Accounting Disclosure and Corporate Governance Mechanisms in Kingdom of Saudi Arabia

By

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Abstract

In recent decades, high-profile business failures such as that of World.com and Enron, as well as the financial crash witnessed in Kingdom of Saudi Arabia (KSA) in 2006 and 2008 prompted a call for an investigation into the cause of these failures and their consequences to avoid the occurrence of further financial crises. One of the most common problems identified by researchers is the lack of transparency, low level of corporate disclosure and corporate governance (CG) mechanisms. Moreover, market regulators and authorities in many nations consider CG and disclosure as the two main, inseparable tools for the functioning of capital markets and investor protection.

The objectives of this research are first to measure the level of mandatory (MD) and voluntary disclosure (VD) in the annual reports of KSA-listed firms and its development over time; and second to investigate whether there is a significant association between CG mechanisms (board characteristics and ownership structure) and the level of MD and VD in the annual reports of KSA-listed firms.

The sample selected for this study consists of data from the annual reports of 120 non-financial listed firms from 2015 to 2017. Using the content analysis technique, the MD and VD extent is measured by two self-constructed disclosure indices (MD and VD indices). To identify any significant changes in MD and VD levels during the period studied, MD and VD levels are analysed year by year; the data are also analysed using the Wilcoxon signed-ranks and Friedman ranked tests. This study applies two multivariate regression techniques to identify the relationship between the dependant (MD and VD) and independent variables (ownership structure and board characteristics): ordinary least square and censored regression (Tobit). Moreover, a number of additional analyses are used to ensure the robustness of the main findings: weighted index, partial compliance, lagged-effects, fixed-effects, 2SLS and cross-sectional regression techniques.

In terms of the level of MD in annual reports, the overall average MD index score for the study period (2015–17) is 72.75%, with a maximum of 88% and minimum of 53%. In addition, with regard to the extent of VD in annual reports, the average VD extent during 2015–17 is 36.49%, with a range of 16–70%. Moreover, the Wilcoxon and Friedman ranked tests confirmed that

the extent of MD and VD provided by KSA-listed firms increased significantly from 2015 to 2016, and again from 2016 to 2017.

The evidence indicates that some factors, including foreign ownership, state ownership, family ownership and the size of the board of directors have a significant positive influence on the extent of MD. In contrast, the CEO role duality and the presence of a member of the ruling family on the board have a negative association with the extent of MD. The study does not, however, find any evidence to suggest that the presence of an independent director, the audit firm type or gender diversity have any significant association with the extent of MD in the annual reports of KSA-listed firms.

Moreover, the evidence shows that some factors, including foreign ownership, state ownership, gender diversity and audit firm type have a significant positive effect on the extent of VD. In contrast, the findings suggest that having an independent director, CEO role duality and the presence of a member of the ruling family on the board have a negative association with the extent of VD. The research study does not, however, find any significant relationship between family ownership and the size of the board of directors, with the extent of VD. The study results are generally robust to alternative measures and potential endogeneity problems.

The study findings have implications for regulators, professional accounting bodies and policymakers as they contribute to debate around encouraging and developing compliance with both MD requirements and VD practice. The evidence also has implications for attempts to derive a full understanding of the drivers of corporate disclosure practices in the emerging economy environment, and how these differ from behaviour in the world's developed economies.

The study contributes to the literature in the area in two main ways. First, as compliance with MD requirements in developed markets is total (or near to total) in most cases, it has been the subject of little empirical enquiry. By focusing instead on a developing nation, particularly one that has adopted many economic reforms in the previous 5 years, the analysis facilitates the provision of novel evidence regarding both the nature and determinants of failure to follow disclosure rules. Second, this study is one of the first empirical efforts to investigate the association between CG mechanisms and both VD and MD in an emerging economy by explicitly relying on a multi-theoretical framework within a longitudinal research setting. Moreover, all data were collected manually and specifically for this research.

Declaration of Authenticity

I, Abdulrahman Alqahtani declare that the PhD thesis entitled *Accounting Disclosure and Corporate Governance Mechanisms in Kingdom of Saudi Arabia (KSA)* is no more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature [redacted] Date: 21/10/2019

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Chapter 1: Introduction

1.1 Background

In recent decades, the financial scandals involving Enron, WorldCom and Countrywide have been attributed to issues regarding the quality and extent of financial disclosure and transparency of such firms (Pucheta-Martínez et al. 2018). It is important that corporate accounting disclosures are properly executed because of their positive effect on the functions of the capital market. In fact, high-quality financial disclosures are known to reduce the problems faced by agencies and the asymmetry of information (Martínez-Ferrero et al. 2017). Issues of disclosure and transparency also raise concerns about future scandals, which may have far-reaching consequences that extend beyond an institution's capacity to manage them. Therefore, many emerging capital markets have initiated reform programs to prevent the occurrence of these issues. Such programs are led by international capital providers, the World Bank and the International Finance Corporation (Kolsi and Kolsi 2017).

However, in developing countries, such as the Kingdom of Saudi Arabia (KSA), issues regarding the quality and extent of disclosures have been identified as major challenges hindering the enforcement of corporate governance (CG) (Okpara 2011). In the case of the Asian financial crisis in the 1990s/2000s, the low level of disclosure by firms was cited as one of the contributors to the crisis; it also hindered economic recovery in the region (Battaglia and Gallo 2015; Gul and Leung 2004).

Enforcement bodies in developing markets have expressly considered these issues through their regulators and governments. In a bid to declare their legitimacy, the governments of countries with emerging markets have announced plans to improve CG and levels of corporate accounting disclosures in their reform programs. As a result, regulations and principles have been established and some subsequently modified. For instance, domestic CG codes based on Organization for Economic Cooperation and Development (OECD) principles have been issued in many developing markets, such as Turkey in 1961, Slovenia in 2010 and Lithuania in 2018. However, the relevance of Western concepts is now being questioned since emerging markets do not exhibit features resembling those of the developed markets. Nonetheless, it is essential that the extent of corporate disclosure in developing markets is properly evaluated. Consequently, the primary objective of this study is to explore the extent of accounting disclosure (voluntary [VD] and mandatory [VD]) and its determinants in the developing stock market of the KSA.

1.2 Motivation for the Study

Financial crashes witnessed in Saudi stock markets in 2006 and 2008, as well as the global market in 2008/2009 have been attributed to poor transparency, disclosure practices and CG (Avgouleas 2009; Capital Market Authority 2017a; Elmagrhi et al. 2016; Haniffa and Hudaib 2006). In addition, the scandals involving large firms such as Enron and WorldCom have been attributed to weak CG practices (Samaduzzaman et al. 2015). In recent times, the attention of researchers and policymakers has been drawn to the issue of corporate reforms and the extent of information disclosure by firms. Moreover, firms are opting for different ways to raise capital in domestic and global money markets. This may be accomplished by attracting creditors, financial institutions and investors (both domestic and overseas), by disclosing financial statements. This disclosed information is considered very important for a variety of users because they form the basis for major economic decisions. Therefore, the primary objective of this study is to explore the extent of accounting disclosure, as well as the determinants of the CG sought in the KSA, for the reasons outlined below.

First, it has been observed that institutional, regulatory and contextual principles in the KSA are similar to those obtainable in other emerging Islamic and Arab states (Piesse et al. 2012). However, some differences have been observed when comparisons are made with other emerging or developed states regarding contextual, institutional and regulatory aspects. Specifically, the KSA is an Islamic state where Islamic law is promulgated (Judge 2011). The KSA government confirms that the constitution of the KSA is based on Islamic regulations. In addition, most of the formal statutory principles are strictly based on Islamic rules (CMA 2017b). Therefore, the regulations in the KSA are influenced by Islamic principles, especially in areas such as business, law, economics and politics (Abu-Tapanjeh 2009); (Kamla and Alsoufi 2015). As a corollary, the adoption of Islamic basics is reflected in a firm’s financial operations, leading to challenges in the CG, disclosure practices and issues faced by agencies. Thus, the findings of studies in other developing countries may not apply to Islamic countries (Ahmed et al. 2019). Therefore, it is crucial to study the mechanisms of CG that affect the extent of corporate disclosure in the KSA.

Second, Baydoun et al. (2012) pointed out that the ownership of KSA-listed firms is highly concentrated. This may worsen the issues faced by agencies because of the blurred distinction between the control and ownership of firms (Jensen and Meckling 1976). Baydoun et al. (2012) proposed that issues regarding the concentration of ownership are caused by preferential treatment given to friends, relatives and family who are appointed to top positions and corporate boards, which tends to hinder board independence in Middle Eastern firms. The World Bank presented a report on the observance of standards and codes regarding CG practices, which revealed that the ownership of KSA-listed firms tends to be concentrated in family holdings and state ownership (The World Bank 2009); (Berg et al. 2011). A number of aspects distinguish the KSA from other countries. The ruling family controls most of the board seats of listed firms, receiving the highest rank among the top ten families in terms of the number of board seats held by one family (Habtoor et al. 2019).This may deter investment interest from developing institutions and discourage foreign participation in the KSA stock market (Chen et al. 2017). There may also be a negative effect on market efficiency, which will weaken the stock market and corporate control, and reduce the extent of corporate disclosure (Jensen and Meckling 1976).

Third, the KSA is a significantly developing economy (Sherif and Sumpio 2015): its stock market comprises around 75% of the total Gulf Cooperation Council (GCC) market capitalization; around 44% of the Arab market; and around 26% of the total Arab Gross Domestic Product (GDP) (The World Bank 2018b). Since 2009, the KSA has steadily been elevated in the economic sense, with the achievement of an important economic position at the international level as a member of the world’s 20 largest economies (G20) (Al-Matari et al. 2012); (Nurunnabi 2017b). Moreover, the KSA is reputedly one of the largest producers of oil and is a member of the Organization of the Petroleum Exporting Countries (OPEC). The KSA was responsible for 32% of the total OPEC oil production in 2017. The country also controls 22% of the world’s oil reserves (OPEC 2018). Most of the KSA’s income derives from oil, and the role of the private sector in diversifying the economy remains weak, since it depends heavily on government spending (Banafea & Ibnrubbia 2017). However, it is the largest capital market in the MENA region, which makes it a unique country. Moreover, the KSA embraces wide foreign investment and invests significantly in both emerging and developed markets. It is, therefore, crucial to prevent the failure of CG in the KSA, which would have extensive repercussions for stakeholders throughout the Middle East and in developing economies. For instance, the prevalence of poor CG practices will lead to large losses suffered by domestic and foreign shareholders. In addition, a weakened CG regime may exacerbate information asymmetry and the extent of accounting disclosure, which will discourage potential investors from investing in the country. Baydoun et al. (2012) indicated that aside from measuring the value of the GCC countries, which are the main producers of oil and led by the KSA, there has been minimal effort to study their commercial and financial activities. Moreover, the Saudi government has thus adopted various economic reforms, referred to collectively as “Saudi Vision 2030”, to reduce the country’s heavy dependence on oil and to create and develop new sources of revenue (Al-sasi, Taylan & Demirbas 2017). Accordingly, the Saudi Stock Market Authority has implemented a number of financial reforms including: (i) adopting the International Financial Reporting Standards (IFRS) in 2015; (ii) updating the corporate governance code in 2016; and (iii) opening the Saudi Stock Exchange to foreign investors in 2016 (Saudi Capital Market Authority 2017; Nurunnabi 2017). Moreover, more recently the country’s leaders have recognised the need to diversify the economy and make it more future-proof by allowing the world’s most profitable company (Saudi Aramco) to go public.

Fourth, few studies have investigated the level of corporate disclosure (MD and VD) and the determinants of CG mechanisms for VD and MD in the KSA, namely, Alsaeed (2006); Al-Janadi et al. (2012) and Al-Janadi et al. (2013). The Alsaeed (2006) study covered the period 2002–03 and investigated the influence of firm characteristics on VD in the banking sector; the indices used included 20 items and 40 firm–year observations. Al-Janadi et al. (2012) and Al-Janadi et al. (2013) covered the period 2006–07 and examined CG’s influence on VD; the indices used in Al-Janadi’s studies included 21 items and 87 firm–year observations. The current study focuses on a more recent and longer period (2015–17) than those of Al-Janadi et al. (2012), Al-Janadi et al. (2013) and Alsaeed (2006). Further, those studies used only 20 and 21 disclosure items, while the current study uses 452 disclosure items. Also, Alsaeed (2006) and Al-Janadi et al. (2012) and (2013) used only 40–87 firm–year observations. Finally, unlike Al-Janadi et al. (2012) and (2013) and Alsaeed (2006), which focused on the financial sector, the current study focuses on the nonfinancial sector.

In addition, Al-Janadi et al. (2012) published some concerning facts regarding financial disclosure in the KSA stock market compared with the United Arab Emirates (UAE) market. According to Al-Janadi et al.’s (2012) report, the extent of financial disclosure within Saudi firms is noticeably low, especially in the category of general and financial information. Moreover, Al-Janadi et al. (2013) stated that audit committees in Saudi firms are not effective in providing quality reports. This raises questions about the quality of audit committee opinions when firms did not fully comply with all mandatory disclosure requirements. However, no recent study has focused on corporate disclosure and its factors and effects in the KSA such as corporate board characteristics.

1.3 Research Aims and Objectives

Accounting disclosure behaviour is affected not only by business environmental factors (e.g. the economy, the capital market and accounting and regulatory frameworks) but also by CG determinants (e.g. corporate, board and ownership characteristics). In many countries, therefore, academic researchers have attempted to investigate the influence of corporate determinants on the level of MD and VD. These researchers have conducted many empirical studies of accounting disclosure and its association with CG determinants, but most have focused on developed countries; studies of companies in developing countries, such as the KSA, have been sparse according to Hussainey and Al-Najjar (2011), Nalband and Al-Amri (2013), Aljifri et al. (2014a) and Juhmani (2017). Moreover, the existence of regulators and enforcement bodies is the major reason for improvement in the level of disclosure in GCC countries. However, these enforcement bodies in the KSA stock market are still in the developmental stage, thus there are concerns about the effectiveness of these bodies in promoting compliance with disclosure requirement (Mihret et al. 2017).

Thus, this study aims to measure the extent to which KSA-listed firms have provided voluntary and mandatory information disclosures in their annual reports; and determine whether the level of VD and MD is associated with any CG mechanisms (board characteristics and ownership structure). This is of particular interest given significant corporate reform in the KSA, the announcement of International Financial Reporting Standards (IFRS) adoption in 2013 (Nurunnabi 2017a), the issuing of a CG code in 2008 (Baydoun et al. 2012), the updating of the CG code in 2015 (CMA 2017c) and the Saudi Stock Exchange opening to foreign investment in 2015 (Nurunnabi 2017a). The objectives of this study are as follows:

- Objective 1: To measure the extent of mandatory and voluntary disclosure in the annual reports of KSA-listed firms in the period 2015–17.
- Objective 2: To investigate whether there was any significant change in the levels of voluntary and mandatory disclosure provided in the annual reports of KSA-listed firms in the period 2015–17.

- Objective 3: To investigate whether there is any important association between corporate governance mechanisms (ownership structure and board characteristics) and the extent of mandatory and voluntary disclosure in the annual reports of KSA-listed firms.

1.4 Research Questions

- Q1: To what extent have KSA-listed firms voluntarily and mandatorily disclosed information in their annual reports?
    - SQ1: Were there any significant changes in the extent of voluntary and mandatory disclosures in the period 2015–17?
- Q2: Is there any association between the extent of voluntary and mandatory information disclosure by KSA-listed firms and corporate governance mechanisms (ownership structure and board characteristics)?

1.5 The Contribution of the Study

This study is distinguished from previous studies in the following areas.

The study contributes to two aspects of the literature, corporate disclosure and CG, by presenting updated empirical evidence regarding the relationship between the extent of accounting disclosure and the features of CG in the KSA as a Middle Eastern country that is also a G20 member; studies focused on accounting disclosure in this context are limited compared with the contexts of the developed countries and the emerging markets in Asia (Ali et al. 2017); (Juhmani 2017). According to the literature, no empirical study of accounting disclosure and its association with CG in the KSA stock market has been reported. The current study, then, is arguable a source of new evidence derived from a country regarded as representative of Arabic and oil-dependent industrial countries and from a country in which most financial statutory principles are based on Islamic rules.

The study contributes to previous arguments regarding whether listed firms controlled by affluent families permit more disclosure or limited disclosure (e.g., Chau and Gray (2010); Rouf and Harun (2011); Haddad et al. (2015); Khlif et al. (2017). It explores the effect of royal family members on companies' boards of directors and how their presence affects the VD and MD practices in the annual reports of KSA-listed firms.

This study also contributes two self-constructed disclosure indices: an MD index that includes 370 items required by the IAS/IFRS; and a VD index that includes 82 voluntary items. A variety of users (e.g. regulators, financial analysts and investors) can use these indices to evaluate the level of financial disclosure provided by public KSA companies. The indices can also be updated by adding new MD and VD items as appropriate. This makes the indices (a comprehensive MD and VD indices) appropriate barometers for regulators, researchers and other users; they may be used in future studies, especially those focusing on GCC or MENA countries that have similar corporate environments and economic changes as those in the KSA.

This study examines disclosure practices in accounting during a period of considerable corporate reform, particularly in the stock market. The period of this study is characterised by significant corporate reforms in the KSA stock market, including the adoption of IFRS in 2013, the issuing of a CG code in 2006, the updating of the CG code in 2015, the Saudi Stock Exchange opening to foreign investment in 2015 and the new *Saudi Company Act* established in 2015.

The study represents a longitudinal study undertaken from 2015 to 2017, given that previous studies examined the extent of corporate disclosure for only 1 year. The longitudinal nature of the study strengthens and supports the literature on accounting disclosure by analysing the implications of modifying the disclosure environment in accordance with the rapidly developing stock market in the KSA. Employing a longitudinal approach facilitates discovering the reasons for trends and sequences in a social phenomenon because of its cross-sectional and time-series characteristics, which make it easier to identify dynamic connections and examine the effect of change (Hsiao 2014). Longitudinal studies permit the researcher to evaluate trends in different factors by identifying their contribution to changes in VD over past years, as suggested by Huafang and Jianguo (2007). Thus, this study contribute immensely to the corporate disclosure literature by considering how VD and MD have evolved and changed recently in the KSA

This study includes the use of more advanced statistical analysis techniques than those used in previous disclosure studies, which employed only nonparametric tests such as generalised linear models. In this study, a number of statistical techniques were used, such as the parametric ordinary least squares (OLS) regression and nonparametric Tobit regression tests, to investigate relationships. Moreover, to extend the econometric robustness of its statistical techniques, this study employed many quantitative methods such as weighted index, partial compliance, lagged-effects, fixed-effects, 2SLS and cross-sectional regression techniques to investigate the effects of corporate governance mechanism, ownership structure and firm characteristics on VD and MD among KSA listed companies. In addition, this study applies a range of theories, including agency, stewardship, signalling, legitimacy, stakeholder and political cost theory, to provide an explanation for the results derived.

The study is crucial for promoting an understanding of corporate disclosure in the annual reporting of firms in the KSA. It examines and identifies the factors that influence accounting disclosure in KSA-listed firms with a view to enhancing the legislation and rules of disclosure in the KSA's commercial sector. However, the Saudi market has the largest stock exchange in the GCC and Arab region; it is characterized by weak legislation and rules that dictate accounting and auditing professional operations in the KSA. In addition, most of the enforcement and regulatory bodies are still in development.

This study focuses on two types of disclosure indices: a MD index and a VD index. Accordingly, this study investigates accounting disclosure in greater depth than previous studies such as Alsaeed (2006), Al-Janadi et al. (2012) and Al-Janadi et al. (2013). Both indices are imperative for users (e.g., academics, practitioners, financial analysts and investors) as tools to measure the extent of VD and MD in KSA firms before and after various corporate reforms were enacted, such as complying with IFRS. Moreover, for future studies, those two indices will provide fundamental measurement tools by updating and adding new items subject to MD and VD, as appropriate for Saudi firms. Thus, these two indices may act as a benchmark for users, regulators and researchers in future evaluation and analysis.

1.6 Methodology of the Study

The research methodology and methods are discussed in detail in Chapter 5. A quantitative method is used to achieve its aims, test hypotheses and answer the study questions; this determined how the data for the study were collected. The KSA government has thus adopted various economic reforms, referred to collectively as "Saudi Vision 2030", to reduce the country's heavy dependence on oil and to create and develop new sources of revenue (Al-sasi, Taylan & Demirbas 2017). Accordingly, the Saudi Stock Market Authority has implemented a number of financial reforms including: (i) adopting the International Financial Reporting Standards (IFRS) in 2015; (ii) updating the corporate governance code in 2016; and (iii) opening the Saudi Stock Exchange to foreign investors in 2016 (Saudi Capital Market

Authority 2017; Nurunnabi 2017). Moreover, more recently the country's leaders have recognised the need to diversify the economy and make it more future-proof by allowing the world's most profitable company (Saudi Aramco) to go public. Thus, the sample used for this study consists of data from the annual reports of KSA nonfinancial firms from 2015 to 2017. The primary data sources (annual reports) were obtained from the Saudi Stock Exchange website (www.tadawual.com.sa). At the end of 2015, the KSA stock market consisted of 120 nonfinancial listed firms.

Two unweighted disclosure indices were developed to analyse the MD and VD firms' annual reports to measure the extent of MD and VD. The indices in this study are self-constructed, whereas there is no published disclosure index in KSA. Moreover, the indices have been constructed in the light of the KSA regulatory requirements as discussed in chapter 5. The indices are based on six sources: the KSA code of corporate governance (CG) as updated in 2015, the Organisation for Economic Co-operation and Development's principles of CG, the new IAS/IFRS adopted in KSA stock market in 2015, the KSA firms' governance practices as published in their annual reports, new KSA Companies Law as published 2014/15, and prior studies that addresses accounting disclosure.

The MD index includes disclosure and assessment components for a total of 370 items based on the 27 International Accounting Standards (IAS) or IFRS that were applied to KSA-listed firms during the period 2015–17. The VD index includes 82 items of VD information divided into five categories: (1) corporate strategy (CS), (2) financial performance and capital markets (FPCM), (3) future information (FI), (4) directors and senior management (DSM) and (5) corporate social responsibility (CSR). The extent of MD and VD information in each category from 2015 to 2017 is analysed using descriptive statistics. Further, to determine whether there were any significant changes in MD and VD levels during the studied period, MD and VD levels are analysed year by year; the data are also analysed using Wilcoxon signed-rank and Friedman ranked tests.

To investigate whether there is any significant association between CG mechanisms and the extent of MD and VD, nine hypotheses were formulated based on previous disclosure studies, the KSA business environment and the proposed theoretical framework. These hypotheses were divided into two categories: those addressing corporate board characteristics and those addressing factors related to ownership structure. Factors related to ownership structure include foreign ownership, state ownership and family ownership; while board characteristics include independent directors, board of director size, gender diversity, chief executive officer (CEO) role duality, the presence of a member of the ruling family on the board, and auditing firm type. The hypotheses are tested using a number of statistical tools, including univariate (Pearson and Spearman correlation) and multivariate analyses (OLS and Tobit regression models).

1.7 Structure of the Study

As shown in Figure 1.1, this thesis includes eight chapters investigating corporate accounting disclosure and its determinants in the KSA stock market, arranged as follows.

Chapter 1 presents the study objectives, addresses the background to the study, articulates the major motivation for the research, outlines the study questions, and explains the research contributions and scope of this study.

Chapter 2 provides a brief overview of the KSA environment, including reporting regulations and laws, and discusses the roles of enforcement bodies in the KSA context. Moreover, the chapter provides an overview of KSA economic conditions, its stock markets and the development of its CG code.

Chapter 3 reviews the empirical and theoretical literature related to this study. This includes MD and VD indices in both developed and developing countries, and their determinants. In addition, it builds the hypotheses tested in the study.

Chapter 4 provides the theoretical framework for accounting disclosure, as used in this study. It outlines various theories that may explain mandatory and voluntary practices.

Chapter 5 presents the study methodology and methods. It explains the choice between qualitative and quantitative methods, the data collection and the methods. Moreover, the chapter describes how VD and MD are measured in this study.

Chapter 6 presents the first part of the empirical analyses in this study including the results and discussion related to the first research question and sub-question.

Chapter 7 presents the second part of the empirical analyses and provides the results and discussion related to the second research question.

Chapter 8 provides a summary of the findings and contributions of the study. Moreover, it explains the limitations of the study and offers recommendations for future research.

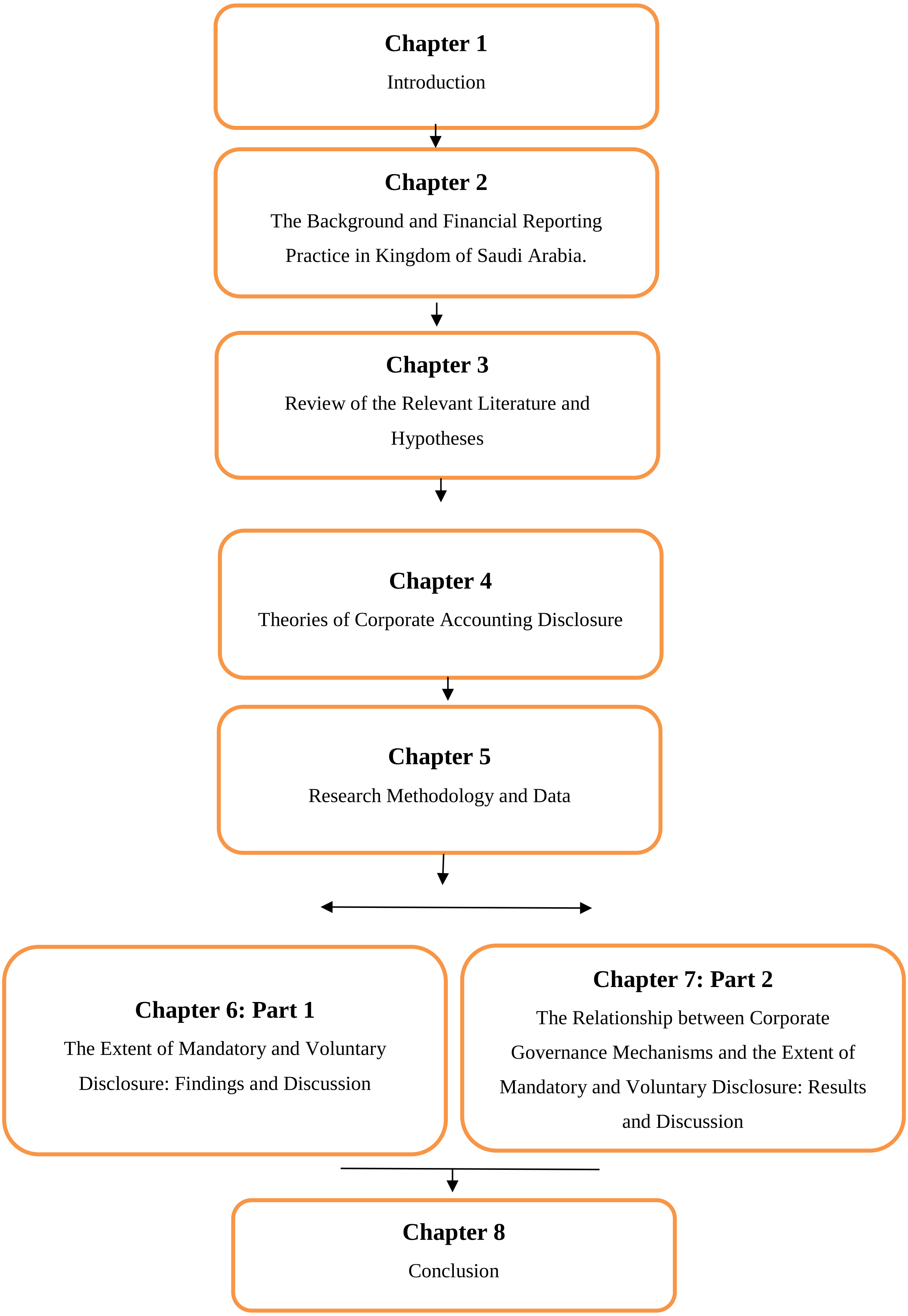

Figure 1.1: The structure of the thesis

Chapter 2: Background and Financial Reporting Practices in the Kingdom of Saudi Arabia

2.1 Introduction

This chapter provides an overview of the corporate financial reporting environment in the KSA. It aims to explain the setting, legal system, stock market history, monitoring and regulating bodies, accounting and auditing profession, listing requirements and reporting and disclosure rules in the KSA. This understanding of the principal issues in the KSA helps in the measurement of accounting disclosure practices in firms listed on the KSA stock market.

2.2 Background to the KSA

The KSA is one of the foremost developing countries in the Middle East; its capital city is Riyadh. The KSA was established in 1932 by King Abdul Aziz (1880–53). This event marked the foundation of the kingdom (Bowen 2014). With a population of more than 25 million, the KSA is located in Southwest Asia and has a land area of 2,100,000 square kilometres, of which 95% is desert. Moreover, the KSA is a member of the Arabian GCC (Dickson 2015).

The Saudi Riyal (SR) is the local currency, and 2.8 SR is equivalent to one Australian dollar (AUD). The official language is Arabic (Alghamdi and Ali 2012). Because the KSA was not governed under colonialism, it has evolved its own economy, language, society and culture (Bowen 2014). The KSA's system of government is a monarchy that is limited to the family of King Abdul Aziz. There has never been a foreign invasion in KSA, which has engendered the development of its culture, language, society and economy.

The KSA has recently experienced several reforms to its social system, business industry and political structure, which were integrated into its legal system in 2005. Based on these reforms, the KSA was confirmed as a member of the World Trade Organization. Subsequently in 2009, the KSA became a member of the group of the world's 20 major economies (G20) (Goldthau 2017).

2.3 Economy of the KSA

The KSA's economic system is vital to the Middle East. Prior to 1937, the KSA was a poor country, with agriculture as its only economic resource. In 1937, the discovery of oil in large quantities marked the economic transformation of the KSA (Alghamdi and Ali 2012). Its economy is heavily dependent on oil revenues. It is one of the world's leading exporters of petrochemicals and oil, and a founding member of the OPEC (Samargandi et al. 2014). Oil revenues account for approximately 90% of the export income and 47% of the GDP in the KSA. In the last 5 years, the KSA government has adopted various economic reforms, under its *Saudi Vision 2030* program. The goal of this program is to reduce the country's heavy dependence on oil and create and develop new resources for national revenue (Thompson 2018). The government has made efforts to promote economic diversification, such as natural gas exploration, telecommunications, petrochemicals and power generation. In addition, to enhance economic growth, the government has encouraged the expansion and improvement of its already well-developed financial markets, effective banking system and competitive and comprehensive insurance services (Samargandi et al. 2014); (Aloui et al. 2018).

In recent decades, there have been signs that the contribution of the non-oil sector to the KSA economy has increased. In the 1970s, the contribution of non-oil industry increased from 30% to 37% of the GDP, which was still low. However, in the 1980s, the share of non-oil industry in the GDP increased at the expense of the oil industry, until it reached 77% of the GDP. Thereafter, from 1986 to 2010, its contribution to GDP ranged between 60% and 70% (Samargandi et al. 2014); (Alkhathlan and Javid 2015). In this context, Choudhury and Al-Sahlawi (2000) stated that the successful growth of the contribution of the non-oil sector to the GDP was the result of the KSA's Fourth Development Plan. However, Khamis et al. (2010) argued that the growth in the non-oil sector was the result of fluctuations in international oil prices and demand.

Similar to other countries, the KSA's economic performance is measured by the nation's macroeconomic indicators, such as the exchange rate, real growth rate, exportation, inflation rate, GDP growth, unemployment rate and stock-traded value. Since 1970, the KSA government has applied 5-year plans to develop the economy (Nash et al. 2017). In 2016, the 5-year economic plan was replaced by *Saudi Vision 2030* and the KSA *Transformation Program 2020* (Saudi Vision 2017). This vision determines long-term goals for diversifying and transforming the oil-dependent economy to one that is sustainable, varied and at the crossroads of global trade. This diversification will contribute to developing the standards of living of both citizens and non-citizens as well as stabilising prices, creating job opportunities with fair salaries, decreasing inflation and enhancing economic growth (Thompson 2017).

The most recent available data were collected during the period 2011–16. They show a significant fluctuation and a decline in the KSA's macroeconomic indicators. Table 2.1 shows the GDP per capita growth rate. The average yearly revenue of citizens grew to around 6.83% in 2011 and then dropped to –0.52% in 2016. Moreover, the GDP per capita rate, the GDP growth rate and the exports of goods and services declined significantly during the period 2011–16. Thus, the dependence on oil and the sharp drop in oil prices in the last 5 years are the main reasons for the significant decline in the economic growth rates in the kingdom (Baumeister and Kilian 2016); (Aloui et al. 2018).

Table 2.1: Macroeconomic indicators of the KSA economy, 2011–16

Indicator	2011	2012	2013	2014	2015	2016
GDP per capita (current US$)	23,770	25,303	24,934	24,575	20,653	20,028
GDP growth (annual %)	9.99	5.41	2.69	3.65	4.10	1.74
GDP per capita growth (annual %)	6.83	2.33	–0.24	0.84	1.53	–0.52
Inflation, GDP deflator (annual %)	15.52	4.01	–1.21	–2.26	–17.22	–2.51
Official exchange rate	3.75	3.75	3.75	3.75	3.75	3.75
Exports of goods and services (% of GDP)	56.04	54.27	51.91	46.87	33.44	30.67
Stocks traded, total value (% of GDP)	43.41	69.45	48.53	75.01	67.04	47.395

Source: (The World Bank 2018a)

2.4 Financial and Accounting Monitoring Bodies in the KSA

The legal system that regulates and controls firms in the KSA is derived from French civil law (Sourial 2004). Corporate accounting reporting in any market is formed by its environment (Cooke and Wallace 1990); (Saudagaran and Meek 1997). The internal institutional and environmental framework are comprised of many factors: legal regulations, economic systems, level of economic improvement, availability of information and education (Cooke and Wallace 1990). Corporate accounting disclosure is described as both a socioeconomic practice and an accounting practice (Cheng 1992). Environmental elements that affect firms and managers are also reflected in the accounting disclosure practice (Adhikari and Tondkar 1992). According to the disclosure literature, the factors that affect disclosure practices include the culture, economy, capital markets, enforcement and accounting processes (Zarzeski 1996); (Radebaugh et al. 2006); (Miller and Skinner 2015); (Beekes et al. 2016); (Duru et al. 2018). The following sections discuss and shed light on the accounting monitory bodies relevant to this study of the KSA market.

2.4.1 The KSA Ministry of Commerce and Industry

The KSA Ministry of Commerce and Industry (SMCI) was founded in 1953. Its primary objective was to regulate and monitor the commercial activities of listed firms and small and medium-sized enterprises (SMEs). The *Companies Act* was introduced by the Capital Market Authority (CMA) in 1965. However, it presented a restricted number of CG regulations that were aimed at protecting shareholders by highlighting the responsibility of the board of directors and defining the rights of shareholders. In 1990, the SMCI introduced disclosure standards and requirements in response to the need to improve the level of transparency and accounting disclosure in the sector. Until 2003, the SMCI regulated and controlled the activities of both listed and unlisted firms and the affairs of the General Assembly of Shareholders in the sector. Subsequently, the CMA assumed most of the regulatory activities of the SMCI (CMA 2018).

2.4.2 The KSA Capital Market Authority

The establishment of the CMA in 2003 marked a significantly positive change in the external CG reforms of the KSA (Al-Matari et al. 2012); (Buallay et al. 2017a). The affairs of the CMA are directly supervised by the prime minister, who gives the CMA the authority to regulate the stock market, thus improving CG reforms. Overall, the CMA has introduced seven regulatory provisions regarding CG practices, which include *Market Laws and Guidelines for Listing*, which were introduced in 2004, the *Investment Fund Rules,* the *Acquisitions and Merger Rules and Regulations*, which were introduced in 2005, and the KSA Corporate Governance Code, introduced in 2006. The primary objectives of the CMA are (i) to improve and administer the KSA stock market and (ii) to enhance the disclosure and transparency of listed firms, thus increasing investor confidence (Shehata 2015); (CMA 2017c).

In its enhancement of the CG practices among listed firms in the KSA, the CMA has implemented three significant official initiatives during projects undertaken in three distinctive phases (Berg, ASDB, Pasquale; 2011). The first phase aimed to achieve a positive effect at the governance level with the introduction of the KSA CG Code. The primary objective of the second phase was to increase the attention to and understanding of good CG practices, particularly among listed firms. The third phase of these official government initiatives is still in progress. It includes a review of the KSA CG Code to enhance its effectiveness. This goal will be achieved by updating the KSA CG Code in line with international CG standards and practices. In addition to introducing reforms aimed at improving internal CG processes and regulations, the CMA intends to develop the KSA market to become an active external CG mechanism under corporate guidance (Albassam 2014); (CMA 2017b).

2.4.3 The Saudi Stock Exchange

Formal recognition of the KSA stock market was achieved in 1985. Before this, the market functioned informally. In the 1930s, the Arabian Automobile Firm was the first to be listed in the KSA (Tadawul 2018). In 1975, 14 public companies were recognised as listed firms in the market. Moreover, in 1985, the formalisation of the market operations commenced with the emergence of the Saudi Arabian Monetary Authority (SAMA), which assumed control over the developing stock market and trading regulations (SAMB Bank 2009).

Since the introduction of the CMA in 2003, its efforts have been focused on developing the stock market by creating the Saudi Stock Exchange, overseen by the Tadawul (SAMB Bank 2009); (Tadawul 2018). The Tadawul is a regulatory institution accountable for the coordination of the stock market. It is overseen by a board of directors appointed by the Council of the SMCI, which includes representatives of licensed local brokerage firms, the legislature and listed firms (Al-Habshan 2017). Table 2.2 shows the change in the number of listed firms from 2007 to 2017.

Table 2.2: Share market indicators 2007–17

End of period	No of firms	No of shares traded	Value of shares traded (Million/USD)	Market value of shares (USD)	No of transactions	General index
2007	111	57,829	2,557,713	1,946	65,665,500	11,038.66
2008	117	58,727	1,962,946	925	52,135,929	4,802.99
2009	144	56,686	1,264,011	1,196	36,458,326	6,121.76
2010	146	33,255	759,184	1,325	19,536,143	6,620.75
2011	150	48,545	1,098,836	1,271	25,546,933	6,417.73
2012	153	86,006	1,929,318	1,400	42,105,048	6,801.22
2013	163	52,306	1,369,666	1,753	28,967,694	8,535.60
2014	169	70,118	2,146,512	1,813	35,761,091	8,333.30
2015	171	65,920	1,660,622	1,579	30,444,203	6,911.76
2016	176	67,718	1,156,986	1,682	27,273,685	7,210.43
2017	179	57,829	2,557,713	1,946	65,665,500	11,038.66

Source: (SAMA 2018); (Tadawul 2018)

2.4.4 The KSA Organisation for Certified Public Accountants

In the KSA, the auditing and accounting profession is still in its developmental stages. The profession was officially recognised in 1965 with the passage of a new law that made it mandatory for the financial statements of listed firms to be audited by independent auditors. This decision was taken to protect the investments of shareholders (Saudi Organisation for Certified Public Accountants [SOCPA] (SOCPA 2018a). In 1974, the first *Chartered Accountants' Act* was issued. The act played a prominent role in regulating the accountancy profession in the KSA under the surveillance of the SMCI. However, in the early 1990s, there was no significant advancement in the accountancy profession because of the absence of an independent institution that managed its affairs (Haniffa and Hudaib 2007).

In 1992, the SOCPA was constituted as a semi-independent body (Al-Habshan 2017). The purpose of the SOCPA was to promote the accounting and auditing profession in the KSA. The official tasks of the SOCPA include the following: (i) organising independent auditors; (ii) granting licences; (iii) ensuring the quality of the services rendered by audit firms; and (iv) issuing and improving Saudi accounting and auditing standards. The *Chartered Accountants' Act 1974* was reviewed and amended in 1992 (Mihret et al. 2017); (Oraby 2017). Subsequently, in 2006, the SOCPA was officially recognised by the International Federation of Accountants

(IFAC) (Velayutham and Al-Segini 2008). Further, the SOCPA was chosen by the IFAC from a group of 16 professional bodies to promote and support the advancement of the accounting and auditing professions (IFAC 2017). According to Alsaeed (2006) and Nurunnabi (2017a), the SOCPA has played a prominent role in the advancement of audit firms. It has also increased the confidence of investors and stockholders in accounting disclosure and the reliability of financial statements and annual reports.

2.5 Important Laws and Regulations in the KSA Stock Market

The KSA is known as a developing country with a new and emerging market that has grown in recent years. Consequently, in comparison with developed markets, such as those of Australia and the United States (US), the KSA market may not be strong in surveillance of firms, and may suffer from the lack of disclosure of financial information. The KSA institutions concerned are attempting to improve and promote rules and regulations that could help to enhance corporate surveillance and transparency, as well as the timeliness of financial information. The following sections discuss and shed light on the laws and requirements that are relevant to this study on the KSA market.

2.5.1 Company Law and Structure in the KSA

The introduction of the *Companies Act of 1965* in KSA was the first official attempt to regulate corporate operations and related formal activities (AlMotairy and Stainbank 2014). The act was reviewed and extensively amended in each of 1982, 1985 and 2015 (Haniffa and Hudaib 2007); (SMCI 2017). Hussainey and Al-Nodel (2008) stated that the KSA *Companies Act of 1965* was created based on the United Kingdom (UK) *Companies Act of 1948*. However, the *Companies Act of 1965* addresses only minor aspects of CG processes. The act is primarily focused on the influence of the board and measures put in place to protect shareholders. However, the act fails to address several issues, such as the need for detailed disclosure and the implementation of transparent processes described in the KSA CG Code and the Listing Rules (Al-Ghamdi and Al-Angari 2005).

The *Companies Act of 1965* addresses the following internal CG operations:

1. Article 79: The board structure is developed to regulate (i) the size of the board of directors, (ii) the board's power, (iii) the relationship between the CEO and the chairperson, (iv) the board meetings, and (v) the board's annual reports.

2. Article 89: Listed and non-listed firms must disclose annual reports, which include a comprehensive board report, an independent auditor's report and the main financial statements.
3. The Act also addresses the rights of all shareholders and the measures that are put in place to protect their investments as described in article 83 (SMCI 2017).

The structure of a firm is an important tool for determining its legal form and organisational systems. The company's structure includes the creation of a set of basic regulations by the firm that define how the board of directors is selected, termination regulations and shareholders rights. However, it is essential that these provisions conform to the KSA *Companies Act of 1965*.

2.5.2 Accounting and Auditing Standards in the KSA

The *Companies Act of 1965*, and its 2015 amendment, explains and specifies the accounting, auditing and financial reporting requirements of corporate bodies in the KSA (SMCI 2017). This entails the preparation of annual reports and the appointment of independent auditors by firms. The SAMA utilises its authority as defined in SAMA *Charter No. M/23 of 1957*, which mandates banks and insurance companies to prepare comprehensive financial statements that conform to the latest IFRS provisions.

Further, other legal agencies and organisations (i.e., nonfinancial firms) are required to apply the accounting standards issued by the SOCPA according to the Certified Public Accountants (CPA) *Regulations No. M12 of 1991*. From 1993 to 1997, all KSA-listed firms were required to disclose their annual reports and financial statements in accordance with the generally accepted accounting principles (GAAP) (Oraby 2017). During the period 1998–2016, the SOCPA issued the KSA accounting standards, which included 16 new standards, and amended the presentation and disclosure standards. In 2002, the SOCPA issued a decision demanding that KSA-listed firms adopt the IFRS in matters not addressed by the KSA or the GAAP (SOCPA 2002).

In 2008, the SAMA required all banks and insurance firms to comply and report under the IFRS (Alzeban 2016). According to Alsuhaibani (2012), the introduction of foreign ownership of financial firms in the KSA created the need to apply the IFRS, to provide comparable, reliable and understandable financial statements to foreign and domestic investors. In 2013, the SOCPA approved the IFRS convergence plan, known as the *SOCPA Project for Transition to*

International Accounting and Auditing Standards. Instead of the GAAP international accounting system, under this plan, all the listed firms are required to adhere to the IFRS for financial periods beginning 1 January 2017 (Alzeban and Alzeban 2016). Moreover, from the beginning of 2018, SMEs are required to apply IFRS, including some additional disclosures.

It is also mandatory for all listed firms and SMEs to conduct annual audits of their financial statements, and the auditors of listed firms must comply with a mandatory 5-year audit firm rotation. The CPA *Regulation No. M12 of 1991* delegates the setting of auditing standards to the SOCPA. Under its jurisdiction, these processes are overseen by the SMCI. In 2012, the SOCPA officially stated its intention to apply the ISA by virtue of an endorsement, and its plans were presented in 2013 (Nurunnabi 2017a); (SOCPA 2018b). In January 2017, to replace the SOCPA auditing standards, the SOCPA announced that it would follow the IFRS.

2.5.3 Listing Rules and Disclosure

Since 2003, a major goal of the CMA has been to improve and promote CG regulations in the KSA. The Listing Rules issued by the Tadawul in 2004 have played a principal role in the reform of the CG regulations. Subsequently, the KSA's CG Index, which evaluates the extent of compliance with the government's corporate standards, recognises and use these rules. Section six of the Listing Rules, 'Continuing Obligations,' contains 15 articles concerned with several issues, such as disclosure and transparency in corporate annual reports, to reduce the negative effects of asymmetrical information (Tadawul 2017).

Article 25a states that in the event of significant changes in operations, listed firms must bring such developments to the attention of the CMA and its stakeholders. Moreover, the notification must be published on the Tadawul's website within 2 hours of the start of the first trading session in the stock market. Adherence to this guideline makes this information known to shareholders, who can assess the potential effect on the firm's debts, obligations, operating activities and financial assets.

Article 26d states that listed firms should declare their financial results for the fiscal quarter and the fiscal year on the Tadawul and CMA websites directly after approval by the board of directors. The CMA regulations state that the financial results must be made public within 15 days of the fiscal quarter results and 40 days of the fiscal year results. Similarly, annual reports should be accepted by the board of directors and signed by the authorised director, the CEO and the chief financial officer (CFO) before they are published and communicated to shareholders.

Article 27a states that listed firms must disclose their annual reports and board of directors report in significant national daily newspapers, and these reports must also be featured on the Tadawul website. Listed companies are also mandated to review their financial operations for the prior financial year, and must include crucial information needed by investors to carry out an assessment of the company's prospects. In addition, board of directors reports should include the following details:

(i) a description of the firm's significant operations

(ii) an explanation of the firm's growth programs and plans, decisions passed, future prospects and potential risks regarding these areas

(iii) a brief summary of the firm's assets, debts and financial activities over the previous 5 financial years

(iv) an explanation of identified differences observed in the operational outcomes of the present and reports of prior financial years

(v) the details of the firm's dividend policy

(vi) a detailed explanation of the firm's current debt and loans profile.

Ownership structure is strongly associated with an agency's issues. According to Article 27/10, firms are instructed to publicise the board's report regarding ownership structure and identify stockholders who own 5% or more of the firm's stocks. This requirement applies to managers and directors, their relatives and investors. Moreover, shareholders must be informed about crucial changes that may have occurred during the previous financial year. Article 27/17 includes provisions to improve transparency during the award of contracts by the firm and to prevent the exploitation of insiders by mandating the company's board to reveal and report any information related to the personal interests of board of director members, the CFO, CEO and their relatives during commercial transactions and business contracts. Article 27/17 highlights the important role of the board in making it compulsory for reports to include the number of board meetings that have been held and the number of members in attendance during each meeting.

Article 27/22 states that the board report should contain statements that affirm the following:

(i) a proper accounting method has been applied

(ii) the internal surveillance system is well designed and is implemented effectively

(iii) the firm shows a positive tendency to remain sustainable and progressive

(iv) the reasons for a change in the independent auditors have been clearly defined.

Finally, in accordance with managerial signalling theory, managers (i.e., agents or insiders) have access to inside information that may not be known by ordinary shareholders (i.e., principals) (Morris 1987); (Healy and Palepu 2001).Thus, Article 33 condemns the activities of agents that trade within the reporting window. In particular, directors, executive managers and their associates are not allowed to trade in any of the firm's securities through the following periods:

(i) from 10 days before the financial quarter ends until the date when the outcomes of the fiscal quarter end are disclosed

(ii) from 20 days before the end of the fiscal year end until the date on which the firm discloses its annual outcomes.

Moreover, in view of managing the controlling power of the executives and directors of listed firms regarding the determination of remuneration packages, Article 36 mandates that the company conduct a general assembly vote based on a written policy to determine remuneration or compensation.

Based on the articles described above, the disclosure rules and regulations regarding the KSA stock market are the independent variable in the current study. The following sections provide definitions of the rules and requirements that influence the disclosure of mandatory and voluntary information by firms listed in the KSA.

2.5.4 Disclosure law in the KSA

The CMA issued Article 42 of the *Capital Market Law 2009*, which states that the prospectus should include the following (CMA 2017c):

(i) The information identified in the Authority's rules as important identify the securities that will be issued, their number, price, and associated rights as well as the preferences or privileges of the issuer's alternative securities if they exist.

(ii) The report includes details of how the proceeds from issues will be disbursed and the commissions charged to people involved in the process. A comprehensive statement that defines the financial position of the issuer and all significant financial data, including the audited financial balance sheet, profit, and loss account and cash flow statement, is presented in accordance with the rules of the Authority.

(iii) All other information that is necessary for the investors and their advisers to make better investment decisions regarding the securities to be issued will be made available according to the guidelines propagated by the Authority.

Article 45 of the *Capital Market Law 2009* (CMA 2017c) states the following:

(1) It is mandatory for all issuers that desire to offer securities to the public or trade securities on the Exchange to submit quarterly and annual reports to the Authority. These annual reports must be audited in line with the Authority's rules. These reports are expected to include the following:

  (i) The loss and profit account;

  (ii) The balance sheet;

  (iii) The cash flow statement;

  (iv) Relevant information as defined by the rules of the Authority.

(2) In addition to the required information as stated in paragraph (1), the annual report must include the following:

(i) A proper description of the issuing firm, the kind of business and associated operational activities in line with the Authority's rules.

(ii) Information about its board of directors, senior staff, executive officers, and major investors or shareholders as defined in the Authority's rules;

(iii) An evaluation of the firm's management processes for current development and potential plans in the future, which may have a notable impact on the business outcomes or the financial position of the firm as defined by the Authority's rules.

(iv) All relevant information needed by the investors and their advisers to make better investment decisions regarding issuers' securities in accordance with the Authority's rules.

(3) All the information and data that are defined in this Article are regarded as confidential. Before the public disclosure of this information and similar data to the Authority, the issuing firm will not have the power to make this information public to certain parties that are not bound by the confidentiality agreement to protect such information.

2.6 The Development of Corporate Governance in the KSA

In developing markets such as that of the KSA, CG issues are considered crucial because of the absence of market features, such as a well-established financial infrastructure that can be used to address issues regarding CG (Al-Malkawi, Pillai and Bhatti 2014); (Yermack 2017). The CG framework should promote the timely and adequate disclosure of all issues related to a firm's operations, such as financial position, performance, management and ownership.

In previous years, the processes of CG were overlooked in the KSA. This situation prevailed until 2005 when the KSA CMA became aware of the weaknesses and issues related to company reporting and transparency. In addition, the market crises that occurred in 2006 and 2009 in the KSA created complicated issues that highlighted many weaknesses in the financial reporting system, such as the lack of transparency, and improper disclosure and accountability (Hussainey and Al-Nodel 2008).

Consequently, the KSA government provided substantial support to improve CG. Currently, the issue of CG is pivotal in the KSA business sector, and an ongoing debate focuses on defining ways to improve the system. In the KSA, the current CG mechanisms include necessary principles and standards, such as the rights of shareholders, the components of disclosure and transparency, and the selection of the board members who control the management of the listed firm. These measures make it mandatory to adhere to the best practices, which are aimed at protecting the rights of shareholders and investors (Albassam 2014); (Buallay et al. 2017a).

The main institutions that control the functions of the existing legal framework of CG can be classified into three categories: 1) the KSA company law systems, which have been formed based on company law in the UK; 2) the KSA SOCPA; 3) and the KSA CMA (Lessambo, Felix I 2014a). In 2006, CG statutes were established by the board of the CMA. In 2010, it became mandatory to regulate and develop the capital market in the KSA while improving the credibility and transparency of all financial reporting activities (Al-Matari et al. 2012).

The KSA CG Code has five main aspects. The first consists of introductory regulations that define some of the terms associated with the regulations, such as 'independent member', 'nonexecutive' and 'shareholder'. The second aspect concerns the rights of shareholders and the general assembly. The third is the provisions for disclosure and transparency that relate to the firm's policies, such as the board of directors report. The fourth aspect includes an introduction of the board of directors, defining their functions and responsibilities. The final aspect involves the implementation of publications to ensure adherence (CMA 2017c).

The regulations for CG include provisions that consider the board of directors and its committees as the first line of defence against management. Consequently, in this study, an attempt is made to examine the effects of CG mechanisms on the level of accounting disclosure. The following section describes the functions delegated to the board of directors and sub-committees in accordance with the KSA CG Code.

2.6.1 The Board of Directors

In accordance with the CG Code, the board of directors is expected to perform many missions, such as reviewing and approving the strategic schemes and primary objectives of the firm while overseeing their implementation. These processes include comprehensive strategies, risks, the annual budget, capital structure, planning, policies, financial objectives, performance, organisational and functional structures, provisions for settling potential disputes, ensuring the integrity of all financial operations and evaluating the effectiveness of internal control systems and monitoring. In addition, the code promotes the implementation of principles such as disclosure and transparency (CMA 2017b).

There are two kinds of board of directors: single (unitary) and dual (two-tier). The dual board system includes an administration board that directs the company's activities, and an independent monitoring board that excludes directors and is responsible for supervising the firm's operations involving the controlling and appointment of corporate managers (Belot et al. 2014). The single board system has a surveillance function and advisory duties as part of its responsibilities and is formed of independent directors and managers alike. Most states have mandated one of these two structures. For example, in the UK and most Middle East states (including the KSA), the US and North African states, the unitary board is most popular; while in European Union (EU) countries such as Austria, Germany and Denmark, a dual board of directors is mandatory (Falgi 2009).

2.6.1.1 Responsibilities and Functions of the Board

The shareholders are represented by the board of directors, which is mainly responsible for the company's operations. In companies where committees and delegates are selected, some responsibilities can be delegated to these bodies, which are regarded as third parties. The CG Code offers some explanation of the main duties of the board of directors. However, the corporate system has a significant function in determining the responsibilities of the board regarding the welfare of investors and shareholders. Generally, the board of directors is responsible for maintaining the integrity of the financial reporting and the firm's performance (Alamri 2014).

2.6.1.2 Structure of the Board

The process of selecting the board of directors is done in accordance with the following criteria:

1. The board of directors should consist of a minimum of 3 members and a maximum of 11 members.
2. Non-executive members should make up the majority (one-third) of the board of directors.

3. It is unconstitutional for the position of the chair of the board of directors to be associated with other executive positions, such as the CEO.
4. One-third of the members of board must be fully independent.
5. No member of the board of directors should occupy a similar position in more than five jointly listed firms at the same time.

The code also includes articles related to the termination of board membership. Further, it is primarily focused on the significance of board meetings rather than stating the number of meetings that should be held annually.

2.6.2 Board Sub-committees

Only the necessary committees are formed in accordance with circumstances within the company. These committees are constituted to support the board of directors in the performance of its duties. The CG Code now includes a mandate that requires the formation of an audit committee as well as committees to oversee nomination and remuneration management. In other words, the code grants that firms can establish any other committees they need; for instance, audit, nomination and remuneration committees.

2.6.2.1 Audit Committee

In 1994, the SMCI issued a decision demanding that all KSA-listed firms establish an audit committee, but by 2001, only five firms had done so (Al-Qarni 2004). In accordance with the CG Code, in 2006, the board of directors of a listed firm must form an audit committee made up of three nonexecutive members, at least one on which must have professional financial and accounting knowledge to oversee these aspects (CMA 2017b).

This committee has several crucial roles, including the surveillance and review of the firm's external and internal audit transactions; control systems; accounting policies; the integrity of financial disclosure and reporting; management supervision; recommending a proper external auditor selection; and processes for adequate conflict resolution between management and external auditors. Before the establishment of the CG Code in the KSA, the absence of sub-committees, such as remuneration, executive and nomination committees was a common situation among listed firms. In other words, the audit committee was the only sub-committee that was commissioned by the board of directors to implement several tasks (Al-Moataz and Basfar 2010).

Consequently, the audit committee had numerous responsibilities, which led to weak performance of its duties. In 2007, the SOCPA established a committee to examine the performance of the audit committees in the KSA. The outcome showed that there was a need for greater clarity regarding the functions and duties of these committees (Falgi 2009).

In the international context, the formulation of audit committee in Middle East firms is relatively new. Initially, in most developed and developing countries, the formation of the audit committee was non-mandatory (Rochmah and Ghazali 2012). In last two decades, it has become mandatory in most countries following financial crises. In most advanced markets, there should be at least three members on the audit committee; one must be and independent member and the committee chair, while the others should be independent and external parties. In general, the KSA is comparable to the UK and US, specifically in the functions and membership demands of the audit committee (Al-Matari et al. 2012).

2.6.2.2 Nomination and Remuneration Committee

The creation of the CG Code was followed by the creation of remuneration and nomination committees, which were regarded as a voluntary provision of the code. In 2010, the CMA regulatory body mandated that all listed firms should inaugurate remuneration and nomination committees by 2011 (CMA 2010). The primary functions of these committees (CMA 2017a) include the following:

1. the recommendation of individuals to be nominated
2. the annual estimate of the qualifications and experience that every board member should have, including the timeframe that should be allocated for the performance of board functions
3. the examination of the structure of the board of directors and recommendations of appointments to the board
4. the identification of strengths and weaknesses of the board and recommendations of solutions to these issues
5. the assurance that independent nonexecutive directors function independently without conflicting interests when board members work in other directorships
6. the creation of a well-defined policy to determine the remuneration of the executive team and board members.

Table 2.3 lists the institution and organisations that have influenced the company structure in the KSA. The establishment of different institutions to handle certain regulations and tasks, such as the SAMA, CMA and SOCPA has made it possible to achieve better efficiency and the adoption of more regulations, which include the establishment of CG departments in the KSA stock market.

Table 2.3: Laws and institutions affecting KSA firms

Laws and institutions	Time	Description and objective
Zakat law and tax regulations	1950	First principles that mandate firms to hold accounts to calculate the religion tax (Zakat)
The KSA Companies Act of 1965	1965	More than 200 sections govern the legal framework of entities in the KSA market
SOCPA	1992	Issues accounting and auditing standards for listed firms and SMEs in the KSA stock market
CMA	2003	Organises and develops the KSA capital market
KSA CG **C**ode	2006	Regulates the CG practices of **KSA-listed** firms
SAMA CG Code for the financial sector	2012	Regulates and develops the CG practices of banks that are both listed and **un**listed

Source: Researcher's construction

2.7 Financial Reporting Requirements in the KSA

In 2008, the SAMA required all financial firms (i.e., banks and insurance firms) to report under the IFRS and present comprehensive, reliable and comparable financial statements to investors and stockholders (Alzeban 2016). Moreover, the introduction of foreign ownership in KSA banks caused the early adoption of the IFRS (Nurunnabi 2017a). Further, in 2017 and 2018, SOCPA required all nonfinancial firms and SMEs, respectively, to comply with the IFRS (IFRS 2018). Moreover, the SOCPA endorsed other standards and technical releases regarding issues that were not included in the scope of the IFRS, such as the subject of the Zakat (religion tax). However, all 45 standards and interpretations under the IFRS that were issued on 31 December 2015 have been adopted by the SOCPA (see Appendix 1) (IFRS 2018).

2.8 Summary

This chapter presented an overview of the KSA and its corporate reporting framework to provide an understanding of the state's background, economy, enforcement bodies, regulations, legal system, CG code, and accounting and auditing standards and requirements. This introduction to the major underlying issues in the KSA helps to understand and measure the accounting disclosure practices of listed firms. The following chapter provides a review of the relevant empirical and theoretical literature on accounting disclosure, both VD and MD. The chapter focuses on the relevant MD and VD indices in both developed and developing countries. It then provides a review of empirical studies relating to the factors of MD and VD on the basis of which the study's hypotheses are then formulated.

Chapter 3: Review of the Relevant Literature and Hypotheses

3.1 Introduction

The purpose of this chapter is to provide a comprehensive review of the empirical corporate accounting disclosure (mandatory and voluntary) studies in emerging and developed markets relevant to this study's objectives and questions. The chapter highlights the variation between VD and MD in companies in emerging and developed markets. It also discusses studies examining the levels of voluntary and mandatory corporate disclosures of companies and their determinants in developing and developed markets. Moreover, the chapter utilises the empirical results and theoretical framework from the disclosure literature to develop and build testable hypotheses and select an appropriate research approach.

The current chapter is divided as follows: in Section 3.2, an introduction to accounting disclosure and its various forms, the interaction and relationship between MD and VD and CG definitions are discussed. In Section 3.3, the extent of MD in emerging and developed markets is reviewed. In Section 3.4, the factors of MD in developed and emerging countries are identified and addressed. In Section 3.5, the MD hypothesis is developed. In Section 3.6, the extent of VD in emerging and developed markets is reviewed. The factors of VD in developed and developing countries are identified and addressed in Section 3.7. Last, the VD hypothesis is developed in Section 3.8.

3.2 Corporate Accounting Disclosure

The financial situation in many US firms from 1870 to the 1900s was critical. Many needed capital from European countries (Power 1992). Firms that needed capital from foreign sources were required to provide financial reports that reflected their business dealings; as a result, the need arose for corporate financial reports. The practice of corporate financial reporting gained more prominence in the 20th century with the separation of management and ownership roles within firms. The changes in CG structure led to a renewed focus on implementing governance structure in companies. In earlier times, the practices of accounting reporting between two sovereign states were categorised into two types. The first type regarded the protection of shareholders as the primary objective, such as in the US and the UK; while the second type was more focused on protecting the interests of creditors and proving the efficacy of taxation, such as in Germany and France (Cooper and Sherer 1984); (Parker 1990); (Alotaibi 2014).

In 1975, the Accounting Standards Steering Committee in England and Wales published the *Corporate Financial Annual Statement*, which was described as the best attempt to improve accounting reporting (Cooper and Sherer 1984); (Deegan and Rankin 1996). The Canadian Institute of Chartered Accountants presented a similar attempt (document) in 1980, entitled *Corporate Reporting: Its Future Evolution* (Mattessich 1998).

A firm's accounting statement includes different types of information, such as a statement of cash flow, an income statement and a balance sheet that reflects the financial situation of the firm. The financial statements can be used by creditors, management, investors, stakeholders and government regulatory bodies to determine the financial status of a firm and inform their investment or procedural decisions (Xu 2017). However, shareholders and users of annual reports have no access to accounting information regarding the financial situation of a firm until it is published by the accounting department. The accounting department is responsible for collating data regarding the financial activities of the firm and presenting them as a published document to the public.

3.2.1 Types of Corporate Accounting Disclosure

Corporate accounting disclosure has evolved considerably in recent times. The accounting literature portrays disclosure as the final stage of the accounting operation. It involves providing users financial information for the firm via quarterly and annual reports (Atkinson 1998); (Skinner 1994). There are significant advantages to the use of financial disclosure, such as its function as a crucial criterion for an efficient stock market, lowered costs of capital, prevention of information asymmetry and mitigation of agency costs (Diamond and Verrecchia 1991); (Cui et al. 2018).

Despite these features, firms incur both direct and indirect costs as a result of undertaking corporate disclosure. The direct costs are incurred at the publishing stage, during which the public receives the firm's financial data; the indirect costs are incurred when other parties such as regulators, competitors and tax authorities utilise the data from listed firms. From this perspective, Verrecchia (1983) stated that firms might express reluctance in presenting their internal financial information through annual reports where it can be accessed by parties who are not investors and who can take advantage of the information. Consequently, three important aims of corporate financial reporting can be identified: providing a means by which firm taxation can be undertaken appropriately; presenting crucial information to stockholders; and protecting the rights of creditors (Lu and Abeysekera 2014); (Depoers et al. 2016). The purpose of disclosing a firm's financial information also includes providing useful information that can aid investors and potential investors in making investment decisions (Ott et al. 2017).

There are several means through which firms can disseminate information to stakeholders and the public. However, the accounting literature regarding corporate disclosure is focused on two main types: MD and VD. Wallace and Naser (1995) argued that MD involves the financial reporting mandated by regulatory and enforcement bodies, accounting standards and the listing rules of the stock market and the companies act. Further, Ghazali (2008) argued that MD involves the balance sheet, cash flow statement, statement of changes in equity, independent auditor's report, board of directors report and notes to the accounts. MD must adhere to the standards defined by the relevant laws and rules of the stock market (Juhmani 2017). MD is part of a firm's efforts to meet the requirements of CG regarding regulations and legislation (Abraham et al. 2015).

In contrast, VD involves the propagation of financial information that exceeds the scope of MD (Alfraih and Almutawa 2017). This is also referred to as the 'willing' disclosure of financial information in line with the firm's management approval, which can help investors make prudent investment decisions (Meek et al. 1995). VD can be achieved via a range of ways including press releases, annual reports, consultation with financial analysts, booklets, conference calls, presentations, newspapers and letters to shareholders. Debreceny and Rahman (2005) identified a difficulty in providing a standard definition for VD. In a situation where the disclosure of financial information is limited to the revelation of information regarding firm management, it is referred to as MD. Conversely, if the information included in the disclosure includes additional details that exceed standard disclosure requirements, it is referred to as VD (Lang and Lundholm 1996).

