MONITORING MECHANISMS AND EARNINGS INFORMATIVENESS IN THE SAUDI STOCK MARKET

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ABSTRACT

The impact of monitoring mechanisms on financial reporting continues to be a topic of debate among academics, regulators and practitioners. This study focuses on whether internal and external monitoring mechanisms are related to financial reporting credibility. The study seeks to answer the main research question - to what extent are board of directors and audit committee characteristics, disclosure of internal control weaknesses, audit quality and institutional and bank monitoring associated with financial statement credibility. The study also examines whether some control mechanisms substitute or complement other control mechanisms. Hence, this study also attempts to answer the research question - to what extent board of directors, audit committee characteristics and audit quality influence the disclosure of internal control weaknesses. This study utilized a pooled sample of Saudi listed companies in the years 2007 and 2008. Two proxies of earnings informativeness are used to measure the credibility of reported earnings, namely (i) volatility of stock returns during the earnings announcement period and (ii) announcement period cumulative excess returns. The findings support the hypotheses on the association between board independency, audit quality, internal control system, and institutional ownership and earnings informativenss. The finding fails to support a direct impact of audit committee independence on earnings informativeness. However, the result shows that audit committee independence has significant impact on the disclosure of internal control system weaknesses and the disclosure of internal control system weaknesses has significant impact on earnings informativeness. This implies the indirect effects of audit committee independence on the credibility of reported earnings, consistent with the explanation that controls are complementary. The study extends the limited literature on earnings informativeness in Saudi Arabia, and assists the regulators in understanding the effects of monitoring mechanisms on the credibility of financial statement.

Keywords: Credibility of Financial Statements, Monitoring Mechanisms, Corporate Governance

ABSTRAK

Kesan mekanisma pemantauan ke atas pelaporan kewangan terus menjadi topik perdebatan di kalangan ahli akademik, penggubal undang-undang dan praktisioner. Kajian ini menjurus kepada persoalan sama ada mekansima pemantauan dalaman dan luaran mempengaruhi kredibiliti pelaporan kewangan. Soalan utama yang dikemukakan dalam kajian ini adalah sejauh manakah Lembaga Pengarah, Jawatankuasa Audit, pendedahan kelemahan dalam kawalan dalaman, kualiti pengauditan, pelabur institusi dan pemantauan pihak bank mempengaruhi kredibiliti penyata kewangan. Kajian ini turut mengkaji kemungkinan wujudnya hubungan penggantian atau hubungan saling-melengkapi di antara beberapa mekanisma kawalan. Oleh itu, kajian ini turut menjawab persoalan - sejauh manakah Lembaga Pengarah, Jawatankuasa Audit, dan kualiti pengauditan mempengaruhi pendedahan kelemahan dalam sistem kawalan dalaman. Kajian ini menggunakan sampel yang terdiri daripada syarikat-syarikat yang tersenarai di Bursa Saudi pada tahun 2007 dan 2008. Dua proksi digunakan untuk mencerminkan kredibiliti penyata kewangan, iaitu (i) tahap ketidakstabilan pulangan stok ekoran dari perolehan yang dilaporkan dan (ii) kesan kumulatif lebihan pulangan stok dalam tempoh pengumuman ekoran dari perolehaan yang dilaporkan. Hasil kajian ini menyokong hipotesis bahawa kebebasan Lembaga Pengarah, kualiti pengauditan, pendedahan kelemahan dalam sistem kawalan dalaman, dan pemilikan saham oleh pelabur institusi mempengaruhi kredibiliti penyata kewangan. Hasil kajian ini tidak memaparkan kesan langsung yang signifikan di antara kebebasan Jawatankuasa Audit dan kredibiliti penyata kewangan. Namun, hasil kajian ini menunjukkan bahawa kebebasan Jawatankuasa Audit memberikan kesan signifikan ke atas pendedahan kelemahan dalam sistem kawalan dalaman, dan kelemahan sistem kawalan dalaman pula memberi kesan signifikan ke atas kredibiliti penyata kewangan. Hasil kajian ini menunjukkan wujudnya kesan tidak langsung kebebasan Jawatankuasa Audit ke atas kredibiliti penyata kewangan dan selaras dengan pernyataan bahawa kawalan adalah bersifat saling-melengkapi. Kajian ini menyumbang kepada literatur berkaitan dengan kredibiliti penyata kewangan di Saudi yang amat terhad, dan dari segi membantu penggubal selia memahami kesan mekanisma pemantauan terhadap kredibiliti penyata kewangan.

Katakunci: Kredibiliti Penyata Kewangan, Mekanisma Pemantauan, Tataurus Korporat

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LIST OF ABBREVIATIONS

AUDQ	External Auditor quality
BOSIZ	Board size
CEOD	Chief Executive Officer duality
CMA	Capital market authority
CPA	Certified public accountants
ERC	Earnings response coefficient
GDP	Gross domestic product
GRWTH	The market value of the firm's equity scaled by its book value
ICS	Internal Control System
IDAC	Independent directors on the audit committee
IND	Independent non-executive directors
INSHARE	Institutional Ownership
RISK	Market beta
SAR	The sum of the abnormal returns in the five day earnings announcement period.
SOCPA	Saudi organization for certified public accountants
SSM	Saudi Stock Market
UE	Unexpected earnings
VSR	The volatility of stock returns in the five day earnings announcement period
WTO	World Trade Organization

CHAPTER ONE

OVERVIEW

1.1 Introduction

In today's modern businesses, investors need useful, accurate and relevant information to make better investment decisions. Financial transparency and financial credibility have received much attention as a result of financial scandals associated with accounting irregularities and other frauds by top management (e.g. Enron, WorldCom, Adelphia, and Transmile). These scandals have led most investing communities to request for the enhancement of the quality of financial statements since financial statements are the main sources of information to investors. The credibility and transparency of company's financial reports increase the confidence of market participants on the stock exchange, and this leads to rise in trading volume and prices of company stock.

Teoh and Wong (1993) and Dey (2005) have used earnings informativeness as a proxy of financial reporting credibility. According to Dey (2005), the credibility of financial statement and reported earnings is based on investors' evaluation of reported earnings numbers i.e. the extent to which investors perceive those numbers as reflecting the current change in shareholder value. According to Lee *et al.* (2005), when a company's information is incomplete or not considered to be credible, investors will protect themselves by requiring a higher expected rate of return (e.g., lowering the price that they would pay for the company's shares). In this thesis, earnings informativeness and financial statement credibility will be used interchangeably.

According to Bhattacharyya and Rao (2005), increased transparency in corporate financial reporting enhances the ability to monitor managers, provides more consistent information, enables accurate evaluation of the firm and reduces the opportunity for achieving personal benefit through undisclosed information.

Meanwhile, the Saudi government formed the Capital Markets Authority (CMA) in 2003 in response to the increasing corporate firms' contributions to the Saudi Gross Domestic Product (GDP), together with the growth of the Saudi Stock Market (SSM). The CMA is responsible for developing and organizing the stock market. It has a wide range of power to prevent misappropriation, build fair trading environment, and protect investors.

According to Baamir (2008), the Saudi stock market crash in February 2006 which has been described as a financial catastrophe especially for small shareholders, highlights the issues of corporate transparency and disclosure. The crises shook investor confidence. The Saudi regulators have introduced Corporate Governance Code on 12th November 2006 as best governance practices which is in line with international standards. The Code emphasizes the importance of monitoring role as a vehicle to improve the quality of financial reporting and restore the confidence of shareholders, creditors and other users of financial statements. The compliance with the Code is voluntary. However, the board of directors' report must include the implemented provisions of the Corporate Governance Code, as well as the provisions which have not been implemented.

According to the Saudi Corporate Governance Code, the formation of the board of directors shall be subject to some characteristics. The members of the Board of Directors shall not be less than three and not more than eleven. It is not recommended to conjoin the position of the Chairman of the Board of Directors with any other executive position in the company, such as the Chief Executive Officer (CEO). The independent members of the board of directors shall not be less than two members, or one-third of the members, whichever is greater. Each listed company should have audit committee; each member on the audit committee should comprise non-executive directors of not less than three members.

The Code also emphasizes on the disclosure of internal control effectiveness. The Code states that all listed companies must include in board of directors' reports, the results of the annual audit of the effectiveness of the internal control procedures of the company.

Given the Saudi government's emphasis on the effectiveness of board, audit committee and internal control, an empirical study as to what extent the monitoring by board and audit committee, and monitoring of Internal Control System (ICS) enhance the credibility of financial statements in Saudi market is necessary.

Apart from internal monitoring, the external auditor quality and the role of auditor in improving the credibility of companies' financial statements are other important issues in corporate governance. The external audit functions as a mechanism to demonstrate the accountability and stewardship of company's management and strengthens trust and confidence in financial reporting. Greater assurance about the financial information provided by companies is expected from external auditors as a result of the globalization activities, increase in the complexity of business structures, and remoteness of fund providers from management (Haniffa & Hudaib, 2007).

The external capital providers to the company, namely the institutional investors and bank lenders, also have incentives to monitor the company activity. Monks and Minow (1995) state that institutional investors have greater incentive to monitor and influence corporate manager and counter opportunistic behaviors because they have the resources, opportunity, and ability of monitoring compared to other investors. Baamir (2008) suggests that the participation of institutional investors in Saudi stock market will help in managing the competition in the market and improve the transparency.

According to Saidi and Kumar (2008), the banking sector in Gulf Cooperation Council countries is well-developed and banks continue to be the primary provider of funds to businesses. Banks are important stakeholders in Gulf Cooperation Council companies and can play a significant role in improving corporate governance in borrowing firms by requiring firms to provide governance related information, such as quarterly financial reports, audited annual reports and the quality of internal control from the board of directors or external auditor.

In addition to internal monitoring mechanisms such as board, audit committee and ICS, this study investigates external monitoring by statutory auditor and capital providers, and their relationship to how investors perceive the credibility of financial statement. It is expected that board monitoring, audit quality, ICS and monitoring by capital providers (institutional shareholders and bank lenders) are considered to be associated with credibility of financial statement. In other words, having good governance structure would result in higher financial statement quality. Previous studies conducted in this area do not consider all these monitoring mechanisms in a single study. Moreover, no studies have been conducted in this area in the Saudi stock market. This study could provide interesting evidence from Saudi Arabia which is a developing country with an emerging capital market, concentrated ownership, and different business environment, regulations and practices which are in accordance with Islamic law.

This chapter outlines the research plan of the study. The next sections present the background of the study, problem statement, research questions, research objectives, significance of the study, the scope of study and the organization of the study.

1.2 Background

Background of the study is presents in this section covering the important aspects of Saudi Arabia history, financial reporting development in Saudi Arabia, the Saudi Stock Exchange, Saudi Corporate Governance Code, financial reporting credibility, and monitoring mechanisms.

1.2.1 Background of Saudi Arabia

1.2.1.1 Saudi Arabia History

Saudi Arabia is an Asian developing country. The Kingdom of Saudi Arabia was officially founded in 1932 by King Abdul Aziz (1880-1953), who announced the beginning of the modern state of Saudi Arabia; and made Riyadh the capital city of his Kingdom (Al-Turaiqi, 2008). Saudi Arabia is considered as the largest country in the Middle East. Most of the country is covered by a huge desert; of about 95 percent in area; which is called the Rub' Al Khali.

Saudi Arabia is located in the South West of Asia. Saudi Arabia has an area of approximately 2,100,000 skm (868,730 sm) and it has an estimated population of more than 25 million. The Saudi Riyal is the local currency, and the exchange rate is one UK Pound being equivalent to 6.1 Riyals (2011- December). The official language in the Kingdom of Saudi Arabia is the Arabic language; the English language is also used as the language of business.

The Saudi Arabian government, which is a monarchy, has a firm system of governance. Government positions are limited to the male descendants of King Abdul Aziz. The king has a wide-range of authority. This system also gives the male descendants of King Abdul Aziz all important positions for e.g., the Ministry of Internal Affairs, the Ministry of Foreign Affairs and the Ministry of Defence. The role of the Consultative Council in the legislative system in Saudi Arabia, which was established in 1991, is advisory. That means it only advises the king and has no authority to apply any decision without the final approval of the king himself (Al-Ghamdi, 2012).

Saudi Arabia has never been invaded by a foreign country. This has allowed it to develop its own culture, language, society and economy. However, Saudi Arabia lacked many things that enabled it to develop well. It relied mainly on agriculture for many years as it was a poor country. But in 1937, it was discovered that Saudi Arabia is very rich in oil. Many oil fields with large quantities of oil were discovered in the country. Since then, Saudi Arabia has become the world's largest producer and exporter of oil. This discovery gradually changed the social and economic life besides its political position in the Middle East. The petroleum exports, is considered as the main source of the country's national income; around 90-95 percent of the national income comes for the oil exports and constitutes 35-40 percent of the GDP. Saudi Arabia has also very large quantities of proven petroleum reserves, which is thought to hold approximately, according to the Ministry of Economy and Planning (2007), one quarter of the world's proven petroleum reserves. It is foreseen that Saudi Arabia will be the largest producer of petroleum in the near future. With a large percentage of petroleum production, Saudi Arabia reigns supreme among OPEC members. Thirty four percent of the total output is produced in Saudi Arabia, which actually qualifies it to play a leading role in affecting drastically the prices of petroleum all over the world (OPEC, 2009). The estimated statistics of the Ministry of Petroleum and Mineral Resources, states that Saudi Arabia has huge reserves of 260 billion barrels, and still has the capacity to produce more for the coming 100 years (Al-Ghamdi, 2012). The next section briefly reviews the development of financial reporting in Saudi Arabia.

1.2.1.2 Financial Reporting Development in Saudi Arabia

Based on previous studies by Alsaeed (2006), Al-Sehali and Spear (2004) and Naser and Nuseibeh (2003a), the Company Regulation issued in 1965 required companies to prepare financial statements audited by a licensed CPA. They also included provisions that accounts should be maintained by a CPA and specified the scope of his responsibilities. The accounting profession in Saudi Arabia first became subject to regulation by the Ministry of Commerce in 1974. In the same year, the Certified Public Accounting Law was introduced. In 1986, a group of Saudi academicians and practitioners drafted the first accounting standard. Three issues were discussed in detail in the first accounting standard (Objectives and Concepts of Accounting). The first issue is the financial accounting and objectives, the second issue is financial accounting concepts and the third issue is the standard of general presentation and disclosure. The Ministerial Resolution No. 692 approved the objectives and concepts of financial reporting and the standards of presentation and disclosure as the guidelines for all CPAs. Four years later, the first accounting standard on the objective and concepts of accounting and general presentation and disclosure was endorsed by the Ministry of Commerce and became effective in 1990. Thus, companies as well as auditors, had to adhere to the Ministerial Resolution No. 692.

In 1992, the Saudi Organization for Certified Public Accountants (SOCPA) was formed as the first Saudi national accounting body. The main responsibility of this body is to issue accounting and auditing standards. It also aims to enhance the accounting and auditing profession by issuing the qualification of certified public accountants. Since its foundation, the SOCPA has enthusiastically issued a number of accounting and auditing standards. The SOCPA, through its committee, has released 19 accounting and 15 auditing standards up to the end of 2009. Some of these standards indicate that the SOCPA takes the responsibility for overseeing the audit profession by regularly reviewing the performance of audit firms. After the establishment of the SOCPA, a new accounting law has been issued. The new law identifies the SOCPA structure and determines its objectives. Thus, the requirements of financial reporting for Saudi companies are not only governed by company law 1965, but also governed by the standards issued by the SOCPA.

Many reforms have been made recently in Saudi Arabia in terms of its political systems, social life and business. One of these reforms was the establishment of the Saudi Arabian General Investment Authority (2000), which has the aim of reinforcing and reinvigorating the investment environment; and of attracting local and foreign investors, by taking actions which can help to eliminate obstacles and resolve shortcomings (Falgi, 2009). In 2004, the Capital Market Authority (CMA) was introduced as the main governing body of the capital market and its listed joint stock firms in Saudi Arabia. CMA serves the objectives of investor protection and market development. In 2005, after long negotiations which resulted in the adoption of several rules in its legal system, Saudi Arabia became a member of the World Trade Organization (WTO) (Ministry of Commerce and Industry, 2006). The CMA had also taken action to increase the integrity of financial transactions and their related disclosures by introducing the Corporate Governance Code on 12 November 2006 to cope with the demand for quality financial reporting by shareholders, creditors and other users of financial statements for the purpose of efficient contracting and monitoring.

According to Al-Sehali and Spear (2004), the Saudi government outlined several important initiatives such as opening the door for more involvement by non-Saudi nationals to invest in its capital markets. The main goal of these initiatives is to encourage both local and international private sectors to participate in activities that can enhance the development of the economy. Following the 2006 market correction, the authorities decided to increase demand for shares by further opening the market. Financial institutions and institutional investors from other Gulf Cooperation Council countries and foreign legal residents are allowed to invest directly in Saudi shares by December 2007, and other foreigners can also do so via Saudi investment funds by August 2008. Thus, Saudi Arabia encourages foreign direct investment by attracting and providing facilities for non-Saudi nationals to invest in the SSM. As a result of this, the demand for accounting information has increased from both local and international investors.

In conclusion, the Saudi business environment has seen gradual development which has enhanced Saudi's economy, for e.g., the reinforcement of rules involving the Saudi Stock Exchange and the accounting and auditing profession. However, these reforms are considered by many witnesses as being slow and it is largely believed that the economy will not be able to cope up with the many changes taking place in the international business environment (Saudi Journal of Accountancy, 2009).

1.2.1.3 The Saudi Stock Exchange (Tadawul)

According to Al-Ghamdi (2012), Saudi Arabia as a developing country has an emerging market that has grown in the recent decades. The Saudi market is also characterized by an inactive corporate control and greater information asymmetry compared with the established markets in developed countries like the UK and the USA. The Saudi government is attempting to improve and reinforce rules that could contribute to greater corporate control and to make information transparent.

The Stock Exchange (Tadawul) is presently an authority which is self-regulated and is ruled by a board which involves nine members nominated by the Saudi Capital Authority and assigned by the Prime Minister. The board consists of members who represent different governmental organizations, like the Treasury Department, the Ministry of Commerce and Industry and the Saudi Arabian Monetary Agency. Furthermore, the board comprises two members from listed companies and four representatives of licensed brokerage firms (Saudi Stock Exchange regulations, 2009).

Saudi listed companies started their activities in the mid-1930s, when the Arab Automobile Company was the first associated stock company on the Saudi Tadawul (Saudi Tadawul Law, 2009). In 1975, because of the quick development of the Saudi economy, which occurred at the same time as oil price increases and 'Saudization' (buying shares from foreign investors) of a part of foreign banks' capital resulted in a growth in the number of large companies and joint stock banks. At that moment, despite this noticeable progress, the Saudi Market did not become formal and organized. During 1980s, trading rules were launched by the Saudi government together with the needed systems. In 1984, they tried to organize the market by establishing a committee which involved the Ministry of Commerce and the Saudi Arabian Monetary Agency. This committee was considered as the government body which was in charge of regulating and controlling market operations up to the time the Capital Market Authority was established in 2004 with the duty of legislating the needed rules and regulations.

Over the last few years, a rapid increase in privatization has occurred in the Saudi market, as a result of the Saudi government's announcement of a plan to privatize many of its crucial economic sectors, which resulted in a large number of private and family companies going public. Therefore, the number of Saudi listed companies has witnessed a dramatic increase from 75 in 2000 to 127 in 2008 (see Table 1.1). In 2009, there were 135 listed companies distributed among different industries in the Saudi market with several percentages of ownership. Since the Saudi market has become stable and safe, many foreign investors are attracted to it. The stock market is deemed to be the only entity entitled to have trading in securities in the kingdom. Therefore, the stock market has several objectives and duties as follows:

- To increase and guarantee fair and affective activities in the market.
- To guarantee market uprightness, quality, justice
- To help investor education and awareness efforts
- To improve and develop excellence of service for customers involving brokers, issuers, investors, sellers, etc.
- To enhance the exchange's capabilities and competencies.
- To issue and strengthen professional criteria for brokers and their agents.

Table 1.1
Number of Joint Listed Companies for the Period 2000-2009

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
75	76	68	70	73	77	86	111	127	135

Source: SAMA, Annual Report, 2010

In terms of the development of corporate governance, the following section provides information regarding the introduction of the Corporate Governance Code in 2006, and the subsequent amendments.

1.2.1.4 Saudi Corporate Governance Code

Issues related to corporate governance are quite vital in developing markets because these markets do not have characteristics such as long-founded financial institution infrastructures to deal with corporate governance issues (McGee, 2010). Corporate governance, as a framework, has to guarantee that timely and particular disclosures have been made of all material matters regarding the company, financial position, performance, management and ownership. This section sheds light on the important rules and regulations that play a vital role in organizing and regulating the operations of Saudi companies and their structures, by focusing on the Saudi Corporate Governance Code, notwithstanding that there are many other regulations and rules in Saudi Arabia.

Saudi Arabia has ignored the corporate governance mechanisms as a matter of significance for a long time. It continued ignoring that until 2005, when many problems concerning the performance of companies in Saudi Arabia, made the Saudi Capital Market Authority gave attention to them. Also, the 2006 crisis in the Saudi Arabia market made it clear about the serious weaknesses in financial reporting, i.e., a lack of transparency, disclosure, and responsibility (Saudi Journal of Accountancy, 2006). As a result, the Saudi government and academics offered fundamental support towards corporate governance. Hence, corporate governance, at the present time, has become an important issue in the Saudi business environment, and discussion on the reinforcement of the corporate governance system is of crucial interest. Many fundamental regulations and criteria in Saudi Arabia have been included in the corporate governance mechanisms; e.g. board independence, audit committee, ICS and transparency, which help to better organize the management of companies listed on the Exchange. This is to protect the rights of the shareholders and stakeholders by ensuring compliance with the best practices.

The prime laws which affect the legal framework and the notion of corporate governance in Saudi Arabia can be divided into three groups: the first group is known as the company law system; it was derived from British Companies' law. It regulates the Saudi market, which organizes joint stock companies. The second group is SOCPA and third group is the CMA.

In 2006, the Board of CMA introduced corporate governance. Four years later, corporate governance was amended for the purpose of organizing and developing the Saudi Capital Market and increasing the credibility and transparency of financial reporting. The Saudi listed companies were required to disclose, in the annual report, the provisions that had been carried out and those which had not been carried out and to clarify any non-compliance, in spite of the fact that the code was a guideline and was not made mandatory until the beginning of 2010.

The code comprises five main parts. The first one is preliminary; and it explains and defines some terms related to regulation, such as independent members, non-executives and shareholders. These are called provisions. The second part sheds light on the rights of shareholders and the general assembly. The third provides guidance for disclosure and transparency to be made by a listed company, such as the board report. The fourth is about the functions and responsibilities held by the board of directors. The final part involves publication and implementation (the Code of Corporate Governance, 2006).

The first article of the code is related to the disclosure of the provisions that have been implemented and those that have not been implemented. The second article is the definition. The third article is related to general rights of shareholders. The fourth article is regarding facilitation of shareholders to exercise rights and access to information. The fifth article relates to shareholders' rights related to the general assembly. The sixth article is related to voting rights. The seventh article relates to rights of dividends of shareholders. Article eight and nine are related to disclosure and transparency. Articles ten to eighteen are related to board of directors, their functions and responsibilities. The last article is related to the effectiveness of these articles and their publication.

The developments in accounting and financial reporting are important factors that enhance the quality of financial reporting in Saudi Arabia. Moreover, Saudi regulators have taken action to increase the integrity of financial transactions and their related disclosures by introducing the Corporate Governance Code. These recent developments of accounting system, auditing, financial reporting, and corporate governance in Saudi Arabia have been the motivation of conducting this study.

Among corporate governance rules, the board of directors and audit committees are both deemed as the first line of defense against inefficient management. Therefore, this study tries to make it possible for the board of directors and its committees, as the core of corporate governance mechanisms, to be investigated. The following section provides insight into the credibility of financial reporting.

1.2.2 Financial Reporting Credibility

The investors cannot directly observe the underlying true earnings of firms. They have to rely on reported accounting numbers. Generally, a company's annual report provides useful information that helps the users in making well-informed decision about the company, based on the assumption that the annual report should reflect the real financial and commercial position of the company. According to Lee *et al.* (2005), when a company's information is incomplete or not considered to be credible, investors will protect themselves by requiring a higher expected rate of return (e.g., lowering the price that they would pay for the company's shares). Therefore, the credibility of financial statement and reported numbers is the extent to which investors perceive those numbers as reflecting the current change in shareholder value. The term 'credibility' refers to investors' evaluation of reported earnings numbers.

Previous studies (e.g., Watts & Zimmerman, 1990; Dey, 2005), show that financial statement credibility is affected by myriad factors. These factors exist at many levels, such as corporate governance, accounting methods, disclosures, internal controls, management integrity, and external auditor quality. Therefore, the core of this research is to examine whether various internal and external monitoring mechanisms increase investors' reliance on financial reports. To develop a more complete understanding, it is important to examine the relationship between the quality of financial reporting and a broader set of monitoring mechanisms. The following section discusses the monitoring mechanisms.

1.2.3 Monitoring Mechanisms

A company that wants to reduce the risks and improve its performance should depend on an integrated system of controls. First, a company needs to establish a system of internal controls, including establishing risk management and internal audit department; then identify the role of board of directors and audit committees, and finally, identify the role of external auditor, to achieve the goal of increasing the reliability and credibility of financial statements.

As suggested in the agency theory, the monitoring mechanisms are supposed to align interests of both managers and shareholders and mitigate the conflict of interests and any opportunistic behavior resulting from it. Different monitoring mechanisms, such as corporate governance, audit quality, ICS, institutional ownership and bank monitoring affect the process of financial reporting and the reliability of information. Increasing the quality of monitoring could reduce uncertainty of information resulting from subjectivities of accounting estimates and the conflict of interest between owners and managers.

This study focuses on corporate governance (board and audit committee characteristics) and ICS as internal monitoring mechanisms and on external auditor, institutional ownership and bank monitoring as external monitoring mechanisms.

Corporate Governance: Prior studies mention that corporate governance refers to the way companies are directed and controlled. The concept of corporate governance may refer to the laws, regulation and standards that define the relationship between the owners, shareholders and company's management. The Organization for Economic Co-operation and Development (OECD) defines corporate governance as the set of relationships between the company managers, board of directors, owners, and all parties that have an affiliation with the company. It is also defined as a method which provides the structure, or frame which identifies and achieves the objectives of the company, enhances the ability of owners in monitoring management, and provide the necessary incentives for management to exercise their authority.

In other words, corporate governance is a good practice for the authorities to be responsible and comply with regulations and disciplined rules that determine the relationship between the company's management, shareholders and stakeholders or parties associated with the company.

It is also stated that corporate governance is an integrated system of control, including a set of legal and administrative and accounting procedures, etc., which aim to expand the system of accountability, and equality in determining the rights of holders of interests in the firm, improve their performance and maximize the market value of the shares and the achievement of disclosure and transparency of accounting information quality that are of benefit to users.

It is clear that corporate governance has an effective role to achieve the quality of accounting information by watching and inspecting the financial reporting process. In the development of this concept, Klein (2002) finds that board and audit committee independence influence earnings quality. She suggests that board comprised of a majority of outside directors is effective in monitoring the corporate financial accountings process.

Internal Control System: According to the Government Accountability Office (GAO) (1999), ICS is the policies and procedures established to provide reasonable assurance that specific objectives will be achieved. ICS may include a wide variety of objectives and related policies and procedures. Generally, the policies and procedures that are relevant to an audit pertain to the entity's ability to record, process, summarize and report financial data consistent with the assertions in the financial statements. Thus, internal control increases the reliability of the financial statements.

ICS refers to a set of safeguards that help the company to achieve its objectives by enhancing the quality of the information, and improving the monitoring effectiveness. This is done by observing the commitment to management policies of the administration, asset protection, preventing fraud and error, improving accuracy and completeness of accounting records and preparing financial information in a timely manner. The Committee of Sponsoring Organization (COSO) also defines internal control as process designed to provide reasonable assurance regarding the reliability of financial reporting. This study focuses on issues related to internal control over financial reporting.

In other words, ICS is a means by which an organization's resources are directed, monitored, and measured. According to Doyle, Ge, and McVay(2007), it is believed that effective ICS deters misstatement and fraud which reduces earnings quality. Thus, ICS is an important internal monitoring mechanism that enhances the quality of financial reporting.

External Auditors: According to DeAngelo (1981), audit quality can be defined as an auditor's ability to detect and report errors and irregularities in financial statements. The ability of auditors to detect irregularities in financial statement depends on their technical capabilities, whereas the ability of auditors to report breaches in financial statements depends on the extent of their independence from their clients. In other words, the higher an auditor’s technical competence and independence, the higher the quality of the auditing service. The audit process is supposed to serve as a monitoring device that reduces manager's incentives to manipulate reported earnings (Wallace, 1980).

Institutional Ownership: It has been argued that potential benefits to large shareholdings from conducting monitoring activities to ensure that managers do not engage in non-value maximizing behavior, are likely to exceed the costs of these activities. Therefore, it is expected that large external shareholders will undertake a more active interest in important corporate issues and play a vigilant role in monitoring the manager's behavior (O'Sullivan& Wong, 1998).

Bank Monitoring: According to Byrd and Mizruchi (2004), banks can provide expertise and certification for distressed companies while exercising a monitoring role for non-distressed firms. Johnson (1997) mentions that banks are competent in financial intermediation and therefore, can overcome moral hazards and other informational problems by more detailed debtor monitoring.

1.3 Problem Statement

Corporate accounting and reporting system produce financial accounting information. This information relates to the financial position and performance of the company. The financial reports disclosed by corporations through different media provide useful information to investors, current and prospective creditors, and other users to help them make investment and credit decisions wisely. However, the inherent latitude in application and interpretation of many accounting standards depending on personal judgments of managers, in many cases, may provide managers with an opportunity to manage reported accounting earnings using different techniques**.** Any manipulation of reported earnings for any reason will reduce the reliability of accounting numbers and their usefulness for decision-making (Ebrahim, 2004).

Generally, the users of financial statements will rely on information disclosed in the financial statement since they have no access to a firm’s accounting records. According to Dey (2005) and Bugshan, (2006), knowing the management's ability to manage earnings, shareholders assess their perception of accounting earnings by looking for other information such as the compliance with corporate governance code, particularly after the collapse of some big companies (e.g., Enron, Adelphia, and Worldcom in USA, HIH in Australia, Parmalat in Italy, Royal Ahold in the Netherlands, Gescartera and BBVA in Spain, and Bishah Agriculture Development Co[1] in Saudi Arabia). These collapses raised serious questions about the credibility of financial statement and the effectiveness of governance structure to protect the investors' interests not only in countries that suffered from such corporate collapses, but also in countries that have never experienced such crises.

In a developing country like Saudi Arabia, public companies circulate information about themselves through their published annual reports. Annual report is viewed as the main source of corporate information in developing countries and it is used by companies as a medium to disseminate information to external interested parties (Abu-Baker & Naser, 2000). As such, listed companies' earnings reports may have a proportionally large impact on securities prices in the SSM.

Financial reporting disclosure, accounting and the auditing profession in Saudi Arabia witnessed significant developments in response to the growth of SSM in recent years coupled with the increasing contribution to the Saudi GDP by corporate firms. This

[1] According to auditor report 2006, the company did not prepare financial statements accurately. It reported loss of 26,390,000 R while the true loss is 55,840,000 R.

growth led the government to form the Financial Market Committee. This specialized committee has broad responsibilities for organizing and developing the stock market to protect investors from acts of fraud and misappropriation and to create an environment for fair trading. For example, publicly listed companies have to announce important events that take place, such as the directors' resignation and the purchase or the disposition of material assets. Listed firms are also required to release annual and quarterly reports on a timely basis. All firms listed on the Saudi Stock Exchange are required by law to publish their complete financial statements within three months following the fiscal year-end (Alsaeed, 2006).

Furthermore, according to Arab News, the SSM has undergone a severe crash that damaged market index in February 2006, shaking investor confidence ("Saudi Arabic-Precluding a future stock market bubble via rigid policy intervention." 2009). Baamir (2008) mentions that the stock market crash in Saudi Arabia at the beginning of 2006 highlighted the issues of transparency and disclosure. He states that the lack of transparency occurs as a result of inadequate disclosure, which might be encouraged by either a gap in the disclosure rules or a weakness in the enforcement mechanisms.

Over the last decade, each year has seen the introduction, or revision, of a corporate governance code in a number of countries. The development of codes has often been driven by a financial scandal, corporate collapse or similar crisis. One of the objectives of a company's corporate governance system is to ensure the quality of that company's financial reporting (Klein, 2003; Stewart & Munro, 2007). Saudi regulators introduced the Corporate Governance Code on 12 November 2006, after the collapse in equity prices, to restore investor confidence, protect shareholders and reduce the potential unfair trading. In a corporate governance conference held in June 2006 in Alriyadh, Ebrahim Fahaid, a legal advisor, mentioned that the primary objective of corporate governance is to protect the interests of capital providers and enhance the transparency in stock market to meet the demand for quality financial reporting by stakeholders for the purpose of efficient contracting and monitoring. Dr. Jassim Rumaihi stated that a study has found that 70% of investors are willing to pay 20% more than the share value for companies that practice corporate governance compared to the companies that do not practice good corporate governance (Al-Oteeby, 2006).

Likewise, firms could improve investor protection by increasing disclosure and imposing disciplinary monitoring mechanisms to control and prevent managers from engaging in expropriation of minority shareholders. It is likely that firms within the same country will offer varying degrees of protection to their investors (Klapper, Laeven, &love, 2006). Krishnan (2005) indicates that governance structure that is designed to reduce management ability to manipulate earnings will result in earnings of higher quality which will have a higher level of informativeness to the stock market.

Accurate and reliable financial reporting is a responsibility of a corporation and an aspect of good corporate governance. According to Dey (2005), in spite of the lack of empirical evidence, various practitioners, researchers, organizations and bodies assume that corporate governance directs rapid, effective and integrated solution for improving the quality of financial reporting. For example, the Cadbury Committee, which was formed to develop a framework for corporate governance on behalf of Cadbury Best

Practices in 1992 in the United Kingdom, the OECD, which developed the Principles of Corporate Governance in 1999, the Fund for Public Pensions (Calpers) in United States of America, as well as for the Blue Ribbon Committee in the United States of America, which issued its proposals in 1999, all support the idea that adequate corporate governance enhances financial reporting quality.

Prior research in finance and accounting has tested the effect of some corporate governance factors, institutional ownership, and audit process as monitoring devices on financial reporting quality. The corporate governance factors examined in previous research include independent directors on boards, CEO tenure, CEO-chairman duality (i.e., CEO also holds the board chairman position), stock ownership of independent directors on the board, in addition to the board size. However, the results of these studies on the efficiency of different monitoring mechanisms are mixed. For example, some studies found that that most aspects of governance, in particular, the composition of the board of directors, the CEO's dual role as the chairman of the board, and the effectiveness of the audit committee, are significantly associated with the credibility of reported earnings (Klai & Omri, 2011; Chang & Sun, 2010; Chang & Sun, 2009; Dey, 2005; Ahmed, Hossain, & Adams, 2006; Anderson, Deli, & Gillan, 2003).

