MEASURING THE EFFECT OF THE BOARD OF DIRECTORS AND AUDIT COMMITTEE CHARACTERISTICS ON FIRM FINANCIAL PERFORMANCE IN EGYPT

Dissertation Submitted in Fulfilment of the Requirements for the Degree of Doctor of Philosophy - 2016

Submitted By:

Mrwan Mohamed Amer

Supervised By:

Prof. Dr. Eleri Jones
Prof. Dr. Mohamed Moustafa
Prof. Dr. Aiman Ragab
DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed Mrwan Amer (Candidate)
Date 31/10/2016

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This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used, the extent and nature of the correction is clearly marked in a/footnote(s).

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DEDICATION

To my wife Lara, my son Mourad, my mom Fatma, my dad Mohamed, my sister Salma and my brother Moataz. Without their love, patience and support, this would not have been possible. I love you all and thank you for your support!
ACKNOWLEDGEMENTS

Thanks and praise is due to ALLAH, The most Gracious, and The most Merciful.

The actual writing of a dissertation is a solo effort but the process of creating a dissertation involves a considerable number of people besides the author. I am very appreciative to my principal supervisor, Professor Eleri Jones, for her on-going support and guidance. She helped to make the process clear and manageable. Deep appreciation goes to my secondary supervisors, Professor Mohamed Moustafa and Professor Aiman Ragab for providing me with their great knowledge, insightful comments and directions on my work. I am very blessed to have been supervised by all of them. I have learned a great deal of useful knowledge from their academic expertise and their friendship.

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ABSTRACT

Corporate governance mechanisms are formed of different building blocks; the board of directors and audit committees are considered to be of the main ones. Nowadays, there has been a significant change, worldwide, in the guidelines and relationships connecting the shareholders, the boards, and the corporate management. The size of foreign investment attracted to Egypt, being an evolving market, has been growing in the past ten years. Corporate governance quality and firm performance are considered among the most important factors for investors in the Egyptian market.

This research investigates the influence of board of directors and audit committee characteristics on the firm’s financial performance. Nine attributes have been revealed from the literature review that might affect the improvement of a firm’s financial performance. In corporate governance, these attributes are categorized into board of directors’ characteristics: board independence, size, CEO duality, director ownership, and board meetings frequency; and audit committee related characteristics: size, audit committee independence, meeting frequency, and financial expertise. Two models are constructed and 56 firms listed on the Egyptian stock exchange are used in this research as a sample for testing these models. The research covers a nine-year period (2004-2012). Nine hypotheses are derived from the two models. GLS (random effects) regression is used to test these hypotheses.

The overall results revealed that board and audit committee characteristics affect a firm’s financial performance. The results reveal that board size, meetings frequency and CEO duality are positively and significantly associated with firm performance. Furthermore, audit committee independence, frequency of meetings and financial expertise have a significant positive association with firm performance, while audit committee size has a considerably negative association with firm performance.

This research contributes to the literature regarding how corporate governance improves a firm’s financial performance in Egypt. Participants in the stock market would benefit from the results when evaluating the board of directors and the audit committee roles in improving the firm’s financial performance. Regulators can use the findings of this research to help them identify the essential attributes of corporate governance and to evaluate the board of directors and audit committee governance practices.
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## ABBREVIATIONS

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<tr>
<td>ACFINEXP</td>
<td>Audit Committee Financial Expertise</td>
</tr>
<tr>
<td>ACINDEP</td>
<td>Audit Committee Independence</td>
</tr>
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<td>ACMEET</td>
<td>Audit Committee Meeting Frequency</td>
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<tr>
<td>ACSIZE</td>
<td>Audit Committee Size</td>
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<tr>
<td>AICPA</td>
<td>American Institute of CPA’s</td>
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<tr>
<td>BINDEP</td>
<td>Board Independence</td>
</tr>
<tr>
<td>BMEET</td>
<td>Board Meeting Frequency</td>
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<tr>
<td>BRC</td>
<td>Blue Ribbon Committee</td>
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<tr>
<td>BSIZE</td>
<td>Board Size</td>
</tr>
<tr>
<td>CASE</td>
<td>Cairo and Alexandria Stock Exchange</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CEO DUAL</td>
<td>CEO Duality</td>
</tr>
<tr>
<td>CIPE</td>
<td>Centre for International Private Enterprise</td>
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<tr>
<td>CMA</td>
<td>Capital Market Authority</td>
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<td>DOWN</td>
<td>Director Ownership</td>
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<td>EBS</td>
<td>Egyptian Banking Sector</td>
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<td>ECCG</td>
<td>Egyptian Code of Corporate Governance</td>
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<td>EGID</td>
<td>Egypt for Information Dissemination</td>
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<tr>
<td>EGX</td>
<td>Egyptian Stock Exchange</td>
</tr>
<tr>
<td>EIOD</td>
<td>Egyptian Institute of Directors</td>
</tr>
<tr>
<td>EJBA</td>
<td>Egyptian Junior Businessmen Association</td>
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<tr>
<td>FAGE</td>
<td>Firm Age</td>
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<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>FLEV</td>
<td>Firm Leverage</td>
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<td>FSIZE</td>
<td>Firm Size</td>
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<tr>
<td>GAFI</td>
<td>General Authority for Investment and Free Zones</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GLS</td>
<td>Generalised Least Square</td>
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<tr>
<td>ICCWBO</td>
<td>International Chamber of Commerce</td>
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<td>ICGN</td>
<td>International Corporate Governance Network</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>MENA</td>
<td>Middle East and North Africa</td>
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<td>NACD</td>
<td>National Association of Corporate Directors</td>
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<td>NYSE</td>
<td>New York Stock Exchange</td>
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<tr>
<td>OECD</td>
<td>Organisation of Economic Cooperation and Development</td>
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<tr>
<td>OLS</td>
<td>Ordinary Least Square</td>
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<tr>
<td>ROA</td>
<td>Return on Assets</td>
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<td>ROE</td>
<td>Return on Equity</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>ROSC</td>
<td>Report on the Observance of Standards and Codes</td>
</tr>
<tr>
<td>SEC</td>
<td>Securities and Exchange Commission</td>
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<tr>
<td>SOX</td>
<td>Sarbanes-Oxley Act</td>
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<tr>
<td>UNCTAD</td>
<td>United Nation Conference on Trade and Development</td>
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<tr>
<td>VIF</td>
<td>Variance Inflation Factors</td>
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<td>WFE</td>
<td>World Federation of Exchanges</td>
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Chapter One: Introduction

1.1 Research Background

Today, corporate governance has become a priority for the economic growth of any nation (Bansal and Sharma, 2016). It is safe to assume that fifteen years ago the normal citizen would not have comprehended the significance of corporate governance. In fact, it is very probable that the normal citizen would not have even recognised that corporate governance existed. Throughout the years, however, that lack of awareness has radically changed.

Since the 1930s, scholars have established a theoretical framework of corporate governance, including mechanisms; like board characteristics, stakeholder management, transaction costs, agent behaviour and resource dependence (Demirag, 2005). However, recently in the business world, and in the media, issues related to corporate governance have been at the forefront, mainly due to the collapse that some firms have encountered worldwide; some examples are WorldCom, Adelphia, and Enron. These issues have exposed several matters related to corporate governance, such as the corporation’s role in society, the board chairman and the CEO’s relationship with one another, and the role and responsibilities of the board of directors.

Because of the many corporate scandals and failures that have taken place in the past decade alone, a renewed and revived interest in how corporate governance affects a firm’s transparency and, effectively, its financial performance, has taken place. Besides playing a pivotal role in enhancing a firm’s financial performance, corporate
governance is a major player in developing the overall growth of a country’s economy (Brava et al., 2006).