According to Lang and Lundholm (1996), voluntary information disclosure can be used by financial analysts to portray a better scenario of a firm's performance; thus, this information can be used to generate reliable investment forecasts. VD has gained much prominence in recent times and is commonly featured and discussed in the accounting literature. Studies evaluate the variables that influence VD and the effect of this practice on a firm's management, stakeholders, decision makers and users (Khlif et al. 2017); (Pisano et al. 2017); (Carvalho et al. 2017); (Lang 2018).

Further, the extent of the use of MD is influenced by regulations and rules as well as the independence and power of enforcement of the institutions in the market in which firms are listed (Juhmani 2017). Conversely, VD is less often demanded by law and corporate regulation mechanisms (Khlif et al. 2017).

3.2.2 The Interaction and Relationship between Voluntary and Mandatory Disclosure

The effectiveness of MD may not be apparent because of limitations in regulations or their vagueness and complexity; in these instances, VD can be used to compensate for the gaps in MD (Guay et al. 2016). A similar view was expressed by Solomons (1986), who indicated that the increase in the number of standards that must be adopted could cause too many complications; hence the costs of MD might exceed the benefits. VD is aimed at providing additional information regarding the firm's operations. It is done for various reasons, such as raising capital, attracting creditors and investors and reassuring stockholders (Al-Akra et al. 2010; Ebert and Schneider 2016).

However, the elements of MD and VD cannot be separated in corporate reporting. Einhorn (2005), Core et al. (2015) and Juhmani (2017) have pointed out that most of the related studies on VD consider it as the primary form of disclosure while overlooking MD. However, MD could influence the details presented during VD, so it still has a significant role to play in the firm's decision to choose a disclosure method (Einhorn 2005). Dye (1985); (1986) analysed the effect of mandatory corporate disclosure requirements on voluntary reporting in designing proprietary costs. This influence is dependent on whether one disclosure method can be substituted for another or if they complement each other. If they can be substitutes, the existence of requirements for corporate disclosure will decrease VD. However, if they complement each other, the inclusion of MD will raise the level of VD. Moreover, Watson et al. (2002) and Yu (2011) argued that increases in mandatory requirements do not hinder the efforts of firms to undertake VD. Consequently, both VD and MD are equally significant (Omar and Simon 2011).

Some researchers, such as Einhorn (2005); Li and Yang (2015); Yu (2011), have examined the connection between MD and VD. Naser and Nuseibeh (2003) identified a positive and significant connection between MD and VD. The outcome of their study agreed with Dye's perspective, which portrayed VD as complementing MD. In addition Al-Razeen and Karbhari (2004) argued that no definite association can be identified between MD and VD. In the absence of a relationship, there will be a lack of collaboration among the board of directors and the firm's management when the annual reports are prepared. In this situation, details identified with VD were presented in the directors' report, while other relevant information was featured in the financial statement and the notes.

Moreover, Al-Razeen and Karbhari stated that investors have been advised that firms that have shown a high extent of MD may not be very committed to revealing crucial information about their firms in VD documents. However, Li and Yang (2015) found a positive association between MD and VD, especially after the mandatory adoption of IFRS, in 17 countries. Finally Einhorn (2005) analysed the various features of disclosure requirements that influence the firm's propensity for providing more VDs. His analysis showed that the likelihood of a firm providing VD is independent of MD contents. In addition, there is a non-monotonous connection between the tendency to present VD and the quality of the MD. Overall, firms can improve disclosure by including more MD requirements.

3.2.3 Corporate Governance

CG as a concept has been defined by academics, regulators, scholars and professional bodies in different ways. These authors have defined CG based on their knowledge and perception of the concept. Keasey, Thompson and Wright (2005) pointed out that the different definitions that explain the CG concept show that an individual analysis can be derived for every definition, which includes the representation and disciplines. Sullivan (2000) noted that the various perspectives regarding the concept of CG could be classified into two perspectives: a narrow definition and a broader definition.

As the first classification depicts the shareholder perspective (narrow definition)—which concentrates on the consequences of detachment between principal and agent—it is aimed at generating wealth for the stockholders. Some experts have called this the traditional school of CG (Praveen 2004); (Solomon 2007). Further, Solomon (2007) and Du-Plessis et al. (2018) stated that the narrow concept of CG is based on the association between shareholders and the firm; in this approach, the goal of CG must be to promote shareholder benefits without interfering with the firm's business. Thus, this approach agrees with agency theory, which infers that shareholders are primarily concerned with reaping more benefits (Muller 2017).

Through the narrow perspective, Porta et al. (1999) indicated that CG can become a problem in the event of a conflict between larger and smaller shareholders. CG has been defined by Shleifer and Vishny (1997) as ‘The ways in which suppliers of finance to corporations assure themselves of getting a return on their investment’ (p. 737).

Letza et al. (2004) explained a narrow perspective on CG, indicating that:

> Corporate governance is about the understanding and institutional arrangements for relationships among various economic actors and corporate participants who may have direct or indirect interests in a corporation, such as shareholders, directors/managers, employees, creditors, suppliers, customers, local communities, government, and the general public. (p. 242)

In addition, Egan’s (1997) report indicated that CG is aimed at increasing the reliability of and confidence in the accounting and auditing profession by reviewing the politics of the firm’s activities and reducing the influence of members of the board of directors. Gregory et al. (2007) focused on CG with an emphasis on stockholders, as follows:

> Corporate Governance refers to that blend of law, regulation, and appropriate voluntary private-sector practices which enables the corporation to attract financial and human capital, perform efficiently, and thereby perpetuate itself by generating long-term economic value for its shareholders, while respecting the interests of stakeholders and society as a whole. (p. 2)

The definitions presented above depict CG as a means by which stockholders’ interests are protected, while overlooking the interests of other parties. Donaldson and Preston (1995) and Aguilera (1998) stated that the concept of CG is a result of the inadequacy of financial information disclosure and a loss of trust among shareholders. However, Cohen et al. (2004) and Tricker and Tricker (2015) included other users and parties in their explanation of CG, which depicts the concept as a mechanism aimed at addressing the interests of interested parties, such as internal and independent auditors, management, investors and audit committees.

As the second (broader) definition is created from the perspective of stakeholders, it concentrates on the notion of corporate accountability to stakeholders. In line with the second concept, Solomon (2007) interpreted CG as:

> The system of checks and balances, both internal and external to companies, which ensure that companies discharge their accountability to all their stakeholders and act in a socially responsible way in all areas of their business activity. (p. 14)

Moreover, this viewpoint agrees with stakeholder theory, which is focused on responsibility. In other words, it gives stakeholders, such as employees, tax departments, creditors, suppliers and clients, the right to hold the firm responsible. The most commonly used definition of CG is derived from the *Cadbury Report* (1992) issued by the UK Financial Reporting Council, the accountancy profession and the London Stock Exchange (Hardman 1996). The Cadbury (1992) definition of CG is known as, 'The system by which companies are directed and controlled'.

The OECD also explained CG from the stakeholder's perspective by declaring the following (OECD 2015):

> Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring.

Further, some studies have focused on CG as a notion of accountability, because of its value regardless of different perspectives. Onodugo et al. (2016) defined CG as being:

> About building credibility, ensuring transparency and accountability as well as maintaining an effective channel of information disclosure that would foster good corporate performance. It is also about how to build trust and sustain confidence among the various interest groups that make up an organisation.

3.2.4 Corporate Disclosure and Corporate Governance

Over the past years, many researchers, shareholders, professional institutions, practitioners and other stakeholders have directed much interest towards CG, such as Eng and Mak (2003); Gandía (2008); Samaha et al. (2012); Abdullah et al. (2015); Oyelere and Zanella (2017) and Tshipa et al. (2018). The increased focus on CG has been necessitated by the large number of international firms that have shut down and the large number of corporate scandals reported from all over the world, including, in the US, Adelphia Communications, Tyco International, Xerox, Global Crossing, Quest Communications, WorldCom and Enron; in the UK, Polly Peck, MiniScribe and Barlow Clowes; Nortel (Canada) and HIH and One Tel (Australia). In Asia, collapses have also been witnessed in many firms, such as Euro-Asia, Yorkpoint, Daqing Lianyi, Zhengbaiwen and Hongguang (China); Olympus Corporation (Japan) and Almojil and Saudi Oger (the KSA) (Lessambo 2014b; Marnet 2007; Proimos 2005; Yuen et al. 2008). Hence, the consciousness of CG has been growing to protect the interests of shareholders and other stakeholders, which has led to the institution of more stringent regulations and higher levels of credibility and transparency. Beekes et al. (2016) reported that firms under the control of higher CG disclose more substantial information.

In capital markets, the concept of CG is crucial because of the separation of agent and principal, which is prominently featured in modern firms. This results in the separation of ownership and control, which is a common action, especially in bigger corporations, demanding a higher level of surveillance and accountability. More control measures will ensure that the firm's management and the actions of the directors conform to the interests of the stakeholders and business owners. Academics and researchers have undertaken numerous studies to examine the role of CG from different perspectives, such as firm performance (Detthamrong, Chancharat and Vithessonthi 2017), investor protection (O'Connor et al. 2014), dividends and debt policy (Elmagrhi et al. 2017). Ghazali and Weetman (2006) and Beekes et al. (2016) indicated that the extents of corporate disclosure, CG, transparency and accountability constitute the most significant pillars promoting market confidence.

CG is aimed at promoting the ability of firms to remain sustainable in the long term, thus generating more profits and improving the welfare of society. Prima and Stevenson (2015) concluded that CG has a significant effect on the extent of protection offered to investors by measuring the creditor and investor protection rules across several markets. La Porta et al. (2000), in their study of protection laws for shareholders and creditors, pointed to the existence of empirical evidence regarding the association between significant provisions to protect the investors and effective CG. From a general perspective, the practices of CG may have had a significant effect on the level of corporate disclosure, mandatory and voluntary alike, in a given stock market (Arcay and Vazquez 2005; Chau and Gray 2002; Cormier et al. 2015; Gao and Kling 2012; Juhmani and Juhmani 2017; Wallace and Naser 1995). Wright (1996) indicated that significant empirical evidence exists regarding the credibility level of financial reporting and the particular institutional features of CG.

However, there are other perspectives on the connection between CG and corporate disclosure. Ahmed and Courtis (1999), Fox (1999), Baker and Wallage (2000) and Samaha et al. (2015) have proposed that an adequate and efficient financial reporting system is necessary to establish a good system of CG. The concept of CG is the focus of much literature on developed countries, while only a few studies have been directed at examining the situation in developing countries. It must, however, be propagated that the issue of CG is suitable for all countries regardless of their level of development (Mueller 2006).

3.2.5 Corporate Governance Models: Disclosure Requirements

The common view of the recent Asian financial crisis is that it was the inevitable outcome of investors' loss of confidence in the system and, more significantly, the fallout of years of below-par CG systems and relative lack of transparency by firms in the financial market (Hrnjic et al. 2019; Johnson et al. 2000). In the last decade, many East Asian countries, such as the KSA, are re-evaluating their economies' regulatory frameworks (as discussed in Chapter 2), with a view to improving the standards of CG, transparency and disclosure (Armstrong et al. 2016; Buallay et al. 2017b).

The relationship between transparency and firm value has been shown to demonstrate a positive relationship within emerging markets; lower transparency results in higher levels of asymmetric information and depressed firm value (Chu et al. 2018). Conversely, firm value is positively influenced by transparent governance environments, evidenced by broad disclosure policies. Lobo and Zhou (2001) noted that adhering to a comprehensive disclosure policy is a way for firms to enhance their value.

CG structures vary by country; each country's specific framework will usually have a set of unique elements that makes it distinct from others. However, all of these governance structures have been grouped by researchers into three broad categories that are representative of the CG models used in developed capital markets. These models are the Anglo-US model, the Japanese model and the German model (Daidj 2016; Lane 2003).

3.2.5.1 The Anglo–US Model

The Anglo–US model, also called the Anglo–Saxon model, is the model employed in the US, the UK, Australia and a number of Commonwealth countries (Ahmad and Mahmood 2015; Goergen et al. 2008). Its distinguishing features are individual ownership of shares in a company and a growing tendency toward institutional investors who are not affiliated with the firm—often referred to as outside shareholders or simply ‘outsiders’. Other characteristics of the model are sophisticated legal frameworks outlining the rights and responsibilities of the firm’s key players—management, directors and shareholders—as well as fairly straightforward guidelines for dealings between the corporation and shareholders, or between shareholders inside and outside the company’s annual general meeting (AGM) (Aguilera and Crespi-Cladera 2016; Goergen et al. 2008; Lane 2003).

The directors of the organization are appointed by shareholders, who in turn appoint managers to run the business (Ahmad and Omar 2016). This arrangement facilitates separation of ownership and control. The company board, made up of executive directors and independent directors, usually has a limited ownership stake in the company, and one individual combines the positions of board chair and company CEO (Cernat 2004). The system revolves around effective communication between shareholders, board and management. Approval on decisions is usually obtained from shareholders via voting (Bowen 2008; Wu and Patel 2013).

3.2.5.1.1 Disclosure Requirements in the Anglo–US Model

Already quite high in all jurisdictions where the Anglo–Saxon model is adopted, disclosure requirements in the US are the most comprehensive of any jurisdiction (Bush 2005; Lessambo 2016). Companies in the US are required to disclose on a wider range of information, which must be present in annual reports or the published agenda of the AGM (often referred to as the ‘proxy statement’). The information to be disclosed includes the company’s financial data (reported on a quarterly basis in the US); comprehensive information on the corporation’s capital structure; full background information on every nominee to the company’s board (including personal information, career history, past or current relationship with the company and level of stock ownership in the company); the combined compensation for all members of upper management along with full details of the compensations received by each of the five highest-paid executive officers (who must be named); details of all holdings totalling over 5% of the total share capital; disclosure on all planned mergers or restructuring; information on any planned changes to the company’s articles of association; and the particulars of all recommended auditors—individual and corporate (Lessambo 2016; Maassen 1999).

The disclosure requirements in the UK and other countries that follow the Anglo–Saxon model are similar, but for most, reporting is semi-annual and the required data on company financials and information on board nominees are less detailed (Lane 2003; Lessambo. 2014).

3.2.5.2 The Japanese Model

The Japanese model, or business network model, is defined by a markedly high level of stock ownership by banks and companies affiliated with the corporation (Ungureanu 2012). The model often displays a pronounced long-term linkage between the bank and the corporation to create a framework that provides the legal, public and industrial policy base to promote the Japanese concept of a *keiretsu* (Cooke 1996; Daidj 2016). A *keiretsu* is a group of industries that are intricately connected by a complex web of trade relationships and cross-shareholding of debt and equity. Other aspects of the Japanese model are boards composed mostly of insiders and relatively low or non-existent input from outside shareholders (because of the complicated procedures for obtaining shareholder votes) (Hoshi and Kashyap 2004).

A supervisory board, made up of a president and board of directors, is appointed by the combined inputs of the shareholders and the banks (Zhuang et al. 2001). This, in some ways, appears to be an attempt to reject the insular structure imposed by the *keiretsu*. The *keiretsu* seeks to entrench control on the basis of long-standing cultural relationships between groups of family-owned corporations and a mesh of intertwining business relationships, where cross-shareholding is a common practice and directors of companies are the heads of the various divisions of the company (Gilson and Roe 1993). As a result of this arrangement, outside or otherwise independent directors are virtually absent from company boards (Aoki et al. 2007; Kaplan 1994).

3.2.5.2.1 Disclosure Requirements in the Japanese Model

Although stringent, disclosure requirements here are not as burdensome as in the US. Firms are required to disclose information on a wide range of areas either in their annual reports or in the agenda for their AGM. Required disclosures include financial data, which are usually expected on a semi-annual basis, and comprehensive data on the firm’s capital structure as well as comprehensive information on all individuals nominated to the company’s board, detailing their personal information, career histories, past or current relationship with the corporation and level of stock ownership in the company. Also included are detailed data on the aggregate compensation payable to all executive officers and members of the board, specifying the maximum amounts payable to each individual; information on planned mergers or restructurings; planned changes to the organization's articles of association; and the names and other details of recommended auditors—both corporate and individual (FSA 2017; JPX 2019; METI 2017, 2018; TSE 2018).

The disclosure system of the Japanese model diverges from that of the US (viewed as the world's strictest) in significant ways. The disclosure of financial data is semi-annual, not quarterly as in the US; only aggregates of compensation for executives and board members are published in Japan compared with the disclosure of compensation for individual executives in the US; requirements stipulate the disclosure of a corporation's 10 largest shareholders in Japan, but in the US, holdings totalling more than 5% of the corporation's total share capital must be disclosed; and there are differences between the accounting standards used in Japan and the US GAAP.

3.2.5.3 The German Model

This model is also known as the 2-tier board model because of the presence of two boards in the model: a supervisory board and a management board (Heyden et al. 2015). Primarily used in Germany, the Netherlands and France, the German CG structure deviates in very important ways from the Anglo–Saxon and Japanese models (Aguilera and Jackson 2003; Ahmad and Omar 2016). However, in that banks hold long-term stakes in German corporations, the German model holds certain resemblances to the Japanese one. Like in the Japanese model, bank representatives are elected to the board, but unlike it, these representatives remain on the German corporation's board (Block and Gerstner 2016); in Japan they are elected only during times of financial crisis (Kaplan and Minton 1994).

Germany's three biggest banks, which offer a plethora of services, play a big part in this system. In parts of the country, public-owned banks may even feature as key shareholders of a corporation; a large proportion of a company's stocks are held by banks and other financial institutions (Behr and Schmidt 2015). Additionally, shareholders are only allowed to appoint 50% of the members of the company's supervisory board; the other 50% is populated by employees and labour union representatives (GTDT 2018).

3.2.5.3.1 Disclosure Requirements in the German Model

As with the Japanese model, the disclosure requirements, though stringent, are not as rigorous as those of the US (Tahir et al. 2012). Corporations must disclose the following information in annual reports or AGM agendas: corporate financial data that are usually reported on a semi-annual basis; comprehensive data on the firm's capital structure; the name, occupation, hometown and corporate/professional affiliation of each supervisory board nominee; aggregates of compensations for the members of the two boards; details of all holdings totalling over 5% of the total share capital; information on planned mergers or restructuring; information on planned amendments to the corporation's articles of association; and the names of recommended auditors—both corporate and individual (CMS 2018; SIEMENS 2017).

The disclosure requirements of the German model differ from those of the US model (viewed as the strictest in the world) in important ways. Financial data are disclosed semi-annually, compared with quarterly in the US; only aggregates of compensations for executives and supervisory board members are disclosed, unlike in the US where individual compensation data for executives and board members is required; share ownership of the members of the supervisory board is required, compared with disclosure of stock ownership by executives and directors in the US; and there are critical differences in the accounting standards applied. A major accounting difference in the German system is that corporations can accumulate sizeable reserves, which allows them to under-report on their value. This is not acceptable under the US GAAP (Benberger et al. 2004).

3.2.5.4 The KSA Model

In the KSA, Sharia or Islamic law forms the basis for the country's laws (Baydoun et al. 2012). Government agencies' regulations are usually elaborations of Islamic law or offer more specific guidelines. In the area of CG, the most significant recent development has been the release, by the KSA CMA, of the Corporate Governance Regulations in 2006 (Falgi 2009). More recently, a set of relevant CG guidelines was published by the SAMA for banks operating in the country (SAMA 2018).

In addition to the above agencies, the Tadawul and SOCPA are major formulators of policy for the CG framework of the KSA (CMA 2017b). To a significant degree, ownership of companies in the KSA is concentrated in the hands of the government and wealthy families. This is the nature of CG in the KSA (Al-Ghamdi and Rhodes 2015). The CG framework mostly follows the Anglo–US model (Alamri 2014). The focus is on the protection of shareholders rather than the interests of a firm's other stakeholders. This is mainly because of influence exerted on the law by the *UK Companies Act of 1948*. This influence persists in spite of clear differences in the cultures and legal systems of the two countries (Alamri 2014).

3.2.5.4.1 Disclosure Requirements in the KSA Model

Requirements stipulate quarterly and semi-annual reports of financial statements, including balance sheets, income statements and cash flow statements. These are required to include further information on board members, the composition of management teams and details of management analysis and discussions (CMA 2017b). These statements are expected to be drafted to conform to local and national accounting standards and requirements, and are to be audited to the national standards. Oversight over financial reporting standards is exercised by the CMA (CMA 2017b). The differences among CG models in their disclosure requirements are outlined in Table 3.1.

3.3 The Extent of Mandatory Corporate Disclosure in Developing and Developed Markets

In this section, the empirical literature is examined to identify the methods and approaches used to measure the extent to which MD indices are regarded in developed markets. The analysis includes a study of the methods and items used to determine these indices. Moreover, the theories of MD applied in developed states are presented.

3.3.1 Studies of the Extent of Mandatory Disclosure in Developed Markets

Table 3.2 provides a summary of literature examining the extent of MD in developed states. The empirical studies have been categorised in chronological order by year of publication. A number of inferences can be made from the results of these studies. In total, 21 studies were identified; 7 of which focused on examining the level of MD before and in the 1990s, and 14 of which were conducted in 2000 or after. The studies aimed to examine the capital market in developed states.

Table 3.1: Disclosure requirements of CG models

Anglo–US model	German model	Japanese model	KSA model
Essential information about each member of the board of directors All shareholders owning more than 5% of the firm's total stock capital All compensation paid to all executive managers as well as individual compensation information for each of the five highest-paid executive directors, who are to be named Breakdown of the organization's capital structure Quarterly corporate financial statements Proposed amendments to the articles of association Data on proposed restructuring and mergers The names of firms and/or individuals suggested as auditors	All information about the compensations of the supervisory and management boards Semi-annual firm financial information Data on proposed restructuring and mergers Names of firms and/or individuals suggested as auditors Limited data on each supervisory board member, including occupation/affiliation, hometown and name Any principal owner holding more than 5% of the firm's overall stock capital Information on the structure of the firm's capital Data on suggested reforms to the articles of association	Data on the corporation's capital structure Semi-annual firm financial information Information on proposed mergers and restructurings All information on compensation, namely the maximum amount of compensation payable to all board of directors and executive directors Proposed amendments to the articles of association Background data on each member of the board of directors (relationship with corporation and ownership of stock in the corporation, occupation and name) Names of firms and/or individuals suggested as auditors	Quarterly corporate financial statements Any principal owner holding more than 5% of the firm's overall stock capital Information on capital structure All information about the compensation of supervisory and management boards Suggested reforms to the articles of association

Table 3.2: Summary of MD studies in developed markets

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
Barrett (1976)	Seven markets: France, UK, Japan, US, West Germany, Sweden and Netherlands	103 public firms, 15 from each market except Netherlands—13 firms only	1963 –72	Weighted approach	17 categories of accounting information	72%, 73%, 56%, 52%, 57%, 58% and 44% for US, UK, Japan, West Germany, Netherlands, Sweden and France firms, respectively; average 59%	-Efficient market -Capital	Descriptive analysis.
Cooke (1992)	Japan	35 listed firms	1988	Unweighted approach	165 mandated items	Range of MD 88–100%; average extent 95%	-Agency -Information	Regression analysis.
Cooke (1993)	Japan	48 firms (13 unlisted and 35 listed)	1988	Unweighted approach	195 mandated items	Average 54% under the Securities and Exchange Law and 35% under the commercial code	-Capital need -Agency	A T-Test analysis.
Malone et al. (1993)	US	125 gas and oil firms (84 unlisted and 41 listed)	1986	Weighted approach	129 mandated items	Average 56%	-Information cost	A stepwise regression model.
Wallace et al. (1994)	Spain	50 nonfinancial firms (20 unlisted and 30 listed)	1991	Weighted approach	16 mandated items	Range 29–50%; average 59%	-Economic -Political cost	A regression model.
Zarzeski (1996)	US, UK, France, Hong Kong, Japan	256 firms (29 from Hong Kong, 29 from Germany, 16 from Norway,	1991 –93	Unweighted approach	52 mandated items	Average 73% in US, 69% in UK, 63% in France, 57% in Hong Kong, 60% in	-Gray's model (cultural theory)	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
	Germany and Norway	39 from Japan, 31 from France 47 from UK and 65 from US)				Japan, 57% in Germany and 60% in Norway		
Patton and Zelenka (1997)	Czech Republic	50 firms (23 unlisted and 27 listed)	1993	Unweighted approach	66 mandatory items	Range 25–80%; average 60%	-Information cost	A regression model.
Street and Gray (2002)	32 countries	279 listed firms	1998	Unweighted approach	9 mandatory standards (IAS) and 10 issues in 7 IAS	Range 60–93%; average74%	None	OLS regression.
Camfferman and Cooke (2002)	Netherlands and UK	332 listed firms (161 from each country)	1996	Unweighted approach	13 categories including 93 mandated items	59% in UK; 54% in Netherlands	-Political cost -Information cost -Agency cost	OLS regression.
Glaum and Street (2003)	Germany	200 listed and cross-listed firms (100 adopted GAAP and 100 adopted IAS)	2000	Unweighted approach	2 indices (144 items in GAAP index and 153 items in IAS index)	Average 87% in GAAP index 84% and in IAS index	-Efficient market	OLS regression.
Archambault and Archambault (2003)	38 countries	761 listed firms	1992–93	Unweighted approach	7 categories of mandatory information including 85 mandated items	Range 16–94%; average 76%	-Gray's model -Cultural -Agency cost	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
Owusu-Ansah and Yeoh (2005)	New Zealand	50 listed firms	1992–93 and 1996–97	Unweighted approach	495 Financial Reporting Act-mandated items	78% in 1992–93; 88% in 1996–97; average 93% across the two periods	None	OLS regression.
Yeoh (2005)	New Zealand	49 listed firms	1996–98	Unweighted approach	495 mandated items	Increased from 84% in 1996 to 98% in 1998; range 84–99.5%; average 94%	-Political cost -Information cost	Descriptive statistics analysis.
Fekete et al. (2008)	Hungary	18 firms	2006	Unweighted approach	6 groups of mandatory information: Deloitte IFRS presentation; IAS 27, 28, 31; IFRS3 and disclosure checklist	Average 62%: two firms had fully adopted, and five had extent <50%	-Capital need -Political cost	OLS regression.
Hodgdon et al. (2009)	13 EU countries	101 public firms	1999–2000	Weighted and unweighted approaches	209 mandated information items	Average 45% in 1999 and 50% in 2000	-Efficient market -Information cost	Pooled OLS regression and fixed-effects estimation.
Tsalavoutas (2011)	Greece	153 listed firms	2005	Unweighted approach	Two MD indices: partial compliance (PC) method and Cooke's method, including 481 mandated items	Mean 83% with Cooke's method and 79% with PC method	-Capital need -Signalling -Information cost -Agency	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
Popova et al. (2013)	UK	100 listed firms	2006–10	Unweighted approach	209 mandated information items	Mean 92%	-Efficient market -Agency -Regulation	OLS regression.
Biaek-Jaworska and Matusiewicz (2015)	Poland	36 parent listed firms	2005–07	Unweighted approach	Polish Corporate Disclosure checklist including 37 mandated items	Average 41% in 2005; 45% in 2006; 49% in 2007	-Signalling -Management -Agency	fixed and random effects regression.
Wang (2016)	Australia	112 listed firms	2006, 2010 and 2014	Unweighted approach	23 items mandated by 8 IFRS	89.71% in 2006; 92.05% in 2010; 90.89% in 2014	-Information cost -Information risk	Descriptive statistics analysis.
Mazzi et al. (2017)	13 European countries	214 nonfinancial listed firms	2008–11	Unweighted approach	Two mandatory indices: 51 items in the first and 54 in the second	Average 83%; range 33.3–100%	-Information risk	OLS regression.
Mnif and Fendri (2017)	South Africa	120 nonfinancial listed firms	2012–14	Unweighted approach	20 information items mandated by IAS 24	Average 77% for IAS24; range 50–100%.	-Agency	OLS regression.

A crucial point that is also relevant to the objective of this study is that 17 of the 21 studies considered utilised a single disclosure index approach. This involves using an unweighted (dichotomous) disclosure index to measure the requirements needed to comply with MD in the stock markets of developed states. The use of a dichotomous approach makes it possible to compare the items featured in the MD index with the financial and nonfinancial information of the annual reports of companies. For items disclosed, the firm is awarded a score of 1. However, 0 is entered for items that are applicable to the firm but have not been disclosed. The literature review covering the situation in developed countries shows that there are distinct differences among MD indices applied in previous studies, which is likely because there is no theory that can be used to define the number and type of requirements, information and items that should be counted in a MD checklist.In some studies, very few items have been specifically identified as compulsory features in the MD indices. For example, in a study by Wallace and Naser (1995), only 16 items of mandatory financial information were included; Patton and Zelenka (1997) applied 66 items in the disclosure index; and in the Mnif and Fendri (2017) investigation, the MD included only 20 mandatory items. However, some studies cover a large number of mandatory items in the disclosure index. Owusu-Ansah and Yeoh (2005) applied 495 MD indicators, Tsalavoutas et al. (2011) applied 481 MD indicators, and Popova et al. (2013) applied 290 MD indicators. Moreover, it is noted that many of the studies on MD in developed markets used unweighted disclosure checklists to measure the level of MD.

Regarding the significance of the various kinds of information provided by the indicators, some early studies applied unweighted indices to reflect the perspectives of various users, such as financial analysts, enforcement bodies, regulators and investors (Cooke (1992), (1993); Street and Gray (2001); Yeoh (2005); Owusu-Ansah and Yeoh (2005); Glaum and Street (2003); Fekete et al. (2008); Tsalavoutas (2011); Popova et al. (2013); Biaek-Jaworska and Matusiewicz (2015); Wang (2016); Mazzi et al. (2017); Mnif and Fendri (2017). For instance, Patton and Zelenka (1997) measured a disclosure model with a group of 50 Czech stock firms listed in the 1993 Prague Stock Market. The study used a dichotomous method to introduce two extra alternative indices. The disclosure index developed included only items that were expected to be adopted by the majority of firms, classified as a 'narrow' checklist. The two alternative checklists contained the narrow index as well as items regarded as 'not applicable' issues, such as a 'broad' checklist and a 'somewhat broad' checklist. The MD index for an identified company was defined as the sum of information items not disclosed divided by the sum of information items disclosed + the sum of information items not disclosed; items regarded as 'not applicable' are excluded from this calculation. The score of an MD index could be either 1 or 0. Disclosed items were scored 1, while items that had not been disclosed were scored 0. Further, the 'narrow' checklist included 37 mandatory items—17 of which were used in the 'broad' checklist, and 12 of which were used in the 'somewhat' broad checklist. It was observed from the results that the average level of firms' MD was 60% with large variation in the extent of MD, from 25% to 80%.

Street and Gray (2001) used a global sample of 279 firms that adopted the IAS to measure the level of MD and essentially provide evidence to identify determinants of the extent of MD. Two MD indices were considered. The first MD was calculated by dividing the sum of the demanded information provided by the sum of the applicable disclosure. The other was calculated by dividing the sum of the required information disclosure disclosed by the company by the sum number of applicable disclosures. This method of calculation is in agreement with that used by Cooke (1989) and Cooke and Wallace (1990), which allocated an equal weighting to all the different disclosure items. The first MD index included nine IAS (IAS 33, 32, 29, 23, 19, 17, 14, 16 and 12), and the second MD checklist, eight (IAS 29, 22, 21, 19, 12, 8, 4 and 2). The report revealed no important variation in the mean value for the total disclosure indices, which were 72% for the first index and 74% for the second index.

Tsalavoutas (2011) surveyed 153 Greek-listed firms to determine their compliance with the IFRS mandatory requirements for 2005. In this investigation, a checklist that included 481 MD items was used as required by 31 IFRS standards. The researcher applied the two most significant disclosure styles: the partial compliance (PC) approach and Cooke's approach. The latter (unweighted checklist) is calculated as the proportion of the sum of mandatory items provided in relation to the highest possible score attainable for that firm. It should be noted that there are some obvious limitations in the use of this disclosure index, which arise from the varied nature of the different standards for the number of disclosure items.

In other words, some accounting standards require a large number of mandatory items, such as IAS 1 (presentation of financial statements), while other standards demand only a few items to be disclosed (e.g., IAS 2, 'inventories'). Accordingly, Al-Shiab (2003) stated that the standards contained in indices requiring more items to be disclosed are unintentionally and indirectly not addressed equally and are regarded differently from standards that require only a few items to be disclosed. This issue can be avoided by applying an alternative approach, such as the PC approach (unweighted method), which entails the level of compliance for each firm to be evaluated by adding the score for adopting the different standards and dividing this by the total of accounting standards applicable to the different firms (Al-Shiab 2003). It can be observed from the results that Cooke's method accounted for 83%, which was higher than the 79% derived from the approach used in Al-Shiab (2003), where only the PC method was implemented. The values were significantly lower than those for scores adopted in investigations of other developing countries during similar periods (e.g., Hassan et al. (2006) with reference to Egypt's stock market). Similarly, studies that use only Cooke's method tend to report inflated findings (based on the number of items representing the different accounting standards included as part of the research tools).

Some studies, such as those by Malone et al. (1993) and Wallace et al. (1994), used the weighted approach. For instance, in 1986, Malone et al. (1993) explored determinants of the level of corporate MD for 125 petrochemical companies in the US by applying a weighted disclosure index featuring 129 mandatory information items. The index measured the weight of the individual items on a scale of 0–2, where 0 represented a less significant investment decision, 1 represented a decision of intermediate significance and 2 represented the highest level of significance regarding investment decisions. The firm's financial disclosure and the overall disclosure index were determined as the proportion of the company's sum disclosure to that of the company's sum of excepted accounting disclosure. The outcome reflected the mean extent of corporate disclosure, which was 56%. It is of note that the application of the weighted approach has been criticised because weighted indices tend to reflect the subjectivity of users and analysts rather than the real value of the MD items, which makes an unweighted checklist more suitable (Cooke and Wallace 1990); (Akhtaruddin 2005).

Hodgdon et al. (2009) identified a set of disclosure studies that used both unweighted and weighted methods. For instance, Hodgdon et al. (2009) focused on determining the influence of accountants' selection of IFRS adoption while assuming strict endogeneity of the auditor choice. Hodgdon et al.'s study evaluated the level of disclosure by using both unweighted and weighted approaches. The weighted index was calculated as the total of the disclosure presented (weighted) by the company divided by the total of the disclosure expected (weighted) from the firm, and the unweighted method checklist was defined as the total MD disclosed by a company divided by the sum of MD expected to be presented by the company. The disclosure index featured 209 MD items for a selected sample of 101 public companies. The outcome indicated the values of the unweighted approach, which showed that the extent of disclosure for years 2000 and 1999 were 64% and 58%, respectively. The weighted compliance score was also an indication of the variable nature of disclosure extent as presented by the IFRS companies. The mean disclosure extent attained from the weighted approach was 45% for 1999 and 50% for 2000.

Further evaluations of disclosure studies that used both unweighted and weighted indices have shown that there is no important variation between the two approaches (Choi 1973b); (Chow and Wong-Boren 1987). This has led to the increased use of unweighted disclosure indices in developed states. In addition, many studies, such as those by Cooke (1992), Owusu-Ansah and Yeoh (2005), Popova et al. (2013), Wang (2016) and Mnif and Fendri (2017), used self-constructed MD indices. Some studies did not use existing MD indices, including those by Fekete et al. (2008); Glaum and Street (2003). Moreover, some studies, such as that by Malone et al. (1993), were focused on the development of disclosure indices to determine the MD practices in particular industries, such as the gas and oil sector. Generally, these studies aimed to develop comprehensive disclosure indices that can be used to explore MD practices across a broad range of sectors.

The majority of studies on corporate disclosure were focused on the developed states, such as the US and the UK. In addition, prior to the 1980s, very few studies focused on developing states. Studies that focused on examining MD indices with a view to accessing MD practices in 21 developed states include those in Austria, Switzerland, Italy, Finland, Denmark, South Africa, the UK, the US, Poland, Greece, Hong Kong, Germany, Hungary, Norway, Japan, Spain, France, the Netherlands, New Zealand, Sweden and the Czech Republic. Such studies are the most significant because of their inclusion of rigorous analytical tools or novel empirical findings that promote the investigation methods used in this research.

With the exception of the studies of Cooke (1993), Fekete et al. (2008) and Biaek-Jaworska and Matusiewicz (2015), samples used in studies related to MD in developed countries employ a large number of companies from developed markets—for example, Camfferman and Cooke (2002) with 332 listed companies; Mazzi et al. (2017) with 214; and Archambault and Archambault (2003) with 760 listed companies—while pointing out the difficulties in data collection in some environments because of inadequate databases and a culture of secrecy, which hinders the publication of financial information. This issue is also commonly experienced when researching developing markets (e.g., Basuony et al. (2016); Hassan et al. (2006); Abd-Elsalam (1999); Sarhan and Ntim (2019). Studies that examined MD practices in developed states have revealed that financial disclosure theories have succeeded in presenting an adequate explanation for the variation in the extent of MD among firms, considering that these theories were developed in Western countries.

Accounting theories (such as signalling, political cost, agency, cultural and capital need theory) used in previous studies of MD have accompanied the improvement of the VD literature, which was used to interpret the factors that influence management decisions to generate more information presented in financial statements. Thus, most studies on corporate disclosure have considered theories in all aspects of disclosure studies, regardless of whether they included VD or MD practices to expound on the differences in the extent of corporate disclosure among the sampled companies (e.g., Abd-Elsalam (1999); Abdelsalam and Weetman (2007); Al-Hussaini et al. (2008); Aljifri et al. (2014b); Cooke (1992); Haniffa and Cooke (2002); Juhmani (2017); Owusu-Ansah and Yeoh (2005); Popova et al. (2013). Table 3.2 also mentions the MD theories used in previous studies focusing on developed states. These theories include efficient market, regulatory and free market, signalling, political cost, information cost, capital need and agency theory. Chapter 4 contains a comprehensive review of these theories.

Generally, the sampled firms included in the reviewed studies operate in a range of institutional settings, making it necessary to use caution when comparing the results of studies and drawing conclusions. In addition, the samples used in the studies relate to different periods. A majority of the studies applied self-constructed indices (unweighted disclosure checklist), which may make the scoring process more subjective. Nevertheless, it should also be noted that these studies have provided similar generalised findings. There was low compliance with IAS for disclosure among companies in developed markets. In particular, the MD extent could exceed 90%, and many studies reported the average MD extents around 75–85%.

Table 3.3: Summary of MD studies in developing markets

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
Ahmed and Nicholls (1994)	Bangladesh	63 listed firms	1987–88	Unweighted approach	94 mandatory items	Mean 59%; average for 37 firms 60–80%; only four firms disclosed >90%	None	A multiple regression model.
Wallace and Naser (1995)	Hong Kong	85 public firms	1988–92	Unweighted approach	30 information items mandated by Hong Kong accounting standards	Range 55–87%; mean 73%	-Political cost -Information cost	A multiple regression model.
Craig and Diga (1998)	Five ASEAN countries: Philippines, Indonesia, Thailand, Malaysia and Singapore	145 public listed firms (25 from Thailand and 30 firms from each of the others)	1993	Unweighted approach	530 mandatory information items	Average 52% in Indonesia; 65% in Thailand; 68% in Philippines; 73% in Malaysia; 74% in Singapore	-Efficient capital market -Political cost -Information cost	A multiple regression model.
Owusu-Ansah (1998a)	Zimbabwe	49 public listed firms	1994	Unweighted approach	214 sub-mandatory items and 32 main mandatory information items	Range 63–85%; mean 74%	-Free market -Regulatory	OLS regression.
Naser et al. (2002)	Jordan	84 listed firms	1998	Unweighted approach	86 information items mandated by IAS	64%; range 34–85%	-Efficient capital market -Political cost -Information cost -Agency	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
Abd-Elsalam et al. (2003)	Egypt	100 nonfinancial listed firms	1995–96	Unweighted approach	241 information items mandated by IAS	Range 57–98%; mean 83%.	-Signalling -Agency -Capital need theory	OLS regression (Stepwise and enter model)
Al-Shiab (2003)	Jordan	50 listed firms	1995 and 2000	Unweighted approach	273 information items demanded by IAS	68% in 2000; 49% in 1995	-Signalling -Efficient capital market -Political cost -Agency	OLS regression.
Naser and Nuseibeh (2003)	KSA	67 public firms	1992 and 1999	Unweighted and weighted approaches	56 mandatory items	89% for both indices; range 42–99%.	None	Descriptive statistics analysis.
Ali et al. (2004)	South Asia countries: Bangladesh, India and Pakistan	556 listed firms (219 from India, 229 from Pakistan and 118 from Bangladesh)	1998	Unweighted approach	131 mandatory items amended by IAS	78% in Bangladesh; 79% in India; 81% in Pakistan; average 80%.	-Political cost -Information cost -Agency	OLS regression.
Akhtaruddin (2005)	Bangladesh	94 listed firms	1999	Unweighted approach	160 information items required by the 1994 firms act	44%, range 17–73%.	-Stakeholder -Political economy -Agency -Legitimacy	Descriptive statistics analysis.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
Hassan et al. (2006)	Egypt	80 nonfinancial firms	1998 and 2002	Unweighted approach	75 information mandatory items	90%; range 44–100%	-Information cost -Political cost -Agency	GLS regression.
Abdelsalam and Weetman (2007)	Egypt	72 nonfinancial firms	1991 – 92 and 1995 – 96	Unweighted approach	241 information items mandated by IAS, the capital market law and companies act	76% for IAS; 92% for capital market law; 73% for companies act	-Gray and Hofstede models (cultural theory)	OLS regression.
Aljifri (2008)	UAE	31 listed firms	2003	Unweighted approach	73 information items required by UAE accounting standards	Range 41–86%; average 67%	-Efficient market -Agency -Regulatory -Information cost	A logit regression.
Al-Shammari et al. (2008)	GCC countries	137 listed firms	1996 and 2002	Unweighted approach	160 mandatory items required by 14 IAS	68% in 1996; 82% in 2002; 70% in Qatar; 73% in Bahrain; 74% in Oman; 75% in Kuwait; 78% in KSA; 80% in UAE	-Regulatory -Political cost -Information cost -Agency	OLS regression.
Al-Akra et al. (2010)	Jordan	80 nonfinancial firms	1996 and 2004	Unweighted approach	Two indices: 301 mandatory items in Mirza and Epstein index and 641 mandatory items in PwC index	55% in 1996; 79% in 2004	-Agency cost -Regulatory	OLS regression (Pooled model).
Dahawy et al. (2010)	Egypt	39 listed firms	2006–07	Unweighted approach	Based on CMA Egyptian index	Range 74–83%	-Information cost -Agency cost	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
							-Political cost	
Alanezi and Albuloushi (2011)	Kuwait	68 listed firms	2007	Unweighted approach	199 information items required by IFRS	Range 74–96%; average 72%	-Political cost -Information cost -Agency -Regulatory	OLS regression.
Hassaan (2013)	Jordan	75 nonfinancial firms	2007	Unweighted approach	275 information items mandated by IFRS	Range 56–88%; average 72%	-Agency cost -Efficient capital market	Stepwise regression.
Aljifri et al. (2014b)	UAE	153 unlisted and listed firms	2005	Unweighted approach	317 information items required by IFRS	Mean 57%; range 23–70%	-Cost-benefit -Capital market -Agency -Signalling	OLS regression.
Abdullah et al. (2015)	Malaysia	221 listed firms	2008	Unweighted approach	295 mandatory items	Average 84% and range 53–98% for PC method; average 89% and range 65–98% for Cooke's method	-Cultural -Agency	OLS regression.
Che and English (2016)	Malaysia	18 listed firms	2011	Unweighted approach	8 IFRS, which include 143 mandatory items	46%	None	Descriptive statistics analysis.
Alfraih (2016)	Kuwait	134 unlisted and listed firms	2010	Unweighted approach	439 information items required by 26 IFRS	Mean 70%; range 41–91%	-Litigation cost Capital market need -Agency -Signalling	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of MD	Theory used	Research technique
Juhmani (2017)	Bahrain	41 public firms	2010	Unweighted approach	224 mandatory items required by 27 IFRS	Mean 81%; range 61–94%	-Agency	OLS regression.
Aribi et al. (2018)	Jordan	228 listed firms	2008–13	Unweighted approach	28 mandatory items	Mean 31%; range 0–78%	-Agency	Random effect regression.
Agyei-Mensah (2019a)	Ghana	120 listed firms	2013–16	Unweighted approach	71 mandatory items required by IAS-24	Average 21%/ range 14–70%	-Agency -Organisational	OLS regression.

3.3.2 Studies of the Extent of Mandatory Disclosure in Developing Markets

The review of the literature on the extent of MD in firms located in emerging markets is summarised in Table 3.3. These studies are classified in chronological order by year of publication. A number of conclusions can be drawn after reviewing the findings in these studies. Among the 25 disclosure studies identified, four explored the level to which MD was undertaken during the 1990s, while 21 studies were based on samples during or after 2000. In addition, 24 of the 25 studies utilised the single disclosure approach, also known as an unweighted disclosure index, to measure the extent of MD in developing states. Firms found to disclose certain items were scored 1, and in cases where there was no disclosure, the companies were scored 0.The reviewed studies indicate notable differences in the MD indices (checklist) used in disclosure studies in developing markets, which can be attributed to the absence of theories that determine the process by which the number of MD information items should be involved in the MD checklist. The number of mandatory items involved in the MD indices were limited, as seen in Agyei-Mensah (2013), which reported that only 20 information items were used to measure the quality of MD, and Wallace and Naser (1995), who used only 30 information items to measure the level of MD. However, some studies used a large number of mandatory items in their MD indices, such as Al-Akra et al. (2010), who used 641 mandatory items as required by the PricewaterhouseCoopers (PwC) index for 2004; Alfraih and Alfraih (2016), who applied a mandatory checklist with 439 information items; and Aljifri et al. (2014a), who utilised 317 mandatory items.

In the developing markets, around 96% of the studies on MD applied the unweighted disclosure method to reflect the perspectives of the various users of the annual reports, such as regulators, financial analysts and stockholders, and focused on evaluating the importance of the different items of mandatory information. For instance, Ahmed and Nicholls (1994) applied an unweighted checklist that included 94 information items; these were similarly utilised by Cooke (1989) in Bangladesh during financial year 1987/88. They reported that Cooke indicated that this procedure would increase the level of subjectivity. Thus, the absence of an information item from the financial statements was scored as not applicable. For instance, if there was an absence in respect to a potential liability, this was an indication that the indicator of information was not applicable in the annual reports of firms, whereas if an item was presented without an amount indicated, the measure (value) would be zero. Ahmed and Nicholls observed that the average extent of MD was 59%, and only four firms were found to exhibit compliance levels as high as 90%. The average compliance for 37 companies was found to be in the range 60–80%.

In their study, Wallace and Naser (1995) applied an unweighted checklist that included 30 items, as mandated by the Hong Kong reporting standards for the financial years spanning 1988 to 1992. The findings indicated an average level of MD of 73%, a minimum disclosure of 55% and a maximum of 87%. An unweighted disclosure checklist was also utilised by Tower et al. (1999) and included 512 mandatory items, as required by 26 IAS/IFRS in five states for financial year 1997. The study reported a mean extent of MD as 91%, with a minimum disclosure of 81% and a maximum of 100%. In another study, Naser et al. (2002) used an unweighted checklist that included 86 mandatory information items, as required by the IAS in Jordan's stock market for financial year 1998. The results included a mean level of MD of 64%. Abd-Elsalam et al. (2003) utilised an unweighted checklist involving 241 items, as demanded by IAS in the Egyptian exchange market for financial years 1996 and 1995. They reported that the mean MD extent was 83.3%, with a maximum of 98% and a minimum of 57%.

Akhtaruddin (2005) applied an unweighted checklist comprising 160 information items, as demanded by the IAS and national accounting standards in Bangladesh for the year 1999. Classifying the MD items yielded six categories: historical summary, income statement, accounting policies, director's report and balance sheet. It was found that the mean extent of MD was 44%, with a range of 17–73%. Hassan et al. (2006) utilised an unweighted checklist to include 75 information items divided into seven types in Egypt's stock market for financial years 2002 and 1995: balance sheet, supplementary information, general information, stockholder information, cash flow statement, income statement and accounting policies. The outcomes showed that mean MD extent was 89.9%, with a maximum disclosure of 100% and a minimum disclosure of 43.8%.

Al-Shiab (2003) applied an unweighted checklist including 273 information items, as mandated by IAS in the Amman Stock Exchange for financial years 2000 and 1995. In the study, it was reported that the mean MD extent was 49% and 68%, in 1995 and 2000, respectively. In Bangladesh, Pakistan and India, Ali et al. (2004) applied an unweighted checklist containing 131 information items, as demanded by 15 reporting standards adopted for financial year 1998. The finding included that the mean extent of MD across states was 80%: 78% for Bangladesh, 79% for India and 81% for Pakistan.

Abdelsalam and Weetman (2007) also used an unweighted approach checklist; theirs comprised 241 information items, as required by IAS, the capital market law and companies act in the Egyptian stock market for the financial period 1991/92 to 1995/96. They observed that the mean MD level for IAS was 76%, for the companies act, 92% and for capital market law, 73%. Dahawy et al. (2010) utilised an unweighted checklist as prescribed by capital market line in Egypt for the financial years of 2004 and 2002, finding that the mean MD level was 62% for 2004 and 54% for 2002.

In the UAE, Aljifri (2008) and Aljifri et al. (2014a) applied an unweighted checklist that included 73 and 317 items utilised for the years 2003 and 2005, respectively. The results showed that the mean MD level was 67% in 2005 and 57% in 2002. Al-Akra et al. (2010) applied an unweighted checklist based on the Mirza and Epstein mandatory index for financial year 1996 including 301 items and the PwC mandatory index for financial year 2004, comprising 641 items in the Amman Stock Exchange. The findings showed that the mean extent of MD was higher in 2004 (79%) than in 1996 (55%). In Kuwait's stock market, Alfraih and Alfraih (2016) and Alanezi and Albuloushi (2011) used an unweighted checklist including 439 and 199 information items, as required by 26 IFRS and 18 IFRS, respectively. The findings showed that the mean extents of MD were 70% and 72%, respectively. In Bahrain's stock market, Juhmani (2017) applied an unweighted index including 224 mandatory items, as required by 27 IFRS for financial year 2010. The findings showed that the mean extent of MD was 81%, ranging from 61–94%.

It was discovered that Naser and Nuseibeh (2003) was only the disclosure study to use both the unweighted and weighted methods, involving 56 information items. The MD items were weighted in line with five weighting points awarded for items that were regarded by respondents in the study as very significant. Four points were awarded for items regarded as significant, two points for items of some significance and one point for items of little significance. The results indicated that the mean levels for MD were the same, 89%, for the two indices. In addition, many disclosure studies employed self-constructed disclosure mandatory checklists (indices), which are ordinarily applicable and relevant to the market environment and state regulations and law, such as Craig and Diga (1998), Tower et al. (1999), Al-Shiab (2003), Hassan et al. (2006), Al-Akra et al. (2010), Hassaan (2013), Che and English (2016) and Juhmani (2017); while other disclosure studies used existing checklists (indices), such as Dahawy et al. (2010) and Abdelsalam and Weetman (2007). As mentioned earlier, compliance with IFRS is not a guarantee that there will be more MD; this is because the extent of MD is based on a company's state of domicile; in other words, the extent of MD depends on the specific accounting reporting requirements of each market (Tower et al. 1999); (Al-Hussaini et al. 2008); (Juhmani and Juhmani 2017).

It can be argued that some firms indicate they have adopted the IFRS while only complying in part with its provisions and requirements. This is a phenomenon known as 'formal compliance' (McBarnet 1984) in which it is indicated in the firm's financial reports that they are fully compliant with IFRS, whereas the standards are only partially implemented (Carmona and Trombetta 2008). Aljifri et al. (2014a) reported a low extent of 57% MD in the UAE. This value is considered low compared with the MD in other developing markets during similar periods. For instance, Abdullah et al. (2015) reported MD levels in Malaysia as 89%, which is remarkable for a developing market. However, the low reporting for the UAE may a result of differences in accounting reporting regulations and the method used by Aljifri et al. (2014a) to measure the MD level.

In general, MD levels reported for developing markets are significantly lower than those for developed markets: for example, 55% for Hong Kong (Wallace and Naser (1995); 52% for Indonesia (Craig and Diga 1998); 44% for Bangladesh (Akhtaruddin 2005); and 46% for Malaysia (Che and English 2016), compared with 94% for New Zealand Yeoh (2005) and 91% for Australia (Wang 2016). With the exception of the studies of Aljifri et al. (2014a), Al-Hussaini et al. (2008) and Ali et al. (2004), which utilised selected samples of 153, 137 and 566 companies, respectively, it was common for MD studies in developing countries to use smaller sample size, usually less than 100 firms, than have been used in MD studies in developed countries.

Table 3.3 summarises 25 MD studies of emerging markets. They include those using an MD index that revealed the situation in Bahrain (Juhmani 2017), Kuwait (Alanezi and Albuloushi 2011; Alfraih 2016), Malaysia (Abdullah et al. 2015; Che and English 2016), the UAE (Aljifri 2008; Aljifri et al. 2014b), Ghana (Agyei-Mensah 2013), Jordan (Al-Akra et al. 2010; Al-Shiab 2003; Hassaan 2013; Naser et al. 2002), China (Peng et al. 2008), Egypt (Abd-Elsalam et al. 2003; Dahawy et al. 2010; Hassan et al. 2006), Bangladesh (Ahmed and Nicholls 1994; Akhtaruddin 2005), the South Asian states (Ali et al. 2004), the KSA (Naser and Nuseibeh 2003), Zimbabwe (Owusu-Ansah 1998a), five Association of Southeast Asian Nations

(ASEAN) states (Craig and Diga 1998), Hong Kong (Wallace and Naser 1995) and GCC countries (Al-Shammari et al. 2008).

The MD studies performed in developing markets were published between 1994 (Ahmed and Nicholls 1994) and 2017 (Juhmani 2017). The years involved in these disclosure studies were 1986 (Ahmed and Nicholls 1994) to 2011 (Che and English 2016), and sample sizes ranged from 18 (Aljifri 2008) to 556 companies (Ali et al. 2004). Moreover, the largest number of mandatory items contained in the MD checklists was 641 information items (unweighted), in Al-Akra et al. (2010). The MD theories applied in the studies in emerging markets are also presented in Table 3.3. They included relevant theories such as the capital need, efficient market, signalling, political cost, regulatory, information cost, agency and free market theories. These theories are further reviewed and discussed in Chapter 4.

It can be deduced that disclosure studies in this field arrived at similar conclusions. It was commonly reported that companies in developing markets exhibited low compliance levels with IFRS reporting requirements. In particular MD extents were rarely reported to be as high as 90%; most studies indicated mean MD levels of 65–75%. There was insufficient evidence to suggest that KSA-listed firms are compliant with IFRS. The study by Naser and Nuseibeh (2003) stands out as the only one to assess the compliance levels of KSA-listed firms regarding the disclosure of items mandated by the SOCPA standards. The selected sample involved the annual reports for 67 listed firms for two periods, 1991–92 and 1998–99. It was discovered that the mean MD extent was 89%. From the reports and general discoveries regarding MD and compliance, it can be concluded that while companies are expected to fully adhere to MD requirements, most firms only meet these requirements partially. Based on this observation, there are reservations regarding the reliability of annual reports being presented by GCC states (including KSA) after the implementation of IAS/IFRS (Al-Shammari et al. 2008); (Aljifri et al. 2014a); (Alfraih and Alfraih 2016).

3.4 The Determinants of Mandatory Disclosure in Developing and Developed Markets

In this section, the empirical literature evaluating the extent of MD is reviewed, and the determinants of MD in developing and developed markets identified. This review includes examining findings regarding the determinants utilised to evaluate MD in many universal markets.

3.4.1 Studies of Mandatory Disclosure in Developing and Developed Markets

In developed countries, research aimed at evaluating the determinants of MD reveals differences in the extent of MD and several corporate factors (ownership structure, CG mechanisms and board characteristics).

Table 3.4 presents a summary of the associations between MD and its determinants utilised in developed markets, as gleaned from the literature. Studies have identified the following determinants as positively associated with the level of MD practices in listed companies in emerging markets: firm size, profitability, multiple listing status, audit firm size, firm age and ownership structure. Liquidity is the only factor noted to be negatively associated with MD extent in disclosure studies focused on emerging markets. However, certain factors such as proportion of external directors and international operations have been found to not be significantly correlated with the level of MD in developed markets.

According to the reviewed disclosure literature, the differences in the levels of MD in developing countries are linked to several determinants, including CG mechanisms, ownership structure and board characteristics. Table 3.5 presents a summary of correlations between MD extent and the identified factors of corporate characteristics featured in studies of MD practices in emerging markets, such as CEO role duality, firm size, board independence, industry category, audit committee size, family ownership, multiple listing markets, government ownership, managerial ownership, firm age, family members on the board, leverage and 'Big 4' auditing.

Two ownership variable structures have a positive influence on the extent of MD as depicted in literature focused on developing markets; these are state ownership and the proportion of shares held by insiders. Moreover, only family ownership and public ownership are identified as significantly negatively correlated with MD extent as depicted in the literature on developing markets. In addition, some variables of CG, such as board of directors size, have a positive effect on the extent of MD in emerging markets. CEO role duality in firms has also been discovered to be a negative determinant of the extent of MD practised in developing markets. However, having family members on the board has both a negative and positive correlation with the level of MD in developing markets.

Table 3.4: The determinants of MD in developed markets

Studies	Determinants		
	No effect on MD	Positive effect on MD	Negative effect on MD
Cooke (1992)		Firm size, industry category, multiple listing markets	
Cooke (1993)		Multiple listing markets	
Malone et al. (1993)	Firm size, industry category, profitability, international operations, audit firm size, proportion of outside directors	Leverage, multiple listing markets, number of shareholders	
Wallace et al. (1994)	Profitability, audit firm size	Firm size, multiple listing markets	Liquidity
Patton and Zelenka (1997)	Industry category	Firm size, profitability, multiple listing markets, audit firm size	
Street and Gray (2002)	Firm size, profitability	Industry category, multiple listing markets, audit firm size	
Glaum and Street (2003)	Firm size	Multiple listing markets, audit firm size	
Owusu-Ansah and Yeoh (2005)	Industry category, liquidity, firm age	Firm size, profitability, audit firm size	
Fekete et al. (2008)	Profitability, leverage, multiple listing markets, international operations	Firm size, industry category	
Hodgdon et al. (2009)	Leverage, international operations	Firm size, profitability, leverage, multiple listing markets, audit firm size	
Tsalavoutas (2011)	Firm size, industry category, leverage	Profitability, audit firm size	
Popova et al. (2013)	Firm size, profitability, multiple listing markets	Leverage, firm age	
Biaek-Jaworska and Matusiewicz (2015)	Profitability, firm size, leverage, block shareholder	Audit firm size	

Studies	Determinants		
	No effect on MD	Positive effect on MD	Negative effect on MD
Wang (2016)		Audit firm size, industry category, firm size	
Abdallah (2001); Mnif and Fendri (2017)	Leverage	Audit firm size, profitability	

Table 3.5: The determinants of MD in developing markets

Studies	Determinants		
	No effect on MD	Positive effect on MD	Negative effect on MD
Ahmed and Nicholls (1994)	Firm size	Multiple listing markets, audit firm size	
Wallace and Naser (1995)	Liquidity, leverage, audit firm size, proportion of shares held by outsiders	Firm size, industry category	Profitability
Craig and Diga (1998)	Leverage, international operations	Industry category	
Owusu-Ansah (1998a)	Liquidity, audit firm size, firm age	Firm size, profitability, multiple listing markets, firm age, proportion of shares held by insiders	
Abd-Elsalam et al. (2003)	Firm size, industry category, profitability, multiple listing markets	Audit firm size	
Al-Shiab (2003)	Profitability	Firm size, industry category, audit firm size	
Ali et al. (2004)	Leverage	Firm size, profitability, multiple listing markets	
Akhtaruddin (2005)	Firm age	Firm size, industry category, profitability	
Hassan et al. (2006)		Firm size, industry category, profitability	
Abdelsalam and Weetman (2007)		Audit firm size, state ownership	

Studies	Determinants		
	No effect on MD	**Positive effect on MD**	**Negative effect on MD**
Aljifri (2008)	Firm size, profitability, liquidity	Industry category	
Al-Shammari et al. (2008)	Institutional ownership	Firm size, industry category, profitability, firm age	
Al-Akra et al. (2010)	Institutional ownership, individual ownership, number of nonexecutive directors	Profitability, liquidity, audit firm size, board size	
Dahawy et al. (2010)	Firm size, industry category, profitability, leverage, multiple listing markets, international operations	Firm size, audit firm size	Liquidity
Alanezi and Albuloushi (2011)	Firm size, firm age, management ownership	Industry category, leverage, family members on board	
Hassaan (2013)	Firm size, industry category, profitability, liquidity, audit firm size, state ownership, proportion of shares held by outsiders, management ownership, private ownership, board size, **n**umber of nonexecutive directors		Public ownership
Agyei-Mensah (2013)	Profitability, liquidity, leverage	Firm size, audit firm size	
Aljifri et al. (2014b)	Foreign ownership, number of nonexecutive directors	Firm size, industry category, multiple listing markets	
Abdullah et al. (2015)			Family ownership
Che and English (2016)	Audit firm size		
Juhmani (2017)	Managerial ownership, audit committee size, government ownership, board size, block holder ownership	Board independence, audit committee independence	Role duality
Agyei-Mensah (2019b)	**A**udit committee financial expertise, **a**udit committee size, **a**udit committee prior	**A**udit committee gender, independent audit committee, block ownership concentration	

Studies	Determinants		
	No effect on MD	Positive effect on MD	Negative effect on MD
	experience, **a**udit committee meeting, **i**nstitutional **o**wnership		

Some variables exist in regard to ownership structure and CG that have been found to be insignificant determinants of the extent of MD in emerging markets, as shown in the literature; these include the share of stock owned by outsiders, number of foreign shareholders, government ownership, institutional ownership, management ownership, individual ownership, private ownership, number of independent directors and the professional qualifications of the accounting officer. There are some viable explanations for the inconsistencies in the results obtained, such as variation in the socioeconomic and political environments that exists in the various markets as well as in institutional and cultural frameworks; and variation in disclosure index structure, scoring and weighting time periods, statistical methods, sample sizes and processes.

3.5 The Extent of Voluntary Corporate Disclosure in Developing and Developed Markets

In this section, the literature evaluating the extent of VD is reviewed. The selected studies have been identified as related to achieving the second aim of this study. The investigation and reviews conducted in this section are focused on the literatures regarding the VD index methods employed to evaluate the level of VD and its effects in relation to the theories applicable in developing and developed markets.

3.5.1 Studies of the Extent of Voluntary Disclosure in Developed Markets

The markets in developed states are notably more advanced in terms of operational activities than are those in emerging states; thus, in developed markets, there are fewer issues regarding disclosure in capital markets (Nair and Frank 1983). The extent to which capital markets thrive is dependent on the availability of information and disclosure practices (Gilson and Kraakman 2014). Foster (2004) stated that the provision of additional information as in the US and other developed markets is in response to market conditions rather than to mandatory regulations. Many firms in the US are known to have engaged in disclosure practices even before regulatory agencies were established. In addition, Foster (2004) discovered that in the UK and Australia, companies disclose more than the specifications required by the regulatory agencies.

The history of the empirical literature regarding accounting disclosure dates back to the 1960s. A study by Cerf (1961) is regarded as the first to use quantifiable measures to examine the corporate disclosure practices reported in annual reports. The Cerf (1961) study evaluated the extent of disclosure in firms' annual reports for a sample of 527 US companies by applying a disclosure checklist that included 31 information items. The potential effect of the disclosure index was evaluated using integers in the range 1–4, representing information items in interviews conducted with financial investigators. It was discovered that the extent of VD is positively influenced by factors such as the average of return, the number of shareholders and the size of assets.

The Cerf study also revealed variance in the disclosure indices reported in the annual reports presented by different companies. There was more extensive disclosure among companies listed on the New York Stock Exchange (NYSE) than in companies listed in other stock exchange platforms. The Cerf empirical investigation was considered to represent the basic method for subsequent investigations of different types of corporate disclosure.

Singhvi and Desai (1971) presented another approach to studying financial disclosure, which involved calculating a weighted checklist including 34 information indicators; 29 of these items were based on the Cerf (1961) index. The sample selected for their analysis included 100 firms operating on the NYSE and 55 firms engaged in over-the-counter (OTC) activities in the financial years of 1965 and 1966. In this analysis, the most important factor explaining the level of disclosure was the listing status of the companies involved. In addition, Singhvi and Desai (1971) discovered that lower levels of disclosure dominated among the smaller and less profitable companies that were audited by small audit agencies and were not bound by the listing requirements.

Buzby (1975) used a different method to create a disclosure checklist, which included 39 information items evaluated by financial analysts using scores of 1–4. The selected companies included two groups of data covering 44 companies listed on the NYSE and 44 listed companies operating in OTC markets. The companies from each dataset were matched based on factors such as industrial category, size of assets and the final annual financial reports. No obvious correlation was discerned between the listing status and the level of financial disclosure. However, a positive connection was detected between the extent of VD and the size of firms.

The studies mentioned earlier provide examples of foundational approaches that may inform subsequent research. Moreover, the earlier disclosure literature used the weighted score method to evaluate the level of disclosure, whereas later disclosure studies used an unweighted method to examine a broader range of independent factors. In this section, the discussion focuses on VD checklists applied in studies of developed markets.

