5/J (P.6)	A binary number of 1 if a firm immediately informs the Exchange website about the results of the GA meeting, 0 otherwise.

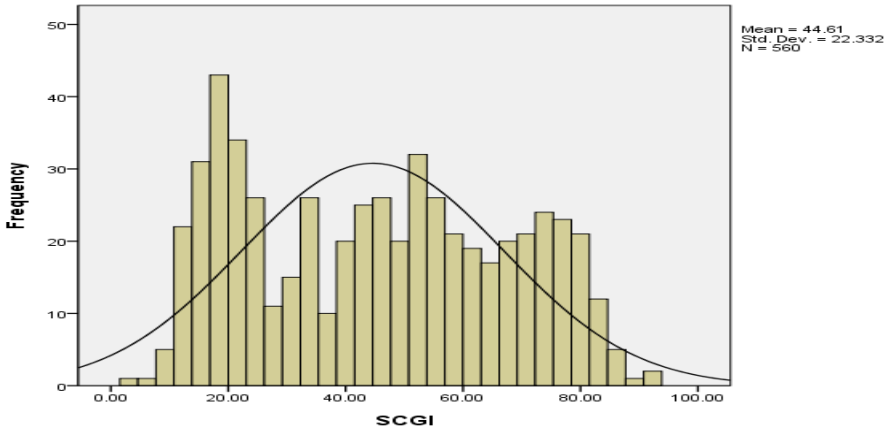
Appendix 2 (Continued): Saudi Corporate Governance Index (SCGI) Provisions and Measurement

Corporate Governance Provision	Acronym/ Code	Saudi Code (SC)/ Companies Act (AC)/Listing Rules (LR) Ref of Article and Pages	Measurement
GA Meeting within Six Months of Year End	SGMT	SC 5/A (P.6) AC 84 (P.13)	A binary number of 1 if the GA convenes within six months following the end of the firm's financial year, 0 otherwise.
Firms' Social Contributions	SFSC	SC 5/E (P.11)	A binary number of 1 if a firm discloses social contributions in the firms' annual report, 0 otherwise.

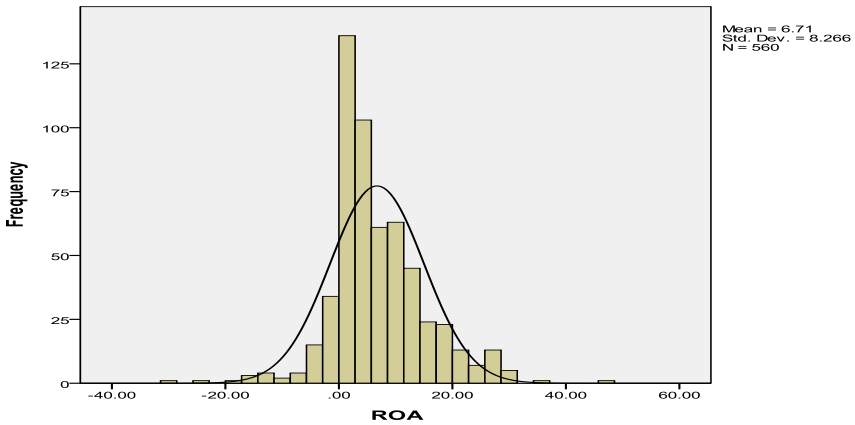
Appendix 3: A Spreadsheet of Coded Corporate Governance Variables for the First Five Sampled Firms in Alphabetical Order