On the other hand, some studies provide insignificant relationship between corporate governance factors and earnings quality (Lee *et al.*, 2005; Rahman & Ali, 2006). Ji, Ahmed and Lu (2008) find a weak relationship between governance structure and the informativeness of earnings in companies in China.

In contrast, some studies find that corporate governance factors have negative impacts on financial reporting quality. Contradictory to the prediction of agency theory, the results show that a higher proportion of independent non-executive directors is associated with higher income-increasing earnings manipulations (Hashim & Devi, 2008).

In addition to this, Doyle *et al.* (2007) mention that the quality of ICS is an important internal monitoring mechanism. Good ICS enhances the quality of financial reporting, based on the idea that effective ICS deters fraud and misstatement which may in turn reduce reported earnings. Despite the arguments above, there is a lack of empirical evidence regarding the relationship between the disclosure of ICS weaknesses and the quality of reported earnings.

Furthermore, according to Choi (2007), review of academic literature in economic and finance revealed that only bank relationship has been intensively studied; however, there is no study on bank relationships in the accounting literature. Based on the belief that a firm's debt financing decision is critical and that banks and bank loans play a unique role in financing businesses, it is important to understand the effect of the firm-bank relationship on financial reporting.

Moreover, it is generally suggested that corporate governance, internal control, and external auditing are substitutes, so that controls can be offset against each other and there will be negative relationships between them. However, the empirical results do not support this view (Hay, Knechel & Ling, 2008; Knechel & Willekens, 2006).

From the above discussion, the need to investigate the relationship between these variables in emerging countries is more warranted considering the fact that corporate governance practices work differently in environments with special characteristics like Saudi Arabia (i.e. with a less developed legal system and new corporate governance regulations).

Therefore, this study examines whether monitoring mechanisms matter to investors in providing credibility to financial disclosures. It focuses on different monitoring mechanisms as a vehicle for improving the quality of financial information transparency to provide a more complete view of this subject. This is done by establishing the connection between a wider range of different monitoring mechanisms (corporate governance, ICS, external audit quality, and capital providers) and credibility of reported earnings numbers. More generally, there is a need to understand the connection between different monitoring mechanisms and credibility of financial statements problem (the credibility of accounting numbers in this study refers to the extent to which investors perceive those numbers to reflect current changes in shareholders' value).

1.4 Research Questions

This study focuses on whether internal and external monitoring mechanisms are related to financial reporting credibility. Precisely, this study aims to provide the answers to these five main questions:

1. To what extent are board of directors and audit committee characteristics associated with the credibility of financial statements in Saudi Arabia?

2. To what extent is the disclosure of internal control weaknesses associated with the credibility of financial statements in Saudi Arabia?

3. To what extent is external audit quality associated with the credibility of financial statements in Saudi Arabia?

4. To what extent do institutional investors enhance financial reporting credibility in Saudi Arabia?

5. To what extent does bank monitoring enhance financial reporting credibility in Saudi Arabia?

6. To what extent do board of directors, audit committee characteristics and audit quality influence the disclosure of ICS weaknesses in Saudi Arabia?

1.5 Research Objectives

The main objective of this study is to examine the effectiveness of various monitoring mechanisms to assure the investors of the reliability of financial data. This study investigates board of directors and audit committee characteristics, audit quality, institutional ownership, and bank debts and their relation to credibility of financial statements of the Saudi firms that are listed on the SSM. The specific objectives are as follows:

1. To investigate the relationship between board of directors and audit committee characteristics and the credibility of financial statements of Saudi firms.
2. To investigate the relationship between the disclosure of ICS weaknesses, audit quality, institutional ownership, and bank monitoring and the credibility of financial statements of Saudi firms.

3. To examine the relationship between board of directors and audit committee characteristics and audit quality and the disclosure of ICS weaknesses.

1.6 The Significance and Contributions of Study

Saudi Arabia policy makers have paid more attention to the need for a more transparent environment for investment, fair competition and building confidence in transparency and accountability of both public and corporate sectors. As a result, reforms in the accounting and auditing profession and the issue of Corporate Governance Code in 2006 are expected to elevate the financial reporting practice and, thereby, improve the quality of accounting disclosure. Although research relating to the level of credibility of financial statements to firm's corporate governance structure has been conducted in developed countries, little attention has been devoted to the association between the credibility of reported earnings numbers and a firm's corporate governance structure in the Middle Eastern countries. Therefore, conducting a research in relation to credibility of financial statement is considered necessary.

In addition, the recent scandals of several big companies, for example, Enron, Adelphia and Worldcom in USA, HIH in Australia, Parmalat in Italy, Royal Ahold in the Netherlands, Gescartera and BBVA in Spain, and Bishah Agriculture Development Co. in Saudi Arabia, have increased public concern about the integrity of firm's financial reporting processes even in countries that have never experienced such problem.

Furthermore, this study contributes to the ongoing research on credibility of financial reporting literature by examining internal and external monitoring mechanisms and their relationship to the credibility of reported earnings as perceived by investors. This study differs from earlier studies (e.g., Chang & Sun, 2010; Chang & Sun, 2009; Dey, 2005; Bushman & Smith, 2001; Lee *et al.*, 2005) on the relationship between governance structure and the credibility of financial statement reports in two ways. First, this study combines five different monitoring mechanisms in a single study. Second, this study investigates the association between the monitoring variables. Previous research in this area did not consider all variables that might affect the integrity of a firm's financial reporting process. As a result, this study provides more comprehensive evidence regarding the effects of various monitoring variables on financial reporting quality.

There is lack of empirical evidence regarding the assumption that good governance leads to greater financial reporting credibility, as mentioned by Dey (2005). In addition, previous studies which investigated the impact of ICS on financial reporting quality provided limited empirical evidence. Brown, Pott, and Wömpener (2008) mention that there is a lack of evidence regarding the effect of internal control mandatory disclosure on financial reporting quality for non-USA environments. Even though academics are concerned with the monitoring role of banks, there is little empirical evidence that shows how banks serve a monitoring role mainly in debt financing (Ahn & Choi, 2009; Shleifer & Vishny, 1997). This study fills the gap in that field by investigating the effects of governance structure on financial reporting quality in the SSM.

Finally, corporate governance and credibility are important issues not only for academics but also for regulators and practitioners. The findings of this study will provide a better insight into corporate governance practices and its association with the credibility of financial statement in the SSM. The results of this study will be useful to stakeholders such as investors, policy makers, regulators and financial analysts and institutions, by providing them with a potential important warning signal for quality of financial information.

1.7 The Scope of the Study

The study of corporate oversight and reporting and credibility has been conducted by many researchers; however, previous studies did not consider the effect of all monitoring variables. Thus, this study investigates corporate governance, ICS, audit quality and capital providers, as different monitoring mechanisms and their relationship to how investors perceive credibility of financial statement, namely the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, audit quality, ICS, institutional ownership and banks debt. Specifically, the study seeks to investigate whether the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, institutional ownership, audit quality, the disclosure of ICS weaknesses and banks debt, affect the credibility of reported earnings. Furthermore, this study also investigates the relationship between the independent variables, namely corporate governance mechanisms, audit quality and the disclosure of ICS weaknesses.

This study employs the data from the SSM (Tadawul) for the period 2007 to 2008. Saudi Arabia is the focus of study for several reasons: Saudi is the world’s 25th largest exporter/importer and holds a 25 percent share of the total Arab GDP. Advanced steps have been taken by the Saudi government and regulators in order to attract more domestic and foreign capitals and improve the investment climate. Saudi Arabia is the biggest financial market in the Middle East, with a market capitalization of USD 519 billion at the end of 2007 (the 8th largest emerging market and the 23rd worldwide). In terms of value traded, the SSM was ranked the 10th largest market in the world by the end of 2005. Furthermore, the issuance of the Corporate Governance Code in 2006 are expected to elevate the financial reporting practice and, thereby, improve the quality of accounting disclosure. It is an empirical issue whether the Code's recommendations such as board independence, audit committee independence, CEO duality, board size and disclosure of ICS weaknesses have any effects on financial reporting quality.

All non-financial listed companies in 2007 to 2008 in SSM were selected because they are precisely after the introduction of the Corporate Governance Code on 12 November 2006. Market-based measures have been used to assess financial reporting credibility by measuring investor's response to reported earnings. Since the credibility of reported earnings judged by investors' perception is studied in this thesis, the study uses two proxies of earnings credibility [non directional (volatility of stock returns) and directional (the sum of the announcement period on excess returns).

1.8 Organization of Thesis

This thesis is organized into six chapters. Chapter one is an introduction to the study. It provides a background of the study, problem statement, research questions, research objectives, significance of the study, and organization of the study.

Chapter two begins with literature review on financial reporting in Saudi Arabia followed by a discussion of the theory and related empirical studies on internal and external monitoring mechanisms and credibility of financial statement.

Research methods are presented in chapter three. This chapter discusses hypotheses development, theoretical framework, population samples and data collection, operational definition, measurement of the variables, research model, and method for data analysis.

Chapter four includes data analysis and research findings. Chapter five presents the discussion of findings resulting from data analysis compared to that of previous studies and summarizes them according to the research objectives, underpinning theory, and hypotheses. Finally, chapter six presents the summary, conclusion, and recommendation of the research. The main findings and their significance to the study are highlighted. Overall summary highlights the findings of the study upon which a conclusion is drawn in line with the objectives set. This chapter ends with the implication drawn from the study, the limitation of the study and suggestions for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews previous studies related to the credibility of financial statement, market reaction, internal corporate governance and external monitoring mechanisms. In other words, it looks at how investors perceive the credibility of financial statement report and market reaction. According to Ebrahim (2004), accounting defects raise questions within the investment community about the effectiveness of internal controls, management integrity, audit committee oversight, external auditor quality, etc. In existing academic literature, several determinants explain the investor reaction to financial statement report. This chapter discusses several literature related to financial credibility and stock price reaction, the monitoring mechanisms and credibility of financial statement.

2.2 Some Studies on Financial Reporting in Saudi Arabia

A review of the literature reveals a number of studies on financial reporting in Saudi Arabia (Al-Abbas, 2009; Al-Moghaiwli, 2010; Alsaeed, 2006; Al-Shetwi, Ramadili, Chowdury, & Sori. 2011; Al- Sehali & Spear, 2004; Al-Razeen & Karbhari, 2004; Falgi, 2009; Naser & Nuseibeh, 2003a; Naser & Nuseibeh, 2003b; Haniffa & Hudaib, 2007). These studies address the different aspects of financial reporting in Saudi Arabia such as disclosure quality, the important of information disclosures, and annual report usefulness as summarized in Table 2.1.

Utilizing a sample of Saudi joint stock companies for 2005, 2006 and 2007, Al-Abbas (2009) investigates the influence of corporate governance factors such as board independence, CEO duality and the composition and independence of audit committees on earnings management. In addition to that, the auditor size and a number of other variables have been included to control for other influential factors. The results provide no evidence that corporate governance factors mitigate earnings management in the Saudi environment. However, the result indicates that audit firm size is an important factor with regards to the extent of earnings management

Al-Shetwi, Ramadili, Chowdury, and Sori (2011) investigate the effects of internal audit function quality on the quality of financial reporting in Saudi listed companies, proxied by earnings management. By using primary and secondary data, the result reveals weak association between internal audit function and earnings management. They state that the insignificant impacts of internal audit function on the quality of financial reporting is perhaps because of the combined factors of poor corporate governance practices and inadequate legal system.

Al-Moghaiwli (2010) examines the effects of company size, foreign employees and government debts on earnings management in Saudi listed companies over the period 2005-2007. The result indicates that managers that managers of Saudi listed companies which have large assets and high ratio of foreign employees to total employees would incur relatively large political costs and, therefore, tend to take earnings management actions.

Based on the above review, corporate governance factors seem to have very limited influence on earnings management among Saudi companies. This could be due to the sample periods are around the introduction of the Saudi Corporate Governance Code, and it is still too early to see the expected results from implementing the corporate governance best practices, consistent with Falgi (2009). Using semi-structured interviews and a questionnaire survey with wide groups of stakeholders, Falgi (2009) examines the understanding of corporate governance in Saudi Arabia. The findings suggest that corporate governance in Saudi Arabia is in its early stages and is characterized by a lack of accountability, a weak legal framework and poor protection of shareholders.

Another strand of research on financial reporting in Saudi Arabia focuses on voluntary disclosure (Naser and Nuseibeh, 2003b; Alsaeed, 2006) and user's perception of annual corporate information (Naser and Nuseibeh, 2003a; Al-Razeen and Karbhari, 2004). Based on a sample of non-financial Saudi companies listed on the SSM, Naser and Nuseibeh (2003b) assess information disclosure quality before and after the establishment of SOCPA. Three types of information disclosures are included in the study: compulsory, voluntary related to compulsory, and voluntary unrelated to compulsory. The results indicate all industries except electricity sector comply with the compulsory requirements. Regarding the two types of voluntary disclosure, Saudi firms disclosed information more than the minimum required by the law but the disclosure level is low. Moreover, the level of disclosure is almost the same before and after SOCPA. Alsaeed (2006) investigates the relationship between some characteristics of the company and the extent of voluntary disclosure. The outcomes indicate that company size affects the extent of voluntary disclosure; however, other variables do not affect the level of company disclosure.

Naser and Nuseibeh (2003a) study annual report usefulness of listed companies in SSM. Based on data collected by questionnaires, five user groups were chosen in order to investigate their opinion about companies' annual financial statement in Saudi Arabia. The focus groups were bank credit officers, institutional investors, financial analysts, government representatives and individual investors. The results demonstrate that almost all five groups depend on the information available and offered by the company and do not consult intermediary sources of company information to make informed decisions. Saudi Arabia is a developing country with a few listed companies; thus this result is expected because financial and business communities can exchange the information easily as a result of social and business links. Al-Razeen and Karbhari (2004) study the perceptions of five main user groups of company's annual reports specifically, institutional investors, government officials, creditors, financial analysts, and individual investors. Their study's main point is the importance and the use of the seven different sources of corporate information disclosed in Saudi annual reports. The result indicates that the income statement and balance sheet are the main important sections of the annual report to the majority of the Saudi user groups. The least important source of information is the board of directors' report.

There are also studies that examine the audit quality of external auditors as perceived by the users (Haniffa and Hudaib, 2007) and the informativeness of earnings number (Al-Sehali and Spear (2004). Using a mixture of mail questionnaires and semi-structured interviews, Haniffa and Hudaib (2007) investigate the perceptions of audit performance of users and auditors and the influence of the business and social environment. The outcomes demonstrate four factors in the environment within which auditing is practiced to raise audit performance gap; these factors are political and legal structure, dominant societal values, licensing policy, and the recruitment process. The results from interview reveal the audit expectations gap influenced institutional and cultural settings demonstrating that Islamic principles and the code of ethics inclusion in auditing standards would assist in reducing the expectations gap that exists in Saudi Arabia.

And finally, Al-Sehali and Spear (2004) examine the decision relevance and timeliness of accounting earnings in Saudi Arabia during the 1995–1999 sample periods. The result shows that the individual investors react positively to the disclosure of reported earnings. The investors revise their security holdings especially when the company reports profit. Their study extends the limited literature by investigating the role of accounting information on security valuation in the Saudi security market. This study extends the literature on earnings informativeness in Saudi Arabia by investigating the influence of external and internal monitoring mechanisms.

Table 2.1
Summary of Previous Studies Examining Financial Reporting in Saudi Arabia

Year of Publication	Author	Variables used	Findings
2011	Al-Shetwi, Ramadili, Chowdury, and Sori	Internal audit function, Audit committee size, audit committee financial background, audit committee independence, and audit committee meeting, and financial reporting quality.	Regression results do not reveal any significant influence of internal audit function on financial reporting quality
2010	Al-Moghaiwli	Company size, foreign employees and government debts, and earnings management	The result indicates that Saudi listed companies are largely dominated by a high percentage of foreign employees who may tend to manage earnings for their own private benefit.
2009	Al-Abbas	Board composition, board independence, (CEO) duality, the composition independence of audit committees and external auditor and earnings management	The study provides no evidence that corporate governance factors mitigate earnings management in the Saudi environment. However, auditing firm's size negatively relates to abnormal accruals.
2009	Falgi	Corporate governance	The findings suggest that corporate governance in Saudi Arabia is in its early stages and is characterized by a lack of accountability, a weak legal framework and poor protection of shareholders.
2007	Haniffa, and Hudaib	Business and social environment factors and audit expectation gap	The results from interview reveal the audit expectations gap is influenced by institutional and cultural settings, demonstrating that Islamic principles and the code of ethics inclusion in auditing standards would assist in reducing the expectations gap that exists in Saudi Arabia.

Table 2.1 (Continued)

Year of Publication	Author	Variables used	Findings
2006	Alsaeed,	Firm size, debt, ownership dispersion, firm age, profit margin, return on equity, liquidity, industry type and audit firm size as well as the extent of voluntary disclosure.	The outcomes indicate that company size affects the extent of voluntary disclosure; however, other variables do not affect the level of company disclosure.
2004	Al-Razeen	The perception of five main user groups, specifically (individual investors, government officials, institutional investors, creditors, and financial analysts) about seven different sources of corporate information.	The result indicated that the income statement and balance sheet are the important sections of the annual report to the majority of the Saudi user groups. The least important source of information is the board of directors' report.
2004	Al-Sehali and Spear	The decision relevance and timeliness of accounting earnings	The result shows that the individual investors react positively to the disclosure of reported earnings.
2003b	Naser and Nuseibeh	Type of information (compulsory vs. voluntary) and the effect of SOCPA creation on the level of accounting disclosure	The results indicate all industries except electricity sector compliance with the compulsory requirements. Regarding to voluntary disclosure Saudi firms disclosed information more than the minimum required by the law but the disclosure in low level. Moreover, the level of disclosure is almost the same before and after SOCPA.
2003a	Naser and Nuseibeh	The perception of seven groups (individual investors, institutional investors, financial analysts, bank	The results demonstrate that the almost all five groups depend on the information available and offered by the company and do not request advice from

Table 2.1 (Continued)

Year of Publication	Author	Variables used	Findings
		credit officers, and government representatives) of the usefulness of the annual report	intermediary sources of company information in making decision.

As mentioned above, previous studies on financial reporting in Saudi Arabia have addressed different aspects of financial reporting in Saudi Arabia such as disclosure quality, the important of information disclosures, earnings management, internal audit function, and annual report usefulness. However, no study has looked at the influence of monitoring mechanisms and earnings informativeness as a proxy for the credibility of financial statement in Saudi market. This study extends the limited literature on earnings informativeness in Saudi stock market by investigating whether internal and external monitoring mechanisms are related the abnormal returns and volatility of stock returns associated with audited earnings announcements.

2.3 Theories

On the subject of monitoring mechanisms and financial reporting quality, a number of theories have been used in the literature to explain the effect of monitoring mechanisms. Generally, the prime theories employed by prior studies to explain financial reporting quality are: agency theory, contracting theory, institutional theory, and signaling theory.

According to agency theory, an agency relationship exists when an individual or an agent is employed by a principal or owner to make decisions on behalf of the principal. Agency problem exists due to conflict between the goals of agent and principal. It would be difficult and costly for the principal to verify that the agent will work to achieve the objectives assigned, since the case is that the principal cannot assert that the agent has performed properly. The main concentration of the theory is on the implementation of proper governance mechanisms that will reduce agency problems and minimize agency costs by ensuring effective alignment of interests of both the principal and agent (Jensen & Meckling, 1976).

Institutional theory is concerned with explaining mechanisms by which organizations may seek to align perceptions of their practices and characteristics with social and cultural values in order to obtain legitimacy. According to this theory, corporate governance is viewed as change in organizational processes over time which leads some organizations to implement corporate governance recommendations, such as a more independent board and the establishment of an audit committee (Sherer & Lee, 2002).

The signaling theory is a suitable theory in explaining how the information asymmetry affects the voluntary supply of financial information. Signaling is a reaction to informational asymmetry in markets. According to signaling theory concept, companies that adhere to ethical financial reporting practices could signal their commitment by establishing committee such as an audit committee that oversees ethics and corporate governance. This committee would promote firm's positive image, reputation and credibility (Huang, Louwers , Moffi, & Zhang, 2008).

2.3.1 Agency Theory, Financial Statement Credibility, and Stock Price Reaction

The separation within organizations of ownership and control of decision management results in agency problem. As a result of this agency problem, managers have motivations to maximize their utility. These incentives may reduce the integrity of the reported financial statements. External and internal controls are mechanisms to reduce these agency problems and to enhance the quality of reported earnings numbers. In other words, the absence of external and internal controls may result in lower credibility of financial reports. The impact of these monitoring mechanisms on the credibility of reported earnings is likely to be related to the level of managers' incentives to manage these numbers. Adequate control system would deter and minimize the level of manipulation of accounting numbers that managers can engage in, hence this will increase investor reliance on financial numbers (Dey, 2005).

Corporate accounting and reporting systems produce financial accounting information that evaluates and discloses audited data to public regarding the financial position and performance of listed companies. Financial accounting and reporting systems supply indirect and direct input to corporate control mechanisms by adding to the information contained in stock prices.

The credibility of financial reporting minimizes information asymmetry between corporate manager and stockholder, improves investors' confidence and raises the stock prices (Healy & Palepu, 2001). The reaction of share price to financial information disclosed indicates that the announcement has information content. The relationship between share price or returns and financial information over an extended period of time indicates that information provided by the accounting system reflects information that is being used by capital market. This information will come from a multitude of sources.

Research on capital market usually focuses on examining the association between share prices or returns and financial information. Reactions of investors are evidenced by their capital market transactions. Price increase in the particular security is presumed to be evidence of favorable reactions to information, while price decrease is evidence of unfavorable reactions to information. No price change around the time of the release of information implies the information release does not provide anything that is new. Researchers in this area have begun to examine whether the stock price reaction to earnings surprises is related to the quality of the reported earnings numbers. Based on studies that examine the effect of the uncertainty in analysts' earnings forecasts on the relation between unexpected returns and unexpected earnings, Imhoff and Lobo (1992) observe that firms with low consensus in the analysts' forecasts of earnings tend to have a low earnings response coefficient (ERC). Although it is possible that high prior uncertainty about the underlying value of the firm would also increase the dispersion in forecasts, the result suggests ex ante uncertainty in earnings has a systematic effect on the relation between unexpected returns and unexpected earnings.

Dey (2005) mentions that in spite of the lack of exact empirical evidence, there appears to be a long standing belief that good governance will result in greater financial reporting credibility, particularly among regulators and legislators. For example ,Sarbanes-Oxley Act (SOX**)** of 2002, states one of its primary objectives as that of restoring investor confidence in corporate disclosures by mandating several governance reforms.

2.3.2 Agency Theory, Monitoring Mechanisms and Earnings Informativeness

In existing academic literature, agency theory has been used to explain the role of monitoring mechanisms in increasing financial reporting quality (Ebrahim, 2004; Niu, 2006; Dey, 2005; Ahmed, *et al.*, 2006; Bhattacharyya & Rao, 2005; Bugshan, 2006; Lee *et al.*, 2005).

Agency theory has been widely used as the underpinning concept in research on implementation of corporate governance devices to oversee the management of publicly traded corporations. Agency theory focuses on reducing agency problems that are derived from the separation of owners as principals and managers as agents in modern corporations. One of the fundamental agency theory mechanisms proposes to address the agency problem of monitoring.

Jensen and Meckling's (1976) theory seeks to avoid or reduce the agency cost resulting from the conflict of interests between the agent and the owners. Agency costs are the sum of bonding costs, monitoring costs, and residual loss. Monitoring costs are salaries and other expenditures paid by the owner to control, measure, and observe agent's performance. In spite of the existence of the agency cost and agency problems explained above, the new structure of diffused ownership leads to such conflicts of interests. This problem was well known amongst both outside investors and corporate managers alike. The enhancement of internal and external monitoring mechanisms could be attributed basically to solve agency problem, believed to be the degree of interaction between each type of mechanism within firms.

A contradictory view of monitoring is provided by Burkart, Gromb, and Panunzi (1997). They argue that too much monitoring will constrain managerial initiative. In the same context, critics of Cadbury (1992) believe that this increased level of monitoring may act as obstacles for managerial entrepreneurship. In relation to this, an argument is provided by Himmelberg, Hubbard, and Palia (1999) that companies will tend to substitute different mechanisms depending on contracting condition and characteristics of the firm. Knowing that the contracting group varies from one firm to the next, useful governance structure for one need not be good for others. Optimal levels of monitoring managerial policies are specific to an individual firm's contracting environment. Within this context, Agrawal and Knoeber (1996) argue that if one specific mechanism is utilized to a lesser degree, others may be used more, resulting in equally good decision making and performance.

Denis, Denis, and Sarin (1997) argue that effective monitoring will be restricted to certain groups or individuals. To fully monitor management, monitors must have the required expertise and incentives, in addition, such monitors must provide a reasonable threat to management's control of the firm.

Some aspects of monitoring may be enforced by law and legislation. For instance, UK companies are required to provide statements of compliance with the both Cadbury (1992) and Greenbury (1995) reports on corporate governance. Companies not in compliance with reports of corporate governance must disclose, explain, and produce statements for non-compliance. This disclosed information will represent an additional source of monitoring.

The important concern in the area of corporate governance and finance is to design effective corporate control mechanisms to make managers act in the best interests of shareholders. From the perspective of agency theory in a corporation, the managers are the agents and the shareholders are the principals. The agent works on behalf of, and for the interests of, the principals. A well-developed market for corporate controls is needed to solve problems of asymmetric information, market failures, moral hazards, and incomplete contracts.

Based the discussion above agency theory anticipates that boards will enhance the integrity of their financial reporting by monitoring management. According the theory the presence of outside directors may affect the quality of directors which may lead to enhanced financial reporting quality (Klein, 2002).

Shleifer and Vishny (1997) point out that concentration of ownership is an effective form of monitoring as coordinating voting by small shareholders is a costly proposition. Additionally, they point to providers of debt capital as effective monitors since their preference for a specific course of action given mismanagement or default is generally written into debt covenants.

Datta, Iskndar-Datta, Patel (1999) argue that banks, as insiders, have advantage of accessing inside information while other investors rely usually on publicly disclosed information. Since banks have accurate and superior information, banks can provide more effective monitoring, which possibly can reduce the monitoring and bonding costs of other debt claimants.

In conclusion, the use of agency theory to investigate the effects of monitoring mechanisms on the credibility of financial statement has been employed by prior studies.

Agency theory provides reasonable explanation to the relationship between monitoring mechanisms and earnings infomativeness as a proxy of financial reporting quality. Thus, using agency theory in this study is appropriate approach.

2.3.3 Institutional and Signalling Theories, Monitoring Mechanisms and Earnings Informativeness

Different theories (such as contract theory, institutional theory, and signaling) have been used to explain the role of corporate governance in increasing financial reporting quality by playing a crucial role in monitoring senior management. The notion of a separation of ownership and control implies a logical condition carrying with it an assumption of the failure of market to supply a complete solution to the unreliability of corporate managers' monitoring and need for some form of regulatory intervention. There is the idea that there is a disciplinary gap in the modern public companies because the shareholders fail to supervise management. From the perspective of contract theory, the members are not owners but simply one of several contracting parties supplying a factor of production, in their case, capital to joint enterprise since shareholders, as preponderantly sophisticated financial institutions, would not be willing to provide capital other than on terms that adequately safeguard their interests. It can be assumed that the contractual process will result in the adoption of appropriate governance provisions from which outside intervention can only detract. Managers who offer inadequate governance terms will suffer market penalties, and hence, they have an incentive to adopt controls that will be attractive to investors (Sheikh & Rees, 1995).

Carpenter and Feroz (2001) and Stedham and Beekun (2000) suggest that institutional theory and agency theory are complementary approaches to corporate governance effectiveness. Thus, institutional theory should be viewed as a complement to agency theory rather than a competing theory. Based on that using both theories as framework might be useful in better understanding of corporate governance functions. Decisions of the managers must comply with all rules and social conventions if they are to receive support and legitimacy (Meyers & Rowan, 1977; DiMaggio & Powell, 1983). Thus, it can be said this theory explains why the accounting practices differ between the countries. For example, the manager of a company who works in countries where there is the legal protection of investors and foreign investors are allowed to invest will decide to disclose more information to outsiders in order to comply with all rules and social conventions or follow the actions of other organizations as a result of coercive or mimetic pressures.

According to Deegan (2007), the institutional theory can explain the voluntary reporting practices through two dimensions; isomorphism and decoupling. DiMaggio and Powell (1983) define isomorphism as 'a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions. As such, in order to avoid attracting criticisms as well as facing legitimacy problems, these organizations which operate within the same environmental conditions, may conform to expectations of the norm. As such, isomorphic processes refer to organizations' adaptations and changes in their voluntary corporate reporting practices.

DiMaggio and Powell (1983) introduced the concept of isomorphism and they believe that competitive and institutional types of isomorphism might be a source of pressure for the companies. By competitive isomorphism, they refer to similar organizations due to market competition which focus on population ecologists (Hannan & Freeman, 1977). This means that companies are influenced by information disclosure when they see industry leaders, competitors, and network members doing the same in order to gain legitimacy and enhance their chances of survival. In order to do so, they should have effective board of directors. Thus, the institutional theory focuses on the maintenance role of a governing board in response to institutional pressure that is focused on indoctrinating the organization by interpreting the external environment (Hung, 1998).

Signaling theory was developed by Spence (1973) to explain behavior in the labor markets. It is also used to explain voluntary disclosures (Watson, Shrives, & Marston, 2002). Signaling is a reaction to informational asymmetry in markets; in this case, companies have information that investors do not. Asymmetries can be reduced if the party with more information signals to others. In this case, managers of higher quality firms will wish to distinguish themselves from lower quality firms through voluntary disclosures (Spence, 1973).

Huang *et al.* (2008) state that based on the signaling theory concept, companies that adhere to ethical financial reporting practices could signal their commitment by establishing committee such as an audit committee that oversees ethics and corporate governance. This committee would promote firm's positive image, reputation and credibility.

According to signaling theory, management of profitable firms is interested in disclosing detailed information to the market in order to avoid undervaluation of their firms and to increase investor confidence. In addition, this theory suggests that managers of profitable firms make good news disclosures to distinguish their firms from other firms that are less profitable. Martinez, Nieto, Rubio, and Tapia (2005) states that information disclosure is expected to have a signaling effect and is positively associated with firms' stock price; the management will disclose more information to the outside in order to reduce the information asymmetry. Thus, signaling through the release of more information is a means by which managers (or directors) may impart to the market additional information about the company and in some cases, about their own behavior.

According to Higson (2003), financial reporting was earlier seen to be central to the monitoring purposes, but since the 1960's, the focus moved to needs and the provision of information to enable users to make economic decisions. Therefore, an alternative or complement to the monitoring hypothesis is the information signaling hypothesis (Ittonen, 2010). Some information that is used in monitoring contracts is also useful in making investment decisions. The difference from monitoring purpose, however, is that information hypothesis emphasizes that financial information is needed by investors to determine market values, which are means of making rational investment decisions, even in the absence of an explicit contract with agent (Wallace, 2002). In a broad manner, the perceived credibility of accounting information has been observed to have an improvement in the estimation of risk through the use of accounting information (Beaver, Ketter, & Scholes, 1970) an effect on interest costs (Wallace, 2002), underpricing of initial public offerings and bankruptcy. Menon and Williams (1991), and Fama and Laffer, (1971) discuss three major benefits of information: reduction of risk, improvement of decision-making and earnings of trading profits.

Agency theory may be suitable for developed countries (Pornuptham, 2006). However, for developing countries such as Saudi Arabia listed companies are characterized by concentrated ownership structure that may lead to reduce agency problems. Thus, this study employs agency theory, signaling theory, and institutional theory as the primary and alternative theories to explain the relationship between monitoring mechanisms and financial reporting quality.

2.4 Empirical Evidence on the Monitoring Mechanisms and the Quality of Reporting Earnings

Corporate governance is defined by John and Senbet (1998) as the mechanism by which the shareholders of a corporation exercise control over corporate managers and management to ensure that their interests are protected. Corporate governance, in this context, is a good practice and responsibility for the authorities to comply with regulation and disciplined rules that determine the relationship between the company's management and shareholders to protect their interests.

According to Watts and Zimmerman (1986), corporate governance as a monitoring tool, has the ability to enhance the reliability of accounting earnings; and consequently, increase the informativeness of accounting earnings. Moreover, corporate governance helps investors by reducing the conflict of interest between managers and shareholders, enhancing the reliability of financial information and the integrity of the financial reporting process.

Fama and Jensen (1983) argue that corporate boards would be effective if the majorities are outside independent directors and they hold management positions in other companies. They argue a separation of decision management and decision control is an important factor for board effectiveness. Nevertheless, separation of these functions would be more difficult if the CEO could dominate the board and shareholders would suffer as a result. Whenever the problem of disagreements amongst internal managers, the corporate boards should act as monitors and carry out duties involving serious agency problems.

Generally, prior literature on financial reporting quality focus on many factors as proxy for financial reporting quality such as fraud, financial restatements, earnings management, and informativeness of earnings. In addition, these studies examine the role of various corporate governance variables such as board of directors, audit committee, external auditors, internal auditors, and their influence on financial reporting quality either individually or respectively.

The studies of corporate governance and financial reporting quality using earnings management as proxy financial reporting quality, have been done by many researchers (Klein, 2002; Kao & Chen, 2004; Park & Shine, 2004; Peasnell, Pope, &Young, 2005; Davidson, Goodwin-Stewart, & Kent, 2005; Wright, Shaw, & Guan, 2006; Rahman & Ali, 2006; Benkel, Mather, & Ramsay, 2006; Shen & Chih, 2007; Piot & Janin, 2007; Machuga & Teitel, 2009; Liu & Lu, 2007; Osma & Noguer, 2007)

Klein (2002) investigates wither abnormal accruals as a proxy of financial reporting quality is influenced by the characteristic of board of directors and audit committee. The finding indicated that the more independent of board of directors and audit committee result in reduced levels of abnormal accruals revealing a better financial reporting quality.

Kao and Chen (2004) state that management of a firm may reduce the financial reporting for their own benefits. However, under proper corporate governance mechanisms, board of directors might be able to monitor the firm and prevent the management from reducing the quality of the financial report. They examine the relationship between board characteristics and financial reporting quality. They find that large board size reveals higher financial reporting quality.

Park and Shine (2004) examine the influence of board composition on the quality of financial reporting in Canada. They find that financial intermediaries and the board representation of active institutional shareholders increase the financial reporting.

Peasnell *et al.* (2005) investigate whether the incidence of earnings management as proxy of financial reporting quality by UK firms, depends on board monitoring. They focus on two aspects of board monitoring: the role of outside board members and the audit committee. Their finding suggests that board contributes towards the integrity of financial statement in line with agency theory.

Davidson *et al.* (2005) investigate the role of a firm's internal governance structure to increase the financial reporting quality. The result implies that the strength of corporate governance mechanisms influences the quality of financial reporting as measured by the absolute level of discretionary accruals.