Table 3.6 provides a summary of studies on the level of VD in developed markets, presented in chronological order by year of publication. Numerous inferences can be made from the results presented in these reports. In total, 22 disclosure studies were selected. Seven studies from this sample were focused on evaluating the level of VD before 2000, and the remaining 15 were focused on the period including and after the year 2000. In particular, with regard to the second aim of this study, that is the level of VD among the listed companies existing in the KSA markets. Of the 22 selected studies in table 3.6, 18 studies applied a single disclosure checklist using an unweighted method to evaluate the level of VD in developed markets. Unweighted disclosure checklists were evaluated in the following way: disclosure items found to have a value of 1 were regarded as disclosed, while items found to have a value of 0 were regarded as undisclosed. The disclosure literature applying an unweighted approach tends to represent the opinion of a range of annual report users, such as enforcement bodies, investors, owners and financial analysts, under the assumption that all disclosure items for all companies have been equally weighted and carry equal importance.

Studies focused on developed markets (e.g., Carvalho et al. (2017); Donnelly and Mulcahy (2008); Leventis and Weetman (2004); Meek et al. (1995) have applied unweighted checklists that fall into three main categories of voluntary items; further differentiation was achieved to identify different subgroups aimed at evaluating the level of VD:

1. financial information about stock price, foreign currency, industry and financial review
2. the application of nonfinancial information, such as social responsibility, value added disclosure, details of managers and board members and information about firms' employees
3. the use of strategic information that covers areas such as future probability information, firm strategy, development and research operations, disposals and acquisitions and general corporate characteristics.

Similar indices were adopted in these VD studies as a result of factors explained in Meek et al. (1995), where it is stated that 'a disclosure checklist was compiled based on an analysis of international trends and observations of standard reporting practices, taking into account relevant research studies and comprehensive surveys' (p. 561).

Table 3.6: Summary of VD studies in developed markets

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
McNally et al. (1982)	New Zealand	103 listed firms	1974 – 79	Weighted approach	41 VD information items; scored as 1 (unimportant) to 5 (very important)	Very low on average (35.5%); 80% of firms disclosed only 5 voluntary items; 50% only 9 voluntary items; 10% only 20 items; and no firms disclosed the 7 remaining items	None	OLS regression (Pooled model)
Cooke (1989)	Sweden	90 firms (38 unlisted and 52 listed)	1985	Unweighted approach	6 groupings including 146 VD items; scored as 0 (undisclosed item) to 1 (disclosed item)	Mean 37%; range 13–70%	-Political cost -Capital need -Agency	OLS regression.
Cooke (1991)	Japan	48 firms (35 listed and 13 unlisted)	1988	Unweighted approach	106 VD information items; scored as 1 (disclosed item) or 0 (undisclosed item)	Mean 32%	-Political cost -Capital need -Agency	OLS regression.
Hossain et al. (1995)	New Zealand	55 listed firms (15 firms listed on international stock markets and 40 listed on New Zealand's)	1991	Unweighted approach	11 groups of VD including 95 information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 18%; range 2–55%	-Signalling -Agency cost -Agency	OLS regression.
Meek et al. (1995)	Europe, UK and US	226 listed firms		Unweighted approach	12 groups of VD including 85	Mean 18%	-Agency	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
					information items; scored as 0 (undisclosed item) or 1 (disclosed item)			
Raffournier (1995)	Switzerland	161 public firms	1991	Unweighted approach	30 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 40%	-Political cost -Agency -Information cost -Agency cost	OLS regression.
Inchausti (1997)	Spain	138 listed firms	1989 – 99	Unweighted approach	20 voluntary information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Average 18%	-Signalling -Political cost -Agency	OLS regression (Pooled model)
Depoers (2000)	France	102 listed firms	1995	Unweighted approach	2 VD groups including 65 information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 29%	-Proprietary cost -Information cost -Agency	OLS regression.
Chau and Gray (2002)	Singapore and Hong Kong	122 listed firms (62 in Singapore and 60 in Hong Kong)	1997	Unweighted approach	Meek et al. (1995) checklist, which included 133 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 14% in Singapore; 12% in Hong Kong	-Agency	GLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
Leventis and Weetman (2004)	Greece	87 listed companies	1997	Unweighted approach	12 VD groups including 72 items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 38%	-Signalling -Proprietary -Political cost -Agency -Agency cost -Information cost	OLS regression.
Gul and Leung (2004)	Hong Kong	385 public companies	1997	Unweighted approach	Checklist involving 44 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Average 14%	-Agency cost -Stewardship -Agency	OLS regression.
Makhija and Patton (2004)	Czech Republic	43 firms	1993	Unweighted approach	3 VD checklists (comprehensive, somewhat broad and narrow indices) containing 66 information items	Mean 44% for the comprehensive checklist; 49% for the somewhat broad checklist; and 55% for the narrow checklist	-Agency cost -Agency	OLS regression.
Andersson and Daoud (2005)	Sweden	54 public firms	2003	Unweighted approach	285 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 29%	-Legitimacy -Information cost -Agency	OLS regression.
Arcay and Vazquez (2005)	Spain	117 listed firms	1999	Weighted approach	18 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 48%	-Information cost -Agency cost -Agency	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
Cheng and Courtenay (2006)	Singapore	104 public companies	2000	Unweighted approach	VD index containing 72 items divided into three VD groups; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 29%	-Proprietary cost -Agency	OLS regression.
Patelli and Prencipe (2007)	Italy	175 listed firms	2002	Unweighted approach	6 VD groups including 74 information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Overall mean 15%	-Signalling -Agency cost -Agency	OLS regression.
Lim et al. (2007)	Australia	181 listed firms	1999 – 01	Unweighted approach	11 VD groups containing 67 items based on the Meek et al. (1995) checklist; scored as 0 (undisclosed item) or 1 (disclosed item)	Average 18%	-Agency cost -Signalling -Political cost -Agency	OLS and 2SLS regression.
Bauwhede and Willekens (2008)	14 European states	130 listed firms	2000	Weighted approach	4 VD groups; scored on a scale of 1–5 (best practice)	Mean 65%	-Agency	OLS regression
Donnelly and Mulcahy (2008)	Ireland	51 public firms	2002	Unweighted approach	3 VD groups including 79 information items based on the Eng and Mak (2003) checklist	Mean 21%; range 13–40%	-Agency cost -Signalling -Agency	OLS regression

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
Allegrini and Greco (2013)	Italy	177 listed firms	2007	Unweighted approach	6 VD groups including 60 information items	Mean 35%	-Proprietary cost -Agency cost -Agency	OLS regression
Scaltrito (2016)	Italy	203 listed companies	2012	Unweighted approach	8 groups involving 38 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 32%	-Political cost -Signalling -Agency -Capital need -Legitimacy -Stakeholder	OLS regression
Carvalho et al. (2017)	Portugal	142 foundations	2012	Unweighted approach	7 VD groups involving 31 information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Average 44%	-Stakeholder -Agency	A Structural Equation Model.
Manita et al. (2018)	US	379 listed firms	2010–15	Unweighted approach	3 VD groups; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 30%.	-Stakeholder -Agency	A fixed effect regression.

An example of studies applying a weighted index is that of Firth (1979). In that study, 48 voluntary information items (weighted) were compiled into a checklist sent to account users, who were requested to rate the value of each item from 1 (unimportant) to 5 (very important). For each firm, the total scores for all items considered were summed. The total represents a percentage of the maximum score (191)—also regarded as the value of the VD index for each firm. In addition, McNally et al. (1982) carried out an evaluation with the use of questionnaires that covered 41 voluntary items (weighted), which were presented to officials of the stock market and financial editors. The participants were asked to value the VD items, where a score of 1 indicated little or no importance and 5 indicated a very important item.

In Spain, Arcay and Vazquez (2005) applied a weighted VD checklist based on the Actualidad Económica VD index, which includes 18 voluntary items. The disclosure index covered issues regarding VD, including the comprehensive presentation of data in the report's structure, the auditors' opinions and the inclusion of additional venues to increase accessibility of the data by the public, to promote data generation from public opinion. Moreover, Bauwhede and Willekens (2008) in their study used a weighted VD index rated on a scale of 1–5, where 5 represented best practice. In general, the application of the weighted approach has been criticised because of the tendency of these indices to reflect the subjective opinion of researchers or users instead of the actual value of the disclosure items (Abd-Elsalam 1999; Inchausti 1997). Hence, unweighted checklists are more frequently used in these studies.

The developed market studies identified VD checklists to measure the level of VD in 18 emerging markets: Australia, Czech Republic, Denmark, Finland, Greece, New Zealand, Norway, Portugal, Switzerland, Singapore, Hong Kong, the US, Italy, France, the UK, Ireland, Sweden and Spain. The review of studies that evaluated the practice of VD in developed markets revealed that the related studies were published between 1982 (Firth 1979) (McNally et al. 1982) and 2017 (Carvalho et al. 2017). The VD studies' sample sizes ranged from 43 (Makhija and Patton 2004) to 385 companies (Gul and Leung 2004).

The study by Andersson and Daoud (2005) had the highest number of voluntary items involved in its VD checklist (284 indicators). In addition, it is of note that the samples used for VD studies in developed markets are remarkably large when compared with those used in studies focused on developing countries: for instance, the study by Meek et al. (1995) involved 226 UK- and US-listed firms and that by Scaltrito (2016) had 203 Italian firms. VD studies focused on developing countries have used smaller samples because of challenges such as a dearth of databases, inadequate data collection methods and a culture of privacy, prohibiting access to relevant information.

The items in the VD indices ranged from 20 information items, in a study by Inchausti (1997) of Spain’s stock market, to 285 items in a study by Andersson and Daoud (2005) on the Sweden Stock Exchange. Most studies used accounting theories to explain the different extents identified as indications of VD practices among the sample firms, such as in the studies by Leventis and Weetman (2004); Lim et al. (2007); Scaltrito (2016). Table 3.6 also summarises theories applied in VD studies of developed markets. These theories include political cost, stewardship, agency, proprietary cost, stakeholder, legitimacy, capital need and signalling theories. These theories are explained in Chapter 4.

From a general perspective, the reviewed studies were found to be focused on firms established in developed markets; it is necessary to apply caution when attempting to compare the findings attained from these studies in view of drawing conclusions because of the different settings as witnessed in developing markets. Further, while most studies used an unweighted method, they were mainly focused on different periods; these are factors that can increase the tendency to be subjective when allocating scores. The literature reveals the extent of VD to be almost 49%. Most studies indicated average VD levels in the range of 18–50%. In addition, it is notable that most of the VD studies in developed markets did not cover all the companies in the same market; rather they used a selected sample of firms. The majority of those studies focused on a single period of time (un-longitudinal study).

3.5.2 Studies of the Extent of Voluntary Disclosure in Developing Markets

The data in Table 3.7 summarise the VD literature examining the level of VD by companies in developing markets. The reviewed studies are presented in chronological order by year of publication. A total of 22 VD studies were reviewed, three of which were focused on evaluating the extent of VD before the year 2000 and 19 of which were focused on the period since the year 2000. Further, 18 of the 22 VD studies considered applied a single disclosure checklist approach, which is an unweighted method (index), to evaluate the level of VD in developing markets. The method of evaluation used in the unweighted approach involves measurement practices in which items are scored as 1 when the company disclosed particular items and 0 when items that applied to the firm were not disclosed; this is known as a ‘dichotomous method’. It is apparent that the majority of VD studies, in developing markets used unweighted indices because of the absence of the subjectivity commonly witnessed when weighted methods are used (Ahmed and Courtis 1999).

In emerging markets, the majority of studies (e.g., Al-Akra et al. (2010); Elfeky (2017a); Haniffa (1999); Naser et al. (2006); Nassir et al. (2018) that used the unweighted approach presented a VD index that had been classified into different categories with a view to determining the level of VD across the categories These ranged from 3 to 14 information groups, such as development and research costs, general firm information, information about CG, firm strategy, environmental matters, financial information, accounting and financial policy review, non-financial indicators, firm performance, information about shares, information on human resources (employees) and social participation.

Four VD studies were identified that utilised a weighted disclosure checklist. In Hong Kong, Ho et al. (2001) utilised a VD checklist in their evaluation of 98 firms with 35 items, which were weighted based on the scores of analysts and users who valued the items on a five-point scale. The average level of VD was calculated as 29%, with a broad range of 5–85%. In Singapore, Eng and Mak (2003) applied a VD index including 42 items measured by research assistants scored the items on a five-point scale for 158 listed firms. The mean level of VD was reported as 22%, with a range of 2–66%. In Kenya, Barako et al. (2006) applied a checklist of 47 information items that were measured based on a scale of 1 (unimportant item) to 4 (essential item) by financial officers who facilitate bank loans. The level of VD was reported to be generally low: only one firm was found to disclose as many as 50% of the voluntary items.

In the UAE and KSA, Al-Janadi et al. (2012) applied a VD checklist that was weighted according to three scales of VD: for full disclosure, a value of 2 was awarded; for partial disclosure, 1; and a 0 was awarded if no item was disclosed. The voluntary items were classified into three important groups: (1) information about environmental and social participation, (2) CG information and (3) general firm information. The mean extent of VD was 32%. In addition, the item group with the greatest extent of VD was reported to be CG disclosure, with a reported average of 42%; the lowest extent of VD was for the environmental and social participation disclosure item group, which averaged 15%. As mentioned, a common criticism of the use of weighted indices is that the indices tend to reflect the subjectivity of the user or researcher rather than a factual representation of the value of the disclosure items; hence unweighted indices are more frequently used (Cooke 1991).

It can be generally inferred that companies in developing markets tend to provide less additional information (VD) in their annual reports than companies in developed markets: for example, 5% for the Chinese firms in Huafang and Jianguo (2007); 15% and 13% respectively for the Kuwaiti firms in Al-Shammari (2008) and Alotaibi (2014); and 19% for the Egyptian firms in Samaha and Dahawy (2010). Moreover, in the majority of studies in developing markets, the average sample size used for VD was usually less than 100 companies, which can be regarded as small sample sizes compared with studies in developed markets. In Table 3.7 a summary of 22 studies that evaluated VD in developing markets is presented. These studies were performed using a VD index that covered Iran, Egypt, Jordon, Kuwait, the UAE, the KSA, Qatar, Malaysia, China, Singapore, Kenya and Hong Kong.

The review comprised studies focused on VD in developing markets published between 1994 (Hossain et al. 1994) and 2018 (Nassir et al. 2018). The data presented in the studies covered 1980 (Suwaidan 1997) to 2016 (Elfeky 2017a). The selected sample sizes ranged from 25 (Hossain and Hammami 2009) to 1,066 listed companies (Lan et al. 2013); the largest number of items reflected in a VD checklist was 122, in Haniffa (1999). Compared with studies of developed markets, the sample sizes used in VD studies in emerging markets are low. This has been attributed to the difficulty in applying appropriate data collection methods because of inadequate databases and the tendency of firms in these regions to prevent access to their data.

The VD indices used in these studies usually included a relatively small number of voluntary items. For example, Huafang and Jianguo (2007) used 24 information items in their evaluation of the level of VD among a sample of Chinese firms. Al-Janadi et al. (2013) and Nassir et al. (2018) used 32 and 34 information items, respectively, in their studies focused on evaluating the extent of VD among listed companies in the UAE and Iran. Other studies applied a larger number of VD items. For example Haniffa (1999) categorised a total of 122 information items to determine the level at which VD is practised in Malaysian-listed firms: 41 related to corporate non-social information, and 81 related to corporate social disclosure practices. In another study in China, Lan et al. (2013) considered 119 information items that were placed into three distinct categories to evaluate VD practices.

Table 3.7: Summary of VD studies in developing markets

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
Hossain et al. (1994)	Malaysia	67 listed firms	1991	Unweighted approach	72 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 38%	-Proprietary cost -Political cost -Agency cost -Signalling - Information cost -Agency	OLS regression
Suwaidan (1997)	Jordan	28 public firms	1980 – 91	Unweighted approach	72 VD information items divided into seven categories; scored as 0 (undisclosed item) or 1 (disclosed item)	Range 3–65%; mean 33%	-Cultural -Capital need -Stewardship -Agency -Cost-benefit -Signalling	OLS regression (Pooled model)
Haniffa (1999)	Malaysia	139 listed firms	1994	Unweighted approach	123 VD information items about non-social and social disclosure, divided into 15 categories; scored as 0 (undisclosed item) or 1 (disclosed item)	Range 3–50%, mean 15% for the social index and 21% for the non-social index	-Cultural -Capital need - Stewardship -Resource dependence - Signalling - Agency	OLS regression
Ho et al. (2001)	Hong Kong	98 public firms	1998	Weighted approach	35 VD information items scored by survey respondents; on a scale of 1	Range 5–85%; mean 29%	-Agency cost -Information -Agency	Survey and

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
					(unimportant) to 5 (very important)			
Haniffa and Cooke (2002)	Malaysia	167 listed firms	1995	Unweighted approach	65 VD information items (11 groups) based on Hossain et al. (1994); (Soh 1996).	Mean 31%; range 6–70%	-Cultural -Capital need -Stewardship -Agency -Cost-benefit -Signalling -Resource	OLS regression
Eng and Mak (2003)	Singapore	158 public listed firms	1995	Weighted approach	3 groups of VD information items with 42 items measured by study assistants on a scale of 1 (unimportant) to 5 (very important)	Range 2–66%; mean 22%	-Signalling -Agency	OLS regression
Barako et al. (2006)	Kenya	43 financial firms	1992 – 2001	Weighted approach	4 categories of VD information containing 47 information items scored on a scale from 1 (unimportant) to 5 (very important)	In general, the mean extent of VD was very low over the study period: only one listed firm disclosed more than 50%	-Agency	OLS regression (Pooled model)
Naser et al. (2006)	Qatar	21 public firms	2001	Unweighted approach	34 VD information items categorised into 2 checklists (social index and corporate index); scored as 0	Mean for the social index and corporate index 33% and	-Stakeholder -Political cost -Legitimacy -Agency	OLS regression

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
					(undisclosed item) or 1 (disclosed item)	65%, respectively		
Ghazali and Weetman (2006)	Malaysia	87 financial firms	2001	Unweighted approach	VD checklist based on Meek et al. (1995) index, which included 53 information items (11 groups)	Mean 31%; range 6–74%; only 12 listed firms presented more than 50% of information	-Proprietary cost -Signalling -Political cost -Legitimacy -Agency	Stepwise regression.
Huafang and Jianguo (2007)	China	559 listed and unlisted firms	2002	Unweighted approach	30 VD information items based on the index of Ahmed and Nicholls (1994), scored on a scale of 0–21	Mean 5% (very low)	-Political cost -Agency -Signalling	OLS regression.
Wang et al. (2008)	China	110 listed firms	2005	Unweighted approach	79 information items categorised into 11 groups based on Meek et al. (1995)	Range 3–28%; mean 13%	-Litigation cost -Signalling -Agency -Agency cost	OLS regression.
Al-Shammari (2008)	Kuwait	82 listed firms	2005	Unweighted approach	VD checklist containing 8 categories including 76 information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 15% (very low); range 3–44%	-Signalling -Agency	Interviewee.
Hossain and Hammami (2009)	Qatar	25 public firms	2008	Unweighted approach	VD index including 44 information items categorised into 8	Range 20–67%; mean 37%	-Proprietary cost -Agency cost	OLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
					groups; scored as 0 (undisclosed item) or 1 (disclosed item)		-Legitimacy -Agency	
Akhtaruddinohamed et al. (2009)	Malaysia	105 public companies	2002	Unweighted approach	VD checklist containing 74 information items divided into 11 categories; scored as 0 (undisclosed item) or 1 (disclosed item)	Rang3 35–76%; mean 53%	-Agency cost -Agency	OLS regression.
Al-Akra et al. (2010)	Jordan	243 listed firms	1996 – 2004	Unweighted approach	2 VD checklists: one (81 items) for the financial period year 2003/04, and one (90 items) for 1996 to 2002; scored as 0 (undisclosed item) or 1 (disclosed item)	Ranges 9–65% and 3–44% for the first and second indices, respectively; mean 26% and 17%, respectively.	-Agency cost -Signalling -Agency -Capital need	OLS regression (Pooled model).
Samaha and Dahawy (2010)	Egypt	30 public firms	2006	Unweighted approach	VD index based on the Chau and Gray (2002); Ghazali and Weetman (2006) models; 80 information items divided into 3 groups	Range 4–58%; mean 19%	-Disclosure-related cost -Signalling -Information asymmetry -Legitimacy -Agency	OLS regression.
Lan et al. (2013)	China	1066 financial and	2006	Unweighted approach	VD checklist containing 119 information items	Range 23–70%; mean 41%	-Proprietary cost -Agency -Agency cost -Signalling	GLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
		nonfinancial companies			classified into 3 groups			
Alotaibi (2014)	Kuwait	155 listed firms	2007 –10	Unweighted approach	VD checklist including 50 information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Range 3–40%; mean 13%	-Political cost -Signalling -Agency -Stakeholder -Stewardship	OLS, GLS, Tobit regressions.
Albitar (2015)	Jordon	124 listed firms	2010 –12	Unweighted approach	63 VD information items; scored as 0 (undisclosed item) or 1 (disclosed item)	Mean 36%; range 15–83%	-Signalling -Agency	OLS regression (Pooled and cross sectiona models).
Elfeky (2017a)	Egypt	50 listed firms	2012 –16	Unweighted approach	69 VD information items classified into 13 categories; scored as 0 (undisclosed item) or 1 (disclosed item)	Range 28–64%; mean 41%.	-Legitimacy -Agency -Capital need -Signalling -Stakeholder	
Nassir et al. (2018)	Iran	301 listed firms	2015	Unweighted approach	VD checklist containing 34 items classified into 6 groups; scored as 0 (undisclosed item) or 1 (disclosed item)	Range 6–97%; mean 51%	-Lifecycle -Agency	OLS regression.
Sarhan and Ntim (2019)	Middle East and North Africa	100 listed firms	2009–14	Unweighted approach	51 VD information items in 5 groups; scored as 0	Mean 56%; range 31–84%	- Legitimacy - Stakeholder - Agency	OLS, lagged-effects, fixed-effect and 2SLS regression.

Studies	Sample location	No. of firms	Year	Disclosure method	No. of items	Extent of VD	Theory used	Research technique
	(MENA) countries				(undisclosed item) or 1 (disclosed item)		- Resource dependence - Stakeholder	

In an attempt to explain the differences in the extent of VD among companies in developing markets, most relevant studies applied VD theories, including Alotaibi (2014); Elfeky (2017a); Ghazali and Weetman (2006); Samaha and Dahawy (2010). Table 3.7 shows the various VD theories applied in studies of developing markets, including resource dependence, stewardship, political cost, signalling, stakeholder, proprietary cost, capital need, legitimacy and agency theory. These theories are explained in detail in Chapter 4. From a general perspective, the reviewed literature focused on companies located in developing countries. Considering factors such as study year, the selected sample and the approach and information items utilised to prepare the VD checklist, it is evident that the extent to which VD is provided in developing markets is barely 45%; many of the studies reported that mean VD levels fall within the range 15–45%. Further, it is of note that most VD studies in emerging markets did not cover all the companies in the same market, just a selected sample of firms. The majority of studies applied a single period of time (un-longitudinal study).

3.6 The Determinants of Voluntary Disclosure in Developing and Developed Markets

In this section, a series of reviews are conducted to examine the identified empirical literature that evaluates the level of VD and its various determinants (factors). The reviews focus on available discoveries that highlight factors that have been used to evaluate the level of VD in developing and developed markets.

3.6.1 Factors Influencing Voluntary Disclosure in Developed Market Studies

Studies focused on examining VD In developed markets have applied a range of variables to derive an explanation for the varying practices of disclosure. Table 3.8 summarises the factors associated with these differences in VD level across different companies. This includes the effect on VD of factors such as CG, corporate characteristics and ownership structure.

Table 3.8: The determinants of VD in developed markets

Studies	Determinants		
	No effect on VD	Positive effect on VD	Negative effect on VD
McNally et al. (1982)	Industry category, profitability, auditor type	Firm size	
Cooke (1989)		Firm size, industry category, multiple listing, number of shareholders	
Cooke (1991)		Firm size, industry category, multiple listing, number of shareholders	
Hossain et al. (1995)	Assets in place, auditor type	Firm size, leverage, multiple listing	
Meek et al. (1995)	Industry category, leverage, profitability	Firm size, multiple listing	
Raffournier (1995)	International operations	Firm size, industry category, profitability, auditor type	
Inchausti (1997)	Industry category, leverage, profitability	Multiple listing, auditor type	
Depoers (2000)	Leverage, international operations, auditor type, outsider ownership	Firm size	
Chau and Gray (2002)		Firm size, outsider ownership	Family member on board
Leventis and Weetman (2004)		Firm size, industry category, profitability, liquidity, multiple listing	

Studies	Determinants		
	No effect on VD	**Positive effect on VD**	**Negative effect on VD**
Gul and Leung (2004)	Industry category, leverage, profitability, liquidity, multiple listing, auditor type, director ownership		Role duality
Makhija and Patton (2004)	Firm size, **i**ndustry category, profitability, state ownership	Auditor type, **o**utsider ownership	
Andersson and Daoud (2005)	Board size, industry category, auditor type, board independence, insider ownership	Multiple listing, role duality, firm size	
Arcay and Vazquez (2005)	Director ownership	Firm size, industry category, multiple listing, outsider ownership, board independence	
Cheng and Courtenay (2006)	Board size, role duality	Board independence	
Patelli and Prencipe (2007)	Leverage, profitability	Firm size, board independence	
Lim et al. (2007)		Firm size, industry category, profitability, outsider ownership, board independence	
Bauwhede and Willekens (2008)		Insider ownership	Outsider ownership
Donnelly and Mulcahy (2008)	Insider ownership, international ownership, board size, role duality	Firm size, board independence	
Allegrini and Greco (2013)	Leverage, profitability, multiple listing, role duality	Firm size, board size, board independence	

Studies	Determinants		
	No effect on VD	**Positive effect on VD**	**Negative effect on VD**
Scaltrito (2016)	Leverage	Firm size, industry category, auditor type	
Carvalho et al. (2017)		Board structure, auditor type, staff members, public funds, number of projects	
Manita et al. (2018)	Profitability, **b**oard independence	Firm size	**F**irm's leverage

Available disclosure studies reveal a positive correlation between the level to which VD is undertaken among companies in developed markets and various corporate attributes of companies Auditor type (Makhija and Patton 2004; Raffournier 1995; Scaltrito 2016), number of multinational operations/listings (Arcay and Vazquez 2005; Cooke 1989; Meek et al. 1995), industry category (Cooke 1991; Lim et al. 2007; Raffournier 1995; Scaltrito 2016), firm size (Andersson and Daoud 2005; Depoers 2000; Donnelly and Mulcahy 2008; Scaltrito 2016) and age of company (Chung and Zhang 2011) have been confirmed to have minimal effects on the level of VD in developing markets.

Factors that have been found to have a positive association with the level of VD as presented in various studies include firm size and the listing status of firms. Some studies have provided extensive explanations for the effect of company size in accordance with agency theory. Such proposals suggest that in larger companies, agency costs are higher because of their complex operational business models (Holthausen and Leftwich 1983). In addition, bigger companies tend to have higher values of external capital, which can lead to higher agency costs (Hossain et al. 1995).Companies that have been listed in international stock markets have higher stakes in foreign markets and hence more foreign shareholders and a widely varied ownership structure. Such companies are known to report higher surveillance costs, which can be reduced by adopting the practice of VD. Malone et al. (1993) proposed that requirements for the registration of companies listed in international stock markets may be a factor that influences the level of VD. In many studies, theories such as capital need, signalling and agency theory have been used to demonstrate the correlation between a firm's listing status and the level of VD it provides.

In developed markets, it is evident that ownership structure has a positive influence on the level of VD. Factors that have a positive effect on the extent of VD include institutional ownership, state ownership and outsider ownership (Arcay and Vazquez 2005; Chau and Gray 2002; Lim et al. 2007). However, in developed countries (Chen and Jaggi 2000), it is observed that ownership structure in companies owned by families is negatively correlated with VD. Further, director ownership has no effect on the level of VD (Arcay and Vazquez 2005). In developed markets, positive correlations have been identified between particular CG variables (independence of directors) and the level of VD (Allegrini and Greco 2013; Cheng and Courtenay 2006; Donnelly and Mulcahy 2008). Moreover, in companies with boards on which family members hold significant positions (Chau and Gray 2002), a negative correlation between ownership and VD is evident in developed countries.

However, some conflicting findings have been reported regarding certain determinants, such as variables derived from a firm's features, including profitability. Some studies have identified profitability as having a positive correlation with the level of VD in developed markets (Leventis and Weetman 2004; Lim et al. 2007); in other studies, profitability was identified to be uncorrelated with the level of VD in developed markets (Allegrini and Greco 2013; Patelli and Prencipe 2007). Regarding ownership structure variables, conflicting findings have been reported in studies examining the positive connection between ownership concentration and the level of VD in developed markets (Lim et al. 2007; Makhija and Patton 2004); reports on other studies indicate a negative connection between ownership concentration and level of VD (Bauwhede and Willekens 2008).

Regarding the variables derived from CG characteristics, such as the dual role of CEOs and size of the board of directors, positive correlations have been identified between board size and level of VD in studies focused on developed markets (Allegrini and Greco 2013). In other studies, a negative correlation was identified in regard to the influence of board size on the level of VD in developed markets (Yermack 1996). Regarding the dual role of CEOs, some studies reported a positive correlation between CEO role duality and the level of VD in developed markets (Andersson and Daoud 2005), but others identified the existence of a negative connection between the dual role of CEOs and the level of VD in developed markets (Gul and Leung 2004).

There are many potential reasons for the inconsistencies in the findings obtained for different markets. Differences in institutional frameworks and political and socioeconomic environments, as well as culture, can be identified as the reasons for the varying findings. These factors are exacerbated by differences in VD checklist construction, statistical evaluation approaches, study sample size, the diverse nature of disclosure, scoring processes and the periods for which samples are created.

3.6.2 Factors Influencing Voluntary Disclosure Factors in Developing Market Studies

Investors are attracted to the capital markets in emerging countries for many reasons. Over the years, there has been important growth in emerging markets, which provides higher incomes for investors; however, at the same time there are certain investment risks (Büthe and Milner

2014). Regardless of the differing conditions experienced in capital markets in emerging states, some common features can be identified, which differ from those seen in the capital markets of developed states. However, limitations such as market efficiency have slowed the advancement of emerging capital markets (O'Toole and Tarp 2014) in terms of volatility (Hajilee and Al Nasser 2014) and liquidity (Feyen et al. 2015). Thus, the quality of disclosure in emerging markets may be limited by inadequate regulatory frameworks and level of implementation (Joshi et al. 2008; Saudagaran and Diga 1997). It has also been observed that investors in emerging markets make decisions based on limited market information (Errunza and Losq 1985). It is therefore essential that the interests of investors in emerging markets are protected. Moreover, there are significant differences between advanced and emerging markets regarding variables such as culture, institutional features and political environment (Perera 1989; Saudagaran and Diga 1997).

A review of studies focusing on emerging markets was conducted to identify differences in level of VD, ownership structure, firm attributes and CG characteristics. In Table 3.9, a summary is presented to depict the connections between VD levels and different factors described in studies focused on developing markets. The study reports indicate that there exists a number of characteristic corporate factors that have a positive correlation with the level of VD among companies in developing markets: industry category (Barako et al. 2006; Haniffa 1999; Samaha and Dahawy 2010), profitability (Akhtaruddinohamed et al. 2009; Lan et al. 2013; Naser et al. 2006), firm size (Elfeky 2017a; Hossain and Hammami 2009; Nassir et al. 2018), leverage (Elfeky 2017a; Lan et al. 2013; Naser et al. 2006), auditor type (Alotaibi 2014; Elfeky 2017a) and having multiple listing markets (Haniffa 1999; Hossain et al. 1994).

Table 3.9: The determinants of VD in developing markets

Studies	Determinants		
	No effect on VD	**Positive effect on VD**	**Negative effect on VD**
Hossain et al. (1994)	Leverage, assets in place, auditor type	Firm size, multiple listing, ownership concentration	
Suwaidan (1997)	Profitability, institutional ownership, state ownership, number of shareholders	Firm size, industry category, auditor type	
Haniffa (1999)		Firm size, industry category, profitability, multiple listing, ownership concentration	
Ho et al. (2001)	Leverage, profitability, assets in place, family ownership, board independence, role duality	Firm size, industry category	Family member on board
Haniffa and Cooke (2002)	Leverage, multiple listing, auditor type, institutional ownership, board independence, role duality	Firm size, industry category, profitability, assets in place, ownership concentration, foreign ownership	Family member on board
Eng and Mak (2003)	Industry category, profitability, ownership concentration	Firm size, state ownership, board independence	Leverage, insider ownership
Barako et al. (2006)	Profitability, liquidity, auditor type	Firm size, industry category, leverage, ownership concentration, institutional ownership, foreign ownership	Board independence
Naser et al. (2006)		Firm size, leverage, profitability	
Ghazali and Weetman (2006)	Industry category, ownership concentration, institutional ownership, state ownership, board independence	Profitability	Director ownership, family member on board
Huafang and Jianguo (2007)	Leverage, auditor type, insider ownership	Firm size, ownership concentration, foreign ownership	Board independence, role duality

Studies	Determinants		
	No effect on VD	Positive effect on VD	Negative effect on VD
Wang et al. (2008)	Firm size	Profitability, auditor type, state ownership, foreign ownership	
Al-Shammari (2008)	Profitability, firm age, outsider ownership	Firm size, leverage, auditor type	Industry category
Hossain and Hammami (2009)	Profitability	Firm size, assets in place, firm age	
Akhtaruddin et al. (2009)	Firm size, director ownership, board size	Leverage, profitability, auditor type, board independence	Family member on board
Al-Akra et al. (2010)	Leverage, profitability	Firm size, industry category, foreign ownership	Liquidity, auditor type
Samaha and Dahawy (2010)	Firm size, leverage, profitability	Industry category, liquidity, auditor type, board independence	
Al-Janadi et al. (2013)	Firm size, industry category, profitability, foreign ownership, family ownership, insider ownership, family member on board	Board size, role duality, auditor type, state ownership, board independence	
Lan et al. (2013)	Liquidity, board independence	Assets in place, leverage, profitability, state ownership, firm size	Auditor type
Alotaibi (2014)	Profitability, firm age, ownership concentration	Firm size, liquidity, auditor type, board independence	Role duality
Albitar (2015)		Firm size, liquidity, firm age, audit committee size, profitability, leverage, board size	Ownership structure, independent directors
Elfeky (2017a)	Board size, role duality	Firm size, leverage, auditor type, profitability, board independence	Block holder ownership

Studies	Determinants		
	No effect on VD	**Positive effect on VD**	**Negative effect on VD**
Nassir et al. (2018)		Firm size, leverage, liquidity, firm age	Board independence
Sarhan and Ntim (2019)	Woman on the board, family ownership, director ownership, government ownership, board size	**N**on-Arab woman on board, profitability, a Big 4 audit firm	Firm age

In developing markets, variables such as institutional ownership (Barako et al. 2006; Ntim et al. 2012), foreign ownership (Al-Akra et al. 2010; Huafang and Jianguo 2007) and government ownership (Al-Janadi et al. 2013; Wang et al. 2008) have been observed to have a positive effect on the level of VD. Moreover, a negative correlation has been observed between the level of VD and variables linked to ownership structure in developing markets, including managerial ownership (Ghazali and Weetman 2006) and insider ownership (Albitar 2015; Eng and Mak 2003). Several factors linked with CG characteristics have been discovered to positively promote the evaluation of VD in developing markets, including board independence (Alotaibi 2014; Eng and Mak 2003) and board size (Al-Janadi et al. 2013; Alotaibi 2014). Moreover, the presence of family members on boards has been observed to have a negative correlation with the level of VD in emerging markets (Akhtaruddin et al. 2009; Ghazali and Weetman 2006).

Studies in developing markets have provided conflicting results regarding the influence of certain variables associated with VD, including firm attributes such as liquidity. As a significant variable, liquidity has been identified to have a negative connection with the extent to which firms in developing markets voluntarily disclose their operational details. Al-Akra et al. (2010) pointed out a positive connection between liquidity and VD. Regarding ownership structure, studies have reported differing outcomes when variables such as ownership concentration are examined. Some studies have reported that ownership concentration has a negative effect on VD in developing markets (Albitar 2015; Ntim et al. 2012), while others indicate that ownership concentration has a positive effect on VD (Barako et al. 2006; Huafang and Jianguo 2007).Regarding CG factors, associated variables such as CEO role duality are known to lead to mixed outcomes, as depicted in the study reports. While some studies have reported that CEO role duality negatively influences VD (Alotaibi 2014), others have indicated that CEO role duality has a positive effect on VD (Al-Janadi et al. 2013). The reasons for these conflicting findings have been attributed to differences among markets in culture, institutional frameworks and political and socioeconomic environments, as well as in the derivation of disclosure checklists, statistical approaches, sample sizes, the scoring method used and differences in sample periods.

3.7 Hypothesis Development

In the previous section, the empirical literature examining the level of MD and VD among companies, along with theoretical frameworks were reviewed. The factors influencing MD and

VD in emerging and developed markets were also analysed. In this section, the primary objective is to develop and construct a number of verifiable hypotheses regarding the correlation between various company determinants, such as ownership structure and CG mechanisms, at the level of MD and VD. The information gathered from empirical studies suggests that a number of variables can be used to demonstrate differences in MD and VD levels among firms. Characteristic features of the KSA financial reporting environment are also crucial factors influencing the selection of the determinants to be evaluated during the empirical analysis.

Corporate ownership structure, as part of the governance mechanism, has received increasing attention in recent years (Connelly et al. 2010; Hope 2013). Ang et al. (2000) and Armstrong et al. (2010) highlight the agency conflicts existing between different groups of equity ownerships and their impact on the demand for accounting information. Owners can differ in terms of power, wealth, competence and non-ownership ties to a firm. These differences affect their objectives and the way they exercise their ownership rights and, therefore, they have important consequences for management behaviour with respect to corporate reporting policy (Connelly et al. 2010; Pedersen & Thomsen 2003). In addition, corporate boards are required to fulfil certain roles, including advising managers, monitoring executives and securing resources (Jensen 1993; Yermack 1996). Thus, the relation between accounting disclosure and corporate governance can be understood partially in terms ofCG mechanisms (board charictriestics and ownership structure studies (Allegrini & Greco 2013; Choi, Lee & Park 2013; Cormier & Magnan 2014).

As stated earlier, the following criteria were used in the selection of variables to be tested in this study:

1. relevant to study aims
2. supported by outcomes in the empirical literature and/or theoretical frameworks
3. conforms to the setting of emerging markets, specifically to the KSA market setting
4. easy to reliably measure and selected from reliable sources.

The extent of MD and VD shown in the annual reports of KSA nonfinancial companies are examined via nine hypotheses. For this study, three ownership structures were selected, including foreign ownership, state ownership and family ownership. The six CG factors selected are CEO role duality, board size, board independence, gender diversity, audit firm and ruling family members on the board. The following section investigates each of these factors and formulates related hypotheses.

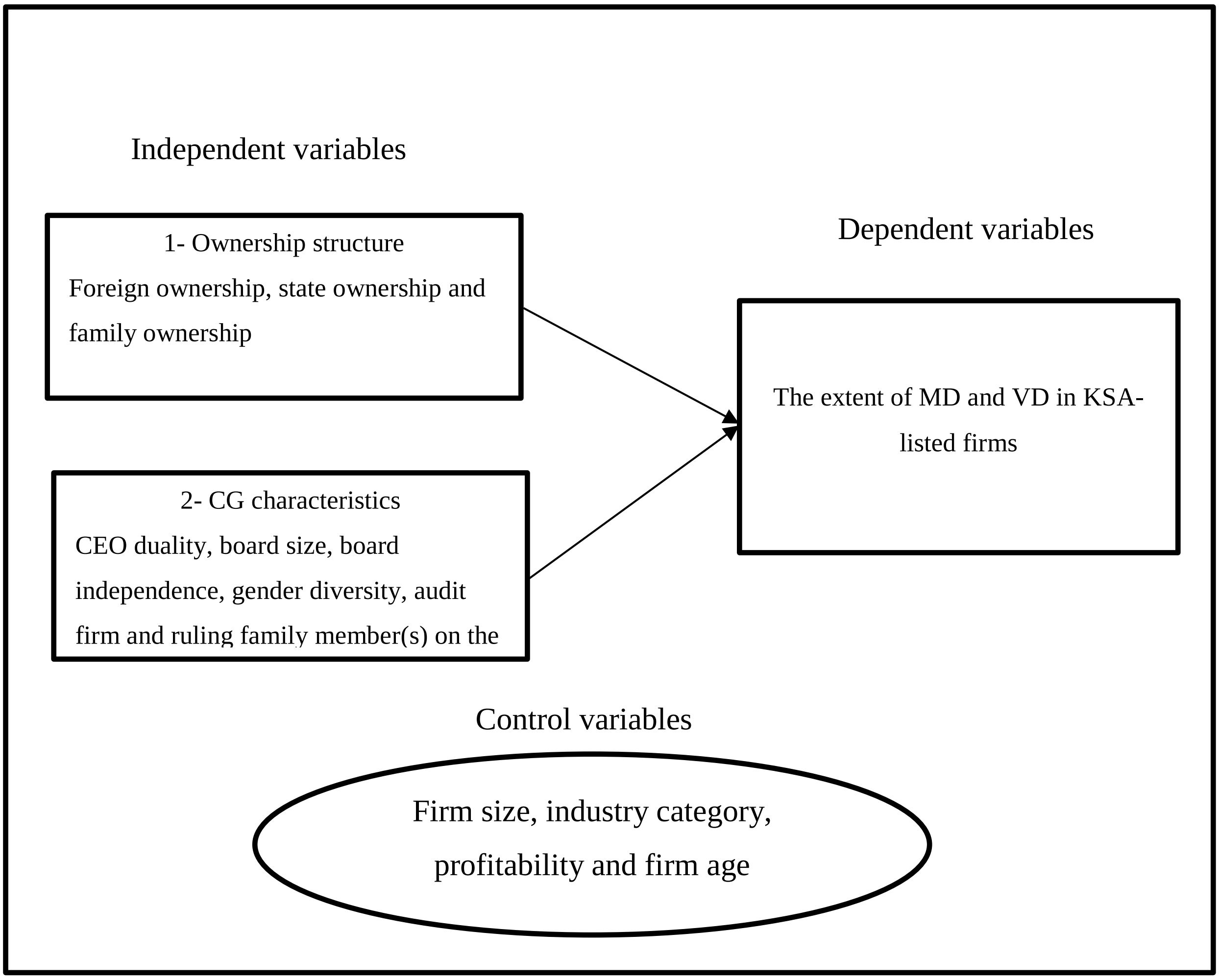

Figure 3.1: Framework for exploring MD and VD extent in the KSA

3.7.1 Corporate Disclosure and Ownership Structure

3.7.1.1 Foreign Ownership

Studies have demonstrated an important correlation between foreign ownership and the level of MD and VD. According to agency theory, the existence of a fused ownership structure encourages companies to include additional information in their financial statement with a view to reducing information asymmetry and agency costs (Ho et al. 2001). Arguments suggest that companies with more diffused stockholders are more inclined to provide additional information in their annual reports than do companies with a smaller shareholder population (Khlif et al.

2017). Singhvi and Desai (1971) stated that the functions of outside (foreign) managers on the board of directors could influence the company's accounting reporting system to meet requirements. Foreign investors may influence the level of MD and VD by using their authority in regard to voting rights and ownership power (Adams et al. 2005).

Based on empirical evidence regarding VD, it has been reported that companies with a larger percentage of foreign ownership tend to disclose additional information in their annual reports. For example, for a selected sample of 43 companies in Kenya, Barako et al. (2006) studied the connection between foreign ownership and VD practices between 1992 and 2001; the report indicated that foreign ownership had a positive effect on the level of VD. Also, Sartawi et al. (2014) found that the rate of foreign (outside) ownership had a positive effect on VD level when the annual reports of 103 Jordanian companies were examined in 2012.

Further, in China, using a sample of 1,839 listed companies, Hu et al. (2018) studied factors that determine VD as reflected in annual reports. The study found that foreign ownership had a positive influence on the extent of VD. In a recent study of 72 companies in Jordan between 2002 and 2011, Alhazaimeh et al. (2014) discovered that the extent of VD was positively correlated with foreign ownership. However, in a more recent (2009–13) Jordanian sample of 72 public companies, Albawwat (2015) concluded that foreign ownership did not influence VD. Similarly, in the KSA, the findings of Al-Janadi et al. (2013) indicated that foreign ownership had no effect on VD in a study of the annual reports of 87 nonfinancial companies in 2006 and 2007.

As a result of conflicts of interest among stakeholders, the agency cost will increase. Aljifri et al. (2014a) argued that shareholders will be more inclined to raise monitoring of managers' behaviour in order to alleviate the agency problems. Monitoring costs affect both profitability and management remuneration, and consequently management can reduce monitoring costs by providing more information to shareholders. The users of annual reports vary in the type of information they demand. For example, some users are interested in forecast information and others in profitability (Wallace 1988). Accordingly, widely owned firms will make more MDs than others. In this regard, it is expected that requests for detailed information are more likely to come from foreign users, in view of the geographical separation between owners and management (Wallace et al. 1994).

Alshbili et al. (2018) found evidence in their study on MD in Libya for a significant positive association between ownership concentration and level of MD for the period 2006–10, as shown by reports evaluating the shares owned by outsiders. Uyar et al. (2016) also reported a positive correlation between the level of MD and the rate of stocks held by foreign owners of firms in Turkey for financial year 2010. Further, Al-Hussaini et al. (2008) observed that the extent of MD in line with the IFRS provisions has no connection with the ratio of foreign ownership among GCC stock markets for financial years 1996 and 2002. Moreover, Aljifri et al. (2014b) stated that foreign ownership has no effect on the level of disclosure in UAE-listed firms.

In the KSA stock market, the existence of foreign ownership is restricted by the law, which allows foreign ownership only up to 49% (Tadawul 2017). In addition, only since 2014 has the Saudi Stock Exchange been open to foreign investment. Based on the above arguments, and agency and capital need theories, this study proposes the following:

H1a: There is a significant positive relationship between foreign ownership and the extent of MD in the annual reports of KSA-listed firms.

H1b: There is a significant positive relationship between foreign ownership and the extent of VD in the annual reports of KSA-listed firms.

3.7.1.2 State Ownership

The purchase and control of company shares by the government is referred to as state ownership. According to stakeholder theory, state ownership (government-owned shares) has a major role in determining the extent of VD and MD, especially in developing markets where there is concentrated ownership structure (Al-Moataz and Basfar 2010; Hussainey and Al-Najjar 2012). According to agency theory, segregation between owners and company control can lead to an increase in agency costs because of conflicting interests between managers and shareholders (Hossain et al. 1994). Hence, companies with a greater number of shareholders can engage in more VD with a view to reducing the conflicts that arise.

In addition, using stockholder theory and legitimacy theory, Naser et al. (2006) posited that state ownership representation on boards may pressure a company to provide more VD rather than MD information. Eng and Mak (2003) indicated that agency issues are caused by a large shareholder population, such as occurs with state ownership. In addition, some arguments claim that the state ownership structure encourages governments to intervene in the management of a company, which can lead to poor CG practices (Konijn et al. 2011). For instance, Cornett et al. (2010) argued that the state can impose its preferred directors and CEOs on the board regardless of training and individual experience. Hope (2013) indicated that directors in government-owned firms lack the incentive to raise the profitability of the firm and to enhance the accounting disclosure policy as a result of the high proportion of state-owned shareholder population.

In contrast, according to signalling theory, it has been proposed that CEOs and managers may not be influenced by state ownership because of their similar interests to firm owners (Siebels and zu 2012). According to capital need theory, state ownership might become a source of tax subsidies, state contracts and funds that can enhance the company’s performance and corporate disclosure (Alnabsha et al. 2017; Bauwhede and Willekens 2008; Hermalin and Weisbach 2012).

Empirical studies have evaluated the influence of state ownership on the extent of VD. In South Africa, for a selected sample of 169 companies, Ntim et al. (2012) claimed that state ownership had a positive effect on the extent of VD between 2002 and 2006. In China, Lan et al. (2013) identified a positive connection between state ownership and VD level among 1,066 public companies for financial year 2006. Recently, Kolsi and Kolsi (2017) found a positive correlation between state-owned firms and the level of VD in the Abu Dhabi securities exchange for a sample of 25 listed firms from 2010 to 2014.

However, Khlif et al. (2017) found no significant correlation between state ownership and the level of VD in a meta-analysis of 69 empirical studies. In Libya, Alnabsha et al. (2017) also found no influence of state ownership on the level of VD for a sample of 50 listed and unlisted firms from 2006 to 2010. However, in Egypt Ebrahim and Fattah (2015) found a negative correlation between state ownership and VD. Khlif et al. (2017) stated that ‘there is no consensus concerning theoretical predictions about the association between state ownership and voluntary disclosure’ (p. 381).

The connection between the level of MD and ownership concentration has not been extensively examined. Cascino and Gassen (2015) pointed out that the control governments have over German and Italian firms is significantly positively correlated with the extent of IFRS mandatory requirements. Alnabsha et al. (2017) and Sarhan and Ntim (2019) found no evidence for a connection between the extent of MD and the rate of state ownership for Amman companies between 1998 and 2007.

In the KSA and other GCC member states, there has yet to be an extensive study seeking to determine the effect of state ownership on MD and VD. The study of Al-Janadi et al. (2013) is the only relevant research; it found that state ownership had a positive effect on the extent of VD when 87 public companies presented annual reports for the financial period 2006–07. In line stockholder theory and empirical evidence, this study proposes the following:

H2a: There is a significant positive relationship between state ownership and the extent of MD in the annual reports of KSA-listed firms.

H2b: There is a significant positive relationship between state ownership and the extent of VD in the annual reports of KSA-listed firms.

3.7.1.3 Family Ownership

Corporate disclosure among companies under the control of families may be hindered because boards run by families tend to be less transparent regarding disclosure of the firm's financial information in its annual reports (Abdullah et al. 2015). This notion is derived from the perspective that controlling family members who hold prominent board positions have unhindered access to the company's financial information; hence there is no need to provide additional information publicly (Chau and Gray 2010).

The presence of a highly concentrated family population in a company can influence the extent of corporate disclosure. This is a complicated situation that is addressed via two concepts in line with proposals in finance studies: management entrenchment and the convergence of interests (Morck et al. 1988), as cited by Chau and Gray (2010). Regarding the convergence of interests, there may be disputes between external investors and owners, who tend to have a more opportunistic approach because of their responsibilities for the consequences of not maximising the company's value (Jensen and Meckling 1976).

The argument posits that internal conflict between foreign investors and owner–managers will be reduced when the owner–manager's control of the firm increases. Accordingly, the demand for VD and MD will be diminished. In addition, the existence of insiders with substantial shareholdings will lead to a situation where they become more actively involved in the firm's activities to secure their interests (Ducassy and Montandrau 2015). Thus, management entrenchment (Shleifer and Vishny 1989) can lead to information asymmetry between internal and external investors (Morck et al. 2017).

Further, the decisions made by the owner–manager will be targeted at making more profits for the owner; this represents an expropriation the rights of minority shareholders, who will be subjected to the owner's decisions (Chi et al. 2015; Fan and Wong 2002). The outcome will be 'management entrenchment' instead of a 'convergence of interests'. Thus, external shareholders tend to closely monitor the owner–manager's attitude with a view to preventing agency issues (Jensen and Meckling 1976). The consequent increase in monitoring activities by external shareholders will lead to an increase in costs, a situation that can be avoided if the owner–manager provides additional comprehensive information (Chau and Gray 2010). Overall, a high level of owner–manager holding is expected to increase information disclosure to enable external shareholders to closely monitor the firm's activities with a view to protecting their interests.

The effect of the convergence of interests and management entrenchment together project the development of a non-monotonic association of family ownership with VD and MD practice. The current study includes family ownership as it was observed that very few studies have focused on the family ownership factor from the perspective of the VD. Aribi et al. (2018) and Liu et al. (2016) found significant positive correlations between family ownership and the level of MD. However, Cabeza-García et al. (2017) stated that family ownership had a negative influence on the level of MD in the financial statements of Spanish companies from 2004 to 2010.

In the KSA, markets are controlled by family-run firms. The Saudi Stock Exchange has also shown that the majority of companies' operations on the KSA stock market are controlled by powerful families such as royal family (Al-Ghamdi and Rhodes 2015). In the present study, it is argued that family-controlled firms have little motivation to disclose information in excess of mandatory and voluntary requirements, because the demand for public disclosure is relatively weak for these firms in comparison with companies that have wider ownership (Khlif et al. 2017). In the context of Saudi culture, with relatively high levels of collectivism and power distance and with strong uncertainty avoidance, it would also be expected that transparency and information disclosure levels would be lower compared to those in the U.S.

and U.K. markets (Whiteoak et al. 2005). Based on these arguments, this study proposes the following:

H3a: There is a significant negative relationship between family ownership and the extent of MD in the annual reports of KSA-listed firms.

H3b: There is a significant negative relationship between family ownership and the extent of VD in the annual reports of KSA-listed firms.

3.7.2 Corporate Disclosure and Corporate Governance Characteristics

3.7.2.1 Board of Directors Size

According to agency theory, shareholders are of the opinion that the board of directors they have selected should be concerned with their interests by ensuring a high level of MD and VD (Davidson et al. 1996). Agency theory indicates that board size is a significant agent in observation management team activities and attitudes (Allegrini and Greco 2013). de-Andrés et al. (2018) found that board size is influenced by a number of qualitative factors, such as independent, knowledgeable and experienced directors within the firm. Thus, in larger firms, the complex nature of official functions usually results in large numbers of directors being required to enhance official operations, such as company monitoring and control (Coles et al. 2008). Elmagrhi et al. (2016) argued that VD and MD are higher in firms that employ extensive managerial monitoring methods.

Regarding the size of the board of directors, there are two schools of thought. First, a small board size will increase the chances of a firm becoming successful; however, an increase in the board size will reduce the effectiveness of the board because of issues arising from inadequate coordination and operations that limit the advantages of having a larger group on the board (Jensen 1993); (Lipton and Lorsch 1992). According to Yermack (1996), large boards tend to be slower at making decisions, which could lead to delays. In addition, Goodstein, Gautam and Boeker (1994) stated that the strategic decisions made by board members may not be possible with larger boards, indicating a negative effect of large boards on MD.

The other school of thought proposes that larger board sizes promote the performance of firms (Pfeffer 1972). The large size of boards makes it easier for information to be gathered. In addition, large board size leads to diversity in expertise with regard to managerial and financial aspects (Laksmana 2008). It has been argued that it is easier for larger boards to disclose more information, which is thus an indication that board size has a positive influence on disclosure (Barako et al. 2006).

According to the empirical literature, there is a significant positive association between the level of VD and board size. In Malaysia, Husted and Sousa-Filho (2018) conducted a study to evaluate the level of VD among a selected sample of 176 Latin American companies. The study, performed in 2011–14, revealed that board size has a positive effect on the VD level. In South Africa, Ntim et al. (2012) also identified a significant positive connection between VD and board size among 169 companies; this observation was made after studying the operations of these firms from 2002 to 2006. Albitar (2015), in a study focused on the Jordanian stock market from 2010 to 2012, found that among a sample of 124 listed companies, there was more VD among companies with a larger board size than among companies with a smaller board size. However, in his study on Egypt, Elfeky (2017a) found no significant association between the level of VD and board size among a sample of 50 companies.

Many disclosure studies have identified a positive association between the level of MD and the board of directors size (Alfraih and Alfraih 2016). Alnabsha et al. (2018) pointed out the existence of a positive correlation between the extent of IFRS MD and board of directors size among Libyan-listed firms over the period 2006–10. According to Al-Akra et al. (2010), board size had a positive effect on IFRS MD requirements among nonfinancial public companies in the Amman Stock Exchange for the years 1996 and 2004. Based on a selected sample of 134 Kuwaiti-listed companies, Alfraih and Alfraih (2016) explored the effect of MD on board size during financial year 2010. The outcome indicated that board size has a positive effect on MD extent.

Focusing on the KSA, whether there is a connection between board size and MD and VD has not been extensively evaluated. Al-Janadi et al. (2013) studied the influence of CG factors on VD level among a selected sample of 87 companies in the KSA stock market between 2006 and 2007. In a recent study in Kuwait, Alfraih and Alfraih (2016) examined the connection between board characteristics and IFRS requirements among public companies for financial year 2010. The findings indicated that the size of the board of directors has a positive effect on the extent to which MD is undertaken in line with IFRS. However, Juhmani (2017) explored the effect of board size on financial reporting disclosure among 41 listed companies in the Bahrain stock market and found no evidence for an association between board size and IFRS requirements. The study found that board size has a positive effect on the level to which companies provide quality VD. Based on the above arguments and agency theory, this study proposes the following:

H4a: There is a significant positive relationship between board of directors size and the extent of MD in the annual reports of KSA-listed firms.

H4b: There is a significant positive relationship between board of directors size and the extent of VD in the annual reports of KSA-listed firms.

3.7.2.2 Independent Directors

Patelli and Prencipe (2007) defined the term 'board independence' to mean the ratio of external to internal directors. According to agency theory, the responsibilities of nonexecutive directors include management and monitoring of the actions of executive directors who tend to misbehave (Jensen and Meckling 1976). The functions of an independent board can protect the interests of owners while reducing agency cost (Jensen and Meckling 1976; Kim et al. 2007). The idea proposed by agency theory is that the actions of nonexecutive board members can decrease the asymmetry of information (Allegrini and Greco 2013). In addition, boards that are largely independent tend to promote better governance practices by providing a more extensive representation of shareholders' interests (Solomon 2007). The presence of more independent directors on boards can also have advantages, such as providing guidance during strategic decision-making processes and improving managers' activities and surveillance decisions, to reduce the existence of opportunism (Haniffa and Cooke 2002). However, Bozec (2005) proposed that boards with large numbers of independent directors can create intrusive managerial surveillance, which may obstruct managerial initiatives.

Studies have revealed a positive correlation between the level of VD and the number of independent directors on the board (Al-Janadi et al. 2013; Alotaibi 2014; Elfeky 2017a). In Hong Kong, Chen and Jaggi (2000) studied the connection between independent board members and VD among companies operating between 1993 and 1994. The reports indicated that having a higher proportion of independent directors is positively associated with level of accounting disclosure. In Spain, Arcay and Vazquez (2005) studied a selected sample of 117 companies for financial year 1999 to determine the level of VD. They found that mechanisms used for CG, such as the number of independent directors, are positively associated with the level of VD.

In Singapore, Cheng and Courtenay (2006) studied a sample of 104 companies in the year 2000 to determine the extent of VD, revealing a positive correlation between the proportion of independent directors and the level of VD. Similarly, in Australia, Lim et al. (2007), using a sample of 181 companies for the period 1991–2001 identified a positive correlation between independent directors (board composition) and the information revealed through VD.

Donnelly and Mulcahy (2008) found evidence that the level of VD was greater in boards that had more nonexecutive directors. The study was undertaken in 2002, and the correlation between CG and VD was evaluated among 51 Irish companies. Hussainey and Al-Najjar (2012), studying the UK Stock Exchange, discovered that in companies where the board of directors had a higher level of independence there was more comprehensive disclosure. The study considered 130 companies between 2003 and 2009. Recently, in Jordan, Alhazaimeh et al. (2014) studied the association between CG factors and ownership structure in relation to VD among a sample of firms between 2002 and 2011. It was discovered that a higher proportion of nonexecutive board directors had a positive effect on the overall VD level.

The empirical literature indicates mixed findings regarding the connection between the level of MD and board independence. It is thus difficult to predict how board independence may influence the extent of MD. Some research, however, has indicated that board independence has a significant positive influence on MD. In Hong Kong, Chen and Jaggi (2000) measured the connection between independent members and corporate reporting disclosure among 87 listed companies for the financial period 1993–94. They reported that the proportion of independent members on the board has a positive effect on the extent to which financial disclosure is undertaken.

An investigation by Juhmani (2017) explored the extent of MD by Bahrain-listed companies in relation to the IFRS, which was adopted in the country in 2010. The findings included a higher level of board independence in firms that promote the release of more comprehensive information. However, no evidence was found to suggest a connection between board independence and MD. Further, in a study focused on firms listed in the Amman Stock Exchange, Hassaan (2013) found no link between MD and board independence for the year 2007. Matolcsy et al. (2012) examined the effect of board independence on MD in a sample of 450 companies during 2006–07, finding no evidence linking MD level and board independence.

Considering the KSA, several studies have evaluated the influence of independent members on the level of VD. Al-Janadi et al. (2013) explored the effect of CG factors on the level of VD among a sample of 87 KSA companies between 2006 and 2007. The level of VD was positively influenced by a higher proportion of independent members on the board. Moreover, in the GCC region in Kuwait's stock market, a study by Alotaibi (2014) identified a significant positive correlation between board independence and the extent of MD among a selected sample of 156 financial companies for financial years 2007 and 2010. Acknowledging that most empirical and theoretical studies (e.g., Agyei-Mensah (2017); Alotaibi (2014); Elfeky (2017a)) indicate a positive correlation, this study proposes the following:

H5a: There is a significant positive relationship between board independence and the extent of MD in the annual reports of KSA-listed firms.

H5b: There is a significant positive relationship between board independence and the extent of VD in the annual reports of KSA-listed firms.

3.7.2.3 Chief Executive Officer Role Duality

The term 'duality in position' describes a situation in which an individual occupies the position of chairperson of the board and CEO of the firm at the same time (Alfraih and Almutawa 2017). Further explanations for such duality in position can be obtained through analysis using stewardship or agency theory. The theory of agency proposes that a chairperson who also functions as CEO tends to become managerially predominated, which generates a single authority (Elfeky 2017a). Differentiating between the position of the CEO and the head of the board may in theory help to maintain appropriate management performance and decrease managers' earnings management (Fama and Jensen 1983; Haniffa and Cooke 2002). Nevertheless, stewardship theory and stockholder theory propose that the functions of management should be focused on protecting and enhancing the interests of the company and its stakeholders. Duality in position enhances the ability of CEOs to coordinate the affairs of firms towards goal achievement with minimal intervention (Haniffa and Cooke 2002).

Forker (1992) indicated that a single authority undertaking both functions affects the quality of surveillance missions and that this threatens the quality of accounting disclosure. There is evidence to support the arguments of agency theory, which propose that the association between duality in position and the level of VD is negative. For example, in Hong Kong, Gul and Leung (2004) studied a sample of 384 companies for financial year 1997 to determine the correlation between CEO role duality in firms and VD. They showed that duality in position reduced the extent of VD. In China, through a sample of 559 companies examined by Huafang and Jianguo (2007) in 2002, it was discovered that duality in position is closely associated with minimal VD. These results indicate that differentiating between the role of the chair and that of the CEO in firms may increase the extent of VD.

In contrast, applying stewardship theory, there is evidence for a positive correlation between duality in position and VD. For instance, Felo (2009) studied the effect of board composition and advanced an argument differentiating the roles of the chair and CEO, which resulted in greater VD. It was discovered that the existence of positional role duality could remarkably increase the quality of VD. In addition, in MENA countries from 2009 to 2014, Sarhan and Ntim (2019) measured the factors that influence VD among service and industrial firms. They found a positive correlation between duality in position and VD. However, Elfeky (2017a), Haniffa and Cooke (2002) and Ho and Wong (2001) found no association between positional role duality and level of VD.

In some studies, firm reports indicate that the position of duality has a negative influence on MD. For instance, Forker (1992) showed that regarding the positions of CEO and chairperson separately can help to improve surveillance and reporting efficiency in a firm. The study indicated that duality in position has a negative effect on MD level. Abdelsalam and Street (2007) identified a negative correlation between the level of internet reporting among UK-listed firms and role duality in 2006.

In a study on 44 public firms in Ireland, Abdelsalam and El-Masry (2008) pointed out that role duality has a negative effect on the extent of internet disclosure. In addition, in Kuwait, Alfraih (2016) discovered that IFRS MD was negatively influenced by role duality among nonfinancial companies for financial year 2010. However, a different situation has been reported in other studies that indicates the absence of a connection between corporate disclosure and role duality. For instance, in a study on UAE companies for financial years 2010–12, ElKelish (2017) found no evidence that role duality influenced financial disclosure. However, in a study in China, Gao and Kling (2012) indicated that role duality had a positive influence on the level of MD for the period 2001–07.

Empirical studies, in this regard, have yielded highly contradictory results, which makes it difficult to ascertain whether role duality has an influence on the level of MD and VD in KSA-listed firms. For emerging markets, some research has claimed that role duality reduces the extent of MD. According to agency theory, there are arguments to suggest that firm performance can be enhanced by regarding the positions of the CEO and chair individually. This study thus proposes the following:

H6a: There is a significant negative relationship between CEO role duality and the extent of MD in the annual reports of KSA-listed firms.

H6b: There is a significant negative relationship between CEO role duality and the extent of VD in the annual reports of KSA-listed firms.

3.7.2.4 Gender Diversity

One of the most highly debated variables that encourages board diversity is gender diversity (Kathy et al. 2012). Many studies have suggested that board gender diversity has a positive effect on MD and VD in the area of CSR (Barako and Brown 2008; Kathy et al. 2012). There are many reasons for this, such as the boardroom situation, the quality of decisions made and growing board independence (Kiliç et al. 2015). According to Carter, Simkins and Simpson (2003), there will be an increase in board diversity when the board becomes more independent due to the presence of both male and female directors, and directors of different ethnicities and cultural backgrounds. A diverse board tends to be more transparent than a homogenous board. Having a high proportion of female directors increases the independence of the board. Issues such as accountability are influenced by board independence, which results in a higher extent of corporate disclosure (Kathy et al. 2012).

Moreover, the appointment of more females to occupy positions on firms' boards introduces diversity of opinion during board deliberations (Barako and Brown 2008) because of the differing experiences of men and women regarding working style and perspectives (Huse and Solberg 2006). According to Torchia et al. (2011), the presence of females on boards increases the tendency to make better decisions because of the additional alternatives and approaches that will be considered. Huse and Solberg (2006) indicated that female board members exhibit more diligence and wisdom than male directors. Adams and Ferreira (2009) found evidence that female directors improve the effectiveness of boards; therefore, the existence of female directors enhances decision-making processes, which promotes the level of MD and VD.