For a long time, good corporate governance has been considered a crucial means to improve the long-term value of a corporation’s stakeholders. In today’s digital age, good corporate governance is not just limited to being good business practices; it is rather considered a fundamental element of market discipline (Levitt, 2000). Because of the increasing demands from investors that corporate boards and audit committees must show greater accountability, the quality of managerial stewardship is likely to improve and lead to more competent capital markets (Cohen et al., 2002).

In the light of the above discussion, good corporate governance has become significant in protecting investors and in strengthening and stabilising capital markets. Sound corporate governance improves firm performance, hence attracting investment (La Porta, et al., 1997). Good corporate governance also enables management to recognise corporate objectives, meet legal requirements, protect shareholder rights, and demonstrate to the public how the business is running and how is it conducting its operations (ICCWBO, 2006).

Luo (2005) points out that corporate governance could be measured by means of three mechanisms: market-based measurement (board composition and size, market discipline, CEO duality and board meetings), culture-based measurement (culture of governance and the integrity of the corporation), and discipline-based measurement (conduct codes, ethics programs, executive penalty and internal auditing).

According to Magdi and Nadereh (2002), the role of corporate governance is to ensure that the firm is operating effectively and efficiently. Another role of corporate governance is to guarantee that investors receive a fair return. Scholars from all walks
of life (law, finance, economics, sociology, organisation theory) have studied the role and impact of boards (Kiel & Nicholson, 2003).

Most literature that focuses on corporate governance looks at how the board characteristics affect firm performance (Fama & Jensen, 1983; Muth & Donaldson, 1998). Other scholars (Lausten, 2002) and (Kapopoulos & Lazeretou, 2007) have focused on how other governance issues affect firm performance. Some of those areas of focus are CEO turnover and compensation and ownership. Because of the increasing importance of boards to a firm, it is crucial at this stage to recognize which board characteristics could make one board more effective than the other. Accordingly, this research tends to identify and examine the board characteristics that would enhance the board’s effectiveness and improve its contribution towards the firm’s performance.

As stated by Fama and Jensen (1983), the board is responsible for approving management decision, and for monitoring the management’s performance. This means that the risk of management collusion is lowered when there are outside directors in the board, who are regarded as one other source of corporate monitoring (Fama, 1980; Weisbach, 1988). These studies illustrate the board characteristics in accordance with the agency theory, and discuss the advantages of increasing representation by non-executives in order to help boards become more effective in monitoring the management, and separating the board chair and CEO positions.

Empirical studies in the past two decades showed evidence that support the theories that show how board characteristics affect firm performance. An example of this could be shown by how firm performance is associated with the percentage of executive directors within a board (Bhagat & Black, 1999). Another example is CEO duality (Boyd, 1995). Generally speaking, while studies support existing theories, they also show conflicting
evidence with regard to the relationship between board characteristics and a firm’s performance.

1.2 Research Problem

According to the agency theory, which is regarded as the fundamental reference for all other theories related to corporate governance (Jensen and Meckling, 1976), and the stewardship theory, which regards agents as trustworthy good stewards of the firm’s resources (Donaldson, 1990; Donaldson & Davis, 1991), the corporate governance attributes expected to affect firm performance include internal monitoring by the board of directors (Fama, 1980; Fama & Jensen, 1983) and monitoring performed by the audit committee (Fama, 1980; Pincus et al., 1989; Bradbury, 2006).

A review of prior literature in Egypt (e.g. Dahawy, 2006; Kholief, 2008; Samaha, 2010; Sorour, 2011), shows that there is a scarcity in the amount of studies carried out on corporate governance attributes. This includes attributes of the board, namely: the board’s independence, size, the frequency of its meetings, and of the audit committee attributes like; its independence; size, financial expertise and meetings frequency. The attributes of the board and the audit committee are used in this research as a way to evaluate how the board of directors and audit committee characteristics impact a firm’s financial performance.

In this essence, the primary question of this research is as follows: *Do the characteristics of the Board of Directors and Audit Committee enhance firm financial performance in Egypt?*
This research attempts to answer that question. Whether or not board and audit committee characteristics significantly affect firm financial performance in the Egyptian stock market is something that will be discussed throughout this research.

1.3 Research Aim

The primary aim of this research is to make a unique theoretical contribution to knowledge by investigating the effect of the board of directors and audit committee characteristics on firms’ financial performance in the Egyptian market.

The literature review on corporate governance revealed nine attributes that could influence a firm’s financial performance, due to their role in enhancing and improving the firm performance. Two categories of corporate governance represent these attributes: board of director characteristics and audit committee characteristics. The board characteristics are: board independence, board size, CEO duality, director ownership and board meetings frequency. The audit committee characteristics include audit committee independence, size, financial expertise and meeting frequency.

Firms’ financial performance will be measured using three methods: return on equity (ROE), which is a ratio that is used to assess the amount of return a shareholder gets from an investment (Brigham, 2009), return on assets (ROA) which is a performance measure that shows investors to what extent the firm has generated earnings from its invested capital (Epps & Cereola, 2008) and Tobin’s Q, which is known as the ratio of book value of debt and market value of equity of the firm to the book value of assets (Nor et al., 1999).
1.4 Researcher’s Topic Choice

This research examines the research question proposed regarding the Egyptian market. This research was chosen based on several justifications. First, there is a continuous and extensive recognition of the boards’ role in firms’ success worldwide. This importance has been spelled out through different guidelines and recommendations, issued by several countries, for best corporate governance practices and the composition of the board (Cadbury, 1992; OECD Principles, 1999; ICGN Principles, 1999; Preda Code, 2002; Higgs Report, 2003; Combined Code, 2003).

Second, there is a lack of corporate governance studies in emerging markets, particularly in the Middle East. And despite the previous studies mentioned, there is still a lack of corporate governance studies in Egypt. As a result of so, this research will add to the limited knowledge on Egyptian corporate governance, and it will also present an overview of the characteristics of the board of directors and the audit committee since the issuance of the Egyptian Code of Corporate Governance (ECCG) from 2004 until 2012. Because corporate governance is a relatively new notion in the Egyptian market, this research attempts to give more insight into corporate governance to make it more presentable and understandable. This research mainly focuses on the board of directors and audit committee characteristics that affect firms’ financial performance in Egypt.

Third, the first time I heard about the board of directors and its role in corporate governance was during a seminar in finance and I asked myself as a researcher one simple question: “Does it really matter??” In other words, the Ministry of Investment and the General Authority for Investment and Free Zones released the ECCG, with principles and guidelines for directors in 2004, in addition to the suggested implication that adhering to these guidelines by boards would improve firm performance (ECCG,
2004). So the extent to which Egyptian firms adhere to the issued practices and recommendations, and the extent to which this adherence will guarantee high firm performance, are both rooms for question in this research.

1.5 Research Objectives

This research plans to examine how the characteristics of the board of directors and audit committee enhance firms' financial performance in Egypt. Therefore, this research contains three main objectives for this investigation:

- **Objective One:** To critically review the corporate governance theories and literature in order to identify the main characteristics of the board of directors and audit committee that improve firms’ financial performance. Achieving this objective will result in a conceptual framework (presented at the end of chapter three on page 132), which will lead to a series of hypotheses that will be empirically tested in the Egyptian context.

- **Objective Two:** To empirically test the hypotheses that underpins the conceptual framework of the research. The achievement of this objective will result in reviewing the methods of how the dependent, independent and control variables will be measured in accordance with previous studies in the same area. Identifying the sampling process and the data collection issues, the research design, and selecting the appropriate analytical techniques (presented at chapter four).

- **Objective Three:** To identify and report significant relationships between key characteristics of both the board of directors and the audit committee and a firm's financial performance.
- Achieving this objective will result in developing a final research model allied to the significant characteristics of the board of directors and audit committee that enhances and improves a firm’s financial performance (Presented at chapter six on page 215).