In countries where the level of investor protection provided by legal environment is high, Wright *et al.* (2006) examine the level of financial reporting as measured by earnings management. They find that managers in both the UK and US manage earnings downwards prior to a management by objective, with US managers being significantly more aggressive than UK managers.

Using 97 firms listed on the main board of Bursa Malaysia for 2002-2003, Rahman and Ali (2006) examine the extent of the effectiveness of monitoring of board of directors, audit committee and concentrated ownership in increasing the financial reporting quality. The finding reveals that board size is negatively related to the financial reporting quality. The result also indicates that board of directors is seen as ineffective in discharging their monitoring duties due to management dominance over board matters. The reason for this could be attributed to the board of directors' relative lack of knowledge of company affairs.

Benkel *et al.* (2006) investigate whether independent directors on the board and audit committee are associated with reduced levels of financial reporting quality. The findings imply that the independence of board of directors and audit committee is associated with level of financial reporting quality.

Using earnings management as a proxy of financial reporting quality, Shen and Chih (2007) examine the impact of corporate governances on the quality of financial reporting. The finding indicates that firm with good corporate governance tend to produce high financial reporting quality.

In France, using earnings management as a proxy of financial reporting quality, Piot and Janin (2007) examine the impact of several audit quality dimensions on financial reporting quality. The finding reveals that the presence of audit committee, but not audit committee independence, curbs upward earnings management.

In China's listed companies, Liu and Lu (2007) investigate the effect of corporate governance on level of earnings management as a proxy of financial reporting quality. The finding indicates that firms with higher corporate governance levels have lower levels of earnings management as proxy of earnings quality.

A study has been conducted on Mexican Bolsa, to investigate whether there is an improvement in earnings quality surrounding the implementation date of corporate governance code by Machuga and Teitel (2009). The finding indicates that the quality of earnings characteristics increases after the implementation of the Code.

Osma and Noguer (2007) investigate the association between earnings management and two key aspects of corporate governance; board composition and the existence of board monitoring committees. The result shows that board composition significantly determines earnings manipulation as proxy for financial reporting quality.

Many researchers also use fraud as a proxy of financial reporting quality to investigate the relationship between corporate governance and financial reporting quality (Chen, Firth, Gao, & Rui, 2006; Farber, 2005). Chen *et al.* (2006) investigate whether ownership structure and boardroom characteristics have an effect on corporate financial reporting quality in China. By comparing fraud and non-fraud firms, the results indicate that board characteristics are important in explaining financial reporting quality. Using fraud as a proxy for financial reporting quality, Farber (2005) investigates the association between the credibility of the financial reporting system and the quality of governance mechanisms. The result reveals that fraud firms have poor governance relative to a control sample in the year prior to fraud detection. Specifically, fraud firms have fewer numbers and percentages of outside board members, fewer audit committee meetings, fewer financial experts on the audit committee, a smaller percentage of Big 4 auditing firms, and a higher percentage of CEOs who are also chairmen of the board of directors.

Restatement also has been used as proxy of financial reporting quality in many studies (e.g., Arthaud-Day, Certo, Dalton & Dalton, 2006; Abbott, Paker, & Peters, 2004). By using an event history analysis, Arthaud-Day *et al*. (2006), find that CEOs and CFOs of firms filing a material financial restatement are more than twice as likely to exit their counterparts in matched sample. Directors and audit committee members are approximately 70 percent more likely to exit in restatement firms. Therefore, directors and audit committees are associated with the financial reporting quality.

Abbott *et al.* (2004) examine 88 restatements of annual results in period from 1991 to 1999, together with matched-pairs control group of firms of similar size, exchange listing, industry and auditor type. They find that independence and activity level of audit committee exhibits a significant and negative association with the occurrence of restatement and increases the financial reporting quality. The results also reveal a negative association between an audit committee that includes at least one member with financial expertise that affects the financial reporting quality.

Market based measurement (informativeness) also has been used as proxy of financial reporting quality in many studies (e.g., Klai & Omri, 2011; Sarikhani & Ebrahimi, 2011; Dimitropoulos & Asteriou, 2010; Chang & Sun, 2010; Chang & Sun, 2009; Vafeas, 2000; Black, Khanna, & Belgium, 2007; Dey, 2005; Lee *et al.*, 2005; Choi, Frye & Yang, 2008; Niu, 2006; Anderson et al., 2003).

Klai and Omri (2011) investigate the effect of the governance mechanisms on the financial reporting quality for a sample of Tunisian firms. Specifically, the study focuses on the characteristics of the board of directors and the ownership structure of the firms listed on the Tunis Stock Exchange during the period 1997–2007. The results reveal that the governance mechanisms affect the financial information quality of the Tunisian companies.

Based on the sample consisting of 70 companies between 2002 and 2008, Sarikhani and Ebrahimi (2011) investigate the effect of corporate governance on earnings informativeness of companies listed on the Tehran Stock Exchange. The finding shows that earnings informativeness has a positive and significant relationship with ownership concentration and institutional ownership. Also, no evidence is found indicative of the existence of a meaningful relationship between other variables of ownership structure and board structure and earnings informativeness.

Based on 97 non-financial firms listed on the Athens Stock Exchange between 2000 and 2004, Dimitropoulos and Asteriou (2010), investigate the influence of the size and composition of the board of directors on the quality of annual accounting earnings. The finding revealed that the fraction of outside directors serving on the board is positively influence the informativeness of annual accounting earnings.

Chang and Sun (2010) examine whether the structure of corporate governance influence the firms earnings informativeness and earnings managements. Informativeness has been measured by the relations between information content of firms' unexpected earnings and firm's corporate governance structure. The findings demonstrate that the effectiveness of corporate governance in monitoring earnings management is improved after the mandated the disclosure of corporate governance.

Chang and Sun (2009) investigate whether the passage of SOX improves the effectiveness of corporate governance variables such as an independent audit committee, an independent board of directors, and duality of CEO in monitoring the earnings quality of cross-listed foreign firms. The findings demonstrate that SOX improves the effectiveness of corporate governance functions in monitoring quality of accounting earnings.

Vafeas (2000) investigates whether the informativeness of earnings as proxied by the earnings' returns relationship, varies with the portion of outside directors serving on the board and board size. The findings demonstrate that investors perceive earnings of companies with the smallest boards to be more informative.

Black *et al.* (2007) suggest that appropriately designed compulsory corporate governance reforms may increase share prices in an emerging market such as India. Dey (2005) finds that most aspects of corporate governance are significantly associated with the credibility of reported earnings for firms in highest agency cost group. Lee *et al.* (2005) examine how listed Chinese companies' governance practices affect domestic investors' reaction to their earnings reports. Choi *et al.* (2008) state that companies with below-average or weak shareholder rights experienced positive abnormal returns when SOX was passed.

Using data for a sample of Canadian firms in the years 2001-2004, Niu (2006) investigates the relationship between corporate governance mechanisms and the quality of accounting earnings. He used two measurements for quality of earnings: accounting-based measurement (earnings management) and the market-based measurement (earnings informativeness). The result reveals that governance quality is negatively related to the level of unexpected accruals and positively influences the return-earnings association.

Klapper and Love (2004) state that greater investor protection by better governance mechanisms could improve firm value and increase investors' willingness to provide financing. This suggests that firms with the greatest needs for financing in the future benefit the most from adopting better governance mechanisms.

Using data for a sample of US firms in the years 2000, Anderson et al. (2003) investigate the relationship between board and audit committee structure and the information content of earnings (ERC). The result reveals that firms with greater board independence and separated the CEO and board Chair positions appear to have more informative earnings. Also the result indicates that that audit committee characteristics influence the information content of earnings. However, studies on corporate governance and all proxy of financial reporting quality show mixed results.

2.5 Empirical Evidence on the Association between the Disclosure of Internal Control System Weaknesses and the Quality of Reported Earnings

According to the Public Company Accounting Oversight Board (PCAOB), auditing standards introduce three levels of internal control deficiencies based on the severity of the deficiencies. A material weakness of ICS is defined as a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis American Institute of Certified Public Accountants (AICPA).

The importance of assessing internal control effectiveness is noted in the development of legal and accounting systems in Saudi Arabia. For instances, SOCPA issued the internal control standard in 2000. In 2008, the Saudi Association of Internal Auditors (SAIA) was established in order to organize internal audit function in the Saudi corporate sector. In 2004, SOCPA issued a rule requiring that each company should report on efficiency of internal controls to the General Department of Companies in the Ministry of Commerce. By the end of 2006, Saudi Corporate Governance Code section (9G) required public companies to include in each annual report the auditors and managements' assessment on the effectiveness of the ICS as a part of board of directors' report.

In relation to this, samples used consist of the companies that report internal control weaknesses under SOX 302 and SOX 404, and companies that report an effective ICS under SOX 404, for fiscal years 2001-2004 Bedard, Bryan, and Lilien (2006) investigate the relation between the SOX, internal control requirements and earnings quality. The result indicates that internal control deficiencies have an effect on financial statement quality as measured by unexpected accruals.

According to Hoitash, Hoitash, and Bedard (2009), internal controls can affect the quality of financial statements by either allowing more intentional earnings management or unintentional errors. They state that the internal control weaknesses disclosure has the potential to add uncertainty to the stock markets, i.e. increase the risk of future cash flows, since the internal control weaknesses may have implications on financial information quality and management reliability.

In univariate analysis, Ashbaugh-Skaife, Collins, and Kinney (2005) find that firms that disclose internal control deficiencies have greater performance-adjusted total abnormal accruals and abnormal working capital accruals. Gupta and Nayar (2007) examine whether the disclosures of internal control weaknesses convey valuation-relevant information to the US equity markets. This topic is important because increasing disclosure requirements without any supporter effect on valuation would require unneeded extra costs on the shareholders of a company. Thus, to explain how the disclosures of a company's internal control effectiveness over financial reporting have new information content, they studied a number of voluntary disclosures of internal control weaknesses made by the Securities and Exchange Commission SEC registrants in the very early days of the SOX implementation. They find that the disclosures of internal control weaknesses are associated with a negative stock price reaction, on average, demonstrating that the disclosures of internal control weaknesses do certainly have valuation-relevant information.

Ashbaugh-Skaife, Collins, Kinney, and LaFond (2009) in their working paper, find a significant negative market reaction to Section 404 reports, and also their cross-sectional test indicates that the systematic risks are higher for firms disclosing internal control weaknesses.

However, previous studies that investigated the impact of ICS on financial reporting quality, provide limited empirical evidence. According to Brown *et al.* (2008), there is no evidence regarding the effect of internal control mandatory disclosure on financial reporting quality for non-USA environments.

2.6 Empirical Evidence on the Association between Audit Quality and the Quality of Reported Earnings

The demand for auditing services arises from a desire to reduce the divergence of interests and information asymmetry between the owners (the principal) and managers (the agent) in a principal-agent relationship (Jensen and Meckling, 1976). Managers can voluntarily increase the transparency of their actions by hiring independent auditors to monitor their behavior. As a result of the increase in the complexity of business structures, globalization activities and separation of fund providers from management, further assurance about the financial information provided by companies is expected from auditors. Controlling owners may employ different monitoring and bonding mechanisms to assure minority shareholders that their interests are protected. One of these monitoring devices is external auditor. Recent research provides empirical evidence that high quality independent audits are used as monitoring and bonding mechanisms to alleviate agency costs (Fan & Wong, 2005). Teoh and Wong (1993) provide evidence that better quality auditors are associated with more credible financial reports, implying that high quality auditors give greater credibility and better quality to financial statements.

By using a comprehensive sample of joint stock companies audited by Arthur Andersen & Co (AAC), in Saudi Arabia, Al-Abbas (2004) examines whether the criminal indictment has resulted in losses suffered by stock prices of Andersen's clients. The study reports no effect of this event on the returns.

2.7 Empirical Evidence on the Association between Institutional Ownership and the Quality of Reported Earnings

Institutional investors provide another monitoring instrument for managers. Chung, Firth, and Kim (2002) indicate that large institutional shareholdings deter managers from practicing their discretion over accruals. Fisher (2007) indicates that Jensen and Meckling’s (1976) classification of residual loss of wealth, in summary, predicts that the management may not always restrict their investment activity to positive present value projects. When negative present value projects are selected (and conversely, when positive present value projects are rejected), shareholders suffer a loss of wealth. The theory predicts that this wealth loss is negatively associated with the effectiveness of the monitoring regime (by capital providers) at the time of the investment decision. Monks and Minow (1995) state that institutional investors have the opportunity, resources, and ability to monitor, discipline, and influence managers of firms. Hotchkiss and Strickland (2003) find a relationship between the composition of institutional holdings and abnormal trading volume and increased variance at earnings announcements. Sarikhani and Ebrahimi (2011) find a positive and significant relationship between informativeness and institutional ownership.

2.8 Empirical Evidence on the Association between Bank Monitoring and the Quality of Reported Earnings

All banks and financial companies are subject to international accounting standards; however, companies listed on the Saudi Stock Market are demanded to follow and apply the national accounting standards (IFRSs, 2011). The relation between shareholders and managers is not the only contract that motivates firms to manage accounting reports; there are also other incentives that motivate firms to manage accounting for instant debt contracts; hence these incentives possibly reduce the credibility of reported accounting numbers. A bank is an important corporate governance mechanism. Banks screen loan applicants before establishing firm and bank relationships to minimize unfavorable selection problems. They also monitor borrowers after bank loans are made to minimize moral hazard problems. Bank loans are different from publicly placed debt because banks know more about a company's prospects than other investors do.

It is argued that banks have a comparative advantage over other private lenders in monitoring borrowers (Campbell & Kracaw, 1980; Ramakrishnan & Thakor, 1984; Fama, 1985). Shleifer and Vishny (1997) state that despite a number of theoretical discussions about governance by banks, there is little empirical evidence of their role. In relation to this, Ahn and Choi (2009), state that academics are concerned with the monitoring role of institutional investors in reducing the agency problem between managers and owners. Few researchers show how banks serve a monitoring role mainly in debt financing. Choi (2007) mentions that little is known about the effects of a firm's debt financing decision on financial reporting.

Boscaljon and Ho (2005) suggest that commercial banks as quality lenders, play an important role in minimizing information asymmetries in environment where there is greater economic uncertainty. Easterbrook (1984) concludes that external capital market monitoring imposed on companies by debt financing, directs managers in value maximizing strategies, rather than personal utility maximization. Carey, Post, and Sharpe (1998) argue that financial institutions, in general, are intensive monitors but, because of regulatory and reputational factors, compared to finance companies, banks lend to less risky firms. Martel and Padron (2006) show that the reaction of Spanish Stock Market is positively and statistically significant to debt issue announcements. Given that the announcement of a bank credit agreement conveys positive news to the stock market about the borrowing firms, James (1987) documents a positive stock price response for bank loan agreements.

Financial policy of the firm is affected by management’s risk aversion. The existence of higher debt ratio may result in decreased agency conflicts; Jensen (1986) also argues that the existence of debt in the company’s capital structure is expected to act as a bonding mechanism for company managers. By issuing debt, instead of paying dividends, managers contractually obligate themselves to pay out future cash flows in a way unachievable through dividends. Previous studies and its findings that are reviewed in this study are summarized in Table 2.2.

Table 2.2
Summary of Studies Examining Corporate Governance and other Monitoring Mechanisms with Market Reaction and Financial Statement Quality

Authors/year	**Country**	**IV**	**DV**	**Result**
Klai and Omri (2011)	Tunisia	The characteristics of the board of directors and the ownership structure	Financial reporting quality (the information content of earnings & discretionary accruals)	The results reveal that the governance mechanisms affect the financial information quality of the Tunisian companies.
Sarikhani and Ebrahimi (2011)	Iran	Board structure and ownership structure	Earnings informativeness	The finding shows that earnings informativeness has a positive and significant relationship with ownership concentration and institutional ownership.
Dimitropoulos and Asteriou (2010)	Greece	The size and composition of the board of directors	Earnings informativeness	The finding revealed that the fraction of outside directors serving on the board is positively influence the informativeness of annual accounting earnings.
Chang and Sun (2010)	USA	Corporate governance	Earnings informativeness and earnings managements	The findings demonstrate that the effectiveness of corporate governance in monitoring earnings management is improved after the mandated the disclosure of corporate governance.
Chang and Sun (2009)	USA	Independent audit committee, an independent board of directors, and duality of CEO	Earnings quality	The findings demonstrate that SOX improves the effectiveness of corporate governance functions in monitoring quality of accounting earnings.

Table 2.2 (Continued)

Authors/year	Country	IV	DV	Result
Machuga and Teitel (2009)	Mexico	Introduction of corporate governance code	Earnings quality (income smoothing)	The finding indicates that the quality of earnings characteristics increases after the implementation of Mexico the corporate governance code.
Hoitash et al. (2009)	USA	Audit committee characteristics	Internal control weaknesses disclosure over financial reporting	That board and audit committee characteristics are associated with internal control quality. However, this association is only observable under the more stringent requirements of the Sarbanes-Oxley Act (Section 404) of disclosure on effectiveness of ICS.
Black and Khanna (2007)	India	Corporate governance reforms	Firms' market values	They conclude that investors expected the Clause 49 reforms to benefit large firms, and likely also medium-sized firms. This suggests that properly designed mandatory corporate governance reforms can increase share prices in an emerging market such as India.
Shen and Chih (2007)	Nine Asian countries	Corporate governance	Earnings management	The finding indicates that firm with good corporate governance tend to produce high financial reporting quality.
Piot and Janin (2007)	France	Several audit quality dimensions	Earnings management	The finding reveals that the presence of audit committee, but not audit committee independence, curbs upward earnings management.
Liu and Lu (2007)	China	Corporate governance	Earnings management	The finding indicates that firms with higher corporate governance levels have lower levels of earnings management as proxy of earnings quality.
Osma and Noguer (2007)	Spain	Board composition and the existence of board monitoring committees	Earnings management	The result shows that board composition significantly determines earnings manipulation as proxy for financial reporting quality.
Gupta and	USA	Disclosures of	Valuation-relevant	They find that the disclosures of internal control

Table 2.2 (Continued)

Authors/year	**Country**	**IV**	**DV**	**Result**
Nayar (2007)		internal control weaknesses	information	weaknesses are associated with a negative stock price reaction, on average, demonstrating that the disclosures of internal control weaknesses do certainly have valuation-relevant information.
Jain and Rezaee (2006)	USA	Corporate governance, financial reporting quality, and audit quality.	Accumulated abnormal returns	A positive abnormal return at the time of several legislative events that increa-sed the likelihood of the passage of the Sarbanes-Oxley Act.
Bedard *et al.* (2006)	USA	Internal control requirements	Earnings quality	The result shows that the level of abnormal accruals increases in the year internal control deficiencies are disclosed, implying an increase in earnings quality.
Niu (2006)	Canada	Overall corporate governance	Earnings quality	Empirical tests demonstrate that overall governance quality is negatively related to the level of abnormal accruals and positively influences the return-earnings association
Wright et al. (2006)	UK and USA	Countries' legal environments	Earnings management	They find that managers in both the UK and US manage earnings downwards prior to a management by objective, with US managers being significantly more aggressive than UK managers.
Rahman and Ali (2006)	Malaysia	Board of directors, audit committee and concentrated ownership	Earnings management	The result also indicates that board of directors is seen as ineffective in discharging their monitoring duties due to management dominance over board matters.
Benkel et al. (2006)	Australia	Independent directors on the board and audit committee	Earnings management	The findings imply that the independence of board of directors and audit committee is associated with level of financial reporting quality.
Chen et al.	China	Ownership structure	Fraud and non-fraud	The results indicate that board characteristics are

Table 2.2 (Continued)

Authors/year	**Country**	**IV**	**DV**	**Result**
(2006)		and boardroom characteristics	firms	important in explaining financial reporting quality.
Bedard et al. (2006)	USA	Internal control requirements	Earnings quality	The result indicates that internal control deficiencies have an effect on financial statement quality as measured by unexpected accruals.
Martel and Padron (2006)	Span	Debt issue announcements	Stock market reaction	Show that the reaction of Spanish Stock Market is positively and statistically significant to debt issue announcements. Given that the announcement of a bank credit agreement conveys positive news to the stock market about the borrowing firms.
Peasnell et al. (2005)	UK	Outside board members and the audit committee	Earnings management	Their finding suggests that board contributes towards the integrity of financial statement in line with agency theory.
Bhattacharyya and Rao (2005)	India	Corporate governance reforms	Volatility and returns	The authors find insignificant results for volatility (volatility is lower post-adoption for both large and small firms), and mixed results for returns.
Lee *et al.* (2005)	China	Corporate governance	Investors' reaction to their earnings reports.	Investors in the domestically listed Chinese companies do seem to base their valuation decisions, at least in part, on these companies' earnings reports. This is indicated by the significant relationship between unexpected earnings and cumulative abnormal returns. However, the hypothesized effects of governance practice/choice is, on the whole, not supported.
Dey (2005)	USA	Corporate governance index	Financial credibility (the volatility of stock returns in earnings announcement periods & the earnings	Find that most aspects of corporate governance are significantly associated with the credibility of reported earnings for firms in highest agency cost group.

Table 2.2 (Continued)

Authors/year	Country	IV	DV	Result
			announcement period excess returns)	
Davidson et al. (2005)	Australia	The board of directors, the audit committee, the internal audit function and external auditor	Earnings management.	The result implies that the strength of corporate governance mechanisms influences the quality of financial reporting as measured by the absolute level of discretionary accruals.
Farber (2005)	USA	Outside board members, audit committee meetings, financial experts on the audit committee, Big 4 auditing firms, and a CEOs duality	Fraud as a proxy for financial reporting quality	The result reveals that fraud firms have poor governance relative to a control sample in the year prior to fraud detection.
Boscaljon and Ho (2005)	Hong Kong, Korea, Taiwan, and Thailand	Bank loan announcement	Uncertainty and information content	Findings suggest that commercial banks from quality lenders play an increased role in reducing information asymmetries in environments where there is greater economic uncertainty.
Ashbaugh-Skaife et al. (2005)		Complex operations, organizational restructure, growth, risk, auditor resignations and restatement	Internal control deficiency	Find that firms that disclose internal control deficiencies have more prior SEC enforcement actions and financial restatements are more likely to use a dominant audit firm, and have more concentrated institutional ownership.
Kao and Chen	Taiwan	The characteristics of	Earnings management	They find that large board size reveals higher financial

Table 2.2 (Continued)

Authors/year	Country	IV	DV	Result
(2004)		the firm's board of directors		reporting quality. They also find that the members of the board of directors can restrict the practices of management and this ability increases as the ratio of their ownership increases.
Park and Shine (2004)	Canada	Board composition	Earnings management	They find that financial intermediaries and the board representation of active institutional shareholders increase the financial reporting.
Abbott et al. (2004)	USA	Audit committee characteristics	Financial restatement	They find that independence and activity level of audit committee exhibits a significant and negative association with the occurrence of restatement and increases the financial reporting quality.
Al-Abbas (2004)	Saudi Arabia	Auditor reputation	Stock prices	The study reports no effect of external auditor reputation on audtees stock prices.
Hotchkiss and Strickland (2003)	USA	Institutional investors	Trading behavior	The findings show that it is not only ownership by individuals versus institutional investors but more importantly the composition of institutional shareholders that effects stock price behavior around the release of corporate information.
Klein (2002)	USA	Board of directors and audit committee characteristic	Abnormal accruals	The finding indicated that the more independent of board of directors and audit committee result in reduced levels of abnormal accruals revealing a better financial reporting quality.
Vafeas (2000)	USA	Portion of outside directors serving on the board and board size	Informativeness of earnings	The findings demonstrate that investors perceive earnings of companies with the smallest boards to be more informative.
Teoh and	USA	Audit quality	Credibility of reported	The result implies that high quality auditors give

Table 2.2 (Continued)

Authors/year	Country	IV	DV	Result
Wong (1993)			earnings (ERC)	greater credibility and better quality to financial statements.

2.9 Summary

A review of the literature reveals a significant number of studies have investigated the relationship between monitoring mechanisms and the credibility of financial statement (e.g., Chang & Sun, 2010; Chang & Sun 2009; Jain & Rezaee, 2006; Lee *et al.*, 2005; Niu 2006; Black *et al.*, 2007; Bhattacharyya & Rao, 2005; Dey, 2005; Teoh & Wong, 1993; Hotchkiss & Strickland, 2003; Bedard *et al.*, 2006; Boscaljon, & Ho, 2005). Most of these studies have been conducted in developed countries. Some of these studies use accounting-based proxy such as discretionary accruals to measure the quality of reported earnings (earnings management). Others use market-based measure such as ERC to indicate earnings informativeness. However, previous studies have not examined the effects of all monitoring mechanisms on the credibility of financial statement in a single study.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter provides hypothesis development and analytical framework for the research variables, and a detailed plan for testing the hypotheses. The research design, the research population and samples, instrumentation, data collection, and techniques of data analysis are also provided. It describes the methods and techniques as follows:

3.2. Hypotheses

In existing academic literature, several determinants explain the effects of several monitoring mechanisms on the credibility of reported earnings. Different theories (such as agency theory and contract theory) have also been used to explain the role of corporate governance in increasing financial reporting quality by playing a crucial monitoring role.

This study examines the effect of several monitoring mechanisms on the credibility of reported earnings as measured by volatility of stock returns and cumulative abnormal returns. These monitoring mechanisms include board and audit committee, the disclosure of ICS weaknesses, audit quality, institutional ownership and bank monitoring, which previous literature suggests may influence the effectiveness of the monitoring function and improve the quality of reported earnings. The theoretical framework of this study consistent with research objective is shown in Figure (3.1).

3.2.1 Board Monitoring

According to Wild (1996), accounting earnings are more reliable and informative to all shareholders when managers' opportunistic behavior is controlled using monitoring systems. Corporate governance variables such as board characteristics, audit committee, CEO duality and tenure have been shown in some studies to affect the quality of corporate financial reporting. Given that governance is positively associated with the integrity of the financial reporting process, it is then acceptable to use corporate governance as a factor of the credibility of accounting earnings. Dey (2005) investigates whether the quality of corporate governance of a firm is associated with how credible investors perceive its reported earnings numbers to be. She finds that most aspects of corporate governance are significantly associated with the credibility of reported earnings for companies in highest agency cost group[2].

From the view of agency theory, monitoring mechanisms such as board of directors are supposed to align interests of both shareholders and managers and reduce any opportunistic behavior resulting from it (Ebrahim, 2004). According to contract theory the firm is viewed as a set of contracts between a multitude of parties and individuals. The difficulties associated with writing a complete contract that cover every possible

[2]Dey (2005) separate firms into groups of different levels of agency costsbased on seven variables used to proxy for agency costs. These variables are Firm Size, Organizational Complexity, Volatility in Operating Environment, Ownership Structure, Leverage,and Financing Activity.

situation and the monitoring of these contracts becomes significant because of agency problems (Tsui & Gul, 2003).

Goodwin and Seow (2002) present in their study, the point of view of both auditors and directors about the impact of governance on the quality of reports and financial statements. The results of their study indicate that the quality of reports and financial statements are affected by several factors: effectiveness of audit committees, the quality of internal audit department, and the extent of commitment to the law and regulation.

3.2.1.1 Independent Directors on the Board and Financial Statement Credibility

Corporate boards are responsible for monitoring the quality of the information contained in financial reports. An independent non-executive director (IND) is perceived as a tool for monitoring management behavior. Agency theory suggests that independent directors in the board will enhance the integrity of their financial reporting through monitoring management (Peasnell *et al.*, 2005). In line with agency theory, the main determinant of board control effectiveness is director independence. The Saudi Corporate Governance Code (2006) suggests that every listed company should have independent directors; the composition of the board must have at least two independent directors or one third of the board is independent whichever is higher.

Mallette and Hogler (1995) define independent directors as outside directors of public organizations, professional directors, academicians, investors, or independent business executives with no discernible ties to the company. This definition is in tandem with the definition of an independent director in Section 2B of the Listing Requirements of the Saudi Stock Exchange. The main factor for fulfilling the criteria is the appointment of an independent director who is considered as a non-executive director with no connection to the company and who does not have any direct or indirect affiliation to the firm or in related firms that could interfere with the director loyalty to the shareholders.

Kosnik (1987) states that boards are expected to perform their monitoring duties better if they have higher fraction of outside directors on board. He finds that companies with more outside directors effectively prevent management form making decisions that are in conflict with stockholders' interests. Further, Xie, Davidson, and DaDalt (2003) examine the impact of board independence on earnings management. The result show that board independence has a negative impact on earnings management practices. Beasley (1996) finds that fraudulent financial reporting occurrence is negatively and significantly related to the proportion of outside directors. Dimitropoulos and Asteriou (2010) state that firms with minor board independence should bear in mind that disclosure is more crucial for market participants since the reported earnings are less transparent and of lower quality compared to firms with more board independence.

Dey (2005), Donnelly (2008), and Firth, Fung, & Rui (2007) provide empirical evidence that board independence is positively related to the quality of reported earnings Rosenstein and Wyatt (1990) find that the announcement of appointment of outside director to the company board significantly affects company stock price. However, based on further assessment, they find that the greatest increases in stock price arise in small firms as compared to the increases of stock price in the large firms. Lin, Pope and

Young (2000) relate these results to fewer existing outside board members and higher information asymmetries in smaller firms.

Peasnell, Pope, and Young (2001) indicate that the board balance between executive and non-executive directors may enhance the integrity of financial statements. Appointing independent directors to the board appears to be an effective corporate governance mechanism to reduce the agency problem and increase earnings quality (Klein, 2002). Thus, it is hypothesized:

H1: There is a positive relationship between the percentage of the independent directors on the board and the credibility of financial reporting

3.2.1.2 Independent Directors on the Audit Committee and Financial Statement Credibility

The primary purpose of the audit committee is to oversee the financial reporting process and enhance internal accounting controls in the firm. Audit committees inspect and review the internal control and management procedures to ensure its effectiveness and compliance with the rules and laws, inspect and review accounting policies and procedures applied in the preparation of financial statements (actual and estimated), examine and evaluate the work of internal audit, examine and evaluate the work of the external auditor and propose his appointment and determine his fees, and check the response of company's management to the observations and recommendations of the external auditor the capital market authority (Anderson, Mansi, & Reeb, 2004).

The functions of the audit committee, in summary, is to oversee the effectiveness of ICS and its procedures, work with management to ensure that the accounting system of the company complies with the regulation requirements, recommend the appointment of external auditor, evaluate their work, and review the financial statements and annual report of the company before submission to board of directors. The Cadbury Committee (1999) also outlines the importance of firms having an audit committee and recommends that all listed companies should establish an audit committee. The audit committee monitors those responsible in preparing financial statements and additionally monitors the internal and external auditors of the company. The Saudi Corporate Governance Code (2006) suggests that every listed company should have audit committee that comprises at least three directors, the majority of whom are non-executive directors. This is in line with the view of agency theory that audit committees might be responsible for alleviating the agency problem between the firm and the outside shareholders by monitoring its financial reporting. In other words, agency theory expects the audit committee to monitor and oversee the integrity of financial reporting.

The existence of an audit committee could enhance the quality of financial reporting and act as a mechanism for controlling management (Collier, 1993). Agency theory predicts that the setting up of audit committees and the appointment of non-executive directors on the committee should reduce agency costs (Forker, 1992). Choi, Jeon, and Park (2004) find that if the audit committee members owned shares in a company, they would have less incentive to prevent accrual management. Hence, audit committee independence is perceived as a main element in improving its role in deterring misstatements in the financial statements.

Wild (1996) examines the effectiveness of the audit committee by comparing the quality, or informativeness, of earnings reports before and after audit committee formation. Informativeness is measured by the extent to which the market reacts to the release of earnings reports. The results show a significant increase in the market's reaction to earnings reports subsequent to the formation of the audit committee. Specifically, the reaction to earnings reports is more than twenty percent greater after the formation of the committee than before. They provide empirical evidence on the association between audit committee formation and the quality of accounting earnings.

A study by Baxter and Cotter (2009) aims to investigate the relationship between the presence of audit committees and improvement in the earnings quality. The sample consists of the Australian organizations prior to the application of the mandatory requirements of the audit committees in 2003. The results show that the presence of audit committees constrains earnings management practices.

Chang and Sun (2009) show earnings informativeness is significantly associated with audit-committee independence as well as with board independence in the post-SOX period. In contrast, they do not find a significant association between earnings informativeness and audit-committee independence in the pre-SOX period. Further, they also show a consistently negative association between earnings management and audit-committee independence after SOX, an association that is not found in the pre-SOX period. Al-Abbas (2009) investigates the influence of audit committee on the earnings management using a sample of Saudi joint stock companies for 2005, 2006, and 2007.

The result provides no evidence that audit committee independence mitigate earnings management. Petra (2002) also investigates the relationship between audit committee independence and earnings infomativeness, but he finds no association between earnings informativeness and independent audit committee.

The main objective of the study by Owens-Jackson, Robinson, and Shelton (2009) is to investigate the relationship between audit committee independence in the firms and the possibility of fraud occurrence in financial statements. The study also examines the factors affecting the probability of fraud occurrence in financial statements other than the independence of audit committee. The results indicate that the likelihood of fraud occurrences in financial statements is inversely associated with both the independence of the audit committee and the number of audit committee meetings.

Pincus, Rusbarsky, and Wong (1989) indicate that audit committees help to establish effective monitoring mechanisms that are voluntarily employed in high agency cost situations[3] to enhance the quality and credibility of information flow between agent and principal. They also note that the audit committee could enhance board of directors' ability to act as management control by giving more comprehensive information and understanding of financial statements and other financial information issued by the company.

[3]Jensen (1986) proposed that agency costs are high when high free cash flows are combined with poor growth opportunities.

Based on sample of 434 listed Australian firms, for the financial year ending in 2000, Davidson *et al.* (2005) examine the impact of corporate governance mechanisms, including the board of directors and the audit committee on earnings management. The result shows a negative and significant relation between earnings management and independent audit committee measured by the proportion of non-executive members.

Thus, it is hypothesized:

H2: There is a positive relationship between the percentage of the independent directors on the audit committee and the credibility of financial reporting

3.2.1.3 The Existence of CEO Duality and Financial Statement Credibility

Duality occurs when the same person undertakes both the roles of CEO and chairman. Companies that have one person fulfilling the roles of both chairman and CEO/managing director (CEO duality), are considered to be more managerially dominated (Molz, 1988). Forker (1992) finds a significant negative relationship between the existence of a dominant personality and the quality of share-option disclosure. He asserts that the person who occupies both posts has a tendency to withhold unfavorable information to outsiders and may reduce the quality of disclosures. The chairman of the board who is independent of management reveals a greater monitoring capacity by the board as perceived by shareholders. Hence, when a CEO dominates both positions, it may imply less monitoring is exercised over company's managers and their behavior (Finkelstein & D'Aveni, 1994).

According to Al-Ghamdi (2012), agency theory suggests that the chairman of the board should be independent, since CEO with excessive power can easily manipulate reported earnings. Fama and Jensen (1983) state that the board of directors is ineffective when it cannot control the decisions of top management. Combining post of Chairman of the board and CEO in one person may create a strong individual power base, which could erode the board's ability to exercise effective control. Both posts must split into two, one for the chairman and the other for the CEO or the Director in order to give each other freedom in decision-making away from the conflict of interest, and concentrated decision making power which may constrain board independence and impair the boards' oversight.