In addition, the presence of female directors improves the boardroom atmosphere (Huse and Solberg 2006). Ibrahim and Angelidis (1994) indicated that women tend to be more philanthropic and less economically motivated than male directors. Moreover, Williams (2003) discovered that the activities of firms regarding voluntary community service were influenced by the presence of female directors on the board. It is apparent that female directors are more interested in social issues; thus they influence the board's actions to consider voluntary issues.

In the KSA, the existing *Companies Act* has no provision for regulating board composition in the market. Companies operating in KSA markets are known to function under the control of particularly influential shareholders (Al-Ghamdi and Rhodes 2015). Hill et al. (2015) stated that the presence of female board members in companies within the KSA is determined by influential shareholders and their affiliations with affluent families. However, the idea that diversity could improve the progress of boards means that the presence of female board members will have a positive effect on the level of MD and VD. Based on the above arguments and consistent with the findings of Agyei-Mensah (2019b); Alfraih and Alfraih (2016), this study proposes the following:

H7a: There is a significant positive relationship between females on the board of directors and the extent of MD in the annual reports of KSA-listed firms.

H7b: There is a significant positive relationship between females on the board of directors and the extent of VD in the annual reports of KSA-listed firms.

3.7.2.5 **Ruling Family on the Board**

The quality of CG and extent of disclosure in a firm is determined by the institutional and social principles pertaining to a given country (Aguilera et al. 2010; Alamri 2014). The KSA is a state with a society characterised by a strong tribal order through which key economic policies are established (Alamri 2014). In KSA society, the Saudi ruling family is the most powerful and influential family. The efforts of the KSA government have been focused on achieving a better business environment by enhancing and regulating CG and transparent practices in the KSA stock market (Habtoor and Ahmad 2017). Moreover, the KSA government relies on its strong alliance with other royal families and members on firm boards to enforce laws and regulations, including the promotion of best governance practices and high levels of disclosure (Al-Hadi et al. 2016).

The alliance between the Saudi ruling family and the government through shared leadership and political power has given more influential power to the members of the royal family—who occupy top management positions in firms—than to other family members who monitor managerial activities with a view to promoting shareholders' rights (Habtoor and Ahmad 2017). Members of the royal family who are board members in companies also tend to exert their power and prestige in the boardroom, where they influence decisions regarding governance practices and transparency (Al-Hadi et al. 2016).

Hudaib and Haniffa (2009) pointed out that the ruling families in GCC countries (of which the KSA is one) have been observed to influence the judicial and economic institutions in the countries. These affluent families consolidate their control in the government by ensuring that their family members occupy important positions in the government (Hudaib and Haniffa 2009). Banks also play a prominent role in the KSA stock market as the majority of public companies in the KSA rely on the banks for financial support. Therefore, KSA companies that need bank loans are compelled to undertake a comprehensive corporate disclosure to secure loans at lower interest rates, while providing essential information to their shareholders (Alfraih 2016). However, Brandt and Li (2003) indicated that the banks prefer lending to firms under the rule of the ruling family with a view to benefiting from political affiliations and personal aims.

Chaney et al. (2011) stated that firms owned by the ruling family can wield their political influence to avoid financial penalties, such as higher borrowing costs, when it is clear that the financial reporting and disclosure they have presented is of low quality. Moreover, Al-Hadi et al. (2016) stated that:

> in the case of financial firms, there is a real need to determine whether the presence of ruling family members on boards of directors influences the extent and quality of reporting. Overall, the disclosure patterns of GCC financial firms are affected by both the existence of ruling family board members and by the increasing requirements for greater transparency, such as the recent developments in governance codes, the adoption of IAS/IFRS, the growing importance of regulatory bodies, and the internationalization of GCC-based firms (p. 506).

It may be concluded that the effectiveness of a board can be improved by the presence of royal families on the board, which may also improve board diversity. Moreover, evidence exists that there are diverse opinions regarding the selection of royal family members to occupy positions on company boards because of the distortion it can create in normal board member selection and screening processes, hindering board quality and independence (Al-Hadi et al. 2016; Alamri 2014). Thus, the royal family may promote stricter control measures through management and provide more VD of the firm's information. Habtoor and Ahmad (2017) stated that, in the case of VD, the influence of royal family members on activities such as monitoring and disclosure is dependent on the number of royal family members on the company's board. In the case of boards with larger numbers of royal family members, there will be a greater chance they will influence the level of MD and VD.

Moreover, in Kuwait, Alfraih and Almutawa (2017) evaluated the correlation between the level of VD and having ruling family members on the board for 143 listed companies; it was found that having ruling family members on the board has a negative influence on the extent of VD. The vast majority of non-controlling shareholders in the GCC have weak protection against major or ruling family shareholders, who may take many of the firm's benefits from non-dominant shareholders (Al-Hadi et al. 2016; Crystal 1995; Hertog 2012). Agency problems are thus likely to influence the accounting disclosure practices of KSA firms. Such agency problems could lead to a more opaque reporting environment in which accounting information is selectively omitted or unsufficiently aggregated so that specific risk exposures are not completely disclosed (Al-Hadi et al. 2016). Ruling family directors are thus likely to promote their interests at the expense of minority shareholders and thereby solidify their substantive control (Andres & Vallelado 2008; Barclay & Holderness 1989; Jaggi et al. 2009). This discussion therefore suggests that firms with ruling family members on their boards, or with board representatives who are connected through family ties to a royal family, are less likely to disclose accounting information. Based on the above arguments, this study proposes the following:

H8a: There is a significant negative relationship between ruling family members on the board of directors and the extent of MD in the annual reports of KSA-listed firms.

H8b: There is a significant negative relationship between ruling family members on the board of directors and the extent of VD in the annual reports of KSA-listed firms.

3.7.2.6 Audit Firm

Many studies have indicated that the quality of external audits can have a positive effect on the MD and VD practices of firms. The literature discusses reasons for this assertion. DeAngelo

(1981) stated that more established independent auditing companies have developed a reputable profile that is not compromised by failing to report violations in their reports. These audit firms also carefully avoid making errors or misrepresentations in their clients' reports, which would ruin their corporate image. Subsequently, DeAngelo proposed that established auditing firms stand to gain more benefit by reporting firms found to be noncompliant with reporting regulations.

Malone et al. (1993) indicated that small auditing companies are more anxious to meet the desires and needs of their clients because of their need to secure the client's loyal patronage and the economic effects they may experience from client loss. Wallace and Naser (1995) stated that this attitude witnessed among smaller audit firms does not prevail in larger firms that have more clients. In addition Wallace and Naser (1995) claimed that the independence of larger auditing firms from their clients and the absence of a close relationship with clients makes it easier for these firms to demand more disclosure during the preparation of firms' annual reports. Adelopo (2011) stated that, according to agency theory, larger auditing firms have the best and most experienced auditors; thus organisations that have been audited are considered as having been awarded a certificate in regard to minimising agency cost because it promotes the perception of reliability regarding the firms' annual reports. Moreover Hasan, MS (2013) indicated that 'The external audit can be an effective control mechanism to monitor the managers and guarantee the integrity of financial reports' (p. 112).

Studies have examined the statistical connection between the level of MD and auditing firms. Mathuva and Chong (2018) identified a positive connection between auditing services carried out by the largest four (the 'Big 4') auditing firms (Deloitte Touche Tohmatsu, PwC, KPMG and Ernst and Young) and the extent of MD, as demanded by Kenya public companies between 2008 and 2013. Agyei-Mensah (2013) claimed a positive correlation between the auditing work by one of the Big 4 auditing firms and the extent of MD required by IFRS for firms listed in Ghana in the years 2006 and 2008. In Poland, Biaek-Jaworska and Matusiewicz (2015) pointed out that the listed companies audited by Big 4 auditing firms provided more detailed information than firms that were audited by non-Big 4 auditing firms, for financial years 2005 and 2006.

The connection between audit firm size and the extent of VD is addressed in the literature. For instance, Alotaibi (2014); Elfeky (2017a); Sarhan and Ntim (2019) indicated the existence of a positive correlation with the level of VD. However, Barako et al. (2006); Haniffa and Cooke

(2002); Huafang and Jianguo (2007) reported an insignificant association with the extent of VD. In addition, Wallace and Naser (1995) reported a negative connection between the size of an audit firm and the extent of VD.

The content of disclosure studies indicates that the extent of MD and VD among KSA-listed companies varies between firms that have been audited by Big 4 auditors and those audited by non-Big 4 auditors. Listed companies audited by Big 4 auditing firms are also expected to provide information in their financial statements over and above that expected of companies audited by non-Big 4 audit companies. Based on these arguments, this study proposes the following:

H9a: There is a significant positive relationship between the Big 4 auditing firm and the extent of MD in the annual reports of KSA-listed firms.

H9b: There is a significant positive relationship between the Big 4 auditing firm and the extent of VD in the annual reports of KSA-listed firms.

3.8 Limitations of the Literature and Study Gap

The aim of this section is to identify the research gap that this study attempts to address. From the perspective of providing suitable explanations, several points can be derived from the above literature review to create further opportunities to conduct empirical investigations related to corporate disclosure (MD and VD) practices in the KSA. First, there is an apparent global interest in corporate disclosure practices; however, the VD and MD literature is mainly focused on developed markets (Nobanee and Ellili 2017). The system being implemented in emerging markets may promote a better understanding of corporate disclosure for different reasons that create more challenges in these countries compared with developed markets (Mahadeo, Oogarah-Hanuman and Soobaroyen 2011). For instance, the level of economic development in emerging states tends to be weaker in many respects (Szirmai and Verspagen 2015). In some developing markets, the existing legal system may not operate in a capacity that makes corporate disclosure practices compulsory (La Porta et al. 2002).

Moreover, varying cultural customs, values and norms influence the practices of disclosure (Ntim and Soobaroyen 2013). In many instances, there are no prominent influential groups or activists to influence adherence and consistency regarding VD (Muttakin and Khan 2014). Finally, the corporate disclosure level in a country may be influenced by prevalent high-level corruption, especially in high-level firm offices (Mangena et al. 2012). It can therefore be inferred that the VD and MD practices, effects and other notable factors prevalent in developed markets may not be the same as those in emerging markets (Ntim and Soobaroyen 2013). This implies that examining the VD and MD practices in developing countries such as the KSA creates an avenue to further explore and understand disclosure practices, particularly VD and MD.

In this respect, a business's approach towards developing and implementing its policies and activities regarding VD and MD is influenced by the nature of its contextual environment. Pedersen (2010) pointed out that in different countries, there are multiple factors that define and influence a manager's perceptions regarding how the business and society relate; thus, such factors define corporate behaviour and influence disclosure practices. Further, Doh and Guay (2006) highlighted institutional differences between the US and the EU and how these features determine corporate strategies associated with disclosure practices. It can therefore be inferred that an existing institutional system in a country will determine the response to disclosure extent and influential factors. Golob and Bartlett (2007) identified market pressure as one of the drivers of corporate disclosure in Slovenia and Australia. This situation was associated with the expectations of market participants. However, the issues related to reporting differ in the two countries because of cultural influences on individual expectations. For example, Australia follows the Anglo–Saxon tradition, while the European tradition is widespread in Slovenia. In these two countries, approaches to addressing corporate disclosure differ because the legal systems, government structures and accounting practices are not similar.

In the KSA, very little is known about corporate disclosure practices. Its known features include a unique institutional setting that may influence disclosure practices, as discussed in Chapter 2. For instance, in the KSA, the societal, economic and legal systems are structured based on Islamic teaching and principles. Deegan (2014) proposed that it is logical to point to religion as a significant factor because of its influence on business affairs and entrepreneurial decision making. Given this, it is expected that KSA companies will have greater involvement in corporate disclosure practices; therefore, exploring VD and MD practices in such a distinct institutional setting would benefit the literature on disclosure practices.

Moreover, only a few empirical studies have considered the connection between corporate disclosure and CG factors in emerging countries, especially the KSA. It was suggested in the literature review that good CG encourages good disclosure practices because of the system of

CG, which promotes firm features such as accountability and responsibility while considering a broader stakeholder group. In the KSA, studies have exhibited a limited perspective regarding the function of CG mechanisms in the extent of corporate disclosure. However, the findings from studies on disclosure extent and identified influential factors have been less than comprehensive, and generally inconclusive. With the exception of Al-Janadi et al. (2012), in the KSA no known study has examined the role of CG mechanisms in VD and MD practices. It is therefore expected that presenting empirical evidence regarding CG factors that influence the level of disclosure practices in the KSA context may enrich the VD and MD literature, particularly with regard to factors arising following the significant corporate reforms that took place, including the adoption of IFRSs in 2013 (Nurunnabi 2017a); the issuing of a CG Code in 2008 (Baydoun et al. 2012); the updating of the CG Code in 2016 (CMA 2017b); and the opening up of the Saudi Stock Exchange to foreign investment in 2016 (Nurunnabi 2017a).

In addition, empirical studies such as that by Al-Janadi et al. (2012) were more focused on large companies. Thus, empirical study findings may be biased and limited to large firms. In this regard, those findings cannot be generalized or applied to SMEs. It is arguable that the literature would be markedly improved and with more reliable results obtained if various sizes of firms were considered (Murillo and Lozano 2006). The Al-Janadi et al. (2012) study covered only 2 years, while the current study takes a longitudinal approach (3 years), which will contribute immensely to the corporate disclosure literature by considering how VD and MD have evolved recently in the KSA. An annual study of the variations in different studies provides a means to identify trends in disclosure practices and their effects, as well as influential factors. These studies provide further explanations for the involvement of KSA companies in corporate disclosure practices in the context of this study. Further, employing a longitudinal approach facilitates discovering the reasons for trends and sequences in a social phenomenon because of its cross-sectional and time-series characteristics, which make it easier to identify dynamic connections (Hsiao 2014).

Moreover, this study includes some specific variables that have not been investigated previously in the KSA context, including CG mechanisms (independent directors, CEO role duality, gender diversity and ruling family on the board) and ownership structure (foreign ownership, state ownership and family ownership). Thus, by investigating these factors in this study, a better understanding of VD and MD practices in KSA-listed firms may be developed.

3.9 Conclusion

This chapter reviewed and focused on empirical literature relevant to the extent of MD and VD and the variables that may influence the level of corporate disclosure in emerging and developed markets. The previous discussion and review established the foundation for building and developing a set of testable hypotheses to achieve and address this research's objectives.

Two essential hypotheses are developed in this empirical research: the first is related to CG mechanisms, classified into five sub-hypotheses (CEO role duality, board size, board independence, gender diversity and ruling family members on the board); the second is related to ownership structure, classified into three sub-hypotheses (foreign ownership, state ownership and family ownership).

In the following chapter, theories of corporate financial disclosure (mandatory and voluntary) applied in the literature that explain variation in the extent of corporate disclosure are addressed and discussed.

Chapter 4: Theories of Corporate Accounting Disclosure

4.1 Introduction

This chapter seeks to comprehensively analyse commonly applied accounting theories in financial disclosure studies. It aims to provide a holistic view of the various theoretical perspectives and proffer an explanation for those employed in addressing the corporate disclosure phenomenon. The study's theoretical framework is established by outlining the differences and similarities among the various theories in MD and VD studies.

This chapter is divided as follows: in Section 4.2 theories of MD are discussed, which include regulatory and free market theory (Section 4.2.1), agency theory (Section 4.2.2), cost-based theory (Section 4.2.3) and market-based theory (Section 4.2.4). After this, in Section 4.3 theories of VD are addressed, which include agency (Section 4.3.1), capital need (Section 4.3.2), stewardship (Section 4.3.3), signalling (Section 4.3.4), political cost (Section 4.3.5) and stakeholder theories (Section 4.3.6).

4.2 Theories of Corporate Mandatory Disclosure

4.2.1 Regulatory and Free Market Theories

In markets all over the world, a set of accounting rules and regulations are supported by law to address various reporting issues, in particular corporate accounting disclosure practices. Admati and Pfleiderer (2000) indicated that it is difficult to establish and implement a standard regulation that can enforce a mandatory level of accounting disclosure by firms. In fact, there is debate over the necessity for regulations regarding financial disclosure. Deegan and Unerman (2006) proposed two contrasting perspectives: regulatory theory proposes that it is necessary to regulate financial disclosure (Baldwin et al. 2012); while free market theory argues there is no need for regulation (Owusu-Ansah 1998a).

Groups that support the call for regulation consider that the need for regulation is based on stakeholders' demand for fair and equitable market policies and practices (Posner 1974); hence the need for regulatory standards and bodies that will protect the public's interests (Bernstein 2015). It can generally be inferred that the public (public interest approach) has no confidence in capital markets and that people who need the information contained in financial reports do not otherwise have access to this information about a company (Scott 2015). This leads to the occurrence of information asymmetry and to 'ethical issues' and difficulties in making good investment decisions (adverse selection) (Abdel-Rahim and Stevens 2018; Anton 2016). The relevant regulatory processes and mechanisms have been publicly criticised, with allegations that the information released is only beneficial to specific groups of stakeholders. Therefore, there is an uneven balance in the expected benefits because only particular groups benefit from regulatory mechanisms (Deegan 2014).

Free market theory suggests that the scope of corporate disclosure is determined by the factors of supply and demand, without the interference of regulations (except to prevent fraud and coercion), as witnessed for other goods in the market Beaver (1989), cited in Healy and Palepu (2001). The users who need information revealed during disclosure should be made to pay for access to the details they need. Companies that withhold information related to important financial details will be penalised by being considered and treated as poor-quality institutions, particularly if other companies disclose such information (Coffee 1984). This may encourage a high level of corporate accounting disclosure (Lardon and Deloof 2014). Nevertheless, regulatory theory's supporters have pointed out criticisms that paying for highly valued information during disclosure gives the user the discretion to broadcast the information for free to the general public (Cooper and Keim 1983). Coffee (1984) called this situation the 'free rider issue'; it eventually leads to a violation of market factors and the development of non-functioning pricing policies in the capital market.

In the next section, the situation described above is critically examined through a theoretical framework utilised to explain and address the extent of MD discussed in this study. It must be noted that not all theories about MD are equally relevant to this study's objectives. The theories that can be applied to evaluating the aims of this study can be classified into three groups:

1. agency theory
2. cost-based theories
3. market-based theories.

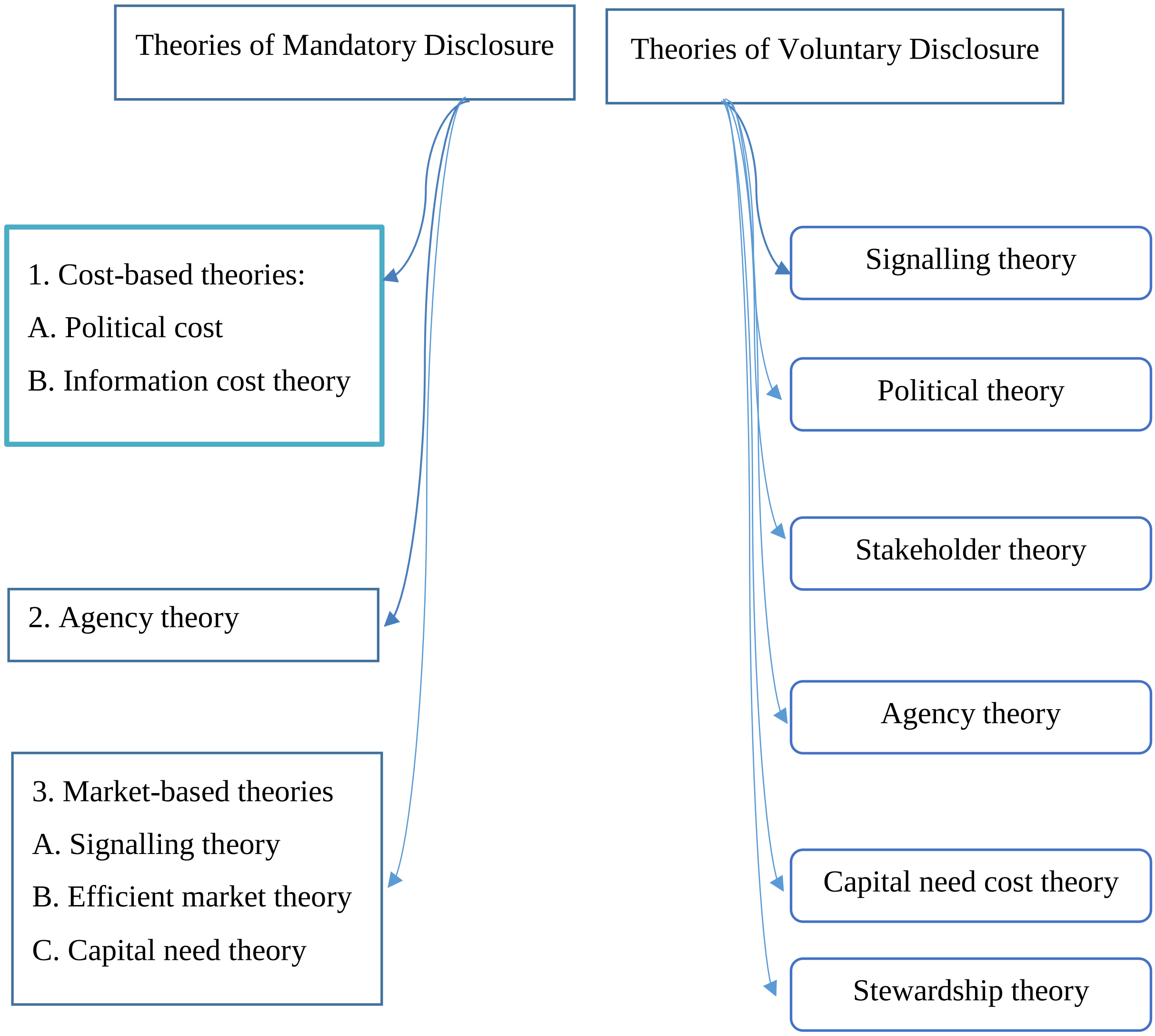

Figure 4.1: Classification of corporate disclosure theories

4.2.2 Agency Theory

Agency theory is commonly referenced in studies related to corporate disclosure (Abdullah et al. 2015; Alfraih and Alfraih 2016; Cooke 1989; Firth 1980; Juhmani 2017; Mnif and Fendri 2017; Popova et al. 2013). It is about the connection between agents (managers) and principals (shareholders) (Ross 1973). Eisenhardt (1989) provided an explanation for the development of agency relationships, thus:

> an agency relationship has arisen between two (or more) parties when one, designated as the agent, acts for, on behalf of, or as representative for the other, designated the principal, in a particular domain of decision problem. (p. 134)

The definition presented by Hill et al. (1992) explained that principals are the shareholders and that agents are the managers of the organisation. This theory has been developed as a result of conflict arising from the differentiation between management and ownership in companies (Ding et al. 2015). The major issue between principals and agents is the inability to share ownership and control, where allegations will be traded about both parties being interested in personal gain (Hill et al. 1992). From agency theory, processes can be developed to ensure that firms' actions are beneficial to managers and companies.

Jensen and Meckling (1976) stated that the focus of agency theory is the connection between the agents and principals, which potentially leads to information asymmetry and disputes; thus, it is an association that should include the delegation of decision-making functions to managers. Accordingly, managers have power and access to the firm's resources and essential information about the firm. From another perspective, business owners have the authority to appoint managers to enhance and manage the company and also seek information by which the manager's and company's performance can be evaluated (Blanco-Mazagatos et al. 2016). At this point, the issue of information asymmetry is commonly encountered because there are allegations that suggest that the individuals' actions are based on self-interest to increase their own benefit (Healy and Palepu 2001). According to the theory, conflict of interest can be observed between parties. Other issues include self-interest for personal gain, and loss of focus in achieving the firm's goals. The solutions to these disputes usually include the use of standard procedures to evaluate agents' behaviour, which will lead to high agency costs. The findings may, however, not be beneficial for business owners (Abdel-Fattah 2008).

There are some risks attributed to the agents' mode of operation that give agents independence. First, the principals contend with the difficulty in evaluating and monitoring the agents. This may cause a 'moral hazard', where the principal contends with risks they cannot manage, and the outcomes have no positive effect on their business and interest. Second, the principal cannot evaluate the extent of management's decision making, which may result in the 'adverse selection' issue, and the value of good companies becomes suboptimal. The prevalence of information asymmetry causes rising agency costs of debts and equity (Morris 1987).

The agency costs of equity are related to diminished company value because of the principals' opinion that the agents are not focused on achieving optimal decisions, which causes an adverse selection issue (Bernanke and Gertler 1986; Choe et al. 1993). Agency costs of equity are also concerned with the costs of implementing monitoring systems through which the owners can observe the agents' actions towards achieving the firm's objectives. The agency costs of debt are related to actions such as the payment of high-value dividends and other unprofitable investments that could lead to losses, as well as the costs of bonding and monitoring (Morris 1987). In addition, Jensen and Meckling (1976) proposed that the provision of incentives to managers will eliminate agency costs. Therefore, implementing surveillance processes and preparing financial statements (disclosure) will considerably reduce agency costs (Botosan 1997; Morris 1987; Sengupta 1998).

Gallego et al. (2008) and Shehata (2014) pointed out that agency costs can be reduced by performing a full disclosure to portray the actual financial position of the company. Thus, stakeholders will have sufficient information (from full disclosure) to monitor the effect of managers' decisions. An extensive disclosure provides a mechanism through which shareholders gain control over managers through bonding and monitoring activities while providing a process of legitimacy for managers. The issue of information asymmetry can thus be addressed by conducting full disclosure. Managers will be encouraged to signal (by providing disclosure) their determination to help owners achieve their interests. In addition, owners make attempts to compel and encourage managers to disclose more information, which can make investors more confident while reducing capital costs (Ball and Foster 1982; Watson et al. 2002).

The above arguments imply that agency costs due to information asymmetry can be reduced by MD practices to enhance the company's reputation. Therefore, managers tend to be encouraged to provide extensive MD.

4.2.3 Cost-based Theories

Managers in companies are tasked with considering the indirect and direct expenses of VD and its benefits to the company (trade-off). It is usually the responsibility of managers to comply with MD. Hence, the approaches of information and political costs are two relevant areas for this study's objectives.

4.2.3.1 Information Cost Theory

Benston (1985) indicated that adherence to specified disclosure regulations will cause an increase in information costs. Thus, there are some costs that the company has to incur that are due to funding for employee training, engaging the services of consultants and information gathering to be processed and disclosed (Zarzeski 1996). As these costs can be quantified, companies can determine the level of benefit (known as marginal utility) they stand to gain from MD; the extent of their disclosure can then be tailored to fall within the limits of their expected benefits (when the marginal utility of MD is equal to the marginal expenses of MD) (Deegan 2014). Thus, the decision to comply with MD is dependent on the value of direct information costs (Verrecchia 1983). This aspect is particularly relevant to this study because the IFRS are required to be followed by KSA public companies, which can increase the direct information costs for KSA public companies that adopt the IFRS.

Indirect costs arise from the activities that follow a company's decision to disclose (Leventis 2001). This is a situation known as proprietary information disclosure. Proprietary disclosure refers to the disclosure of information that can cause a reduction in the current extent of cash flow in companies that control this information (Dye 1986). Companies that implement high reporting standards may tend to provide more proprietary information. This is because of the argument that MD makes it necessary for companies to disclose both bad and good news (Ettredge et al. 2011). It is a situation that can encourage noncompliance because directors will be reluctant to reveal proprietary information or bad news during disclosure that may affect the company's value (Boone et al. 2016; Dye 1986). Nevertheless, managers will disclose 'bad news' to avoid legal issues; hence these companies will comply with MD according to the IFRS regulations even when it includes proprietary information (Asay, Libby and Rennekamp 2018; Levy, Shalev and Zur 2018; Li and Yang 2015).

While it is assumed that information costs can influence the level of MD, the above arguments and the mixed results in associated studies (e.g., (Dye 1985; Verrecchia 1983) provide no means by which to predict the outcome of the correlation. Verrecchia (1983) presented some reasonable explanations for a manager's decision to disclose information. The outcome is dependent on the inclusion of proprietary costs related to the disclosure process. This means that the high costs of proprietary disclosure will prevent extensive or complete MD. Proprietary costs are those incurred during the disclosure of proprietary information that can have an adverse effect on the company and reduce its competitive edge (Newman and Sansing 1993; Verrecchia 1983). Alfraih (2016) stated that, 'Proprietary cost theory posits that managers have an incentive not to disclose information that will affect competitiveness, even if it becomes more costly to raise equity' (p158).

4.2.3.2 Political Cost Theory

The theory of political cost is not related to profit generation or personal gains (Haddad 2005). Watts and Zimmerman (1978, 1990, 2003) presented the theory of political cost in a study of the activities of politicians in relation to state agencies and tax institutions that have the influence to control the wealth redistribution of companies. Foster (2004) explained political costs as the expenses for companies remitted to the government and redistributed to other groups in society. There are currently certain mechanisms that are used by companies to reduce pressure from politicians, such as state pressure, the display of social responsibility on social media and the lowering of the value of reported profits through selective accounting approaches (Watts and Zimmerman 1978).

The theory of political cost may add some explanation regarding the form of theoretical support that can be used to clarify the extent and variation of MD. Watts and Zimmerman (1978) stated that highly successful firms are under the observation of the public and thus tend to avoid public activities. In addition, these firms are usually more closely monitored by government institutions and environmental lobby groups than are smaller companies (Deegan 2014). Politicians may work against large or successful companies and make demands from these companies, claiming it is in the interest of the public, while seeing personal gains such as more votes and allies (Watts and Zimmerman 1979). Hence, companies adopt accounting policies based on taxation laws (Hagerman and Zmijewski 1979) and actively disclose more additional information (Lim and McKinnon 1993). Some aspects related to tax-driven accounting options that feature unconsolidated annual reports that may be in order regarding consolidated IFRS statements. For example, the recognition of assets impairment for financial reporting is deductible for tax purposes in Germany (but not the UK). Hence there is bias in this case. Some approaches have been used by companies to reduce pressure from politicians through selective accounting (Watts and Zimmerman 1978). Consequently, it has also been observed that companies adopt accounting policies and adhere to specified accounting standards to avoid penalties from political bodies and decrease the potential associated costs (Rahman and Scapens 1988; Stent et al. 2010).

Companies found to be noncompliant with MD practices will be targeted by politicians seeking to examine the company’s financial documents. Moreover, regulatory agencies can report noncompliant companies to the government. Thus, these companies may face various risks if their operations are scrutinised by the government during tax audits, which can reveal errors and consequently lead to penalties. This area is particularly relevant to the business environment in the KSA. While the regulatory agencies and enforcement bodies in the KSA are considered independent institutions, they function under government control and regulations (Niblock 2015). In addition, KSA-listed companies have been observed to use tax-driven policies, which could result in tax punishments (Papas 2013). It can therefore be expected that a positive connection exists between political costs and the extent of MD in companies that have taken actions to avoid political scrutiny (Camfferman and Cooke 2002; Raffournier 1995). However, Vlachos (2001) stated that:

> it is possible that different predictions about the disclosure of corporate information may be derived from the political cost theory, depending on the environment within which the theory is examined. This is because although it is usually claimed that politically sensitive companies may disclose more extensively in order to reduce their political costs, the opposite may be true in the case of countries with specific environmental characteristics politically sensitive companies may disclose less extensively (p. 6).

Further, Wallace and Naser (1995); Wallace et al. (1994) stated that the political action that can follow MD may cause companies to provide less information to avoid publicity (political attack). From this perspective, it is difficult to predict the extent to which political costs influence the level of MD.

4.2.4 Market-based Theories

The free market theory and the agency theory provide useful ideas and arguments about the operations of exchange markets. For example, based on the market principle of agency theory, managers are encouraged to signal because it is proof of their ability to increase owners' wealth. It may be argued that there are methods that managers could use to send such positive signals to investors and stakeholders to demonstrate their abilities to manage the firms.

Market-based theories have been utilised and developed to provide an explanation for the provision of MD. Three theories fall into this category:

1. signalling theory
2. capital need theory
3. efficient market theory.

4.2.4.1 Signalling Theory

Signalling theory is regarded as an extension of agency theory (Jensen and Meckling 1976; Morris 1987). Initially, signalling theory was used to address aspects of consumer behaviour to provide an explanation for issues related to inadequate information given to buyers about the quality of goods (Akerlof 1970). Signalling theory later began to focus on issues related to the existence of information asymmetry in markets and how its negative effects can be decreased by agents who signal more information to other parties (Morris 1987). In addition, Akerlof (1970) stated that since buyers have a minimal understanding of product prices, they are offered prices based on their perception (self-assessment) of a product's quality, which gives the seller an unfair advantage that can be resolved by informing buyers about the actual product quality so that high-quality goods can be sold at a fair price.

Connelly et al. (2011) stated that:

> signalling theory is useful for describing behaviour when two parties (individuals or organizations) have access to different information. Typically, one party, the sender, must choose whether and how to communicate (or signal) that information, and the other party, the receiver, must choose how to interpret the signal (p. 39).

Regarding corporate disclosure, managers of firms can attempt to increase share prices by disclosing information that indicates higher firm value than the value set by the market (Healy and Palepu 1993; Lev and Penman 1990). On the other hand, managers who possess information indicating low company value will avoid disclosure; thus, the absence of public information can be interpreted in the market as a troubled company (i.e., bad news) (Akerlof 1970; Patell and Wolfson 1982).

Companies that do not disclose may be subjected to a revaluation process, during which the price of their shares will drop. Subsequently, both high- and low-performing companies can increase the awareness of their successes and stand out in the market by disclosing more (Akerlof 1970). However, managers in poorly performing companies may encourage disclosure to avoid high agency costs. Thus, it could be said that signalling theory is relevant to this study. The adoption of IFRS and rising trends of disclosure among KSA nonfinancial companies makes it easier to identify poorly performing companies.

4.2.4.2 Capital Need Theory

The theory of capital need proposes that companies increase their level of disclosure with a view to accessing more capital (Abd-Elsalam 1999). Increased corporate disclosure can be interpreted by managers as a means by which to lower costs of new capital and decrease potential investor uncertainty through a reduction in information asymmetry (Cooke 1993; Firth 1980). The main idea behind the utilisation of this theory in demonstrating the extent of corporate disclosure is the need for new finance capital (loans or shares) (Haniffa 1999). Moreover, Das (2015) argued that ‘to acquire capital more economically, either in the form of shares or loans, companies can use disclosure as a way to help in reducing investor uncertainty as well as information asymmetry’ (p. 95).

Cooke (1989) supported the theory of capital need by pointing out some justifications:

1. Additional disclosure can lead potential investors to be attracted to invest in a firm as well as maintain demand for a firm’s stocks.
2. More information during corporate disclosure can minimise the extent of information risk and contracting costs or capital costs.
3. Listed companies carry out more disclosure than unlisted companies because of their interest in raising more capital after disclosure. Moreover, there is a higher tendency for multiple-listed companies to disclose than for local-listed companies.
4. Companies interested in accessing international capital funds may be compelled to disclose corporate information based on the requirements presented by the providers of foreign funds.
5. Companies tend to increase their social responsibility disclosure to improve their reputation in society, thus attracting new investors.

The theory of capital need is supported by studies that identify the effect of corporate disclosure on lowering estimation risks (Meek and Gray 1989), improving stock liquidity (Frankel et al. 1995; King et al. 1990) and reducing the costs of capital (Sengupta 1998). There are certain aspects of capital need theory that are relevant to this study. In Jordan, Al-Shiab (2003) reported that compliance with MD requirements has an effect on the cost of capital. Listed companies aim to attract more investors and gain a higher competitive advantage in stock markets; thus, these companies’ managers have an incentive to provide enhanced MD, which is needed to attract more investors and reduce costs (Leventis 2001).

4.2.4.3 Efficient Market Theory

The method by which crucial market information is disseminated and used by market participants is referred to as market efficiency (Dietrich et al. 2001). It is dependent on the available financial information. Three models of market efficiency were identified by (Fama 1970), as follows:

1. The weak model indicates that the stock price is related to the cumulative prices from the past (historical prices).
2. The semi-strong model indicates that the stock price reflects the public information of the companies, including information shown in annual reports.
3. The strong model indicates that the stock price reflects all types of information, including the private information of a company only accessible by particular influential stakeholders.

Market efficiency related to information dissemination is said to be dependent on several requirements (Keane 1993): a standard regulating and accounting profession; identifying the actual information needed by market participants; and the timely dissemination and broad distribution of the information disclosed by companies. These requirements are promoted by efficient institutional infrastructure (e.g., the regular surveillance of insider trading activities and reliable tools to protect investors' interests).

In the KSA, there is a moderately high level of accounting and auditing practice. The role of these professionals is crucial for combining accounting and auditing standards and practices in the market. However, the stock market in the KSA is regarded as an emerging market and has only recently begun accepting foreign investment in listed companies and SMEs. This is an indication that the stock prices reflect the current information available (disclosed), and market-based theories present a well-researched framework in line with the aims of this study.

4.3 Theories of Corporate Voluntary Disclosure

4.3.1 Agency Theory

The concept and framework of agency theory were discussed and addressed in Section 4.2.1. To recap, the context of agency theory proposes that a company is commonly bound in a contractual agreement with two parties identified as the principal and the agent. The managers represent the agents, while the shareholders are the principals. Hendry (2001) and Jensen and Murphy (1990) have emphasised that current economic practices force companies to engage in the agency relationship; such companies are thus assumed to adopt the most suitable CG policies. Disputes between agents and principals have frequently been traced to the policies and contractual conditions applied in the companies (Das 2015).

In their argument, Zahra and Pearce (1989) stated that there are certain aspects of the agency framework focused on conflicts between shareholders and managers that are crucial to surveillance and managing the functions of the board appropriately. Moreover, agency theory clarifies the important mechanisms needed to protect the interests of shareholders during conflicts within the administration (Fama and Jensen 1983). In such companies, efforts can be made to reduce agency costs and avoid the adverse effects of the financial market by involving external and independent directors to occupy positions such as board chair and CEO (Daily and Dalton 1994). It is commonly reported that the CEO has more control over a company's affairs than does the chairperson (Johnson et al. 2005).

The quality of the annual reports is dependent on the board's acceptance of disclosing more information (Watson et al. 2002). The theory of agency can be used to explain why managers agree to provide additional information. Disclosure research has identified confirmed propositions that have been formed based on the theory of agency. Jensen and Meckling (1976) pointed out that it is easier for conflicts of interest to occur between agents (managers) and principals (proprietors) linked to widely established firms. Thus larger institutions have higher agency costs. Therefore, agency theory explores the potential for a positive link between firm size and level of corporate disclosure. In addition, the theory of agency explores the positive association between disclosure practices and the varying registration status and quality of auditors.

In addition, the need to apply the knowledge from agency theory while managing a company increases because of information asymmetry (Alhazmi 2017). Ng (1978) pointed out that the manager will be fully aware of the company's payout regardless of the standard financial reporting system through which this information is reported to the owner of the firm. Regarding annual reports, the issue of distorted information is very important. Another issue created by agency theory is that it is mainly focused on the interests of stakeholders (creditors and shareholders) in regard to the required financial details. However, agency theory does not address the interests of other stakeholders, such as employees and the public, who do not have access to the manager.

Barako et al. (2006) indicated that VD is another mechanism for alleviating agency conflict, through providing additional (voluntary) information to increase reliability in annual reports as well as decrease the cost of agency. Moreover, reporting regulations and financial standards are the main mechanisms for reducing agency issues as they demand firms' managers adopt full disclosure (MD), including private information (Healy and Palepu 2001). Nevertheless, MD is not guaranteed, even with the existing regulations and accounting standards (Al-Razeen and Karbhari 2004). Thus, a lack of full disclosure is demonstrated by issues arising between agents and principals (Guay et al. 2016).

When addressing issues of information distortion and absence, disputing groups can apply VD as a solution. Managers, who are agents protecting the interests of owners, can observe the findings from a more realistic perspective. Conversely, managers can be coerced by business owners, or can willingly choose to disclose more information. However, Okcabol and Tinker (1993) indicated that this theory fails to clarify the area of non-monetary incentives that limit disclosure.

4.3.2 Capital Need Theory

Firms can support their growth plans by seeking out external financial support, which may be in the form of equity or debt. Securing funds this way can be quite expensive because of market uncertainties and limited information about firms (Suwaidan 1997). The high costs of securing external funding are due to compensation demands against the investment risk undertaken by funders and investors. There may be a fall in the expected returns if a firm chooses to disclose additional (voluntary) market information to the public (Healy and Palepu 2001). Moreover, firms openly disclose additional details in a bid to minimise information asymmetry while performing market transactions (Lang and Lundholm 2000).

Botosan (1997) and Cooke (1993) suggested in their argument that in an effort to lower capital costs, managers tend to accept the need for more additional disclosure. Adhikari and Tondkar (1992) proposed that the existence of market pressures promotes the extent of disclosure. This is based on the system of accounting reporting through which relevant information is disclosed to participants in markets via informal or formal contracts (Adhikari and Tondkar 1992). To achieve a higher extent of disclosure, listed firms should focus on the users' act contract (agency contract between principles and agent).

Based on theory of capital need, a significant reason for VD is to gain access to capital at the lowest possible rate of interest. This can be achieved by selling shares or securing the necessary loans by eliminating investors' uncertainty and information asymmetry and thus finding cheaper sources of capital. By reducing information asymmetry in capital markets through a better financial reporting system, firms can achieve higher market efficiency (Hossain et al. 1995).

Core (2001) indicated that the extent of fixed disclosure (mandatory) is not sufficient to acquire cheap capital funding. Thus, managers should provide additional information (voluntary) in a bid to minimise the cost of capital funding (Lambert et al. 2007). In other words, higher levels of disclosure (more than is mandatory) will result in lower information risks, share prices (firm value) and costs of capital (Botosan 1997; Diamond and Verrecchia 1991; Healy and Palepu 2001). In addition, Meek et al. (1995) indicated that there is high competition in markets to secure capital funding at the lowest price based on the extent of disclosure by firms.

4.3.3 Stewardship Theory

The theory of stewardship has been defined as follows: 'managers, left on their own, will indeed act as responsible stewards of the assets they control' (Mgammal et al. 2018, p. 8). Regarding the reports in Blair (1995); Hoskisson et al. (2000), it is understood that the theory of agency may be criticised because of limitations identified in the area of psychological and sociological processes, which portray the connection between the agent and the principal. Davis et al. (1997) proposed the use of stewardship theory as an alternative to the theory of agency regarding the area of CG. Donaldson and Davis (1991) identified psychology/sociology as the foundation of the theory of stewardship, which has similarities to the organisational approach. Donaldson and Preston (1995) argued that stewards are expected to function in line with the interests of their principals (stockholders) while observing the current situation.

In the company setting, directors are trusted stewards; this perspective forms the main theme of the theory of stewardship, which suggests that managers are solely focused on ensuring that shareholders' interests are met, rather than achieving personal gains. In other words, 'directors are regarded as the stewards of the company's assets and will be predisposed to act in the best interests of the shareholders' (Mal-lin 2013, p. 16). Managers, therefore, strive to undertake additional disclosure (voluntary) processes to avoid conflicting interests regarding the firm's financial situation (Mgammal et al. 2018). Directors are appointed by the shareholders, with the main responsibility of ensuring shareholders' interests are considered at AGMs. The services of independent auditors are used to examine whether the firm's financial reports and accounts are correct or false based on the annual reports.

According to this theory, directors' interests are associated with the interests of stockholders (Davis et al. 1997), and directors are considered reliable and to utilise the company's resources in the best way to increase the value of the company (Mallin 2013). Thus, directors will choose to voluntarily provide information to meet the needs of the stakeholders and users of annual reports.

4.3.4 Signalling Theory

The concept and framework of signalling theory were discussed and addressed in Section 4.1.4.1. Signalling theory has been introduced in this study to provide an explanation for, and to deliberate on, (voluntary) disclosure practices. In their study, Chhaochharia and Grinstein (2007) identified information irregularity as one of the common issues encountered in stock markets, and signalling theory is applicable in markets characterised by information irregularities (Ballwieser et al. 2012). However, issues can be resolved when the parties in possession of the needed information disclose it to others (Morris 1987). Moreover, in situations where firms have limited information to disclose, managers will focus on presenting a positive report to prevent the public from grouping their funds with poorly performing businesses and to distinguish themselves from other low-performing firms. Hence these firms feel compelled to regularly and publicly disclose all the information they have as a sign of their good performance (Ross 1979).

Verrecchia (1983) pointed out that regarding the effect of disclosure on the market, it is the responsibility of the manager to decide whether there should be disclosure or whether the signal should be withheld. In the hypothesis proposed by Verrecchia (1983), an 'inception level of disclosure' will be included; the firm's administrator will provide information above this level while withholding details below this level. Regarding nondisclosure, the market interpretation done at this level will be defined; however, this action will be based on the manager's willingness to disclose information after considering market speculations. Verrecchia (1990) proposed that there may be some initial bias because of the level of information in the manager's possession. Most importantly, an inverse association exists between the threshold level of disclosure and the information quality.

Further, Ross (1979) indicated that signalling theory can be used to examine disclosure practices among small and large firms to differentiate them. It is noteworthy that larger companies are more open to disclosure than smaller companies. From this perspective, Grossman (1981) stated that since there is a tendency for people to discuss undisclosed information anyway, firms should willingly (voluntarily) disclose both good and bad information if the process will not have an adverse effect on the firm. Moreover, Skinner (1994) stated that companies could avert declining share prices by disclosing bad information publicly. This is achieved by signalling the need to protect the company's reputation, especially in situations where the quality of a firm is determined by its good performance. Firms can also create differentiation (provide more VD) by stating what makes their business stand out from other companies with poor performance results. Thus, the quality of signalled information can help firms arrive at the best decisions after comprehending the advantages of disclosure and the positive financial effects (Bin and Jing 2009).

Phillip (2001) argued that stakeholders receive accurate signals from managers. From another perspective, Hughes (1986) pointed out that revealing false information can have adverse effects on the firm. If it is found out that a firm has provided false information, even once, it will be difficult for the public to accept subsequent details revealed by the firm. Hence it loses credibility. That stakeholders, such as investors and competitors, are affected by signalling in different ways has been shown by Farrell and Gibbons (1989). Nevertheless, the credibility of the information will be higher when the firm focuses on the investors rather than the competitors during disclosure. Moreover, companies that seem to be bothered with the entrance of new competitors stand the risk of losing credibility in the eyes of the public. It has also been observed that the process will become more difficult when too many stakeholders become involved (Newman and Sansing 1993).

Based on the theory of signalling, companies in the same sector will try to adopt the same level of disclosure. Thus, if a company does not provide the same level of VD as other companies, stakeholders will consider this as a bad sign (bad news). In addition, Campbell et al. (2001) indicated that VD is a significant signalling tool, whereby managers provide more additional voluntary information than is mandatory in a bid to signal that their firms are better than others;

thus managers can obtain certain benefits such as lowering the firm's cost of capital and agency or increasing the company's value (Clinch and Verrecchia 2015; Connelly et al. 2011).

4.3.5 Political Cost Theory

One of the salient costs of firms is the political cost. For this reason, firms seek out ways to minimise this cost (Milne 2002). Watts and Zimmerman (1978) presented the theory of political cost, which was proposed to be included in VD. In their report, Watts and Zimmerman provided a theory that has been used by many researchers in the study of political costs. These studies have established a link between social divergence and firm size. It was suggested that companies should identify a way to evaluate social divergence as a benefit. The theory suggests that political expenditures should be presented to the market. Politicians can find ways to maximise the use of wealth from insurance, taxes, contributions and aid. Consequently, firms are affected when policies are chosen. Thus, the changes observed in the information disclosed, taxes and special rules are why firms have adopted the use of alternative accounting methods to reduce expected political costs (Watts and Zimmerman 1978).

In view of elucidating the VD concept, many studies have applied the theory of political cost. From these studies, a connection has been established between corporate disclosure and the reaction to political pressure. Some studies have considered the size of a firm as a proxy for its political methods (Rahman and Scapens 1988; Watts and Zimmerman 1978). Other studies have shown that the sensitivity of the market sector is a proxy explaining political cost (Blacconiere and Patten 1994; Patten and Nance 1998).

According to the theory of Milne (2002); Watts and Zimmerman (1978) evaluated the VD that depends on the theory of positive accounting. Watts and Zimmerman's theory points out a link to the discretionary behaviour of management. Subsequently, Milne failed to identify comprehensive arguments to support the theory. There has been no consideration of the three hypothesised predictors of behaviour (the bonus plan, political costs and equity/debt). In many cases, political cost and firm size are considered in an effort to identify the minimum that can be done to test the original argument. According to Milne (2002), the literature at the time did not consider management behaviour, while most studies focused on the preferred approach towards evaluating VD. Moreover, Wallace et al. (1994) stated that the political action that can follow VD can cause companies to provide more voluntary information to avoid publicity (political attack).

4.3.6 Stakeholder Theory

The concept of stakeholder theory was introduced by Mary Follet in1940 and re-applied in the 1980s. Schilling (2000) described stakeholders as a group of individuals who control and manipulate the affairs of institutions to suit their interests. Stakeholders are recognised as having indirect or direct interests in the institution's business (Freeman et al. 2010). Freeman et al. (2010) pointed out that major multinational firms have become quite independent in decision making but still remain responsible to stakeholders. Stakeholder theory evolved from the caution organisations must exhibit at the societal level. Hence, stakeholder theory has been applied in a bid to further explain the concept of corporate disclosure (Alhazmi 2017). In regard to the people who use financial statements, this group now extends beyond shareholders to include other stakeholders as well. From another perspective, stakeholders have the authority to access information regarding the firm's activities. Thus, Gray et al. (1995) argued that stockholder theory is an important theory that has been commonly regarded as crucial to examining company behaviour regarding financial reporting.

Gray et al. (1995), by examining agency theory, identified an association between shareholders and managers. Further, stakeholder theory is focused on the connection between managers (agent) and other stakeholders (more comprehensive), such as employees, suppliers, creditors, customers and government. Crowther and Jatana (2007) stated that stakeholder theory is also concerned with the number of stakeholders in the firm who expect returns from their investments. Therefore, the theory is concerned with how the firm addresses the needs of its shareholders (Sternberg 1997). Thus, the firm's managers attempt to reconcile the stakeholders' interests with the firm's targets. The firm, however, focuses on attaining its objectives by adhering to approved business procedures. Accordingly, VD is used to gain the support and approval of stakeholders (Alotaibi 2014; Gray et al. 1996; Naser et al. 2006). In addition, VD helps to reduce the occurrence of disputes among stakeholders. Deegan (2002) argued that managers disclose additional information to a particular group of stakeholders as proof that the firm is performing according to expectations.

Watson et al. (2002) pointed out that managers aim to gain the support of stakeholders through the deliberate disclosure of voluntary information. However, the needs and ambitions of stakeholders vary; thus there is a need for more additional voluntary information (Wolfe and Putler 2002). Moreover, stakeholders have found different ways to gain access to information. Hence, the use of VD to gain support from stakeholders has been effective. Rowley (1997) proposed that in such situations, companies aim to address the needs of all stakeholders rather than focusing on individual needs.

Issues such as competition and information costs can be addressed by considering certain crucial points. The authority of stakeholders will influence the extent of disclosure (Mitchell et al. 1997). Therefore, it is important that managers provide adequate information (voluntary) to meet the needs of stakeholders. According to Rizk (2006), stakeholder theory is only applicable in emerging and transitional markets and closely monitored industries. It is essential to consider the use of alternative methods in regard to the VD approach that meet the needs of stakeholders. In addition Das (2015) argued that:

> managers should assess the importance of every group of stakeholders and try to satisfy them. For the purpose of benefit maximisation, managers must work on behalf of all stakeholders not only the shareholders. This is done by offering more information, especially voluntary disclosure, to gain the support and approval of these stakeholders. (p. 98)

4.3.7 Legitimacy theory

According to Brown and Deegan (1998), in regards of elucidating corporate affairs, legitimacy theory has been evolved. Watson et al. (2002) described that, generally, companies reveal certain information in their annual report. This is an example of legitimacy theory that is perceived as the signal of companies' legitimacy. In this regard, Suchman (1995) perceived legitimacy theory as a generalised idea that if the customs, beliefs and values are socially established then people's reactions will be pertinent and desirable. According to the theory, corporate information is revealed as the feedback toward the environmental factors, which include economic, social and political aspects with a view to legitimating corporate actions. Companies are encircled by political, social and economic systems, which force them to reveal information (Williams, 1999). Rizk (2006) argued that an organisation can sustain itself if it acts according to a suitable value system. Therefore, organisations tend to acquire social approval on the basis of this theory which can be called legitimacy of their actions (Patten, 1991; Reich, 1998; Deegan, 2002).

Deliberate revelation of information is related to the legitimacy concept. Management intends to legitimize its actions with a view to gaining approval in society. Managers of companies should emphasize stakeholders' interests toward the companies (Donaldson and Preston, 1995). Both of them should work collaboratively. It is perceived as an ethical prerequisite for a company's management to legitimize its actions. A 'legitimacy gap' may arise due to the discrepancy of values between society and company (Sethi, 1979). Therefore, companies can lessen the legitimacy gap by disseminating information. According to Watson et al. (2002), the basis of the entire analysis is that disclosure of information indicates the companies' signal toward their legitimacy. Watson et al. (2002) also argued that companies should reveal corporate information, including corporate governance information willingly. As a result, smooth communication can be established between the directors and stakeholders, which led to increase confident about the companies' financial and non-financial performance.

Disclosure plays a significant role in each of the above-mentioned approaches. Managers can easily contact stakeholders and society by revealing information deliberately. That is why managers will endeavour to legitimize corporate actions as well as their managerial positions. To elucidate disclosure practice legitimacy theory has been applied. After gaining social acceptance, most of disclosure studies, such as social and environmental disclosure, have been based on this theory. The concept of disclosure has been supported by the evidence of these studies, which are perceived as a means of legitimacy (Deegan, 2002).

4.4 Discussion of Theories

Various accounting theories describe the motivations and reasons for firms to provide corporate accounting disclosure (MD and VD), including agency, capital need, stewardship, signalling, political cost and stakeholder theory. Companies are more willing to disclose information to the public in view of the benefits attributed to corporate disclosure. It has also been theoretically analysed that the costs of data collection and the financial implications of preparing annual reports should be taken into consideration as factors that may affect a firm's willingness to disclose information (Hasan et al. 2017; Shehata 2014).

In addition to the costs mentioned above, firms are known to encounter more expenses during disclosure in areas such as CG, monitoring, litigation fees, capital requirements and audit services (Ahmed and Courtis 1999). In the following paragraphs, a summary is presented to cover the theoretical arguments regarding particular theories that explain the extent of corporate disclosure.

According to agency theory, the occurrence of a rift between the principal (shareholders) and the agent (managers) is expected when there is limited information sharing between the parties

(Eisenhardt 1989). Lapses in communication can be attributed to the conflicting interests of the principal and the agent. Thus, conflicts and agency costs can be reduced by disclosing more information (Abdel-Fattah 2008).

According to signalling theory, the unequal access investors and firms have to information drives differences (adverse selection) in their preferences regarding the business. This situation of information asymmetry can be prevented when firms disclose information needed by investors to analyse market signals (Watts and Zimmerman 1990). In other words, in situations where firms have limited information to disclose, managers will focus on presenting a positive report to prevent the public from grouping their funds with poorly performing businesses and to distinguish themselves from other low-performing firms. Hence these firms feel compelled to regularly publicly disclose all the information they have as a sign of their good performance (Inchausti 1997).

The theory of political cost proposes that the decisions made by regulators are influenced by the information provided by companies during corporate disclosure (Watts and Zimmerman 2003). Firms can markedly reduce the political costs incurred during their operations by disclosing company information. Costs can be further reduced when company size and profitability are regarded as incentives to encourage corporate disclosure. Older and more successful companies are exposed to higher political costs; hence these companies reveal more information during disclosure in a bid to reduce those political costs (Watts and Zimmerman 2003). Many firms take advantage of disclosure processes to provide explanations for their income sources and profits with a view to preventing legal investigations (Lang and Lundholm 1993), because clearly presented reports indicate facts to justify the high profits declared by firms (Inchausti 1997).

According to the theory of capital, firms adhere to disclosure requirements to raise capital. It is considered that a higher level of disclosure tends to encourage more investors to confidently provide more funding and decrease the cost of new capital (Cooke 1993; Firth 1980). Cooke (1993) stated that engaging in MD and VD increases the chances of raising the capital needed by firms. Moreover, according to stewardship theory, business managers and stockholders share common interests (Davis et al. 1997); it is the responsibility of business managers to leverage the firms' resources with a view to increasing profits in a sustainable way (Mallin 2013). Thus, managers prefer to provide information to reach the needs of the stakeholders and users of annual reports.

It can be concluded that corporate disclosure (MD and VD) is not explained entirely by only one of these theories (Alfraih and Almutawa 2017; Cooke and Wallace 1989; Lim et al. 2007; Popova et al. 2013; Scaltrito 2016; Tsalavoutas 2011; Wang and Kang 2017). This is because each theory has particular advantages and disadvantages; hence they cannot individually be relied on to fully portray the features of corporate disclosure. Thus, in this study, rather than exclusively focusing on one theory, different theories were considered while developing the hypotheses presented for further empirical assessment in the next part of this research.

4.5 Theories in the KSA Corporate Environment

4.5.1 Agency Theory in the KSA Corporate Environment

The improvement of CG is one of the objectives of the KSA government, which has proactively made suitable reforms in CG. Notably, the KSA CG Code was established in 2006 as one of the institutional provisions to promote the execution of the reform process (Al-Nodel and Hussainey 2010; Robertson et al. 2013). Similar to other CG codes, the KSA CG Code attempts to minimise conflicts of interest (agency cost) between firms' directors and shareholders by increasing transparency and accountability among the members who constitute the board of directors (Alshehri and Solomon 2012). This is especially necessary within the KSA corporate environment (KCE) because the majority of KSA-listed companies are owned or controlled by affluent families (with a high concentration of ownership) (Al-Nodel and Hussainey 2010). Without supervision, minor shareholders may be at a disadvantage because of the high level of ownership concentration in KSA-listed firms (Baydoun et al. 2012). Consequently, there may be conflicts between major and minor shareholders. It is known that major shareholders can authoritatively make, in their own interests, biased appointments to the detriment of minor shareholders. Further, a company's corporate performance may be compromised when biased appointments give unqualified people the authority to make important decisions (Boytsun et al. 2011; Haniffa and Hudaib 2007).Thus, aspects such as corporate disclosure (MD and VD) and financial management will be hindered. It is therefore important to adopt the agency theoretical framework to guide and reform the corporate processes in the KCE.

4.5.2 Signalling Theory in the KSA Corporate Environment

The CMA was established in 2003 as an institution responsible for promoting corporate disclosure, transparency and effective communication regarding the operations of listed firms

(Al-Nodel and Hussainey 2010). In particular, firms are expected to adhere to the listing rules established in 2004, which make it mandatory for all listed firms to promptly present to the stock market, required reports including changes in operational structure, board membership, ownership or commercial operations. These details are positively reflected in the annual reports presented. Further, another objective of the CG reforms is to improve the KSA stock market by attracting more investors and organisations to become listed. This will create additional investment channels and promote external CG. As reported in Chapter 2, there has been an increase in the number of firms listed in the KSA since 2009. Firms recently listed aim to raise capital; thus, they should take the necessary steps to attract more investment. Consequently, increasing corporate disclosure (as a good sign from firms' managers) resulting in a decrease in information asymmetry may initiate more investment and decrease financing cost (Hearn 2011; Morris 1987).

4.5.3 Stewardship Theory in the KSA Corporate Environment

The KSA CG Code proposes that the majority of the directors of the board must be nonexecutive members. It is also recommended that one-third of the nonexecutive directors be independent (Article 12c and e). The code further recommends separating the CEO and chairperson positions (CMA 2017c). It can, therefore, be concluded that the primary objective of the CG Code is to introduce better firm management procedures focused on improving supervisory functions. However, the perspective proposed by the stewardship theory contrasts with this. The stewardship theory proposes it is unnecessary to extensively monitor the affairs of managers because they can be trusted. Further, this theory can be applied to the KCE because the majority of listed firms are owned and controlled by affluent families who influence the appointment of top executives in their own favour. From this perspective, the appointed directors and managers, who are family members, can be trusted (Siebels and zu 2012).

4.5.4 Capital Need Theory in the KSA Corporate Environment

Firms listed in the KSA depend on the influence of their board of directors to secure financial loans for operations. Funding can be sourced from the government when the state owns the firm. In addition, firms owned by affluent families independently raise the operational funds needed; the families avoid external funding to maintain control over their firms. Therefore, this approach can increase the number of firms owned by families in the KSA; however, adequate funding can be secured at low interest rates. From this perspective, Baydoun et al. (2012)

highlighted the deprivation of minor investors interested in buying shares. Only affluent families are notified of an initial public offering. It was stated in Chapter 2 that foreign investment in the KSA is discouraged by the market authority. This limits the ability of some firms to access external financial and nonfinancial resources. There are other disadvantages to limiting external investment, including the inability to gain knowledge from foreign investors with experience in the relevant field.

4.6 Conclusion

This research employs agency, capital need, signalling and stewardship theory to develop the study's hypothesis. Firms have found it important to disclose confidential and voluntary information in their annual reports, 1) because it reduces information imbalance in the public perception of the company and portrays them as having better quality and performance and lower cost compared with their competitors and 2) to cut capital costs and increase the firm's market value.

However, it must be pointed out that regardless of the theory deployed, no theory is superior over others and no individual theory can be used alone to accurately capture, convey and explain corporate disclosure practices, as each theory has its inherent limitations and peculiarities as well as different focuses regarding disclosure practice (Alfraih and Almutawa 2017; Cooke 1989; Lim et al. 2007; Popova et al. 2013; Scaltrito 2016; Tsalavoutas 2011; Wang and Kang 2017). Thus, rather than focusing on a single, specific theory, this study employs several theories to develop the hypotheses in the preceding chapter, which are empirically tested later in the thesis.

The following chapter reports on the second part of this study (analysis and methods) and includes the methodology, dependent and independent variables, and testing and measuring of the study's hypotheses to address the research questions.

Chapter 5: Research Methodology and Data

5.1 Introduction

In this chapter, the quantitative methods applied in this study are discussed. Additionally, the main research processes and methodology used to evaluate the objectives of the study are addressed. Hypotheses for this study were identified in Chapter 3 and here are evaluated based on how they relate to the dependent variables (MD and VD) and the independent variables (company-specific features), such as CG mechanisms and ownership structure.

This chapter presents the current study's methodology and methods used to achieve the empirical objectives, beginning with the research strategy in Section 5.2, which includes the quantitative method in Section 5.2 and the research design in Section 5.3. Measurement of the levels of MD and VD is outlined in Section 5.4.1 and 5.4.3, respectively. Section 5.4.2 and 5.4.4 outline the counteraction of the MD index and the VD index. Section 5.4.5 presents the disclosure index scoring. The independent variable applied in the disclosure model is presented in Section 5.4.6. The statistical modelling techniques for the current study, which include a univariate test and a multivariate test, are provided in Sections 5.5.1 and 5.5.2, respectively. Finally, Section 5.6 concludes the chapter.

5.2 Quantitative Method

Qualitative and quantitative research strategies are broadly known as the research methods applied based on the particular research questions being addressed and the philosophy behind a study (Tashakkori et al. 1998). Punch (2013) pointed out that numbers play a notable role in quantitative studies in the arrangement of variables, measurement and analysis, while qualitative research is more about the use of words, coding principal subjects and classifications with a view to developing theories or generalisations about the topic.

Antwi and Hamza (2015) indicated that the deductive approach applied in quantitative studies features well-organised study sampling, designs and measurements conducted prior to data collection and analysis. From another perspective, the inductive approach is used in qualitative research to develop generalisations and theories based on the data analysis (Elo and Kyngäs 2008).

There are some significant differences between quantitative and qualitative research. One of the more prominent differences is related to the type of data used in the research (Bryman 2017). Data used for quantitative research are developed from numbers (hard data), whereas data used for qualitative research are derived from words, symbols and impressions (soft data). Another difference is related to the size of the sample: quantitative research examines considerably larger samples than those utilised in qualitative research. Moreover, the results of qualitative research are examined based on theoretical generalisations (Punch 2013).

Creswell and Creswell (2017) pointed out another difference between qualitative and quantitative research in the types of issues the study attempts to resolve. Research issues addressed during quantitative research involve the consideration of potential factors that can influence the outcome. The challenges are explained based on the variables identified by the researcher. In some cases, theories are tested and research questions addressed by searching for answers during literature reviews. However, qualitative research involves the assessment of a phenomenon or concept by deriving a solution to the research problem when the variables and theories are unknown (Creswell and Creswell 2017).

Finally, quantitative and qualitative research processes differ in their considerations regarding social science. In this respect, researchers who adopt a quantitative approach rely on a positivist viewpoint to proceed with research, in line with linear-structured research. Hypotheses and variables are identified during quantitative research, while qualitative research relies on critical and in some cases interpretive social sciences that guide the study in a nonlinear way, which involves the analysis of contexts, practical logic and cases (Neuman 2013). The analytical methods used in both approaches are also notably different. Quantitative research is known to involve the use of appropriate analytical methods in an organised format (Punch 2013), whereas in the case of qualitative research, the methods are less stringent and more flexible.

An important debate in the social sciences revolves around choosing between quantitative and qualitative research methods. Berg and Lune (2004) stated that the processes involved in quantitative and qualitative research are connected. These associations are observed in the narrative and linguistic analysis in the case of a qualitative method and the statistical analysis used in quantitative research methods that thus could be applied in such a study. Collis and Hussey (2013) pointed out that many researchers rely on the assumptions and objectives they have derived and used, to select between quantitative and qualitative methods.