1.6 Research Importance

Investigating the impact of several board and audit committee characteristics on firm financial performance in Egypt is both academically and practically important.

1.6.1 Academic Importance

This research will lead to a better understanding of the nexus between board characteristics and firm performance by examining both the characteristics of the board of directors and audit committee. This approach offers insights to the constitution and functioning of a board of directors in Egypt as the main internal corporate governance mechanism. Academic importance of the research includes:

1. This research will explore the effect of board independence on firms’ performance using Egyptian data. This research will develop insights found in the Middle East context, particularly in Egypt. This study is the first of its kind, as there were no previous studies carried out that did so.

2. Not a single published research in Egypt tackles the notion of a board of directors’ effectiveness in monitoring a corporation’s management with respect to the frequency of board meetings and its effect on firm financial performance. Hence, this research will take this step and contribute to the literature by studying the impact of the frequency of board meetings on firm performance.

3. A subject that is of much debate is the one about the suitable board size for a firm so that the firm would function effectively. Scholars that tackled this issue
Chapter One

Introduction

included: Jensen (1993); Yermack (1996); Dalton et al. (1999); Hermalim and Weisbach (2003). This research, too, will make an additional and significant contribution towards comprehending how the size of a board could impact firms’ performance in Egypt.

4. Besides supplementing research to the inadequate amount carried out on the effect of audit committee size on firm performance, this research will be the first academic research to inspect the effect of this in Egypt.

5. Before this research, research on corporate governance tackled the audit committee role and its effects on firm performance. These include studies by Dalton et al. (1998) and Klein (2002b). The limited studies that investigated audit committees focused on the qualifications and the characteristics of the committee members (Piderit, 1994a; Vafeas, 1999; Carson, 2002). In terms of audit committee qualifications, the 2004 ECCG stated that the audit committee’s financial expertise is a recommendation for effective governance. This research will be the first to investigate the impact of the audit committee’s financial expertise on a firm’s financial performance in Egypt.

6. This research will be also the first of its kind that examines the effect of the frequency of audit committees on a firm’s financial performance in Egypt.

7. Prior research attempted to investigate the role and effects of the presence of independent directors in the audit committee, such as Dalton et al. (1998) and Klein (2002b). This research will be the first of its kind that investigates the same notions, but on firm performance in Egypt.

8. Studies that covered the Egyptian market measured firms’ financial performance using accounting-based measures (ROA, ROE). This research will examine the Egyptian firms’ financial performances from both an accounting-based measure (ROA, ROE) and a market-based one (Tobin’s Q).
9. This research will be the first of its kind that will cover a nine-year time period, from 2004 to 2012. This time period was selected because this research will use the 2004 ECCG as a guide for the variables of corporate governance. Thus, this research is a reflection of the recent developments in corporate governance in Egypt and their impact on corporate performance from 2004 until 2012.

1.6.2 Practical Importance

Recent high profile accounting scandals like the failure of Enron are a prime argument for the importance of solid corporate governance. Well-executed corporate governance enhances the reputation of the firm and makes it more attractive to investors; good corporate governance is a fundamental element of market discipline (Levitt, 2000). Thus, this research is practically important. Practical importance of the research includes:

1. This research will measure the impact of monitoring systems, like the board of directors and the audit committees. Decision makers can assess these monitoring systems’ role in improving how shareholders view the firm’s financial performance. Providing shareholders with reliable and viable information regarding corporate governance increases the accuracy and effectiveness of their decisions.

2. This research will help improve investors’ and stock market participants’ decision-making process. When various aspects of the board of directors and the audit committee are measured, investors’ knowledge in evaluating the reliability of the financial statements will increase. It will also enable them to become more alert to the management’s ability to manipulate accounting earnings.

3. Corporate governance authorities, especially in Egypt, could employ this research as practical and viable evidence to develop further corporate
governance regulations and recommendations. Similarly, the study’s results could be utilized by the stock market authorities in evaluating the current board requirements of corporate governance practices along with the audit committee’s role in enhancing firm financial performance. The findings of this research will enable regulators to define effective corporate governance attributes as well as to evaluate the requirements for the board of directors and audit committee governance practices.

4. This research will examine the relationship between the characteristics of the board of directors and the audit committee and the performance of listed firms in (EGX). The evidence put forward in this research regarding the characteristics of board composition and displaying their effects on firm performance should help management in making the most suitable decisions about their boards to enhance their firm’s value and performance.

1.7 Methodology

With the aid of secondary data, this research explores the relationship between the various characteristics of a board and firm financial performance. The sample selection in this research is based on the firms listed on the EGX. The data for the board and audit committee characteristics, which are the governance variables, were collected from the annual disclosure book that was issued by the EGX. This book contains these firms’ valuable data regarding board characteristics, ownership structure, corporate performance and other related variables.
1.8 Structure of the Thesis

This thesis is composed of six chapters. The following illustrates the content of each chapter.

Chapter One: Introduction

Chapter one (this chapter) of the thesis has provided an outline of the research and the significance of the research. Also, the research background and the research problem are mentioned. This chapter aims at providing a preface to the study, and it discusses the importance and objectives of the study.

Chapter Two: Literature Review: Corporate Governance Literature

Chapter Two generally describes the nature of corporate governance. Following so, the chapter explains the four most frequently used theoretical frameworks: the Agency Theory (Jensen and Meckling, 1976), the Stakeholder Theory (Freeman, 1984), the Stewardship Theory (Donaldson, 1990), and the Resource Dependence Theory (Pfeffer, 1973). These theories are the ones that researchers have utilized to explore the relationship between corporate governance and firm financial performance.

Chapter Three: Literature Review: Corporate Governance and Firm Performance Literature

This chapter will give a review of the recent developments and improvements in the Egyptian market regarding corporate governance. Chapter Three will also demonstrate a few studies done in Egypt regarding the relationship between corporate governance and firm performance. The literature that discusses the relationship between the
characteristics of the board and audit committees and firm financial performance will also be reviewed. The chapter also provides an extensive and detailed review of the diverse board and audit committee attributes. Chapter Three will also illuminate the key points of view as well as the conflicting ideas that surround the issue that is investigated; it will also critically assess each of these points of view. Lastly, the chapter will shed light on the literature gap that still remains in the research, and through it a development of the conceptual framework of the research will be carried out.

Chapter Four: Research Hypotheses and Methodology

Chapter Four reviews the methods of how different variables were measured in accordance with previous studies in the same area. Additionally, the chapter will give a detailed explanation of how the research was conducted and how the data was obtained, all while focusing on the particular methods used. Besides giving the details of the methods used, the chapter illustrates the research processes and procedures and the reasons for using those particular methods.

That is provided alongside the research design, the sample used, the data collection and the methods used for measuring the selected independent variables (board and audit committee characteristics).

Chapter Five: Data Analysis and Discussions

Based on the research methodology explained in chapter four, the findings of the research and the data analysis results are presented in this chapter. Tests are performed at the aim of providing empirical evidence that would answer the primary research question: Do the characteristics of the board of directors and audit committee enhance firm financial performance in Egypt?
Chapter Six: Summary and Conclusions

Chapter Six provides the conclusions of the thesis by summarizing the main findings and contributions of the research that scholars and practitioners could make use of. The chapter also recognizes the research limitations, while suggesting several recommendations for future research. This chapter includes an overview of the findings of this research and considers them in light of previous studies. Moreover it will include implications of the research for the market and policy makers. The following figure illustrates the outline of the research and its objectives and outcomes.
Chapter One: Introduction

Chapter Two: Theoretical Framework

Research Objective One: Critically review the corporate governance theories and literature in order to identify the main characteristics of the board of directors and audit committee that improves firms’ financial performance.

Research Output: A conceptual framework is developed and a set of hypotheses are stated.