Year	Firm Acr.	Sector Acr.	BDUAL	BCP	BMBD	BDCL	BDB	BDPA	BMOB	BMBN	BFBM	BDMA
2004	BAN	BS	0	0	1	0	0	0	0	0	1	0
2005	BAN	BS	0	0	1	0	0	0	0	0	1	0
2006	BAN	BS	0	0	1	1	0	0	1	1	1	0
2007	BAN	BS	0	0	1	1	0	0	1	1	1	0
2008	BAN	BS	0	0	1	1	0	0	1	1	1	1
2009	BAN	BS	0	0	1	1	0	0	1	1	1	1
2010	BAN	BS	0	0	1	1	0	0	1	1	1	1
2004	BBL	BS	0	0	1	0	0	0	0	0	1	0
2005	BBL	BS	0	0	1	0	0	0	0	0	1	1
2006	BBL	BS	0	0	1	1	0	0	1	1	1	1
2007	BBL	BS	0	0	1	1	0	0	1	1	1	1
2008	BBL	BS	0	0	1	1	0	0	1	1	1	1
2009	BBL	BS	0	0	1	1	0	0	1	1	1	1
2010	BBL	BS	0	0	1	1	0	0	1	1	1	1
2004	BJA	BS	1	0	0	0	0	0	1	0	1	0
2005	BJA	BS	1	0	0	0	0	0	1	0	1	0
2006	BJA	BS	1	0	1	1	0	0	1	1	1	0
2007	BJA	BS	1	0	1	1	0	0	1	1	1	1
2008	BJA	BS	1	0	1	1	0	0	1	1	1	1
2009	BJA	BS	1	0	1	1	0	0	1	1	1	1
2010	BJA	BS	1	0	1	1	0	0	1	1	1	1
2004	BRI	BS	1	0	1	0	0	0	0	0	1	0
2005	BRI	BS	1	0	1	0	0	0	0	0	1	0
2006	BRI	BS	1	1	1	1	0	0	1	1	1	1
2007	BRI	BS	1	0	1	1	0	0	1	1	1	1
2008	BRI	BS	1	0	1	1	0	0	1	1	1	1
2009	BRI	BS	1	0	1	1	0	0	1	1	1	1
2010	BRI	BS	1	0	1	1	0	0	1	1	1	1
2004	BRJ	BS	0	0	1	0	0	0	0	0	1	0
2005	BRJ	BS	0	0	1	0	0	0	0	0	1	1
2006	BRJ	BS	0	0	1	1	0	0	1	1	1	0
2007	BRJ	BS	1	0	1	1	0	0	1	1	1	1
2008	BRJ	BS	1	0	1	1	0	0	1	1	1	1
2009	BRJ	BS	1	0	1	1	0	0	1	1	1	1
2010	BRJ	BS	1	1	1	1	0	0	1	1	1	1

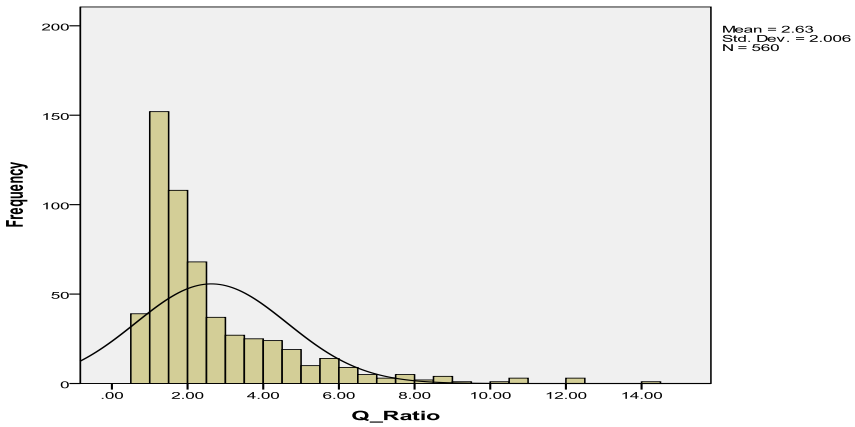
Appendix 4: A Histogram of Distribution of the Saudi Corporate Governance Index (SCGI) and Financial Performance Measures



A histogram of distribution of the SCGI



A histogram of distribution of the ROA



A histogram of distribution of the Q-ratio

Appendix 5: Semi-structured interview guide: internal stakeholders form (Arabic translation)

قسم أ: مجلس الادارة واللجان المنبثقة

1 كيف تقيم اثر تشكيلة المجلس على الاداء الجيد لحوكمة الشركات؟
2 ماهي تصوراتك حول لجان مجلس الادارة ودورها في الممارسة الجيده لحوكمة الشركات؟
3 هل من الممكن اطلاعنا على مستوى تركز الملكية في هيكل راس المال لشركتكم؟
4 كيف تقيم وعي المساهمين في شركتكم حول اهمية الممارسة الجيده للحوكمة ومتابعة اداء مجلس الادارة؟