The key underlying assumption is whether qualitative or quantitative research approaches are appropriate. It is believed that objectivity is an essential aspect of quantitative research, while in qualitative research, objectivity is not possible. Also in quantitative research, variables are considered essential as such research is primarily concerned with the relationships between variables to establish their causal formation. Das (2015) stated that:

> It is believed that objectivity is an essential aspect in quantitative research while in qualitative research, objectivity is not possible. Again in quantitative research variables are considered to be essential as it is primarily concerned with the relationships between them to establish the causal formation of the variables. Therefore, it is believed that quantitative research would be appropriate to test the developed hypotheses (pp. 122–123).

In this study, the aims of the research are related to evaluating the extent of corporate disclosure practices (MD and VD) among listed firms in the KSA. This study examines company-specific features that influence disclosure extent as presented in the annual reports of nonfinancial companies in the KSA. These factors are ownership structure and CG mechanisms. Thus, a quantitative research method is applied with a view to determining these objectives.

5.3 Research Design

The issues related to research design are more logical than logistical (Yin 1994). The first goal of a builder is to determine the type of building that benefits users, before proceeding to draw a plan and make a request for the necessary materials and tools for the project (Yin 2017). Data collection can be achieved in different ways; researchers have options such as the use of document analysis, questionnaires and observation methods. A research design is used to ensure that the information gathered can be used by the researcher to clearly address the research questions (Hakim 2012).

Thus, the current study applies a self-constructed, item-based disclosure index for data collection and subsequent coding, as applied in prior related studies (Alfraih and Alfraih 2016; Alfraih et al. 2017; Hassaan 2013; Pucheta-Martínez et al. 2018; Wallace and Naser 1995). The researcher examines the corporate disclosure practices (MD and VD) of listed companies operating in the KSA’s primary stock market. The aim is to determine factors influencing corporate disclosure and its extent.

5.3.1 Data Collection and Sample

There are different sources of data related to KSA firms in KSA's stock market, which make up the sample for the current study. The disclosure recommendations with which every listed firm is expected to comply while preparing annual reports are determined by the Tadawul. In this study, a quantitative method was applied to facilitate data collection. Nachmias and Nachmias (1987) argued that the quantitative method promotes accuracy in analyses performed regarding corporate operations, prediction, manipulation, the examining of variables and the statistical measures used to determine validity.

The KSA government has thus adopted various economic reforms, referred to collectively as "Saudi Vision 2030", to reduce the country's heavy dependence on oil and to create and develop new sources of revenue (Al-sasi, Taylan & Demirbas 2017). Accordingly, the Saudi Stock Market Authority has implemented a number of financial reforms including: (i) adopting the International Financial Reporting Standards (IFRS) in 2015; (ii) updating the corporate governance code in 2016; and (iii) opening the Saudi Stock Exchange to foreign investors in 2016 (Saudi Capital Market Authority 2017; Nurunnabi 2017). Moreover, more recently the country's leaders have recognised the need to diversify the economy and make it more future-proof by allowing the world's most profitable company (Saudi Aramco) to go public. Thus, the sample selected for this study consists of data from the financial statements (annual reports) of nonfinancial companies from 2015 to 2017. At the end of 2015, the KSA primary stock market consisted of 124 nonfinancial companies and 47 financial companies. Consistent with previous research, financial firms (investment firms, insurance companies and banks) are excluded because they operate under different disclosure and accounting regulations and their financial transactions are not equivalent to those of nonfinancial firms (Alfraih and Alfraih 2016; Chau and Gray 2002; Ghazali and Weetman 2006).

Table 5.1 shows the total numbers of listed companies included in the final sample, which contains all firms listed on the KSA stock market since 2015 that meet the sample specification for the consideration of companies listed from 2015 to 2017. However, newly established firms are excluded because they may have only recently begun developing disclosure processes. This approach has been adopted in other studies conducted to measure corporate disclosure (Haddad et al. 2015; Owusu-Ansah 1998a; Wang 2016). The total number of firms that presented annual reports was found to be 120. Some firms were, however, excluded from the list because their annual reports could not be found or had been removed from the KSA stock market. The final sample is shown in Table 5.2.

Table 5.1: KSA listed firms in the primary stock market

Name	Number	Percentage
Total number of listed companies on Tadawul as of year-end 2015	171	100
Less: Insurance companies	–35	——
Less: Financial services and bank sectors	–12	——
Total number of excluded financial listed companies	(–47)	27.49
Initial sample size of nonfinancial listed firms	124	72.51
Less: Firms with no data available	0	—
Less: Delisted or suspended firms	–4	—
Total	–(4)	3
Number of listed firms included in the final sample	120	70.17

Table 5.2: Final sampled nonfinancial firms by industry type

No	Industry name	No. of firms	Percentage
1	Media	2	2
2	Capital Goods	13	11
3	Real Estate Management and Development	10	8
4	Telecommunication Services	4	3
5	Pharma, Biotech and Life Science	1	1
6	Food and Beverages	8	7
7	Retailing	6	5
8	Consumer Durables and Apparel	5	4
9	Commercial and Professional Services	2	2
10	Health Care Equipment and Services	6	5
11	Consumer Services	6	5
12	Diversified Financials	4	3
13	Utilities	2	2
14	A real estate investment trusts (REITs)	1	1
15	Food and Staples Retailing	4	3

No	Industry name	No. of firms	Percentage
16	Transportation	4	3
17	Energy	4	3
18	Materials	38	32
	Total number of sampled firms	120	100

Insight into the affairs of around 120 nonfinancial firms listed on the Tadawul can be gained from their annual reports, which feature the empirical data of the companies. These reports, presented in both languages English and Arabic, were used as a source of information that reveals the extent to which the firms provide MD and VD (the dependent variable) and other variables such as CG mechanisms, ownership structure and firm features (the independent variables). The reports are available on the Tadawul website (www.tadawul.com.sa).

Another source of data was the websites of firms listed on the Tadawul, which include information such as the identities of board members (board characteristics). In addition, some data were sourced from documentation and reports provided by the KSA Ministry of Commerce and Investment and the Tadawul. These institutions provide reports that include an in-depth analysis of the operation processes used by firms listed in the KSA.

5.3.2 Reasons for Using Annual Reports

This study used annual reports to collect the data required to achieve its objectives. Firms can use any of the following means to disclose information publicly: announcements, conferences, annual reports, investor relationships, analyst lists, interim reports, press releases, the internet and prospectuses, among other options. The stakeholders and other users in firms look forward to receiving annual reports. However, the information included in reports is generally not sufficient (Hope 2003). Many firms rely on financial reporting to disclose information about the company. Annual financial reports are the official and most significant source of information for users (Meek et al. 1995).

The decision to use annual reports as a method for evaluating public disclosure is based on prior studies (e.g., Akhtaruddin et al. (2009); Alhazaimeh et al. (2014); Nobanee and Ellili (2017)) and the fact that annual reports have a high level of credibility (Aljifri 2008). Other reasons include their ease of access and broad reach (Wilmshurst and Frost 2000). Some studies have examined the value of firms' annual reports for investors and other users who need crucial information to make better investment decisions; for example, Chang et al. (1983) coordinated a study where financial analysts and institutional investors located in three markets (UK, USA and New Zealand) were presented questionnaires and asked to express their views. The findings indicated that the users to a large extent relied on the annual reports as a main source of financial information. Moreover, in the UK stock market, annual reports are heavily relied upon by the institutional investors and stockbrokers as a source of valuable investment information (Lee and Tweedie 1981).

In the KSA, the aspect of corporate financial reporting is controlled by *Companies Act No. 9 of 1987*, which was instituted in the KSA to regulate reporting practices. It was amended (as *Law No. 3 of 1998*) to make it mandatory for listed companies to present individual financial reports at the end of each financial year, which must include the profit and loss, cash flow and comparative financial statements. Thus, for this study, annual reports were used to evaluate the extent to which listed companies in the KSA adhere to corporate disclosure with a view to accomplishing the objectives of this study.

5.4 Voluntary and Mandatory Disclosure Indices (Dependent Variables)

Coy and Dixon (2004) considered that:

> disclosure indices are an oft-applied method in accounting research, particularly in studies of annual reports, being used to provide a single-figure summary indicator either of the entire contents of reports of comparable organisations or of particular aspects of interest covered by such reports. (p. 79)

Wang (2016) stated that any information made public by a company can be regarded as disclosure. Regarding the disclosure of financial information, the extent to which this is done cannot be easily measured. Moreover, Hossain et al. (1995) stated that the level of disclosure practised by companies could be assessed using a disclosure checklist, which is a reliable scale used to investigate the volume (quality) and extent (quantity) of information released during disclosure.

Marston and Shrives (1991) identified diverse functions and uses for a disclosure index. It is frequently applied to determine the extent of adoption in regard to particular regulations (e.g., IFRSs MD) or to evaluate the level of VD. Further, in the disclosure literature, a self-constructed item-based disclosure index is prevalent, and the findings of relevant studies have prompted the wider use of that methodology (Alfraih 2016; Ho and Taylor 2013; Meek et al.

1995; Prencipe 2004). In addition, this type of analysis is discrete because it evaluates the information contained in annual reports without knowledge of the information communicator—unlike other analyses, such as field studies and questionnaires (Alves, Rodrigues and Canadas 2012). Moreover, Barako (2007) stated that it is difficult to identify each item of accounting disclosures in financial statements; thus, a self-constructed disclosure checklist is necessary.

The disclosure indices used in this study were created based on the financial data disclosed by firms for the most recent year-end. In this thesis, the MD and VD items were examined individually (via two separate indices). MD items were developed based on the IFRS requirements. Moreover, the indices under VD were classified based on the relevant information groups, which include CG, environmental issues, community involvement, human resources, shares information, CS, financial performance, accounting policy review, research and development costs, FI and general firm information, for the assessment of VD.

5.4.1 Measurement of the Extent of Mandatory Disclosure

This section provides a justification for the method used to address the first research question regarding MD: To what extent have KSA-listed firms provided MD in their annual reports for the period 2015–17? Thus, the process of evaluating the extent of MD of the listed firms in the study sample involved five steps:

1. identifying the extent of MD (complying with IAS/IFRS)
2. choosing accounting standards (IAS/IFRS)
3. developing an index for MD (the dependent variable)
4. applying the approach to calculating the MD index
5. collating and recording the independent variables applied in the different MD models.

5.4.1.1 Identifying the Extent of Mandatory Disclosure

The dependent variable, which is the extent of MD, was evaluated based on an MD index. Marston and Shrives (1991) proposed that a firm’s compliance with MD requirements can be evaluated by examining a well-developed MD index. MD indices have been applied in a range of studies as a reliable way to evaluate the extent to which firms comply with MD (Al-Akra et al. 2010; Alfraih 2016; Li and Yang 2015; Mazzi et al. 2017; Popova et al. 2013; Wallace and Naser 1995). The current study developed an MD index based on the required IAS and IFRS relevant to the provisions for financial reporting in KSA within the period that is the focus of the current study.

A total of 370 mandatory items were identified as constituents of the MD index regarding the IFRS/IAS regulations modified by the SOCPA and that firms are expected to reveal during disclosure. The International Accounting Standards Board (IASB) was reported to have issued 35 IFRS/IAS as of the end of 2015 (IFRS 2017). Appendix 5.2 provides the details of IFRS/IAS, including the dates from which they apply.

5.4.1.2 Choosing Reporting Standards (IAS/IFRS)

Barako et al. (2006), Marston and Shrives (1991), Wallace et al. (1994) and Wang (2016) referred to a lack of accounting theory specifying the methods and number of items and standards that are required to be included in an MD index. Moreover, Wallace et al. (1994) claimed that the selection of reporting standards is based on the objectives of the research.

Currently, all the companies listed in the KSA stock market are required to apply with SOCPA IFRS;[1] thus, the focus in this study is all accounting standards required in all accounting statements. It is important to note that the accounting standards (IAS/IFRS) effective at the end of 2015, 2016 and 2017 were applicable at those dates; however, some standards are not relevant to the current study. Further, regarding the KSA financial reporting environment and law, some standards cannot be applied. Hence the development of the MD index, which includes the IFRS, was based on the following:

1. an association with the objectives of the study
2. validity and application during the financial periods that ended on 31 December in each of 2015, 2016 and 2017.
3. relevance to the financial conditions and practices experienced by KSA-listed companies.

It should be noted that standards that did not apply during the study period (2015–17) were excluded from the MD index. Examples of excluded standards are IFRS 9 (Financial Instrument), IFRS 15 (Revenue from Contracts with Customers), IFRS 16 (Leases), IFRS 17 (Insurance Contracts) and IAS 39 (Financial Instruments: Recognition and Measurement), which became effective in 2018, 2018, 2019, 2021 and 2018, respectively. Further, this study

[1] SOCPA adds MD items to many standards, mainly to reflect local regulations and Sharia law.

is focused on the annual reports of nonfinancial listed companies; thus IAS 34 (Interim Financial Reporting) and IAS 41 (Agriculture) are not relevant to the focus of the study and were excluded. Table 5.3 summarises the justifications for these exclusions.

The IFRS and IAS are generally designed for firms globally, not specifically for firms in the KSA. This scope means that not every standard is relevant to the practices and financial environment in the KSA's stock market. In this thesis, whether the IFRS/IAS were applicable to the KSA financial environment was decided on the basis that each was developed for firms in advanced countries regarding experience and information, as well as the activities of the auditors in those countries.

In developed countries, accounting systems are organised based on advanced regulations; this is not the case in developing markets, where accounting systems are still not well organised. In addition, the advanced accounting systems in countries such as the UK, Australia and the US cannot be compared to the systems in emerging countries such as the KSA. For these reasons, some standards have been excluded because they are not relevant in the KSA environment.

The process to identify the applicability of each IAS/IFRS to the accounting system of KSA was performed in three steps:

1. The disclosure literature examining the implementation of IFRS was reviewed to analyse its relevance to the accounting system in the KSA stock market.
2. Two practising professional accounting experts reviewed and identified the applicability of each standard and item for companies in the KSA (see Table 5.4).[2]
3. To confirm that standards identifed in steps 1 and 2 did not apply, a sample of annual reports was analysed to determine if any such standards were considered in their preparation.

The assessment identified 18 IAS/IFRS as not applicable to nonfinancial firms in the KSA during the period of focus in this study: IFRS 1, 2, 6, 7, 9, 15, 16 and 17; and IAS 11, 19, 20, 26, 29, 32, 34, 39 and 41. Table 5.3 lists the standards that are irrelevant and inapplicable to firms listed in the KSA stock market and the reason for their exclusion.

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[2] One independent researcher was a professor of accounting and a chartered accountant; the other was a senior financial accounting and reporting analyst with more than 12 years' experience in the field. Prior to this he was employed in the banking industry for more than 20 years.

Table 5.3: IFRS/IAS excluded from the MD index

Standard number	Name	Reason for exclusion
IFRS 1	First-time Adoption of International Financial Reporting Standards	Only applies for 1 year (first-time adoption), and the period of the current study was 3 years. Thus, technically it does not apply to the period of study.
IFRS 2	Share-based Payment	Not applicable because they are not included in the financial statements of all companies that make up the sample between 2015 and 2017.
IFRS 7	Financial Instruments	
IFRS 6	Exploration for and Evaluation of Mineral Resources	Not applicable because none of the KSA companies over the time of the selected sample performed any operations related to these standards.
IFRS 9	Financial Instruments	Became effective only in 2018.
IFRS 15	Revenue from Contracts with Customers	Became effective only in 2018.
IFRS 16	Leases	Became effective only in 2019.
IFRS 17	Insurance Contracts	Becomes effective only in 2021.
IAS 11	Construction Contracts	Not applicable because they are not included in the annual reports of all listed companies that make up the sample between 2015 and 2017.
IAS 32	Financial Instruments: Presentation	
IAS 12	Income Tax	Tax is not mandated in the KSA: according to Sharia law, KSA-listed firms are only mandated to pay the Zakat (religion tax), which is set at 2.5% of the company's profits.
IAS 19	Employee Benefits	Not regarded as mandatory for KSA-listed firms because of the obligation of these companies to obey local labour and social security laws.
IAS 26	Accounting and Reporting by Retirement Benefit Plans	
IAS 20	Accounting for Government Grants and Disclosure of Government Assistance	Not applicable because none of the KSA companies over the time of the selected sample performed any operations related to these standards.
IAS 29	Financial Reporting in Hyperinflationary Economies	
IAS 34	Interim Financial Reporting	Not applicable to the study sample.
IAS 39	Financial Instruments: Recognition and Measurement	Became effective only in 2018.
IAS 41	Agriculture	Not applicable to the study sample as the standard is only for agriculture firms.

Table 5.4: IFRS/IAS included in the MD index

Standard	Items suggested by first independent expert	Items suggested by second independent expert	Items suggested by the author	Final index (after advice from third independent expert)
IFRS 2	10	11	11	11
IFRS 3	15	18	16	16
IFRS 5	16	15	15	15
IFRS 8	36	36	35	35
IFRS 10	1	1	1	1
IFRS 11	8	7	7	7
IFRS 12	12	9	9	9
IFRS 13	11	11	13	11
IFRS 14	13	11	11	11
IAS 1	83	85	81	81
IAS 2	10	9	9	9
IAS 7	16	16	16	16
IAS 8	13	21	9	17
IAS 10	6	5	5	5
IAS 16	16	14	14	14
IAS 17	27	23	23	23
IAS 18	8	7	7	7
IAS 21	11	10	10	10
IAS 23	3	3	3	3
IAS 24	9	8	8	8
IAS 27	3	3	3	3
IAS 28	1	2	1	1
IAS 33	9	9	8	8
IAS 36	11	11	12	12
IAS 37	15	13	13	13
IAS 38	16	14	12	12
IAS 40	12	15	12	12
Total	391	387	364	370

In summary, five IAS/IFRS were not mandatory during the current study period and 11 were not relevant to a sufficient number of the listed companies that make up the sample in this study. Additionally, four standards were excluded as these were not part of the considerations used in the preparation of reports for listed firms during the period of this study. Overall, a total of 27 standards (370 mandatory items) were recognised as of the end of 2015 and applicable to this research.

5.4.1.3 Constructing the Mandatory Disclosure Index (Dependent Variable)

Consistent with Alfraih and Alfraih (2016); Ballas et al. (2018); Cooke (1992); Mazzi et al. (2017); Popova et al. (2013); Street and Gray (2002); Yeoh (2005); Zarzeski (1996), a manually developed MD index (known as a self-constructed index) was used to measure the extent of MD regarding the IFRS/IAS. The MD index was developed based on mandatory requirements for the financial statements and footnotes and the details (mandatory items) needed for the IFRS/IAS during this process were obtained from *IASB Volume 2018*, the SOCPA's *IFRS Guide 2013* and the KSA *Companies Act*.

Using these mandatory requirements as guidance, the MD index was constructed to cover the 25 standards applicable to firms listed in the KSA stock market. Therefore, in the current study, 370 mandatory items were included under the MD as a self-constructed checklist to evaluate the extent of MD for KSA-listed firms. Appendix 5.3 lists the mandatory items included in the MD index.

5.4.2 Measurement of the Extent of Voluntary Disclosure

This section outlines the method applied to evaluate the extent to which the selected sample of companies in the KSA voluntarily disclose information in their annual reports for the study period 2015–17. This involved a three-step process:

1. developing the VD index (dependent variable)
2. scoring the items included in the VD index
3. analysing the VD models that include the independent factors.

The entire process is described in more detail in the following sections.

5.4.2.1 Construction of the Voluntary Disclosure Index (Dependent Variable)

The abstract aspects of corporate disclosure cannot be directly evaluated (Cooke and Wallace 1989). Therefore, the difficulty in evaluating the actual level of VD is the main limitation for research in this field (Rizk 2006). Moreover, it is necessary that a quantifiable item be involved to accurately analyse and compare the extent of VD among diverse firms. To determine the VD extent, an index developed for VD is applied when examining a firm's annual reports. As mentioned in Chapter 3, the first VD index was developed by Cerf (1961) and its value has been leveraged in multiple studies across global markets at various times. Regardless of the hindrance of subjectivity in deciding which VD items should be applied, evaluation of the extent of a firm's VD is achieved using a VD index. This process has been acknowledged in many literature reviews (Alhazaimeh et al. 2014; Ho and Taylor 2013; Khlif and Souissi 2017; Nobanee and Ellili 2017; Wang and Claiborne 2008).

VD for KSA firms was ascertained on the basis of a constructed disclosure index. The literature shows that self-developed VD indices have frequently been used when determining the extent of voluntary information disclosed in the annual reports presented by firms in the KSA stock market (e.g., Allegrini and Greco (2013); Chau and Gray (2010); Khlif et al. (2016); Kolsi and Kolsi (2017); Lang (2018). A VD index includes items that listed companies are willing to disclose in their annual reports. Wallace (1988) stated that there is no particular theory that can be used as a guide to determine information that should be included in a VD index. To ensure that the process for developing the VD index in the current study was reliable, strict criteria were used for selecting the VD items, as follows:

1. Each voluntary item must have empirical/theoretical support.
2. Each item should be related to companies in the KSA stock market.
3. The items must not be included or required by any regulatory agencies in KSA.
4. The items must not be specifically demanded by only a certain group of users.
5. The items should vary at an acceptable level among the companies that make up the study sample.

The development of the VD checklist began after the items to be included in the index had been selected. The index was created by examining the literature on VD in developed and emerging markets with a view to determining an appropriate empirical and theoretical basis for the index. In this regard, the focus was on studies that examined the extent of VD among listed companies in emerging markets, specifically those with economic settings similar to that of the KSA Abdallah (2001); Al-Janadi et al. (2012); Albawwat (2015); Alfraih et al. (2017); Chau and Gray (2002); Elfeky (2017a); Kolsi and Kolsi (2017).

The information gathered from the annual reports presented by nonfinancial companies in the KSA formed the basis for the VD index. The derived checklist included 82 items, which were further divided into five groups as follows: (1) CS, (2) FPCM, (3) FI, (4) DSM, (5) CSR. The VD checklist is shown in Appendix 5.4 and the voluntary item groups are shown in Table 5.5.

Table 5.5: Voluntary item groups

No.	Groups	No. of items	Percentage
1	Corporate strategy (CS)	24	29
2	Financial performance and capital market (FPCM)	14	17
3	Directors and senior management (DSM)	10	12
4	Future information (FI)	11	13
5	Corporate social responsibility (CSR)	23	28
	Total	82	100

As shown in Appendix 5.4 and Table 5.5 respectively, the number of MD items was 370 (84% of total disclosure items), and the VD items total only 82 (18% of total disclosure items). The difference is due to the characteristics of the IFRS/IAS in relation to the information included in the financial statements and footnotes, in line with MD requirements (Kim and Ryu 2018; Sutthachai and Cooke 2009).

5.4.2.2 Scoring/Measurement of the Disclosure Index

A disclosure index is a research instrument to measure the extent of information reported in a particular disclosure vehicle(s) by a particular entity(s) according to a list of selected items of information (Hassan and Marston 2010). Cooke and Wallace (1989) stated that the aims of disclosure studies are to identify whether to apply an unweighted or weighted approach to score the items of a disclosure index. A weighted approach involves assigning different weights to items on a disclosure index. Those weights/ratings represent users' perceptions regarding the relative importance of each item, thus corresponding to a type of subjectivity as the scoring is based on users' perspectives (Cooke and Wallace 1990; Naser et al. 2002). Conversely, the unweighted approach is a method where all items in the disclosure index are assigned equal importance; thus, all disclosure items are given equal scores (Abd-Elsalam et al. 2003;

Abdullah et al. 2015). In addition, the major disadvantages of using an unweighted approach are as follows: it assumes all criteria are of equal importance, so that less important items are weighted the same as important ones; and it does not allow for gradation of the degree to which a specific project meets the various criteria.However, Chow and Wong-Boren (1987); Ferguson and Lee (2002); Firth (1980); Omar and Simon (2011); Zarzeski (1996) argue that there is no significant difference between an unweighted and a weighted disclosure index, especially when the index includes a large number of items.

The current study used the unweighted approach for the following reasons:

1. The focus of this study is all users of annual reports. The weighted approach is preferable for a study based on a certain sample (particular users) and where emphasis will be placed on important items in the sample. However, a study focused on the entire range of users who use financial statements requires the application of an unweighted approach because of the equal relevance of the research outcome to the majority of the sample (Akhtaruddin 2005; Cooke and Wallace 1989).
2. The literature indicates that there is no significant difference between an unweighted and a weighted disclosure index, especially when the index includes a large number of items (Chow and Wong-Boren 1987; Ferguson and Lee 2002; Firth 1980; Omar and Simon 2011; Zarzeski 1996).
3. As the relevance of the included items varies among firms and industries, the weighted approach may lead to inaccurate outcomes (Abd-Elsalam and Hassan 1999).
4. The focus of this study is examining the extent of VD and MD. Thus, because all mandatory information provides essential information to all users, the various items included in the scope of the MD were regarded as equally relevant to all users. In addition, as noted in Chapter 3, most disclosure studies examining MD and VD in emerging and developed markets applied the unweighted approach.
5. The weighted approach would be unfair because it allows distinctions to be made (more subjectivity on the part of the researcher) regarding the relative significance of different information items for users (Chow and Wong-Boren 1987; Inchausti 1997; Marston and Shrives 1991).

Thus, according to the previous discussion and consistent with Ballas et al. (2018); Hassan and Marston (2010); Juhmani (2017); Leventis (2001); Li and Yang (2015); Raffournier (1995), the disclosure requirements indicated by the MD and VD indices were identified with equal weights. A score of 1 was used to represent firms that comply with the disclosure item and 0 if there has been no compliance. MD items where the requirement is not applicable were excluded from the evaluation of the companies' compliance. Akhtaruddin (2005) explained the unweighted approach as calculating 'the ratio of the number of items a company actually discloses to the total that it could disclose' (p. 408). Following Akhtaruddin (2005); Alfraih et al. (2017); Bertomeu and Magee (2015); Chau and Gray (2002); Lang (2018); Meek et al. (1995); Ntim et al. (2012); Samaha and Dahawy (2010), Equation 5.1 was used to calculate the actual level of VD for a firm:

$$ALVD = \sum_{i=1}^{n} d_i$$

Equation 5.1

where: $ALVD =$ actual level of VD obtained; $d = 1$ if disclosure item d_i is disclosed and 0 otherwise; and $n =$ number of voluntary items applicable for the company.

In the case of MD items, one substantial technical issue with the unweighted approach is that a firm may be unfairly scored by the inclusion of a 0 value for the absence of a mandatory item that is irrelevant to it. To address this issue, Akhtaruddin (2005) suggested that:

> the relevance of each absent item needs to be investigated and then classified as non-disclosure for a relevant item of reporting and non-applicable otherwise. For companies having non-applicable items, the use of a relative index is suggested. The relative index approach is the ratio of what a particular company actually disclosed to what the company is expected to disclose. In spite of the subjective discrimination between non-disclosure and non-applicable items, this approach is considered to be a more accurate measure than one that assumes that all companies are identical and, therefore, no difference need exist in disclosure requirements. (p. 408)

Therefore, a mandatory item that was irreverent was coded in this study as N/A and excluded from the evaluation of the firm's total level of MD, as done in the majority of previous MD studies (e.g., Abdullah et al. (2015); Ballas et al. (2018); Dahawy and Ismail (2010); Inchausti (1997); Wallace et al. (1994). The MD index examined compliance based on the KSA accounting standards (IFRS) jointly, rather than for each standard separately. This approach is consistent with prior MD studies measuring compliance with IFRS, such as Ajili and Bouri (2017); Alfraih (2016); Alhazaimeh and Almsafir (2014); Alnabsha et al. (2017); Dahawy and

Ismail (2010); Juhmani and Juhmani (2017). Equation 5.2 was used to calculate the actual level of MD for a firm:

$$ALMD = \sum_{i=1}^{m} d_i$$

Equation 5.2

where $ALMD =$ actual level of MD obtained (all IFRS items together); $d = 1$ if disclosure item d_i is disclosed and 0 otherwise; $n =$ number of mandatory items applicable to the company; m ($\leq n$) is actual number of items disclosed; and n is maximum number of disclosure items possible.

The calculation of the VD index (*VDIN*) and MD index (*MDIN*) could proceed after the total score had been determined. They were calculated by computing the ratio of the awarded scores to the number of items applicable to individual firms, using Equation 5.3 and 5.4, respectively:

$$VDIN = \frac{Actual\ level\ obtained\ of\ voluntary\ disclosure}{Maximum\ possible\ level\ of\ voluntary\ disclosure} = \frac{ALVD_{it}}{PLVD_{it}}$$

Equation 5.3

$$MDIN = \frac{Actual\ level\ obtained\ of\ mandatory\ disclosure}{Maximum\ possible\ level\ of\ mandatory\ disclosure} = \frac{ALMD_{it}}{PLMD_{it}}$$

Equation 5.4

In line with previous disclosure studies including that of Choi (1973a); Depoers and Jérôme (2016); Llena and Hernandez (2007); Tamimi and Sebastianelli (2017), Wilcoxon and Friedman signed-rank analyses were applied in this study to identify any significant changes in the extent of the level of VD and MD over the period 2015–17. The Wilcoxon signed-rank test is a nonparametric statistical hypothesis test used to compare two related samples, matched samples or repeated measurements on a single sample to assess whether their population mean ranks differ (Wilcoxon et al. 1970; Woolson 2007). The Friedman test is a nonparametric statistical test developed by Milton Friedman (Zimmerman et al. 1993). Similar to the parametric repeated measures ANOVA, it is used to detect differences in treatments across multiple test attempts. The procedure involves ranking each row (or block) together, then considering the values of ranks by columns (Schucany and Frawley 1973; Zimmerman and Zumbo 1993).

5.4.3 Independent and Control Variables Included in the Disclosure Model

To achieve the third aim of the current study, namely whether there is any important association between CG mechanisms (ownership structure and board characteristics) and the extent of MD and VD in the annual reports of KSA-listed firms, it is essential to identify and significant relationship between the extent of MD and VD, and CG mechanisms as independent variables. According to the disclosure studies reviewed and the hypotheses developed in Chapter 3, as well as the theories discussed in Chapter 4, the data for each independent variable were collected and identified for each year of the study sample.

It is important to control for the effects of cross-sectional variation. Therefore, this study included four control variables that represent firm characteristics: firm age, firm size, industry category and profitability. The control factors included are in line with the literature and based on theoretical expectations regarding the association between VD and MD, and CG.

5.4.3.1 Firm Size

Firm size is regarded as a significant factor determining MD and VD by firms. Studies have revealed a positive correlation between the level of MD and VD, and company size. These data are based on certain selected theoretical explanations. In advanced markets, the concept of political visibility can be utilised to dissect the causes of positive association between MD level and firm size. Watts and Zimmerman (1978) indicated that larger institutions are more likely to experience wealth transfers because of intervention in their internal affairs (political costs). Holthausen and Leftwich (1983) and Owusu-Ansah (1998b) stated that large firms look to reduce the threat of government intervention and the level of public criticism, and to enhance their reputation and public image; thus they disclose more financial information than smaller firms.

Regarding capital need theory, the need to raise capital in markets compels large companies to extend the scope of their VD and thus provide more additional information (Choi 1973b; Cooke 1993). According to this argument, the scarcity of funds in the market has caused tougher competition among large companies seeking to maximise their portion of those resources.

Thus, VD is regarded as a significant factor in increasing the credibility of information that companies leverage to raise capital (Cooke 1989).

The majority of studies have found that larger firms tend to provide more VD than smaller firms, to reduce agency costs (Allegrini and Greco 2013; Cooke 1989; Nassir et al. 2018). Moreover, Abd-Elsalam et al . 2003); Aljifri (2008); Hassaan (2013) found that firm size has a positive association with the level of MD.

5.4.3.2 Profitability

Profitability is one of the common factors used to measure the financial situation of a firm; many stakeholders and investors utilise profitability in making investment decisions, to distinguish 'bad' from 'good' firms. Findings from studies on disclosure indicate that profitability has a positive influence on a firm's MD (Wallace and Naser 1994); (Inchausti 1997); (Glaum and Street 2003); (Gallery et al. 2008); (Mnif and Borgi 2017) and VD level (Elfeky 2017a; Lan et al. 2013).

Based on signalling theory, firms that make more profits tend to advertise their strong performance to the stock market by providing more details in their financial statements (Bini et al. 2010). Singhvi and Desai (1971) suggested that managers feel emboldened to provide detailed information when their firms record high profits, which signals the firm's ability to increase shareholder value and demonstrates the entitlement of managers to high annual remuneration. Moreover, Tsalavoutas (2011) stated that managers of profitable firms with significant accomplishments will feel proud to publicly reveal more information because of their firm's outstanding performance. Conversely, companies may provide less financial information when profits are low to hide the fact that they are experiencing declining profits or losses (Samaha et al. 2012).

5.4.3.3 Industry Category

It has also been observed that the industry in which a company operates can influence the level of disclosure by the company (Scaltrito 2016). Inchausti (1997) indicated that companies operating in a particular industry may provide more additional information than companies in another industry category. The evidence shows that there are differences across industries in the disclosure policies that guide these practices (Al-Akra et al. 2010).

The influence of industry category on the extent of disclosure may be explained by both signalling theory and political cost theory. Regarding the latter, among companies that engage in more vulnerable operations, there is a higher tendency to use VD and MD as a means to reduce political costs arising from their activities (Oyelere et al. 2003; Watts and Zimmerman 2003). Moreover, companies may encounter pressure to consider social responsibility regarding issues such as pollution and potential hazards from chemical extraction processes, which may have higher political costs (Haniffa 1999; Suwaidan 1997). Disclosing more additional information is a way to alleviate these costs.

Regarding signalling theory, Craven and Marston (1999); Oyelere et al. (2003) stated that if a company exhibits practices different from those of other firms operating in the same industry—such as low levels of VD and MD when trends indicate high levels in other companies—it can be deduced that the company is withholding crucial information, which may be a bad signal for the company. Therefore, companies in a particular category will adopt similar VD and MD practices and patterns; this argument is supported by multiple empirical studies (Camfferman and Cooke 2002; Cooke 1989).

5.4.3.4 Firm Age

The time since a firm's establishment plays a significant role in influencing its VD and MD policy (Aljifri et al. 2014b). Based on stakeholder theory, companies that have been in business for a long period and thus have an extensive history and good reputation expect to disclose additional information as their responsibility to stakeholders (Roberts 1992). Considering competitive advantage theory, it is unlikely that younger companies will engage in comprehensive disclosure when presenting their annual reports, in a bid to protect sensitive information that may be used by competitors (Grant 1999).

In contrast, older companies tend to make additional disclosures during annual reporting presentations because they have established a business that can hardly be challenged in the industry (Owusu-Ansah 1998a). Glaum and Street (2003) suggested that newer or younger companies resort to focusing on market and goods improvements when commencing their activities, rather than on their accounting and auditing systems. Moreover, Akhtaruddin (2005) stated that the more experienced older companies tend to include additional information in their financial statements with a view to enhancing their public reputation in the business environment.

Generally, the empirical findings derived from studies examining the effect of firm age on VD and MD levels are mixed. Some studies have reported a significant association between firm age and VD (Nassir and Shabestari 2018; White and Tower 2007) and MD (Al-Hussaini et al. 2008; Popova et al. 2013); others found that firm age has no significant effect on the extent of VD (Al-Shammari and Al-Sultan 2010) and MD (Owusu-Ansah and Yeoh 2005). Table 5.6 summarises independent and control variables and their operationalisations that are expected to influence levels of MD and VD in this study.

Table 5.6: The determinants of GC mechanisms on MD and VD and notations used for variables in this study's analyses

Variable	Notation	Operationalisation
Ownership structure		
Foreign ownership	*FORO*	The proportion of the total number of outstanding shares in the firm held by foreign investors
State ownership	*STAO*	The proportion of the total number of outstanding shares in the firm held by the KSA government
Family ownership	*FAMO*	The proportion of the total number of outstanding shares in the firm held by a family member
CG characteristics		
Board of directors size	*BODS*	The total number of directors on the firm's board
Independent directors	*INDD*	The proportion of board members who are nonexecutive directors
CEO role duality	*CEOR*	Dummy variable: coded 1 if the company's CEO is also the chair of the board; 0 otherwise
Gender diversity	*GEND*	The ratio of female directors to total board size
Ruling family on the board	*RULF*	Dummy variable: coded 1 if there is a member of the ruling family on the board; 0 otherwise
Audit firm	*AUDF*	Dummy variable: coded 1 if the auditor is one of the 'Big 4' audit firms; 0 otherwise
Firm characteristics (control variables)		
Firm size	*FSIZE*	Natural logarithm of nonfinancial firm's total assets in a given year
Industry category	*INCA*	Dummy variable: coded 1 if the company is engaged in either construction and property, trading and service, consumer, industrial and plantation sector; 0 otherwise
Profitability	*PROF*	The net income divided by the total assets of the firm
Firm age	*FAGE*	Measured in years from the establishment of firm *i* to year *t*

5.5 Statistical Modelling Techniques

The hypotheses derived for the current study are tested by applying statistical models to examine the data. Univariate and multivariate analysis techniques have been commonly used by researchers in disclosure studies to examine statistical associations between MD and VD indices as represented in annual reports (dependent variable) and factors such as CG mechanisms (ownership structure and board characteristics) (independent variables) (e.g., Ballas et al. (2018); Carvalho et al. (2017); Che and English (2016); Cooke (1989); Owusu-Ansah (1998a); Rouf and Harun (2011). Therefore, in the current study, both univariate and multivariate statistical analyses are performed to investigate the relationship between levels of MD and VD, and CG mechanisms.

5.5.1 Descriptive Statistics

Univariate analysis is a form of quantitative, statistical evaluation. This method of analysis separately study's findings regarding each variable in a dataset; therefore each individual variable is summarised on its own (Ho 2006). Consequently, univariate analysis does not examine the relationships between variables (as does bivariate and multivariate analysis); its sole purpose is to describe one aspect of dataset (Chatfield 2018). Researchers can reliably analyse the connection between single independent variables and the levels of MD and VD (dependent variable) by performing a univariate analysis. The current study involves the application of two distinct univariate analyses. The first is descriptive analysis in the case of the dependent and the independent variables, which involves kurtosis, skewness, maximum, minimum, mean and standard deviation (Long et al. 2006). The second is correlation analysis (bivariate technique), which is a method applied for testing the bivariate relationship between two variables (Cohen et al. 2014). Further, the correlation coefficient is a tool to measure the direction and strength of the relationship between two variables (Faul et al. 2009). There are two types of correlation coefficient: Pearson's parametric and Spearman's nonparametric coefficients (Sheskin 2003). Spearman's correlation tests are utilised here to explore significant associations between the dependent variable (level of MD or VD) and each of the CG mechanisms (13 independent variables).

Hauke and Kossowski (2011) stated that Spearman's correlation test can be applied to investigate the association between two variables measured on a ratio/interval (ordinal) scale, such as an association between socioeconomic status (ordinal) and class rank (ordinal). In addition, this is the appropriate form of analysis to examine the relationship between two variables in cases of nonlinearity, non-normality, non-constant variance and outliers that might occur between two variables being examined (Hintze 2007; Zar 1972, 2005). Abdel-Fattah (2008) stated that:

> the parametric techniques are based on some assumptions that must be satisfied. On the other hand, non-parametric techniques are considered to be distribution free tests, so no need to justify these assumptions. (p. 180)

In contrast, Pearson's correlation is affected by nonlinearity, non-normality, unequal variances and outliers (Bishara and Hittner 2012; Hintze 2007). Although in the case of a large study sample, Pearson's and Spearman's correlation tests provide similar outcomes (Al-Shiab 2003; Cooke and Wallace 1989; Hossain et al. 1994; Suwaidan 1997), the latter is applied in the current study to explore the correlation between variables.

5.5.2 Multivariate Analysis

Regression analysis, considered a common statistical method in multivariate analysis, was selected for the current study. The aim is to examine the identified independent variables' potential effects on the dependent variable in a regression analysis (Gujarati 2009). A multiple regression model is one that involves one dependent factor and two or more independent variables (Bryman and Bell 2015). The nature of the dependent variable will influence the mathematical representation presented in a model examining its connection to the independent variable, as well as other dependent variables. The term 'multiple linear regression model' is derived from the linear relationship between the dependent and independent variables (Gujarati 2009).

The effects of independent variables on the dependent variable may be evaluated using multiple regression models. However, these can only be applied when the dependent variable exhibits a ratio scale. After application, the direct effects of the independent variable on the dependent variable can be clearly ascertained. This is the net effect after fixing the effects of all other independent variables included in the test model (Brians 2016). For the best outcome when using a multiple linear regression model, it is important to use a model that features dependent variables with values indicating a close vertical distance to the fitted line (Brians 2016).

The two main categories of statistical tests of multiple regression models to consider are parametric and nonparametric tests. Parametric tests are more powerful, so typically generate more significant results than do nonparametric tests (Abdullah, Percy and Stewart 2015). However, particular conditions (assumptions) need to be met before parametric tests can be used, including normality of the residual, linearity and multicollinearity (Alhazmi 2017; Hillmer and Hilmer 2014). However, in the case of nonparametric tests, there are no assumptions related to the observations made and how they are applied (Gujarati 2009). Thus, technically speaking, the type of data will determine the tests to be performed in this study. Various types of data may be subjected to empirical analysis: for example time series, cross-section and panel. In this study, panel data (pooled data) were considered where the same cross-sectional unit was surveyed over time, as is now increasingly the case in economic research (Gujarati 2009).

Thus, based on the assumptions and structure of this study's data as described in Chapter 7, the MD and VD regression models are analysed by pooled OLS, for a variety of reasons:

1. The aim of the study is to explore whether an association exists between dependent and independent variables, rather than examining causality of the association. In other words, the study explores whether a regression model can explain the variation in MD and VD according to variation in ownership structure and CG characteristics; neither correlation nor regression imply causation.
2. In the case of a pooled OLS regression, all the observations are recorded in a pool without regard for the cross-sectional format used for the data (Hillmer and Hilmer 2014; Hoechle 2007). Consequently, one feature of estimating a pooled OLS regression is that it forces the intercept term to be the same across firms and assumes that the error term is distributed identically over the entire sample (Cheung et al. 2007).
3. Hillmer and Hilmer (2014); Puntanen and Styan (1989) stated that as long as the validity of it assumptions can be confirmed (as achieved here in Chapter 7), the OLS is 'the best linear unbiased estimator (BLUE)' for the regression test model.
4. Petersen (2009) stated that when a panel dataset is part of a short time series, as in the current study (3 years), it should not be clustered by years in the analysis because clustering by a small number of years may only add noise to the system; thus pooled OLS is the appropriate estimation method.

5. Brown et al. (2011) indicated that ‘a major drawback of the fixed-effects approach and first differences is that it relies solely on within-firm variation to drive the results’. Clearly, this is impractical in most CG research because of CG ‘stickiness’ (Hermalin and Weisbach 1991; Zhou 2001). Thus, this study uses pooled OLS rather than fixed-effects regression because the CG data suffer from the stickiness issue, in that variation in governance practices across the panel data is minimal or absent (Katmon et al. 2019).
6. OLS is the most frequently used approach in disclosure research (e.g., Hossain et al. (1995); Depoers (2000); Akhtaruddin (2005); Al-Shammari et al. (2008); Hassaan (2013); Kaya (2014); Alfraih et al. (2017(; Derouiche, Jaafar and Zemzem (2016); Hussainey and Salama (2010); Juhmani and Juhmani (2017); Katmon et al. (2019); Kolsi and Kolsi (2017); Tran (2018).

In summary, the following multivariate pooled OLS regression technique is used to identify correlations between the dependent (MD and VD) and independent variables (CG mechanisms and ownership structure) and control variables (firm characteristics). Thus, assuming that all relationships are linear, the study’s main OLS regression equations to be estimated are specified as:

$$MD_{it} = \alpha_0 + \beta_1 FORO_{it} + \beta_2 STAO_{it} + \beta_3 FAMO_{it} + \beta_4 BODS_{it} + \beta_5 INDD_{it} + \beta_6 CEOR_{it} + \beta_7 GEND_{it} + \beta_8 RULF_{it} + \beta_9 AUDF_{it} + \sum_{i+1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it}$$

Equation 5.5

$$VD_{it} = \alpha_0 + \beta_1 FORO_{it} + \beta_2 STAO_{it} + \beta_3 FAMO_{it} + \beta_4 BODS_{it} + \beta_5 INDD_{it} + \beta_6 CEOR_{it} + \beta_7 GEND_{it} + \beta_8 RULF_{it} + \beta_9 AUDF_{it} + \sum_{i+1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it}$$

Equation 5.6

where MD= MD index (IFRS mandatory items); VD = VD index*;* t = time in years (3 years, 2015–17); i = an individual firm (1…. 120); it = firm i at time t;ε is an error term; and other variables are as defined in Table 5.6.

Cooke (1998) pointed out the need for detailed data screening in disclosure studies to pinpoint the effects of nonlinearity and outliers before choosing the most appropriate statistical technique. Like many statistical analyses, OLS regression has underlying assumptions that must be satisfied for it to be used: multivariate normality, no autocorrelation, no multicollinearity, no outliers and homoscedasticity. If these assumptions are met, OLS regression is the BLUE for the regression model (Hillmer and Hilmer 2014; Puntanen and Styan 1989).

The steps generally taken to overcome and prevent any violation of any assumptions are as follows. In the event of the assumption of normality of the residuals being compromised, the first solution is data transformation (Brians 2016; Osborne 2002). Data transformation solves problems of heteroscedasticity, non-normality, nonlinearity and outliers (Tabachnick and Fidell 2013). The process of data transformation involves the substitution of a variable with a corresponding mathematical function that alters the shape of the sample distribution (Carroll 2017). Data transformation can be achieved by applying a range of mathematical functions, including the square root, logarithm and standardisation (Long and Freese 2006). Cooke and Wallace (1989) stated that 'the dependent variable is a metric ratio and therefore can be legitimately transformed, where necessary, and used in regression analysis' (pp. 211–212).

Following previous disclosure studies, such as those of Abdel-Fattah (2008); Alhazmi (2017); Cooke and Wallace (1989); Ghazali and Anum (2004); Wallace et al. (1994), before measuring the OLS, natural logarithm transformation of the dependent variables (*VDIN* and *MDIN*) is performed to ensure normality for the OLS model. Cooke (1998) supported application of transformation:

> Transformation of data is useful in regression analysis when the relationship between the dependent and independent variables is inherently non-linear, when the distribution of the errors is not approximately normal, and where there are problems of heteroscedasticity or non-independence of the error terms. (p. 210)

If the issue of multicollinearity is still not resolved following data transformation, the next step is to eliminate any unsuitable variables (Brians 2016; Gujarati 2009). In situations of severe heteroscedasticity, it may be necessary to transform variables or apply a generalised least squares regression (Gujarati and Porter, 2009).

5.6 Conclusion

In this chapter, the research methodology applied to address the research questions for the current study is discussed. The research questions aim to determine the factors that influence VD and MD among listed firms in the KSA stock market. A description of the research methods used to evaluate the research hypotheses derived for the current study is also provided. The chapter further outlines the approach used to perform the empirical analysis, which is the quantitative research method. Moreover, the methods for data collection are described along with the process applied to develop the disclosure indices.

Furthermore, methods applied to measure the extent of MD are described. The assessment includes the evaluation of the extent of MD (IAS/IFRS), the selection of IAS/IFRS, the development of the MD index (the dependent variable), the scoring process involved in the MD index and the application of independent variables, which are instrumental in deriving the variance in MD practices among firms. Further areas addressed included the methods used to evaluate the extent of VD, the development of the VD index (dependent variable) and the scoring process for VD information items, as well as the evaluation of independent variables used to proffer explanations for the differences in VD.

Finally, this chapter includes a brief description to justify the statistical analytical methods (multivariate and univariate analysis) applied to investigate the research hypotheses. Chapter 6 and 7 present the empirical tests and analysis applied to achieve the study objectives.

Chapter 6: The Extent of Mandatory and Voluntary Disclosure: Findings and Discussion

6.1 Introduction

In the previous chapter, the methodology and data analysis procedure applied in this study were presented. Previous studies measured the extent of MD and VD and associated groups using a disclosure index, as discussed in Chapter 5. The primary objective of this research is to examine the extent of MD and VD and relevant factors that may influence disclosure. This chapter presents the first part of the empirical analyses for this study and the results related to the first research question and sub-question:

RQ1: To what extent have KSA-listed firms voluntarily and mandatorily disclosed information in their annual reports?

SQ1: Were there any significant changes in the extent of the level of voluntary and mandatory disclosures in the period 2015–17?

The chapter explains the MD and VD reporting practices of KSA-listed firms, trends in reporting and the structure of the dataset. Statistical analysis and dissection are applied by measuring the effect of each independent variable on the level of MD and VD (univariate analysis) and discussing the findings of the statistical analysis. The chapter is structured as follows: the extent of total MD is presented in Section 6.2.1, followed by the extent of MD by standards in Section 6.2.2. Section 6.2.3 analyses the extent and development of MD over time. The extent of total VD, and of VD by categories is examined in Sections 6.3.1 and 6.3.2, respectively. The development of the extent of VD over time is presented in Section 6.3.3; finally, a conclusion to the chapter is provided in Section 6.4.

6.2 The extent of Mandatory Disclosure (Dependent Variable) and its Development over Time

The first part of this section is devoted to addressing the first study question posed in the present research: ‘To what extent have KSA-listed firms mandatorily disclosed information in their annual reports?’. The second part aims to answer the study’s first research sub-question: ‘Were there any significant changes in the extent of the level of mandatory disclosures in the period 2015–17?'.

6.2.1 The Extent of Total Mandatory Disclosure

A self-disclosure scoring index has been developed to discover and provide insights into the relative quality and extent of MD in the annual reports provided by 120 firms listed on the KSA stock market; 360 annual reports for these firms for the period 2015–17 were examined using this disclosure index. The MD index includes 370 MD items divided between 27 standards, with 1–81 items in each.

Table 6.1: Descriptive statistics of MD extent

Variable	N	Minimum	Maximum	Mean	Std. deviation
2015	120	.54	.87	.7145	.08132
2016	120	.53	.87	.7198	.08587
2017	120	.57	.88	.7482	.08104
Pooled	360	.53	.88	.7275	.08386

Table 6.1 provides descriptive statistics for the mean value of MD for each year and for all 3 years together. The overall average MD index score for the study period was around 72.75%, with a range of 53–88.0%. In 2015 and 2016 the mean was 71.45% and 71.98%, respectively. By 2017, the mean had increased to around 74.82%, with a range of 57.0–88%. This result shows a steady increase over time in MD extent, which may be due to the accumulation of experience and expertise in the implementation of IFRS by KSA-listed firms. It may also be related to regulatory reforms introduced in 2016 that culminated in the issue of the amended companies act, a new CG Code, and financial reporting guidelines.

The overall average MD (~73%) estimated for the KSA during 2015–2017 is less than that estimated in recent disclosure studies of developed markets, such as Australia (90%; Wang (2016) and the UK (92%; Popova et al. (2013). However, it is consistent with findings for other developing markets, such as Kuwait (70%; as Alfraih and Alfraih (2016) and Jordan (72%; Hassaan (2013). Nevertheless, as discussed in Chapter 3, such comparisons are not entirely valid because of differences in the study period, number of MD items in the index, sample size and number of IFRS examined in this and other studies.

Figure 6.1 shows that KSA-listed firms did not fully comply with the requirements of accounting standards during 2015–17. A plausible reason for this lower extent of compliance may be weak enforcement and CG regulation (Alkhtani 2012; ROSC 2007).

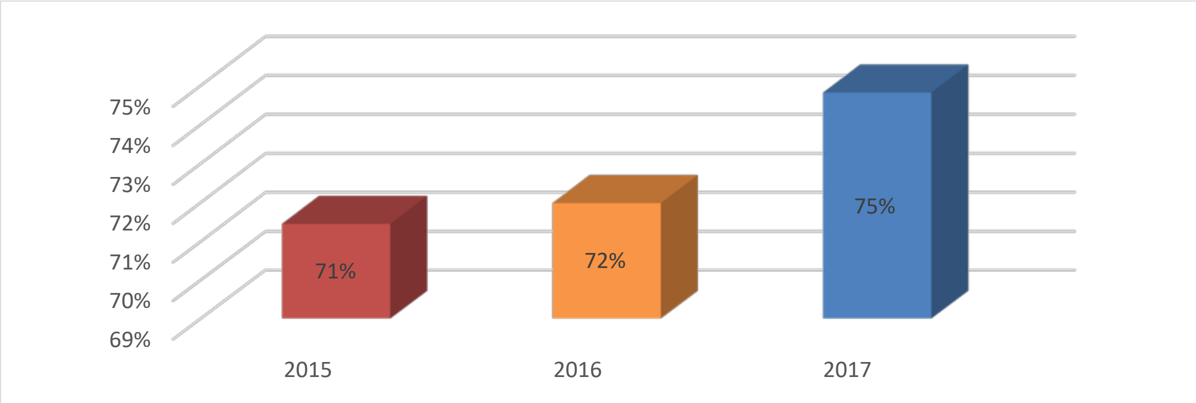

Figure 6.1: Extent of MD 2015–17

Table 6.2 presents the frequency distribution of MD extent among the listed firms over the study period, to provide further insight into the MD practices of KSA-listed firms.

Table 6.2: Frequency distribution of MD scores

Extent of MD (%)	2015		2016		2017		Pooled	
	No.	%	No.	%	No.	%	No.	%
Up to 60	14	12	14	12	4	3	32	9
61–70	43	36	37	31	37	31	117	33
71–80	43	36	48	40	45	38	136	38
81–90	20	17	21	18	34	28	75	21
91–100	0	0	0	0	0	0	0	0
Total	120	100	120	100	120	100	360	100

As shown in Table 6.2, none of the 120 sampled firms provided more than 90% MD. Further, in 2015 only 20 (17%) of the 120 firms provided more than 80% of MD extent, and the remaining 100 firms (83%) disclosed less than 80%. In 2016, 21 firms (18%) disclosed more than 80% of MD extent, and the remaining 99 firms (82%) provided less than 80%. In 2017, 34 of the 120 firms (28%) disclosed more than 80% of MD extent, and the remaining 86 firms (72%) disclosed less than 80%.

The above findings show the number of listed firms that provided more than 80% of MD during the study period grew from 2015 with 20 firms (17%), to 34 firms (28%) in 2017. This implies a trend over time for more KSA-listed firms to disclose more mandatory information in their annual reports.

6.2.2 The Extent of Mandatory Disclosure by Standards

Table 6.3 presents the average MD extent through the study period, which differed across by accounting standards. The highest score for MD extent was 100% for IFRS10 (Consolidated Financial Statements) and the lowest was 57% for IAS36 (Impairment of Assets). The MD extent was relatively high for six standards (IFRS10, IAS1, IAS18, IAS23, IAS27 and IAS28) and relatively low in six cases (IFRS8, IFRS1, IFRS, 12, IAS10, IAS24 and IAS33). The lowest scores for average extent were noted for 15 standards (IFRS2,3,5,13,14 and IAS2,7,8,16,17,21,36,37,38,40). The average extent for each standard remained stable between 2015 and 2016, and increased slightly in 2017.

Table 6.3: The average of MD index by standards for each year

Standard*	No. of items	2015	2016	2017	Pooled	Rank
IFRS2	11	0.64	0.64	0.66	0.64	20
IFRS3	16	0.62	0.61	0.68	0.64	22
IFRS5	15	0.68	0.69	0.70	0.69	13
IFRS8	35	0.69	0.70	0.74	0.71	12
IFRS10	1	1.00	1.00	1.00	1.00	1
IFRS11	7	0.71	0.71	0.75	0.72	11
IFRS12	9	0.73	0.73	0.75	0.74	9
IFRS13	11	0.61	0.61	0.62	0.61	24
IFRS14	11	0.57	0.57	0.60	0.58	26
IAS1	81	0.80	0.80	0.83	0.81	6
IAS2	9	0.66	0.66	0.68	0.67	15
IAS7	16	0.68	0.68	0.70	0.68	14
IAS8	17	0.66	0.65	0.68	0.66	17
IAS10	5	0.75	0.76	0.78	0.76	7
IAS16	14	0.63	0.63	0.66	0.64	23

Standard*	No. of items	2015	2016	2017	Pooled	Rank
IAS 17	23	0.66	0.66	0.68	0.66	16
IAS 18	7	0.80	0.81	0.85	0.82	5
IAS 21	10	0.64	0.64	0.68	0.66	19
IAS 23	3	0.98	0.98	0.99	0.98	2
IAS 24	8	0.73	0.73	0.80	0.75	8
IAS 27	3	0.89	0.89	0.90	0.89	4
IAS 28	1	0.95	0.95	0.96	0.95	3
IAS 33	8	0.71	0.71	0.75	0.72	10
IAS 36	12	0.56	0.55	0.61	0.57	27
IAS 37	13	0.63	0.63	0.65	0.64	21
IAS 38	12	0.64	0.65	0.69	0.66	18
IAS 40	12	0.58	0.59	0.63	0.60	25

*Some standards are excluded from the MD index as discussed in Chapter 5

Generally, the findings show that KSA-listed companies do not fully comply with KSA financial standards requirements. Nurunnabi (2018) speculated that one of the reasons for failures to fully disclose in developing markets is that they have an inadequate capital market and accounting system, which hinders compliance with MD requirements. This may apply in the KSA; it was earlier stated that the nation's regulatory agencies, including the SOCPA, are not fully effective in enforcing and controlling MD reporting regulations. In particular, these agencies cannot enforce compliance with IAS/IFRS. The daily functions of these agencies are limited to creating awareness about KSA accounting standards and the analysis of financial reports. It can thus be inferred that to achieve a high extent of compliance, KSA-listed firms should be presented with terms and conditions that are easy to understand and implement.

The prevalence of low disclosure levels for other MD standards may be attributed to the cost of disclosure. Abd-Elsalam et al. (2003); Samaha and Khlif (2016) indicated that the monitoring agencies in charge of capital markets in developing countries do not have the necessary authority; thus, the cost of noncompliance may be lower than the cost of compliance (e.g., audit fees; the costs associated with comparative and opening balance figure adjustments; and the influence of accounting diversity on investor decisions). The situation in the KSA reflects this because the professional accounting body is not active; many KSA firms may hold the opinion that the costs of compliance can exceed its benefits.

It can also be inferred that noncompliance is prevalent because of inadequate enforcement measures. It was stated earlier that the KSA Ministry of Commerce and Investment has not actively taken steps to penalise companies for nondisclosure. Instead, defaulting firms are mildly cautioned. In a system where there are strict enforcement regulations and effective sanctions for nondisclosure, firms will be more proactive about meeting mandatory requirements for disclosure (Nurunnabi 2018; Owusu-Ansah and Yeoh 2005). Without strict enforcement measures, firms may regard MD as a voluntary exercise (Zeff 2007).

6.2.3 The Development of the Extent of Mandatory Disclosure over Time

This section examines and compares the extent of MD in KSA-listed firms over the study period 2015–17. Moreover, it reviews whether there has been an important increase in MD levels over the 3 years. Prior to undertaking further tests to identify any important increases in the extent of MD, a set of statistical analyses were applied. Choice of the kind of analysis to be applied (parametric or nonparametric analysis) is based on the degree of normality of the dependent variables. The Shapiro–Wilks test and the Kolmogorov–Smirnov (K–S) test are the main tests for the normality of variables. As this study involves a large sample size (>50 observations), the K–S test is more suitable; the Shapiro–Wilks Test is more fitting for a small sample.

Table 6.4 reveals that the values from the Shapiro–Wilks and K–S tests were .011, .0079 and .021, for 2015, 2016 and 2017, respectively. Thus, the values of K–S tests implie a violation of the normality assumption. As the findings show that the MD scores are not normally distributed ($p>0.05$), nonparametric analysis approaches are applied. Thus, Wilcoxon and Friedman signed-rank tests are applied to examine whether there is a significant statistical change in the values for the dependent variables over the study period 2015–17.

Table 6.4: Tests of normality for MD 2015–17

MD	K–S			Shapiro–Wilks			Skewness	Kurtosis
	Statistic	df	*p*	Statistic	df	*p*	Statistic	Statistic
2015	.094	120	.011	.975	120	.026	–.129	–.884
2016	.096	120	.009	.972	120	.013	–.212	–.820
2017	.089	120	.021	.969	120	.007	–.158	–.946

Table 6.5 shows that there was a significant positive change over the period 2015–16 ($p < .05$). This suggests that the level of MD in 2016 had increased significantly compared with the level of MD in 2015. The p-value for the 2016–17 rank was also significant, which indicates there significant difference in these years. Thus, the level of MD in 2017 had increased significantly compared with the level of MD in 2016.

Table 6.5: Wilcoxon signed-rank analysis of MD 2015–17

Ranks		N	Mean rank	Sum of ranks	Z	*p* (2-tailed)
2015–2016	Negative ranks	29[a]	48.08	1689.00	–3.054	.002
	Positive ranks	72[b]	58.24	3462.00		
	Ties	19[c]				
	Total	120				
2016–2017	Negative ranks	2[d]	56.35	129.00	–8.859	.000
	Positive ranks	110[e]	64.50	6199.00		
	Ties	8[f]				
	Total	120				

Note: [a] 2016 < 2015; [b] 2016 > 2015; [c] 2016 = 2015; [d] 2017 < 2016; [e] 2017 > 2016; [f] 2017 = 2016.

Table 6.6: Friedman rank test results for MD 2015–17

Rank	Mean rank
2015	1.38
2016	1.73
2017	2.89
N	120
Chi-Square	161.933
df	2
Asymp. Sig.	.000

The results from another nonparametric test, the Friedman signed-ranks test are shown in Table 6.6. They confirm the Wilcoxon signed-rank test results of a significant positive difference ($p = 0.000$) over the 3 years from 2015 to 2017.

In summary, the Wilcoxon and Friedman rank tests reveal that the extent of MD provided by KSA-listed firms increased significantly over the periods 2015–16 and 2016–17. Potential reasons for the upward trend in MD extent include regulatory reforms undertaken by the KSA government throughout the past decade, which culminated in the issue of an amended companies act, a new CG Code, and financial reporting guidelines.

6.3 The Extent of Voluntary Disclosure (Dependent Variable) and its Development Over Time

This section aims to address the second part of the first study question posed in the present research: 'To what extent have KSA nonfinancial firms voluntarily disclosed information in their financial reports?'. The second part of this section aims to answer the second part of the study's first research sub-question: 'Were there any significant changes in the extent of the level of VD in the period 2015–17?'.

6.3.1 The Extent of Overall Voluntary Disclosure

To measure the level of VD for KSA-listed firms over the period 2015–17, a self-disclosure index has been developed; 360 annual reports of 120 listed firms were analysed applying this index. This index includes 82 items divided into five voluntary categories—CS, FPCM, FI, DSM and CSR—with 10–24 items each.

Table 6.7 summarises the descriptive analysis of the nature and extent of VD over the study period. In general, the sampled listed firms provided a moderate extent of VD in their annual reports. The average for the VD index from 2015 to 2017 was 36.49% with a range of 16–70%. In detail, the mean was 35.55%, 36.18% and 37.74% for 2015, 2016 and 2017, respectively. Figure 6.2 indicates somewhat of an increase over the period 2015–17. This increase may be linked to the accumulation of experience of auditors and firms.

Table 6.7: Descriptive statistics of VD extent

Variable	N	Minimum	Maximum	Mean	Std. deviation
2015	120	.16	.66	.3555	.12432
2016	120	.16	.67	.3618	.12840
2017	120	.17	.70	.3774	.12841
Pooled	360	.16	.70	.3649	.12704

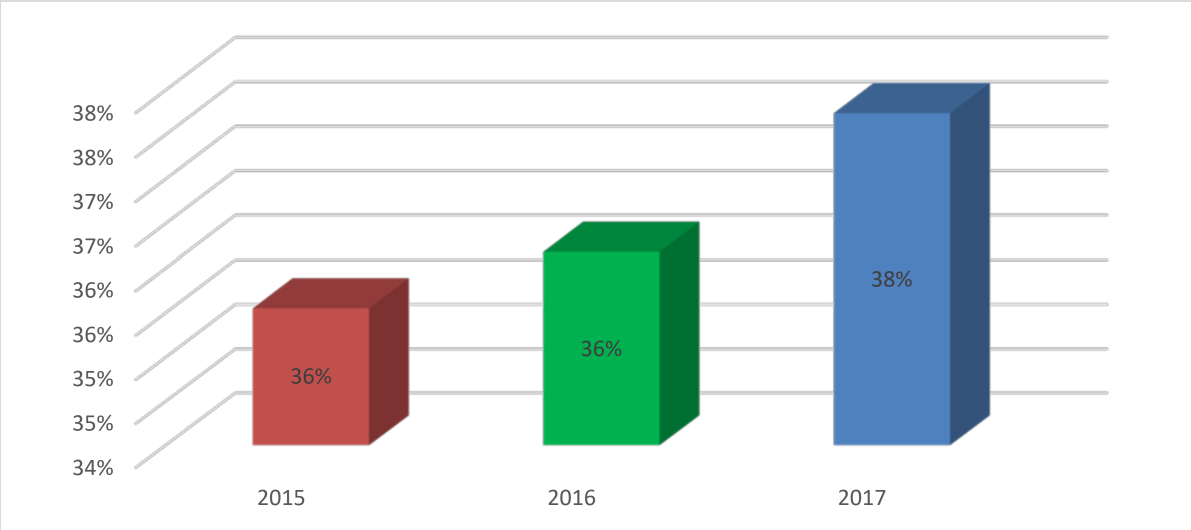

Figure 6.2: Extent of VD 2015–17

The average VD extent in KSA-listed firms was estimated at around 36%, which seems low. Nevertheless, relative to some other emerging and developed markets, KSA firms exhibit a reasonable extent of VD, similar to that of Italy at 32% (Scaltrito 2016), Singapore at 29% (Cheng and Courtenay 2006) and Jordan at 36% (Albitar 2015).