Chapter Three: Literature Review

Research Objective Two: Empirically test the hypotheses that underpin the conceptual framework of the research.

Research Output: Reviewing the methods of how the dependent, independent, and control variables will be measured. Identifying the sampling process and the data collection issues, the research design, and selecting the appropriate analytical techniques.

Chapter Four: Research Methodology

Research Objective Three: Identify and report significant relationships between key characteristics of both the board of directors and the audit committee and a firm's financial performance.

Research Output: Develop a final research model allied to the significant characteristics of the board of directors and audit committee that enhances and improves a firm’s financial performance.

Chapter Five: Data Analysis and Discussion

Chapter Six: Summary and Conclusions

Figure 1.1 Summary of the Research Objectives and Research Outputs
Chapter Two: Literature Review

Corporate Governance Literature

2.1 Introduction

The literature review is spread across two chapters. This chapter mainly discusses the various definitions of corporate governance put forth by different scholars, along with its major theories and its emergence. Chapter Three, on the other hand, focuses on the effects of corporate governance on firm performance, mainly focusing on the characteristics of the board of directors and the audit committee, along with their effects on the performance of the firm. Chapter three also rounds up the review of corporate governance in the Egyptian market, reviews the development and recent improvements in the Egyptian market, and demonstrates empirical studies on the relationship between corporate governance and firm performance in Egypt. Finally it develops the conceptual framework for the study.

2.2 Defining Corporate Governance

A specific definition that incorporates all the varying situations of corporate governance is non-existent. There are, however, various authors and institutions (and even countries) that have given different definitions to the word – the combined meaning of which sum up the set of codes and rules that control the conflicts of interests and strengthen the relationships between a firm's management, its board of directors, shareholders, and stakeholders. Corporate governance, effectively, are those rules and regulations that, eventually, lead to a firm's stronger financial performance.
According to the Cadbury Report (1992), corporate governance outlines the responsibilities and duties of an organisation's board of directors to lead the organisation successfully. In 2009, Rezaee defined it as a process that enables shareholders to encourage management to act in the shareholders' interests, hence providing a level of confidence to investors so that capital markets could operate and function more effectively. Defining corporate governance emphasises the relationship between the shareholders and the firm, as stated in the agency theory; i.e., directors-agents acting on behalf of shareholders-principals in overseeing self-serving behaviours of management. However, corporate governance is now being defined in wider contexts; according to Solomon and Solomon (2004), effective corporate governance is currently understood as involving a wide number of participants. The primary participants are management, shareholders and the boards of directors, but other key players whose interests are affected by the corporation are employees, suppliers, customers, partners and the general community.

In the same manner, Ariff et al. (2007) state that corporate governance is critically important to both: firms’ directors who are concerned with knowing the level of their firms’ governance structure and its compliance with the best practices and regulations, and to market participants who are keenly interested in the governance risks associated with firms.

Sanda et al. (2005) also defined corporate governance as being techniques by which stakeholders interested in the firm's well-being attempt to use to guarantee that its managers and insiders take measures or adopt mechanisms that preserve their interests.

Tsifora (2007), however, referred to corporate governance as a group of limitations that should be pursued so that a firm reaches its optimal performance. Furthermore, Rahman
(2008) states that corporate governance is a set of processes, customs, policies, laws and institutions that affect the means by which a corporation is administered and controlled.

In accordance with Imam and Malik (2007), the theoretical framework of corporate governance is the most diverse control mechanism supporting the efficient use of corporate resources. Corporate governance could assist with aligning the interests of the individual to that of a corporation's by following an elemental ethical basis; corporate governance also fulfils the owners' long-term strategic goals. Certainly, applying corporate governance and its consequences will differ from firm to firm, but what it does is that it takes into account all the key stakeholders' expectations (Imam & Malik, 2007). Hence, practicing good corporate governance leads to a firm complying with all the legal and regulatory requirements through which it carries out its activities.

Shleifer and Vishny (1997) define corporate governance as the way by which the suppliers of finance to corporations assure adequate returns on their investments. Whereas, in the simplest meaning, according to the National Association of Corporate Directors, corporate governance refers to the way and attitude by which a corporation is governed (NACD, 2006). In a similar meaning, Solomon and Solomon (2004) define corporate governance as the powers and responsibilities of different interest groups in the firm, in terms of how these powers and responsibilities are exercised and shared. Definitely, the way and attitude by which a corporation is governed have to be controlled by laws, regulations and formal policies. Legally, a board of directors is assigned with the authority to manage or supervise the management of the business and affairs of a corporation.

Accordingly, there are two duties for directors, known as the director’s fiduciary duty and the director’s duty of care. The fiduciary duty incurs that directors and officers are
required by law to act honestly and in good faith, considering the best interests of the firm while exercising their powers and discharging their duties. The duty of care incurs that a director or an officer should possess the care, diligence and skills that are expected to be exercised by a reasonably wise person in different circumstances (Solomon and Solomon, 2004).

Both duties are intentionally broad in their scope, which is why during the last several years regulations and shareholder guidelines have been imposing on and expecting of directors more specific duties and responsibilities in a wide variety of areas (e.g. board structure and composition, director qualifications and compensation oversight by the board). This is to ensure that the board of directors effectively oversees the management of the organisation and that the latter always acts in the best interests of the firm and all of its shareholders.

The OECD provides a definition that considers the interests of both shareholders and stakeholders (Nwanji & Howell, 2007b). It states that corporate governance is "a set of relationships between a firm’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the firm are set, and the means of attaining those objectives and monitoring performance are determined" (OECD, 2004, p 11).

Finally, to summarise what was mentioned above, since the term corporate governance has come to light, corporate governance has been a widely discussed issue among academics, international organisations, and the business world. Yet, there is not a single broadly accepted definition of corporate governance; the definition rather varies among different countries. And even in the same country, corporate governance may be defined in different contexts (Solomon & Solomon, 2004).
According to my point of view, corporate governance is simply a set of rules and regulations to make sure that the board of directors and management are working for the best interest of the shareholders.

### 2.3 The Emergence of Corporate Governance

In the past decades, very little attention has been paid in the literature to corporate governance and boards of directors; they were only handled by some management teaching, research and popular writing. The term corporate governance itself was not even used until well into the 1980s. However, beginning in the 1980s and continuing and growing throughout the 1990s, corporate governance received increasing attention among practitioners, academics and other groups.

Many factors caused this spread of corporate governance to happen, such as the hostile takeovers movement, the increasing importance of institutional investors and the focus on directors’ legal liabilities, to name a few. Another very important factor that has caused corporate governance to be carefully considered is the increasing openness, and the technological advances of the business world that have been noticed from that time up until today, which, in turn, added more pressure on corporations. Corporations need to ensure that they are operating in a highly efficient and effective way in order to be able to compete successfully (Leblanc & Gillies, 2005).

Since the East Asian Financial Crisis of 1997, which affected the economies of nations like Indonesia, Malaysia, South Korea, Thailand and the Philippines, there has been a focus on the board of directors, and this was highlighted by Bathula, (2008). Similarly, the financial crisis of 2008 revealed a lack of effective governance practices and
monitoring mechanisms that ultimately lead to various disasters in numerous companies.

Moreover, early in this century, some major corporate meltdowns received extensive media attention; e.g.: Enron; WorldCom; Adelphia. As a result, these firms received more attention than they previously did. Despite that, corporate governance was being noticed even before those meltdowns. Further, the major corporate scandals that happened from 2001 to 2003 raised much corporate fraud and other issues, such as excessive executive compensation and accounting and auditing malpractice. These came under the microscope.