As a result, the Cadbury Committee (1992) made recommendations for companies to separate the roles of Chairman of the Board and CEO. The reasoning is that the boards with CEO duality firms will be less effective in monitoring management. However, CEO duality still exists today in capital markets across the globe despite the Cadbury recommendations.

Based on the idea that firms with duality function may not be able to discharge their operations properly and board of directors being less effective if the CEO also serves as its chairman, prior studies investigate the relationship between CEO duality and quality of financial reporting. Based on observations from 385 Hong Kong companies, Gul and Leung (2004) investigate the relationship between CEO duality, the proportion of expert outside directors on the board and voluntary corporate disclosures. The results show that CEO duality is associated with lower levels of voluntary corporate disclosures. However

Cheng and Courtenay (2006) find CEO duality is not associated with voluntary dsclosure.

Carcello and Nagy (2004) find that CEO duality is positively associated with the occurrence of financial statement fraud in the USA. However, studies on CEO duality and ERC find no significant relationship (e.g., Firth et al., 2007; Lee et al., 2005; Petra, 2007; Petra, 2002). Based on the above discussion, it is suggested that firms with CEO duality are more likely to be associated with lower quality of information disclosed since the board is less likely to be effective in monitoring management and ensuring a higher level of transparency. The argument is that, such lower levels of transparencies might be used to conceal fraud. Thus, it is hypothesized:

H3: There is a negative relationship between the CEO duality and the credibility of financial reporting.

3.2.1.4 Board Size and Financial Statement Credibility

A general argument in management literature is that increased board size can inhibit the board ability to function properly and initiate strategic actions. Small number of board members may be an effective tool to appropriately control management. Larger boards may face a number of barriers to reach a consensus on important decisions. These barriers may be explained by many factors. First, larger groups usually have more communication and coordination problems because of the larger number of potential interactions between group members. Second, larger decision making groups experience less levels of motivation and satisfaction due to the lack of participation usually observed in large decision making groups. Therefore, larger boards may be less likely to become involved in strategic decision making (Goodstein, Gautam, & Boeker, 1994).

The relationship between board size and financial reporting quality has been examined in previous studies (e. g., Firth et al., 2007; Vafeas, 2000; Ebrahim, 2004). This relationship is consistent with the view that agency problems arise from dysfunctional norms of behavior in boardrooms it becomes more severe as a board grows larger (Cheng, 2008). Jensen, (1993) notes that the board of directors which includes a large number of members is inefficient. The reason for this is that the CEO will be unable to control the directors' discussions. A large number of board members makes it difficult to coordinate and deal with the problems faced by the company. In relation to this, Sanda, Mikailu, and Garba (2005) find a positive relationship between the small size and the performance of companies. Yermack (1996) states that firms with smaller boards, consisting of less than ten directors, perform better than firms with larger boards. Goodstein *et al.* (1994) also argue that smaller boards, of between four to six members, might be more effective, due to their ability to make timely strategic decisions.

The Saudi Corporate Code (12A) states that each firm should determine its board of directors to be not less than three and not more than eleven. Patton and Baker (1987) examine other corporate governance factors and report that large boards are generally less efficient and less effective than small boards. They propose to limit the board number to 9 or 11 deeply involved directors.

Zahra and Pearce (1989) state that in fact, large board members with varied expertise could improve the ability of monitoring of the board in reducing the occurrence of earnings management. Peasnell *et al.* (2001) find that having a larger board is associated with less earnings management. Some studies report a negative impact of larger boards on the director's involvement in decision making and the board effectiveness. For example, Kovner (1985) finds that large hospital boards are generally ineffective in making strategic decisions in a timely fashion. Similarly, Abbott *et al.* (2004) find that board size is positively associated with the probability of earnings restatement. Based on annual reports of 97 firms listed on the Main Board of Bursa Malaysia over the period 2002-2003, Rahman and Ali (2006) examine the effectiveness of monitoring functions of board of directors in constraining earnings management. The results indicate that abnormal accrual is positively related to board size.

Loderer and Peyer (2002) investigate the effects of board overlap and seat accumulation on share prices for a panel of Swiss companies. They report that seat accumulation is negatively related to firm value. This is partly contested in the UK study by Faccio and Lasfer (1999) who find board size is negatively associated with corporate value. Based on the above argument, larger boards are assumed to be less effective in monitoring management behavior. Smaller boards are argued to be more effective because they have less difficulty in coordinating efforts. Cheng (2008) provides evidence that board size is negatively associated with the variability of monthly stock returns, accounting accruals, and annual accounting return on assets. Thus, it is hypothesized:

H4: There is a negative relationship between board size and financial reporting credibility

3.2.2 The Disclosure of Internal Control System Weaknesses and Financial Statement Credibility

The widespread failure in financial reporting has largely been blamed on weak internal controls. Some recent studies investigate how the disclosure of internal control deficiencies affect investors' evaluation of companies' market value (Hammersley, Myers, & Shakespeare, 2008; Goh, 2009; Goh, 2007 ; Beneish *et al.*, 2008; Ashbaugh-Skaife *et al.*, 2005; Doyle *et al.*, 2007). The disclosure of internal control weaknesses are perceived negatively by the market. The finding that weak internal controls result in negative stock market reaction and lower accruals quality provide support to the regulators' emphasis on internal controls to improve financial reporting reliability (Goh, 2007). Ashbaugh-Skaife *et al.* (2005) posit that internal controls that result in less reliable financial reporting also increase the information risk perceived by investors that is reflected in a higher cost of capital. They find that ERCs of firms with internal control material weaknesses decline following the disclosures of internal control problems, while ERCs of firms with internal control deficiencies or significant deficiencies remain unchanged. In addition, they find that ERCs of firms with internal control material weaknesses are lower than those firms with less severe internal control deficiencies.

According to Jensen and Payne (2000), ICS can be used to reduce agency conflicts and limit managers' opportunistic behavior. In relation to this, empirical studies show that weak internal controls signal lower firm market value (e.g., Franco, Guan, and Lu, 2005). Gupta and Nayar (2007) find that stock price reacts negatively to the disclosures of internal control weaknesses. The results indicate that an internal control weaknesses disclosure certainly reveals relevant information to stock market.

Hammersley *et al.* (2008) point out that such negative market reaction is indicative of investors critically reassessing the quality of management's oversight over the financial reporting process, and the governance quality, leading them to adjust their estimation of firm's future profitability or revising their assessment of firm risk. Emanuels, Praaq, and Wallage (2006) also contend that the internal control weaknesses disclosure will decrease firm's value as a result of the increased risk of bad performance.

Beneish *et al.* (2008) indicate that a specific objective of Sections 302 of SOX is to inform investors about weaknesses in disclosing firms' systems of internal controls that may increase financial statement errors or managers' ability to manage earnings. Therefore, material weakness disclosures under SOX 302 provide value relevant information which reflects the lower credibility of firm's financial reports. As expected, weaknesses in internal controls are also related to decreased financial statement quality (Doyle *et al.*, 2007; Ashbaugh-Skaife, Collins, Kinney, LaFond, 2008). Ittonen (2010) examines the abnormal returns, the change in volatility, and the change in systematic risk around the announcement of the auditors' internal control weaknesses disclosures. He finds that the value of the information contained in the auditors' material internal control weaknesses disclosures varies significantly depending on management disclosures.

Doyle *et al.* (2007) provide evidence that accrual quality is lower for firms with material weaknesses in internal controls, especially firms with material weaknesses relating to company level controls. Also, Chan, Farrell, and Lee (2005) demonstrate that positive and absolute discretionary accruals are positively related to the existence of internal control material weaknesses. Thus, it is hypothesized:

H5: There is a negative relationship between the disclosure of Internal Control System weaknesses and the financial reporting credibility.

3.2.3 External Auditor and Financial Statement Credibility

Auditor quality and the role of auditors in improving the credibility of companies' financial statement is one of the most important issues. Hence, the audit quality field has become one of the main interests of academics and researchers. The need for external auditors may be considered in response to the agency problem. The audit functions as a mechanism to demonstrate the accountability and stewardship of company's management and strengthen trust and confidence in financial reporting. Greater assurance about the financial information provided by companies is expected from auditors as a result of the globalization activities, increase in the complexity of business structures, and remoteness of fund providers from management (Haniffa & Hudaib, 2007). The external audit can enhance the credibility of the financial statements of a firm. Auditing reduces information asymmetries between managers and stockholders by allowing outsiders to verify the validity of financial statements and this is a valuable method of monitoring used by firms to reduce agency costs.

According to signaling theory, Holthausen and Verrecchia (1990) suggest that firms appear to signal their ex ante uncertainty by hiring a higher prestige audit firm to perform their audit. Signaling through the choice of auditor is a means by which managers (or directors) may impart to the market additional information about the company (Bar-Yosef & Livnat, 1984).

Hirst (1994) documents that auditors are sensitive to earnings management and tend to concentrate on managerial incentives to overstate earnings. Kinney and Martin (1994) review nine studies and conclude that auditing reduces upward bias in pre-audit earnings and net assets. While auditing is valuable in controlling managerial discretion, its effectiveness is expected to vary with the quality of the audit firm.

DeAngelo (1981) defines audit quality as the joint probability of detecting and reporting financial statement errors. In comparison with low-quality auditors, high-quality auditors are more likely to detect and report errors and irregularities. Thus, a high-quality auditor acts as an effective deterrent to earnings manipulation because management's reputation is likely to be damaged and firm value reduced if misreporting is detected and revealed. He shows analytically that larger audit firms have greater ability to detect and reveal management misreporting.

Dopuch and Simunic (1980) also suggest that audit firm size is a proxy for audit quality. Because Big 6 firms are the largest audit firms in the U.S.A., they are the most common proxy for audit quality. DeFond and Jiambalvo (1993) finds that auditor-client disagreements resulting from incentives to manage earnings are more likely to occur when firms have Big 6 auditors. Becker, Defond, Jiambalvo and Subramanyam (1998) examine the relationship between audit quality and earnings management. The result indicates that firms with non-Big 6 auditors' report significantly greater discretionary accruals and have larger variation in discretionary accruals compared to firms with Big 6 auditors.

Lang and McNichols (1990) use the relationship between cash flow and earnings as a proxy for earnings report quality. They indicate that high-quality auditors provide a greater conformance of the financial report with generally accepted accounting principles (GAAP), and less accrual management is permitted. Hence, one might expect a greater correlation between expected future cash flows and accounting earnings with high-quality auditors, however their findings are inconsistent with their predictions. Persons (1995) investigates the relationship between financial condition and investor's perception of an auditor change as change in audit quality. The result indicates that financially troubled firms changing auditors from non-Big 8 to Big 8 has favorable price reaction more than financially healthy firms. Based on the assumption that investors perceived Big 8 auditors as providing higher quality audits and reporting more accurate and reliable earnings for their auditees, Teoh and Wong (1993) find that ERC for entities audited by Big 8 auditors is higher than for entities audited by non-Big 8 auditors. In other words, the stock price reaction to unexpected reported earnings should be greater for companies audited by Big 8 auditors than other companies audited by non-Big 8 auditors. Consistent with this hypothesis, they find that firms audited by Big 8 audit firms have significantly larger ERC than firms audited by non-Big 8 audit firms. The result provides evidence that large numbers of auditors are more credible as perceived by investors. Thus, it is hypothesized:

H6: There is a positive relationship between audit quality and financial reporting credibility

3.2.4 Institutional Ownership and Financial Statement Credibility

Institutional investors are blockholders with large amount to invest, including investment companies, insurance companies, retirement or pension funds, investment banks. The role of institutional investors is becoming increasingly important in financial markets. Institutional investors hold a significant fraction of the shares of public firm's investment portfolios. According to Monks and Minow (1995), institutional investors have the ability and the resources, to monitor and discipline company managers and counter opportunistic behavior. Hence, a manager's ability to freely manage reported earnings is prevented by the effectiveness of external monitoring by equity owners such as institutional investors. Institution investors may exercise these powers partially as a function of the size of their individual or collective shareholdings. Shareholdings can give the large shareholder such as institutional investor incentive to collect information, monitor management actions and enhance company performance.

In relation to this, McConnell and Servaes (1990) report a significant relationship between the value of a firm and the percentage share ownership of institutional investors. Morck and Shleifer (1988) state that when shareholdings are held for the long term, institutions will focus on companies' underlying profitability. Institutional investors will be also wary of the ability of managers to opportunistically manage reported earnings and hence cover real performances of managers. Institutional investors would like firm managers to concentrate on long-term profitability rather than being involved in earnings management every year.

Although a number of studies have been done in the past investigating the association between institutional shareholdings and corporate performance (e.g., Demsetz & Lehn, 1985; Duggal & Millar, 1999; Faccio & Lasfer, 2000) there are small numbers of studies that have investigated how institutions influence and monitor the specific actions of managers.

According to Siregar and Utama (2008), institutional investors have better abilities to use available information and to analyze it to predict future earnings. It is expected that large institutional ownership in an entity provides strong monitoring activities and influences managements' policy for that entity.

Bushee and Noe (2000) indicate that institutional monitoring may take place through corporate governance practices or through information gathering and correctly pricing the impact of managerial decisions. He finds that the magnitudes of institutional shareholdings are associated with higher levels of research and development expenditures by companies. He concludes that institutions are complicated investors who searched for long-term value rather than myopically focusing on the near term profits. Thus, institutional investors reduce the incentive for earnings management. Bange and Bondt (1998) also investigate the management of research and development expenditures and the association with institutional shareholders. They provide evidence of less management of reported earnings (related to research and development) when institutional shareholdings are high.

According to Rajgopal and Venkatachalam (1997), market relies on earnings for information at the earnings announcement date to a lesser extent for firms with high institutional ownership than for companies with low institutional ownership. Additional evidence reveals that stock prices of firms with high institutional ownership contain more information than stock prices of companies with low institutional ownership.

Institutional investors are widely believed to be more informed and sophisticated investors who can act as monitoring mechanisms that may reduce any opportunistic financial reporting by managers. Empirical evidence from an event study demonstrates that after controlling for firm size and analyst following, the market reaction to earnings releases is inversely related to the percentage of the firm's stock held by institutional investors (EI-Gazzar, 1998).

Using Australian non-finance related firms for years from 1993 to 1997, Koh (2003) investigates the relationship between institutional ownership and Australian companies' aggressive earnings management strategies. The results indicate a negative relationship at the higher institutional ownership levels. These results are consistent with the view that long-term oriented institutional investors' monitoring limits managerial discretionary accruals. These findings demonstrate that institutional investors can act as complementary corporate governance mechanisms in mitigating myopic aggressive accruals' management by companies when they have high level of ownership.

Hotchkiss and Strickland (2003) examine institutional ownership composition and market reaction to earnings announcements. They find that composition of institutional shareholders effects stock price behavior around the release of company information. Using four measures of earnings quality, Velury and Jenkins (2006) examine whether the quality of reported earnings is associated with the level of institutional ownership in the corporate structure. They document a positive association between institutional ownership and earnings quality. Thus, it is hypothesized:

H7: There is a positive relationship between institutional ownership and financial reporting credibility

3.2.5 Bank Monitoring and Financial Statement Credibility

Debt reliance, as a governance mechanism, depends on the view that debt-holders have the incentive to monitor and assess managerial performance. Even though the level of debt reliance is an internal decision, higher debt is likely to be associated with higher monitoring from debt holders (e.g. Agrawal & Knoeber, 1996; Daniels, 1995). Debt-holders have the potential to increase the level of external monitoring because of their industrial knowledge and continuous transactions (Daniels, 1995). One of the reasons debt reduces agency costs is that debt holders are expected to monitor managers (Rubin, 1990).

The proportion of debt in the capital structure is shown by Ross (1977) to be a signal to the market of firm quality. He demonstrates that since high quality firms have relatively lower expected bankruptcy costs for a given level of debt compared to low quality firms, they are able to issue more debt. In general, studies have shown that stock prices react positively to leverage increasing transactions, and negatively to leverage decreasing transactions. Ross (1977) mentions that managers are motivated to signal their inside information regarding the company's true value by undertaking capital structure changes, particularly by the level of debt used by a company. Companies that have high leverage signal to investors of the prospects for an increase in asset values and expected cash flow. Investors interpret this signal as favorable news since weaker companies which undertook similar action will have higher expected bankruptcy costs. Therefore, a debt offering a positive signal about the company value leads to positive stock price reaction.

Before providing access to capital, lenders typically require firms to supply audited financial statements, so as to assess the firm's ability to repay the debt. Private lenders, such as banks, will also often demand access to proprietary information such as budgets, forecasts, and other financial data (Armstrong, Guay, & Weber, 2010).

González (2009) examines the influence of large shareholders and bank ownership on earnings informativeness. The result indicates that bank ownership is positively associated with the earnings informativeness, being consistent with the role of banks as shareholders that actively monitors the firm's business performance.

Some research studies by La Porta *et al.* (1998) and Lefort and Walker, (2000) investigate the possible influence of the kind of public debt vs. creditor-private debt, i.e. capital markets vs. banks, on discretionary accounting choices. Bank debt implies lower incentives to manage earnings for two reasons. Firstly, banks are competent in financial intermediation and therefore, can overcome moral hazards and other informational problems by more detailed debtor monitoring (Johnson, 1997; Myers, 1977).

In capital markets, investors are, on average, less capable of screening than banks, and firms could have incentives to bias the available information. Secondly, bank debt usually redeems more easily than public debt in case of non-payment troubles (James and Smith, 2000). Nevertheless, in the long term, interest rates and other debt covenants are based on the reputation that the firm establishes through time becoming more value relevant than accounting information.

From the point of view of public debt, bond issuance can be perceived as a quality indicator of the company (Diamond, 1991; Hadlock and James, 2002; Yosha, 1995). Given that companies have the willingness to produce and disclose useful information in capital markets, companies depending on public debt are more likely to manage earnings than other companies.

Jara-Bertin and Lopez-Iturriaga (2008) state that bank debt are negatively related to abnormal accruals and to earnings management. Billett, Flannery, and Garfinkel (1995) find that higher positive excess returns are associated with loans from higher quality lenders. James (1987) documents a positive stock price impact of bank loan agreements. Thus, it is hypothesized:

H8: There is positive relationship between the banks' borrowing and financial reporting credibility

3.2.6 Board Characteristics, Audit Quality and the Disclosure of Internal Control System Weaknesses

It is a requirement of the Saudi Code of Corporate Governance that the board of directors and audit committee should maintain a sound system of internal controls to safeguard shareholders' investments and the Group's assets, in compliance with SSM Listing Requirements under Saudi Corporate Code article No (10B) and (14C).

Zhang, Zhou, and Zhou (2007) examine the relation between audit committee quality, auditor independence and the disclosure of internal control weaknesses. They indicate that a relationship exists between audit committee quality, auditor independence and internal control weaknesses.

According to Hay et al. (2008), the substitution concept suggest that there will be a negative relationship between control or monitoring mechanisms and external audit based on the idea that more of one source of control leads to less of another. However, previous researches usually do not find this relationship, and positive relationships are more commonly found. It does not take account of the separate benefits of individual stakeholders, nor of the circumstance that greater need for monitoring mechanisms is usually met by investing in a number of forms of monitoring mechanisms, not one monitoring mechanism to the exclusion of another.

In contrast, the notion of a complementary relationship among monitoring mechanisms have been suggested in the previous corporate governance research because of the multiple stakeholders in the process and the externalities of costs and benefits of their individual decisions. For example, a firm whose stakeholders wish to enhance its monitoring mechanisms may appoint independent directors that have high guilty. These independent directors will look after the interests of other stakeholders, directors may demand better external auditing order to protect their own reputations and fulfill their responsibilities. Moreover, they may use better and more independence of audit committees, and better internal audit functions. Beside that it seems unacceptable that a firm that is in need of greater controls would achieve this by using just one monitoring mechanisms it is more likely to make a broader investment in a range of monitoring mechanisms for control. These arguments show that it is quite reasonable to suggest that monitoring mechanisms could be complementary, and that they are not necessarily substitutes for each other. In conclusion, there will be negative relationships between monitoring mechanisms if the substitution view holds based on the idea that monitoring mechanisms can be offset against each other. And there will be positive relationships between monitoring mechanisms if complementary view holds (Hay et al., 2008). In line with that, Knechel and Willekens (2006) find that audit fees are higher when a company has an audit committee, discloses a relatively high level of financial risk management, and has more independent members sitting on the board, indicating that controls are complementary.

Based on the arguments that have been presented above and the empirical results of some previous studies, this study assumes that the disclosure of ICS weaknesses, corporate governance and external auditor as monitoring mechanisms are complements not substitutes and an increase in one will lead to an increase in the others. Thus, positive relationships are predicted in this study.

3.2.6.1 Board Independence and the disclosure of Internal Control System Weaknesses

Goh (2007) expects firms with more effective governance structures to have higher quality internal controls. More effective audit committees and boards, comprised mainly of independent directors, are less likely to be influenced by top managers. As such, that is more likely to protect shareholders' interests and implement effective internal controls to curb a manager's opportunistic behavior, since the board of directors monitors the adequacy and the quality of firm's internal controls as a function of the quality of firms control environment (Krishnan, 2005). Independent director on the board try to protect their reputation by playing significant role in monitoring ICS because weak internal control may result in lower financial reporting quality and effects there reputation (Ashbaugh et al., 2006; Doyle et al., 2007). Thus, it is hypothesized:

H9: **There is a positive relationship between the percentage of the independent directors on the board and the disclosure of internal control system weaknesses.**

3.2.6.2 Audit Committee Independence and the Disclosure of Internal Control System weaknesses

The primary purpose of the audit committee is to oversee the financial reporting process of a firm. The audit committee is a good governance tool; it seeks to ensure the effectiveness of internal control procedures, and adherence to rules and criteria, as well as examination and a review of accounting policies and procedures in the actual preparation of financial statements. The independence of directors on audit nominating and compensation committee has been of great concern to policy makers, researchers and corporate governance activists. For example, the Saudi Corporate Governance Code mentions that each listed company should have audit committee; each member on the audit committee should comprise non-executive directors of not less than three members. The committee oversees a company's audit process and internal accounting controls.

Goh (2009) aims to investigate the relationship between the effectiveness of audit committees and to take action to remedy or correct material weaknesses in ICS on time. The results highlight that the independence of audit committees and the board of directors is directly linked with the ability of monitoring the remediation material weaknesses in ICS.

Based on the examination of information collected from 8-K for the period prior to the enactment of SOX, when internal control problems are only disclosed in 8-Ks filed by firms when changing auditors, Krishnan (2005) presents evidence that audit committees with financial expertise are less likely to be associated with the occurrence of internal control problems. DeFond, Hann, and Hu (2005) document a statistically significant positive cumulative abnormal return around the appointment of accounting financial experts to the audit committee, suggesting that audit committees with accounting financial expertise improve corporate governance. Zhang *et al.* (2007) point out that financial expertise in audit committees continues to be an important determinant of internal control weaknesses after the enactment of SOX. Thus, it is hypothesized:

H10: **There is a positive relationship between the percentage of the independent directors on the audit committee and the disclosure of internal control system weaknesses**

3.2.6.3 Board Size and the Disclosure of Internal Control System Weaknesses

The Saudi Corporate Code indicates that each company should determine its board of directors of not less than three and not more than eleven. However, boards are generally larger than required. Lipton and Lorsch (1992) are the first to hypothesize that board size affects corporate governance independence of other board attributes. Eisenberg, Sundgren, and Wells (1998) report a significant negative relationship between board size and Tobin's Q. Postma, Ees, and Sterken (2003) study the relationship between board size and board composition. They demonstrate that board size is negatively related to market-to- book ratio. In relation to this, Loderer and Peyer (2002), present a negative relationship between board size and firm value. Their result supports the assumption that large board sizes may indicate that firms are not run as appropriately as other firms. They argue that it is hard to precisely state that large board makes it harder to run firms accurately, but to some extent, firms whose governance systems are not working properly are also characterized by larger boards. Thus, it is hypothesized:

H11: There is a negative relationship between board size and the disclosure of internal control system weaknesses

3.2.6.4 Audit Quality and the Disclosure Internal Control System Weaknesses

According to the company law, rules and regulations, every company is required to appoint an external auditor or more to review, inspect and monitor the company's financial accounts. The auditor reviews, checks calculations and financial statements prepared by management, as well as assesses ICS of the company. The auditor also takes a look at various decisions and policies established by the company and prepares a written report. Auditors make very clear and unambiguously opinion, then submit it to board of directors. A firm may appoint a Big 4 auditor or non-Big 4 auditor. According Doyle *et al.* (2007), a company that has internal controls problems has a preference to appoint non-Big 4 auditor. He argues that compared to the large or more profitable company, the smaller and less profitable firms are more likely to have internal control problems. Firms with internal control problems mostly do not appoint Big 4 auditors, because audit fees for Big 4 are high and they cannot afford it, or the firm might also be avoided by the Big 4 auditors due to potential risk. Based on the discussion above, a firm avoided by a Big 4 auditor may signal that it has potential internal control problems. Weak internal controls are also associated with higher auditor fees (Eldridge & Kealey, 2005). Thus, it is hypothesized:

H12: There is a positive relationship between audit quality and the disclosure of internal control system weaknesses

3.2.7 Control Variables for Financial Statement Credibility

Consistent with prior research, this study uses three control variables that affect the valuation weights of earnings and earnings components. The control variables include firm size, growth and risk. Recent studies (e.g., Bushman, Chen, Engel & Smith, 2004; Dey, 2008) have reported that firm size, risk and growth opportunities might affect the magnitude of earnings informativeness.

3.2.7.1 Firm Size

From a review of the prior literature on financial reporting quality, control variables (firm size) in the regression model for testing the main hypotheses have been included. Previous studies have indicated that firm size has been shown to have impacts on earnings quality as measured by ERC (Atiase, 1987: Freeman 1987; Teoh & Wong, 1993; Warfield, Wild, and Wild, 1995; Jones, Danbolt & Hirst, 2004). Earlier research has also shown that firm size, used as a proxy for the availability of pre-disclosure information, is negatively correlated with abnormal volatility. Atiase (1987) suggests that just prior to earnings announcements; the market has better information for larger firms than for smaller firms. Firm size will negatively impact ERCs under the assumption that investors earn greater rewards for private information search on larger firms (Freeman, 1987). Teoh and Wong (1993) find the relation of the ERC with client firm size is different between the groups; it is negative for Big 8 clients and positive for non-Big 8 clients. Warfield *et al.* (1995) state that control variables including firm size are found to affect ERCs. Jones *et al.* (2004) find that large companies tend to experience smaller responses to announcements than do small firms.

Size of a company can be measured in a number of ways. For example Haniffa and Huduib (2006) measure size based on natural logarithm of sales. Berrospide, Purnanandam, and Rajan, (2010) measure size based on the natural logarithm of the book value of the total firm assets (Berrospide et al., 2010). In this study, firm's market capitalization is used as a proxy of size and log of market capitalization is used as size variable in the multiple regression analyses. This is in line with previous study (Moeller, Schlingemann, & Stulz 2004) which measure firm size by using the natural logarithm of company market capitalization.

3.2.7.2 Firm Growth

Previous studies have indicated that firm growth has been shown to have impacts on earnings quality as measured by ERC (Ghosh, Kallapur & Moon, 2009; Collins & Kothari, 1989; Warfield *et al.*, 1995; Miller&Modigliani, 1961; Petra 2002; González, 2009).

The use of firm growth as a control variable in this study is motivated by the fact that it has been found that growth opportunities of a firm may lead the market to believe that the firm's earnings will grow in the future. Collins and Kothari (1989) find higher ERC's for firms that the market considers to be growth firms than for non-growth firms.

Ghosh *et al.* (2009) also find that ERC is higher for growth firms. Accordingly, the informativeness of earnings is related to the growth opportunities of the firm.

In relation to that, growth is predicted to load positively on the weight of earnings; growth increases the expected future cash-flow associated with innovations in earnings and accordingly raises the earnings valuation weight (Warfield *et al.*, 1995). Modigliani and Miller (1961) state that higher growth opportunities would lead to higher ERC. Jung and Kwon (2002) find the growth variable has positive and significant effects on the informativeness of earnings.

In this study, the growth of the firm is measured by the market value of the firm's equity scaled by its book value of firm *i* for year *t*. This measurement has been used by previous studies (e.g., Petra, 2002; Niu, 2006).

3.2.7.3 Firm Risk

From a review of the prior literature on financial reporting quality, riskiness is used widely as control variable in the empirical literature on market reaction and unexpected earnings indicated that firm riskiness is measured by beta which reflects company risks have been shown to have impacts on earnings quality as measured by ERC (Dhaliwal & Reynolds, 1994; Easton & Zmijewski, 1989; Collins & Kothari, 1989; Jung & Kwon, 2002).

Based on the assumption that market investors are risk-averse, the riskier the firm, the lower the market's reaction will be to unexpected earnings. In other words, the higher the systematic risk, the higher is the expected return and hence the lower is the capitalized value of future benefits; thus, the lower is the ERC. Dhaliwal and Reynolds (1994) study default risk as a possible determinant of the ERC. Easton and Zmijewski (1989) find that high risk firms have lower ERC than lower risk firms, demonstrating the temporal variation in ERC where ERC is negatively related to firm’s systematic risk. Collins and Kothari (1989) find evidence of a significant negative association between Beta and ERC, based on their reverse regression of unexpected earnings on returns. The ERC is negatively associated with the firm’s systematic risk or beta because beta increases the discount rate that the market uses to price unexpected revisions in future earnings. Jung and Kwon (2002) find that the risk variable has a negative and significant effects on the informativeness of earnings.

In this study, risk is measured by firm's beta. Firm's Beta has been used as measurement for riskiness of firms in previous studies (e.g. Petra, 2002; Vafeas, 2000; Jung & Kwon, 2002).

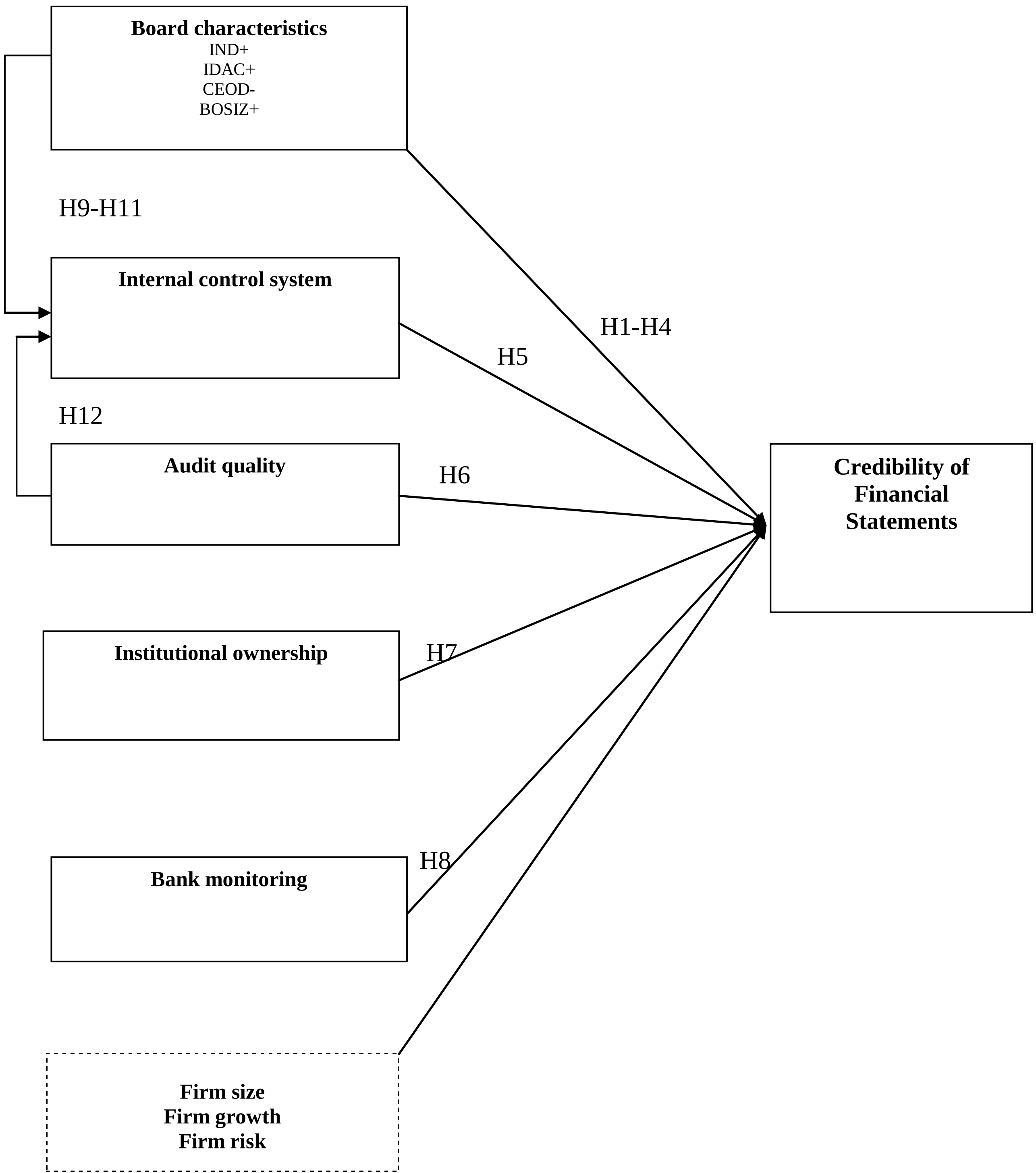

Figure 3.1
Framework

3.3 Population, Samples and Data Collection

The study uses quantitative methods. Secondary data (annual reports of companies listed on the Saudi Stock Exchange, the daily price of stocks, and TASI index) are used to provide answers to the above mentioned research questions. The population used for testing the hypotheses consists of all non-financial listed companies in the SSM in 2007 and 2008 pooled sample. A pooled data analysis method used in this study assumed that the environment over the two years was similar. Since this study employed market model which takes into consideration market wide fluctuation, using pooled data in a regression model is appropriate. The annual reports of years 2007-2008 were chosen because the period coincided with the introduction of the Corporate Governance Code on 12 November 2006. Sample selection process is shown in Table 3.1. Moreover, this study focused only on 2007-2008 because there were some amendments to the Code in 2009.

By the end of 2007, 111 Saudi publicly held firms were listed on the SSM; two sectors were excluded: Banks & Financial Services (N = 11) and Insurance (N = 9) as the characteristics of their financial reports are different from those of non-financial firms. By the end of 2008, 127 Saudi publicly held firms were listed on the SSM; two sectors were excluded: Banks & Financial Services (N = 11) and Insurance (N = 21) as the characteristics of their financial reports are different from those of non-financial firms. There were 238 firm-year listed on the SSM over the period 2007-2008. Fifty two firm-year observations were excluded because they are financial firms, giving a population of 186 non-financial firm-year observations; 95 firms in 2008 and 91 firms in 2007.