Table 6.8 provides a more in-depth analysis of the extent of VD in the annual reports of KSA-listed firms. This shows that none of the 120 sampled disclosed more than 70% from 2015 to 2017. In 2015, only 5% of the 120 firms provided more than 60% of VD extent, and the remainder provided less than 60%. In 2016, only 6% of firms provided more than 60% of VD extent, and the others provided less than 60%. Moreover, in 2016, only 7% provided more than 60% of VD extent; the rest provided less than 60%.

These findings show that the number of KSA-listed firms that provided more than 60% of VD increased slightly during the study period, starting in 2015 with six firms (5%) and growing to reach eight firms (7%). This indicates a gradually increasing trend for KSA-listed firms to provide more voluntary information in their annual reports.

Table 6.8: Frequency distribution of VD scores

Extent of VD	2015		2016		2017		Pooled	
	No.	%	No.	%	No.	%	No.	%
up to 20%	11	9	10	8	4	3	25	7
21%–30%	38	32	39	33	41	34	118	33
31%–40%	34	28	34	28	34	28	102	28
41%–50%	19	16	17	14	19	16	55	15
51%–60%	12	10	13	11	14	12	39	11
61%–70%	6	5	7	6	8	7	21	6
70%–100%	0	0	0	0	0	0	0	0
Total	120	100	120	100	120	100	360	100

6.3.2 The Extent of Voluntary Disclosure by Category

As discussed in Chapter 5, the items of the VD index are divided into five main groups, to enable a more detailed exploration of the extent of VD for KSA-listed firms. These voluntary information groups are CS (24 items); FPCM (14 items); DSM (10 items); FI (11 items); and CSR (23 items). In the next section, the results of a detailed analysis are provided for each category.

6.3.2.1 Category A: Corporate Strategy

CS is the first category of the VD index and has 24 items. Table 6.14 summarises the descriptive analysis of the category's items. The mean score for this category was 46%, with a range of a 1–98%. The table shows that the average score for CS items in 2016 had increased slightly by 1% and in 2017 it had increased again, to 48%. Consequently, it can be said that the extent of VD in the CS category rose gradually over the study period, as shown in Figure 6.3.

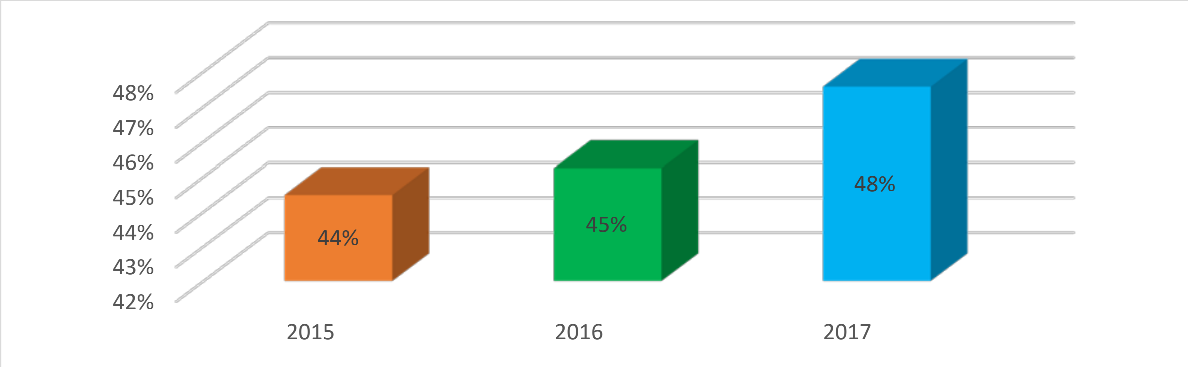

Figure 6.3: Extent of VD in the CS category 2015–17

The average score of 46% for the CS category is lower than that reported in previous empirical studies. For example, Alotaibi (2014) examined 10 CS items in Kuwait over the period 2007–10 and reported an average score of 48%, and Sukthomya (2011) in Thailand reported a mean of 60% for the year 1995. However the CS average is higher than the average reported by Ho and Taylor (2013) in Malaysia for the years 2001 and 2006, which is 40%. It can be seen from Table 6.9 that the items ‘A brief history of the firm’ and the item ‘Financial highlights: (five years and above)’ have the highest scores, at 98% and 89%, respectively. However, the items ‘A statement describing strategies to improve customer service’ and ‘Examining the competitive environment’ have the lowest average scores, at 12% each. Generally, the average extent of VD in the CS category ranked the second highest among the categories over the years 2015–17. This is an expected rank because the nature of the items is general information, such as the general aims of the firms and the brief history of the firm. Thus, the cost of disclosing this information is very low. Moreover, these types of items are not very sensitive, and organisations will not lose their competitive position by revealing such information.

Table 6.9: Frequencies of VD for items in the CS category

No.	Item	2015		2016		2017		Pooled		
		sum	mean	sum	mean	sum	mean	sum	mean	rank
1	Financial highlights: (5 years and over)	107	89%	107	89%	107	89%	321	89%	7
2	Structure of firm and group chart	40	33%	41	34%	43	36%	124	34%	36
3	A brief history of the firm	117	98%	117	98%	117	98%	351	98%	3
4	Effect of firm’s strategy on current and future outcomes	53	44%	53	44%	53	44%	159	44%	26
5	Statement about prime regional economic development	75	63%	75	63%	78	65%	228	63%	18
6	Images of the main product categories	54	45%	54	45%	55	46%	163	45%	25
7	Description of strategies to improve the quality of the product	102	85%	102	85%	103	86%	307	85%	9
8	A statement describing corporate goals	21	18%	24	20%	25	21%	70	19%	50
9	Details about new product development	43	36%	43	36%	44	37%	130	36%	35
10	Annual action plans implemented to achieve the corporate goals	50	42%	52	43%	53	44%	155	43%	27
11	Information on research and development projects and plans	45	38%	46	38%	48	40%	139	39%	31
12	Description of the marketing plan and distribution network for services/products	95	79%	97	81%	101	84%	293	81%	11
13	General corporate strategy statement	48	40%	48	40%	49	41%	145	40%	29
14	Discussion of previous industry trends	44	37%	44	37%	46	38%	134	37%	32
15	Important calendar events for the firm	79	66%	81	68%	85	71%	245	68%	17
16	Statement regarding regional political stability	59	49%	60	50%	65	54%	184	51%	22
17	Firm’s contribution to the national economy	90	75%	94	78%	109	91%	293	81%	11
18	Analysis of the firm’s prime projects/products/services	40	33%	37	31%	45	38%	122	34%	37
19	Analysis of the firm's principal markets	20	17%	21	18%	24	20%	65	18%	55
20	Data representing the general view of the economy	41	34%	43	36%	48	40%	132	37%	34

No.	Item	2015		2016		2017		Pooled		
		sum	mean	sum	mean	sum	mean	sum	mean	rank
21	A statement describing strategies to improve customer service	14	12%	14	12%	16	13%	44	12%	64
22	Mission and vision statements	15	13%	20	17%	25	21%	60	17%	57
23	Examining the competitive environment	13	11%	15	13%	15	13%	43	12%	65
24	Influence of market competition on current profits for the firm	16	13%	15	13%	16	13%	47	13%	62

6.3.2.2 Category B: Financial Performance and Capital Market

FPMC is the second category of the VD index and has 14 voluntary items, which account for 17% of the VD index. Table 6.10 shows that the maximum score for FPCM was 69% and the minimum was 15%. The mean level for FPCM disclosure was 46%. As shown in Figure 6.4, the mean extent of FPCM remained constant (31%) in 2015 and 2016. It then showed a slight increase in 2017 by 2% to reach 33%.

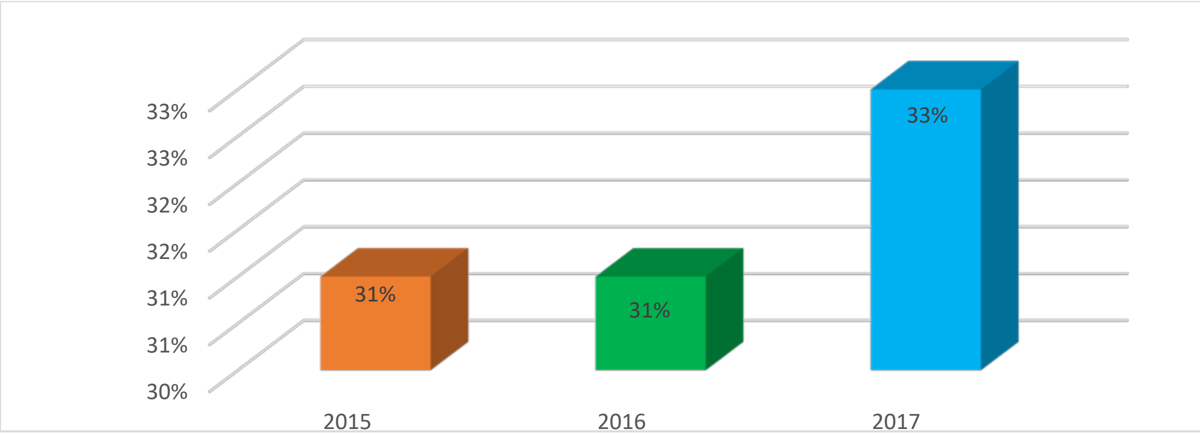

Figure 6.4: Extent of VD in the FPCM category 2015–17

The average extent of FPCM estimated here is higher than averages reported in other disclosure studies such as that of Ho and Taylor (2013), who applied 19 FPCM items in Malaysia for the period 2001–06 and reported an average extent of 30%. Alotaibi (2014), in Kuwait's stock market, used a category with nine items and reported an average extent of 18%. Moreover, Omar and Simon (2011) estimated the mean level of FPCM to be 31% in Jordan for the year 2003.

According to Table 6.10, the item 'Operational analysis (productivity)' had the highest score (96%), which means that this item was disclosed in 250 of 360 firm–year observations. The item 'Analysis of current financial outcomes, statement of significant factors influencing performance' was the least frequently reported, at only 15% of the firm–year observations. Generally, the FPCM category was ranked third in the VD index. The nature of the information in the FPCM category relates to operational analysis and stock price trends. Thus, the reason for the low ranking may be that firms' managers prefer to avoid competitive disadvantage, which causes a firm to underperform, and overstating anticipated gains that may have a negative effect on shareholders' trust if they do not materialise.

Table 6.10: Frequencies of VD for items in the FPCM category

No.	Item	2015		2016		2017		Pooled		
		sum	mean	sum	mean	sum	mean	sum	mean	rank
25	Analysis of foreign and domestic shareholdings breakdown	27	23%	27	23%	27	23%	81	23%	47
26	Statement of the distribution of shareholdings based on shareholders categories	73	61%	73	61%	74	62%	220	61%	19
27	Operational analysis (productivity)	83	69%	82	68%	85	71%	250	69%	15
28	Operational review by divisions (operating profit)	46	38%	45	38%	49	41%	140	39%	30
29	Market capitalisation (trend and year-end)	43	36%	43	36%	47	39%	133	37%	33
30	Information on stock price (trend and year-end)	37	31%	36	30%	43	36%	116	32%	39
31	Segmental reporting on geographical capital expenditure	44	37%	49	41%	53	44%	146	41%	28
32	Segmental reporting on all lines of business production data	28	23%	30	25%	32	27%	90	25%	42
33	Segmental reporting on growth rate, size regarding the product market	23	19%	20	17%	22	18%	65	18%	55
34	Analysis of current financial outcomes, statement of significant factors influencing performance	19	16%	18	15%	18	15%	55	15%	61
35	The volume of stock traded (trend and year-end)	23	19%	24	20%	26	22%	73	20%	49
36	Important financial data: leverage, return on shareholders' funds, liquidity	21	18%	22	18%	23	19%	66	18%	52
37	Segmental reporting on geographical production	28	23%	29	24%	29	24%	86	24%	45
38	Discussion of generated wealth, e.g., statement of value added	23	19%	28	23%	31	26%	82	23%	46

6.3.2.3 Category C: Directors and Senior Management

The third category in this study's VD index is DSM items. There are 10 such items, which make up 12% of the VD index items. Table 6.11 indicates that the mean of DSM extent was 72%, and the range, 11–100%, indicating wide variation in the scores of DSM disclosed by KSA-listed firms. As shown in Figure 6.5, the extent of VD in the DSM category was similar in 2015 and 2016, and slightly higher in 2017.

The estimated extent of DSM VD in the case of KSA listed-firms is higher than the average reported by Sukthomya (2011), who applied 13 DSM items for firms in Thailand from 1995 to 2005 and reported an average extent of 42%. Ho and Taylor (2013) found the mean for this category to be 37% in Malaysian-listed firms over the period 2001–06.

As shown in Table 6.11, the item 'Number of the board of directors sessions date and held' had the highest score (100), which means that all listed firms disclosed this item over the period 2015–17. The item 'Age of the directors' had the lowest score (11%), showing that only 38 of the 360 firm–year observations revealed this voluntary item. The DSM category was ranked first (highest) in the VD index. This shows that KSA-listed firms are making an effort to clarify most of the information about managers and members of the board of directors of their firms. Thus, it could be said that the main reasons for the high scores in the DSM category are that the KSA CG Code contains many requirements for managers' information; and it is relatively easy to access to such information (i.e., age and qualifications of the manager) from other sources.

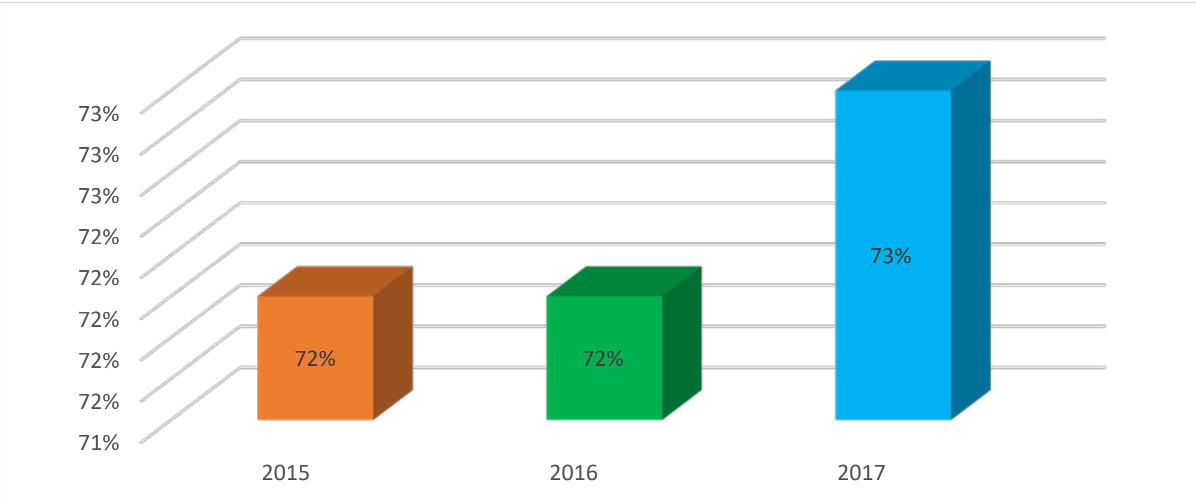

Figure 6.5: Extent of VD in the DSM category 2015–17

Table 6.11: Frequencies of VD for items in the DSM category

No.	Item	2015		2016		2017		Pooled		
		sum	mean	sum	mean	sum	mean	sum	mean	rank
39	List of senior managers (not on the board of directors)/senior management structure	83	69%	83	69%	85	71%	251	70%	14
40	Names of directors	110	92%	110	92%	111	93%	331	92%	5
41	Background information about members of the audit committee	117	98%	117	98%	118	98%	352	98%	2
42	Age of the directors	12	10%	11	9%	15	13%	38	11%	66
43	Composition of board of directors	109	91%	109	91%	110	92%	328	91%	6
44	Number of board of directors meetings held, and dates	120	100%	120	100%	120	100%	360	100%	1
45	Information about the executive director's position (office occupied)	104	87%	105	88%	105	88%	314	87%	8
46	Picture showing the senior management team	114	95%	117	98%	115	96%	346	96%	4
47	Qualifications of directors (professional and academic)	29	24%	29	24%	32	27%	90	25%	42
48	Statement about senior management background experience and responsibilities	63	53%	66	55%	67	56%	196	54%	21

6.3.2.4 Category D: Future Information

FI is the fourth category in the study's VD index and includes 11 voluntary items, which account for 13% of the index. As shown in Table 6.12, the overall average of FI disclosure was 25%, with a range of 5–84%, demonstrating large variation in the extent of FI disclosure among KSA-listed firms. According to Figure 6.6, the level of FI disclosure was similar at 24% in 2015 and 2016, but showed a slight increase in 2017.

The average extent of FI disclosure is similar to the 26% estimated by Sukthomya (2011) for listed firms in Thailand for the period 1995–2005; and 27% reported by Ho and Taylor (2013) for listed firms in Malaysia in 2001–06.

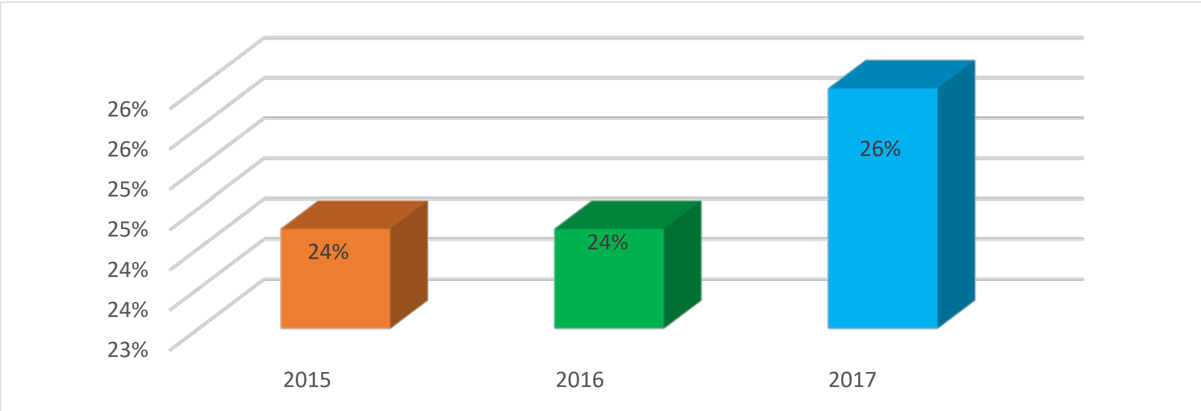

Figure 6.6: Extent of VD in the FI category 2015–17

As shown in Table 6.12, the items 'General statement of the firm's prospects' and 'Main financial data (quantitative) forecasts (Earnings per share [EPS], sales revenues, profit)' returned the lowest scores (5% each). The item 'Discussion of future products/services development activities and research' had the highest score. In general, the FI category was ranked fourth in VD index. With regard to information about future prospects, firms' managers seem to prefer to provide non-numerical expectations (e.g., general statements about the firm's prospects) rather than forecasted numbers (sales revenues, profit, etc.). This might mean that firms are more careful about publishing targeted or expected figures that could have non-positive outcomes for the firm.

Table 6.12: Frequencies of VD for items in the FI category

No	Item	2015		2016		2017		Pooled		
		sum	mean	sum	mean	sum	mean	sum	mean	rank
49	Analysis of potential effects of business strategy on future performance	71	59%	71	59%	73	61%	215	60%	20
50	Discussion of future products/services development activities and research	101	84%	100	83%	103	86%	304	84%	10
51	Future industry trends statement	54	45%	55	46%	62	52%	171	48%	23
52	Planned publicity and advertising expenditure	19	16%	19	16%	21	18%	59	16%	59
53	Expenditure of planned research and development	29	24%	29	24%	32	27%	90	25%	42
54	Analysis of particular external factors influencing the firm's prospects (technology, economy, politics)	10	8%	9	8%	11	9%	30	8%	69
55	Qualitative forecasts of EPS revenues, profits and sales	6	5%	7	6%	7	6%	20	6%	75
56	Main financial data (quantitative) forecasts (EPS, sales revenues, profit)	6	5%	6	5%	5	4%	17	5%	77
57	Planned capital expenditure	9	8%	9	8%	12	10%	30	8%	69
58	General statement of the firm's prospects	6	5%	6	5%	7	6%	19	5%	76
59	Existing assumptions based on the forecast	9	8%	9	8%	10	8%	28	8%	71

6.3.2.5 Category E: Corporate Social Responsibility

The fifth group in the study's VD index is the CSR category. It has 23 voluntary items, which account for 28% of the VD. As shown in Table 6.13, the mean extent of CSR disclosure in KSA-listed firms over the study period was 20%, with a very broad range of 2–76%. It can be seen from Figure 6.7 that the level of CSR disclosure was stable at 19% for the first 2 years, but in 2017, the average CSR disclosure increased slightly to 21%.

The average level of CSR disclosure of 20% is slightly lower than the 23% reported by Sukthomya (2011) for listed firms in Thailand for the period 1995–2005, but higher than the 17% reported by Ho and Taylor (2013) for listed firms in Malaysia in 2001–06 and the 18% estimated by Alotaibi (2014) for listed firms in Kuwait from 2007 to 2010.

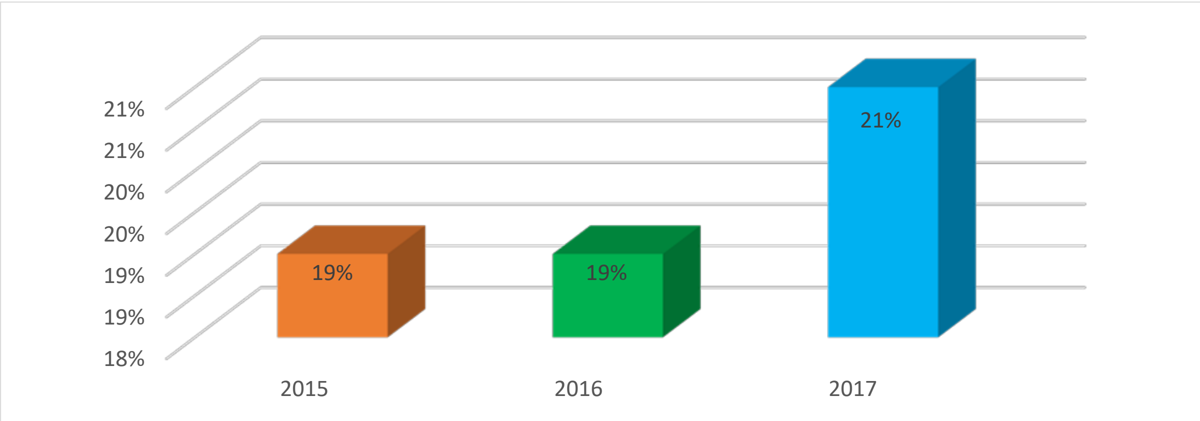

Figure 6.7: Extent of CSR category 2015–17

Table 6.13 shows that the mean score (76%) for the item 'Analysis of product safety' was the highest for the CSR category. The item 'Participation during state social campaigns' had the lowest score (2%). The CSR category was ranked fifth (last) overall in the study's VD index. Generally, it can be said that KSA companies do not seem to expend much effort to providing information about CSR. This may be because they are more concerned about responding to the state's request for improved transparency and problems related to economic conditions. It may also relate to the lack of pressure groups in the KSA such as environmental organisations and labour unions. Therefore, CSR has not been a priority for VD in KSA firms.

Table 6.13: Frequencies of VD for items in the CSR category

No.	Item	2015		2016		2017		Pooled		
		sum	mean	sum	mean	sum	mean	sum	mean	rank
60	General statement indicating CSR	82	68%	81	68%	83	69%	246	68%	16
61	Firm**'s** environmental policy statement	55	46%	54	45%	55	46%	164	46%	24
62	Awards for environmental protection	40	33%	41	34%	41	34%	122	34%	37
63	Support rendered for private/public activities developed for environmental protection	28	23%	31	26%	32	27%	91	25%	40
64	Data indicating employees' welfare	21	18%	23	19%	22	18%	66	18%	52
65	General philanthropy	11	9%	12	10%	12	10%	35	10%	67
66	Statement of employees' welfare	18	15%	19	16%	20	17%	57	16%	60
67	Breakdown of the workforce based on particular lines of business distribution	21	18%	21	18%	26	22%	68	19%	51
68	Firm's policies on employee training programs	2	2%	2	2%	4	3%	8	2%	80
69	Number of employees (more than one year)	9	8%	8	7%	10	8%	27	8%	72
70	Employees' appreciation	20	17%	19	16%	21	18%	60	17%	57
71	Training programs organised	6	5%	6	5%	5	4%	17	5%	77
72	Participation during state social campaigns	2	2%	2	2%	4	3%	8	2%	80
73	Expenditure on training	22	18%	21	18%	23	19%	66	18%	52
74	Implemented environmental protection plans and programs	8	7%	8	7%	7	6%	23	6%	73
75	Classification of employees by level of qualifications	27	23%	27	23%	37	31%	91	25%	40
76	An indication of employee morale (absenteeism, strikes and turnover)	7	6%	7	6%	7	6%	21	6%	74
77	General information about employees' retrenchment and/or redundancy	2	2%	2	2%	3	3%	7	2%	82
78	Information regarding the safety of the employee workplace	10	8%	10	8%	11	9%	31	9%	68

No.	Item	2015		2016		2017		Pooled		
		sum	mean	sum	mean	sum	mean	sum	mean	rank
79	Statement of number of fatalities, lost days, standard injury and absentee rates	5	4%	6	5%	6	5%	17	5%	77
80	Followed standards of health and safety	20	17%	27	23%	29	24%	76	21%	48
81	Implemented community programs and plans (education and health)	14	12%	14	12%	18	15%	46	13%	63
82	Analysis of product safety	88	73%	92	77%	92	77%	272	76%	13

Table 6.14 provides descriptive statistics for the VD index by category classification over the study period 2015–17. Figure 6.8 and Table 6.14 indicate variation in the scope of the VD scores in each of the five voluntary information groups over the study period. The mean VD extent by category ranged from 2%, for CSR to 100%, for DSM. The mean scores for each of the five categories were similar in 2015 and 2016 but rose slightly in 2017. These findings suggest that KSA-listed firms' managers have more incentive to provide more information related to CS and directors' management. In contrast, firms have little motivation to disclose FI and corporate social information. Thus, it can be said that the value of VD information presented by KSA-listed firms presented in their financial reports is still insufficient.

Table 6.14: Descriptive statistics for the VD index by category classification

Groups	No. items	Mean			Pooled			
		2015	2016	2017	Mean	Min	Max	Rank
CS	24	0.44	0.45	0.48	0.46	0.12	0.98	2
FPCM	14	0.31	0.31	0.33	0.32	0.15	0.69	3
DSM	10	0.72	0.72	0.73	0.72	0.11	1.00	1
FI	11	0.24	0.24	0.26	0.25	0.05	0.84	4
CSR	23	0.19	0.19	0.21	0.20	0.02	0.76	5

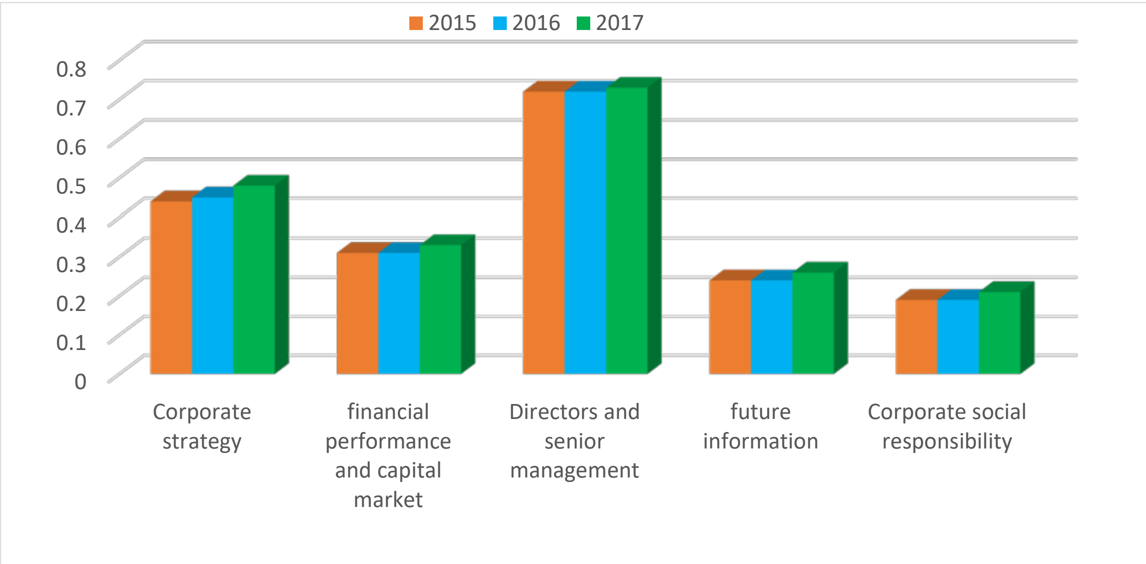

Figure 6.8: Scores for extent of VD in different categories 2015–17

6.3.3 Development of the Extent of Voluntary Disclosure Over Time

This section explores the extent of VD over the period 2015–17 for KSA-listed firms, and whether there was a notable increase in VD scores over the study period. Before testing the significance of the increase seen in the extent of VD scores, a set of statistical tests was applied. The Shapiro–Wilks and K–S tests are the main tests to examine the normality of variables. The sample in this study included more than 50 observations; therefore, the K–S test is the more suitable of the Shapiro–Wilks tests (Shapiro and Francia 1972).

The significant test statistics in Table 6.15 indicate non-normality of the VD score data. Therefore, following Choi (1973a); Llena et al. (2007), the nonparametric Wilcoxon and Friedman signed-rank tests were used to identify any significant change in VD values over the study period 2015–17.

Table 6.15: Tests of normality of VD 2015–17

VD	K–S			Shapiro–Wilks			Skewness	Kurtosis
	Statistic	df	*p*	Statistic	df	*p*	Statistic	Statistic
2015	.095	120	.010	.952	120	.000	.571	–.498
2016	.093	120	.012	.952	120	.000	.547	–.520
2017	.102	120	.004	.953	120	.000	.551	–.545

Table 6.16: Wilcoxon signed-rank analysis of VD 2015–17

Ranks		N	Mean rank	Sum of ranks	Z	*p* (2-tailed)
2016–15	Negative ranks	14[a]	28.38	462.50	–3.061	.002
	Positive ranks	44[b]	33.04	1248.50		
	Ties	62[c]				
	Total	120				
2017–16	Negative ranks	19[d]	57.39	1046.00	–6.296	.000
	Positive ranks	94[e]	55.05	5395.00		
	Ties	7[f]				
	Total	120				

Note: [a] 2016 < 2015; [b] 2016 > 2015; [c] 2016 = 2015; [d] 2017 < 2016; [e] 2017 > 2016; [f] 2017 = 2016.

As can be seen in Table 6.16, for the period 2016–15 $p = .002$, indicating a significant difference. This suggests that the level of VD in 2016 had increased significantly compared with that in 2015. The 2017–16 difference was also highly significant, indicating the level of MD in 2017 had increased significantly compared with that in 2016. This indicate a significant change in VD extent in the periods 2015–16 and 2016–17. The Friedman nonparametric test was also applied to investigate whether there were significant changes over the entire period 2015–17.

Table 6.17: Friedman ranked test of VD 2015–17

Rank	Mean rank
2015	1.53
2016	1.81
2017	2.66
N	120
Chi^2	97.926
df	2
Asymp. Sig.	.000

Table 6.17 shows that there was a significant change over the 3-year study period ($p = .000$). In summary, the Wilcoxon and Friedman rank test results reveal that the extent of VD provided by KSA-listed firms significantly increased over the periods 2015–16 and 2016–17. Potential reasons for the upwards trend in VD extent include the regulatory reforms throughout the past decade 5 years, which culminated in the issue of a new CG code and financial reporting guidelines by the KSA government at that time. Moreover, KSA firms are looking to attract foreign investment since the KSA stock market opened to foreign investors in 2013.

6.4 Conclusion

This chapter examines the extent of MD and VD in KSA-listed firms to address the first research question and sub-question of this study via statistical tests and an analysis of the findings from the VD and MD indexes. The self-constructed indices for VD and MD were applied, beginning with the total MD and VD, moving to its standards and groups, and then examining the items of disclosure information (called hierarchical cluster analysis).

The level and trend of MD in KSA-listed firms was evaluated, and the findings show that the level of MD increased significantly over the periods 2015–16 and 2016–17. The estimated average MD of 72.75% is lower than that found in developed markets but consistent with findings for developing markets.

The level of MD in relation to standards was evaluated: the highest score for MD was 100% for IFRS10 (Consolidated Financial Statements), and the lowest was 57% for IAS36 (Impairment of Assets). Based on the average extent of MD, the standards were ranked to indicate which enjoyed the highest level of MD. The top five MD standards were IFRS10 ‘Consolidated Financial Statements’, IAS23 ‘Borrowing Costs’, IAS28 ‘Investments in Associates and Joint Ventures’, IAS27 ‘Separate Financial Statements’ and IAS18 ‘Revenue’. The five lowest ranked MD standards were IAS16 ‘Property, Plant and Equipment’, IFRS13 ‘Fair Value Measurement’, IAS40 ‘Investment Property’, IFRS14 ‘Regulatory Deferral Accounts’ and IAS36 ‘Impairment of Assets’.

The level and trend of VD in KSA-listed firms was also assessed, and the findings show that the level of VD increased over the periods 2015–16 and 2016–17. The estimated average VD of 36.49% is in line with results reported in prior VD studies for both developing and developed countries. Scores for VD at the category level were evaluated: the highest score among the VD group was 72% for DSM and the lowest was 20% for CSR. All VD items were ranked based on the average extent to report which voluntary items have the highest levels of disclosure. The findings show the top five VD items are ‘Number of board of directors meetings held, and date’, ‘A brief history of the firm’, ‘Background information about member of the audit committees’, ‘Picture showing the senior management team’ and ‘Name of the directors’.

The five lowest ranked VD items were ‘General information about employees’ retrenchment and/or redundancy’, ‘Participation during state social campaigns’, ‘Firm’s policies on employee training programs’, ‘Main financial data (quantitative) forecasts (EPS, sales revenues, profit)’ and ‘Statement of number of fatalities, lost day, standard injury and absentee rates’.

Chapter 7: The Relationship between Corporate Governance Mechanisms and the Extent of Mandatory and Voluntary Disclosure—Results and Discussion

7.1 Introduction

This chapter presents empirical analyses addressing the second question of this study: Is there any association between CG mechanisms (ownership structure and board characteristics) and the extent of voluntary and mandatory information disclosure by KSA firms? The study's hypotheses were developed in Chapter 3, and this chapter describes the tests conducted to determine the relationships among the variables.

This chapter is organised as follows. Section 7.2 provides a descriptive analysis of the independent variables. Section 7.3 describes the bivariate relationships between the dependent and independent variables. Section 7.4 presents a multivariate analysis of the MD and the VD models. Section 7.5 provides an interpretation and discussion of the results from the regression analysis. Section 7.6 concludes the chapter.

7.2 Descriptive Statistics for the Independent Variables

Table 7.1 provides a descriptive analysis of the independent variables examined in this study. As the table shows, the average percentage of foreign ownership was 8.3% (range 0–30%). The average percentage of state ownership in KSA-listed firms was 8.2% (0–78%). The mean value of family ownership was 25.5% (range 0–87%). Boards of directors ranged in size from 5 to 13 members, with an average of 8 members. The mean ratio of independent directors was 49.8%, with a range of 14–100%. CEO role duality ranged from 0% (288 observations) to 100% (72 observations), with an average of 20%. Gender diversity (women directors on the board) ranged from 0% to 44%. The mean percentage of firms with members of the royal family on the board was 22.0%, with a range of 0% (280 firms) to 100% (80 firms). A total of 165 of the 360 firm–year observations (45.8%) for the KSA-listed firms indicated auditing by Big 4 accounting firms during the study period (2015–17) and 54.2% of reports were audited by small, local accounting firms during the study period.

The mean firm size was 16,404.36 (SR in millions) (range 81.43–445,760). The average percentag for the industry classifications of KSA-listed firms were 33%: 120 of 360 firm–year observations (33.3%) related to work in sensitive sectors, and 240 (66.7%) related to work in non-sensitive sectors. The mean of the profitability of KSA firms was 4.8%, ranging from –39.0% to 38.0%. The mean age of the KSA firms was around 29 years and ranged from 2 to 66 years.

Table 7.1: Descriptive statistics for the independent variables

Variables	N	Minimum	Maximum	Mean	Std. deviation
Independent variables (continuous variables)					
Foreign ownership	360	0.00	.30	.0834	.07048
State ownership	360	0.00	.78	.0820	.16156
Family ownership	360	0.00	.87	.2552	.20844
Size of board of directors	360	5	13	8.44	1.532
Gender diversity	360	0.00	.44	.0328	.08128
Independent variables (dichotomous variables)					
Independent directors	360	.14	1	.4978	.16617
CEO role duality	360	0	1	.20	.401
Member of ruling family	360	0	1	.22	.416
Audit firm	360	0	1	.46	.499
Control variables (continuous variables)					
Firm size (SR in millions)	360	81.43	445760.46	16404.36	58854.58
Profitability	360	–.39	.38	.0482	.08796
Firm age	360	2	66	29.35	13.468
Control variables (dichotomous variables)					
Industry category	360	0	1	.33	.472

7.3 Bivariate Analysis

A bivariate analysis involves the simultaneous analysis of two variables. It examines the relationship between two factors to determine whether a correlation exists and, if so, how robust it is. It also examines whether there are differences between two factors and, if so, the significance of these differences. The results of a bivariate analysis can indicate whether or not the correct variables have been selected in a study. The analysis examines the correlation between the independent and dependent variables, which makes it specific. A bivariate analysis can only be used to evaluate two variables. This study employed a bivariate analysis to determine the suitability of the independent factors.

The Pearson product–moment correlation (*r*) parametric test was used, along with the Spearman rank-order correlation (*p*) as a nonparametric test, to examine the relationship between the dependent (MD and VD) the independent variables (ownership structure and CG characteristics).

7.3.1 Bivariate Analysis of Mandatory Disclosure

Table 7.2 presents the Pearson and Spearman correlation coefficient matrix for MD and the independent variables (ownership structure and CG characteristics). Both the Pearson and Spearman analyses indicate that all independent variables were significantly correlated with MD at the 1% level. Ownership structure (foreign ownership, state ownership and family ownership) were positively related to MD, with *r* values of 0.596, 0.410 and 0.460, respectively. In addition, board size, gender diversity and audit firm were positively related to MD, with *r* values of 0.242, 0.151 and 0.284, respectively. However, independent directors, CEO role duality and the presence of a member of the ruling family on the board were negatively associated with MD, with *r* values of –0.430, –0.273 and –0.263, respectively.

Table 7.2 also indicates that all firm characteristics used as control variables were positively correlated with MD; the *r* values for firm size, industry category, profitability and firm age were 0.202, 0.177, 0.369 and 0.232, respectively. Further, the values of the Pearson and Spearman coefficients for these variables were virtually identical. These correlation coefficient outcomes provide initial support for most of the study’s hypotheses concerning the relationship between the independent variables and the extent of MD.

Table 7.2: Correlation coefficients between MD and the independent variables

Variables	Pearson (*r*)	Spearman (*p*)
Foreign ownership	.596**	.622**
State ownership	.410**	.418**
Family ownership	.460**	.604**
Size of board of directors	.242**	.242**
Independent directors	–.430**	–.397**
CEO role duality	–.273**	–.273**
Gender diversity	.151**	.158**
Member of the ruling family	–.263**	–.267**
Audit firm	.284**	.276**
Firm size	.202**	.292**
Industry category	.177**	.178**
Profitability	.369**	.370**
Firm age	.232**	.260**

*, ** Correlations are significant at the 5% and 1% levels (2-tailed), respectively.

7.3.2 Bivariate Analysis of Voluntary Disclosure

Table 7.3 presents the Pearson and Spearman correlation coefficients between MD and the independent variables (ownership structure and CG characteristics). analyses indicate that all independent variables except industry category were significantly related to MD at the 1% level. The ownership structure variables (foreign ownership, state ownership and family ownership) were positively related to VD, with *r* values of 0.343, 0.479 and 0.180, respectively.

The CG characteristics (board size, gender diversity and audit firm) were also positively related to VD. The *r* values for board size, gender diversity and audit firm were 0.191, 0.421 and 0.337, respectively. However, independent directors, CEO role duality and member of the ruling family were negatively associated with VD: –0.364, –0.293 and –0.284, respectively. Table 7.3 also shows that nearly all firm characteristics used as control variables were positively correlated with VD; the only exception was the industry category. The *r* values for firm size, profitability and firm age were 0.285, 0.225 and 0.175, respectively. The Pearson and Spearman coefficients were virtually identical, and provide initial support for the majority of the study's hypotheses concerning the relationship between the independent variables and the extent of VD.

Table 7.3: Correlation coefficients between VD and independent variables

Variables	Pearson (*r*)	Spearman (*p*)
Foreign ownership	.343**	.372**
State ownership	.479**	.477**
Family ownership	.180**	.323**
Size of board of directors	.191**	.195**
Independent directors	–.364**	–.352**
CEO role duality	–.293**	–.309**
Gender diversity	.421**	.378**
Member of the ruling family	–.284**	–.310**
Audit firm	.337**	.335**
Firm size	.285**	.409**
Industry category	–.077	–.072
Profitability	.225**	.209**
Firm age	.175**	.194**

*, ** Correlations are significant at the 5% and 1% levels (2-tailed), respectively.

7.4 Multivariate Analysis

Multivariate regression analysis is a common method of analysis, particularly in disclosure studies (Cooke 1998). It is used to simultaneously analyse data with two or more variables (multivariate) (Meyers et al. 2016), and when there are more data than can be handled by a univariate analysis. Thus it was used in this study because the data collected here involve several variables, to test the influences of ownership structure and CG characteristics on the MD and VD indices.

A range of statistical techniques were used to measure correlations between the dependent and independent variables. Therefore, results were obtained in different forms, including linear and nonlinear relationships. A multiple regression analysis was appropriate because this study involves two dependent variables and more than one independent variable (both dummy and continuous variables). OLS regression estimators were chosen as the most appropriate way to analyse the independent variables, as discussed in Chapter 5. OLS regression is a popular statistical method in the social sciences and can be used to determine the value of outcome variables through the use of one or more explanatory variables (Quisenberry 2015). It also identifies the strength and statistical significance of relationships (Hutcheson and Sofroniou 1999).

According to Meuleman et al. (2015), certain statistical elements of the OLS technique give it advantages, leading to its popularity as a regression analysis tool. The regression assumptions were tested in the initial step when selecting the appropriate statistical technique to analyse the data, as presented in the next section.

7.4.1 Regression Assumptions (Diagnostic)

Cooke (1998) pointed out the need for detailed data screening in disclosure studies to identify any nonlinearity and outliers before choosing the most appropriate statistical technique. Regression coefficients can be estimated in various ways, but the most common is linear regression using OLS. Five conditions must be in place for OLS to be used: multivariate normality, no autocorrelation, no multicollinearity, no outliers and homoscedasticity. If these assumptions are met, OLS regression is the BLUE for a regression model (Hillmer and Hilmer 2014; Puntanen and Styan 1989).

7.4.1.1 Normality of Error

Multiple regression assumes that the errors (residuals) are normally distributed (Cooke 1998). Thus, multiple regression should only be applied when the residuals between predicted and observed values are normally distributed. The assumption of normality can be tested in two ways: via a numerical method (the K–S test) or a graphical method (a P–P plot) (Hutcheson and Sofroniou 1999).

7.4.1.1.1 Normality for Mandatory Disclosure

Table 7.4 shows the results of the K–S test of normality of the residuals for the variables in the MD model. The non-significant K–S (p = 0.200) indicates that the assumption of normality of residuals is met for MD. Figure 7.1 presents the normal P–P plot of regression for the MD residuals, in which they are distributed relatively evenly around 0. Thus, both the numerical and graphical analyses support the assumption of normality for MD.

Table 7.4: Test of normality of error (MD)

Variable	K–S			Shapiro–Wilks		
	Statistic	df	*p*	Statistic	df	*p*
Unstandardised residual (MD)	.037	360	.200*	.993	360	.108
Standardised residual (MD)	.037	360	.200*	.993	360	.108

*. This is a lower bound of the true significance.

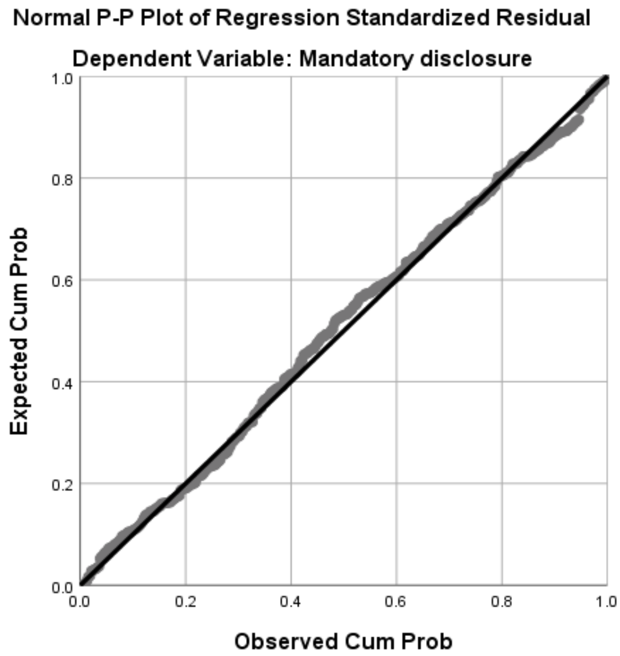

Figure 7.1: Normal P–P plot of regression (MD)

7.4.1.1.2 Normality for Voluntary Disclosure

Table 7.5 presents the results of the K–S analysis of normality of the residuals for the variables in the VD model. As $p < 0.05$, the assumption of the normality of residuals is violated for VD. Figure 7.2 shows the normal P–P plot of regression for the VD residuals, indicating that the values are not evenly distributed around 0, supporting the K–S result that the VD residuals are not normally distributed.

However, violation of the assumption of normality of residuals often presents no problem because of the central limit theorem (Statistics Solutions 2013; Zark et al. 2017). This theorem states that the sample size of a moderately large populations (> 30) is often well approximated by a normal distribution even if the data are not normally distributed (Ghasemi and Zahediasl

2012; Statistics Solutions 2013). Many statistics texts recommend the use of data transformations (e.g., square root, log) to address this violation (Cooke 1998; Rummel 1988).

Table 7.5: Test of normality of error (VD)

Variable	K–S			Shapiro–Wilk		
	Statistic	**df**	***p***	**Statistic**	**df**	***p***
Unstandardised residual (VD)	.071	360	.000	.978	360	.000
Standardised residual (VD)	.071	360	.000	.978	360	.000

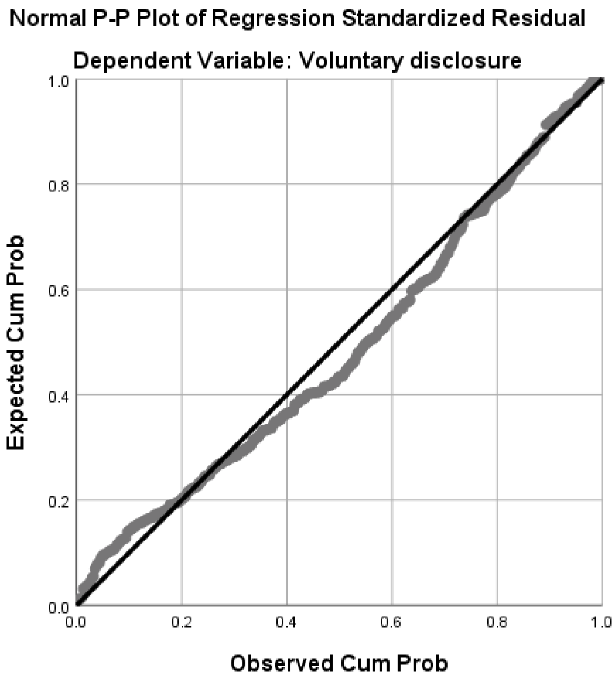

Figure 7.2: Normal P–P plot of regression (VD)

7.4.1.2 No Perfect Multicollinearity

Multicollinearity exists when the independent variables in a regression model are highly correlated; it leads to unstable and inaccurate evaluations of regression coefficients. Multicollinearity is a state of a very high level of intercorrelation among independent variables. It is therefore a type of disturbance in the data, and if it is present, statistical inferences about the data may not be reliable (Mansfield and Helms 1982). Certain tests can be used to detect the degree of multicollinearity, including the variance inflation factor (VIF) and the tolerance and condition index (CI) (Alin 2010; Miles 2014). If the VIF value is ≥5 and the tolerance value is ≤0.1, then multicollinearity is an issue (Hair et al. 2017; Kock and Lynn 2012).

Moreover, if the CI is > 30, the regression may suffer from severe multicollinearity (Esbensen et al. 2002; Goldstein 1993).

Table 7.6: Tolerance, VIF and CI tests

Panel A: Multicollinearity tests			
Independent variables	**Collinearity statistics**		**CI**
	Tolerance	**VIF**	
Foreign ownership	.731	1.368	1.000
State ownership	.586	1.707	2.312
Family ownership	.761	1.314	2.475
Size of board of directors	.816	1.226	2.792
Independent directors	.765	1.306	3.007
CEO role duality	.857	1.166	3.156
Gender diversity	.905	1.105	3.751
Member of the ruling family	.861	1.161	4.173
Audit firm	.804	1.243	4.365
Firm size	.682	1.465	5.015
Industry category	.852	1.173	5.469
Profitability	.775	1.291	7.316
Firm age	.869	1.151	12.003
Panel B: Statistics descriptive of multicollinearity tests			
Test	**Minimum**	**Maximum**	**Mean**
Tolerance	.586	.905	.789
VIF	1.110	1.707	1.283
CI	1	12.003	4.372

Panel A of Table 7.6 presents the outputs of the tolerance, VIF and CI analyses. Based on the coefficient outputs in Panel B of the table, the largest collinearity statistic for a VIF value was 1.71 for state ownership, which is less than the problematic value of 5. The lowest tolerance value was 0.59, which is higher than the value of 0.2 considered problematic. Finally, the highest CI value was 12, which is less than the cut-off value of 30. Thus, it can be concluded that there are no indications of multicollinearity in this study’s data.

7.4.1.3 No Autocorrelation

Autocorrelation (serial correlation) occurs when the associations between different values for the same factors are based on related objects. In other words, it occurs when the residuals are not independent from each other; thus, violating the assumption of independence (Breusch 1978). The Woodridge test was used here to determine whether autocorrelation existed in this study's data (Drukker 2003; Wooldridge 2010). Table 7.7 shows the results of the Wooldridge test, which indicate that the F-statistics for both MD and VD and non-significant ($p > .05$) and thus their residuals are not autocorrelated.

Table 7.7: Wooldridge test for assumption of autocorrelation

MD		
F-statistic	p-value	Autocorrelation
0.385	0.536	No
VD		
F-statistic	p-value	Autocorrelation
0.105	0.747	No

7.4.1.4 Outliers

An outlier is a data point that differs significantly from other observations (Walfish 2006). Cook's distance (Cook's D) test identifies influential observations in study data (Stevens 1984). Cook's D is the scaled change in fitted values and is useful for identifying outliers in *x* values. Cook's D indicates the influence of each observation on the fitted response values (Walfish 2006). Any case with a Cook's D greater than 1 should be considered a potential outlier (Cook and Weisberg 1982; Field 2009; Maindonald and Braun 2006). Table 7.8 presents the summarised Cook's D test results for MD and VD. The highest value was .051 for MD and .025 for VD. As these values are much less than 1, it can be concluded that the dataset contains no outliers.

Table 7.8: Descriptive statistics for Cook's D test of 360 firm–year observations

Variable	Minimum	Maximum	Mean	Std. deviation
Cook's distance (MD)	.000	.051	.003	.005
Cook's distance (VD)	.000	.025	.003	.004

7.4.1.5 Homoscedasticity

Homoscedasticity means that the variance around a regression line is the same (central) for all values of the independent variable. Homoscedasticity is the desired situation in which the error term is the same for all values of an independent variable (Jarque and Bera 1980; Zhu et al. 2016). The Breusch–Pagan test was used here to detect heteroscedasticity (Long and Ervin 2000). Table 7.9 presents the results of the Breusch–Pagan test for the fitted values of MD and VD. The chi-square statistic for MD was not significant ($p > .05$), indicating that homoscedasticity could not be rejected for this variable. However, the VD chi-square statistic was significant, indicating heteroscedasticity in the data for this variable. To address this, the factors should be transformed, which resolves or reduces heteroscedasticity to an acceptable level (Cooke 1998; Tabachnick and Fidell 2013). Nonetheless, heteroscedasticity is not required for the OLS to be unbiased; it is only required for the OLS to be BLUE (Gujarati 2009; Hillmer and Hilmer 2014).

Table 7.9: Breusch–Pagan test for heteroscedasticity

Variable	Chi^2	p
Fitted value of MD	0.32	.571
Fitted value of VD	8.82	.003

7.4.1.6 Summary of Regression Assumptions

The OLS method is often used to estimate the parameters of a linear regression model. Assumptions are made while running linear regression models to strengthen the validity of OLS estimates. When these assumptions are met, the OLS estimator is the only BLUE estimator. If the regression conditions are not met, then the OLS estimator is still unbiased but is no longer the best estimator (Wooldridge 2015). Based on the numerical and graphical analyses described above, the assumptions for the OLS to be BLUE (multivariate normality, no multicollinearity, homoscedasticity, no autocorrelation and no outliers) were met for the MD model. For the VD model, although the assumptions of no multicollinearity, autocorrelation or outliers were met, those of multivariate normality and homoscedasticity were not met, requiring some transformation.

Transformation has been widely used to overcome violations of normality of error and homoscedasticity in disclosure studies; examples include Abdullah et al. (2015); Dawd (2018); Tsalavoutas (2011). Regarding the supportive use of transformation, Cooke (1998) stated that the:

> transformation of data is useful in regression analysis when the relationship between the dependent and independent variables is inherently nonlinear, when the distribution of the errors is not approximately normal, and where there are problems of heteroscedasticity or non-independence of the error terms. (p. 210)

Transformation also helps avoid the use of nonparametric regression, which is less powerful (Leventis 2001).

There are many ways to transform data, including inverse, log and square. Cooke (1998) argued that the best method for transforming data depends on the structure of the study data; in different cases, different types of transformation will best resolve the violation of assumptions. In line with Abd-Elsalam (1999); Alotaibi (2014); Haniffa and Cooke (2002); Muzahem (2011); Wallace and Naser (1995) and Sukthomya (2011), a normal score transformation was applied to the VD model in this study to overcome the issues of normality and heteroscedasticity. According to Cooke (1998), the normal score method is an alternative to the rank regression approach that minimises some of its weaknesses while retaining its advantages. Table 7.10 presents the results for normality of error and heteroscedasticity after data transformation. Panel A shows that the K–S value was not significant; thus, normal score transformation successfully normalised the VD residuals. Similarly, the non-significant chi-square statistic in Panel B indicates that the null hypothesis of homoscedasticity has been met.

Table 7.10: Test of normality and heteroscedasticity after transformation

Panel A: Test of normality						
Variable	K–S			Shapiro–Wilks		
	Statistic	df	p	Statistic	df	p
Unstandardised residual (VD)	.035	360	.200	.995	360	.342
Standardised residual (VD)	.035	360	.200	.995	360	.342

Panel B: Breusch–Pagan test for heteroscedasticity		
Variable	Chi^2	p
Fitted value of VD	0.200	0.656

Based on the results checking the data assumptions for the MD and VD models described above, the MD regression model can be analysed using pooled OLS. Pooled OLS can be used to analyse the original scores for the VD model, and OLS can be used to analyse the transformed scores (T-OLS) for the VD model, in line with Morris and Tronnes (2018); Sarhan and Ntim (2019), Abdel-Fattah (2008), El-Diftar (2016) and Alnabsha et al. (2017). According to Reuveny and Li (2003), some statistical models for pooled time-series cross-sectional data may exhibit autocorrelation and heteroscedasticity. Although these problems do not bias the estimated coefficients, they may result in inefficient and biased standard errors in the coefficients (Thompson 2011). Therefore, as a robustness check of the sensitivity of the estimated regression results, this study used the regression models for VD and MD with the White (1980) heteroscedasticity-consistent standard errors and covariance; this is known as OLS with robust standard error (OLSR). This sensitivity test reinforces the outcomes, following Alazzani et al. (2019); Das (2015); Enache and Hussainey (2019); Jizi et al. (2014).

In addition, to increase the robustness of the OLS test, a nonparametric analysis called the censored regression model (Tobit regression) was adopted for the MD and VD models, following Alotaibi (2014); Cormier, Magnan and Velthoven (2005); El-Diftar et al. (2017); Hussainey and Al-Najjar (2011); Mazzi et al. (2018). When a dependent variable is in a restricted range or is limited by nature, the Tobit regression is the most appropriate approach (Verbeek 2008). For this study, the dependent variables, MD and VD, are limited by nature since they cannot have negative values; and MD ranges from 53% to 88%, while VD ranges from 6% to 70%. Therefore, a Tobit regression was used to test robustness, and its outcomes were compared with those of the OLS regression.

7.5 Results and Discussion of the Regression Analysis

7.5.1 Mandatory Disclosure

This study used two analyses (OLSR and Tobit) to investigate the relationship between MD and the independent variables. Table 7.11 shows the F values of the OLSR and Tobit analyses; both indicate a highly significant ($p < .0001$) of MD model. The adjusted R^2 for the MD model in the OLSR analysis indicate that ownership structure and CG characteristics, along with the four control variables, explained just over 77% of the variation in MD for the KSA-listed firms during the period 2015–17.

The adjusted R^2 value in the MD model here is higher than those reported in prior MD studies: 24.4% in Verriest et al. (2013), 54.4% in Alnabsha et al. (2017), 62% in Samaha et al. (2012) and 66.7% in Al-Akra et al. (2010). However, the value is similar to that of Juhmani and Juhmani (2017), who reported an adjusted R^2 of 78.5%. Further, as shown in Table 7.11, the results of the Tobit analysis reinforce the outcomes of the OLSR, being virtually identical.

7.5.2 Voluntary Disclosure

This study used three methods (OLSR, T-OLSR and Tobit) to examine the relationship between VD and the independent variables. Table 7.12 presents the results of F values; all of which indicate a highly significant ($p < .000$) of the VD model. The adjusted R^2 values for the VD model from both the OLSR and T-OLSR analyses indicate that ownership structure and CG characteristics, along with the four control variables, explained around 60% of the variation in VD for the KSA-listed firms during the period 2015–17.

The explanatory power of the VD model (adjusted R^2) in this study is higher than that found in previous VD studies: 45.8% in Rouf, MA and Akhtaruddin (2018), 38.4% in Abdullah et al. (2015) and 56.7% in Ho and Taylor (2013). However, it is lower than that reported by Sarhan and Ntim (2019), which is 69.97%. The outcomes of the Tobit analysis, shown in Table 7.12, reinforce the results of the OLSR and T-OLS analyses; all results are virtually identical. A detailed review of the regression outcomes based on the study hypotheses is provided in the following paragraphs.

Table 7.11: Regression results for MD

Variable	Pred. sign	OLSR			Tobit		
		Coefficient (β)	T-statistic	Sig (p)	Coefficient (β)	T-statistic	Sig (p)
Foreign ownership	+	0.374	10.27	0.000***	0.374	10.75	0.000***
State ownership	+	0.151	8.44	0.000***	0.151	9.07	0.000***
Family ownership	-	0.102	6.91	0.000***	0.102	8.42	0.000***
Size of board of directors	+	0.004	2.95	0.003***	0.004	2.69	0.007***
Independent directors	+	–0.019	–1.35	0.178	–0.019	–1.36	0.175
CEO role duality	-	–0.018	–3.17	0.002***	–0.018	–3.15	0.002***
Gender diversity	+	–0.002	–0.07	0.942	–0.002	–0.07	0.944
Member of the ruling family	-	–0.009	–1.74	0.083*	–0.009	–1.66	0.097*
Audit firm	+	0.003	0.58	0.560	0.003	0.56	0.575
Firm size	+	0.000	2.70	0.007***	0.000	3.56	0.000***
Profitability	+	0.179	4.77	0.000***	0.179	6.53	0.000***
Firm age	+	0.001	5.27	0.000***	0.001	5.21	0.000***
Year fixed effect	+	Included			Included		
Industry dummies	+	Included			Included		
Constant		0.609	34.93	0.000	0.609	35.31	0.000
No. observations		360			No. observations	360	
F		78.72			LR $chi^2(13)$	552.73	
Prob > F		.000			Prob > chi^2	.000	
Adjusted R-squared		77.33%			Pseudo R^2	–0.7235	

*, **, *** denote significance at the 10%, 5% and 1% levels, respectively.

Table 7.12: Regression results for VD

Variable	Pred. sign	OLSR			T-OLSR			Tobit		
		Coefficient (β)	T-stat.	Sig (p)	Coefficient (β)	T-stat.	Sig (p)	Coefficient (β)	T-stat.	Sig (p)
Foreign ownership	+	0.248	3.44	0.001***	0.110	2.60	0.097*	0.248	3.53	0.000***
State ownership	+	0.196	5.53	0.000***	0.278	5.88	0.000***	0.196	5.81	0.000***
Family ownership	-	0.026	1.14	0.253	0.071	1.66	0.197	0.026	1.05	0.293
Size of board of directors	+	0.005	1.51	0.131	0.048	1.11	0.268	0.005	1.53	0.127
Independent directors	+	–0.117	–4.21	0.000***	–0.153	–3.90	0.000***	–0.117	–4.07	0.000***
CEO role duality	-	–0.047	–4.70	0.000***	–0.415	–4.77	0.000***	–0.047	–4.21	0.000***
Gender diversity	+	0.505	10.02	0.000***	0.441	8.86	0.000***	0.505	9.34	0.000***
Member of the ruling family	-	–0.058	–5.69	0.000***	–0.396	–4.68	0.000***	–0.058	–5.40	0.000***
Audit firm	+	0.029	3.04	0.003***	0.157	2.25	0.025**	0.029	3.11	0.002***
Firm size	+	0.000	2.79	0.006***	0.185	4.01	0.000***	0.000	2.29	0.023**
Profitability	+	0.008	0.14	0.887	–0.022	–0.60	0.552	0.008	.14	0.887
Firm age	+	0.001	3.54	0.000***	0.139	3.89	0.000***	0.001	3.36	0.001***
Year fixed effect	+	Included			Included			Included		
Industry dummies	+	Included			Included			Included		
Constant		0.289	7.52	0.000	–0486	–0.60	0.549	0.289	8.03	0.000
No. observations		360			360			No.observations	360	
F		47.22			37.81			LR chi^{i2}(13)	345.9	
Prob > F		.000			.000			Prob > chi^2	.000	
Adjusted R-squared		59.72%			60.97%			Pseudo R^2	–0.744	

*, **, *** denote significance at the 10%, 5% and 1% levels, respectively.

7.5.3 Foreign Ownership

The results for the OLSR and Tobit analyses shown in Table 7.11 indicate that foreign ownership has a significant (p = .000) and positive (β = .374) association with MD at the 1% level of significance. Thus, hypothesis H1a, which suggests that there is a significant positive relationship between foreign ownership and the extent of MD in the annual reports of KSA-listed firms, is supported. This means that KSA firms with a large percentage of foreign ownership tend to disclose more MD information in their annual reports.

This outcome is in line with the theoretical predictions of capital need theory, which are that managers tend to accept the need for more MD in an effort to lower capital costs and decrease foreign investor uncertainty by reducing information asymmetry. Empirically, this result is consistent with prior MD studies, such as Alshbili et al. (2018); Bova and Pereira (2012); Uyar et al. (2016).

As shown in Table 7.12, the outcomes of the OLSR (β = .248), T-OLS (β = .110) and Tobit (β = .248) analyses indicate a significant positive relationship between foreign ownership and VD at a 1% level of significance for OLSR (p = .001) and Tobit (p = .000) and at a 10% level for T-OLS (p = .097). This supports hypothesis H1b, indicating that KSA firms with a high proportion of foreign investors are likely to provide more VD information in their annual reports. This is in line with previous VD studies such as those by Al-Akra et al. (2010); Hu et al. (2018); Sartawi et al. (2014).

This finding is also consistent with the argument that, to decrease the level of information asymmetry faced by foreign (outside) investors, companies tend to provide more VD in their annual reports (Khlif et al. 2017; Mangena et al. 2012), thereby attracting more foreign investment. Foreign investors may effectively control management and influence firms' managers to increase the level of VD by using their authority through voting rights and ownership power (Adams et al. 2005).

7.5.4 State Ownership

The outcomes of the OLSR and Tobit analyses, shown in Table 7.11, suggest a highly significant positive (β = .151) correlation (p = .000) between state ownership and the extent of MD among KSA-listed firms. This provides empirical support for hypothesis H2a, which suggests that KSA-listed firms with a high proportion of state shareholdings tend to provide more MD in their annual reports. This result also reflects the theoretical argument that firms with a greater level of state ownership actively seek to obtain and retain state support (Ntim and Soobaroyen 2013) by complying with MD requirements. This helps legitimise their operations (legitimacy theory) (Suchman 1995) and secure their access to critical resources (capital need theory) (Reverte 2009). Additionally, agency theory states that increased MD may help minimise agency problems between company managers and the state as a powerful owner (Core 2001).