Also, the UK had appointed various reports to ensure the effectiveness of boards and corporate governance. These include the 1992 Cadbury Report on the financial aspects of corporate governance (Cadbury Committee, 1992), the 1995 Greenbury Report on directors’ remuneration (Greenbury, 1995), the 1998 Hampel report on corporate governance (Hampel, 1998), the 1999 Turnbull report on guidance for directors (Turnbull, 1999), and the 2003 Higgs report on the role and effectiveness of non-executive directors (Higgs, 2003). Moreover, international organisations such as the Organisation for Economic Cooperation and Development (OECD) have also developed guidelines for corporate governance, particularly emphasising the role of the boards. In 1999, the OECD released a publication titled Principles of Corporate Governance (OECD, 1999), which was then revised in 2004 (OECD, 2004). These principles strengthened the importance of corporate governance for long-term economic performance and reinforcing the international financial system.

The level and performance of corporate governance for a country and the firms represents the risk that must be considered by all players in the market in their business
decisions. Therefore, it could be concluded from the previously mentioned studies that corporate governance, as understood from broadening social perspectives, ensures that the board of directors is accountable to any individual who has a benefit in seeing the corporation well governed, including both shareholders and stakeholders. Another argument also exists in defining corporate governance. According to some corporate governance scholars, such as Carter & Lorsch (2004) and Leblanc & Gillies (2005) the heart of good corporate governance is not board structure (which receives a lot of attention in the current regulations), but instead board process (especially consideration of how board members work together as a group and the competencies and behaviours both at the board level and the level of individual directors). However, Ehikioya (2007) stated that corporate governance is concerned with both the processes and the structures through which members interested in the overall well-being of the firm take measures to protect the interests of the stakeholders.

It must be noted that good corporate governance is centred on the principles of accountability, transparency, fairness and responsibility in the management of the firm. Discussing the topic in more details, Ehikioya (2007) also explained that corporate governance structures deal with the ownership structure, such as the proportion of internal and external block holdings. And it also deals with the composition of the board of directors, such as the proportion of non-executive directors, board skills and the size of the board.

In addition, corporate governance mechanisms deal with the independence of the board and also with the possible separation of the CEO's responsibility from that of the chairperson's. A well-defined and functioning corporate governance system helps a firm to attract investment, to raise funds, to strengthen the foundation for firm performance and to shield a firm from vulnerability of future financial distress. In listed firms, the
shareholders are represented by members of the board while the managers are responsible in directing the affairs of the firm.

Through the board of directors, the shareholders provide incentives that allow the managers to pursue the interests of those who provide finance and other stakeholders. Earlier, Keasey et al. (1997) had a very similar view to that of Ehikioya (2007), who referred to corporate governance as the process and framework by which the firm’s business affairs are directed and managed in a way that boosts business prosperity and corporate accountability, held with the primary aim of achieving a long-term shareholder value, while considering other stakeholders’ interests as well.

To sum up, corporate governance is considered as an emerging phenomenon in the corporate world due to the prevalence of corporate failures and economic crises. Corporate governance acts as the appropriate mechanism to regain the confidence of market participants in order to build up the market and the economy. More than so, regulators are now strongly encouraged to adopt certain corporate governance mechanisms in their countries due to many factors, such as the activity of investors, the need to enhance the public’s trust and the competition in a borderless economy. Besides defining and explaining corporate governance, many studies have been stressing the benefits of good corporate governance. For example, it is shown in Loukas (2004) that good corporate governance positively implies the growth prospects of an economy.

If corporate governance is properly practiced, risk would be eliminated, and that would, hence, attract more investors, getting in more capital and improving corporate performance. In addition to that, according to the World Bank Group (1998), markets are very vulnerable to fluctuations, such as the flow of international capital, which often represents speculative investment portfolio placements. And, thus, these market
economies could be easily developed by improving corporate governance practices, which will then strongly affect investors’ confidence and help maintain economic stability.

Corporate governance is becoming a fundamental element that impacts the industrial competitiveness of countries, particularly in such an era of severe competition and capital mobility (Maher & Andersson, 1999). Economies that are still developing and emerging shall especially realize the importance of refining their corporate governance practices. In this essence, attaining investors’ confidence and retaining economic stability could be achieved through sound and effective corporate governance techniques (The World Bank Group, 1998).

2.4 Theoretical Perspectives of Corporate Governance

To study how a board's characteristics affect a firm's financial performance, light must be shed on the different theories regarding corporate governance, and the ways by which each of these effects could be measured. Because of the board of directors' importance in a firm, the characteristics of a board are considered an imperative and accurate measure of corporate governance (Fama, 1980).

What follows is a review of four theoretical perspectives that relate boards to corporate governance. Those four theories are: the agency theory; the stakeholder theory; the resource dependence theory; the stewardship theory. These theories have been put forward to give a better understanding and a more in-depth analysis of corporate governance.
2.4.1 The Agency Theory

This theory is regarded as the fundamental reference for all other theories related to corporate governance. Jensen and Meckling (1976), for instance, have explained corporate governance as an agency relationship, defined as a contract under which one person or more, known as the principal, engages another person, known as the agent, to perform a service on their behalf. This service involves delegating an executive authority to the agent. Accordingly, managers are usually self-centred, considering their own interests rather than the interests of the shareholders. As a matter of fact, this is the most critical issue concerning the agency theory.

According to Habbash (2010), the agency theory is the most popular of all corporate governance theories; more academics and practitioners have studied it and given it more attention than any other theory. Its central point is focused around the idea of separating ownership from management (principal from agent). Generally speaking, any debate about corporate governance stems from the principal-agent theory.

The origins of the agency theory emerged somewhere during the eighteenth century. Adam Smith (1776), one of the first to discuss agency theory, demonstrated the problem of separating ownership and control. He proposed that a manager who watches over people’s money will not do it with the same watchfulness, keenness and concern as they would do with their own money. As a result, Smith pointed out that negligence, squandering and decadence will always prevail, more or less, with this sort of management arrangement (Adam Smith, 1776).

Additionally, the agency theory was expounded by Alchian and Demsetz (1972), and was further developed by Jensen and Meckling (1976) who defined the agency relationship as a contract where a person (the agent) is employed by the principal to
execute several tasks on behalf of the principal, which encounters that authority has been delegated to the agent for some decision-making. Moreover, ensuring whether the agent is acting towards the principal’s best interest is a matter of concern. This is based on the grounds of an inherent conflict of interest between the agent and the principal as explained by Fama and Jensen (1983):

“Control of agency problems in the decision process is important when the decision managers who initiate and implement important decisions are not the major residual claimants and therefore do not bear a major share of the wealth effects of their decisions. Without effective control procedures, such decision managers are more likely to take actions that deviate from the interests of residual claimants...” (Fama & Jensen 1983, p. 77).

If both the principal and the agent are utility maximisers, it is believed that the former will not always act in the latter's best interests. To solve such an issue and limit the discrepancy between the principal's interests and the agent's, and to align both of their interests, the principal could do two things. The first thing that could be done is for the principal to establish suitable incentives for the agent. Second, the principal could incur monitoring costs that are designed to limit the agent's irregular activities (Jensen & Meckling, 1976). By and large, managers are motivated by their own personal interests and benefits; they work as not to maximise shareholders' interests and wealth, but rather their very own.

In the same manner, managing or controlling shareholders' interests may tend to extract or make use of some benefits (or perks) out of a firm’s resources, such as luxurious offices, firm cars and other benefits, while bearing all the costs on the owner. These types of managers are usually less interested to pursue new profitable ventures. This is,
consequently, mainly due to the conflict of interests between the managers, especially those who have better knowledge and expertise about the firm, and the outside or minority shareholders (Fama 1980; Fama & Jensen 1983).

As a result, various agency costs increase. These costs include the costs of structuring the contracts, the monitoring expenses that the principal pay for; like budgeting, control, auditing, compensation systems, the bonding expenditures bared by the agent, and finally the remaining loss incurred as a result of the sub-optimal decisions taken by agents that originate primarily from the conflict of interests between the principal and the agent. These agency costs are reflected in the share price paid by shareholders. Thus, agency costs must be reduced so that the firm's value could be increased. This is one way to realize the link between corporate governance and corporate performance.