Twenty one firm-year observations with missing stock prices or financial reports were excluded. Thirty four firm-year were further excluded from the analysis because their unexpected earnings (UE) exceeded 100%. Therefore, the remaining 131 firm-year observations were valid candidates to be included in the sample for the determinants of financial reporting quality, proxied by the volatility of stock returns and sum of abnormal returns, to test hypotheses 1 to 8. However, for the determinants of the disclosure of ICS weaknesses model, 165 firm-year observations were valid candidates to be included in the sample to test hypotheses 9 to 12.

Table 3.1
Population and Sample Size

Details of Population and Sample Size	No. of Companies
Total number of listed firms in SSM in 2008	127
Total number of listed firms in SSM in 2007	111
Total number of firm-year in SSM (2007 & 2008)	238
(-) Financial firms (banks & insurance) (2007 & 2008)	(52)
Total number of firm-year in SSM excluding financial firms (2007 & 2008)	186
(-) firms with missing stock price or their financial reports	(21)
Total sample size	165
(-) companies with (UE) exceeding 100%	34
Final sample size	131

In this research design, like most previous studies, the event window date selected is the day of the official announcement of reported earnings. The event window is the day when the news is expected to reach the market.

3.4 Operational Definitions of Variables

The dependent variable for this study is the credibility of financial statement**.** The independent variables are the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, the disclosure of ICS weaknesses, institutional ownership, audit quality, and bank debt.

3.4.1 Dependent Variables

The Statement of Financial Accounting Concept (SFAC) No. 1 states that financial reporting should not be an end in itself, but should provide information that is useful in making business and economic decisions. Decision usefulness, in an accounting context, is the usefulness of accounting information in making informed investment decisions. Usefulness is the degree to which information is helpful in assessing or explaining current and future equity prices and returns, as well as evaluation of future cash payments of interest, dividends, or principal.

Market based measurement has been employed based on the idea that market is expected to response to earnings announcement, depending upon the quality of the earnings figure. Market based measurement concerns the role of financial accounting information in facilitating the assessments and decisions of investors as reflected in the behavior of stock prices and returns. Lev (1989) states that income statement is the primary source of data used by market participants. Wild (1994) mentions that an accounting disclosure of zero quality yields predictably less shareholder response than one of high quality. He states that the relationship between earnings and returns is predictably enhanced when the quality of reported earnings is high.

This study uses two market based measurement to indicate the credibility of financial statement, (1) the volatility of stock returns (VSR) and (2) the sum of abnormal returns (SAR). VSR is generally the variation from the average value over a measurement period. The volatility will be high if a price varies a great deal from day to day, and on the contrary, the value of volatility will be low if the day to day variation is low. SAR is sum of the differences between the expected return on a stock (systematic risk multiplied by the realized market return) and the actual return often used to evaluate the impact of news on a stock price.

Earnings announcements include information content if the announcements can cause stock prices to change by affecting the investors' expectations regarding the future returns of the stocks, and earnings announcements possess information content if stock price volatility and/or trading volume increase around the same time as the announcement (Ball & Brown, 1968; Beaver, 1968). The first earnings informativeness measure, the volatility of stock returns (VSR), is a non-directional measurement since it does not capture the sign of unexpected earnings but rather its magnitude, the square of unexpected earnings. A firm with a higher VSR as compared to another firm does not indicate that the former firm is riskier than the other firm, but, as Beaver (1968) suggested, the information content of earnings announcements for the former firm is higher. In other words, high risk stock has the same expected volatility as a low risk stock.

The second earnings informativeness measure, the sum of abnormal returns (SAR), is a directional measure of earnings quality since positive abnormal returns are considered better than negative abnormal returns. The trend of cumulative abnormal returns depends on two types of information following an earnings announcement: good or bad information. Companies owning good (bad) information make cumulative abnormal returns increase (decrease) continuously after earnings announcements since they convey good information to the stock market (Ball & Brown, 1968; Lev & Penman, 1990).

Abnormal stock returns are measured using the market model. The market model is selected because it is capable of controlling for the effects of market-wide fluctuation. According to Bruegger and Dunbar (2009), stock prices have been found to react significantly to unexpected earnings numbers. The reason is that investors adjust their expectations of future earnings in the direction of the unexpected earnings.

3.4.1.1 Event Study Procedure

The early development of event study started in the late sixties (Ball & Brown, 1968) in the areas of accounting and economics. In the 80s and 90s, event study results (cumulative average abnormal returns) were used as dependent variables in cross-sectional regression analyses to identify factors that could explain the abnormal returns such as shown by the works of (Barclay & Litzenberger, 1988; Loderer & Zimmermann, 1988).

Generally, event studies are related to information content and model evaluation. A study conducted using this approach usually combines these classifications depending on the objective of the study. Event study focuses on certain types of company specific events such as changes in accounting policy disclosures, regulatory or economic news, which could have an impact on security prices.

There are two basic steps in event study research design. The first step is to identify an event which is considered to be significant and of interest to one chosen field of research. Once an event is selected, an event date will need to be identified so that an event window can be established to test on the new information which is released from the event. The date must reflect when the public reasonably can expect to receive the news. The steps involved in an Event Study Analysis are:

Step one

1) Identify an event
2) Define an event date (in this study event day is the day when earnings news was first communicated to the public).
3) Select an event window

Step two

1) Obtain the daily closing share prices and daily closing market index (TASI) from Saudi Stock Exchange Tadawul of all the firms in the sample for a period ranging from 235 days prior to the earnings announcement date up to 2 days after the earnings announcement date.
2) Calculate the return of individual companies and return of market index for 230 days as follows:

Stock Return = $(P_1-P_0)/P_{0,}$ where P_1 = Closing share prices today, P_0 = Closing share prices one day before.

Index Return = (IP_1-IP_2) where IP_1 = Closing Index today and IP_0 = Closing Index one day before.

3) Calculate β and α as follows:

β = Covariance of Stock Return and Index Return / Variance of Stock Return.

α = Average of Stock Return - β * Average of Index Return

4) Calculate Sum of Abnormal Returns (SAR) during the 5-day event window (2 days before and 2 days after announcement) where SAR Market model has been used to compute abnormal returns (AR) as follows:

$ARjt = Rjt – (\alpha j + \beta j * Rmt,)$ where AR_{jt} = Abnormal returns or excess returns of firm, R_{jt} = The returns for firm, R_{mt} = The returns on the market Index, and αj and βj as defined above .

5) The sum of abnormal return (SAR) for each company is formed by summing individual Abnormal returns ARj over five days as follows:

$$SAR_j = \sum_{t \in Aj} AR_{j,t \in Aj}$$

3.4.1.2 Unexpected Earnings

An unexpected earning serves as the main independent variable. It is employed because this study intends to measure market reaction to the additional news, which was not anticipated by the market in the context of varying board and audit committee, the disclosure of ICS weaknesses, external auditor, institutional ownership and bank monitoring. For deriving unexpected earnings, the following steps are required:

Unexpected earnings measured as the difference between reported earnings of firm j for year t and earnings expectation of firm j for year t, scaled by earnings expectation of firm j for year t). Pure random walk model is used to proxy for market expectation. This approach has been used by Lee *et al.* (2005). Hence, earnings expectation of firm j for year t is equal to reported earnings of firm t for year t-1.

This study employed two measurements for dependent variable (credibility of financial statement) – non-directional and directional. The volatility of stock returns in the five day earnings announcement period is used as the dependent variable (non-directional measurement), and abnormal share price returns are used as the dependent variable (directional measurement). Narrow window of five days have been used in previous studies (i.e., Black & Khanna, 2007; lee *et al.*, 2005). According to Bruegger and Dunbar (2009), the length of the window over which abnormal stock price returns are cumulated and attributed to an earnings announcement can have a major effect on the estimated stock price effect and the extent to which the estimate is contaminated by confounding factors. If stock price changes are measured over a window that is too long, the stock price changes might be convoluted by other information that has entered the market during this time. Nevertheless, researchers have used many window lengths. There is an explanation for this history with the result that a relatively short window is the most supportable.

Excess returns (SAR) are based on market model parameters α & β. To estimate α & β monthly, weekly, and daily returns have been used in previous studies. As for daily return bases, one- year observations is appropriate for estimating α & β. Black and Khanna (2007) estimate α & β in the market model during a roughly one-year estimation period ending 6 trading days before the event period. Moreover, in a study by Ittonen (2010) the daily market-model abnormal return is estimated using an estimation period of 200-days for the parameters α & β. In this study, to estimate α & β, one year actual trading days in Saudi stock market are taken as 235 to 5 days prior to the earnings announcement date, where day 0 is the announcement date.

The use of volatility of stock return and sum of abnormal returns as a dependent variable as a measure of market reaction was motivated by the fact that market is expected to respond to earnings announcements, depending upon the quality of the earnings figure, as argued by Wild (1996). Moreover, this study uses unexpected earnings as a proxy for additional news contained in earnings.

The sum of abnormal returns will regress on the unexpected earnings to measure accounting earnings quality (directional measurement). The coefficient from the regression is known as ERC. The ERC was then used to determine the extent of unexpected earnings conveying value relevant information to the market.

3.4.2 Independent Variables

As mentioned above, independent variables in this study are the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, the disclosure of ICS weakness, audit quality, institutional ownership and bank monitoring.

3.4.2.1 Independence of the Board of Directors

The independence of the board refers to the fraction of outside and inside directors sitting in the board. Commentators agree that, in order to be independent, a director must not have direct or indirect affiliation in the firm. For example, he does not have shares in the firm or related firms, does not have any family relationship with board of directors and he has not worked for the last two years in the firm, etc. (Cadbury Report, 1992; Cadbury 1995; Saudi Corporate Governance Code, 2006).

According to the Saudi Corporate Governance Code in paragraph (b) of Article 2, independent member is a member of the board of directors who enjoys complete independence. The following shall constitute an infringements of independence: holding a controlling interest in the company or in any other company within that company's group, being a senior executive of the company or of any other company within that company's group during the preceding two years, family relationship with any board member of the company or of any other company within that company's group, family relationship with any senior executives of the company or of any other company within that company's group, being a board member of any company within the group of the company which he is nominated to be a member of its board. Being an employee with an affiliate of the company or an affiliate of any company of its group, such as external auditors or main suppliers; or if he/she had a controlling interest in any such party during the preceding two years. Based on that independent non-executive directors is measured as the percentage of the independent non-executive directors to the total board of directors (Beasley, 1996).

3.4.2.2 Independence of the Audit Committee

A suitable number of committees should be formed in order to help the board of directors to perform its duties in an effective manner. Audit committees have an essential role in improving the quality of reports and financial statements; it is mandatory to ensure the implementation of generally accepted accounting principles, as well as internal control evaluation, and look into conflict resolution that arises between management and the external auditor. In relation to that the Saudi corporate governance code states that the board of directors should form an audit committee which includes at least three non-executive members, with at least one of them having expertise in financial and accounting affairs. This committee has several important roles: to supervise and review the firm's internal and external audit procedure, control system, accounting policy, the integrity of financial reporting, disclosure, monitoring management, the recommendation of auditor selection and to remedy conflicts between management and external auditor. Thus, Independent of the audit committee is measured by the percentage of the non-executive directors on the audit committee to the total members of audit committee (Klein, 2002; Davidson et al., 2005).

3.4.2.3 CEO Duality

The CEO duality takes place when the Chairman of the Board of Directors is also the CEO of the company. Although the fact that the same person holding both the chair and CEO posts lead to more knowledge about the company, the nature of work and company business environment, at the same time, this CEO duality leads to the person becoming so dominant in the decision-making. Hence, it would be difficult to monitor such a person (Finkelstein & D'Aveni, 1994; Ahmed et al., 2006).

3.4.2.4 Board Size

Smaller board sizes are considered to be more effective in attaining higher monitoring. Smaller boards (with about 7 to 10 board members) are viewed as having less disagreements among board members, and likely to be more efficient and organized in carrying out board functions, than larger boards (Goodstein *et al.*,1994; Patton and Baker,1987). Jensen (1993) proposes that when board of directors comprises more than seven or eight persons, they are less likely to do their tasks effectively. Yermack (1996) argues that firms with smaller boards, consisting of less than ten directors, are better performers. Saudi Corporate Code in paragraph (a) of Article 12 states that each firm should determine its board of directors of not less than three and not more the eleven.

3.4.2.5 Audit Quality

There is a growing body of research that has provided evidence for the use of auditor size (Big 4) as a proxy for audit quality (DeAngelo, 1981; Lin and Hwang, 2010). The reputation of an audit firm could affect the quality of its audits. Big 4 auditors provide better audit quality when conducting audit work because they may have more resources, and use more qualified audit staff. Also, the internationally affiliated audit firms would be more efficient because they employ superior audit technology (Leventis *et al.*, 2005). Although it is not clear whether the quality of audits of Big 4 auditors is always superior, the brand value of the audit firm could be associated with the monitoring effectiveness of a firm. Al-Abbas (2009) highlights the role that large audit firms play in constraining earnings management. He provides insights into an audit quality differentiation in the Saudi audit market. Big auditing firms in Saudi Arabia are Deloitte & Touche Bakr Abulkhair & Co, PricewaterhouseCoopers LLP, Ernst & Young Saudi Arabia, and KPMG Al Fozan & Al Sadhan.

3.4.2.6 The Disclosure of Internal Control System Weaknesses

The emphasis on having good ICS arises because it is considered to be an important factor in achieving good quality financial reporting. According to the GAO (1999), internal control refers to the policies and process by which a company safeguards its assets and provides reasonable assurance regarding the reliability of the company's financial reporting, the effectiveness and efficiency of operations including the use of the entity's resources, reports on budget execution, financial statements, and compliance with applicable laws and regulations. Saudi Corporate Governance Code section (9G) required public companies to include in each annual report the auditors and managements' assessment on the effectiveness of the ICS as a part of board of directors' report. Hence, the disclosure of ICS weaknesses is measured as equal to 1 if the firm disclosed an internal control deficiency and 0 if otherwise.

3.4.2.7 Institutional Ownership

The presence of institutional investors is seen as an efficient control of the companies where they have a greater capacity compared to dispersed investors, to monitor, and control the performance of managers. The presence of institutional investor in the ownership structure increases the monitoring efficiency. Hence, increased institutional investors in firms' ownership structure would increase the monitoring role and increase the opportunity to improve the financial performance of the company. Institutional investors are large investors that own five percent and above of company shares, other than natural persons, who exercise discretion over the investments of others. This study measures the institutional investors by the percentage of firm's stocks owned by these large blockholders.

Institutional investors usually hold large blocks of stocks for a longer period of time and, therefore, they have more incentives to be actively involved in the corporate governance process. Also, institutional investors are more informed and more sophisticated than individual investors. Therefore, they may have additional advantage to see through reported earnings and undo any manipulation in these earnings.

3.4.2.8 Bank Monitoring

Banks, as external monitor, have been widely discussed in previous studies. The monitoring by banks has been shown to be an efficient form of corporate governance as it is considered as an effective way to alleviate agency conflict among different parties within a company (Braendle & Noll, 2004). Banks have developed and retained, over time, strong links with major industrial and commercial enterprises. Therefore, bank monitoring is measured as the ratio of bank debt to total debt.

3.5 Measurement of Variables

3.5.1 Credibility of Financial Statement

The informativeness of reported earnings have been used as a proxy for the credibility of reported accounting numbers, because reported earnings are a central part of information in the functioning of capital markets as well as in contracting. Earnings serve as a summary measure of firm managerial performance.

Financial Accounting Standards Board FASB provides a framework for conceptualizing earnings quality. Since usefulness is the primary objective of financial accounting, the concept statement identifies two earnings characteristics, relevance and reliability, that contribute to decision usefulness. The earnings quality literature has investigated a number of attributes of earnings. The attributes investigated can be categorized as either accounting-based or market-based characteristics. Accounting-based investigation, such as by Dechow and Dichev (2002) focuses on accruals quality using income and accruals. Market-based measures, include Teoh and Wong (1993), evaluate the credibility of financial reporting by measuring investors' response to an earnings surprise. Basically, in their research, the ERC proxies for the credibility of company's reported earnings. In other words, the greater the stock market's reaction to unexpected earnings, the more credible is the financial reporting. Other examples of market-based measures is a study by Scott (1997). He states that the extent of security price change or the size of the abnormal market returns around the time the market learns the current net income can be used as a measurement of the information content of reported net income. It can be argued that investors are likely to adjust their beliefs about future returns when they find reported earnings have information contents. These belief revisions, reflected in investor buy/sell decisions, will result in security price changes.

This study uses two market based measurement to determine the credibility of financial statement, the volatility of stock returns (VSR) and the sum of abnormal returns (SAR) The volatility of stock returns in earnings is based on Beaver (1968) and the sum of the announcement period excess returns is based on Teoh and Wong (1993), Lee *et al.* (2005), Chang and Sun (2010), and Chang and Sun (2009). Both measurements were adapted by Dey (2005).

3.5.1.1 The Volatility of Stock Returns (VSR) in Earnings Announcement Periods

Security prices do, in fact adjust quickly to new information whenever it becomes available, and then changes in security prices will reflect the flow of information to the market. An observed revision of stock prices associated with the release of the reported earnings would thus provide evidence that the information reflected in earnings numbers is useful. A firm's earnings report possesses informational value only if it leads individual investors to revise their security holdings (changes in the equilibrium value of the current market price, or, the number of shares traded). The adjustment might be to buy more shares or to sell some or all the shares already held. Beaver (1968) argued that earnings announcements possess information content if stock price volatility and/or trading volume increase around the time of the announcement.

$$VSR_j = \sum_{t \in Aj} \left[R_{j,t \in Aj} - \bar{R}_{j,t \in Aj} \right]^2$$

where for firm *j*,*A*. represents the five-day announcement period (days -2, 0, +2, with day 0 being the announcement day as reported in SSM), $R_{j,t \in Aj}$ is the return for firm *j* on day *t* of the five-day announcement period, and $\bar{R}_{j,t \in Aj}$is the average return in the announcement period.

3.5.1.2 The Sum of the Announcement Period Excess Returns (SAR)

"A common measure of the informativeness of earnings is its ability to yield revisions in shareholders expectations regarding future firm performance. Specifically, an accounting disclosure of zero quality yields predictably less shareholder response than one of high quality. Accordingly, if the earnings figure is of high quality (i.e. not subject to substantial management of the numbers) and based on objective and verifiable data, and conveys timely and relevant information), then the relationship between earnings and returns is predictably enhanced" (Wild, 1994, p.355). For example, Teoh and Wong (1993) find evidence that the ERCs of firms audited by Big 8 audit firms are higher than those audited by non-Big 8 audit firms. They interpret this evidence as indicating that better quality auditors are associated with more credible financial reports (as perceived by investors). Based on the above, earnings quality is determined by the extent of the ERC increases/decreases from regressing earnings on the share price returns.

In this study, the sum of the announcement period excess returns;

$$SAR_j = \sum_{t \in Aj} AR_{j,t \in Aj}$$

For each firm j, excess returns are calculated as, $AR_{jt} = R_{jt} - (\alpha_j + \beta_j * R_{mt},)$ with R_{jt} being the returns for firm j on day t, AR_{jt} abnormal returns or excess returns of firm j on day t, α_j alpha estimation of firm j, estimates over 230 trading days (235 to 5 trading days prior to the issue date), β_j beta estimation of firm j, *and* R_{mt} the returns on the market portfolio for day t.

3.5.2 Monitoring Mechanisms

To determine the quality of corporate governance, four main variables are used in this study: the independence of board of directors, the independence of audit committee, CEO duality, and board size. Based on literature review on corporate governance, these factors are considered sufficient to determine the quality of corporate governance. Also the study considered four other monitoring variables: ICS, external audit quality, institutional investors and bank monitoring. The following are the measurements for each variable:

Independence of the Board of Directors is measured as the percentage of the independent non-executive directors to the total board of directors (Beasley, 1996). Independent directors on the audit committee are measured by the percentage of the non-executive directors on the audit committee (Klein, 2002; Davidson *et al.*, 2005). CEO duality/independent chairman is measured by coding one (1) if the chairman is also CEO and zero (0) if otherwise (Ahmed *et al.* 2006). Board size is measured by the number of directors on the board (Yermack, 1996). ICS is measured as equal to 1 if the firm disclosed an internal control deficiency and 0 if otherwise (Doyle *et al.*, 2007). Audit quality is measured as equal to 1 if a firm is audited by big auditing firms in Saudi Arabia such as Deloitte & Touche Bakr Abulkhair & Co, PricewaterhouseCoopers LLP, Ernst & Young Saudi Arabia, and KPMG Al Fozan & Al Sadhan, and 0 if otherwise (Carcello & Nagy, 2004). Institutional ownership is measured by the percentage of firm's stocks owned by institutions (Rajgopal & Venkatachalam, 1997). Bank monitoring: is measured as the ratio of banking debt to total debt (Yu, Pennathur, & Hsieh, 2007).

3.5.3 Control Variables

Firm size - the natural logarithm of market capitalization is used to measure firm size, where market capitalization is the product of shares outstanding and share price at fiscal year-end; Firm growth - the market value of the firm's equity scaled by its book value of firm i for year t is used to measure the Growth; Firm risk – the beta of the firm is used to measure firm's risk.

3.6 Research Model

Since the credibility of reported earnings is judged by investors' perception in this thesis, the study uses two proxies of earnings credibility; VSR which is non directional and SAR which is directional; following previous studies (e.g., Dey, 2005; Lee *et al.*, 2005; Bhattacharyya & Rao, 2005; Dorestani, 2010; Chang & Sun, 2010; Chang & Sun, 2009). The justification for using these methods to measure earnings quality is earnings of high information content should enable revisions in shareholders expectations with regard to a firm's future performance. According to MacKinlay (1997), event studies provide an ideal tool for examining the information content of disclosures. The empirical models for the determinants of financial statement credibility are shown in Equation (1) - VSR Model and Equation (2) – SAR Model below. The determinants of ICS weaknesses are represented in Model 3.

$$\textbf{VSR (–2, +2)} = B_0 + B_1UE^2 + B_2\,UE^2 *IND + B_3\,UE^2 *IDAC + B_4\,UE^2*CEOD + B_5\,UE^2 *BOSIZ + B_6\,UE^2 *ICS + B_7\,UE^2 *AUDQ + B_8\,UE^2 *INSHARE + B_9\,UE^2 *BANKMO + B_{10}\,UE^2 * SIZE + B_{11}\,UE^2 * GRWTH + B_{12}\,UE^2 * RISK + \varepsilon \quad (1)$$

$$\textbf{SAR (–2, +2)} = B_0 + B_1UE + B_2UE*IND + B_3UE*IDAC + B_4UE*CEOD + B_5UE*BOSIZ + B_6UE*ICS + B_7UE*AUDQ + B_8UE *INSHARE + B_9UE *BANKMO + B_{10}UE *SIZE + B_{11}UE * GRWTH + B_{12}UE * RISK + \varepsilon \quad (2)$$

$$\textbf{ICS} = B_0 + B_1IND + B_2\,IDAC + B_3BOSIZ + B_4\,AUDQ + \varepsilon \quad (3)$$

Where,

VSR = is the volatility of stock returns in the five day earnings announcement period.

SAR = is the sum of the abnormal returns in the five day earnings announcement period.

UE = is the unexpected earnings for firm, defined as the reported earnings for this year less the reported earnings of the previous year, scaled by the reported earnings of the previous year. Any observation for UE exceeding 100% was discarded to avoid using any observation that may have an undue influence on the regression parameter estimates (Teoh & Wong, 1993).

IND = Independent non-executive directors is measured as the percentage of the independent non-executive directors to the total board of directors.

IDAC = Independent of the audit committee is measured by the percentage of the non-executive directors on the audit committee to the total members of audit committee.

CEOD = Independence of chairman is measured by coding one (1) if the chairman is also CEO and zero (0) if otherwise.

BOSIZ = Board size is measured by the number of directors on the board

ICS = Internal control system is measured as equal to 1 if the firm disclosed an internal control deficiency and 0 if otherwise

AUDQ = External auditor quality is measured as equal to 1 if a firm is audited by a big auditing firm and 0 if otherwise.

INSHARE = Institutional ownership is measured by the percentage of firm's stocks owned by institutions

BANKMO = Bank monitoring is measured as the ratio of bank debt to total debt

SIZE = Firm size is measured as the natural logarithm of market capitalization.

GRWTH = Growth is measured as the market value of the firm's equity scaled by its book value of firm *i* for year *t*.

RISK = Risk is measured as market beta

ε = Error term

3.7 Technique of Data Analysis

The data is analyzed by using tools such as tables, percentage and correlation. A multiple regression method is utilized to test the hypotheses. In addition, controlled variables: firm size, firm growth, and firm risk are also included in the analysis using SPSS and Stata.

3.8 Summary

This chapter discussed the research methods that were employed in this study. In this chapter hypothesis development and analytical framework for the research variables have been discussed. The study developed twelve hypotheses for subsequent empirical tests. The study also tested using a number of control variables firm size, firm growth, and firm risk. Moreover, detailed plan for testing the hypotheses, population and sample size explained. The study utilized a pooled sample of Saudi listed companies in the years 2007 and 2008 to test the effect of different monitoring mechanisms on the credibility of financial statement. Instrumentation, data collection, and techniques of data analysis have been presented. Market-based accounting approach was adapted. Two proxies of earnings quality have been used non-directional one - the volatility of stock returns in earnings based on Beaver (1968) and a directional one- the sum of the announcement period excess returns based on Teoh and Wong (1993), Lee et al. (2005), Chang and Sun (2010), and Chang and Sun (2009). Both measurements were adapted by Dey (2005).

CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction

This chapter discusses the analyses of data and findings of the research. It presents complete results and analyses of the study in the form of figures, tables or text so that the key information is highlighted.

4.2 Data Analysis

Data analysis involves steps such as data collecting, data cleaning, estimating α and β, and selecting the appropriate data analysis strategy. For the purpose of data analysis and hypotheses testing, several statistical tools and methods were employed from SPSS software version 18. This includes descriptive statistics, Normality, Multicollinearity, Autocorrelation, and Heteroscedasticity. Multiple regressions were utilized to test the influence of monitoring mechanisms on credibility of financial statement, and logistic regressions were utilized to test the influence of board of directors, audit committee, board size and audit quality on the disclosure of ICS weaknesses.

4.3 Cleaning Data

After data collection is the data cleaning. The term data cleaning refers to identifying incomplete, incorrect, and inaccurate parts of the data. All missing data or the companies that provided incomplete data were excluded from the sample.

4.4 Outliers

Outliers are observations that have extreme values which are substantially different from other observations. These extreme values bias the mean and variance of the data set (Lee & Lings, 2008). In this study, any observation for UE exceeding 100% was discarded to avoid using any observation that may have an undue influence on the regression parameter estimates (Teoh & Wong, 1993).

4.5 Descriptive Statistics

Descriptive statistics refer to the presentation of raw data in a form that would provide information to describe a set of variables that will make them easy to understand and interpret (Sekaran & Bougie, 2010). This analysis gives a clear meaning of data through frequency distribution, minimum, maximum, mean, and standard deviation.

The independent variables in the model-1 and model-2 in this study are the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, audit quality, the disclosure of ICS weaknesses, institutional ownership and banks monitoring. The dependent variable is the volatility of stock return as proxy for credibility of financial statement in the first model and the sum of abnormal return as proxy for credibility of financial statement in the second model. Control variables are firm size, growth, and riskiness in both models.

The independent variables in the model-3 in this study are the independence of the board of directors, the independent directors on audit committee, board size, and audit quality. The dependent variable is the disclosure of ICS weaknesses.

The first step to analyze the data is a table of means and standard deviations (Genser *et al.*, 2007). In a multiple regression analysis, these scores may have a large influence on the results of the analysis and are a cause for concern. Table 4.1 explains the descriptive statistics for all continuous variables and Table 4.2 explains the descriptive statistics for all dichotomous variables, which were computed using SPSS.

The mean of excess return SAR (0.547%) and the mean of volatility of stock return VSR (0.525%) during the five days surrounding the annual report released date provide evidence that annual report have information content. The investor reaction to annual reported earnings is reflected in the price movements of common stocks in the five days surrounding the announcement date.

In terms of board characteristics factors, independent directors dominated the boards of directors and audit committee, with a mean of 47% and 64% respectively, suggesting that boards of Saudi firms contain a mix of inside and outside directors. This is essentially good for the effectiveness of a board. Fama and Jensen (1983) argued that the effectiveness of a board depends on the optimal mix of inside and outside directors.

It is noted that of the firms studied, the mean board size is about eight (8) with a maximum board size of (13) and standard deviation of 1.7. The mean of board size is 8 which is the same range as in other countries. This suggests that Saudi firms, on average, choose their number of board members just optimally. Regarding the role of the chairperson and the CEO, 65% of the firms studied, adopt non-duality board structure implying that about only 35% of the firms have their CEOs and Board chairman positions combined in one personality. This suggests that the avenue for agency problems emanating from conflict of interest is minimized.

Regarding the disclosure of ICS weaknesses, only 26% of the sample contained in their annual report disclosure related to internal control problem. Seventy four percent of the sample reported no ICS problem in their annual report. In terms of the quality of external auditors used by Saudi listed companies, over half of the sample (64%) was audited by one of the Big 4 which moderates concentration in the Saudi audit market while 36% of the sample was audited by local audit companies.

In terms of bank monitoring, most Saudi firms are dependent on bank debt as reflected by BANKMO showing a mean value of 22% suggesting that bank debt represents more than one-fifth of the total debt. Regarding company size, there is considerable variation in the size of listed companies in SSM within the sample; company size ranges from RS 148.5 million to RS 496 billion with an average of RS 11.8 billion. In terms of institutional ownership, the average ownership of institution is 16.4 % of the firm's shares; there is considerable variation in institutional ownership within the sample; the ownership of institution ranges from less than 0.0 % to 70 %.

Table 4.1
Descriptive Statistics of for All Continuous Variables

	N	Minimum	Maximum	Mean	Std. Deviation
VSR	131	0.00016	0.03117	0.00525	0.00591
SAR	131	-0.15851	0.17635	0.00547	0.04635
UE	131	-0.94788	0.94353	0.04645	0.45529
UE^2	131	0.00002	0.89851	0.20786	0.28248
IND	131	0.12000	0.88000	0.46780	0.18440
IDAC	131	0.13000	1.00000	0.64250	0.23914
BOSIZ	131	5.00000	13.00000	8.38000	1.72500
INSHARE	131	0.00000	0.70000	0.16372	0.21488
BANKMO	131	0.00000	0.85382	0.22067	0.24528
SIZE (in thousand)	131	148500	496250000	11800000	48120000
GRWTH	131	0.13680	7.04940	1.79129	1.36657
RISK	131	0.16000	1.60000	1.02061	0.21469

Table 4.2
Descriptive Statistics for All Dichotomous Variables

			Frequency	Percent	Cumulative Percent	Mode
CEOD		0	85	64.9	64.9	
	Valid	1	46	35.1	100	
		Total	131	100		0
		0	97	74	74	
ICS	Valid	1	34	26	100	
		Total	131	100		0
		0	47	35.9	35.9	
AUDQ	Valid	1	84	64.1	100	
		Total	131	100		1

The percentages were found by dividing the number of observations (either 0 or 1) over the total number of observations in each row.

Table 4.3
Descriptive Statistic for Board Size

Board Size	Frequency	Percent	Cumulative Percent
5	5	3.8	3.8
6	11	8.4	12.2
7	30	22.9	35.1
8	21	16	51.1
9	35	26.7	77.9
10	12	9.2	87
11	11	8.4	95.4
12	5	3.8	99.2
13	1	0.8	100
Total	131	100	

4.6 Diagnostic Test

Before running the multiple regression analysis, it should be noted that there are several classic assumptions undertaking any multiple regression analysis. These are normality, autocorrelation, multicollinearity, and heteroscedasticity (Gujarati, 1995). All of these tests are tested accordingly.

4.6.1 Normality Test

Normality, being the fundamental assumption in data analysis, refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution. Hair, Black, Babin, and Andrson (2010) term it as the benchmark for statistical methods. The variation from the normal distribution needs to be small. For large variations, this renders all statistical tests resulting from the analysis invalid. There are several ways in which one could describe the distribution if it differs from the normal distribution.

In other words, normality for each variable may be checked in a number of ways such as using a histogram with normality plot and the Kolmogorov–Smirnov, skewness and kurtosis value. As Kolmogorov–Smirnov normality test is very sensitive, then standard skewness and kurtosis are adapted in this study, since skewness and kurtosis, are among the most popular approaches in describing the shapes or distribution of a data set.

Skewness looks at the distribution balance, whether it is centered (symmetric) or it has shifted to the left or right. It is a measure of symmetry of a distribution, and skewness values falling outside the range of -1 to +1 indicate a substantially skewed distribution (Hair *et al.*, 2010). Kline (1998) suggests a higher threshold of three. In this study, the skewness values for measurement items range from -.546 to + 1.86. Six values are within the limit -1 to +1 and only four values extremes are outside the -1 to +1 limit but within the -2 to +2 limit.

Kurtosis, which is a measure of peakedness or flatness of a distribution when compared to the normal distribution, has a recommended range from -2.0 to +2.0, as per the recommendation of Coakes and Steed (2003). However, again Kline (1998) suggests a higher threshold of ±10. The higher the positive value, the higher is the peakedness and vice versa. In this study, the kurtosis values for measurement items ranges from -.908 to

+ 4.06. The majority of the kurtosis values are within the recommended limits of ±2. Four values are observed to be outside the ±2 limit but within the ±10 limit, as seen in Table 4.4. The results from this approach lead to the conclusion that the data set has no serious violation of the normality assumption, therefore, it is assumed that the data is normally distributed. Only one variable (Growth) was not normal. Three observations have extreme values in this variable. Since outliers are one cause of non-normality, the outliers' in this variable are transformed to the next highest value.

Another test used to check the data normality assumption of the regression model is a histogram of the distribution of the residuals. Figures 4.1 and 4.2 reveal that the distribution is approximated to normal curve which asserts the normality assumption.

Also the P-P plot of regression of standardized residuals, as shown on Figures 4.3 and 4.4, reveal that all observed values fall almost along the straight line in both models 1 and 2, indicating that the residuals are from a normally distributed population.