This outcome is also consistent with previous empirical studies of MD, such as Abdelsalam and Weetman (2007) and Cascino and Gassen (2015), both of which found a significant positive relationship between state ownership and MD levels. However, this result is inconsistent with Alnabsha et al. (2017); Sarhan and Ntim (2019), who found no such relationship.

The results of the OLSR ($\beta = .196$), T-OLS ($\beta = .278$) and Tobit ($\beta = .196$) analyses, shown in Table 7.12, illustrate a highly significant ($p = .000$) positive correlation between state ownership and the level of VD. This result supports hypothesis H2b, which suggests that KSA-listed firms with a high proportion of state shareholdings tend to provide more VD information in their annual reports. This positive correlation confirms the predictions of stockholder theory, which are that state ownership (when the state is a board member) may result in pressure on companies to provide more VD information (Naser et al. 2006); this simultaneously reduces agency cost (agency theory) (Crowther and Jatana 2007).

Further, this result supports the theoretical argument that the government takes social aspects into account and is more likely to be socially responsible in institutions in which it owns shares, which is assumed to positively influence VD information (Habbash 2016). The significant and positive association between state ownership and VD level is congruent with the empirical findings of Alhazaimeh et al. (2014); Haddad et al. (2015); Kolsi and Kolsi (2017), but inconsistent with those of Alnabsha et al. (2017); Sahasranamam et al. (2019), who reported no correlation between state ownership and VD levels.

7.5.5 Family Ownership

The results of the OLSR and Tobit analyses, shown in Table 7.11, indicate that family ownership has a highly significant ($p = .000$) positive effect ($\beta = .102$) on the extent of MD. Consequently, hypothesis H3a is rejected. The implication of this empirical result is that KSA firms with a higher percentage of family ownership tend to provide more MD information in their annual reports.

Empirically, this result is line with previous MD studies, including Al-Akra and Hutchinson (2013); Aribi et al. (2018); Liu et al. (2016), all of whom found a significant positive relationship between family ownership and the extent of MD. However, this result is inconsistent with Abdullah et al. (2015), who found a negative relationship. This result also is theoretically supported by agency theory, which states that family ownership in firms correlates with closer managerial control and less asymmetry of information, thus reducing agency problems and the need for MD information (Chau and Gray 2010; Ferramosca and Ghio 2018).

Although the results of the OLSR ($\beta = .026$), T-OLS ($\beta = .071$) and Tobit ($\beta = .026$) analyses, shown in Table 7.12, also demonstrate a positive association between family ownership and VD levels, this result is not significant; thus hypothesis H3b is rejected, leading to the conclusion that family ownership has no significant influence on the extent of VD in the annual reports of KSA-listed firms. These results support the theoretical argument that agency problems between management and ownership are less common in family-owned firms (Chau and Gray 2010). Moreover, family shareholders usually keep their shares for a long time (Villalonga and Amit 2006), giving family shareholders better and faster access to financial information and closer control of firm managers, which reduces the demand for VD information (Chau and Gray 2010; Ferramosca and Ghio 2018).

This finding is consistent with those of previous empirical studies, including Nekhili et al. (2017); Nurunnabi and Hossain (2012); Sarhan and Ntim (2019), who found that family ownership has an insignificant relationship with the extent of VD. However, the result is inconsistent with the findings of Cabeza-García et al. (2017), who found a significant negative relationship between family ownership and VD.

Regarding ownership factors, this study found a significant positive correlation between type of ownership and the extent of MD in the annual reports of KSA-listed firms. Foreign and state ownership both have a significant positive relationship with VD in the annual reports of KSA-listed firms. However, there is no significant association between family ownership and the extent of VD. Table 7.13 and 7.14 summarise the relationships of ownership variables with MD and VD.

Table 7.13: Summary of the relationships between ownership variables and MD

Independent variable	MD			
	Pred. sign.	OLSR	Tobit	Result
Foreign ownership	+	+***	+***	Supported
State ownership	+	+***	+***	Supported
Family ownership	-	+***	+***	Not supported

***,**,* Significant at the 1%,5% and 10% levels, respectively.

Table 7.14: Summary of the relationships between ownership variables and VD

Independent variable	VD				
	Pred. sign.	OLSR	T-OLSR	Tobit	Result
Foreign ownership	+	+***	+*	+***	Supported
State ownership	+	+***	+***	+***	Supported
Family ownership	-	+	+	+	Not supported

***,**,* Significant at the 1%,5% and 10% levels, respectively.

7.5.6 Board Size

According to the results of the OLSR and Tobit analyses, shown in Table 7.11, there is a positive (β = .004) relationship between board size and the extent of MD; this relationship is significant at the 1% level (p = .003 and p = .007 for OLS and Tobit, respectively). Therefore, hypothesis H4a is empirically supported and accepted, implying that larger boards of directors are associated with more MD information in the annual reports of KSA-listed firms. Empirically, this result is consistent with those of Al-Akra et al. (2010); Alfraih and Alfraih (2016); Alnabsha et al. (2018), who found a positive and significant association between MD levels and board size. However, this finding is not in line with Agyei-Mensah (2019b); Juhmani and Juhmani (2017), who found no such significant associations.

This result confirms the theoretical assumption of agency theory that, in larger firms, the complex nature of official functions usually means that large numbers of directors are needed to enhance official operations, such as company monitoring and strategic disclosure decisions (Coles et al. 2008; John and Senbet 1998). This is inconsistent with Jensen (1993), who stated that, as the number of directors increases, the board is less able to enact critical and effective strategic processes and decisions, including corporate disclosure.

The results of the OLSR (β = .005), T-OLS (β = .048) and Tobit (β = .005) analyses, shown in Table 7.12, indicate that board size has a positive but statistically insignificant effect on VD levels. Accordingly, hypothesis H4b is rejected, indicating that board size has no significant influence on the extent of VD in the annual reports of KSA-listed firms.

This finding does not support the theoretical predictions of agency theory that board size plays a significant role in observation management team activities and attitudes such as VD (Allegrini and Greco 2013). It is also inconsistent with the argument that a larger board size leads to a wider range of expertise in managerial and financial aspects of CG (Laksmana 2008) and that such firms are more likely to provide more voluntary information to ensure the quality of annual reports (Liao et al. 2018). Empirically, the result is consistent with prior VD studies such as Allini et al. (2016); Fuente et al. (2017), both of whom found no significant association between VD levels and board size. However, it is not in line with Husted and Sousa-Filho (2018); Samaha et al. (2015), who found a significant and positive relationship between these factors.

7.5.7 Independent Directors

The regression results of the OLSR and Tobit analyses, shown in Table 7.11, indicate an insignificant negative (β = –0.019; p = .178) relationship between independent directors and MD. Thus, hypothesis H5a is rejected, indicating that the proportion of independent directors on the boards of KSA-listed firms has no significant effect on the level of MD in their annual reports. Empirically, this finding is consistent with those of Agyei-Mensah (2019b); ElKelish (2017), both of whom found no significant relationship between MD and the independence of directors on the board. However, it is not in line with Abdullah et al. (2015); Agyei-Mensah (2017), who found a significant and positive association between these factors.

Moreover, this result supports the argument that independent directors on the board may be ineffective in developing countries such as the KSA because of cultural influences. In such developing countries, independent directors are usually selected based on social and family connections rather than professional standards or the potential new director’s experience (Alnabsha et al. 2018). However, this result is inconsistent with those of Solomon (2007), who argued that boards that are largely independent tend to promote better governance practices by representing shareholders’ interests more strongly.

Unlike for MD, the results of the OLSR (β = –0.117), T-OLS (β = –0.153) and Tobit (β = –0.117) analyses for VD, shown in Table 7.12, indicate that the presence of independent directors has a highly significant negative (p = .003) association with disclosure. Accordingly, hypothesis H5b is rejected, and it is concluded that a higher degree of director independence negatively influences the level of VD in the annual reports of KSA-listed firms. Empirically, this finding agrees with those of Alnabsha et al. (2018); Ghazali and Weetman (2006); Gul and Leung (2004), who all found a negative relationship between the percentage of independent directors and the level of VD. However, this finding contradicts those of Bueno et al. (2018); Bukair and Rahman (2015), who found no relationship between these factors.

In addition, the results support the arguments presented by Al-Janadi and Alazzani (2016); Alnabsha et al. (2018), who stated that in countries like the KSA, the selection of independent directors is based on friendships and family relationships and also influenced by governmental interference. The findings further contradict the view proposed by agency theory that the actions of independent board members can decrease informational asymmetry (Allegrini and Greco 2013).

7.5.8 Chief Executive Officer Role Duality

The results of the OLSR and Tobit analyses, shown in Table 7.11, indicate a significant negative (β = –0.018; p = .002) correlation between CEO role duality and the level of MD. This finding indicates that CEO role duality has a significant negative effect on the level of MD in the annual reports of KSA-listed firms. Accordingly, hypothesis H6a is supported and accepted. This agrees with the empirical findings of Alfraih and Alfraih (2016); Elgammal et al. (2018); Juhmani (2017), who all found significant negative correlations between CEO role duality and MD. However, these findings differ from those of Alnabsha et al. (2018); ElKelish (2017); Shan (2019), who found no significant relationship between MD and CEO role duality.

This result presents strong support for the theoretical prediction of agency theory that a chairperson who also functions as CEO tends to become managerially predominant, minimising the effectiveness of board supervision, as the authority is consolidated into one person (Elfeky 2017a). This could, in turn, result in high levels of information asymmetry and low levels of MD (Allegrini and Greco 2013). The result also contradicts the view presented by stewardship theory and stockholder theory that management should focus on protecting and enhancing the interests of the company and its stakeholders (Haniffa and Cooke 2002).

According to this view, CEO duality increases unity between a company's managers and board of directors, which ultimately allows the CEO to better serve the shareholders in every aspect, including MD requirements (Donaldson and Davis 1991).

Further, as Table 7.12 shows, the results of the OLSR (β = –0.047), T-OLS (β = –0.415) and Tobit (β = –0.047) analyses indicate that CEO role duality has a highly significant negative (p = .002) association with VD levels. Consequently, hypothesis H6b is also supported and accepted. This suggests that CEO duality has a significant negative influence on the level of VD in the annual reports of KSA-listed firms. These findings agree with those of Allegrini and Greco (2013); Bueno et al. (2018), who found that CEO role duality has a significant and negative effect on the level of VD. However, the results contradict other empirical evidence that there is a significant positive relationship between the VD levels and CEO duality, as suggested by Sarhan and Ntim (2019).

This finding confirms theoretical assumptions that separating the positions of CEO and chair of the board could enhance an institution's legitimacy in its environment (legitimacy theory), as well as stakeholder cooperation (stakeholder theory), by promoting fairness and equality in strategic decision making (Habbash 2016). Duality spreads the decision-making authority, and increased chair independence gives greater power to the board of directors (agency theory), which in turn positively influences the level of VD (Forker 1992).

7.5.9 Gender Diversity

The results of the OLSR and Tobit analyses, shown in Table 7.11, indicate a weakly negative (β = –0.002; p = .942), insignificant correlation between board gender diversity and the extent of MD. Accordingly, hypothesis H7a is rejected; this suggests that the proportion of female directors on the board has no significant relationship with the level of MD in the annual reports of KSA-listed firms. These results might be explained by the argument of Dunn (2012), that females may be appointed to boards of directors merely as 'window dressing' (to show diversity) rather than to enhance the board's effectiveness.

This finding agrees with empirical evidence presented by Agyei-Mensah (2019b), who posited that gender diversity on the board does not influence the level of MD. However, it differs from findings of other studies indicating that gender diversity on the board has a significant positive effect on the level of MD, as suggested by Agyei-Mensah (2019a); Alfraih and Alfraih (2016).

Unlike for MD, the results of the OLSR (β = .505), T-OLS (β = .441) and Tobit (β = .505) analyses, shown in Table 7.12, indicate that gender diversity on the board is significantly positively related to the level of VD (p = .000). Therefore, hypothesis H7b is supported and accepted. This result indicates that KSA-listed firms with a higher proportion of women on the board are more likely to increase the quality of their annual reports by expanding the extent of VD. These results corroborate those of Aribi et al. (2018); Bueno et al. (2018); Sarhan and Ntim (2019), who found that female board members have a positive and significant effect on the level of VD. Conversely, none Manita et al. (2018); Sartawi et al. (2014) found that the presence of female board members does not affect the level of VD.

This finding reinforces the view that gender diversity is important for boards and that appointing female board directors improves a board's effectiveness (Carretta et al. 2010). It also supports the view that women's behaviours correlate with care, concern for others and empathy (Ellwood and Garcia-Lacalle 2015). Consequently, the activities of female board members are directed towards the community, and female board members positively influence social activities, which includes improving the level of VD.

7.5.10 Member of the Ruling Family on the Board

The findings of the OLSR and Tobit analyses, shown in Table 7.11, indicate a weakly significant negative (β = –0.009) correlation between the presence of a member of the ruling family on the board and the extent of MD (p = .083 and p = .097). Therefore, hypothesis H8a is supported and accepted. These findings indicate that having a member of the ruling family on the board of KSA-listed firms negatively influences the level of MD information in the annual reports of these firms. These findings corroborate the empirical evidence of Al-Hadi et al. (2018); Al-Hadi et al. (2016), who found a significant negative correlation between the presence of a member of the ruling family on the board and the level of MD. However, they contradict those of Alfraih and Alfraih (2016), who found no such relationship.

These findings also support the argument made by Chaney et al. (2011) that a member of the ruling family on the board can use their political influence to avoid financial penalties, such as high borrowing costs, which may apply if the company's financial reporting and disclosures are of low quality. Al-Hadi et al. (2016); Leuz and Oberholzer-Gee (2006) also argued that taking advantage of political connections, such as appointing a member of the ruling family to the board, tends to decrease an institution's overall levels of disclosure and transparency.

The results of the OLSR ($\beta = -0.058$), T-OLS ($\beta = -0.396$) and Tobit ($\beta = -0.058$) analyses, shown in Table 7.12, indicate that the presence of a member of the ruling family on the board also has a significant ($p = 0.000$) negative association with the level of VD. Accordingly, hypothesis H8b is supported and accepted and it is concluded that KSA-listed firms with a member of the ruling family on the board are less likely to include VD information in their annual reports.

These results are consistent with the finding of Al-Hadi et al. (2018) of a significant negative relationship between VD levels and the presence of a member of the ruling family on the board. However, they contradict those of Alazzani et al. (2019); Alfraih et al. (2017), who found no such relationship. In addition, the results support the argument that members of the royal family who are also board members in companies tend to exert their power and political connections in the boardroom, negatively influencing decisions regarding governance practices and transparency, including the level of VD (Al-Hadi et al. 2016; Chaney et al. 2011).

7.5.11 Audit Firm

According to the OLSR and Tobit analyses, shown in Table 7.11, there is a positive ($\beta = .003$) relationship between audit firms and the extent of MD; however, this effect is not significant ($p = .560$ and $p = .575$ for OLS and Tobit, respectively). Therefore, hypothesis H9a is rejected; this suggests that the type of auditing firm (Big 4) has no significant effect on the level of MD in the annual reports of KSA-listed firms. These findings corroborate those of Agyei-Mensah (2017); Dawd (2018), both of whom found no significant relationship between MD levels and the type of auditing firm. However, the findings contradict those of Mathuva and Chong (2018), who found a significant and positive correlation between the level of MD and the type of audit firm.

This result reflects the assumption of agency theory that larger auditing firms employ the best and most experienced auditors. Therefore, organisations that have been audited believe that receiving a certificate minimises agency cost because it promotes the perception of the reliability of the firms' annual reports. However, it seems that hypotheses of agency theory regarding the type of auditing firm might not hold much weight in the KSA.

Unlike for MD, the results of the OLSR ($\beta = .029$), T-OLS ($\beta = .157$) and Tobit ($\beta = .029$) analyses, shown in Table 7.12, show that the type of audit firm has a significant positive association with the level of VD ($p = .003$, $p = .025$ and $p = .002$ for OLS, T-OLS and Tobit, respectively). Therefore, hypothesis H9b is supported and accepted. These results indicate that the type of auditing firm has a significant positive influence on the level of VD in the annual reports of KSA-listed firms. This result is consistent with empirical evidence from Alotaibi (2014); El-Diftar et al. (2017); Sarhan and Ntim (2019), who all found a positive and significant relationship between the level of VD and the type of auditing firm. However, the results contradict those of Agyei-Mensah (2017); Alfraih et al. (2017), who found no significant relationship between these factors.

This result supports the assumption that Big 4 auditing firms—whose auditors are more experienced than those in other auditing firms—are more likely to encourage their clients to provide additional information (Haniffa and Cooke 2002). The addition of voluntary information enhances the quality of annual reports. According to signalling theory, managers might appoint an auditor who is a member of the Big 4 to signal the quality and reliability of their annual reports (Hossain et al. 1995).

As shown in Table 7.11 and 7.12, the coefficients for the control variables are generally consistent with expectation. For example, firm size, firm age and profitability are significantly positively correlated with the level of MD. Meanwhile, firm size and firm age are significantly positively correlated with the level of VD; profitability also correlates positively with the level of VD, although this relationship is not significant. Table 7.15 and 7.16 summarise the relationships of the CG characteristics with MD and VD.

Table 7.15: Summary of the relationships of board characteristics with MD

Independent variable	MD			
	Predicted sign	OLSR	Tobit	Result
Size of board of directors	+	+***	+***	Supported
Independent directors	+	-	-	Not supported
CEO role duality	-	-***	-***	Supported
Gender diversity	+	-	-	Not supported
Member of the ruling family	-	-*	-*	Supported
Audit firm	+	+	+	Not supported

***,**,* Significant at the 1%,5% and 10% levels, respectively.

Table 7.16: Summary of the relationships of board characteristics with VD

Independent variable	VD				
	Predicted sign	**OLSR**	**T-OLSR**	**Tobit**	**Result**
Size of board of directors	+	+	+	+	Not supported
Independent directors	+	-***	-***	-***	Not supported
CEO role duality	-	-***	-***	-***	Supported
Gender diversity	+	+***	+***	+***	Supported
Member of the ruling family	-	-***	-***	-***	Supported
Audit firm	+	+***	+**	+***	Supported

***,**,* Significant at the 1%,5% and 10% levels, respectively.

7.6 Robustness Analysis

A number of additional analysis techniques were carried out in this study to ensure the robustness of the findings. Some researchers have stated that the main issue in the field of finance and accounting is endogeneity (Aebi et al. 2012). Therefore, the researcher here sought to address any potential endogeneity issues in the data in the following ways.

First, and as explained in Chapter 5, the items in the VD and MD are weighted equally. However, the proportion of these items varies across the five subindices for the VD index and 27 standards for the MD index, resulting in various weights being allotted to each subindex. Consequently, in line with Albassam and Ntim (2017); Alnabsha et al. (2018); Haddad et al. (2015); Hodgdon et al. (2009); Sarhan and Ntim (2019), alternative indexes (W-MD and W-VD indexes) were developed in which each subgroup and standard was allotted an equivalent to determine if the findings were robust and impervious to the weighting of each subindex and standard. The results presented in Table 7.17 are similar to the main results presented in Table 7.11 and 7.12, which confirms that the findings of this study are robust to whether weighted or unweighted indices are used to measure the extent of MD and VD.

Table 7.17: Results for the weighted index

Variable	Weighted index					
	MD			VD		
	Coef.	T-stat.	p	Coef.	T-stat.	p
Foreign ownership	.356	8.06	.000***	.233	3.19	.002***
State ownership	.146	6.75	.000***	.185	5.39	.000***
Family ownership	.062	3.64	.000***	.015	0.28	.783
Size of board of directors	.004	2.14	.033**	.004	1.25	.212
Independent directors	–.039	–2.31	.022**	–.106	–3.87	.000***
CEO role duality	–.013	–1.91	.057*	.040	4.11	.000***
Gender diversity	–.021	–0.63	.528	.508	10.61	.000***
Member of the ruling family	–.013	–2.24	.026**	–.050	–5.19	.000***
Audit firm	.004	0.61	.543	.034	3.66	.000***
All control variables	Included			Included		
Year fixed effect	Included			Included		
Industry dummies	Included			Included		
Constant	.608	30.61	.000***	.315	8.19	.000***
No. observations	360			360		
F	39.93			38.94		
Prob > F	.000			.000		
Adjusted R–squared	66.12%			58.40%		

***,**,* Significant at the 1%,5% and 10% levels, respectively

Second, and as discussed in Chapter 5, this study used a dichotomous method (Cooke's method) to score the MD/VD indices. However, Nerantzidis (2018) stated that 'weighting in CG indices matters and we recommend simultaneous application of at least two methods (i.e., the PC unweighted, the dichotomous method) for deriving robust findings'. Moreover, Cooke (1998) claimed that the 'success' of dichotomous or PC methods is based on the structure of the data and that 'no one procedure is best but that multiple approaches are helpful to ensure the results are robust across methods' (p. 209). Consequently, following these propositions and in line with prior studies (e.g., Nerantzidis and Tsamis (2017); Tsalavoutas (2011), this study adopted the PC method to score the MD and VD indices. Based on the PC method, the following formula was used in this study for the measurement of disclosure scores:

$$PC_j = \frac{\sum_{i=1}^{n} x_i}{R_j}$$

This formula represents the ratio of the disclosure level with every standard of criterion (Xi) to the sum of the applicable standards or criteria for every company (Rj). The findings from the PC method are reported in Table 7.18, and are qualitatively similar to the main study findings shown in Table 7.11 and 7.12. This strongly supports the robustness of the study's outcomes, regardless of whether items of the MD and VD indices are scored using the PC or dichotomous method.

Table 7.18: Results for the PC method

Variable	PC method					
	MD			VD		
	Coef.	**T-stat.**	**p**	**Coef.**	**T-stat.**	**p**
Foreign ownership	.831	9.83	.000***	.498	3.66	.000***
State ownership	.348	8.30	.000***	.356	5.41	.000***
Family ownership	.225	6.41	.000***	.062	1.41	.161
Size of board of directors	.007	2.17	.030**	.012	1.95	.152
Independent directors	–.047	–1.52	.129	–.244	–4.32	.000***
CEO role duality	–.040	–3.21	.001***	–.098	–4.81	.000***
Gender diversity	–.016	–0.27	.874	.936	9.82	.000***
Member of the ruling family	–.024	–2.04	.042**	–.112	–5.59	.000***
Audit firm	.011	1.08	.281	.058	3.12	.002***
All control variables	Included			Included		
Year fixed effect	Included			Included		
Industry dummies	Included			Included		
Constant	.203	5.23	.000***	–427	–5.57	.000***
No. observations	360			360		
F	67.49			31.255		
Prob > F	.000			.000		
Adjusted R-squared	76.9%			60.2		

***,**,* Significant at the 1%,5% and 10% levels, respectively

Third, Clark and Linzer (2015); Ntim et al. (2012); Platonova et al. (2018) considered that the behaviour of CG disclosure may be jointly and dynamically influenced by unobserved firm-specific heterogeneities, which pooled OLS regression may fail to acknowledge (Elmagrhi et al. 2016; Gujarati 2009; Petersen 2009). Thus, in line with Albassam and Ntim (2017); Jizi et al. (2014); Sarhan and Ntim (2019), by specifying the panel nature of the research dataset, the researcher estimated a fixed-effects model[3] to account for any potential unobserved company-specific traits. This involved re-running the MD and VD models, including 119 dummies for the representation of the 120 sampled firms. The outcomes in Table 7.19 are qualitatively similar to the main results of this study presented in Table 7.11 and Table 7.12. From a statistical standpoint, it can be argued the study outcomes are robust and not sensitive to potential unobserved firm-specific heterogeneity.

Table 7.19 Results for the fixed-effects method

Variable	Fixed effect					
	MD			VD		
	Coef.	T-stat.	p	Coef.	T-stat.	p
Foreign ownership	.034	1.73	.085*	.048	1.95	.053*
State ownership	.033	1.82	.070*	.193	2.24	.026**
Family ownership	.304	6.77	.000***	.189	3.35	.001***
Size of board of directors	.011	9.54	.000***	–.001	–0.35	.724
Independent directors	.008	0.74	.462	–.011	–0.84	.040**
CEO role duality	–.010	–3.11	.002***	–.006	–1.56	.012**
Gender diversity	.041	2.29	.023**	.098	4.41	.000***
Member of the ruling family	–.013	–2.63	.009***	–.018	–2.87	.004 ***
Audit firm	–.002	–0.46	.644	.002	0.37	.712
All control variables	Included			Included		
firms dummies	Included			Included		
Constant	.319	8.88	.000***	.160	3.56	.000***
No. observations	120			120		
F	32.87			65.83		
Prob > F	.000			.000		
Adjusted R–squared	67.11%			42.58%		

***,**,* Significant at the 1%,5% and 10% levels, respectively.

[3] The Hausman (1978) test was used to choose between a fixed-effects and random-effects panel data model. It specified that a fixed-effects model is appropriate.

Table 7.20: Results of cross-sectional regression

Variable	MD						VD					
	2015		2016		2017		2015		2016		2017	
	Coef.	p	Coef.	*p*	Coef.	*p*	Coef.	*p*	Coef.	*p*	Coef.	*p*
Foreign ownership	.431	.000***	.369	.000***	.366	.000***	.241	.103	.193	.131	.302	.019***
State ownership	.116	.000***	.145	.000***	.179	.000***	.243	.001***	.177	.005***	.154	.010***
Family ownership	.089	.000***	.088	.000***	.117	.000***	.009	.856	.012	.789	.046	.276
Size of board of directors	.006	.021**	.003	.228	.003	.327	.002	.757	.004	.514	.008	.181
Independent directors	–.014	.557	–.020	.456	–.006	.826	–.111	.052*	–.129	.015**	–.108	.048**
CEO role duality	–.018	.053*	–.027	.005***	–.000	.098*	–.061	.005***	–.065	.001***	–.000	.099*
Gender diversity	.103	.110	–.051	.307	.001	.980	.539	.000***	.536	.000***	.497	.000***
Member of the ruling family	–.005	.597	–.009	.344	–.015	.164	–.054	.010**	–.064	.001***	–.057	.006***
Audit firm	.010	.193	–.004	.638	–.001	.943	.021	.245	.036	.040**	.033	.052**
All control variables	Included		Included		Included		Included		Included		Included	
Constant	.594	.000	.636	.000	.617	.000	.327	.000	.297	.000	.228	.000
No. observations	120		120		120		120		120		120	
F	28.15		25.48		20.191		8.49		11.87		12.80	
Prob > F	.000		.000		.000		.000		.000		.000	
Adjusted R–squared	78.5%		76.7%		72.1%		50.2%		59.4%		61.3%	

***,**,* Significant at the 1%,5% and 10% levels, respectively.

Fourth, Ntim and Soobaroyen (2013) stated that the time period of any study may be hold over time or influenced by increasing interest in adopting additional disclosure matters. Following this proposition and in line with prior studies such as those of Muttakin et al. (2015); Ntim and Soobaroyen (2013), this study estimated yearly regressions in addition to pooled ones. The yearly regression results reported in Table 7.20 are mostly unchanged over the time. Moreover, a Chow test was applied to assess shifts in the values of the independent variables over time. The cross-period Chow tests for the significance of explanatory variables suggest no significant shift in coefficients over time. This suggests that the findings of the study are robust in nature and not sensitive to whether MD and VD models are estimated by yearly cross-sectional models or pooled model.

Fifth, to address the potential problem of endogeneity that may arise from the simultaneous association between board or ownership mechanisms, and VD and MD (Larcker and Rusticus 2010), the researcher provides a lagged structure estimation (i.e., with the introduction of a 1-year gap between VD and MD, and ownership or board mechanisms), whereby the VD and MD for the current year depend on board or ownership mechanisms of the previous year. The utilisation of a lagged variable is also in line with Enache and Hussainey (2019); Jizi et al. (2014); Nahar et al. (2016). As with previous robustness checks, the outcomes presented in Table 7.21 are similar to the main results presented in Table 7.11 and Table 7.12, suggesting that, in general, the findings of this study are robust to potential endogeneity issues resulting from the simultaneous association between ownership or board mechanisms, and VD and MD. In summary, the results of this additional analysis indicate that there are no endogenous associations driving the findings of this study.

Table 7.21: Results for the lagged variables method

Variable	Lagged method					
	MD			VD		
	Coef.	T-stat.	*p*	Coef.	T-stat.	*p*
Foreign ownership	.297	6.80	.000***	.184	2.19	.029**
State ownership	.096	4.88	.000***	.181	4.79	.000***
Family ownership	.013	3.01	.003***	.023	2.79	.104
Size of board of directors	.006	3.57	.000***	.005	1.40	.161
Independent directors	–.055	–3.43	.113	–.122	–3.96	.000***
CEO role duality	–.030	–5.08	.000***	–.063	–5.48	.000***
Gender diversity	.064	1.70	.089*	.509	7.10	.000***
Member of the ruling family	–.010	–1.62	.106	–.054	–4.77	.000***
Audit firm	.008	1.52	.129	.023	2.30	.022**
All control variables	Included			Included		
Year fixed effect	Included			Included		
Industry dummies	Included			Included		
Constant	.661	33.21	.000	.314	8.23	.000
No. observations	360			360		
F	50.14			24.21		
Prob > F	.000			.000		
Adjusted R–squared	71.1%			53.8%		

***,**,* Significant at the 1%,5% and 10% levels, respectively.

Finally, corporate disclosure behaviour and CG mechanisms may become "sticky" across time (Brown et al. 2011). Moreover, a lagged variables method might not be fit to fully address the endogeneity that may emerge as an outcome of omitted variable(s) bias (Elmagrhi et al. 2016). Thus, in line with Elmagrhi et al. (2016); Nahar et al. (2016); and Sarhan and Ntim (2019) two-stage least squares (2SLS) regression analysis was employed to re-examine the relationships in the MD and VD models.

A Durbin–Wu–Hausman endogeneity test (DWH) was adopted to check if there is an endogenous correlation between the MD/VD and ownership/board variables (Beiner et al. 2006). The DWH test showed the existence of an endogeneity issue in the MD and VD models, so adopting the 2SLS regression analysis might be more appropriate than the OLS regression. Consequently, and following Beiner et al. (2006); Elmagrhi et al. (2016); and Ntim et al.

(2013), in the first stage, the study estimated that the ownership and board variables are affected by the control variables. In the second stage, the predicted values of ownership and board variables were utilized as instrumental variables to re-estimate the OLS MD and VD models. The outcomes from the 2SLS analysis, presented in Table 7.22, are qualitatively the same as the main study results shown in Tables 7.11 and 7.12. Consequently, the conclusion is that the outcomes of the OLS models are robust to the potential endogeneity problem that could arise from the omitted variable.

Table 7.22: Results for the 2SLS regression

Variable	2SLS Regression					
	MD			VD		
	Coef.	Sig (1SLS)	Sig (2SLS)	Coef.	Sig (1SLS)	Sig
Foreign ownership	.374	0.000***	.000***	.248	0.001***	.001***
State ownership	.151	0.000***	.000***	.196	0.000***	.000***
Family ownership	.102	0.000***	.000***	.026	0.253	.306
Size of board of directors	.004	0.003***	.009***	.005	0.131	.137
Independent directors	-.019	0.178	.187	-.117	0.000***	.000***
CEO role duality	-.018	0.002***	.002***	-.047	0.000***	.000***
Gender diversity	-.002	0.942	.946	.505	0.000***	.000***
Member of the ruling family	-.009	0.083*	.107	-.058	0.000***	.000***
Audit firm	.003	0.560	.585	.029	0.003***	.003***
All control variables	Included			Included		
Year fixed effect	Included			Included		
Industry dummies	Included			Included		
Constant	.609	.000	.000	.289	.000	.000
Number of obs	360			360		
F	69.02			30.57		
Prob > F	.000			.000		
Adjusted R-squared	77.3%			59.7%		
***,**,* Significant at the 1%,5% and 10% levels, respectively						

7.7 Conclusion

This chapter empirically identified relationships between the dependent variables (MD and VD) and the independent variables (ownership structure and board characteristics) in KSA-listed firms for the period 2015–17. The findings of the multivariate analysis for MD indicate that foreign ownership, state ownership, family ownership and board size have a significant positive association with the level of MD, whereas independent directors and CEO duality have a significant negative association with MD levels.

For VD, foreign ownership, state ownership, gender diversity and type of audit firm have a significant positive association with the level of disclosure, whereas independent directors, CEO duality and the presence of a member of the ruling family on the board have a significant negative association with this type of information disclosure. The next chapter summarises the results of this study, describes its limitations and contributions and offers some suggestions for future research.

Chapter 8: Conclusion

8.1 Introduction

This chapter concludes the study by reviewing its main findings in relation to the study questions. Section 8.2 discusses the research question and methodology. Section 8.3 describes the main findings, and Section 8.4 identifies the study's contributions. The chapter concludes with an analysis of the limitations of the study and suggestions for future research in Section 8.5.

8.2 Research Question and Methodology

This study aimed to measure the extent to which KSA-listed firms provide voluntary and mandatory information disclosures in their annual reports and to determine whether the level of VD and MD is associated with any CG mechanisms (board characteristics or ownership structure): in particular, following the adoption of several significant corporate reforms in the KSA, including the IFRS in 2013, the CG Code in 2008, the updated CG Code in 2015 and the opening of the Saudi Stock Exchange to foreign investment in 2015. The objectives of this study are as follows:

- Objective 1: To measure the extent of mandatory and voluntary disclosure in the annual reports of KSA-listed firms in the period 2015–17.
- Objective 2: To investigate whether there was any significant change in the levels of voluntary and mandatory disclosure provided in the annual reports of KSA-listed firms in the period 2015–17.
- Objective 3: To investigate whether there is any important association between corporate governance mechanisms (ownership structure and board characteristics) and the extent of mandatory and voluntary disclosure in the annual reports of KSA-listed firms.

To measure the extent of MD and VD, two disclosure indices were developed to aid analysis of the MD and VD in firms' annual reports. The MD index includes disclosure and assessment components for a total of 370 items; these items were based on the 27 IAS/IFRS that applied to KSA-listed firms for the period 2015–17. The VD index includes 82 items of VD information divided into five categories: (1) CS, (2) FPCM, (3) FI, (4) DSM and (5) CSR. The extent of MD and VD information in each category from 2015 to 2017 was analysed using descriptive statistics. To determine whether there were any significant changes in MD and VD levels during the studied period, MD and VD levels were analysed year by year; the data were also analysed using a Wilcoxon signed-rank test and a Friedman rank test.

To investigate whether there is any significant association between CG mechanisms and the extent of MD and VD, nine hypotheses were formulated based on previous disclosure studies, the KSA business environment and the proposed theoretical framework. These hypotheses were divided into two categories: those addressing corporate board characteristics and those addressing factors related to ownership structure. The latter factors include foreign, state and family ownership; board characteristics include independent directors, board of directors size, gender diversity, CEO role duality, the presence of a member of the ruling family on the board and auditing firm type. The hypotheses were tested using a number of statistical tools, including univariate and multivariate analysis, as described in Chapter 7. The results of the research are presented in the following section.

8.3 Summary of Main Findings

This empirical evaluation of the findings consisted of two stages. In the first, MD and VD levels and trends among KSA-listed firms from 2015 to 2017 were measured. The second stage investigated whether any significant correlations exist between the levels of MD and VD (dependent variables) and corporate board characteristics and ownership structure (independent variables).

8.3.1 The Extent of Mandatory and Voluntary Disclosure

Chapter 6 presents the empirical findings regarding the extent of MD and VD and their development over time, to achieve the first and second objectives of this study. The overall average MD index score for the study period (2015–17) was 72.75%, with a range of 53–88%. In 2015 and 2016, the means were 71.45% and 71.98%, respectively. In 2017, the mean had increased to around 74.82%, with a range of 57–88%. These results suggest that MD increased in 2017. Moreover, the Wilcoxon and Friedman rank test results confirm that the extent of MD provided by KSA-listed firms increased significantly from 2015 to 2016 and again from 2016 to 2017. This increase in MD could be related to the regulatory reforms of the previous 5 years, which culminated in the issuance of the amended companies act, a new CG Code and new financial reporting guidelines. This increase may also be attributed to KSA-listed firms' accumulation of experience and expertise in the implementation of standards during the studied period.

Of the 120 sampled firms, no company provided more than 90% of MD during the study period. In 2015, only 20 of the 120 firms (17%) provided more than 80% of MD; the remaining 100 firms (83%) disclosed less than 80%. In 2016, 21 firms (18%) provided more than 80% of MD, and the remaining 99 firms (82%) provided less than 80%. In 2017, 34 of the 120 firms (28%) disclosed more than 80% of MD, and the remaining 86 firms (72%) disclosed less than 80%. The overall average MD (72.75%) in the KSA is less than that found in disclosure studies in developed markets. It is, however, consistent with the findings of similar studies in developing markets.

The level of MD for different standards was also examined. The highest score for MD was 100% for IFRS10 ('Consolidated Financial Statements'), and the lowest was 57% for IAS36 ('Impairment of Assets'). All MD standards were also ranked according to the average extent of MD. The five standards with the highest MD levels were IFRS10, 'Consolidated Financial Statements'; IAS23, 'Borrowing Costs'; IAS28, 'Investments in Associates and Joint Ventures'; IAS27, 'Separate Financial Statements'; and IAS18, 'Revenue'. The five MD standards with the lowest average levels of MD were IAS16, 'Property, Plant and Equipment'; IFRS13, 'Fair Value Measurement'; IAS40, 'Investment Property'; IFRS14, 'Regulatory Deferral Accounts'; and IAS36, 'Impairment of Assets'.

Generally, the findings show that KSA-listed companies do not fully comply with KSA financial standards requirements. One reason for the failure to fully disclose is that developing markets such as the KSA have inadequate capital markets, accounting systems and enforcement bodies, hindering compliance with MD requirements. The prevalence of low MD levels may also be attributed to the cost of disclosure. In other words, the monitoring agencies in charge of KSA capital markets have insufficient authority, so the cost of noncompliance may be lower than the cost of compliance. It can also be inferred that noncompliance is prevalent because of inadequate enforcement measures. For example, the Saudi Ministry of Commerce and Investment has not actively taken steps to penalise companies for nondisclosure. Instead, defaulting firms are only cautioned.

The sampled listed firms do, however, provide a moderate amount of VD in their annual reports. The average VD index from 2015 to 2017 was 36.49%, ranging from 16% to 70%. The means were 35.55%, 36.18% and 37.74% in 2015, 2016 and 2017, respectively, indicating that VD increased somewhat from 2015 to 2017. In addition, the Wilcoxon and Friedman ranked test results confirm that the extent of VD provided by KSA-listed firms increased significantly from 2015 to 2016 and again from 2016 to 2017. This increase could be linked to auditors' and firms' accumulation of experience.

The average VD of KSA-listed firms for the studied period was 36.49%, which is low. However, compared with other emerging and developed markets, KSA firms provide a good amount of VD. In this study, none of the 120 sampled firms provided more than 70% of VD from 2015 to 2017. In 2015, only 6 of the 120 firms (5%) provided more than 60% of VD, and the remaining 115 firms (95%) provided less than 60%. In 2016, only 7 of the 120 firms (6%) provided more than 60% of VD, and the remaining 114 firms (94%) provided less than 60%. In 2016, only 8 of the 120 firms (7%) provided more than 60% of VD, and the remaining 113 firms (93%) provided less than 60%.

VD levels for the different categories were also compared. The area with the highest VD score was DSM, with 72% VD; the lowest-scoring area was CSR, with 20%. All VD items were ranked based on their average amount of disclosure. The five items with the highest average levels of VD were 'Number of board of directors meetings held and date', 'A brief history of the firm', 'Background information about members of the audit committees', 'Picture showing the senior management team' and 'Names of the directors'. The five items with the lowest average levels of VD were 'General information about employees' retrenchment and/or redundancy', 'Participation during state social campaigns', 'Firm's policies on employee training programs', 'Main financial data (quantitative) forecasts (EPS, sales revenues, profit)' and 'Statement about number of fatalities, lost days and standard injury and absentee rates'. Table 8.1 summarises the main findings regarding levels of MD and VD and changes in disclosure levels during the period 2015–17.

Table 8.1: Summary of the main findings—MD and VD and changes in disclosure levels

MD and VD 2015–17

Year	No. of firms	MD			VD		
		Min.	Max.	Mean	Min.	Max.	Mean
2015	120	54%	87%	71.45%	16%	66%	35.55%
2016	120	53%	87%	71.98%	16%	67%	36.18%
2017	120	57%	88%	74.82%	17%	70%	37.74%
Pooled	360	53%	88%	72.75%	16%	70%	36.49%

Changes in the level of MD and VD

Wilcoxon signed-rank test

Year	MD		VD	
	p	Result	*p*	Result
2015–16	.002	Positive and significant	.002	Positive and significant
2016–17	.000	Positive and significant	.000	Positive and significant

Friedman rank test

<table>
<tr><th rowspan="2">Year</th><th colspan="2">MD</th><th colspan="2">VD</th></tr>
<tr><th>Mean rank</th><th>p</th><th>Mean rank</th><th>p</th></tr>
<tr><td>2015</td><td>1.38</td><td rowspan="3">.000
Positive and significant</td><td>1.53</td><td rowspan="3">.000
Positive and significant</td></tr>
<tr><td>2016</td><td>1.73</td><td>1.81</td></tr>
<tr><td>2017</td><td>2.89</td><td>2.66</td></tr>
</table>

8.3.2 Relationship between Corporate Governance Mechanisms and the Extent of Mandatory and Voluntary Disclosure

To address the third objective of this study, Chapter 7 provides a detailed discussion of the empirical findings regarding the association between CG mechanisms (ownership structure and corporate board characteristics) and the extent of MD. The level of MD is positively and significantly associated with some factors, including foreign ownership, state ownership, family ownership and the size of the board of directors. However, MD level has a negative and significant relationship with CEO role duality and with the presence of a member of the ruling family on the board. The remaining factors—independent director, gender diversity and audit firm type—have no relationship with the level of MD in the annual reports of KSA-listed firms.

The level of VD has a positive and significant relationship with foreign ownership, state ownership, gender diversity and audit firm type. VD has a negative and significant relationship with independent directors, CEO role duality and the presence of a member of ruling family on the board. No significant relationship was found between VD and family ownership or the size of the board of directors. Table 8.2 summarises the main findings regarding the determinants of MD and VD.

Table 8.2: Summary of the main findings—Determinants of MD and VD

Dependent variable: MD					
Independent variables	**Hypothesis**	**Predicted sign**	**Findings**		**Hypothesis status**
			Sign	**Significance**	
Foreign ownership	H1a	+	+	Significant at 1% level	Supported
State ownership	H2a	+	+	Significant at 1% level	Supported
Family ownership	H3a	-	+	Significant at 1% level	Not supported
Size of board of directors	H4a	+	+	Significant at 1% level	Supported
Independent directors	H5a	+	-	Insignificant	Not supported
CEO role duality	H6a	-	-	Significant at 1% level	Supported
Gender diversity	H7a	+	-	Insignificant	Not supported
Member of ruling family on board	H8a	-	-	Significant at 10% level	Supported
Audit firm	H9a	+	+	Insignificant	Not supported
Dependent variable: VD					
Independent variables	**Hypothesis**	**Predicted sign**	**Findings**		**Hypothesis status**
			Sign	**Significance**	
Foreign ownership	H1b	+	+	Significant at 1% level	Supported
State ownership	H2b	+	+	Significant at 1% level	Supported
Family ownership	H3b	-	+	Insignificant	Not supported
Size of board of directors	H4b	+	+	Insignificant	Not supported
Independent directors	H5b	+	-	Significant at 1% level	Not supported
CEO role duality	H6b	-	-	Significant at 1% level	Supported
Gender diversity	H7b	+	+	Significant at 1% level	Supported
Member of ruling family on board	H8b	-	-	Significant at 1% level	Supported
Audit firm	H9b	+	+	Significant at 1% level	Supported

8.4 Contributions

This study makes several contributions to academic knowledge in the area of corporate accounting disclosure. It also adds to the increasing number of empirical studies on the relationship between CG mechanisms and levels of MD and VD. The specific contributions of this study are as follows.

8.4.1 Academic contribution

Frist, this study contributes to the existing body of disclosure studies because it is a longitudinal study, examining a period of 3 years. This study compares levels of MD and VD in KSA firms' corporate annual reports over a period of 3 years to identify changes during this time; particularly to determine whether disclosure levels changed after the implementation of economic reforms in the KSA stock market, which had occurred during the previous 5 years. Most peer-reviewed disclosure studies focusing on this region examined only MD and VD levels during 1 year (cross-sectional studies). Therefore, this study makes a significant contribution to the knowledge base by highlighting changes in levels of MD and VD over a period of time.

Second, this study contributes to the accounting literature by attempting to verify or invalidate the findings of other studies regarding the correlation between CG mechanisms and VD and MD in KSA-listed firms' annual reports. The findings of this study can be used as a foundation for future research. This study's findings indicate that users of KSA-listed firms' annual reports can expect greater levels of MD from firms with a high proportion of foreign ownership, state ownership or family ownership, as well as from firms with larger boards of directors. In addition, users of KSA-listed firms' annual reports can expect higher levels of VD from firms with a high proportion of foreign or state ownership, from those with a higher proportion of women on the board and from those audited by any of the Big 4 audit companies.

Third, this study also contributes the two self-constructed disclosure indices developed for use in the study: a MD index that includes 370 items required by the IAS/IFRS; and a VD index that includes 82 voluntary items. A variety of users (e.g., regulators, financial analysts and investors) can use these indices to evaluate the level of financial disclosure provided by public KSA companies. The indices can also be updated by adding new MD and VD items as appropriate. This makes the indices appropriate barometers for regulators, researchers and other users; they may be used in future studies, especially those focusing on GCC or MENA countries that have similar corporate environments and economic changes to those in the KSA.

Fourth, disclosure theories from developed economies were applied in this study to examine MD and VD in the annual reports of listed companies in the KSA, which is an emerging economy. Thus, the findings of this study provide evidence that disclosure theories (including agency, capital need, stewardship, signalling, political cost and stakeholder theory) used in developed economies are also suitable for describing MD and VD practices in emerging economies.

8.4.2 Practical contribution

Empirically, the following contributions are summarized as follows: first, this study contributes to the existing body of accounting disclosures by presenting new empirical evidence for the association of levels of MD and VD in KSA-listed firms' annual reports with corporate board characteristics and ownership structure. To date, few empirical studies have examined the influence of board characteristics and ownership structure on levels of MD and VD in KSA firms' annual reports. The board characteristics and ownership structure factors examined here were independent directors, CEO role duality, gender diversity, presence of a member of the ruling family on the board, audit firm characteristics, foreign ownership, state ownership and family ownership. Second, this thesis is the first to investigate the effects of these variables on the MD and VD of KSA-listed firms. Thus, this study contributes to an understanding of the reasons for variations in the levels of MD and VD in the annual reports of KSA-listed companies, making it a valuable addition to the academic knowledge base on this topic.

Third, this study has examined the effect of corporate board characteristics on the extent of MD compliance. As corporate disclosure is an important foundation for sound investments and for efficient, mature capital markets, one direct contribution of this research is that the characteristics found to positively affect VD and MD could be used as indicators of improvements in the quality and transparency of accounting reporting. In this respect, the study contributes to the knowledge on the determinants of corporate compliance with MD requirements. Those involved in the appointment of directors will find this study's results particularly useful since they reveal the effect of a board's makeup on compliance with disclosure rules and regulations.

Fourth, most listed companies in the KSA were included in this study. The exceptions were those that had been suspended from the KSA stock market and a small number for which the researcher was unable to obtain financial reports. This is different from previous studies, most of which analysed MD and VD practices based on only a small number of companies. Therefore, the results of this study can be expanded and generalised to the other public KSA companies not included in the study.

8.5 Implications for Policymakers

One important purpose of this study was to determine the level of VD and MD provided in the annual reports of listed Saudi firms from 2015 to 2017. IFRS adoption in any country will not improve reporting quality if enforcement of the regulations is weak (Daske and Gebhardt, 2006). When compliance is high, users of financial information have more confidence in taking important decisions and can easily compare financial reports across companies, jurisdictions and/or industries from multiple periods. However, if firms do not comply with regulations, their financial reports will not be reliable. The findings of this study have vital implications for enforcement bodies, regulators and investors in the KSA. If these users' objective is to ensure high levels of MD, there is sufficient room for future improvement. In the KSA, SOCPA and CMA are the main bodies regulating public companies' disclosure of business results and yearly reports. They are also accountable for the law's implementation and responsible for controlling the KSA stock market.

The findings of this study indicate that the extent of VD and MD in the yearly reports of listed KSA firms is very low. The findings also indicate that listed Saudi firms do not fully follow KSA financial standards requirements. This is a case of 'formal compliance': firms' financial reports indicate full compliance with the IFRS, but, in fact, the standards are only partially implemented. This non-compliance leads to questions regarding accounting quality in the KSA and demonstrates the shortcomings of the regulatory system. Consequently, it is necessary to improve the laws and regulations regarding adoption of KSA CG codes and to improve accounting standards. Governing institutions should also focus on penalties to encourage firms to comply with regulations.

This study concluded that enforcement bodies and regulators are vital drivers of the degree and nature of disclosures in the KSA stock market. These enforcement bodies and regulators are non-profit government organizations that link investors, brokers and the stock exchange with one another. Thus, it is very important for the KSA government should continue to support the enforcement bodies and regulators with experts and other resources, to reach their objectives. Enhancement of financial transparency and compliance and better CG practices in the KSA stock market may help improve the country's reputation and draw more foreign direct investments.

One important piece of the oversight system is auditing. The auditor's role is to offer an independent opinion on whether reported financial information is accurate and fair and fulfils all applicable accounting standards. However, despite prevailing concerns about non-compliance by Saudi firms, this issue was not highlighted by any auditor, nor did any expert opinion address non-compliance with standards in financial statements. Therefore, the qualifications required of auditors and accountants who are responsible for applying to promote compliance with the required IASs/IFRSs (including passing examinations for admission and professional training requirements) could encourage compliance with regulatory standards and could play a vital role in enhancing MD and VD by listed firms in the KSA.

A majority of KSA listed firms are modifying their rules to comply with CG codes and required standards; this improves their status in the stock market and can attract larger direct investments. Firms must follow some essential practices, including:

I. Truthfulness: The disclosed financial and non-financial information must precisely and accurately describe the firm's situation.

II. Timeliness: The information must be disclosed in time to enable investors to make decisions and react as quickly as possible.

III. Completeness: Sufficient data must be disclosed to enable investors to make informed decisions. Disclosed data must include financial and non-financial information.

IV. Accessibility: Disclosed data must be easily accessible, and it must be available to investors at a minimal cost.

V. Relevance: Disclosed information should be relevant to investment decisions.

The results described in chapter 6 indicate that Saudi firms' compliance with VD and MD gradually improved during the study period (from 2015 to 2017). This study has several implications. First, CG in the KSA needs reform. The updates to the KSA CG code released in

2015 have improved VD and MD. This suggests that, despite the fragile legal systems in developing countries such as the KSA (Bozec et al., 2010), government rules and regulations can improve CG practices in emerging countries and specifically in the KSA.

This study concludes that compliance is very low in some categories of VD, such as CEO compensation, which is rarely disclosed. This highlights the need for regulatory authorities to enforce compliance by Saudi firms; in particular, compliance with important CG provisions that could affect the rights of shareholders must be enforced. Furthermore, in this study, CSR compliance is lowest in VD index. This kind of disclosure could set investors' expectations for the modification of the motivation that disclosures of CSR have on the operations of the company, which is shown in the firm value. So, given the ability of CSR to protect firms' resources and assets, CMA should encourage firms to make these kinds of disclosures. Additionally, external auditors should be assigned to evaluate firms' internal control systems and to report any issues to shareholders.

In addition to the improvement in compliance seen throughout the sample, it was observed that compliance varied depending on the size of the company and the type of industry. Larger firms provide more VD. This is because large firms can carry the expense of governance implementation better than smaller ones. Large firms also experience agency issues because of their complex capital structures, so they have a greater need for more disclosures (Jensen and Meckling, 1976; Bebchuk and Weisbach, 2010). Therefore, legislation should distinguish between larger and smaller firms to balance the costs and benefits of compliance (Ammann et al., 2011). For instance, the establishment of board sub-committees should depend on firm size (i.e., small institutions may not need a remuneration committee).

The findings of this study also indicate that disclosure levels vary depending on the type of industry. This could be due to the nature of firm activities; different types of industries may need different levels of disclosure. Therefore, yearly reports should include two disclosure levels: (i) General disclosures required for all listed firms and (ii) Industry-specific disclosures which provide information about the status of the firm and its future in its industry.

This study also has some implications about the various mechanisms and factors that influence VD and MD. These factors must be considered in attempts to improve CG mechanisms. For example, the independence of board directors negatively affects VD and MD. As mentioned in chapter 7, this contradicts the suggestion in previous literature that director independence restricts opportunistic executives (Fama and Jensen, 1983), protects the welfare of stakeholders (Clarke, 1998) and allows companies to benefit from directors' experience and knowledge (Barako et al., 2006). This negative relationship has several implications: (i) There is no transparent mechanism for the selection of independent directors in Saudi firms because the power to appoint directors rests largely with shareholders, and (ii) Several independent directors in Saudi firms lack the necessary knowledge and experience. Therefore, CMA must define criteria for the selection of independent directors; this would ensure transparency. CMA should also verify the independence of director candidates to ensure that their contributions are effective and substantial.

This study also found that CEO duality negatively affects VD and MD. As mentioned in chapter 3, CEO duality means a strong CEO with the power to hide or misplace information, which can then reduce a firm's transparency. Therefore, due to the growing expectations and demands from the users of annual reports and due to the enormity of a CEO's job, it is not recommended that one person hold two important jobs at a company (such as chairperson and CEO). Separating the CEO from other roles creates a healthier balance of power, especially in large or complex institutions. This also allows the CEO to focus on the day-to-day management of the business; the chairperson can then focus on the board's growing responsibilities. Separating the roles of chairperson and CEO also ensures transparency and a continuous flow of information between these two parties, supporting effective decision making in the interests of shareholders and stakeholders.

Finally, the existence of a CG committee supports better governance practices (Ntim et al., 2012), particularly in countries that have recently adopted the concept of governance, such as the KSA. This study found that very few firms have such committees. Therefore, CMA should encourage large and small listed firms to establish CG committees to implement and monitor good CG practices.

8.6 Limitations and Recommendations for Future Research

This study analysed the MD and VD of KSA-listed companies. However, it was subject to some limitations that suggest directions for future research.

This study was limited to nonfinancial companies listed on the KSA stock market. Future similar studies might examine the financial and banking sector, as well as SMEs.

This study drew its data only from annual reports. However, corporate financial information is also presented to the public in other ways, including press releases, interim reports, the internet, conferences, investor relationships, prospectuses and analyst lists. In future studies, an investigation of other types of corporate communication would provide more insight into corporate financial disclosures.

This study was limited to firms listed on the KSA stock market. Additional cross-cultural or comparative studies of MD and VD practices in other emerging economies, especially Arab countries (where little research has been done) would enrich the existing knowledge base on corporate disclosure and its determinants in different countries.

This study employed content analysis. Further research on MD and VD might use different research methods such as case studies, surveys or interviews. This would add more in-depth knowledge to the body of work on corporate MD and VD. This study found that external auditors provide unqualified auditing advice when their clients (the listed companies) do not meet MD requirements. This poses questions about the quality and independence of the auditors of public KSA companies and about the role of auditors in ensuring compliance with MD specifications and other business rules and regulations. These questions could be addressed in future research.

This study was also limited by its selection of certain CG mechanisms and the absence of others, such as audit committee characteristics. Future research on this topic should include audit committee structure and size, board leadership and board members' qualifications in the independent variables.

Appendices

Appendix 5.1: Names of Nonfinancial Listed Companies in the KSA Stock Market

No	Name of Firm	No.	Name of firm
1	CHEMANOL	59	Qassim Agriculture
2	PETROCHEM	60	Tabuk Agriculture
3	SABIC	61	Saudi Fisheries
4	SAFCO	62	Sharqiya Dev Co
5	INDUSTRIALIZATION	63	Jouff Agriculture
6	ALUJAIN	64	Bishah Agriculture
7	NAMA CHEMICALS	65	Jazan Development
8	SIIG	66	SARCO
9	SAHARA PETROCHEMICAL	67	Saudi Advanced
10	YANSAB	68	Al Ahsa for Dev.
11	SIPCHEM	69	SISCO
12	ADVANCED	70	Assir
13	SAUDI KAYAN	71	Al Baha
14	PETRO RABIGH	72	Kingdom
15	HCC	73	Takween
16	NAJRAN CEMENT	74	BCI
17	CITY CEMENT	75	MA'ADEN
18	NORTHERN CEMENT	76	Astra Indust
19	ARAB CEMENT	77	ALSorayai
20	YAMAMAH CEMENT	78	Shaker
21	SAUDI CEMENT	79	Pharmaceutical
22	QASSIM CEMENT	80	Glass
23	SOUTHERN CEMENT	81	FIPCO
24	YANBU CEMENT	82	Maadaniyah
25	EASTERN CEMENT	83	Saudi Chemical
26	TABUK CEMENT	84	SPM
27	JOUF CEMENT	85	AlAbdullatif

No	Name of Firm	No.	Name of firm
28	A. OTHAIM MARKET	86	Saudi Export
29	MOUWASAT	87	ASLAK
30	EXTRA	88	MMG
31	DALLAH HEALTH	89	SSP
32	CARE	90	ALKHODARI
33	SASCO	91	Ceramic
34	THIM'AR	92	Gypsum
35	FITAIHI GROUP	93	Cables
36	JARIR	94	Saudi Industrial
37	ALDREES	95	Amiantit
38	ALHOKAIR	96	Pipes
39	ALKHALEEJ TRNG	97	Zamil Industrial
40	GAS and INDUSTRIALIZATION	98	AL Babtain
41	SAUDI ELECTRICITY	99	SVCP
42	STC	100	MESC
43	ETIHAD ETISALAT	101	Red Sea
44	ZAIN KSA	102	Real Estate
45	ATHEEB TELECOM	103	Taiba
46	ALMUTAKAMELA	104	Makkah
47	SAVOLA GROUP	105	Arriyadh Development
48	FOOD	106	Emaar E .C
49	SADAFCO	107	Jabal Omar
50	ALMARAI	108	Dar Al Arkan
51	ANAAM HOLDING	109	KEC
52	H B	110	Bahri
53	HERFY FOODS	114	SAPTCO
54	CATERING	115	Mubarrad
55	NADEC	116	Budget Saudi
56	Tihama	118	ALTAYYAR
57	SRMG	119	Hotels
58	SPPC	120	Shams

Appendix 5.2: List of International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS)

Standard number	**Name**	**Issue date**	**Effective date**
IFRS 1	First-time Adoption of International Financial Reporting Standards	2008	2009
IFRS 2	Share-based Payment	2004	2005
IFRS 3	Business Combinations	2008	2009
IFRS 4	Insurance Contracts	2004	2005
IFRS 5	Non-current Assets Held for Sale and Discontinued Operations	2004	2005
IFRS 6	Exploration for and Evaluation of Mineral Assets	2004	2006
IFRS 7	Financial Instruments: Disclosures	2005	2007
IFRS 8	Operating Segments	2006	2009
IFRS 9	Financial Instruments	2014	2018
IFRS 10	Consolidated Financial Statements	2011	2013
IFRS 11	Joint Arrangements	2011	2013
IFRS 12	Disclosure of Interests in Other Entities	2011	2013
IFRS 13	Fair Value Measurement	2011	2013
IFRS 14	Regulatory Deferral Accounts	2014	2016
IFRS 15	Revenue from Contracts with Customers	2014	2018
IFRS 16	Leases	2016	2019
IFRS 17	Insurance Contracts	2017	2021
IAS 1	Presentation of Financial Statements	2007	2009
IAS 2	Inventories	2003	2005
IAS 7	Statement of Cash Flows	1992	1994
IAS 8	Accounting Policies, Changes in Accounting Estimates and Errors	2003	2005
IAS 10	Events After the Reporting Period	2003	2005
IAS 11	Construction Contracts	1993	1995
IAS 12	Income Taxes	1996	1998
IAS 16	Property, Plant and Equipment	2003	2005
IAS 17	Leases	2003	2005
IAS 18	Revenue	1993	1995
IAS 19	Employee Benefits (2011)	2011	2013

Standard number	**Name**	**Issue date**	**Effective date**
IAS 20	Accounting for Government Grants and Disclosure of Government Assistance	1983	1984
IAS 21	The Effects of Changes in Foreign Exchange Rates	2003	2005
IAS 23	Borrowing Costs	2007	2009
IAS 24	Related Party Disclosures	2009	2011
IAS 26	Accounting and Reporting by Retirement Benefit Plans	1987	1988
IAS 27	Separate Financial Statements (2011)	2011	2013
IAS 28	Investments in Associates and Joint Ventures (2011)	2011	2013
IAS 29	Financial Reporting in Hyperinflationary Economies	1989	1990
IAS 32	Financial Instruments: Presentation	2003	2005
IAS 33	Earnings Per Share	2003	2005
IAS 34	Interim Financial Reporting	1998	1998
IAS 36	Impairment of Assets	2004	2004
IAS 37	Provisions, Contingent Liabilities and Contingent Assets	1998	1999
IAS 38	Intangible Assets	2004	2004
IAS 39	Financial Instruments: Recognition and Measurement	2003	2018
IAS 40	Investment Property	2003	2005
IAS 41	Agriculture	2000	2003

Appendix 5.3: Items Included in the Mandatory Disclosure Index

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	IFRS2: Share-based Payment: (12 mandatory items)	IFRS 2:	
	Did the entity have any share-based payment arrangements in the scope of IFRS 2? If 'YES'		
	A description of each type of share-based payment arrangement that existed at any time during the period, including the general terms and conditions of each arrangement.	Para. 45(a).	
	The number and weighted average exercise prices of share options for each of the following groups of options: i) outstanding at the beginning of the period; ii) granted during the period; iii) forfeited during the period; iv) exercised during the period; v) expired during the period; vi) outstanding at the end of the period; and vii) exercisable at the end of the period.	Para. 45(b).	
	For share options exercised during the period, the weighted average share price at the date of exercise; and	Para. 45(c)	
	For share options outstanding at the end of the period, the range of exercise prices and weighted average remaining contractual life.	Para. 45(d)	
	The entity shall disclose information that enables users of the financial statements to understand how the fair value of the goods or services received, or the fair value of the equity instruments granted, during the period was determined.	Para. 46	
	Has the entity measured the fair value of goods or services received as consideration for equity instruments of the entity indirectly, by reference to the fair value of the equity instruments granted? If 'YES'	Para 47	
	The entity shall disclose the following for share options granted during the period: a) the weighted average fair value of those share options at the measurement date; and b) information on how the fair value of the share options was measured.	Para 47(a)	
	The entity shall disclose the following for equity instruments other than share options granted during the period: a) the number and weighted average fair value of those equity instruments, determined at the measurement date; and b) information on how the fair value of the equity instruments was measured.	Para 47(b)	
	Has the entity measured directly the fair value of goods or services received during the period? If 'YES'	Para 48	
	The entity shall disclose how that fair value of the goods or services received was determined (e.g., Whether fair value was measured at a market price for those goods and services)	Para 48	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	The entity shall disclose information that enables users of the financial statements to understand the effect of share-based payment transactions on the entity's profit or loss for the period and on its financial position: a) the total expense recognised for the period arising from share-based payment transactions in which the goods or services received did not qualify for recognition as assets (and hence were recognised as an expense);	Para 50 and 51(a)	
	B) The portion of the total expense recognised for the period that arises from transactions accounted for as equity-settled share-based payment transactions.	Para 51(a)	
	C) The total carrying amount at the end of the period for liabilities arising from share-based payment transactions.	Para 51(b)	
	D) The total intrinsic value at the end of the period of liabilities arising from share-based payment transactions for which the counterparty's right to a cash or other assets had vested by the end of the period (e.g.**,** Vested share appreciation rights).	Para 51(b)	
	IFRS 3: Business Combinations (15 mandatory items)	IFRS 3:	
	Has the entity entered into a business combination during the current or prior reporting period? If 'YES'		
	The acquirer shall disclose information that enables users of its financial statements to evaluate the nature and financial effect of a business combination that occurs during the current reporting period.	Para 59(a)	
	For each business combination that occurs during the reporting period, the acquirer shall disclose: a) the name and description of the acquire;	Para B64(a)	
	b) the acquisition date;	Para B64(b)	
	c) The percentage of voting equity interests acquired.	Para B64(c)	
	d) The primary reason for the business combination and a description of how the acquirer obtained control of acquiring.	Para B64(d)	
	e) A qualitative description of the factors that make up the goodwill recognised, such as expected synergies from combining operations of the acquirer and the acquirer, intangible assets that do not qualify for separate recognition or other factors.	Para B64(e)	
	f) The acquisition-date fair value of the total consideration transferred and the acquisition-date fair value of each major class of consideration.	Para B64(f)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	g) For contingent consideration arrangements and indemnification assets: i) the amount recognised as of the acquisition date.	Para B64(g)	
	ii) a description of the arrangement and the basis for determining the amount of the payment;	Para B64(g)	
	iii) An estimate of the range of outcomes (undiscounted) or, if a range cannot be estimated, that fact and the reasons why a range cannot be estimated. If the maximum amount of the payment is unlimited, the acquirer shall disclose that fact.	Para B64(g)	
	h) for acquired receivables: i) the fair value of the receivables;	Para 40 and Para B64(h)	
	ii) the gross contractual amounts receivable; and	Para B64(h)	
	iii) the best estimate at the acquisition date of the contractual cash flows not expected to be collected;	Para B64(h)	
	i) the amounts recognised as of the acquisition date for each major class of assets acquired and liabilities assumed;	Para B64(i)	
	m) the disclosure of separately recognised transactions required by paragraph B64(l) shall include the amount of acquisition-related costs and, separately, the amount of those costs recognised as an expense and the line item or items in the statement of comprehensive income in which those expenses are recognised. The amount of any issue costs not recognised as an expense and how they were recognised shall also be disclosed.	Para B64(m)	
	IFRS 5: Non-current Assets Held for Sale and Discontinued Operations (15 Mandatory items)	IFRS 5	
	Did the entity have any non-current assets or disposal groups held for sale, or discontinued operations, during the current period or after the reporting period? If 'YES'; Did the entity have any non-current assets or disposal groups held for sale? If 'YES'.		
	Any increase in the present value of costs to sell that arises from the passage of time shall be presented in profit or loss as a financing cost.	Para 17	
	Did the entity cease to classify any non-current assets or disposal group as held for sale or held for distribution to owners during the period? If YES'.		