On the other hand, if managers maximise their self-interest at the expense of maximising organisational profits, then shareholders’ interests would obviously be compromised, consequently raising a lack-of-trust situation. Accordingly, it is expected from the board to develop a sturdier and a more rigid process to monitor management and ensure that it protects shareholders’ interests. This would be more rigorous in large corporations, where ownership is widely dispersed, because small shareholders cannot afford to pay or expend resources for monitoring managers’ behaviours. At the same time, the monitoring process is considered a critical role of the board in accordance to minimising agency problems and achieving advanced organisational performance.

Agency problems differ among countries according to the characteristics of ownership in the country. Countries like US and UK have dispersed ownership structures where the ownership is separated from control in regard to the inherent conflict of interests between opportunistic managers and owners (Berle and Means, 1932; Fama & Jensen,
1983; Williamson, 1985; Grossman & Hart, 1986). Any disagreement between the management and the investors, or if the latter are unsatisfied with the firm’s performance, they would most probably use their exit options; signalling through share price reduction the necessity for managers to improve firm performance (Hirschman, 1970).

On the other side of the spectrum, countries like Japan, continental Europe, and other OECD countries have concentrated ownership structures where managers are usually controlled by the large dominant shareholders who also expropriate minority shareholders to grab private control benefits. Therefore, the agency problem in this case is postured in the alignment of interests between strong block-holders and weak minority shareholders (Becht, 1997).

The shareholders of today's corporations are widely dispersed, and they are usually not involved in the daily operations of their companies. What shareholders nowadays do is they hire managers to manage the corporation on their behalf (Habbash, 2010). Those managers are simply appointed to do what shareholders don't, i.e. manage the daily operations of the corporation. This separation between the controlling rights and ownership causes a resultant conflict of interest between managers and shareholders.

The primary assertion of the agency theory is that managers' actions are not spawned out of anything except their own personal interest and self-benefit. This, as a result, gives less focus and attention to the needs and interests of the shareholders, which undermines the firm's overall value (Eisenhardt, 1989). As long as managerial (agent) and shareholder (principal) interests converge and harmonise, an agent problem wouldn't arise; however, as soon as their interests diverge, the agent will aim for maximising his own interests, compromising the principal's.
Chapter Two

Corporate Governance Literature

According to Epps and Cereola (2008), an effective corporate governance structure could be a monitoring tool that matches management’s goals with those of the shareholders. This could be achieved by compensation packages, which is a way by which managers will be motivated to maximise the firm’s value, thus preventing the issue of agency conflicts. In this sense, agency theory suggests that well-measured corporate governance generates accountability in the organisational system, hence promoting better supervision of managers. This, in turn, leads to better corporate performance by means of lowering agency costs, raising stock prices and improving long-term performance.

Jensen and Meckling (1976) assumed that defining the rights of each of the principal and the agent, by designing an appropriate contract holding these rights, would help the firm resolve the agency problem. In Fama and Jensen (1983), this contract was referred to as a list of agents’ rights, obligations, and criteria on which their performance will be evaluated. Sudden events or unexpected circumstances, however, provide outstanding rights for the agents that were not included in the contract. Most of the time, this will end up with the agents (managers) making use of these rights to allocate funds as they choose (Shleifer & Vishny, 1997). Hence, to this day, firms face difficulty in perfecting the writing of these contracts. As so, managerial discretion increases, encapsulating the same agency problem. Plus, the monitoring process incurs monitoring costs, which in return reduce the value of the firm.

In this essence, various governance mechanisms have been suggested by different studies to tackle the agency problem. While pointing out the agency problem, agency theory has also set internal and external mechanisms to be basically used in governing firms (Weir et al., 2002; Roberts et al., 2005). In Davis et al. (1997), it was stated that these mechanisms should be aimed at achieving objectives, such as protecting
shareholder interests, minimising agency costs and aligning both agent and principal interests together.

Amongst the most important governance mechanisms to achieve the above objectives are the board of directors and the compensation schemes. According to Fama (1980), when comparing different alternatives, like takeovers, the board seems to be the low-cost mechanism of management. Dealing with the board, as a governance team, emphasises many important issues, like the board size; executive or internal versus non-executive or external directors; and separating versus unifying the CEO and the chair person. All those are aimed at ensuring effective monitoring and oversight (Dalton et al., 1998; Coles & Hesterly, 2000; Daily et al., 2003).

One of the ways by which the interests of the principal and the agent could be met is through executive compensation. This refers to the extent to which managers feel rewarded in the best way that aligns their interests with those of the shareholders (Davis et al., 1997; Tosi et al., 2003). Such compensation schemes are mostly needed when there are difficulties facing the monitoring process and when agents gain considerable informational advantage. Scholars, including, Cadbury (1992); Vienot (1995); Hampel (1998); OECD (1999); ICGN (1999); King (2002), made use of agency theory in exploring the role of boards and other governance-related aspects, and then examining their effect on firm performance.

Coleman et al. (2007) presented and summarised a couple of ways that tend to minimise opportunistic behaviours from an agent. The first is by having non-executive directors. To have an effective board of directors, agency theory proposes and expects that a large percentage of the board should be allocated to non-executive directors. This, the theory asserts, ensures the independence of the board, guaranteeing a fair and unbiased
judgment in its monitoring, thus reducing the conflict of interests between the managers and the shareholders. The second way to minimise an agent's opportunistic behaviours is by what is known as a CEO duality. Agency theory stipulates that assigning the position of the CEO and the board chair to different individuals reduces the probability that one individual would impose his power on the firm's management and board members.

To summarise, agency theory is a theory that explains the relationship between an agent and a principal; and where the interests of the agent and the principal diverge, well-defined and strict corporate governance plays a vital role in aligning them.

2.4.2 Stakeholder Theory

The stakeholder theory is merely an expansion of the agency view. The theory expects that a firm's board of directors should be working in the best interests of its shareholders. This narrow focus has now been broadened in today's firms so that not only do boards work on the best interests of the shareholders, but they also take into account that of the various stakeholders, this includes social, environmental and ethical groups (Freeman, 1984; Freeman et al., 2004).

According to the stakeholder theory, the key role of board members is finding and providing resources to a firm. As viewed by this approach, the main resource that stakeholders actively support is harmony. Accordingly, every party that is considered crucial to the firm’s success must have a representative in the board. This will enable the firm to create harmony among all critical stakeholders.

Hence, the board of directors is considered the place to conciliate conflicting interests and create the substantial cohesion (Donaldson & Preston, 1995; Luoma & Goodstein,
Thereby, stakeholder theory seems to add to agency theory; in fact, it assists in expanding the latter’s narrow scope. Furthermore, the stakeholder theory argues that the board of directors should not only be concerned with shareholders’ interests, but that different stakeholders’ interests should also be considered. Such considerations might be social, environmental or ethical (Freeman, 1984; Donaldson & Preston, 1995; Gibson, 2000; Freeman et al., 2004). The Stakeholder theory considers that the “companies and society are interdependent and therefore the corporation serves a broader social purpose than its responsibilities to shareholders” (Kiel & Nicholson, 2003a, p. 31).

Among the founders of this theory is Freeman (1984), who stated that a stakeholder is “any group or individual who can affect or is affected by the achievement of the organisation’s objectives” (p. 46). These groups include the customers, the suppliers, the employees, the local community and the shareholders. Thus, the aforementioned Freeman’s definition provides a very broad view of stakeholders, covering all those who have an interest in the business of the firm. Other scholars, however, view stakeholders from a narrower point of view. In that sense, defining the exact boundary of stakeholders is still an ongoing debate.