Table 4.4
Normality Test for Models 1and 2

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
VSR	131	1.676	.212	2.793	.420
SAR	131	-.144	.212	2.969	.420
UE	131	-.197	.212	-0.047	.420
UE^2	131	1.343	.212	0.324	.420
IND	131	0.111	.212	-0.908	.420
IDAC	131	-0.137	.212	-0.783	.420
BOSIZ	131	0.258	.212	-0.311	.420
INSHARE	131	1.082	.212	-0.213	.420
BANKMO	131	0.819	.212	-0.515	.420
SIZE	131	0.777	.212	1.220	.420
GRWTH	131	1.860	.212	4.060	.420
RISK	131	-0.546	.212	2.067	.420
Valid N (listwise)	131				

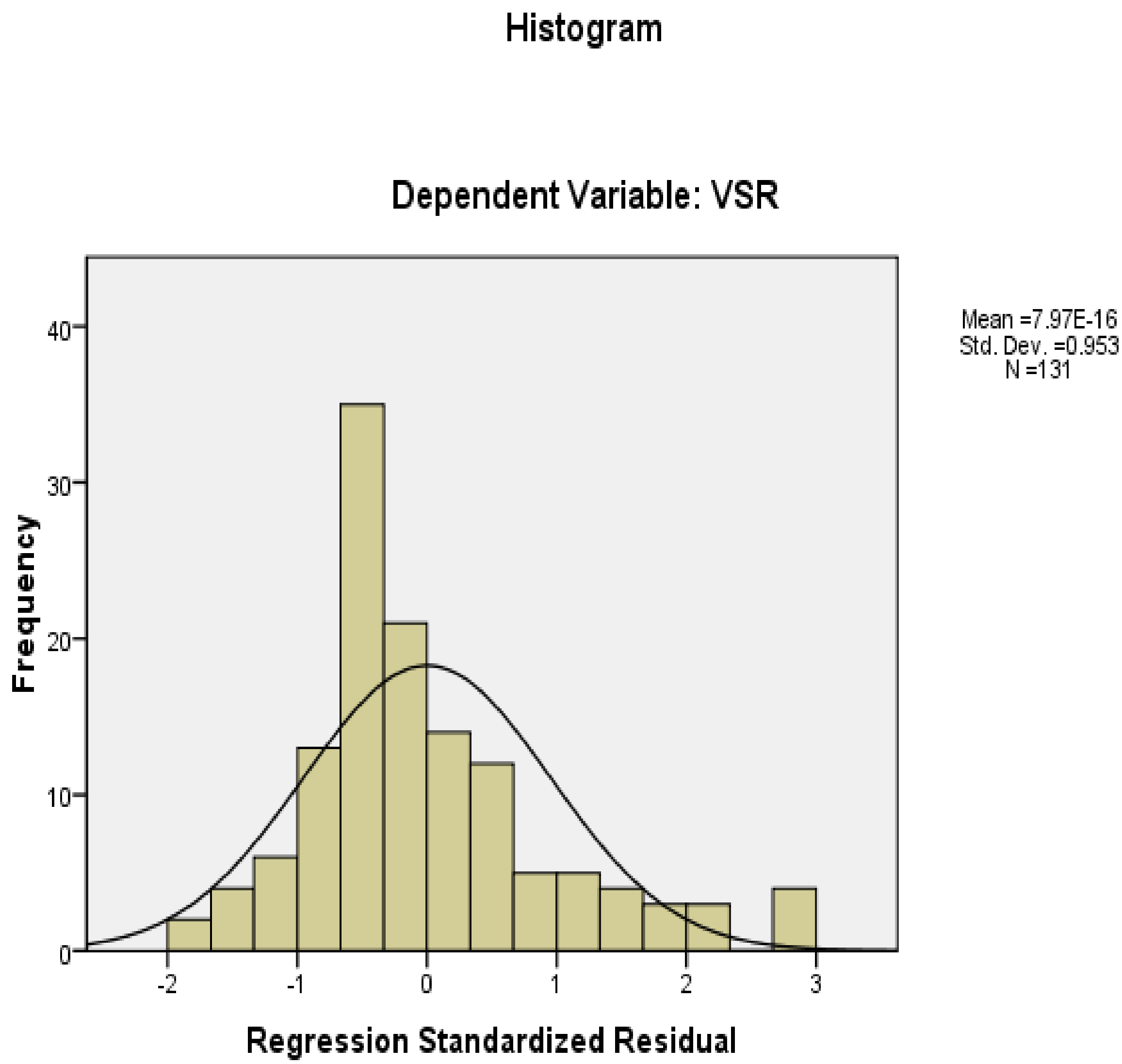

Figure 4.1
Histogram for the Statistic Test Result (Model 1 VSR)

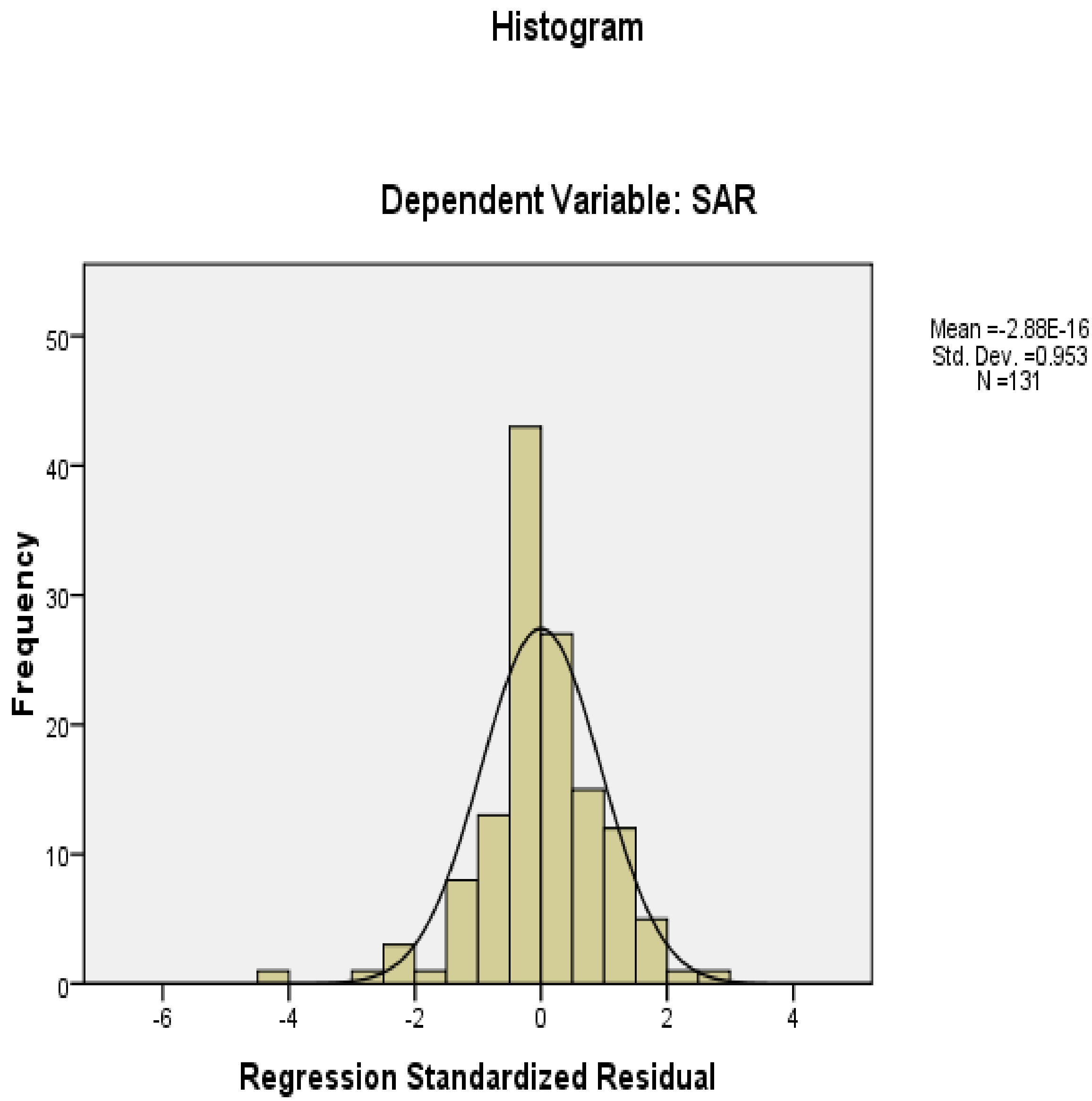

Figure 4.2
Histogram for the Statistic Test Result (Model 2 SAR)

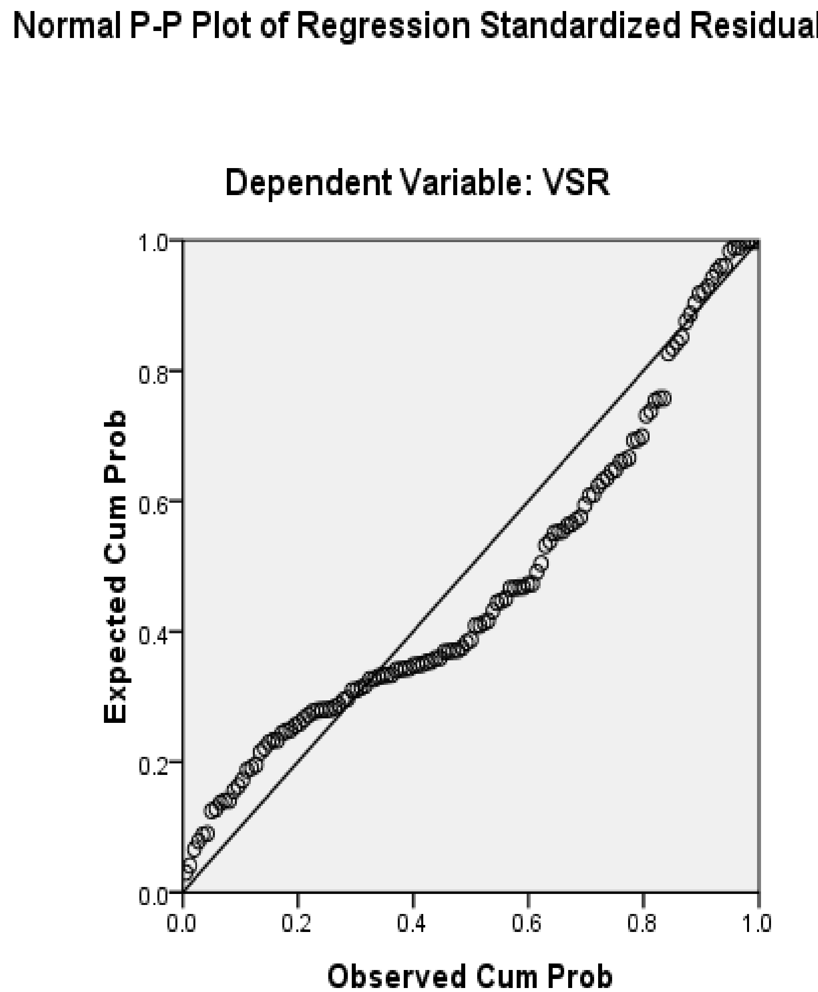

Figure 4.3
Normal P-P for the Statistic Test Result (Model 1 VSR)

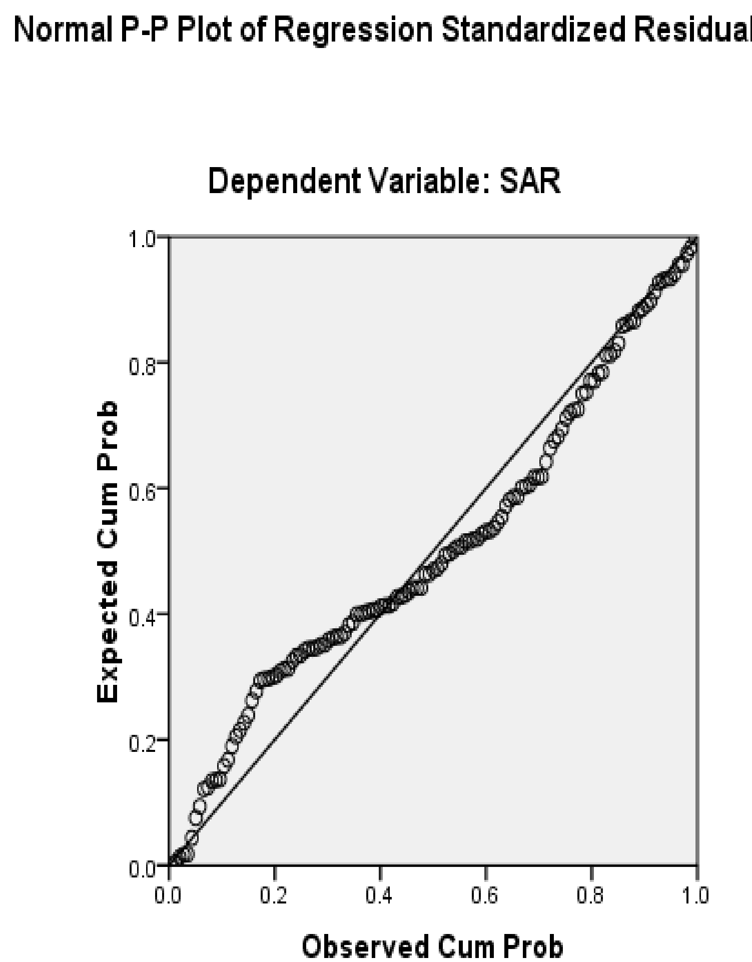

Figure 4.4
Normal P-P for the Statistic Test Result (Model 2 SAR)

4.6.2 Multicollinearity

Before the regression results are considered valid, the degree of Multicollinearity and effect on the results were examined. Multicollinearity is the inter-correlation of the independent variables. Multicollinearity decreases the ability to predict the ability to predict the dependent variable accurately and ascertain the relative roles of each independent variable.

Substantial multicollinearity between independent variables is not good as the estimated regression coefficient becomes unreliable. To check for mulitcollinearity, two steps are considered. First, the correlation matrix (r) for the bivariate analyses between independent variables needs to be examined. The r should not be more than 0.80 (Gujarati, 1995). If the correlation is more than 0.80, the next step is to look at the variance inflation factor (VIF). According to Hair *et al.* (2006), acceptable values for collinearity are considered from the tolerance value of more than 0.1 or the VIF value of less than 10 to indicate little or no multicollinearity. Cohen (2003) states that generating a new variable (X*Y) by multiplying together two existing variables (X and Y) risks creating a multicollinearity problem, i.e., either X or Y, or both, will be highly correlated with (X*Y), which will seriously affect the estimation of the regression coefficients for the main effects. This problem can be avoided by transforming Y and X to Z scores, that have mean zero and standard deviation one. The standardizing approach is a kind of statistical transformation of data done by subtraction of original value of data with its mean then the resulting data are divided by the standard deviation ((raw score – mean) / standard deviation) (Auginis, 1995; Cohen, 2003).

Five variables in this study that have multicollinearity problem were transformed to Z scores. After transforming these variables multicollinearity was tested by using the Pearson correlation matrix (see Table 4.5, 4.6, and 4.7). It can be seen that the overall correlation values of the independent variables is between -0.25 to 0.56, which is below 0.80 indicating that variables included in the three models are free from multicollinearity problem.

Non-multicollinearity refers to the assumption that there is no correlation among the independent or predictor variables. In contrast, mulitícollinearity occurs when two predictor variables are highly correlated. Based on information shown in Tables 4.8 and 4.9, mulitcollinearity was not a critical problem for this analysis since the tolerance value was greater than. 0.10 and VIF was below 10 for all variables (Hair *et al.*, 2006).

Table 4.5
Pearson Correlations Model 1-VSR

	VSR	UE^2	IND $*UE^2$	IDAC $*UE^2$	CEOD $*UE^2$	BOSIZ $*UE^2$	ICS $*UE^2$	AUDQ $*UE^2$	INSHARE $*UE^2$	BANKBMO $*UE^2$	SIZE $*UE^2$	RISK $*UE^2$	GRWTH $*UE^2$
VSR	1	0.127	0.158	0.131	.196*	0.036	.259**	.380**	.246**	.189*	-0.098	0.082	.301**
UE^2	0.127	1	.177*	0.009	.221*	-0.071	0.01	.310**	.231**	-0.034	0.083	0.052	0.148
IND*UE^2	0.158	.177*	1	.356**	-0.037	0.15	-0.052	-0.124	-.220*	-0.083	0.008	-0.133	-0.138
IDAC*UE^2	0.131	0.009	.356**	1	-.184*	.241**	0.041	0.069	.178*	.245**	0.091	-0.15	0.146
CEOD*UE^2	.196*	.221*	-0.037	-.184*	1	-.188*	.355**	0.084	.315**	.307**	0.025	.222*	.400**
BOSIZ*UE^2	0.036	-0.071	0.15	.241**	-.188*	1	-0.112	-0.094	-0.092	0.071	.528**	-0.031	0.013
ICS*UE^2	.259**	0.01	-0.052	0.041	.355**	-0.112	1	.215*	0.107	.220*	-.213*	-.179*	0.005
AUDQ*UE^2	.380**	.310**	-0.124	0.069	0.084	-0.094	.215*	1	.506**	.282**	-0.14	0.061	.350**
INSHARE* UE^2	.246**	.231**	-.220*	.178*	.315**	-0.092	0.107	.506**	1	.467**	0.068	.251**	.610**
BANKBMO* UE^2	.189*	-0.034	-0.083	.245**	.307**	0.071	.220*	.282**	.467**	1	0.143	.202*	.433**
SIZE*UE^2	-0.098	0.083	0.008	0.091	0.025	.528**	-.213*	-0.14	0.068	0.143	1	.175*	0.037
RISK *UE^2	0.082	0.052	-0.133	-0.15	.222*	-0.031	-.179*	0.061	.251**	.202*	.175*	1	.291**
GRWTH*UE^2	.301**	0.148	-0.138	0.146	.400**	0.013	0.005	.350**	.610**	.433**	0.037	.291**	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.6
Pearson Correlations Model 2-SAR

	SAR	UE	IND *UE	IDAC *UE	CEOD *UE	BOSIZ *UE	ICS *UE	AUDQ *UE	INSHARE *UE	BANKBMO *UE	SIZE *UE	RISK *UE	GRWTH *UE
SAR	1	.312**	0.15	.199*	-0.002	-0.034	0.036	.341**	.261**	0.107	-0.139	-0.152	0.064
UE	.312**	1	-0.171	0.141	.556**	-.185*	.467**	.745**	.645**	.640**	-.224*	.265**	0.166
IND*UE	0.15	-0.171	1	.425**	-0.132	0.145	-0.039	-.228**	-.216*	-0.108	0.118	-0.147	.230**
IDAC*UE	.199*	0.141	.425**	1	-0.124	0.149	0.016	0.039	0.167	.192*	0.041	-0.145	0.005
CEOD*UE	-0.002	.556**	-0.132	-0.124	1	-.213*	.444**	.299**	.419**	.439**	-0.09	.428**	.293**
BOSIZ*UE	-0.034	-.185*	0.145	0.149	-.213*	1	-0.029	-0.03	-0.104	0.032	.480**	-.184*	0.171
ICS*UE	0.036	.467**	-0.039	0.016	.444**	-0.029	1	.374**	.243**	.349**	-.203*	-0.048	-0.006
AUDQ*UE	.341**	.745**	-.228**	0.039	.299**	-0.03	.374**	1	.559**	.499**	-0.135	0.121	0.044
INSHARE*UE	.261**	.645**	-.216*	0.167	.419**	-0.104	.243**	.559**	1	.500**	-0.012	.343**	.224**
BANKBRO*UE	0.107	.640**	-0.108	.192*	.439**	0.032	.349**	.499**	.500**	1	0.056	.281**	.273**
SIZE*UE	-0.139	-.224*	0.118	0.041	-0.09	.480**	-.203*	-0.135	-0.012	0.056	1	0.143	.197*
RISK*UE	-0.152	.265**	-0.147	-0.145	.428**	-.184*	-0.048	0.121	.343**	.281**	0.143	1	.216*
GRWTH*UE	0.064	0.166	.230**	0.005	.293**	0.171	-0.006	0.044	.224**	.273**	.197*	.216*	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.7
Pearson Correlation for Model 3-ICS

Correlation Matrix

		Constant	IND	IDAC	BOSIZ	AUDQ
Step 1	Constant	1.000				
	IND	-.305	1.000			
	IDAC	-.320	-.256	1.000		
	BOSIZ	-.777	-.035	-.037	1.000	
	AUDQ	-.182	.094	.000	-.111	1.000

Table 4.8
Tolerance Value and the Variance Inflation Factor (VIF) for Model 1-VSR

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	UE^2	0.228	4.377
	IND*UE^2	0.738	1.356
	IDAC*UE^2	0.603	1.657
	CEOD* UE^2	0.525	1.906
	BOSIZ* UE^2	0.558	1.792
	ICS* UE^2	0.617	1.621
	AUDQ* UE^2	0.521	1.919
	INSHARE* UE^2	0.440	2.272
	BANKMO* UE^2	0.586	1.705
	GRWTH* UE^2	0.316	3.168
	SIZE* UE^2	0.599	1.670
	RISK* UE^2	0.780	1.282

a. Dependent Variable: VSR

Table 4.9

Tolerance Value and the Variance Inflation Factor (VIF) for Model 2-SAR

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	UE	0.227	4.398
	IND*UE	0.614	1.628
	IDAC*UE	0.599	1.670
	CEOD*UE	0.454	2.203
	BOSIZ*UE	0.632	1.583
	ICS*UE	0.608	1.646
	AUDQ*UE	0.370	2.700
	INSHARE*UE	0.464	2.157
	BANKMO*UE	0.488	2.049
	GRWTH*UE	0.677	1.478
	SIZE*UE	0.635	1.575
	RISK*UE	0.638	1.568

a. Dependent Variable: SAR

4.6.3 Autocorrelation

The next test is autocorrelation or also known as correlation coefficient. The autocorrelation function can be used to answer the question of whether the sample data set generated from a random process. The Durbin-Watson test is employed to determine whether the error terms in all regressions are Autocorrelated. For detecting whether there is any autocorrelation or not in the data set used, it can be seen from the value of Durbin-Watson (DW). The DW test is frequently used as a statistical test for detecting autocorrelation. In this regard, Kazmier (2003) stated that the value of the test statistic can range from 0 to 4.0, and is approximately 2.0 when there is no autocorrelation present with respect to the residual.

Generally, if the value of the statistic is below 1.4, it indicates the existence of a strong positive series of correlation, while a value greater than 2.6, indicates the existence of a strong negative series correlation (Kazmier, 2003). The DW test can be seen by using SPSS program together with the coefficient of determination (R^2) and the value of Standard Error Estimation (SEE). Tables 4.10 and 4.11 show the result of the test for autocorrelation for various Model 1 and Model 2.

It can be seen from Tables 4.10 to 4.11 that the DW values are 1.874 and 1.517 respectively, which is above 1.4 and below 2.6. This indicates that there are no autocorrelation amongst variables.

4.6.4 Scatterplot Test

Further, to detect the existence of Heteroscedasticity, residuals from the model were plotted against the predicted value of the financial statement credibility as measured by the VSR and SAR accordingly, and against each explanatory variable to determine whether the error terms of the model had constant variances. The distribution of residuals can be seen from the Scatter Plot Graph as shown in figures 4.5 and 4.6.

Based on the results of test for Heteroscedasticity, it can be seen from figure 4.5 and and figure 4.6 that the spread of data do not form a certain pattern and data is spread around the null number. The scatter plot graphs indicate that the data used in this study (the whole sample) are considered free from Heteroscedasticity (Hair *et al.*, 2006).

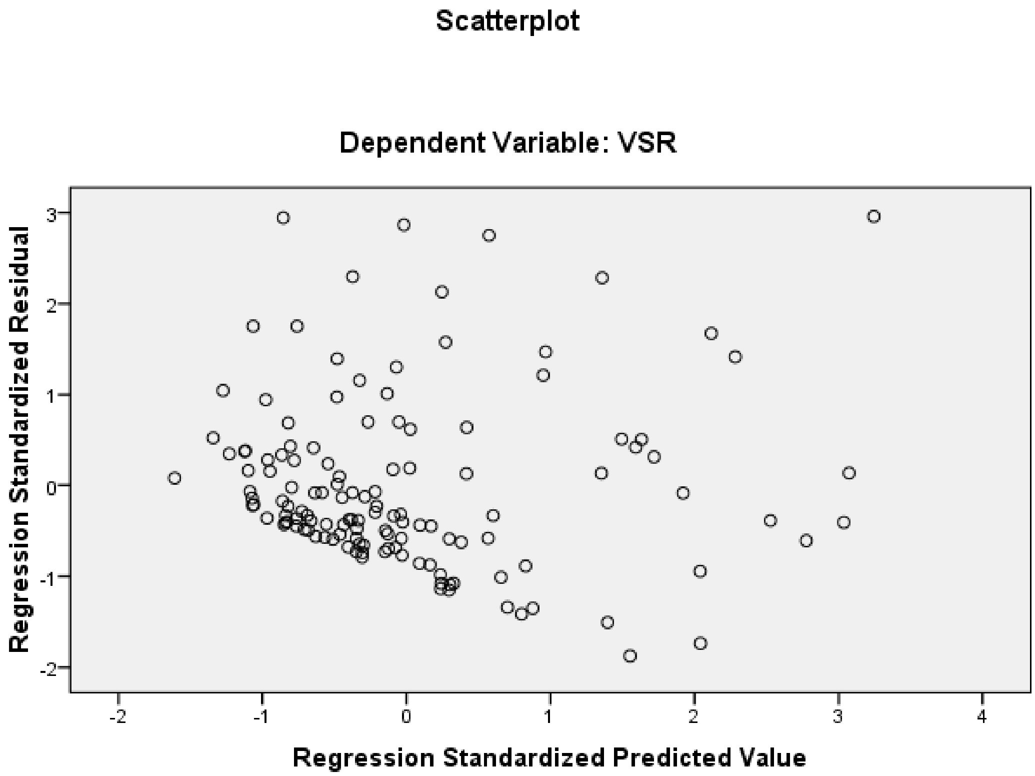

Figure 4.5
Heteroscedasticity Test for Model 1-VSR

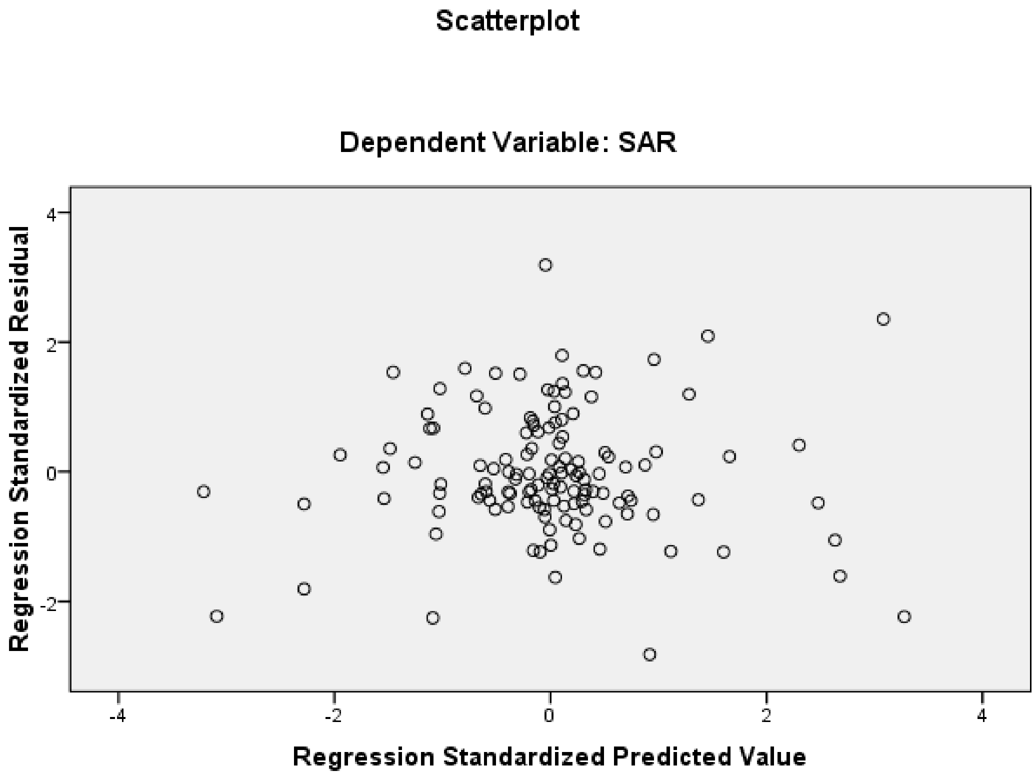

Figure 4.6
Heteroscedasticity Test for Model 2-SAR

4.6.5 Test of Goodness of the Model

It can be seen from Table 4.10 that the F-value is equal to 4.422, while the observed probability is equal to 0.000. Since the probability of the ANOVA test is below 0.05, it means that all independent variables (the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, audit quality, ICS, institutional ownership and bank monitoring) simultaneously predict the dependent variable (the credibility of financial statement).

It can be seen from Table 4.11 that the F-value is equal to 3.919, while the observed probability is equal to 0.000. Since the probability of the ANOVA test is below 0.05, it means that all independent variables (the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, audit quality, ICS, institutional ownership and banks monitoring simultaneously predict the dependent variable (the credibility of financial statement).

Evaluating the models using tests of significance in regression analysis - there are numerous tests of significance which can be applied to the results of multiple regression analysis. R^2 (R Square) Coefficient is a gauge generally used for evaluating the goodness of a regression equation. R^2 is also referred to as the coefficient of determination. In this study, R^2 is used to indicate the share of the variance of the dependent variable (credibility of financial statement) due to the joint effect of the independent variables (board of directors and audit committee characteristics, the disclosure of ICS weaknesses, audit quality and capital providers).

If R^2 is equal to 1, it means that there is a perfect linear relationship between the dependent and the independent variables. On the other hand, if R^2 is equal to 0, it means that there is no linear relationship between the dependent and independent variables. Consequently, the value given under the heading R^2 tells us how much of the variance in the dependent variable (credibility of financial statement) is explained by the independent variables (corporate governance, ICS, audit quality and capital providers).

The SPSS also provides an Adjusted R^2 value in the output. When a small sample is involved, R^2 value in the sample tends to be a rather optimistic overestimation of the true value in the population (Tabachnick & Fidell, 2007). The adjusted R^2 statistic corrects this value to provide a better estimate of the true population value, rather than the normal R^2 value. Table 4.10 shows that the coefficient regression is 0.240 (which is represented by adjusted R^2). This means that only 24% of the variation of the credibility of financial statement (VSR, as dependent variable) can be explained by variation of independent variables (the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, CEO tenure, audit quality, ICS, institutional ownership and banks monitoring). The remaining (76%) of the variation of financial statement credibility can be explained by other factors. Table 4.11 also shows that the coefficient regression is 0.212 (which is represented by adjusted R^2). This means that only 21% of the variation of the credibility of financial statement (SAR, as dependent variable) can be explained by variation of independent variables (the independence of the board of directors, the independent directors on audit committee, CEO duality, board size, audit quality, ICS, institutional ownership and banks monitoring). The remaining 79% of the variation of financial statement credibility can be explained by other factors.

In model 3 Logistic regression is used to test the relationship between board and audit committee characteristic and audit quality as independent variables and ICS as dependent variable. The Hosmer–Lemeshow test is a commonly statistical test used for goodness of fit for logistic regression models. It is suitable for any numbers of independent variables which may be continuous or dichotomous. As presents in Table 4.12 of Hosmer–Lemeshow test P-value= 0.168 is insignificant indicating that model fit is good and conforming between model and observation is good.

Cox & Snell R^2 and Nagelkerke R^2 are 0.036 and 0.053 respectively as presents in Table 4.12. The Nagelkerke R^2 is an adjusted version of the Cox & Snell R^2 therefore it is often preferred. However, unlike R^2 in linear regression, Pseudo R-square measures are not considered as goodness of fit measures. They are only considered as positive measure of the strength of association between the dependent variable and the independents variables (Landau & Everitt, 2004; Garson, 2010).

4.7 Ordinary Least Squares Regression Analyses

To examine the relationship between board of directors and audit committee characteristics, ICS, audit quality and capital providers and credibility of financial statement in this study, the data were analyzed using SPSS version 18. The detailed analyzes process was done by using regression analyses. The regression coefficient (β) indicates the effect of the independent variable on the dependent variable (Sekaran, & Bougie, 2010). Multiple regression is a more sophisticated extension of correlation and is used to explore predictive ability of a set of independent variables on one dependent variable (Pallant, 2001).

From the result of a multiple regression analysis shown in Tables 4.10 and 4.11, UE is positive which is consistent with expectation, and the coefficient is statistically significant. This finding is in agreement with findings of previous studies (Dey, 2005; Lee *et al.*, 2005) find a positive and significant influence of unexpected earnings on ERC. The findings indicate that investors in these companies base their valuation decisions, at least in part, on these companies' earnings reports. This is reflected by the significant relationship between unexpected earnings, the volatility of abnormal returns and sum of abnormal returns.

4.7.1 Monitoring Mechanisms and Credibility of Financial Statement as Measured by Volatility of Stock Return VSR

Based on multiple regression result from Model 1 VSR presented in Table 4.10, hypotheses 1 and 6 are supported as a summary of findings presented in Table 4.13.

4.7.1.1 Independent Directors on the Board and Financial Statement Credibility

The first hypothesis states that there is a positive relationship between the percentage of the independent directors on the board and the credibility of financial statement. With respect to the independent non-executive directors on the board, the result of the test shows the β and P values of 0.001 and 0.013 respectively indicating that the relationship between the percentage of independent non-executive directors and the credibility of financial statement is positive and significant. It shows that the company with more independent directors on the board is likely to have better earnings quality. This result supports the hypothesis that board independence influence earnings quality.

4.7.1.2 Non-Executive Directors on the Audit Committee and Financial Statement Credibility

The second hypothesis states that there is a positive relationship between the percentage of the non-executive directors on the audit committee and the credibility of financial statement. In Table 4.10, the result of the test shows the β and P values of 0.000 and 0.646 respectively. The direction of β is positive as predicted but statistically not significant. Thus, the hypothesis that the percentage of non-executive directors on audit committee influences the credibility of financial statement is rejected.

4.7.1.3 The Existence of CEO Duality and Financial Statement Credibility

The third hypothesis states that there is a negative relationship between the CEO duality and the credibility of financial statement. Table 4.10 shows the β and P values of 0.000

and 0.939 respectively. The direction of β is positive, not as predicted, and it is statistically not significant. Thus, the hypothesis that CEO duality negatively affects the credibility of financial statement is rejected.

4.7.1.4 Board Size and Financial Statement Credibility

The fourth hypothesis states that there is a negative relationship between board size and financial statement credibility. Table 4.10 shows the β and P values of 0.001 and 0.047 respectively. In contrast to the theory and hypothesis, the direction of β is positive, not as predicted, and is statistically significant. Thus, the hypothesis that there is a negative relationship between board size and financial statement credibility is rejected.

4.7.1.5 The Disclosure of Internal Control System Weaknesses and Financial Statement Credibility

The fifth hypothesis states that there is a negative relationship between the disclosure of weakness of ICS and the financial reporting credibility. As presented in Table 4.10, β and P values are 0.005 and 0.188 respectively. The direction of β is positive, not as predicted, but it is statistically not significant. Thus, the hypothesis that there is a negative relationship between the disclosure of weakness of ICS and the financial reporting credibility is rejected.

4.7.1.6 External Auditor and Financial Statement Credibility

The sixth hypothesis states that there is a positive relationship between the quality of external auditor and the credibility of financial reporting credibility. As presented in table 4.10, the β and P values are 0.005 and 0.073 respectively. The direction of β is positive as predicted and it is statistically significant. The result shows that the company that is audited by Big 4 audit firms is likely to have better earnings quality. This result supports the hypothesis that there is a positive relationship between audit quality and earnings quality.

4.7.1.7 Institutional Ownership and Financial Statement Credibility

The seventh hypothesis states that there is a positive relationship between institutional ownership and financial reporting credibility. As presented in Table 4.10, the β and P values are 0.003 and 0.702 respectively. The direction of β is positive as predicted but it is statistically not significant. Thus, the hypothesis that there is a positive relationship between the percentage of institutional ownership and the financial statement credibility is rejected.