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	The entity shall : (i) Include any required adjustment to the carrying amount of a non-current asset that ceases to be classified as held for sale or as held for distribution to owners in profit or loss from continuing operations in the period in which the criteria in paragraphs 7–9 or 12A, respectively, are no longer met; (ii) present that adjustment in the same caption in the statement of comprehensive income used to present a gain or loss, if any, recognised in accordance with paragraph 37	Para 28	
	If either paragraph 26 or paragraph 29 of IFRS 5 applies (reclassification of assets or disposal groups that previously were classified as held for sale), an entity shall disclose, in the period of the decision to change the plan to sell the non-current asset (or disposal group), a description of the facts and circumstances leading to the decision and the effect of the decision on the results of operations for the period and any prior periods presented.	Para 42	
	Information regarding the financial effects of discontinued operations and disposals of non-current assets (or disposal groups): An entity shall present and disclose information that enables users of the financial statements to evaluate the financial effects of discontinued operations and disposals of non-current assets (or disposal groups).	Para 30	
	Did the entity have any discontinued operations? If ’YES’		
	Gains or losses relating to continuing operations: Any gain or loss on the re-measurement of a non-current asset (or disposal group) classified as held for sale that does not meet the definition of a discontinued operation shall be included in profit or loss from continuing operations.	Para 37	
	Presentation of a non-current asset or disposal group classified as held for sale: An entity shall present a non-current asset classified as held for sale and the assets of a disposal group classified as held for sale separately from other assets in the statement of financial position.	Para 38	
	The liabilities of a disposal group classified as held for sale shall be presented separately from other liabilities in the statement of financial position.	Para 38	
	Assets and liabilities classified as held for sale shall not be offset and presented as a single amount.	Para 38	
	The major classes of assets and liabilities classified as held for sale shall be separately disclosed either in the statement of financial position or in the notes (except as permitted by paragraph 39 of IFRS 5 – see guidance).	Para 38	
	Any cumulative income or expense recognised in other comprehensive income relating to a non-current asset (or disposal group) classified as held for sale shall be presented separately.	Para 38	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	An entity shall not reclassify or re-present amounts presented for non-current assets or for the assets and liabilities of disposal groups classified as held for sale in the statement of financial position for prior periods to reflect the classification in the statement of financial position for the latest period presented.	Para 40	
	Did the entity classify an asset or group of assets as non-current assets or disposal groups held for sale during the reporting period? If 'YES'		
	The entity shall disclose the following information in the notes of that period: a) a description of the non-current asset (or disposal group);	Para 41(a)	
	b) A description of the facts and circumstances of the sale, or leading to the expected disposal, and the expected manner and timing of that disposal;	Para 41(b)	
	c) The gain or loss recognised in accordance with paragraphs 20 to 22 of IFRS 5 (impairment losses and reversals) and, if not separately presented in the statement of comprehensive income, the caption in the statement of comprehensive income that includes that gain or loss; and	Para 41(c)	
	d) If applicable, the reportable segment in which the non-current asset (or disposal group) is presented in accordance with IFRS 8 Operating Segments.	Para 41(d)	
	IFRS 8: Segment Reporting (35 mandatory items)	IFRS 8	
	An entity shall disclose information to enable users of its financial statements to evaluate the nature and financial effects of the business activities in which it engages and the economic environments in which it operates: a) factors used to identify the entity's reportable segments, including the basis of the organisation; and	Para 22(a)	
	aa) The judgements made by management in applying the aggregation criteria in paragraph 12. This includes a brief description of the operating segments that have been aggregated in this way and the economic indicators that have been assessed in determining that the aggregated operating segments share similar economic characteristics.	Para 22(aa)	
	b) Types of products and services from which each reportable segment derives its revenues.	Para 22(b)	
	For each reportable segment, an entity shall report a measure of profit or loss	Para 23	
	An entity shall report a measure of total assets and liabilities for each reportable segment.	Para 23	
	An entity shall also disclose the following about each reportable segment if the specified amounts are included in the measure of segment profit or loss reviewed by the chief operating decision maker or are otherwise regularly provided to the	Para 23 (a)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	chief operating decision maker, even if not included in that measure of segment profit or loss: a) revenues from external customers;		
	b) revenues from transactions with other operating segments of the same entity;	Para 23 (b)	
	c) interest revenue;	Para 23 (c)	
	d) interest expense;	Para 23 (d)	
	e) depreciation and amortisation;	Para 23 (e)	
	f) material items of income and expense disclosed in accordance with paragraph 97 of IAS 1;	Para 23 (f)	
	g) the entity's interest in the profit or loss of associates and joint ventures accounted for by the equity method;	Para 23 (g)	
	h) income tax expense or income; and	Para 23 (g)	
	i) Material non-cash items other than depreciation and amortisation.	Para 23 (i)	
	An entity shall disclose the following about each reportable segment if the specified amounts are included in the measure of segment assets reviewed by the chief operating decision maker or are otherwise regularly provided to the chief operating decision maker, even if not included in the measure of segment assets: a) the amount of investment in associates and joint ventures accounted for by the equity method; and	Para 24(a)	
	b) The amounts of additions to non-current assets other than financial instruments, deferred tax assets, net defined benefit assets (see IAS 19 Employee Benefits) and rights arising under insurance contracts.	Para 24(b)	
	The amount of each segment item reported shall be the measure reported to the chief operating decision maker for the purposes of making decisions about allocating resources to the segment and assessing its performance.	Para 25	
	Adjustments and eliminations made in preparing an entity's financial statements and allocations of revenues, expenses, and gains or losses shall be included in determining reported segment profit or loss only if they are included in the measure of the segment's profit or loss that is used by the chief operating decision maker.	Para 25	
	Similarly, only those assets and liabilities that are included in the measures of the segment's assets and segment's liabilities that are used by the chief operating decision maker shall be reported for that segment.	Para 25	
	If amounts are allocated to reported segment profit or loss, assets or liabilities, those amounts shall be allocated on a reasonable basis.	Para 25	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	The reported measures shall be those that management believes are determined in accordance with the measurement principles most consistent with those used in measuring the corresponding amounts in the entity's financial statements.	Para 26	
	An entity shall provide an explanation of the measurements of segment profit or loss, segment assets and segment liabilities for each reportable segment: a) the basis of accounting for any transactions between reportable segments;	Para 27(a)	
	b) the nature of any differences between the measurements of the reportable segments' profits or losses and the entity's profit or loss before income tax expense or income and discontinued operations (if not apparent from the reconciliations described in paragraph 28 of IFRS 8	Para 27(b)	
	c) the nature of any differences between the measurements of the reportable segments' assets and the entity's assets (if not apparent from the reconciliations described in paragraph 28 of IFRS 8	Para 27(c)	
	d) the nature of any differences between the measurements of the reportable segments' liabilities and the entity's liabilities (if not apparent from the reconciliations described in paragraph 28 of IFRS 8	Para 27(d)	
	e) the nature of any changes from prior periods in the measurement methods used to determine reported segment profit or loss and the effect, if any, of those changes on the measure of segment profit or loss; and	Para 27(e)	
	f) The nature and effect of any asymmetrical allocations to reportable segments.	Para 27(f)	
	An entity shall provide reconciliations of all of the following: a) the total of the reportable segments' revenues to the entity's revenue;	Para 28(a)	
	b) the total of the reportable segments' measures of profit or loss to the entity's profit or loss before tax expense (tax income) and discontinued operations	Para 28(b)	
	c) the total of the reportable segments' assets to the entity's assets, and the total of the reportable segments' assets to the entity's assets if the segment assets are reported in accordance with paragraph 23;	Para 28(c)	
	d) the total of the reportable segments' liabilities to the entity's liabilities if segment liabilities are reported in accordance with paragraph 23 of IFRS 8 (see above); and	Para 28(d)	
	e) The total of the reportable segments' amounts for every other material item of information disclosed to the corresponding amount for the entity.	Para 28(e)	
	Do revenues from transactions with a single external customer amount to 10 per cent or more of an entity's revenues? If 'YES'	Para 34	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	The entity shall disclose that fact, the total amount of revenues from each such customer, and the identity of the segment or segments reporting the revenues.	Para 34	
	Information about products and services: An entity shall report the revenues from external customers for each product and service or each group of similar products and services unless the necessary information is not available and the cost to develop it would be excessive.	Para 32	
	Where the disclosures required under paragraph 32 of IFRS 8 are not made because the information is not available and the cost to develop it would be excessive, that fact shall be disclosed.	Para 32	
	IFRS 10: Consolidated Financial Statements (1 mandatory items)		
	Has the entity applied the Investment Entities: Applying the Consolidation Exception amendments? If 'YES'		
	An entity need only present the quantitative information required by paragraph 28(f) of IAS 8 for the annual period immediately preceding the date of initial application of this IFRS (the 'immediately preceding period'). An entity may also present this information for the current period or for earlier comparative periods, but is not required to do so.	Para C2A	
	IFRS 11: Joint Arrangements (7 mandatory items)	IFRS 10	
	Does the entity participate in a contractual arrangement with one or more parties to undertake an economic activity, which is subject to joint control? If 'YES'	Para 20	
	In respect of its interests in joint operations, does the joint operator recognise in its financial statements: a) its assets, including its share of any assets held jointly?	Para 20(a)	
	b) Its liabilities, including its share of any liabilities incurred jointly?	Para 20(b)	
	c) It's revenue from the sale of its share of the output arising from the joint operation?	Para 20(c)	
	d) Its share of the revenue from the sale of the output by the joint operation?	Para 20(d)	
	e) Its expenses, including its share of any expenses incurred jointly?	Para 20(e)	
	Has the reporting entity contributed or sold assets to a joint operation in which it is a joint operator? If 'YES'		
	Have gains and losses resulting from such a transaction been recognised only to the extent of the other parties' interests in the joint operation?	Para B34	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	Has a loss been recognised "fully" where the contribution or sale provides evidence of a reduction in the net realisable value of the assets to be sold or contributed to the joint operation or of an impairment loss?	Para B35	
	IFRS 12: Disclosure of Interests in Other Entities (9 mandatory items)	IFRS 12	
	Does the entity have any interests in other entities, for example, subsidiaries, joint arrangements (i.e., joint operations or joint ventures), associates or unconsolidated structured entities? If 'YES'		
	An entity shall disclose: a) the significant judgements and assumptions it has made in determining the nature of its interest in another entity or arrangement, in determining the type of joint arrangement in which it has an interest (paragraphs 7–9); and in determining that it meets the definition of an investment entity, if applicable (paragraphs 9A) ; and	Para 2 (a)	
	b) information about its interests in i) subsidiaries (paragraphs 10–19); ii) joint arrangements and associates (paragraphs 20–23); and iii) structured entities that are not controlled by the entity (unconsolidated structured entities) (paragraphs 24–31).	Para 2 (b)	
	An entity shall disclose: a) for each joint arrangement and associate that is material to the reporting entity: i) the name of the joint arrangement or associate.	Para 21(a)	
	ii) The nature of the entity's relationship with the joint arrangement or associate (by, for example, describing the nature of the activities of the joint arrangement or associate and whether they are strategic to the entity's activities).	Para 21(a)	
	iii) The principal place of business (and country of incorporation, if applicable and different from the principal place of business) of the joint arrangement or associate.	Para 21(a)	
	iv) The proportion of ownership interest or participating share held by the entity and, if different, the proportion of voting rights held (if applicable).	Para 21(a)	
	b) For each joint venture and associate that is material to the reporting entity: i) whether the investment in the joint venture or associate is measured using the equity method or at fair value.	Para 21(b)	
	ii) Summarised financial information about the joint venture or associate as specified in paragraphs B12 and B13: a) dividends received from the joint venture or associate.	Para B12(a)	
	b) summarised financial information for the joint venture or associate including, but not necessarily limited to current assets, non-current assets, current liabilities, non-current liabilities, revenue, profit or loss from continuing operations, post-tax profit or loss from discontinued operations, other comprehensive income, total comprehensive income.	Para B12(b)	
	IFRS 13: Fair Value Measurement (11 mandatory items)	IFRS 13	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	Does the entity have assets or liabilities that are measured at fair value on a recurring or non-recurring basis in the statement of financial position after initial recognition? If 'YES"		
	An entity shall disclose, at a minimum, the following information for each class of assets and liabilities measured at fair value on a recurring basis (including measurements based on fair value within the scope of IFRS 13) in the statement of financial position after initial recognition: a) the fair value measurement at the end of the reporting period.	Para 93 (a)	
	b) The level of the fair value hierarchy within which the fair value measurements are categorised in their entirety (Level 1, 2 or 3).	Para 93 (b)	
	c) For assets and liabilities held at the end of the reporting period: the amounts of any transfers between Level 1 and Level 2 of the fair value hierarchy, the reasons for those transfers, and the entity's policy for determining when transfers between levels are deemed to have occurred.	Para 93 (c)	
	d) for fair value measurements categorised within Level 2 and Level 3 of the fair value hierarchy: a description of the valuation technique(s) and the inputs used in the fair value measurement, for fair value measurements categorised within Level 3 of the fair value hierarchy, an entity shall provide quantitative information about the significant unobservable inputs used in the fair value measurement.	Para 93(d)	
	e) for fair value measurements categorised within Level 3 of the fair value hierarchy, a reconciliation from the opening balances to the closing balances, disclosing separately changes during the period attributable to the following: i) total gains or losses for the period recognised in profit or loss, and the line item(s) in profit or loss in which those gains or losses are recognised	Para 93(e)(i)	
	ii) Total gains or losses for the period recognised in other comprehensive income, and the line item(s) in other comprehensive income in which those gains or losses are recognised.	Para 93 (e)	
	iii) Purchases, sales, issues and settlements (each of those types of changes disclosed separately).	Para 93 (e)	
	iv) The amounts of any transfers into or out of Level 3 of the fair value hierarchy, the reasons for those transfers and the entity's policy for determining when transfers between levels are deemed to have occurred Transfers into Level 3 shall be disclosed and discussed separately from transfers out of Level 3.	Para 93 (e)	
	f) for fair value measurements categorised within Level 3 of the fair value hierarchy: i) the amount of the total gains or losses for the period in included in profit or loss that is attributable to the change in unrealised gains or losses relating to those assets and liabilities held at the end of the reporting period, the line item(s) in profit or loss in which the unrealised gains or losses are recognised.	Para 93(f)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	g) for fair value measurements categorised within Level 3 of the fair value hierarchy, a description of the valuation processes used by the entity (including, for example, how an entity decides its valuation policies and procedures and analyses changes in fair value measurements from period to period).	Para 93 (g)	
	i) For fair value measurements, if the highest and best use of a nonfinancial asset differs from its current use, an entity shall disclose that fact and why the nonfinancial asset is being used in a manner that differs from its highest and best use.	Para 93(i)	
	IFRS 14: Regulatory Deferral Accounts (11 mandatory disclosure)	IFRS 14	
	Is the entity applying IFRS 14? If ‘YES’		
	Has the entity presented in a separate line item in the statement of financial position: (a) the total of all regulatory deferral account debit balances; and (b) the total of all regulatory deferral account credit balances.	Para 20	
	Classification of movements in regulatory deferral account balances:		
	Has the entity presented in the other comprehensive income section of the statement of profit or loss and other comprehensive income, the net movement in all regulatory deferral account balances for the reporting period that relates to items recognised in other comprehensive income?	Para 22	
	Has the entity presented a separate line item in the profit or loss section of the statement of profit or loss and other comprehensive income, or in the separate statement of profit or loss, for the remaining net movement in all regulatory deferral account balances for the reporting period, excluding movements that are not reflected in profit or loss, such as amounts acquired?	Para 23	
	Has the entity disclosed for each type of rate-regulated activity the requirements of IFRS 14:30? (a) a brief description of the nature and extent of the rate-regulated activity and the nature of the regulatory rate-setting process;	Para 30	
	(b) The identity of the rate regulator(s). If the rate regulator is a related party (as defined in IAS 24 Related Party Disclosures), the entity shall disclose that fact, together with an explanation of how it is related;	Para 30	
	(c) how the future recovery of each class (i.e., each type of cost or income) of regulatory deferral account debit balance or reversal of each class of regulatory deferral account credit balance is affected by risks and uncertainty, for example: (i) demand risk (for example, changes in consumer attitudes, the availability of alternative sources of supply or the level of competition); (ii) regulatory risk (for example, the submission or approval of a rate-setting application or the entity’s assessment of the expected future regulatory actions); and (iii) other risks (for example, currency or other market risks).	Para 30	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	Has the entity disclosed the basis on which regulatory deferral account balances are recognised and derecognised, and how they are measured initially and subsequently, including how regulatory deferral account balances are assessed for recoverability and how any impairment loss is allocated?	Para 32	
	Has the entity disclose for each type of rate-regulated activity? (a) a reconciliation of the carrying amount at the beginning and the end of the period, in a table, unless another format is more appropriate. The entity shall apply judgement in deciding the level of detail necessary (see paragraphs 28–29), but the following components would usually be relevant: (i) the amounts that have been recognised in the current period in the statement of financial position as regulatory deferral account balances; (ii) the amounts that have been recognised in the statement(s) of profit or loss and other comprehensive income relating to balances that have been recovered (sometimes described as amortised) or reversed in the current period; and (iii) other amounts, separately identified, that affected the regulatory deferral account balances, such as impairments, items acquired or assumed in a business combination, items disposed of, or the effects of changes in foreign exchange rates or discount rates;	Para 33	
	(b) the rate of return or discount rate (including a zero rate or a range of rates, when applicable) used to reflect the time value of money that is applicable to each class of regulatory deferral account balance;	Para 33	
	(c) The remaining periods over which the entity expects to recover (or amortise) the carrying amount of each class of regulatory deferral account debit balance or to reverse each class of regulatory deferral account credit balance.	Para 33	
	Has the entity disclosed the impact of the rate regulation on the amounts of current and deferred tax recognised and any regulatory deferral account balance that relates to taxation and the related movement in that balance?	Para 34	
	IAS 1: Presentation of Financial Statements (81 mandatory disclosure)	IAS 1	
	A complete set of financial statements comprises a) a statement of financial position as at the end of the period;	Para 10(a)	
	b) a statement of profit or loss and other comprehensive income for the period;	Para 10(b)	
	c) a statement of changes in equity for the period:	Para 10(c)	
	d) a statement of cash flows for the period;	Para 10(d)	
	e) notes, comprising significant accounting policies and other explanatory information;	Para 10(e)	
	ea) comparative information in respect of the preceding period as specified in paragraphs 38 and 38A; and	Para 10(ea)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	f) When an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements in accordance with paragraphs 40A-40D of IAS 1, a statement of financial position as at the beginning of the preceding period.	Para 10(f)	
	All of the financial statements in a complete set of financial statements shall be presented with equal prominence.	Para 11	
	The financial statements shall present fairly the financial position, financial performance and cash flows of the entity.	Para 15	
	Did the entity whose financial statements comply with IFRSs, make an explicit and unreserved statement of such compliance in the notes?	Para 16	
	When preparing financial statements, management shall make an assessment of an entity's ability to continue as a going concern.	Para 25	
	An entity shall prepare financial statements on a going concern basis unless management either intends to liquidate the entity or to cease trading or has no realistic alternative but to do so.	Para 25	
	An entity shall prepare its financial statements, except for cash flow information, using the accrual basis of accounting.	Para 27	
	An entity shall present each material class of similar items separately in the financial statements.	Para 29	
	An entity shall present separately items of a dissimilar nature or function unless they are immaterial.	Para 29	
	An entity shall not offset assets and liabilities or income and expenses unless required or permitted by an IFRS.	Para 32	
	Has the entity undertaken in the course of its ordinary activities, other transactions that do not generate revenue but are incidental to the main revenue-generating activities?	Para 34	
	Where an entity undertakes, in the course of its ordinary activities, transactions that do not generate revenue but that are incidental to its main revenue-generating activities, the results of such transactions are presented by netting any income with the related expenses arising on the same transaction, when such presentation reflects the substance of the transaction or another event.	Para 34	
	An entity presents gains and losses arising from a group of similar transactions (e.g., foreign exchange gains and losses, or gains and losses arising on financial instruments held for trading) on a net basis unless the gains and losses are material, in which case the entity presents such gains and losses separately.	Para 35	
	Except when IFRSs permit or require otherwise, an entity shall present comparative information in respect of the preceding period for all amounts reported in the current period's financial statements.	Para 38	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	An entity shall include comparative information for narrative and descriptive information if it is relevant to understanding the current period's financial statements.	Para 38	
	An entity shall retain the presentation and classification of items in the financial statements from one period to the next, unless a) it is apparent, following a significant change in the nature of the entity's operations or a review of its financial statements, that another presentation or classification would be more appropriate having regard to the criteria for the selection and application of accounting policies in IAS 8; or	Para 45(a)	
	b) AN IFRS requires a change in presentation.	Para 45(b)	
	An entity shall clearly identify the financial statements and distinguish them from other information in the same published document.	Para 49	
	An entity shall clearly identify each financial statement and the notes.	Para 51	
	An entity shall display the following information prominently, and repeat it when it is necessary for the information presented to be understandable: a) the name of the reporting entity or other means of identification, and any change in that information from the end of the preceding reporting period;	Para 51(a)	
	b) whether the financial statements are of the individual entity or a group of entities;	Para 51(b)	
	c) the date of the end of the reporting period or the period covered by the set of financial statements or notes;	Para 51(c)	
	d) the presentation currency, as defined in IAS 21 The Effects of Foreign Exchange Rates; and	Para 51(d)	
	e) The level of rounding used in presenting amounts in the financial statements.	Para 51(e)	
	The statement of financial position shall include line items that present the following amounts: a) property, plant and equipment;	Para 54(a)	
	b) investment property;	Para 54(b)	
	c) intangible assets;	Para 54(c)	
	d) financial assets (excluding amounts shown under (e), (h) and (i) below);	Para 54(d)	
	e) investments accounted for using the equity method;	Para 54(e)	
	f) biological assets within the scope of IAS 41 Agriculture;	Para 54(f)	
	g) inventories;	Para 54(g)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	h) trade and other receivables;	Para 54(h)	
	i) cash and cash equivalents;	Para 54(i)	
	j) the total of assets classified as held for sale and assets included in disposal groups classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations;	Para 54(j)	
	k) trade and other payables;	Para 54(k)	
	l) provisions;	Para 54(l)	
	m) financial liabilities (excluding amounts shown under (k) and (l) above);	Para 54(m)	
	n) liabilities and assets for current tax, as defined in IAS 12 Income Taxes;	Para 54(n)	
	o) deferred tax liabilities and deferred tax assets, as defined in IAS 12;	Para 54(o)	
	p) liabilities included in disposal groups classified as held for sale in accordance with IFRS 5;	Para 54(p)	
	q) non-controlling interest, presented within equity; and	Para 54(q)	
	r) Issued capital and reserves attributable to owners of the parent.	Para 54(r)	
	Has the entity presented the line items in the statement(s) presenting profit or loss and other comprehensive income that reconcile any subtotals presented in accordance with paragraph 85 with the subtotals or totals required in IFRS for such statement(s)?	Para 85B	
	An entity shall not present any items of income or expense as extraordinary items, in the statement(s) presenting profit or loss and other comprehensive income, or in the notes.	Para 87	
	An entity shall recognise all items of income and expense in a period in profit or loss unless an IFRS requires or permits otherwise.	Para 88	
	An entity shall disclose the amount of income tax relating to each item of other comprehensive income, including reclassification adjustments, either in the statement of profit or loss and other comprehensive income or in the notes.	Para 90	
	An entity shall disclose reclassification adjustments relating to components of other comprehensive income.	Para 92	
	An entity may present reclassification adjustments in the statement(s) of profit or loss and other comprehensive income or in the notes.	Para 94	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	An entity presenting reclassification adjustments in the notes presents the items of other comprehensive income after any related reclassification adjustments.	Para 94	
	Information to be presented in the statement(s) of profit or loss and other comprehensive income or in the notes, When items of income and expense are material, an entity shall disclose their nature and amount separately.	Para 97	
	An entity shall present an analysis of expenses recognised in profit or loss using a classification based on either the nature of expenses or their function within the entity, whichever provides information that is reliable and more relevant.	Para 99	
	An entity classifying expenses by function shall disclose additional information on the nature of expenses, including depreciation and amortisation expense and employee benefits expense.	Para 104	
	Information to be presented in the statement of changes in equity: An entity shall present a statement of changes in equity as required by paragraph 10 of IAS 1. The statement of changes in equity includes the following information: a) total comprehensive income for the period, showing separately the total amounts attributable to owners of the parent and to non-controlling interests;	Para 106(a)	
	b) for each component of equity, the effects of retrospective application or retrospective restatement recognised in accordance with IAS 8; and	Para 106(b)	
	d) for each component of equity, a reconciliation between the carrying amount at the beginning and the end of the period, separately (as a minimum) disclosing changes resulting from: profit or loss; other comprehensive income; and transactions with owners in their capacity as owners, showing separately contributions by and distributions to owners and changes in ownership interests in subsidiaries that do not result in a loss of control.	Para 106 (d)	
	Information to be presented in the statement of changes in equity or in the notes: For each component of equity an entity shall present, either in the statement of changes in equity or in the notes, an analysis of other comprehensive income by item (see paragraphs 106(d)(ii)(above).	Para 106(a)	
	a) the number of dividends recognised as distributions to owners during the period, and	Para 107	
	b) The related amount of dividends per share.	Para 107	
	Structure of notes: The notes shall: a) present information about the basis of preparation of the financial statements and the specific accounting policies used in accordance with paragraphs 117-124 of IAS 1 (see below);	Para 112(a)	
	b) disclose the information required by IFRS that is not presented elsewhere in the financial statements; and	Para 112(b)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	c) Provide information that is not presented elsewhere in the financial statements, but is relevant to an understanding of any of them.	Para 112(c)	
	Has the entity (as far as practicable) presented the notes in a systematic manner?	Para 113	
	Disclosure of accounting policies: An entity shall disclose its significant accounting policies comprising: a) the measurement basis (or bases) used in preparing the financial statements; and	Para 117(a)	
	b) The other accounting policies used that are relevant to an understanding of the financial statements.	Para 117(b)	
	It is appropriate to disclose each significant accounting policy that is not specifically required by IFRS, but the entity selects and applies in accordance with IAS 8.	Para 121	
	Sources of estimation uncertainty: An entity shall disclose information about the assumptions it makes about the future, and other major sources of estimation uncertainty at the end of the reporting period, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year: In respect of such assets and liabilities, the notes shall include details of a) their nature; and	Para 125(a)	
	b) Their carrying amount as at the end of the reporting period.	Para 125(b)	
	An entity presents the disclosures in paragraph 125 of IAS 1 (see above) in a manner that helps users of financial statements to understand the judgements management makes about the future and about other sources of estimation uncertainty.	Para 129	
	When it is impracticable to disclose the extent of the possible effects of an assumption or another source of estimation uncertainty at the end of the reporting period, the entity discloses that it is reasonably possible, on the basis of existing knowledge, that outcomes within the next financial year that are different from assumptions could require a material adjustment to the carrying amount of the asset or liability affected. In all cases, the entity discloses the nature and carrying amount of the specific asset or liability (or class of assets or liabilities) affected by the assumption.	Para 131	
	a) the number of dividends proposed or declared before the financial statements were authorised for issue but not recognised as a distribution to owners during the period, and the related amount per share; and	Para 137(a)	
	b) The amount of any cumulative preference dividends not recognised.	Para 137(b)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	An entity shall disclose the following, if not disclosed elsewhere in information published with the financial statements: a) the domicile and legal form of the entity, its country of incorporation and the address of its registered office (or principal place of business, if different from the registered office);	Para 138 (a)	
	b) a description of the nature of the entity's operations and its principal activities;	Para 138(b)	
	c) the name of the parent entity and the ultimate parent of the group; and	Para 138 (c)	
	d) If it is a limited life entity, information regarding the length of its life.	Para 138(d)	
	IAS 2: Inventories (9 mandatory items)	IAS 2	
	Did the entity have inventories? If 'Yes'		
	The financial statements shall disclose: a) the accounting policies adopted in measuring inventories, including the cost formula used;	Para 36(a)	
	b) the total carrying amount of inventories;	Para 36(b)	
	c) the carrying amount of inventories in classifications appropriate to the entity;	Para 36(c)	
	d) the carrying amount of inventories carried at fair value less costs to sell;	Para 36(d)	
	e) the amount of inventories recognised as an expense during the period;	Para 36(e)	
	f) the amount of any write-down of inventories recognised as an expense in the period in accordance with paragraph 34 of IAS 2;	Para 36(f)	
	g) the amount of any reversal of any write-down that is recognised as a reduction in the amount of inventories recognised as expense in the period in accordance with paragraph 34 of IAS 2;	Para 36(g)	
	h) the circumstances or events that led to the reversal of a write-down of inventories in accordance with paragraph 34 of IAS 2; and	Para 36(h)	
	i) The carrying amount of inventories pledged as security for liabilities.	Para 36(i)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	IAS 7: Statement of Cash Flows (16 mandatory items)	IAS 7	
	The statement of cash flows shall report cash flows during the period classified by operating, investing and financing activities.	Para 10	
	Reporting cash flows from operating activities, An entity shall report cash flows from operating activities using either: a) the direct method, whereby major classes of gross cash receipts and gross cash payments are disclosed; or b) the indirect method, whereby profit or loss is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing cash flows.	Para 18(a,b)	
	An entity shall report separately major classes of gross cash receipts and gross cash payments arising from investing and financing activities, except to the extent that the cash flows described in paragraphs 22 and 24 of IAS 7 are reported on a net basis.	Para 21	
	Foreign currency cash flows; The effect of exchange rate changes on cash and cash equivalents held or due in a foreign currency is reported in the statement of cash flows in order to reconcile cash and cash equivalents at the beginning and the end of the period.	Para 28	
	Interest and dividends: Cash flows arising from interest and dividends received and paid shall each be disclosed separately.	Para 31	
	Cash flows from interest and dividends received and paid shall each be classified in a consistent manner from period to period as either operating, investing or financing activities.	Para 31	
	Has the entity provided disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes?	Para 44A	
	"Has the entity disclosed the following changes in liabilities arising from financing activities? (a) Changes from financing cash flows; (b) changes arising from obtaining or losing control of subsidiaries or other businesses; (c) the effect of changes in foreign exchange rates; (d) changes in fair values; and (e) other changes.	Para 44B	
	Has the entity disclosed changes in financial assets (for example, assets that hedge liabilities arising from financing activities) if cash flows from those financial assets were, or future cash flows will be, included in cash flows from financing activities?	Para 44C	
	Has the entity disclosed the changes in liabilities arising from financing activities separately from changes in those other assets and liabilities?	Para 44E	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	Components of cash and cash equivalents: An entity shall disclose the components of cash and cash equivalents.	Para 45	
	An entity shall present a reconciliation of the amounts for cash and cash equivalents in its statement of cash flows with the equivalent items reported in the statement of financial position.	Para 45	
	In order to comply with IAS 1 Presentation of Financial Statements, an entity discloses the policy that it adopts in determining the composition of cash and cash equivalents.	Para 46	
	The effect of any change in the policy for determining components of cash and cash equivalents (e.g., a change in the classification of financial instruments previously considered to be part of an entity's investment portfolio), is reported in accordance with IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors.	Para 47	
	An entity shall disclose, together with a commentary by management, the amount of significant cash and cash equivalent balances held by the entity that are not available for use by the group.	Para 48	
	The entity is encouraged to disclose additional information that may be relevant to users in understanding the financial position and liquidity of the entity, together with a commentary by management.	Para 48	
	IAS 8: Accounting Policies, Changes in Accounting Estimates and Errors (17 mandatory items)	IAS 8	
	Did the entity change any accounting policies during the reporting period due to the initial application of a standard? If 'YES'	Para 28	
	When initial application of an IFRS has an effect on the current period or any prior period, would have such an effect except that it is impracticable to determine the amount of the adjustment, or might have an effect on future periods, an entity shall disclose: a) the title of the IFRS;	Para 28(a)	
	b) when applicable, that the change in accounting policy has been made in accordance with its transitional provisions;	Para 28(b)	
	c) the nature of the change in accounting policy;	Para 28(c)	
	d) when applicable, a description of the transitional provisions;	Para 28(d)	
	e) when applicable, the transitional provisions that might have an effect on future periods;	Para 28(e)	
	f) for the current period and each prior period presented, to the extent practicable, the amount of the adjustment: i) for each financial statement line item affected; and ii) if IAS 33 Earnings per Share applies to the entity, for basic and diluted earnings per share;	Para 28(f)	
	g) the amount of the adjustment relating to periods before those presented, to the extent practicable; and	Para 28(g)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	h) If retrospective application required by paragraph 19(a) or (b) of IAS 8 is impracticable for a particular prior period, or for periods before those presented, the circumstances that led to the existence of that condition and a description of how and from when the change in accounting policy has been applied.	Para 28(h)	
	Has the entity not applied a new IFRS that has been issued but is not yet effective? If ’YES”		
	The entity shall disclose: a) this fact; and	Para 30(a)	
	b) known or reasonably estimable information relevant to assessing the possible impact that application of the new IFRS will have on the entity’s financial statements in the period of initial application.	Para 30(b)	
	Did the entity change any accounting estimate that has an effect on the current or future reporting periods? If YES’		
	An entity shall disclose the nature and amount of a change in an accounting estimate that has an effect in the current period or which is expected to have an effect in future periods, except for the disclosure of the effect on future periods when it is impracticable to estimate that effect.	Para 39	
	If the amount of the effect in future periods is not disclosed because estimating it is impracticable, the entity shall disclose that fact.	Para 40	
	If an estimate of an amount reported in an interim period changed significantly during the final interim period of the financial year, but a separate financial report is not published for that final interim period, the entity shall disclose the nature and amount of that change in estimate in a note to the annual financial statements for that financial year.	Para 26	
	Did the entity discover any prior period errors? If ‘YES’		
	In correcting prior period errors, the entity shall disclose the following: a) the nature of the prior period error;	Para 49 (a)	
	b) for each prior period presented, to the extent practicable, the amount of the correction: i) for each financial statement line item affected; and ii) if IAS 33 Earnings per Share applies to the entity, for basic and diluted earnings per share;	Para 49 (b)	
	c)the amount of the correction at the beginning of the earliest prior period presented; and	Para 49 (c)	
	d) If retrospective restatement is impracticable for a particular prior period, the circumstances that led to the existence of that condition and a description of how and from when the error has been corrected.	Para 49 (d)	
	IAS 10: Events after the Reporting Period (5 mandatory items)	IAS 10	
	Are dividends declared (i.e., the dividends are appropriately authorised and are no longer at the discretion of the entity) after the reporting period but before the financial statements are authorised for issue? If ‘YES’		

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	Such dividends are disclosed in the notes in accordance with IAS 1 Presentation of Financial Statements.	Para 13	
	Date of authorisation for issue: An entity shall disclose the date when the financial statements were authorised for issue and who gave that authorisation.	Para 17	
	If the entity’s owners or others have the power to amend the financial statements after issuance, the entity shall disclose that fact.	Para 17	
	Non-adjusting events after the reporting period: Have any non-adjusting events occurred after the reporting period but before the financial statements are authorised for issue? If ‘YES’		
	An entity shall disclose the following information for each material category of non-adjusting event after the reporting period: a) the nature of the event; and	Para 21 (a)	
	b) An estimate of its financial effect, or a statement that such an estimate cannot be made.	Para 21(b)	
	IAS 16: Property, Plant and Equipment (14 mandatory items)	IAS 16	
	Did the entity hold or acquire any property, plant or equipment? If ‘YES’		
	The financial statements shall disclose, for each class of property, plant and equipment: a) the measurement bases used for determining the gross carrying amount;	Para 73(a)	
	b) the depreciation methods used;	Para 73(b)	
	c) the useful lives or the depreciation rates used;	Para 73(c)	
	d) the gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period;	Para 73(d)	
	e) a reconciliation of the carrying amount at the beginning and end of the period showing: additions; assets classified as held for sale or included in a disposal group classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations and other disposals; acquisitions through business combinations; increases or decreases resulting from revaluations under paragraphs 31, 39 and 40 of IAS 16 and from impairment losses recognised or reversed in other comprehensive income under IAS 36 Impairment of Assets; impairment losses recognised in profit or loss in accordance with IAS 36; impairment losses reversed in profit or loss in accordance with IAS 36; depreciation; the net exchange differences arising on the translation of the financial statements from the functional currency into a different presentation currency, including the translation of a foreign operation into the presentation currency of the reporting entity; and other changes.	Para 73(e)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	The financial statements shall also disclose: a) the existence and amounts of restrictions on title, and property, plant and equipment pledged as security for liabilities;	Para 74(a)	
	b) the amount of expenditures recognised in the carrying amount of an item of property, plant and equipment in the course of its construction;	Para 74(b)	
	c) the amount of contractual commitments for the acquisition of property, plant and equipment; and	Para 74(c)	
	d) If it is not disclosed separately in the statement of comprehensive income, the amount of compensation from third parties for items of property, plant and equipment that were impaired, lost or given up that is included in profit or loss.	Para 74(d)	
	An entity shall disclose the nature and effect of any change in an accounting estimate relating to property, plant and equipment that has an effect in the current period or is expected to have an effect in subsequent periods, in accordance with IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors.	Para 76	
	Additional encouraged disclosures: Entities are encouraged (but not required) to disclose the following amounts: a) the carrying amount of temporarily idle property, plant and equipment;	Para 79(a)	
	b) the gross carrying amount of any fully depreciated property, plant and equipment that is still in use;	Para 79(b)	
	c) the carrying amount of property, plant and equipment retired from active use and not classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations; and	Para 79(c)	
	d) When the cost model is used, the fair value of property, plant and equipment when this is materially different from the carrying amount.	Para 79(d)	
	IAS 17: Leases (23 mandatory items)	IAS 17	
	Did the entity hold any assets under finance leases (i.e., the entity is a lessee under a finance lease)? If 'YES'		
	a) for each class of asset, the net carrying amount at the end of the reporting period;	Para 31(a)	
	b) a reconciliation between the total of future minimum lease payments at the end of the reporting period, and their present value;	Para 31(b)	
	c) the total of future minimum lease payments at the end of the reporting period, and their present value, for each of the following periods: i) not later than one year; ii) later than one year and not later than five years; iii) later than five years;	Para 31(c)	
	d) contingent rents recognised as an expense for the period;	Para 31(d)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	e) the total of future minimum sublease payments expected to be received under non-cancellable subleases at the end of the reporting period; and	Para 31(e)	
	f) a general description of the lessee's material leasing arrangements including, but not limited to, the following: i) the basis on which contingent rent payable is determined; ii) the existence and terms of renewal or purchase options and escalation clauses; and iii) Restrictions imposed by lease arrangements, such as those concerning dividends, additional debt, and further leasing.	Para 31(f)	
	Is the entity a lessee under any operating lease? If 'YES'		
	Lessees shall, in addition to meeting the requirements of IFRS 7, make the following disclosures for operating leases: a) the total of future minimum lease payments under non-cancellable operating leases for each of the following periods: i) not later than one year; ii) later than one year and not later than five years iii) later than five years;	Para 35(a)	
	b) the total of future minimum sublease payments expected to be received under non-cancellable subleases at the end of the reporting period;	Para 35(b)	
	c) lease and sublease payments recognised as an expense for the period, with separate amounts for minimum lease payments, contingent rents, and sublease payments; and	Para 35(c)	
	d) a general description of the lessee's significant leasing arrangements including, but not limited to, the following: i) the basis on which contingent rent payable is determined; ii) the existence and terms of renewal or purchase options and escalation clauses; and iii) restrictions imposed by lease arrangements, such as those concerning dividends, additional debt, and further leasing	Para 35(d)	
	Is the entity a lessor under any finance lease? If 'YES'		
	Lessors shall recognise assets held under a finance lease in their statements of financial position and present them as a receivable at an amount equal to the net investment in the lease.	Para 37	
	Lessors shall, in addition to meeting the requirements of IFRS 7 disclose the following for finance leases: a) a reconciliation between the gross investment in the lease at the end of the reporting period, and the present value of minimum lease payments receivable at the end of the reporting period;	Para 47(a)	
	b) the gross investment in the lease and the present value of minimum lease payments receivable at the end of the reporting period, for each of the following periods: i) not later than one year; ii) later than one year and not later than five years; iii) later than five years;	para 47(a)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	c) unearned finance income;	Para 47(b)	
	d) the unguaranteed residual values accruing to the benefit of the lessor;	Para 47(c)	
	e) the accumulated allowance for uncollectible minimum lease payments receivable;	Para 47(d)	
	f) contingent rents recognised as income in the period; and	Para 47(e)	
	g) A general description of the lessor's material leasing arrangements.	Para 47(f)	
	Did the entity hold any assets which are leased out under operating leases (i.e., the entity is a lessor under an operating lease)? If 'YES'		
	Lessors shall present assets subject to operating leases in their statement of financial position according to the nature of the asset.	Para 49	
	Lessors shall, in addition to meeting the requirements of IFRS 7 Financial Instruments: Disclosures, disclose the following for operating leases: a) the future minimum lease payments under non-cancellable operating leases in aggregate	Para 56(a)	
	b) the future minimum lease payments under non-cancellable operating leases for each of the following periods; i) not later than one year; ii) later than one year and not later than five years; iii) later than five years;	Para 56(b)	
	c) total contingent rents recognised as income in the period; and	Para 56(c)	
	d) A general description of the lessor's leasing arrangements.	Para 56(d)	
	IAS 18: Revenue (7 mandatory items)	IAS 18	
	Did the entity recognise any revenue? if 'YES'		
	An entity shall disclose: a) the accounting policies adopted for the recognition of revenue, including the methods adopted to determine the stage of completion of transactions involving the rendering of services;	para 35(a)	
	b) the amount of each significant category of revenue recognised during the period, including revenue arising from: i) the sale of goods	para 35(b)	
	ii) the rendering of services;	para 35(b)	
	iii) interest;	para 35(b)	
	iv) royalties;	para 35(b)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	v) dividends; and	para 35(b)	
	c) The amount of revenue arising from exchanges of goods or services included in each significant category of revenue.	para 35(c)	
	IAS 21: The Effects of Changes in Foreign Exchange Rates (10 mandatory items)	IAS 21	
	Did the entity: have transactions or balances in foreign currencies? If 'YES'		
	An entity shall disclose: a) the amount of exchange differences recognised in profit or loss (except for those arising on financial instruments measured at fair value through profit or loss in accordance with IAS 39); and	Para 52 (a)	
	b) Net exchange differences recognised in other comprehensive income and accumulated in a separate component of equity, and a reconciliation of the amount of such exchange differences at the beginning and end of the period.	Para 52(b)	
	Did the entity have a presentation currency which is different from its functional currency? If 'YES'		
	When the presentation currency is different from the functional currency of the entity:		
	a) that fact shall be stated;	Para 53	
	b) the functional currency shall be disclosed; and	Para 53	
	c) The reason for using a different presentation currency shall be disclosed.	Para 53	
	Has there been a change in the functional currency of either the reporting entity or a significant foreign operation? If 'YES'		
	The fact and the reason for the change in functional currency shall be disclosed.	Para 54	
	Does the entity display its financial statements or other financial information in a currency that is different from either its functional currency or its presentation currency, and the requirements of paragraph 55 of IAS 21 (see above) are not met? If 'YES'		
	The entity shall: a) clearly identify the information as supplementary information to distinguish it from the information that complies with IFRSs;	Para 57	
	b) disclose the currency in which the supplementary information is displayed; and	Para 57	
	c) Disclose the entity's functional currency and the method of translation used to determine the supplementary information.	Para 57	
	IAS 23: Borrowing Costs (2 mandatory items)	IAS 23	
	Did the entity incur any borrowing costs? If 'YES'		

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	The entity shall disclose: a) the amount of borrowing costs capitalised during the period; and	Para 26(a)	
	b) The capitalisation rate used to determine the amount of borrowing costs eligible for capitalisation.	Para 26(b)	
	IAS 24: Related Party Disclosures (8 mandatory items)	IAS 24	
	Is the entity controlled by another entity or an individual? If ‘YES’		
	An entity shall disclose the name of its parent and, if different, its ultimate controlling party.	Para 13	
	If neither the entity’s parent nor the ultimate controlling party produces consolidated financial statements available for public use, the name of the next most senior parent that does so shall also be disclosed.	Para 13	
	To enable users of financial statements to form a view about the effects of related party relationships on an entity, it is appropriate to disclose the related party relationship when control exists, irrespective of whether there have been transactions between the related parties.	Para 14	
	Transactions between related parties : At a minimum, the information disclosed about related party transactions and outstanding balances shall include: a) the amount of the transactions;	Para 18(a)	
	b) the amount of outstanding balances, including commitments, and: i) their terms and conditions, including whether they are secured, and the nature of the consideration to be provided in settlement; and ii) details of any guarantees given or received	Para 18(b)	
	c) provisions for doubtful debts related to the amount of outstanding balances; and	Para 18(c)	
	d) The expense recognised during the period in respect of bad or doubtful debts due from related parties.	Para 18(d)	
	Items of a similar nature may be disclosed in aggregate except when separate disclosure is necessary for an understanding of the effects of related party transactions on the financial statements of the entity.	Para 24	
	IAS 27: Separate Financial Statements (3 mandatory items)	IAS 27 (2011)	
	Has the parent, in accordance with paragraph 4(a) of IFRS 10, elected not to prepare consolidated financial statements and instead prepares separate financial statements? If ‘YES’		
	Has it disclosed in those separate financial statements: a) The fact that the financial statements are separate financial statements; that the exemption from consolidation has been used; the name and principal place of business (and country of	Para 16(a)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	incorporation, if different) of the entity whose consolidated financial statements that comply with IFRSs have been produced for public use; and the address where those consolidated financial statements are obtainable.		
	b) A list of significant investments in subsidiaries, joint ventures and associates, including: i) the name of those investees. "ii) The principal place of business (and country of incorporation, if different) of those investees. iii) its proportion of the ownership interest (and its proportion of the voting rights, if different) held in those investees.	Para 16(b)	
	c) A description of the method used to account for the investments listed under (b).	Para 16(c)	
	IAS 28: Investments in Associates and Joint Ventures (1 mandatory item)	IAS 28 (2011)	
	Are investments in associates or a joint venture accounted for using the equity method? If 'YES'		
	Unless an investment, or a portion of an investment, in an associate or a joint venture is classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, has the reporting entity classified the investment and any retained interest in the investment as a non-current asset?	Para 15	
	IAS 33: Earnings per Share (8 mandatory items)	IAS 33	
	An entity shall present earnings per share information (see detailed requirements below) separately for each class of ordinary shares that has a different right to share in profit for the period.	Para 66	
	An entity shall present in the statement of comprehensive income: a) basic and diluted earnings per share for profit or loss from continuing operations attributable to the ordinary equity holders of the parent entity; and b) basic and diluted earnings per share for profit or loss for the period attributable to the ordinary equity holders of the parent entity.	Para 66	
	An entity shall present basic and diluted earnings per share with equal prominence for all periods presented.	Para 66	
	Did the entity have any discontinued operation? If 'YES"		
	An entity shall present basic and diluted earnings per share, even if the amounts disclosed are negative (i.e., a loss per share).	Para 69	
	An entity shall disclose the following: a) the amounts used as the numerators in calculating basic and diluted earnings per share, and a reconciliation of those amounts to profit or loss attributable to the parent entity for the period;	Para 70(a)	
	b) the weighted average number of ordinary shares used as the denominator in calculating basic and diluted earnings per share, and a reconciliation of these denominators to each other;	Para 70(b)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	c) instruments (including contingently issuable shares) that could potentially dilute basic earnings per share in the future, but were not included in the calculation of diluted earnings per share because they are anti-dilutive for the period(s) presented; and"	Para 70(c)	
	d) a description of ordinary share transactions or potential ordinary share transactions, other than those accounted for in accordance with paragraph 64 of IAS 33 (see above), that occur after the reporting period and that would have changed significantly the number of ordinary shares or potential ordinary shares outstanding at the end of the period if those transactions had occurred before the end of the reporting period.	Para 70(d)	
	IAS 36: Impairment of Assets (12 mandatory items)	IAS 36	
	General disclosures: Did the entity recognise any impairment losses, or reversals of impairment losses, during the period on assets within the scope of IAS 36? If 'YES'		
	An entity shall disclose, for each class of assets: a) the amount of impairment losses recognised in profit or loss during the period and the line item(s) of the statement of comprehensive income in which those impairment losses are included;	Para 126(a)	
	b) the amount of reversals of impairment losses recognised in profit or loss during the period and the line item(s) of the statement of comprehensive income in which those impairment losses are reversed;	Para 126(b)	
	c) the amount of impairment losses on revalued assets recognised in other comprehensive income during the period; and	Para 126(c)	
	d) The amount of reversals of impairment losses on revalued assets recognised in other comprehensive income during the period.	Para 126(d)	
	Does the entity disclose segment information under IFRS 8? If 'YES'		
	An entity that reports segment information in accordance with IFRS 8 Operating Segments shall disclose the following for each reportable segment: a) the amount of impairment losses recognised in profit or loss and in other comprehensive income during the period; and	Para 129(a)	
	b) The amount of reversals of impairment losses recognised in profit or loss and in other comprehensive income during the period.	Para 129(b)	
	Did the entity recognize or reverse any impairment losses during the period for an individual asset, including goodwill, or a cash-generating unit? If 'YES"		

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	Impairment losses or reversals that are not disclosed in accordance with paragraph 130, An entity shall disclose the following information for the aggregate impairment losses and the aggregate reversals of impairment losses recognised during the period for which no information is disclosed in accordance with paragraph 130 of IAS 36 (see above): a) the main classes of assets affected by impairment losses and the main classes of assets affected by reversals of impairment losses; and	Para 131(a)	
	b) The main events and circumstances that led to the recognition of these impairment losses and reversals of impairment losses.	Para 131(b)	
	Did the entity have any goodwill or intangible assets with indefinite useful lives? If 'YES'		
	If, in accordance with paragraph 84 of IAS 36, any portion of the goodwill acquired in a business combination during the period has not been allocated to a cash-generating unit (group of units) at the end of the reporting period, the amount of the unallocated goodwill shall be disclosed, together with the reasons why that amount remains unallocated.	Para 133	
	Did the entity have any cash-generating units (or group of units) for which the carrying amount of goodwill or intangible assets with indefinite useful lives allocated to that unit (or group of units) is significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives? If 'YES'		
	An entity shall disclose the information required by (a)-(c) below for each cash-generating unit (group of units) for which the carrying amount of goodwill or intangible assets with indefinite useful lives allocated to that unit (group of units) is significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives: a) the carrying amount of goodwill allocated to the unit (group of units);	Para 134(a)	
	b) the carrying amount of intangible assets with indefinite useful lives allocated to the unit (group of units);	Para 134(b)	
	c) the basis on which the unit's (group of units') recoverable amount has been determined (i.e., value in use or fair value less costs of disposal);	Para 134(c)	
	IAS 37: Provisions, Contingent Liabilities and Contingent Assets (13 mandatory items)	IAS 37	
	Did the entity have any provisions? If 'YES'		
	For each class of provision, an entity shall disclose: a) the carrying amount at the beginning and end of the period;	Para 84(a)	
	b) additional provisions made in the period, including increases to existing provisions;	Para 84(b)	
	c) amounts used (i.e., incurred and charged against the provision) during the period;	Para 84(c)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	d) unused amounts reversed during the period; and	Para 84(d)	
	e) The increase during the period in the discounted amount arising from the passage of time and the effect of any change in the discount rate.	Para 84(e)	
	An entity shall disclose the following for each class of provision: a) a brief description of the nature of the obligation and the expected timing of any resulting outflows of economic benefits;	Para 85(a)	
	b) an indication of the uncertainties about the amount or timing of those outflows;	Para 85(b)	
	c) where necessary to provide adequate information, the major assumptions made concerning future events, as addressed in paragraph 48 of IAS 37; and	Para 85(c)	
	d) The amount of any expected reimbursement, stating the amount of any asset that has been recognised for that expected reimbursement.	Para 85(d)	
	Did the entity have any contingent liabilities? if 'YES'		
	Unless the possibility of any outflow in settlement is remote, an entity shall disclose for each class of contingent liability at the end of the reporting period: a) a brief description of the nature of the contingent liability;	Para 86	
	b) an estimate of its financial effect, measured under paragraphs 36 to 52 of IAS 37 (where practicable);	Para 86(a)	
	c) an indication of the uncertainties relating to the amount or timing of any outflow (where practicable); and	Para 86(b)	
	d) the possibility of any reimbursement (where practicable).	Para 86(c)	
	IAS 38: Intangible Assets (12 mandatory items)	IAS 38	
	Did the entity recognise any intangible assets on its balance sheet? If 'YES'		
	Disclosures – General: An entity shall disclose the following for each class of intangible assets, distinguishing between internally generated intangible assets and other intangible assets: a) whether the useful lives are indefinite or finite;	Para 118(a)	
	b) the useful lives or the amortisation rates used for intangible assets with finite useful lives;	Para 118(b)	
	c) the amortisation methods used for intangible assets with finite useful lives;	Para 118(c)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	d) the gross carrying amount and any accumulated amortisation (aggregated with accumulated impairment losses) at the beginning and end of the period;	Para 118(d)	
	e) the line item(s) of the statement of comprehensive income in which any amortisation of intangible assets is included; and	Para 118(e)	
	An entity discloses the nature and amount of any change in an accounting estimate relating to intangible assets that has a material effect in the current period or that is expected to have a material effect in subsequent periods, under IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors.	Para 121	
	Did the entity have any intangible assets assessed as having indefinite lives? If ”yes’		
	An entity shall also disclose: a) the carrying amount of that asset;	Para 122(a)	
	b) for that asset : i) the reasons supporting the assessment of an indefinite useful life; and ii) a description of the factor(s) that played a significant role in determining that the asset has an indefinite useful life.	Para 122(a)	
	An entity shall also disclose: c) a description, the carrying amount and remaining amortisation period of any individual intangible asset that is material to the financial statements of the entity;	Para 122(b)	
	Did the entity account for any intangible assets at revalued amounts? If ’YES’		
	An entity shall disclose the following: a) by class of intangible assets: i) the effective date of the revaluation; ii) the carrying amount of revalued intangible assets; and iii) the carrying amount that would have been recognised had the revalued class of intangible assets been measured after recognition using the cost model as described in paragraph 74 of IAS 38;	Para 124(a)	
	b) in respect of the revaluation surplus relating to intangible assets: i) the amount of the surplus at the beginning and end of the period; ii) the changes during the period; and iii) any restrictions on the distribution of the balance to shareholders; and	Para 124(b)	
	Did the entity recognise any research and development expenditure as an expense? If ‘YES’		
	An entity shall disclose the aggregate amount of research and development expenditure recognised as an expense during the period.	Para 126	
	IAS 40: Investment Property (12 mandatory items)	IAS 40	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	Does the entity have any investment property? If 'YES'		
	General disclosure requirements: An entity shall disclose: a) whether it applies the fair value model or the cost model;	Para 75(a)	
	Does the entity apply the fair value model for any of its investment property? If 'YES'		
	c) when classification is difficult (see paragraph 14 of IAS 40), the criteria it uses to distinguish investment property from owner-occupied property and from property held for sale in the ordinary course of business;	Para 75(c)	
	e) the extent to which the fair value of investment property (as measured or disclosed in the financial statements) is based on a valuation by an independent value who holds a recognised and relevant professional qualification and has recent experience in the location and category of the investment property being valued;	Para 75(e)	
	f) if there has been no valuation by an appropriately qualified independent valuer, that fact;	Para 75(e)	
	g) the amounts recognised in profit or loss for: i) rental income from investment property; ii) direct operating expenses (including repairs and maintenance) arising from investment property that generated rental income during the period; iii) direct operating expenses (including repairs and maintenance) arising from investment property that did not generate rental income during the period; and iv) where the entity has selected a different model (cost or fair value) to account for its investment property backing liabilities that pay a return linked directly to the fair value of, or the returns from, specified assets (including the investment property), the cumulative change in fair value recognised in profit or loss on a sale of investment property from a pool of assets in which the cost model is used into a pool in which the fair value model is used	Para 75(f)	
	h) the existence and amounts of restrictions on the replicability of investment property or the remittance of income and proceeds of disposal; and	Para 75(g)	
	i) Contractual obligations to purchase, construct or develop investment property or for repairs, maintenance or enhancements.	Para 75(h)	
	Did the entity apply the cost model for any of its investment property? If 'YES'		
	In addition to the disclosures required by paragraph 75 of IAS 40 (see above), an entity that applies the cost model in paragraph 56 of IAS 40 shall also disclose: a) the depreciation methods used;	Para 79(a)	
	b) the useful lives or the depreciation rates used;	Para 79(b)	
	c) the gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period;	Para 79(c)	

No.	Item explanation: Presentation/disclosure requirement	Reference	Score
	d) a reconciliation of the carrying amount of investment property at the beginning and end of the period, showing the following: i) additions, disclosing separately those additions resulting from acquisitions and those resulting from subsequent expenditure recognised as an asset; ii) additions resulting from acquisitions through business combinations; iii) assets classified as held for sale or included in a disposal group classified as held for sale in accordance with IFRS 5 and other disposals; iv) depreciation; v) the amount of impairment losses recognised, and the amount of impairment losses reversed, during the period in accordance with IAS 36; vi) the net exchange differences arising on the translation of the financial statements into a different presentation currency, and on translation of a foreign operation into the presentation currency of the reporting entity; vii) transfers to and from inventories and owner-occupied property; and viii) other changes; and	Para 79(d)	
	e) The fair value of investment property.	Para 79(e)	

Appendix 5.4: Voluntary Items Included in the Mandatory Disclosure Index

No.	Name of items		Sources/reference*							
		1 *	2 *	3 *	4 *	5 *	6 *	7 *	8 *	9 *
	Corporate strategy									
	Financial highlights: (five years and above).	✓		✓	✓			✓	✓	✓
	Structure of firm and group chart				✓	✓		✓	✓	
	A brief history of the firm.	✓	✓			✓		✓		✓
	Impact of firm's strategy on current and future outcomes	✓	✓			✓	✓	✓		✓
	Statement about prime regional economic development.	✓		✓						
	Pictures of the main product categories.	✓	✓	✓				✓		✓
	Description of strategies to improve the quality of the product.	✓							✓	✓
	A statement describing corporate goals.		✓	✓			✓	✓	✓	
	Details about new product development.		✓				✓	✓	✓	
	Annual action plans implemented to achieve the corporate goals.		✓		✓	✓	✓	✓	✓	✓
	Information on RandD projects and plans	✓						✓	✓	✓
	Description of the marketing plan and distribution network for services/products.	✓		✓	✓			✓	✓	✓
	Gen corporate strategy statement.	✓	✓	✓		✓			✓	✓
	Discussion of previous industry trends.	✓							✓	
	Important calendar events for the firm.			✓		✓	✓	✓		
	Statement regarding regional political stability.		✓	✓			✓	✓	✓	
	Firm’s contribution to the national economy	✓		✓	✓	✓			✓	✓
	Analysing the firm’s prime projects/products/services.					✓				✓
	Analysing the firm's principal markets.		✓	✓			✓		✓	✓
	Data representing the general view of the economy.	✓	✓					✓		
	A statement describing strategies to improve customer service.	✓	✓					✓		
	Mission and vision statements of companies.						✓	✓	✓	✓
	Examining the competitive environment.	✓	✓	✓	✓		✓		✓	

No.	Name of items		Sources/reference*							
		1 *	2 *	3 *	4 *	5 *	6 *	7 *	8 *	9 *
	Influence of market competition on current profits for the firm.		✓		✓			✓	✓	
	Financial performance and capital market									
	Analysis of foreign and Domestic shareholdings breakdown.	✓	✓	✓		✓		✓		✓
	Statement of the distribution of shareholdings based on shareholders categories	✓	✓			✓	✓	✓	✓	✓
	Operational analysis (productivity).	✓	✓	✓			✓	✓		✓
	Operational review by divisions (operating profit).	✓		✓	✓			✓		
	Market capitalization (trend and year-end).	✓		✓					✓	
	Information on stock price (trend and year-end).				✓	✓			✓	✓
	Segment reporting on geographical capital expenditure.		✓		✓				✓	✓
	Segment reporting on all lines of business production data.	✓	✓	✓	✓	✓			✓	✓
	Segmental reporting on growth rate, size regarding the product market.	✓		✓				✓	✓	✓
	Analysis of current financial outcomes, statement of significant factors influencing performance.	✓	✓	✓				✓	✓	
	The volume of stock traded (trend and year-end).	✓	✓	✓				✓		
	Significant financial numbers: Leverage, return on shareholders' funds, liquidity, return on assets. Etc.	✓			✓	✓		✓		✓
	Segment reporting on geographical production.			✓	✓	✓		✓	✓	✓
	Discussion of generated wealth, e.g.**,** Statement of value added.	✓		✓					✓	✓
	Directors and senior management									
	List of senior managers (not on the board of directors)/senior management structure		✓			✓	✓			
	Name of the directors	✓	✓			✓	✓			
	Background Information about member of the audit committees	✓	✓		✓		✓			
	Age of the directors		✓				✓	✓		
	Composition of Board of Directors	✓	✓		✓		✓	✓		
	Number of BOD meetings held and date	✓	✓					✓		✓
	Information about the executive director's position (office occupied).	✓	✓	✓	✓	✓	✓			✓

No.	Name of items		Sources/reference*							
		1 *	2 *	3 *	4 *	5 *	6 *	7 *	8 *	9 *
	Picture showing the senior management team.	✓	✓				✓	✓	✓	✓
	Qualifications of directors (professional and Academic).	✓	✓						✓	✓
	The statement about Senior management background experience and responsibilities.	✓	✓		✓	✓			✓	✓
	Future information									
	Analysis of potential impacts of business strategy on future performance.	✓	✓				✓	✓		
	Discussion of future products/services development activities and research.	✓	✓			✓	✓		✓	
	Future industry trends statement.	✓	✓			✓	✓	✓	✓	✓
	Planned publicity and advertising expenditure.	✓	✓			✓			✓	✓
	Expenditure of Planned research and development	✓	✓			✓	✓	✓		
	Analysis of particular external factors influencing the firm's prospects (technology, economy, politics).	✓	✓			✓	✓	✓		
	Qualitative forecasts of EPS revenues profits sales				✓			✓	✓	✓
	Main financial data (quantitative) forecasts, (EPS, sales revenues, profit).	✓	✓		✓	✓	✓	✓	✓	✓
	Planned capital expenditure.	✓	✓				✓		✓	
	General statement of the firm's prospects.	✓	✓		✓	✓	✓	✓	✓	✓
	Existing assumptions based on the forecast.	✓	✓		✓	✓	✓	✓	✓	✓
	Corporate social responsibility									
	General Statement indicating CSR.	✓	✓			✓		✓		✓
	Firm environmental policy statement.					✓		✓		✓
	Awards for environmental protection.	✓		✓				✓	✓	✓
	Support rendered for private/public activities developed for environmental protection.	✓			✓	✓		✓	✓	✓
	Data indicating employees' welfare.	✓	✓	✓		✓		✓	✓	✓
	General philanthropy.	✓		✓					✓	✓
	Statement of employees' welfare.	✓		✓		✓				
	Breakdown of the workforce based on particular lines of business distribution.	✓	✓	✓		✓		✓		✓
	Firm's policies on employee training programs.	✓	✓	✓			✓	✓		✓
	A number of employees (two or more years).					✓		✓		✓

No.	Name of items		Sources/reference*							
		1*	2*	3*	4*	5*	6*	7*	8*	9*
	Employee's appreciation.		✓	✓				✓	✓	
	Training programs organized.	✓	✓	✓				✓	✓	
	Participation during state social campaigns.	✓					✓	✓	✓	
	Expenditure on training.				✓					✓
	Implemented environmental protection plans and program.	✓			✓				✓	✓
	Classification of employees by level of qualifications.	✓	✓	✓		✓	✓		✓	✓
	An indication of employee morale (absenteeism, strikes and turnover).		✓	✓			✓			
	General information about employees' retrenchment and/or redundancy.		✓					✓	✓	✓
	Information regarding the safety of employee workplace.		✓	✓		✓			✓	✓
	Statement of a number of fatalities, lost day, Standard injury and absentee rates.	✓	✓	✓		✓	✓	✓	✓	✓
	Followed standards of Health and safety.	✓	✓			✓				✓
	Implemented community programs and plans (education and health).	✓	✓	✓		✓			✓	✓
	Analysis of product safety.	✓	✓	✓	✓				✓	

1* Saudi CG code (Tadawul 2017); 2* The United Nations Conference on Trade and Development ISAR benchmark (United Nations 2006); 3* (Elfeky 2017a); 4* (Kamal Hassan 2012); 5* (Liu, S 2015); 6* (Alfraih and Almutawa 2017); 7* (Abdullah et al. 2015); 8* (Ho and Taylor 2013); 9* (Elfeky 2017b)

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