For example, Freeman (1984) and Wheeler and Sillanpaa (1997) identified many types of stakeholders, like investors, managers, employees, customers, business partners, local communities, civil society and the natural environment. Donaldson and Preston (1995) identified stakeholders as “persons or groups with legitimate interests in procedural and/or substantive aspects of corporate activity” (p. 85). Mitchell et al. (1997) argued that a stakeholder is anyone who has one or all of the following: influential power over the organization, a legitimate relationship with the organization, or usual urge to claim
on the organization. According to this typology, managers should consider and respond to different types of stakeholders.

It could be recognised then, from the stakeholder theory, that the decision-making process of a firm is affected and affects it through many outside groups. In this essence, Freeman et al. (2004) argued that the aim of trading and creating value is connected thoroughly to the idea of creating value for shareholders. From this view, doing business is about setting a deal that favours all stakeholders, like suppliers; customers; employees; communities; managers; shareholders, all while maintaining a continuous winning situation for each of them. For this deal to succeed, i.e. to reach a consensus among all stakeholders, managers should try to resolve conflicts existing between these stakeholders, thus creating the highest possible value for them.

In contrast, Carver and Oliver (2002) studied different stakeholders’ views from a non-financial perspective. As concluded, generally speaking, shareholders mainly seek financial value; other stakeholders may aim to achieve non-financial benefits, such as “the satisfaction of pioneering a particular breakthrough, supporting a particular kind of corporate behaviour, or, where the owner is also the operator, working in a particular way” (p. 60). There are 32 non-equity stakes held by different stakeholders groups. Therefore, managers are obliged to develop and maintain various stakeholder relationships besides that of the shareholders.

Despite its promising appeal, the stakeholder theory did not receive much practical assessment. Two factors have contributed to the gap between the stakeholder theory's theoretical framework and its hard evidence. First, there is the factor of the monopoly situations and the dominance of externalities. The second factor is one regarding measurement, especially one that has to do with obtaining a reliable and accurate
measurement of a firm's long-term value. Stakeholder theory states that managerial activity is to be focused not only on growing and maintaining shareholder relationships, but also on doing so with all stakeholder relationships (Jensen, 2001).

2.4.3 Resource Dependence Theory

Resource dependence theory explains corporate governance from a totally different perspective. Developed by Pfeffer (1973) and Pfeffer and Salancik (1978), this approach strongly signifies the importance of resources more than anything else. This foundation considers the board to be one of several tools used to ease the access of critical resources that would contribute to the firm’s success. This theory mainly argues that having non-executive directors enables the firm to be protected from the external environment in an attempt to co-opt resources and reduce uncertainty of external influences, thus ensuring the availability of resources necessary to their survival and development and nominating resources that increase the firm’s ability to raise funds or increase its status and recognition. Besides, Johnson et al. (1996) and Hillman et al. (2000) have theoretically proved that the board of directors’ role itself is considered a critical resource of the firm.

As defined by Pfeffer and Salancik (1978) the boards of directors provide four major types of resources. These are: firstly, advice, counselling and know-how; secondly, legitimacy and reputation; thirdly, channels for communicating information between external organisations and the firm; and fourthly, preferential access to commitments or support from important factors outside the firm.

In addition, Penrose (1959) signified other distinctive groups of resources that are very important for firm growth. Barney (1991) and Daft (2006) stated that these resources are as follows: all assets, capabilities, organisational processes, firm attributes, information,
and knowledge controlled by an organization by which it can enhance its operations’
efficiency and effectiveness.

This perspective implies that the governance structure and the composition of the board
are both regarded as resources that would help increase the firm’s value. When
describing the board as a means of providing critical resources, Pfeffer (1973) and
Pfeffer and Salacik (1978) explicitly mentioned outside directors. Johnson et al. (1996)
exactly mentioned the same argument. Similarly, in Hillman et al. (2000), it was stated
that from the resource dependence perspective, outside directors “bring resources to the
firm, such as information, skills, access to key constituents (e.g. suppliers, buyers,
public policy decision makers, social groups) and legitimacy” (p. 238).

Moreover, board directors have the ability to reveal boundaries, hence improving the
business prospects. Board members usually exercise outside links, and they are engaged
in networks that would positively affect the business development process along with its
long-term prospects. Carpenter and Westphal (2001) strengthened this point by showing
in a study how a business could be improved by making use of the social context of
external ties. As stated in Pfeffer and Salancik (1978), “when someone is engaged in an
organisation board, it is expected that he [or she] would support this organisation, will
be totally dedicated to solve its problems, will favourably present it to others, and will
exert the maximum effort to aid it” (p. 163).

The existence of outside directors, along with the board entanglement, is very useful in
managing environment contingency. Pfeffer (1972) had concluded in his earlier study
that two factors are regarded crucial for managing the organisation’s capital needs and
the rigid environment: board size and the background of outside directors.
Similarly, Pearce and Zahra (1992) found that board size and the presence of external directors positively affect the effectiveness and efficiency of developing and executing a strategy, which would be able to face high environmental uncertainty.

Moreover, many studies, such as Thompson and McEwen (1958); Pfeffer (1972); Mizruchi and Stearns (1988), investigated how the resource dependence theory’s role of the board of directors aids the firm in gaining access to financial resources. It was argued by Thompson and McEwen (1958) that in case a high level of bank debt is expected, a firm can benefit from employing an officer of that bank, ensuring easier access to the bank’s funds. Similarly, it was found by Mizruchi and Stearns (1988) that if a firm faces liquidity problems, it would most probably assign representatives of the financial institutions to its board. These assignments reveal that the resource value of capital influences the behaviour of individual firms.

Stearns and Mizruchi (1993) also found that the firm’s borrowing strategy is directly associated with the type of financial representation on the board. This relationship provides both parties with an opportunity to co-opt each other continuously. In addition to so, many scholars have also explained the board composition, mainly the existence of outside representatives, in terms of the resource dependence theory. For example, Kaplan and Minton (1994) found that a firm experiencing poor financial or stock market performance would likely hire financial directors to the board. Similarly, Hermalín and Weisbach (1988) argued that a firm performing unsuccessfully tends to replace inside directors with experienced outsiders. Also, according to Pearce and Zahra (1992), in case the firm is not doing well, using outsiders would help the board, bringing a fresh perspective. Similarly, Muth and Donaldson (1998) signified the importance of network connections formed by outside directors in improving the firms’ performance.
To sum up, from the resource dependence theory perspective, the board is not only considered a resource that substitutes other resources, but it also drives the environment toward the firm’s favour, thereby improving firm performance.

2.4.4 Stewardship Theory

A different perspective than that of agency theory is stewardship theory, which regards agents as trustworthy good stewards of the firm's resources, which makes monitoring seem redundant, (Donaldson, 1990; Donaldson & Davis, 1991; Donaldson & Davis, 1994; Davis et al., 1997; Moth & Donaldson, 1998) all went for the stewardship theory, denying the existence of managerial opportunism. Donaldson and Davis (1991) also argued that a manager’s main aspiration is to perform well and to be a good steward of the firm's assets. Therefore, the lack of trust referred to by the agency theory is replaced in this theory; holding to the idea of respect for authority and the tendency towards ethical behaviour.

Derived from psychological and sociological notions, stewardship theory is a theoretical framework that researchers could utilise to examine the actions and performances of executives acting as stewards of the principals of the firm (Donaldson & Davis, 1991; Davis et al., 1997). The stewardship theory considers managers and directors as a firm's stewards, looking out for the best interests of the principals and, hence, maximising shareholders' wealth.

From the stewardship theory point of view, directors and managers, being stewards of the firm, work with the aim of improving firm performance and maximising shareholders’ wealth. They consider this a way of boasting about the success and achievements of the management itself. Davis et al. (1997) argued that stewards’
personal needs are mainly satisfied through attaining organisational success, which makes them keen on achieving organisational goals.