4.7.1.8 Bank Monitoring and Financial Statement Credibility

The eighth hypothesis states that there is a positive relationship between the banks borrowing ratio as a proxy of bank monitoring and financial reporting credibility. As presented in Table 4.10, the β and P values are -0.007 and 0.209 respectively. The direction of β is negative, not as predicted, and is statistically not significant. Thus, the hypothesis that is a positive relationship between the banks monitoring and the financial reporting credibility is rejected.

4.7.1.9 Control Variables

In addition, the regression results from testing the association between credibility of financial statement and the three control variables are also presented in Table 4.10. The three control variables are firm size, growth, and riskiness.

The first control variable is the firm size (SIZE). It is stated that firm size has negative effect on the VSR. The result in Table 4.10 shows β and P values of 0.000 and 0.489 respectively. It gives evidence that firm size has a positive effect not as expected but it is statistically not significant.

The second control variable is Growth. It is stated that Growth has a positive effect on the VSR. The result shows the β and P values of 0.000 and 0.871 respectively. It supports the expectation in terms of positive effects but it is statistically not significant.

The third control variable is riskiness. It is stated that there is a negative effects of riskiness on the VSR. The result shows the β and P values of 0.001 and 0.364 respectively. It does not support the expectation in terms of negative effects and is also statistically not significant.

Table 4.10
Multiple Regression Result for Model 1-VSR[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig. (2-tailed)
	B	Std. Error	Beta		
(Constant)	0.003	0.001		5.493	0.000
UE^2	0.008	0.003	0.391	2.447	0.016
IND*UE^2	0.001	0.001	0.224	2.517	0.013
IDAC*UE^2	0.000	0.001	-0.045	-0.461	0.646
CEOD*UE^2	0.000	0.004	0.008	0.076	0.939
BOSIZ*UE^2	0.001	0.001	0.206	2.010	0.047
ICS*UE^2	0.005	0.004	0.129	1.325	0.188
AUDQ*UE^2	0.005	0.003	0.191	1.806	0.073
INSHARE*UE^2	0.003	0.007	0.044	0.383	0.702
BANKMO*UE^2	-0.007	0.006	-0.126	-1.264	0.209
SIZE*UE^2	0.000	0.001	-0.069	-0.695	0.489
GRWTH*UE^2	0.000	0.001	-0.022	-0.163	0.871
RISK*UE^2	0.001	0.001	0.079	0.912	0.364

a. Dependent Variable: VSR

Adjusted R Square	.240
F value	4.422
P-value	.000
D-W	1.874
N	131

4.7.2 Monitoring Mechanisms and Credibility of Financial Statement as Measured by Sum of Abnormal Return SAR

Based on multiple regression result for model 2 SAR presented in Table 4.11, hypotheses 1, 5, 6 and 7 are supported and riskiness as control variable is also supported. The summary of findings is presented in Table 4.13.

4.7.2.1 Independent Directors on the Board and Financial Statement Credibility

The first hypothesis states that there is a positive relationship between the percentage of the independent directors on the board and the credibility of financial statement. With respect to the independent non-executive directors on the board, the result of the test shows the β and P values of 0.011 & 0.019 respectively, indicating that the relationship between the percentage of independent non-executive directors and the credibility of financial statement is positive and significant. It shows that the company with more independent directors on the board is likely to have better earnings quality. This result supports the hypothesis that there is a positive relationship between the percentage of the independent directors on the board and the credibility of financial statement.

4.7.2.2 Non-Executive Directors on the Audit Committee and Financial Statement Credibility

The second hypothesis states that there is a positive relationship between the percentage of the non-executive directors on the audit committee and the credibility of financial statement. Referring to Table 4.11, the result of the test shows the β and P values of 0.000 and 0.982 respectively. The direction of β is positive as predicted, but statistically not significant. Thus, the hypothesis that there is a positive relationship between the percentage of the non-executive directors on the audit committee and the credibility of financial statement is rejected.

4.7.2.3 The Existence of CEO Duality and Financial Statement Credibility

The third hypothesis states there is a negative relationship between the CEO duality and the credibility of financial statement. Table 4.11 shows the β and P values of -0.0130 and 0.548 respectively. The direction of β is negative as predicted, nevertheless it is statistically not significant. Thus, the hypothesis of a negative relationship between the CEO duality and the credibility of financial statement is rejected.

4.7.2.4 Board Size and Financial Statement Credibility

The fourth hypothesis states that there is a negative relationship between board size and financial statement credibility as presented in Table 4.11. The β and P values are -0.001 and 0.84 respectively. The direction of β is negative as predicted, but it is statistically not significant. Thus, the hypothesis of a negative relationship board size and the financial statement credibility is rejected.

4.7.2.5 The Disclosure of Internal Control System Weaknesses and Financial Statement Credibility

The fifth hypothesis states that there is a negative relationship between the disclosure of weakness of ICS and the financial statement credibility. As presented in Table 4.11, β and P values are -0.039 and 0.075 respectively. The direction of β is negative as predicted, and is statistically significant. Thus, the hypothesis of a negative relationship between the disclosure of ICS weaknesses and financial statement credibility is accepted.

4.7.2.6 External Auditor and Financial Statement Credibility

The sixth hypothesis states that there is a positive relationship between the quality of external auditor and the credibility of financial reporting credibility. Table 4.11 shows the β and P values of 0.032 and 0.070 respectively. The direction of β is positive as predicted and it is statistically significant. The result indicates that the company audited by Big 4 audit firms is likely to have better earnings quality. This result supports the hypothesis of a positive relationship between audit quality and financial statement credibility.

4.7.2.7 Institutional Ownership and Financial Statement Credibility

The seventh hypothesis states that there is a positive relationship between institutional ownership and financial statement credibility. As presented in Table 4.11, β and P values are 0.066 and 0.083 respectively. The direction of β is positive as predicted and it is statistically significant. Thus, the hypothesis of a positive relationship between the percentage of institutional ownership and the financial statement credibility is accepted.

4.7.2.8 Bank Monitoring and Financial Statement Credibility

The eighth hypothesis states there is positive relationship between the bank monitoring and financial statement credibility. Table 4.11 shows β and P values of -0.032 and 0.343 respectively. The direction of β is negative, not as predicted and it is statistically not significant. Thus, the hypothesis of a positive relationship between the bank monitoring and the financial statement credibility is rejected.

4.7.2.9 Control Variables

In addition, the regression results from testing the association between credibility of financial statement and the three control variables are also presented in Table 4.11. The three control variables are firm size, growth, and riskiness.

The first control variable is the firm size (SIZE). It is stated that firm size has negative effect on the SAR. The result in Table 4.11 shows that the β and P values are -0.003 and 0.483 respectively. The direction of β is negative as expected but it is statistically not significant.

The second control variable is Growth. It is stated that Growth has a positive effect on SAR. The result shows the β and P values of 0.000 and 0.801 respectively. It supports the expectation in terms of positive effects but it is statistically not significant.

The third control variable is riskiness. It is stated that there is a negative effect of riskiness on SAR. The result shows the β and P values of -0.016 and 0.017 respectively. It supports the expectation in terms of negative effects and it is statistically significant.

Table 4.11
Multiple Regression Result for Model 2-SAR[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig. (2-tailed)
	B	Std. Error	Beta		
(Constant)	0.002	0.004		0.587	0.558
UE	0.028	0.017	0.279	1.707	0.090
IND*UE	0.011	0.005	0.237	2.386	0.019
IDAC*UE	0.000	0.005	0.002	0.022	0.982
CEOD*UE	-0.013	0.021	-0.070	-0.602	0.548
BOSIZ*UE	-0.001	0.005	-0.020	-0.202	0.840
ICS*UE	-0.039	0.022	-0.179	-1.793	0.075
AUDQ*UE	0.032	0.018	0.234	1.828	0.070
INSHARE*UE	0.066	0.038	0.200	1.749	0.083
BANKMO*UE	-0.032	0.034	-0.106	-0.951	0.343
SIZE*UE	-0.003	0.005	-0.069	-0.704	0.483
GRWTH*UE	0.000	0.001	0.024	0.253	0.801
RISK*UE	-0.016	0.007	-0.236	-2.420	0.017

a. Dependent Variable: SAR

Adjusted R Square	.212
F value	3.919
P-value	.000
D-W	1.517
N	131

4.7.3 Robustness Tests

According to Yaffee (2002), robust regression analysis may provide a reliable alternative to ordinary least squares regression model. Robust regression test has been performed for both models 1 and 2 using Stata. The robust regression results shown Tables 1 and 2 in the Appendices are based on White's (1980) standard error corrected for heteroscedasticity. The results are qualitatively similar to the main results.

4. 7.4 Binary Logistic Regression Analyses

The disclosure of ICS weaknesses is a binary variable that contains two classes. The first class is the disclosure of internal weakness; i.e., the company has ineffective ICS. The other class is the non-disclosure of internal weakness; i.e., the company has effective ICS. This section presents and discusses the results related to logistic regression model.

4.7.4.1 Board Independence and the Disclosure of Internal Control System Weaknesses

The ninth hypothesis states that there is a negative relationship between the percentage of the independent directors on the board and the disclosure of ICS weaknesses. As presented in Table 4.12, the β and P values are 0.036 and 0.972 respectively. The direction of β is positive, not as predicted and is statistically not significant. Thus, hypothesis of a negative relationship between the percentage of the independent directors on the board and the disclosure of ICS weaknesses is rejected.

4.7.4.2 Non-Executive Directors on the Audit Committee and the Disclosure of Internal Control System Weaknesses

The tenth hypothesis states that there is a negative relationship between the percentage of non-executive directors on the audit committee as a proxy for audit committee independence and the disclosure of ICS weaknesses. As presented in Table 4.12, the β and P values are -1.854 & 0.020 respectively. The direction of β is negative as predicted and it is statistically significant. The result shows that the company that has more non-executive directors on the audit committee is likely to have better ICS. This result supports the hypothesis that independence of the audit committee negatively influences the disclosure of ICS weaknesses.

4.7.4.3 Board Size and the Disclosure of Internal Control System Weaknesses

The eleventh hypothesis states there is a positive relationship between board size and the disclosure of ICS weaknesses. As presented in Table 4.12, the β and P values are 0.059 and 0.572 respectively. The direction of β is positive as predicted, but it is statistically not significant. Thus, the hypothesis of a positive relationship between board size and the disclosure of ICS weaknesses is rejected.

4.7.4.4 Audit Quality and the Disclosure of Internal Control System Weaknesses

The twelfth hypothesis states that there is a negative relationship between audit quality and the disclosure of ICS weaknesses. As presented in Table 4.12, the β and P values are -0.084 and 0.824 respectively. The direction of β is positive as predicted but it is statistically not significant. Thus, the hypothesis of a negative relationship between audit quality and the disclosure of ICS weaknesses is rejected.

Table 4.12
Logistic Regression Result for Model 3-ICS

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	IND	0.036	1	0.001	1	0.972	1.036
	IDAC	-1.854	0.8	5.374	1	0.02	0.157
	BOSIZ	0.059	0.104	0.32	1	0.572	1.06
	AUDQ	-0.084	0.378	0.049	1	0.824	0.92
	Constant	-0.275	1.049	0.069	1	0.793	0.76

a. Variable(s) entered on step 1: IND, IDAC, BOSIZ, AUDQ.

Chi-square	11.633
P-value	.168
Pseudo R Square	.053
N	165

When Model (3) is re-estimated using the same 131 observations as per Models (1) and (2), the result is almost the same as the main result using 165 observations as shown in Table (3) in the appendices. When the control variables company size and growth are included following previous studies on the determinants of internal control effectiveness (Hoitash et al., 2009; Ashbaugh-Skaife et al. 2007; Doyle et al. 2007), the results remain qualitatively unchanged as shown in Table (4) in the appendices.

4.8 Summary

This chapter focuses on the analyses of the hypotheses. Several methods of analyses were utilized to test the twelve hypotheses. The analyses used to test the hypotheses, include descriptive analysis and statistical analysis.

The hypotheses sought to test for significant effects of eight monitoring mechanisms variables on credibility of financial statements. Three control variables were also tested. Moreover, four hypotheses sought to test for significant effects of these variables are board and audit committee characteristics and audit quality on the disclosure of ICS weaknesses.

As for unexpected reported earnings, the multiple regression results of Models 1 and 2, show positive and significant impact of unexpected earnings on the credibility of financial statements. This finding is in line with previous studies by Dey (2005), Lee et al. (2005), and Chang and Sun (2009).

As for Model 1 - VSR, regarding the influence of monitoring mechanism on financial statement credibility, the finding reveals that board of directors' independence, and external auditor quality have positive and significant effects on financial reporting quality as predicted. The result reveals that board size has positive and significant effects on the credibility of financial statement; however the hypothesis predicts negative impact of board size. As for the remaining hypotheses, the findings are not statistically significant.

With regards to Model 2 – SAR, about the influence of monitoring mechanisms on financial statement credibility, the finding reveals that board of directors' independence, the disclosure of ICS weaknesses, external auditor quality and institutional investors have significant effects on financial reporting quality, as predicted. As for the remaining hypotheses, the findings are not statistically significant.

As for the Model 3 - ICS on the board and audit committee characteristics on the disclosure of ICS weaknesses, the finding reveals that only audit committee has significant impact on the discourse of ICS weaknesses of Saudi listed companies. The remaining hypotheses have no significant effects.

Table 4.13

Summary of the Findings from Hypotheses Testing Models 1, 2, & 3

Hypotheses	Model 1	Model 2	Model 3
UE^2: Unexpected reported earnings	Accept	Accept	
H1: There is a positive relationship between the percentage of the independent directors on the board and the credibility of financial reporting	Accept	Accept	
H2:There is a positive relationship between the percentage of the non- executive directors on the audit committee and the credibility of financial reporting	Reject	Reject	
H3: There is a negative relationship between the CEO duality and the credibility of financial reporting.	Reject	Reject	
H4: There is a negative relationship between board size and financial reporting credibility	Reject	Reject	
H5: There is a negative relationship between the disclosure of ICS weaknesses and the financial reporting credibility.	Reject	Accept	
H6: There is a positive relationship between audit quality and financial reporting credibility	Accept	Accept	
H7: There is a positive relationship between institutional ownership and financial reporting credibility	Reject	Accept	
H8: There is positive relationship between the banks borrowing ratio and financial reporting credibility	Reject	Reject	
H9: There is a positive relationship between the percentage of the independent directors on the board and the strength of ICS.			Reject
H10: There is a positive relationship between the percentage of the independent directors on the audit committee and the strength of ICS.			Accept
H11: There is a negative relationship between board size and the strength of ICS			Reject
H12: There is a positive relationship between Audit quality and the strength of ICS			Reject

CHAPTER FIVE

FINDINGS, DISCUSSION AND CONCLUSIONS

5.1 Introduction

The hypotheses developed in chapter three and tested in chapter four and the findings arising from regression have been presented. Chapter five presents the discussion of the findings and summarizes them according to the research objectives, underpinning theory, hypotheses and the finding of previous studies. The discussion of the controlling factors that are believed to give effect to financial reporting quality of the firm, namely firm size, firm growth and firm riskiness, are also considered respectively.

5.2 (H1) The Independence of Board of Directors and Credibility of Financial Statement

The results in chapter four support the idea that board independence leads to better financial statement credibility as perceived by investors. The significant result of positive relationship between the percentage of independence of board of directors and the credibility of financial reporting in both models 1 and 2 indicates that the firms with more independent directors on the board are likely to have better earnings quality. This result is consistent with previous studies by Beasly (1996), Dimitropoulos and Asteriou (2010), Dey (2005), Donnelly (2008), and Firth *et al*. (2007). Beasley (1996) shows that the extent of external directors making up a board influence negatively on the incidence of fraudulent financial reporting. Dey (2005) finds that the proportion of outside and inside directors are significantly associated with the credibility of reported earnings for firms in the highest agency cost group.

Dimitropoulos and Asteriou (2010) provide empirical evidence that the number of outside directors serving on the board affects the informational quality of earnings positively. This makes board independence an important issue that firms must consider since it is strongly associated with stock returns. They find that firms with a higher proportion of outside directors report earnings of higher quality compared to firms with a low proportion of outside directors.

Anderson *et al.* (2003) find that earnings informativeness is positively related to board independence. Donnelly (2008) states that firms with a less independent board structure lost out by about 4.2% over a three-day period compared with those with more independently structured boards of directors. The result of a study by Firth *et al.* (2007) provides evidence that independent directors influence firms to produce high quality accounting information.

This finding is also consistent with the work of Jensen (1993) that outside independent directors strengthen the board's ability to monitor and control management. Moreover, the finding is supported by agency theory argument of Fama and Jensen (1983), who theorize that the board is the highest internal control mechanism that is responsible for monitoring hence, the boards will enhance the integrity of their financial reporting through monitoring management.

Based on the discussion above it can be concluded that the percentage of independent directors on the board has positive and significant effects on the credibility of financial statement. Thus, the presence of independent non-executive directors on the board supports the monitoring effectiveness of corporate governance by ensuring that the financial statements presented to users are more reliable and useful.

5.3 (H2) Non-Executive Directors on the Audit Committee and Financial Statement Credibility

It is required and recommended by Saudi Arabia Corporate Governance Code that listed companies should establish and maintain independent audit committees. This committee should include at least three non-executive members. This requirement came in response to concerns over the integrity and reliability of firm’s financial statement. Based on the argument that the monitoring role of non-executive independent directors on the boards is also exercised through their membership in the audit committees, the audit committee provides an oversight responsibility for the firm's financial reporting process on behalf of the board of directors. Therefore, the non-executive directors on the audit committee as a proxy for audit committee independence are expected to enhance the quality of the financial reporting. However, the result does not show a significant relationship between the independence of audit committee and credibility of financial statement.

The finding is inconsistent with agency theory that suggests a firm’s demand for an audit committee is associated with the magnitude of its agency problem. Empirical evidence on the relationship between an audit committee and reliability of financial information is mixed (Petra, 2002). Evidence contained in Anderson *et al.* (2003), Dey (2005), and

Mcmullen, (1996) indicates that firms which have higher percentage of independent audit committee are likely to have more reliable financial information. Nevertheless, evidence contained in Al-Abbas (2009), Lee *et al.* (2005), Petra (2002), and Beasley (1996) indicates that audit committee does not increase the reliability of financial statement. A possible explanation of this result may be attributed to institutional theory which suggests that companies might adopt practices or regulations as a result of coercion from a legislator who imposes some practices (DiMaggio &Powell, 1983). The result in this study is consistent with Al-Abbas (2009) who argue that Saudi firms employ corporate governance for adherence to regulations, and not for governance purposes.

Thus, it is concluded that, the finding fails to accept the hypothesis, indicating that the market does not find the percentage of non-executive directors on the audit committee as a proxy of independence of audit committee to play direct role in increasing the quality of financial statement.

5.4 (H3) CEO Duality and Credibility of Financial Statement

The third hypothesis tested is the negative effect of CEO duality on the credibility of financial statement. There is directional support for CEO duality but the coefficients are not significant. The result shows that CEO duality does not have a significant effect on the credibility of financial statement. The result is inconsistent with the hypothesis discussed in chapter three and with the view of agency theory that the board chair should be independent (Al-Ghamdi, 2012)

This finding is apparently consistent with previous studies by Lee *et al.* (2005), Firth *et al.* (2007), Petra (2002), Petra and (2007) which find a directional support for CEO duality but the coefficients are not significant. An explanation for this apparent inconsistency is that it is possible for firms that separate the positions of CEO and chairperson to not experience abnormal returns because investor believe that the CEO is not involved in preparing financial accounting information.

As a conclusion, the results indicate that companies, in general, that have a person who is both chairman and CEO, provide less financial credibility than those companies with non-duality CEO. But this result is statistically not significant, indicating that Saudi investor does not perceive that CEO duality would affect the credibility of financial statement.

5.5 (H4) Board Size and Financial Statement Credibility

In this study, the fourth hypothesis aimed to examine whether board size represents an independent governance mechanism and is directly responsible for enhancing firms' financial reporting quality. Based on the idea that board size is an independent control mechanism, Loderer and Peyer (2002) find that firms with smaller boards are more disciplined and likely to remove ineffective management teams and large boards signal bad overall governance system. Moreover, larger boards have the communication, coordination and agency problems, as suggested by several prior studies on group decision-making.

The result for model 2 indicates that board size has a positive effect on the credibility of financial statement as measured by VSR and it is statistically significant. However, board size do not effect on the credibility of financial statement as measured by SAR. The result of model 1 (VSR) is inconsistent with the hypotheses and discussion in chapter three and the finding by Firth *et al.* (2007) and Vafeas (2000) who find that earnings of firms with the smallest boards are perceived as being more informative by market participants. However, the result is consistent with the finding by Ebrahim (2004) who finds a positive relationship between board size and earnings quality.

The result is also in contrast to that of Jensen (1993) who contends that when a board has more than seven or eight directors, the directors are less likely to function effectively and are easier for the CEO to control. The coordination and communication problems are more straightforward. When a board becomes larger, it is more difficult for the firm to arrange board meetings and for the board to reach a consensus. The agency problems arise from dysfunctional norms of behavior in boardrooms.

Perhaps, this result is obtained because 75% of the companies in Saudi Arabia in this sample have between seven and 10 members on the board of directors (which is considered not large), only five companies in the sample study have twelve and one company has thirteen (see Table 4.3). Patton and Baker (1987) argue that large boards are less effective than small boards and propose to limit the board number to nine or 11 deeply involved directors.

Moreover, there is a debate concerning whether larger board size is more effective then smaller board size. Some researchers find that a large board has more expertise than a small one (Dalton, Daily, Johnson, and Ellstrand, 1999). Xie *et al.* (2003) investigates the effect of board size on earnings management they find that large board tends to be more effective in monitoring accruals. Linck, Netter, and Yang (2006) find evidence that smaller boards are not necessarily better than larger boards, John and Senbet (1998) state that an increase in board size increases the board's monitoring capacity. Raheja (2005) claims that because optimal board size is a function of the directors' and the firm's characteristics, a large board may be optimal under certain circumstances.

Based on the finding and argument above, in contrast to the hypothesis, board size has positive and significant effect on the credibility of financial statement as perceived by investors, indicating that larger the number of the board of directors, the better is the quality of reported earnings, given that larger board size tends to be more effective than smaller board as perceived by Saudi investors.

5.6 (H5) The Disclosure of Internal Control System Weaknesses and Financial Statement Credibility

The disclosure on the state of ICS is recommended by best practices in corporate governance in the light of the agency theory perspective. It is posited that reporting on the characteristics of ICS is an alternative governance mechanism. The fifth hypothesis predicts that the disclosure of ICS weaknesses negatively affects the credibility of financial statement, based on the notion that reporting on, and evaluating the effectiveness of financial controls, will enhance the quality of reporting.

The result shows a negative coefficient meaning that companies that disclose ICS weaknesses provides less financial credibility than non-disclosed companies as predicted and it is statistically significant. The result is consistent with the agency theory and the finding of previous studies by McMullen *et al.* (1996). They find that small companies issuing management reports on internal controls are less likely to have financial reporting problems indicating that the presence of a management report on internal controls is associated with more reliable financial statements. Bédard *et al.* (2006) and Brown *et al.* (2008) find effective ICS increases earnings quality.

In conclusion, the results of a negative and significant relationship between the disclosure of ICS weaknesses and credibility of financial statement indicates that the investors perceive that the reported earnings of companies disclosing ICS weaknesses in their annual reports are less accurate and reliable than those non-disclosed companies.

5.7 (H6) External Auditors and Financial Statement Credibility

Based on the idea that investors demand audited financial statements because these statements provide information that is useful for their investment decisions, the audit process adds some value to accounting information and is valued as a way of improving the quality of financial information. It is hypothesized that there is a positive relationship between audit quality and financial reporting credibility.

The findings in chapter four support the contention where it was argued that there is a positive relationship between the audit quality and financial reporting credibility as perceived by investors. The significant influence of audit quality in both models on financial reporting credibility suggests that Big 4 auditors are strict in monitoring the management than the non-Big 4. The result is consistent with signaling theory that implies companies choose higher prestige audit firm to convey or signal to the public the quality or reliability of their financial statements.

The result is also consistent with the finding of previous studies Teoh and Wong (1993) find that the ERC of the companies audited by Big N firms (that are assumed to provide high-quality audit services) is higher than the ERC of the companies audited by non-Big N auditing firms, indicating that the high-quality audit increases the reliability and informativness of accounting earnings. According to Becker *et al.* (1998), low auditor quality is associated with more accounting flexibly. Al-Abbas (2009) find that auditing firm's size as proxy of external auditor quality negatively relates to earnings management is Saudi Market.

The findings of external auditor quality influencing financial reporting quality support the agency theory. Institute of Chartered Accountants in England and Wales (2005, p. 9) states that:

"*The financial statements are the primary mechanism for shareholders to monitor the performance of directors. However, as a result of the separation of ownership and control, problems with information asymmetries and differing motives, there may be tension in the shareholder-director relationship. Shareholders have limited access to information about the operations of a company and may believe, therefore, that they are not getting the right information they need to make informed decisions or that the* *information being provided by way of the financial statements, is biased. As such, shareholders may lack trust in the directors, and in such a situation, the benefits of an audit in maintaining confidence and reinforcing trust are likely to be perceived as outweighing the costs*".

It is concluded that the external auditor quality influences the financial reporting credibility positively and significantly, hence the companies that are audited by Big 4 are expected to provide high-quality audit services compared to the companies audited by non-Big 4 auditing firms, indicating that the high-quality audit increases the reliability and informativness of accounting earnings as perceived by Saudi investors.

5.8 (H7) Institutional Ownership and Financial Statement Credibility

There has been an increased effort by researchers to understand whether there is a link between a firm's ownership structure and its financial reporting quality. Institutional investors monitor either by intervening directly in companies' affairs, or through information acquisition. Institutional investors monitor corporate financial reporting based on the argument that institutional investors as "owners" can monitor and discipline managers. In chapter three, it was hypothesized that institutional investors promote earnings quality. The results of both models 1 and 2 show that the direction of relationship is positive as predicted and it is statistically significant in model 2, indicating that institutional ownership enhances earnings informativeness, when measured based on abnormal stock returns. This result is in line with other studies concerning the monitoring role of institutional ownership. Sarikhani and Ebrahimi

(2011) find that a company with a high percentage of institutional shareholding has more informative earnings. This demonstrates the active monitoring of institutional investors. In SSM, Al-Abbas (2009) finds the proportion of Institutional ownership is negatively related to abnormal accruals. Institutional investors provide strong monitoring and effectively influence management's ability to manipulate earnings. Kim, Krinsky and Lee (1997) find that trading volume in response to earnings news is greater for firms with higher institutional ownership. Mitra and Cready (2005) provide evidence that substantial presence of institutional investors in a firm's shareholder-mix acts as an effective monitoring mechanism in financial accounting process and moderates the inverse relationship between managerial stock ownership and management's accounting discretion exercised to manage accruals in financial reporting.

As mentioned before, the reported result from regression of both models 1 and 2 show positive relationship between institutional ownership and the credibility of financial statement but it is statistically significant in model 2 only. The reported results are consistent with the expectations that the firms that have higher percentage of institutional ownership are perceived to have better reported earnings quality than the companies with lower percentage of institutional ownership. The result implies that institutional investors are involved in improving and assessing corporate reported earnings. Hence, the percentage of institutional investors is associated with the quality of reported earnings.

5.9 (H8) Bank Monitoring and Financial Statement Credibility

The eighth hypothesis states there is positive relationship between the bank borrowing ratio as a proxy of bank monitoring and financial reporting credibility. This hypothesis is based on the idea that publicly placed debt can result in a firm receiving lower levels of monitoring than that which generally accompanies private debt financing. While private debt includes both bank and non-bank borrowing, it is argued that banks have a comparative advantage over private non-bank lenders in monitoring borrowers. It is argued in previous studies (Fama, 1985; Lummer & McConnell, 1989; Shockley & Thakor, 1992; Datta *et al.*, 1999) that the relative cost advantage of banks in monitoring loan agreements and enforcing restrictive covenants helps reduce the adverse selection and moral hazard costs of new financing. The lowest quality firms will opt for low monitoring type of debt such as public debt over private borrower. The result in this study of both models 1 and 2 show a negative relationship between bank monitoring and credibility of financial statement but it is statistically not significant.

This result is inconsistent with the arguments above and the theory. From an agency perspective, higher bank debt reduces the agency associated monitoring cost, as delegated monitoring by the bank lenders reduce agency problem. A possible explanation for the insignificant result is because investors in Saudi look unfavorably to firms with higher bank debt. The Islamic business environment in Saudi Arabia may influence Saudi investors' behavior such that they may view bank loans and monitoring by banks as inconsequential.

However, result of this study is consistent with Lummer and McConnell (1989) who find that only renewal of bank credit agreements result in a positive stock price reaction at the announcement. Bharath, Sunder, and Sunder (2008) examine the choice of public debt versus private bank debt and find that firms with lower accounting quality are more likely to borrow from banks.

In contrast to the hypothesis, this study finds insignificantly negative relationship between bank monitoring and the credibility of financial statement in both models 1 and 2. In conclusion, bank borrowing ratio as a proxy for bank monitoring has no impact on the quality of reported earnings as perceived by Saudi investors.

5.10 (H9) Board Independence and the Disclosure of Internal Control System Weaknesses

According to Goh (2007), little is known of the impact that internal control weaknesses have on the governance structures of firms. The board plays an important role in maintaining effective internal controls as a way of monitoring managers' behaviors. Hence, the board should be held accountable for internal control failures. The quality of an entity's internal controls is a function of the quality of its control environment that includes the board of directors. Thus, in chapter three, it was hypothesized that board independence measured as the percentage of independent directors on the board is negatively related to the likelihood of disclosure of ICS weaknesses.

Logistic analyses which shows a positive insignificant relationship between the percentage of the independent directors on the board and the disclosure of ICS weaknesses, indicating that board independence has no impact on the disclosure of ICS weaknesses. This result is inconsistent with the hypothesis and theory.

Fama and Jensen (1983) contend that boards assume an important role in corporate governance. Agency theory predicts that the delegation of decision to management creates conflicts of interests between managers and residual claimants. Without effective control procedures, such managers are likely to take actions that deviate from the interests of residual claimants. Effective internal controls are part of the firm’s overall control system that can be used to mitigate agency conflicts and curb managers’ opportunistic behavior (Jensen & Payne 2003).

The result is inconsistent with the hypothesis and theory perhaps that is because the majority of the companies do not have financial experts on the board of directors. Perhaps, the measurement used in this study does not consider the board meeting as a proxy to the board effectiveness. The result could be different if a comprehensive measurement was used including board independence, number of meetings, etc. Also, Al-Abbas (2009) suggest that Saudi firms do not apply corporate governance rules for governance purposes but only for adherence to the regulations.

On the other hand, this result in term of direction is in line with the substitute argument in previous studies suggesting that board independence and internal control can be substituted for each other. However, it is statistically not significant. Moreover, previous studies of the interaction between corporate governance and internal control often assume that they are complementary, although the evidence about this issue is also mixed (Hay *et al.*, 2008).

Also, the result is consistent with some previous study by Doyle *et al.* (2007) that does not find an association of a corporate governance quality index and the overall likelihood of disclosing material weaknesses (MW) in internal control. Neither Zhang *et al.* (2007), nor Krishnan (2005) find an association of MW in internal control disclosure with board independence

In conclusion, it is expected that board independence negatively affects the disclosure of ICS weaknesses because the board of directors is responsible for internal control, according to the Saudi Corporate Governance Code. However, the result from logistic analysis shows a positive insignificant relationship between board independence and the disclosure of ICS, indicating that board independence does not play an important role in assessing ICS.

5.11 (H10) Audit Committee Independence and the Disclosure of Internal Control System Weaknesses

The Audit Committee, which is an advisory body to the board of directors, deliberates on basic policies regarding internal controls and internal audits, and the state of development and implementation of initiatives related to the ICS. According to Saudi Corporate Governance Code Article 14C, responsibilities of an audit committee include, review of the internal audit department; review of the annual audit plan; review of the annual reports and the results of the audit; selection and appointment of external auditors; and review of the internal accounting control and safeguard of corporate assets. Since an entity's internal control is under the purview of its audit committee it is hypothesized that there will be a negative relationship between audit committee independence and the disclosure of internal control weaknesses. The result from logistic regression shows a negative and significant relationship between the percentage on non-executive directors on the audit committee as proxy for independent of audit committee and the disclosure of internal control weaknesses, indicating that company with more independent audit committees are less likely to have internal control weaknesses.

The result is consistent with the theory and the finding by previous studies (e.g., Ge & McVay 2005; Doyle *et al.*, 2007; Ashbaugh-Skaife, Collins, and Kinney, 2007) which shows that audit committee quality characterized as having more independent directors, more financial and non-financial expertise is an important determinant of internal control weaknesses. Hoitash *et al.* (2009) find that audit committee characteristics are associated with internal control quality. Generally, accounting financial expertise on the audit committee is positively associated with the quality of financial reporting or internal controls over the financial reporting function (e.g., DeFond *et al.*, 2005; Carcello *et al.*, 2006). Zhang *et al.* (2007) indicate that a relation exists between audit committee quality, auditor independence, and internal control weaknesses. Krishnan (2005) finds that the independence of audit committee is significantly less likely to be associated with the incidence of internal control problems.

Also the result is in line with the view suggesting that there may be a complementary relationship among controls due to the multiple stakeholders in the process and the externalities of costs and benefits of their individual decisions that more of one source of control leads to strength of another.

In conclusion, the reported results imply that a relation exists between audit committee independence, and disclosure of internal control weaknesses. The direction of this relation is negative as predicted and it is statistically significant, indicating that firms are more likely to be identified with internal control weaknesses, if their audit committees have fewer non-executive directors. The results suggest that internal control is strengthened by the percentage of non-executive directors in the audit committees. An audit committee composed of a majority of management is not in a position to provide independent recommendations to the firms' board of directors.

5.12 (H11) Board Size and the Disclosure of Internal Control System Weaknesses

Based on the argument that firms with smaller boards under 10 directors are better performers, this study examines whether board size represents independent governance as smaller board size simply helps firms to run an effective ICS. It is expected that the relation between board size and the likelihood of internal control weaknesses is positive. The result from logistic regression shows a positive relationship between board size and the disclosure of ICS weaknesses but it is statistically not significant. This result indicates that board size has no significant impacts on the disclosure of ICS weaknesses.

This result is inconsistent with the hypothesis and previous argument in chapter three; however the result is consistent with the finding by some previous studies. Doyle *et al.*

(2007) do not find an association of a corporate governance quality index and the overall likelihood of disclosing MW in internal control.

The insignificant result is inconsistent with the view suggesting that there may be a complementary relationship among controls; that more of one source of control leads to strength of another, and so there will be a positive relationship between controls or governance mechanisms.