قسم ب: الافصاح والشفافية ونظام الرقابة الداخلي؟

1 في رأيك ماهي كفاية متطلبات الافصاح والشفافية في الكود السعودي لحوكمة الشركات؟
2 هل بالامكان الحديث حول مستوى الشفافية والافصاح في شركتكم؟
3 كيف تقيم فعالية نظام الرقابه الداخلي في شركتكم؟

قسم ج: حقوق المساهمين والجمعيات العمومية

1 كيف تحمي شركتكم حقوق المساهمين بشكل عام و صغار المساهمين بشكل خاص؟
2 ماهي الحماية لحقوق المساهمين التي تقدمها التشريعات القائمة؟
3 ماهي الاليات التي تستخدمونها لتشجيع المساهمين على ممارسة حقوقهم؟

قسم د: الهيئات التنظيمية والنظام القانوني؟

1 هل بالامكان تقييم اصلاحات الحوكمة التي تم تبنيها مؤخرا في السعوديه؟
2 هل لك ان تقيم وعي اصحاب المصالح وتقديرهم لاهمية الممارسة الجيده لحوكمة الشركات؟
3 ماهو مدى النجاح في التنسيق والتفاعل بين الهيئات التنظيمية؟
4 الى اي مدى يمكن للنظام القانوني الحالي ان يدعم اصلاحات الحوكمة؟

قسم هـ: مستوى الامتثال والاداء المالي

1 كيف تقيم مستوى الامتثال بكود حوكمة الشركات السعودي؟
2 من وجهة نظرك ماهي العوامل الاكثر تاثيرا في الممارسة الجيده لحوكمة الشركات؟
3 كيف تقيم العلاقة بين الممارسة الجيدة للحوكمة والاداء المالي للشركات؟

المصدر: اعداد الباحث

Appendix 6: Semi-structured interview guide: external stakeholders form (Arabic translation)

قسم أ: مجلس الادارة واللجان المنبثقة

1 ماهي نظرتكم حول استقلال مجالس الادارة في الشركات المساهمة السعودية؟
2 ماهي تصوراتكم حول لجان مجلس الادارة ودورها في الممارسة الجيدة للحوكمة؟
3 بشكل عام كيف تقيم تركز الملكية في الشركات المساهمة السعودية؟

قسم ب: الافصاح والشفافية ونظام الرقابة الداخلي؟

1 في رأيك ماهي كفاية متطلبات الافصاح والشفافية في الكود السعودي لحوكمة الشركات؟
2 هل اصلاحات حوكمة الشركات قادت الى زيادة الاهتمام بالافصاح والشفافية؟
3 الى اي مدى تعتقد ان انظمة الرقابة الداخلية في الشركات السعودية فعالة؟

قسم ج: حقوق المساهمين والجمعيات العمومية

1 كيف تقيم حماية الشركات المساهمة السعودية لمساهميها؟
2 من وجهة نظرك ماهي الحماية التي تمنحها التشريعات القائمة للمساهمين؟
3 الى اي مدى الشركات المساهمة السعودية تساعد المساهمين في ممارسة حقوقهم؟

قسم د: الهيئات التنظيمية والنظام القانوني؟

1 كيف تقيم اصلاحات حوكمة الشركات في السعودية؟
2 كيف تصف وعي اصحاب المصالح وتقديرهم لاهمية الممارسة الجيدة للحوكمة؟
3 ما رأيك حول التفاعل والتنسيق بين الهيئات التشريعية؟
4 الى اي مدى يمكن للنظام القانوني الحالي ان يدعم اصلاحات الحوكمة؟

قسم هـ: مستوى الامتثال والاداء المالي

1 كيف تقيم مستوى الامتثال بكود حوكمة الشركات السعودي؟
2 من وجهة نظرك ماهي العوامل الاكثر تاثيرا في الممارسة الجيده لحوكمة الشركات؟
3 كيف تقيم العلاقة بين الممارسة الجيدة للحوكمة والاداء المالي للشركات؟

المصدر: اعداد الباحث

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