Regarding to the effects of board size, whether large or small board are more effectives still arguably issue, and both point of views are justified by the previous studies and are logically acceptable. In Saudi context perhaps, this result is obtained because majority of the companies in Saudi Arabia have between seven and ten member of board of directors which is in the optimal level. Accordingly, there is no relationship between the size of board of directors and the disclosure of ICS weaknesses.

It can be concluded that the result shows a positive relationship between board size and the disclosure of ICS weaknesses as predicted but it is statistically not significant, implying that board size does not affect the disclosure of ICS weaknesses. Accordingly, any changes in the board size do not affect firms' ICS.

5.13 (H12) Audit Quality and the Disclosure of Internal Control System Weaknesses

The twelfth hypothesis states there is a negative relationship between audit quality and the disclosure of ICS weaknesses. External auditors are responsible for assessment of ICS with prescribed policies and procedures, review of various business process and control systems. Dummy variable Big 4 and non-Big 4 was used to measure audit quality, because a firm's decision to hire a Big 4 auditor is likely to be associated with internal controls for several reasons. One of these reasons, is firms might be avoided by the Big 4 auditors, because they are perceived as being risky and may expose the Big 4 to potential litigation. A firm being shunned by a Big 4 auditor may signal that it has potential internal control problems (Doyle *et al.*, 2007). The result from logistic regression shows that the direction of β is negative as predicted but it is far from being significant. So, the hypothesis that there is a negative relationship between audit quality and the disclosure of ICS weaknesses cannot be accepted.

This result is inconsistent with hypothesis and the argument in chapter three; however, the result is consistent with the finding in some previous studies. Johnson, Walker, and Westergaard (1995) find no relationship between assistance provided by the internal audit function and external audit fees as proxy for audit quality. However, the result is inconsistent with the view suggesting that there may be a complementary relationship among controls and more of one source of control leads to strength of another.

In conclusion, reported result shows that an insignificant negative relationship between audit quality and the disclosure of ICS weaknesses, indicating that Big 4 audit firms do not play significant role in influencing the disclosure of internal control weaknesses.

5.14 Control Variables

In addition, with regards to the regression results from testing the association between monitoring mechanism and the credibility of financial statement, three control variables are presented in Tables 4.10, and 4.11. The three control variables are firm size, firm growth, and firm risk.

The first control variable is the firm size (SIZE).It is argued that just prior to earnings announcements; the market has better information for larger firms than for smaller firms. Firm size negatively impacts ERCs under the assumption that investors earn greater rewards for private information search on larger firms. Thus, it is stated in the previous chapter that firm size is negatively associated with credibility of financial statement as measured by SAR. The result from regression shows that the firm size (SIZE) has negative effect on the SAR. The result gives evidence that firm size has negative effects as expected but it is not statistically significant.

The result is consistent with the hypothesis argument, in terms of the direction, but it is statistically insignificant. The result is also in line with some studies that consider the firm size as a control variable with the ERC but provides a conflicting result. For example, Easton, and Zmijewski (1989), find firm size to be generally unimportant in determining the ERC, and Lipe (1990) finds it marginally significant (when measured by market value of equity).

The second control variable is growth (GRWTH). It is stated that there is a positive association between company growth and the credibility of financial statement. The result does not support the expectation. The result shows that there is a positive association between the growth and the credibility of financial statement but it is statistically not significant. This is in line with the study by Petra (2002) who states that growth of firm is founds to be not significant. Apparently, the market does not believe that the informativeness of earnings is associated with the growth of the firm.

The third control variable is riskiness (RISK). It is stated that there is a negative association between riskiness and the credibility of financial statement where the result supports the expectation. The result shows the relationship between companies riskiness is negative and it is statistically significant, indicating that investors' reaction is greater to unexpected earnings for firm with lower risk than higher risk firms as measured by firm's beta.

This result is in line with assumption that investors are risk averse, the riskier the firm; the lower the market's reaction will be to unexpected earnings. Collins and Kothari (1989) and Easton and Zmijewski, (1989) find that high risk firms to have lower ERC than lower risk firms, thus the informativenss of earnings is related to firm risks. Also Petra (2002) finds risks increase as the ERC decreases. Thus, informativeness of earnings is related to company risk implying that risk as a control variable has an effect on the company's control environment.

5.15 Sensitivity Test

The results in this study of both models 1 and 2 show a negative relationship between bank borrowing ratio measured by bank debt to total debt as a proxy of bank monitoring and credibility of financial statement but it is statistically not significant.

Sensitivity tests of these regressions were also performed with respect to the definition of bank monitoring to retest whether banks monitoring is influences credibility of financial statement. In the sensitive test, bank monitoring measured by bank debt to total assets, based on Chio (2007).

Based on the repetition of the test, the regression results show that β and P values of -0.005 and 0.220 respectively in model 1 (VSR) and that β and P values of -0.018 and 0.510 respectively in model 2 (SAR). The direction of β is negative, not as predicted and it is statistically not significant. The result reveals a negative relationship between bank monitoring and credibility of financial statement but is statistically not significant.

This is also the finding when bank debt to total debt is used as a proxy of bank monitoring in the regressions of both models as mentioned earlier. The regression from sensitive test confirms the result presented in the regressions of both models VSR and SAR used in the study in terms of direction and significance. These results provide corroborating evidence suggesting that Saudi investors do not perceive bank monitoring mechanism to be related to the quality of reported earnings.

5.16 Summary

This chapter five presents the discussion of the findings and summarizes them according to the research objectives, underpinning theory, hypotheses and the finding of previous studies. Several conclusions were presented based on the findings and discussions. First, investors seem to base their valuation decisions, at least in part, on these companies' earnings reports. Second, only board independency of the corporate governance variables was significantly associated with credibility of financial statement. Third, the disclosure of ICS weaknesses influences the credibility of reported earnings. Fourth, auditing firm's size as a proxy for audit quality positively relates to the credibility of reported earnings, which indicates that auditing firm's size is an important factor with regard to the extent of earnings quality. Fifth, the result implying that Saudi institutional investors influence positively the quality of reported accounting information. Sixth, the study argues that independence of audit committee influences the disclosure of ICS weaknesses implying indirect effects of audit committee on the credibility of reported earnings.

CHAPTER SIX

SUMMARY, CONCLUSION, CONTRIBUTION AND LIMITATIONS

6.1 Introduction

In the previous chapter, discussion of the findings was presented and conclusions drawn. In this chapter, key findings are summarized according to the research objectives. The significance of the findings and their theoretical, practical and policy implications are covered. The individual outcomes, as well as general implications of the study, are deliberated to illustrate their significance from the academic and research perspectives. The weaknesses and limitation that are inherent in this study, which affects the findings, the conclusions, and recommendations of the study are given. The issues for future research are also included.

6.2 Summary

This study focuses on whether internal and external monitoring mechanisms are related to financial reporting credibility. The study seeks to answer the following questions: To what extent are board of directors and audit committee characteristics the disclosure of internal control weaknesses, audit quality, and capital providers, such as institutional investors and banks, are associated with the credibility of financial statements. It is argued that there is a complex relationship among different elements of control due to the agency relationships among stakeholders, the nature of relevant risks, and available controls. This study also examined whether some controls may influence other controls based on substitution, or a complementary relationship. Hence, this study tries also to answer another research question: to what extent do board of directors, audit committee characteristics and external audit quality influence the disclosure of ICS weaknesses?

To address each issue, specific variables were identified. Then, a total of twelve hypotheses were drawn based on the direction of the relationship between board of directors and audit committee characteristics, the disclosure of ICS weaknesses, audit quality, and fund providers such as institutions and banks and the credibility of financial statement. The hypotheses also anticipate the relationship between board of directors and audit committee characteristics and audit quality and the disclosure of ICS weaknesses. The theories adapted in this study are agency theory framework, institutional theory and signaling. Agency theory argues about the separation between owner and manager and the relationships between manager and stock holder predicting that monitoring mechanisms play an important role in enhancing the quality of financial statement, while signaling theory view monitoring mechanisms as incentive for companies to increase the quality of their financial reporting to reduce information asymmetry. Institutional theory views monitoring mechanisms as practices or regulations which result from coercion by legislators who impose certain practices in order to improve organizational effectiveness.

The primary motivation of this research topic on monitoring mechanism and credibility of financial statement is the work done by Dey (2005). The thesis suggests that most aspects of governance are significantly associated with the credibility of reported earnings for firms in the highest agency cost group. Dey (2005) shows that the functioning and composition of the board of directors, the effectiveness of the audit committee, and the CEO's dual role as the chairman of the board are associated with investors' confidence in companies financial statements, primarily for firms with high agency costs. The present study extends the Dey (2005) study, by proposing that independence of board of directors, independence of audit committee, CEO duality, and board size, influence the perception of investors towards the credibility of financial statement in the SSM.

As for the disclosure of ICS weaknesses, prior studies of internal control disclosures under the 2002 SOX provide limited evidence on the impact of internal control regulation on financial reporting quality. Moreover, there is no empirical evidence on the financial reporting quality effects of mandatory internal control reforms in non-U.S. environments (Brown*et al.*, 2008). Thus, it is still an open question whether internal control regulation leads to systematic improvements in financial reporting quality. The Saudi Corporate Governance Code emphasizes the disclosure of auditors and managements' assessment on the effectiveness of the ICS as a part of board of directors' report. Thus, the present study proposes that assessment, monitoring, and disclosure of ICS weaknesses is a determinant of financial reporting quality as perceived by investors.

According to the company law, rules and regulations, every company is required to appoint an external auditor or more to review, inspect and monitor the company's financial accounts. As for external audit quality this study is motivated by previous study by Teoh and Wong (1993) who find that the ERC of the companies audited by Big

8 auditing firms (that are assumed to provide high-quality audit services) is higher than the ERC of the companies audited by non-Big 8 auditing firms, indicating that the high-quality audit increases the reliability and informativness of accounting earnings. In relation to this, Becker et al. (1998) state that low auditor quality is associated with more accounting flexibly.

The roles of institutional investors on earnings quality have been investigated by Velury and Jenkins (2006). They provide insights into the monitoring role of institutional investors by examining whether institutional ownership affects the quality of reported earnings. Academic researchers have generally documented evidence that institutional owners prefer firms that have high earnings quality. In relation to that, the papers by Rajgopal *et al.* (1997) argue that institutional owners actively monitor management to improve the credibility of financial statement information. The finding states that the informativeness of earnings as measured by the ERC increases with the increase in institutional ownership; in other words, the ERC is positively impacted by institutional investor shareholdings after controlling for other ERC determinants. In line with that, it is suggested by Bammir (2008) that increased participation of institutional investors in SSM will help in managing the competition in the market and improves the transparency. Thus, the present study seeks to examine the influence of institutional investor on the quality of reported earnings as perceived by investors.

As for bank monitoring, Saidi and Kumar (2008) state that the banking sector in Gulf Cooperation Council is well-developed and banks continue to be the primary provider of funds to businesses. Ebrahim (2004) states that banks may play an important role in the monitoring function of debt financing. As firms go regularly to financial markets to obtain debt, these markets will have opportunity to evaluate the firm, its management, and its proposed projects. The monitoring role of the debt financing may also be exercised through the debt covenants attached to the debt contracts. Fama (1985) theoretically suggests that banks may be special because of their access to private information about borrowing firms. The present study proposes that bank borrowing ratio as a proxy of bank monitoring, influences the quality of reported earnings as perceived by investors.

As for corporate governance, audit quality and the disclosure of ICS, Goh (2007) states that little is known of the association between internal control weaknesses and governance structures of firms. It is generally suggested that corporate governance internal control and external auditing can substitute for each other, so that controls can be offset against each other and there will be negative relationships between them. However, the empirical results do not support this view. In contrast, previous studies of the interaction between corporate governance and external audit services often assume that they are complementary, and that improved governance is associated with higher audit quality, although the evidence about this issue is also mixed (Hay *et al.*, 2008). Zhang *et al.* (2007) in their paper, investigate the relation between audit committee quality, auditor independence, and the disclosure of ICS weaknesses. Thus, the present study proposes that board of directors and audit committee characteristics and audit quality influence the disclosure of ICS weaknesses.

This study utilized a pooled sample of Saudi listed companies in the years 2007and 2008 to test the effect of different monitoring mechanisms on the credibility of financial statement. This study developed twelve hypotheses for subsequent empirical tests. The study also tested using a number of control variables firm size, firm growth, and firm risk. For testing them, market-based accounting approach was adapted. Two proxies of earnings informativeness used in literature were used to measure the credibility of reported earnings: non-directional one - the volatility of stock returns in earnings based on Beaver (1968) and a directional one- the sum of the announcement period excess returns based on Teoh and Wong (1993), Lee *et al.* (2005), Chang and Sun (2010), and Chang and Sun (2009). Both measurements were adapted by Dey (2005).

The data available on corporate governance in annual reports and share price in Tadawul SSM were used. Binary logistic regression analyses also used to investigate the association between the board characteristics and audit committee variables and auditor quality and disclosures of ICS weaknesses.

The research findings have been discussed at length in the context of the study's objectives and prior literatures. The results from multiple regression analyses provide evidence supporting the hypotheses in terms of direction and significance of board independency, the disclosure of ICS weaknesses, audit quality, and Institutional shareholder, indicating that only board independency of the corporate governance variables, were significantly associated with credibility of financial statement, suggesting that Saudi investors perceived that Saudi firms do not employ corporate governance rules for governance and control purposes but only for adherence to regulations(Al-Abbas, 2009).

Moreover, the result from logistic regression analyses provides evidence supporting the hypotheses in terms of direction and significance of the effect of audit committee independence on the disclosure of ICS weaknesses. Overall the finding from multiple and logistic regression does not reveal a direct significant impact of audit committee on the credibility of reported earnings, however, the result shows that audit committee has significant impact on the disclosure of ICS weaknesses and the disclosure of ICS weaknesses has significant impact on the credibility of reported earnings, implying indirect effects of audit committee on the credibility of reported earnings.

The result from model 1 shows that board size positively influences the quality of reported earnings, which, nonetheless, is not in the predicted direction and it is statistically significant. This result implies that the larger the number of the board of directors the better is the quality of reported earnings. The study also finds that bank monitoring negatively influences the quality of reported earnings, which, nonetheless, is not in the predicted direction and it is statistically not significant The effect of control variables on the credibility of financial statement are mixed, though their influence on the quality of reported earnings is generally in the predicted directions. Sensitivity tests of these regressions were also performed with respect to the definition of bank monitoring to retest whether banks monitoring influence credibility of financial statement. As in the sensitive test, bank monitoring was measured by bank debt to total assets, based on Chio (2007). The results generally remained the same which indicates to some extent, the stability of the findings.

Control variables, such as the riskiness is negatively related to reported earrings quality as measured by SAR and are supported. These results are typical of almost all such previous studies in terms of expected direction, however, the relationship between growth and firm size with the quality of reported earnings are not statistically significant.

The explanations for the finding relating to each of the hypotheses are offered in the discussion section. The empirical evidence that only board independency of corporate governance variables affects the quality of reported earnings opens the question of whether more, or indeed less, regulation is required by governance rules to play an appropriate facilitating role of board of directors and audit committee in monitoring and improving a firm’s reported earnings.

Several conclusions were presented in the previous chapter, based on the findings and discussions. First, investors seem to base their valuation decisions, at least in part, on these companies’ earnings reports. This was indicated by the significant relationship between unexpected earnings in both models, 1 and 2.

Second, only board independency of the corporate governance variables was significantly associated with credibility of financial statement. Thus, having greater representations of directors who are not directly affiliated with the management of the firm are beneficial to users of the firm's financial statements in that, the information is predicted to be of higher information usefulness.

Third, the disclosure of ICS weaknesses leads to higher credibility of reported earnings. The evidences suggest that disclosure of internal control weaknesses is meaningful to investors as companies that disclosed ICS weaknesses have lower earnings quality, indicating strong internal controls help ensure the credibility of financial reporting and restore investor confidence in financial reporting.

Fourth, auditing firm's size as a proxy for audit quality positively relates to the credibility of reported earnings, which indicates that auditing firm's size is an important factor with regard to the extent of earnings quality. The result provides insights into the audit quality role to enhance earnings quality which, in turn, ought to be considered by audit committees in their decisions of selecting audit firms.

Fifth, the study expects that the firms that have higher percentage of institutional ownership perceived to have better reported earnings quality than firms with lower percentage of institutional ownership. The result indicates that institutional investors play an important role in monitoring and evaluating companies reported earnings. Implying that Saudi institutional investors influence positively the quality of reported accounting information as a their capability to monitor insiders, limit private benefits and reducing incentives to mis-present companies financial position in public accounting information. Hence, the percentage of institutional investors is associated with the quality of reported earnings.

Sixth, the study argues that independence of audit committee influences the disclosure of ICS weaknesses. Logistic analyses indicate that a relation exists between audit committee quality and the disclosure of ICS weaknesses. Firms are more likely to be identified with internal control weaknesses, if their audit committees have less non-executive directors. This result increases concern about the important role of audit committee in enhancing ICS, which in turn, influences investors' perception about the integrity of firms' financial reporting

As for audit committee, the disclosure of ICS weaknesses, and credibility of financial statement, the finding does not reveal a direct significant impact of audit committee on the credibility of reported earnings; however, the result shows that audit committee has significant impact on the disclosure of ICS weaknesses and the disclosure of ICS weaknesses has significant impact on the credibility of reported earnings, implying indirect effects of audit committee on the credibility of reported earnings.

Seventh, with regards to board size, the study argues that board size negatively influenced earnings quality. However, the result of model 1 indicates that board size positively influences earnings quality and it is statistically significant. The reason is that the average of board size in this study falls within the argued optimal size as explained in chapter five.

Eighth, regarding the relationship between board characteristics and audit quality and the disclosure of ICS weaknesses, the overall pattern of results is inconsistent with the expectation that there is a positive and complex relationship among different elements of control. These results support the complementary controls view that investing in some controls may influence stakeholders to demand more of other controls only for audit committee independence and the disclosure of internal control weaknesses.

Ninth, despite the arguments of positive relationship between audit committee as internal monitoring mechanisms and financial reporting quality provided in chapter three, the result reveals insignificant relationship between audit committee and financial reporting quality. This means the audit committee has little direct effects on the credibility of financial statement. However, the result in logistic regression shows a positive relationship between audit committee and the disclosure of ICS weaknesses and in multiple regressions, the disclosure of ICS weaknesses has significant influence on financial reporting quality. Thus, audit committee is an important mechanism to protect investors through enhancing ICS which in turn improves financial reporting quality.

As for the remainder of the hypotheses, no ultimate conclusions were reached as their findings were not statistically significant and the directions of the influence were nonetheless as expected in general.

6.3 Implication of the Study

This study has methodological and theoretical implications on current and continuing research efforts within the influence of monitoring mechanism and credibility of reported earnings, in addition to the research efforts within the influence between board of directors’ characteristics and audit quality on the disclosure of ICS weaknesses.

Methodological issues are concerned with the implications of the research design on future empirical efforts, while theoretical issues are concerned with the specific implications of the research's findings for existing theory related to monitoring mechanism and credibility of financial statement.

The theory that was developed and the subsequent findings suggest the following implications. First, the evidence shows that board independence leads to better earnings quality. In fact, the findings show positive and significant influence of board independence on financial reporting quality when utilizing direction measurement of the credibility of financial statement (SAR). The result remains the same even when non-direction measurement (VAR) was used. Implication of results is that Saudi Arabia should encourage better corporate governance of listed firms by recommending emphasize in board structure. Specifically, a greater proportion of independent outside directors will lead to higher investor confidence in the financial statements.

Second, board size, was also found to positively and significantly influence the quality of reported earnings. Nonetheless, this finding did not support the contention where it is argued that board sizes negatively influence the earnings quality. It was pointed out perhaps the positive but not significant impact is due to the average of board size in this study fell within the argued optimal size. As suggested by Abdullah (1999) for small companies, it is impractical to have larger board size because they may not need to have such a large board given the nature of their business. However, they may need to consider diversifying the memberships of their boards of directors so they could also tap the expertise from various disciplines.

Third, the evidence shows that disclosure of ICS influences negatively the credibility of reported earnings. These findings have implications for numerous parties, such as regulators, companies, auditors, and other governance reform enlightening the benefits associated with the management's report on the effectiveness of a company's internal controls over financial reporting. Given that one of the stated benefits of the recent regulatory changes or proposals is an improvement in the quality and reliability of financial reporting, this study contributes to the policy debate surrounding the important effectiveness of these regulations. The study provides evidence that is consistent with that claim. The result may have heightened the attention of investors and regulators to the importance of assessing the effectiveness of its internal control structure, and disclosing such information in the annual reports.

Fourth, the result shows that an auditing firm's quality as measured by Big 4 and non-Big 4 influence positively the credibility of reported earnings, which indicates that auditing firm's size is an important factor with regard to the extent of the quality of reported earnings. This result provides insights into the audit quality role to the quality of reported earnings. Therefore, this study recommends audit committees to consider external audit quality in their decisions of selecting audit firms.

Finally, the evidence shows the importance role of audit committee in enhancing the effectiveness of internal control as prerequisite for governance practices employed by

Saudi firms. Given that audit committees play an important role in enhancing ICS among all other variables of corporate governance in the Saudi listed companies, thus, governments and regulators should undertake a more proactive role in order to ensure the implementation of the standards of corporate governance in Saudi corporations. In summary, it is believed that the current study provides beneficial implications for both academic research and practitioners based on an insightful review of the existing work on monitoring mechanism and financial reporting quality.

6.4 Contributions of the Study

This research offers several contributions to academia, practitioners, regulators and policy makers through its novel framework. In the following subsections, the benefits of this research are discussed in detail.

6.4.1 Contributions to Academia

Most studies on governance structure and credibility of financial statement have been conducted in developed countries. This study however, adds knowledge to the literature review about monitoring mechanisms and credibility of financial statement in Saudi Arabia market that is one of the Gulf countries which is a developing country. It is the first study carried out in Saudi Arabia which employs market based measurement using two measurements as a proxy of credibility of financial statement and further suggests that other factors might influence the credibility of financial statement. Markets based research concerns the role of financial accounting information in facilitating the assessments and decisions of investors as reflected in the behavior of stock prices and returns, trading volume, or other capital market characteristics. It contributes to existing literature review by providing evidence regarding the factors that affects the credibility of financial statements and enhancing the understanding of developing countries' market such as Saudi Arabia market.

To develop a more complete understanding, it is important to explore the effects of governance structure on the quality of reported earnings, since there is lack of empirical evidence regarding the assumption that good governance reveals greater financial reporting credibility. Thus, this study contributes to the ongoing research on credibility of financial reporting literature by examining internal and external monitoring mechanisms and their relationship to the credibility of reported earnings as perceived by investors. Many previous studies have investigated the relationship between governance structure and the credibility of financial statement reports (for e.g., Chang & Sun, 2010; Chang& Sun, 2009; Dey, 2005; Lee *et al.*, 2005; Bushman & Smith, 2001).However, this study differs from earlier studies in two ways. First, this study combines five different monitoring mechanisms in a single study. As mentioned before, previous research in this area has not considered all variables that might affect the integrity of a firm's financial reporting process such as the disclosure of ICS weaknesses and bank monitoring.

Second, this study investigates the association among the monitoring variables to assess whether the substitution or complementary controls' views apply. As a result, this study provides depth explanation regarding the effects of monitoring variables on financial reporting quality from a country that has a different business environment and emerging capital market.

In another words, this study used a comprehensive model of inclusion internal and external monitoring mechanisms and then the simultaneous analysis of all variables will more closely match the role of monitoring mechanisms in the firm including in this study, therefore will provide better insight into the influence of these mechanisms on reporting credibility as measured by earnings informativeness based on the idea that internal and external governance mechanisms work together in the firm.

Moreover, little is known of the impact of the governance mechanisms on the disclosure of ICS weaknesses of firms. This study takes into consideration the relationship between the governance or monitoring variables board independence, audit committee independence, board size and audit quality and the disclosure of ICS weaknesses. The result provides empirical evidence of a significant effect of audit committee independence on the disclosure of ICS weaknesses, implying that audit committee plays an important role in maintaining effective internal controls. The study provides new insights into the indirect effects (mediating effects) of audit committee independence on financial reporting quality which has never been declared before in previous studies.

Agency theory has been used in most existing academic literatures to explain the role of corporate governance in increasing financial reporting quality by playing a crucial monitoring role. However, in Saudi Arabia market, agency theory could not be enough to address such issue since the structure of business has specific models of ownership. Family companies constitute the majority of Saudi listed companies, in which selected groups of family who have gained trust of other members of family control a company. Thus, this study used agency theory, institutional theory and signaling theory to shed light on the role of monitoring mechanisms in enhancing reported earnings credibility from the perspective of Saudi investors. This could provide better understanding for governance role and financial reporting quality in SSM.

6.4.2 Contributions to Practice

The results of this study are useful to stockholders, investors, creditors, and financial analysis institutions, by providing them with a potential important warning signal for quality of financial information. It is expected that Saudi companies consider those variables that have a significant impact on the financial reporting quality and enhance the public trust upon the companies. This would result in public confidence to invest their money in the stock exchange.

6.4.3 Contributions to Regulators and Policy Makers

The results of this study provide a better insight into a number of issues that can assist the regulators and policy makers to analyze the corporate governance practice and its association with the credibility of financial statement in the SSM. These issues include board of directors and audit committee independency, CEO duality and the disclosure of ICS weaknesses. The regulatory body in Saudi Arabia such as CMA (Saudi Market

Authority) can utilize the finding of this research to promote the corporate governance practice among Saudi listed companies which in turn can increase the level of confidence about reported earnings among Saudi investors. For example, since the disclosure of ICS has significant effects, the policy makers can impose more rules regarding the details about ICS such as the cost of internal audit, in-house or out-house internal audit, etc.

Moreover, the results reveal that audit committee independence is negatively related to the disclosure of ICS weaknesses, consistent with the explanation that controls are complementary. The study makes a contribution by assisting regulators in understanding the effects of regulation of corporate governance, and by showing auditors and auditing standard setters that audit committee independence and ICS have a complementary, rather than substitute relationship, in the Saudi setting.

6.5 Limitations and Suggestions for Future Study

In this section, limitations of this study and suggestions for future research are presented. Thus, the conclusions presented and discussed earlier are to be viewed together with the limitations that are inherent in this study.

This study only focused on two financial years, 2007 and 2008, where non-financial companies listed in the SSM were included in the sample. Perhaps, in the future, a thorough study should be carried out using a larger sample size (2009, 2010 and 2011) since the implementation of corporate governance in Saudi Arabia was at a preliminary phase in 2007. Furthermore, the study considered only non-financial listed companies. Listed financial companies were excluded. Thus, the validity of the conclusions might not hold for financial companies.

In addition, this study did consider independence of board of directors, audit committee independence, CEO duality, and board size variables for the monitoring role of corporate governance, since the data are publicly available in the annual reports. Thus, another limitation of this study comes from the nature of the data collected due to limitations of the annual reports' disclosures in Saudi as compared to the other advanced countries. Perhaps, in the future, a thorough study should be carried out to determine the effectiveness of monitoring role of corporate governance with the credibility of financial statement, using other independent variables related to corporate governance. Research also can use more dynamic measures of the board and the audit committee activities, such as the number of meetings during the year.

The results of this study imply that the disclosure of ICS weaknesses is associated with the credibility of financial statement as perceived by investors. However, the effect of the characteristics of board of directors and audit committee, and audit quality, reveal that only audit committee influences the disclosure of ICS weaknesses. This result may be due to the inability to obtain an adequate proxy for internal control effectiveness since this study is limited to publicly available data. Future research might attempt to identify better measures of internal control effectiveness, and with these measures, reassess the ability of board of directors, audit committee, and external auditor in enhancing the effectiveness of ICS.

The results from model 1 and 2 do not provide evidence of influence of bank monitoring on the quality of reported earnings. This study used bank debt to total debt ratio and bank debt to total assets ratio as proxies of bank monitoring and obtained consistent results. It would be interesting to conduct future research using other approaches to measure the bank monitoring such as bank relationship and bank loan type (Dass &Massa, 2011), as it may give better in-depth knowledge of the issues discussed in this study. In addition, it would be interesting to conduct the research in other countries.

Alternatively, this study could be replicated in a few years' time to examine how monitoring mechanisms' effect on the credibility of financial statements would change and are being changed, in light of any new amendments of corporate governance code or new environmental conditions.

This study used market-based approach namely the volatility of stock returns and sum of abnormal returns as proxies of earnings informativeness. The results could have been different if other earnings quality measures are used. Further research can investigate the effect of these different monitoring mechanisms on quality of reported earnings using earnings management as a proxy for the credibility of financial statement.

The measurement of the unexpected earnings was based on the pure random walk model (Lee *et al.*, 2005; Wild, 1994). Perhaps, using other model to estimate unexpected earrings (e.g., earnings forecasts as measurement of earnings expectation) would yield better results than the ones that were found when using the pure random walk model.

6.6 Conclusion

This study investigates whether different monitoring mechanisms matter to investors in providing credibility to reported earnings. It is expected that the monitoring role of board of directors, audit committee, the disclosure of ICS weaknesses, external auditor, institutional investor, and banks add credibility to corporate reported earnings based on agency theory, institutional theory, and signaling theory. Out of four corporate governance variables, the results show that only the independence of board (measured by the percentage of number of independent directors over total number of directors) influences the quality of reported earnings. This finding is in line with the popular perception that strengthening the independence of the board of directors would improve the corporate financial reporting quality. But in general terms, corporate governance mechanisms are less effective in Saudi firms.

The results of multiple regression tests provide support for the claim that board independency, ICS, external auditor and institutional ownership are associated with greater credibility of earnings announcements, but this relation is insignificant mostly for the remaining variables in both models.

In general, obtain evidence consistent with the claim that some monitoring mechanisms matters to investors in inferring the reliability of accounting numbers. In particular, investors' reliance on board independence, level of ICS, audit quality and institutional ownership for establishing credibility in corporate reported earnings among other monitoring mechanisms in the firm.

Logistic regression can test whether the qualities of different characteristics of board of directors and external auditor are associated with the effectiveness of ICS. The finding reveals that audit committee negatively and significantly affects the disclosure of ICS weaknesses, but this relation is insignificant mainly for other variables. Thus, no evidence supporting the independence of board of directors, board size, and external audit quality is related to the disclosure of ICS weaknesses. In other words, the evidence did not allow any meaningful inference regarding the role of board of directors and external auditor in enhancing the effectiveness of ICS, but it supports the claim that the independence of audit committee is significantly related to the disclosure of ICS weaknesses.

In contrast to the substitution view applied to internal control, the literature usually argues that the more of one source of control leads to less of another. This study found a positive relationship between control mechanisms variables as the audit committee independence influence the disclosure of ICS weaknesses suggesting a complementary relationship among control mechanisms variables. However, for other variables no ultimate conclusions were reached as their findings were not statistically significant.

These evidences are particularly interesting from a regulatory point of view, since the objective of improving investor confidence in corporate disclosures by introducing governance code will be better met if there is evidence on the aspects of governance that need to be modified to increase reporting credibility. Moreover, the findings of this study are beneficial for academic research and practitioners based on an insightful review of the existing work on governance mechanism and financial reporting quality.

More research needs to be carried out to examine other variables that can possibly have an effect on credibility of reported earnings so that our understanding of the issue of monitoring mechanisms and the quality of financial reporting can be further enhanced.

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APPENDICES

Table 1

Robust Regression Result for Model 1-VSR

VAR	Robust Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
UE2	0.006988	0.003316	2.11	0.037	0.00042	0.01355
IND*UE^2	0.001304	0.000549	2.37	0.019	0.00022	0.00239
IDAC*UE^2	-0.00015	0.000531	-0.28	0.778	-0.00120	0.00090
CEOD*UE^2	0.000434	0.004394	0.1	0.922	-0.00827	0.00914
BOSIZ*UE^2	0.001096	0.000558	1.96	0.052	-0.00001	0.00220
ICS*UE^2	0.006333	0.005296	1.2	0.234	-0.00416	0.01682
AUDQ*UE^2	0.00487	0.002961	1.64	0.103	-0.00099	0.01073
INSHARE*UE^2	0.000294	0.005721	0.05	0.959	-0.01103	0.01162
BANKMO*UE^2	-0.00526	0.005558	-0.95	0.346	-0.01627	0.00575
SIZE*UE^2	-0.0004	0.000665	-0.6	0.551	-0.00172	0.00092
GRWTH*UE^2	0.000201	0.001267	0.16	0.874	-0.00231	0.00271
RISK*UE^2	0.00075	0.000664	1.13	0.261	-0.00056	0.00206
_cons	0.002992	0.000485	6.17	0	0.00203	0.00395

R-squared = 0.3115
Root MSE = .00495
Number of obs = 131
Prob > F = 0.0000

Table 2

Robust Regression Result for Model 2-SAR

SAR	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
UE	0.028376	0.01186	2.39	0.018	0.00489	0.05186
IND*UE	0.011052	0.004635	2.38	0.019	0.00187	0.02023
IDAC*UE	9.93E-05	0.003768	0.03	0.979	-0.00736	0.00756
CEOD*UE	-0.01266	0.015989	-0.79	0.43	-0.04432	0.01900
BOSIZ*UE	-0.00102	0.005694	-0.18	0.857	-0.01230	0.01025
ICS*UE	-0.03877	0.016793	-2.31	0.023	-0.07202	-0.00552
AUDQ*UE	0.032365	0.017798	1.82	0.072	-0.00288	0.06761
INSHARE*UE	0.065989	0.036624	1.8	0.074	-0.00654	0.13851
BANKMO*UE	-0.03205	0.026268	-1.22	0.225	-0.08406	0.01997
SIZE*UE	-0.00333	0.003886	-0.86	0.394	-0.01102	0.00437
GRWTH*UE	0.000326	0.00056	0.58	0.562	-0.00078	0.00144
RISK*UE	-0.01605	0.00784	-2.05	0.043	-0.03158	-0.00052
_cons	0.002287	0.003904	0.59	0.559	-0.00544	0.01002

R-squared	0.2849
Root MSE	0.04114
Number of obs	131
Prob > F	0.0000

Table 3

Logistic regression result for Model 3-ICS

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	IND	.194	1.175	.027	1	.869	1.214
	IDAC	-1.670	.911	3.362	1	.067	.188
	BOSIZ	.084	.120	.489	1	.485	1.087
	AUDQ	.009	.431	.000	1	.983	1.009
	Constant	-.811	1.138	.507	1	.476	.445

a. Variable(s) entered on step 1: IND, IDAC, BOSIZ, AUDQ.

Chi-square	7.140
P-value	.522
Pseudo R Square	.044
N	131

Table 4

Logistic regression result for Model 3-ICS Including Control Variables

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	IND	.241	1.191	.041	1	.840	1.272
	IDAC	-1.692	.907	3.484	1	.062	.184
	BOSIZ	.098	.128	.586	1	.444	1.103
	AUDQ	-.015	.443	.001	1	.972	.985
	SIZE	-.146	.365	.161	1	.689	.864
	GRWTH	-.056	.108	.269	1	.604	.946
	Constant	.135	2.241	.004	1	.952	1.144

a. Variable(s) entered on step 1: IND, IDAC, BOZ, AUDQ, SIZE, GRWTH.

Chi-square	9.622
P-value	.293
Pseudo R Square	.054
N	131