Moreover, the stewardship theory recognises other non-financial incentives that motivate managers and affect their decisions. These include the need for achievement and recognition, the real approval of successful performance, and the respect for authority and work ethics. Many scholars have well discussed these issues throughout their literature, like McClelland (1961); Argyris (1964); Herzberg (1966); Muth and Donaldson (1998).

Also, Daily et al. (2003) argued that managers and directors most likely tend to be regarded as proficient decision makers, considering the firm's performance a direct image for their own individual performance and reputation. In this regard, managers ensure that the firm's operations achieve the optimum financial performance, generating the maximum possible returns for shareholders. According to Fama (1980), managers who undertake their steward’s role effectively can manage their careers effectively as well.

Stewardship theory proposes that there are also non-financial motives that influence managers’ decisions. These include a manager's inherent need for recognition and self-satisfaction and their intrinsic respect for both work-ethic and authority (Coleman et al., 2007).

This theory also implies that monitoring costs and controlling efforts should be minimised. Instead, it states that trust should be granted to managers when giving them sovereignty. Donaldson and Davis (1991) stated that the longer the time period managers work for a firm, the stronger the bond becomes between personal ego and corporation.
In addition, the stewardship theory supports inside directors, opposing outside ones. The theory implies that high firm performance is related to the board of directors being composed mainly of inside members. That is due to the insiders having the best knowledge of the firm business, ease of access to operating information, technical expertise and dedication to the firm. As a result, insiders would be able to govern the firm more effectively than outsiders through making finer decisions (Donaldson, 1990; Donaldson & Davis, 1991).

The stewardship theory proposes that the board of directors’ composition, the CEO position, and the board size are crucial elements to ensure that an organisation is governed by effective corporate governance. According to it, a firm is more likely to perform superiorly if it has most of the inside directors on the board, as these are the ones who most understand the business and comprehend its operations. It also proposes that the inside directors are better suited than outside ones to govern the board and, as a result of so, they – the inside directors – could make better decisions (Donaldson, 1990; Donaldson & Davis, 1991).

Other studies supporting this view include Baysinger and Hoskisson (1990), Baysinger et al. (1991) and Boyd (1994). Donaldson and Davis (1991) and Davis et al. (1997) also suggested that CEO duality is more favoured than separating both roles. The reason behind this is obviously due to united leadership. When differentiating between both theories, Muth and Donaldson (1998) supported the stewardship theory, viewing it as a more applicable model of reality. Similarly, when comparing both perspectives, Bhagat and Black (1999) concluded that the existence of a large number of outside directors (agency theory perspective) makes the firm performance much lower than firms having a small number of outside directors (stewardship theory perspective). This means that
many studies supported the stewardship perspective from a conceptual aspect, e.g. Davis et al. (1997), and from an empirical one, e.g. Bhagat and Black (1999).

Coleman et al. (2007) summarise the key factors that the stewardship theory takes into consideration. The first is board size, which the theory encourages to be small for more effective communication and a smoother decision-making process. The second is the board of directors, where the stewardship theory promotes firms to appoint executive directors, for their involvement enhances the decision-making process and guarantees business sustainability. The third factor is the CEO duality. The stewardship theory recommends that the same individual shall hold both positions; the CEO and the chairman of the board, as this prompts quicker CEO decision-making without the need of having to report to the board of directors.

2.5 Theory Integration

Each theory reviewed promotes, from its perspective, the best way by which boards shall deal with board decisions. The board role according to the agency theory should be a managerial one, as well as independent, as this serves as a better mechanism of retaining shareholders’ ownership rights and helping them in monitoring the firm's performance. A different view is viewed by the stewardship theory which states that the board role should empower management; it sees that when the firm's management controls the board, the latter becomes empowered and able to manage corporate assets in a more responsible manner. Resource dependence theory views the board to have strong external links and to have a co-optation role. Stakeholder theory, as its name implies, sees a corporation as acting to maximise the interests of all of its stakeholders, not only its shareholders. This theory sees that the board should put the interests of all stakeholders as a priority.
As summarised above, the agency theory mainly emphasizes how principals and agents have conflicting interests; the stewardship theory, in contrast, sees managers as stewards to a firm, and it sees that the interests of both the steward and the organisation are in alignment. Alternatively, stakeholder theory delves into the dilemma regarding how different groups of stakeholders have diverse interests. Lastly, resource dependence theory highlights the significance of the board as a resource to the firm, and it envisions a role beyond the traditional one (which sees the board as a controlling agent).

From all the numerous theories discussed, the theory most discussed and the one that is most popular amongst scholars and practitioners is agency theory (Jensen & Meckling, 1976; Fama & Jensen, 1983). Agency theory provided the grounds for the governance codes, standards and principles that were developed by a variety of institutions e.g. (CalPERS, 1999; OECD, 1999, 2004; ICGN, 1999, 2005). Shareholders appoint board members, and the board then monitors and controls managerial decision-making processes to ensure that the interests of shareholders will be protected. It is expected that this monitoring role would be performed effectively if the board is composed of independent non-executive directors and if the CEO and the board chairman positions are held by different individuals (Cadbury, 1992; OECD, 1999; ICGN, 1999; Combined Code, 2006). Other alternative theories, however – namely, stewardship theory, resource dependence theory and stakeholder theory – have all recently become prominent and popular.

Others scholars, such as Boyd (1995) and Hillman and Dalziel (2003), tackled this matter differently. These scholars did not limit themselves to one particular perspective. For instance, Boyd (1995) sees that either agency theory or stewardship theory could be correct, depending on the environment under which a corporation is operating. On the other hand, Hillman and Dalziel (2003) integrated agency theory and resource
dependence theory perspectives. They disputed that each board has a certain amount of capital that affects both the board-monitoring process (agency perspective) and the provision of resources (resource dependence perspective). Hendry and Kiel (2004), likewise, claimed that there are several aspects, like the power of the board and the uncertainty of the environment, that influence the process of choosing a specific theoretical framework. Daily et al. (2003) stated that despite the varying perspectives regarding a firm, “many of these theoretical perspectives are intended as complements to, not substitutes for, agency theory” (p. 372).

After reviewing the varying, seemingly conflicting, perspectives and theories, it is best to take an integrated approach to recognize the effects of corporate governance on firm performance, instead of having to stick to one particular theory. While the agency theory emphasises shareholders’ interests, the stakeholder theory emphasises taking care not only of the interests of the shareholders, but also of the interests of all stakeholders. Along the same lines, Jensen (2001) proposes an enlightened value-maximisation, “which utilises much of enlightened stakeholder theory but accepts maximisation of the long-run value of the firm as the criterion for making the requisite trade-offs among its stakeholders ... and therefore solves the problems that arise from multiple objectives that accompany traditional stakeholder theory” (p. 298). To understand the board process and dynamics more, it is best to integrate several theories instead of considering only one. An approach like this was supported by Stiles (2001) and Roberts et al. (2005), both of whom recommend theoretical pluralism. Table 2.1 summaries the four theories regarding the different views of board of directors.
<table>
<thead>
<tr>
<th>Theory</th>
<th>Role and Characteristics of the Board of Directors</th>
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<tr>
<td>Agency theory</td>
<td>This theory focuses on contradictory interests between principals and agents, and maximizing shareholder returns. It considers separate leadership structure, outside directors and board committees as optimal monitoring devices that will increase the value of firms. Furthermore, independent boards are a means for shareholders to retain ownership control rights and monitor performance.</td>
</tr>
<tr>
<td>Stewardship theory</td>
<td>This theory views the manager as an important agent of the corporation and considers that a combined leadership structure and insider dominated boards are likely to maximize shareholder wealth. This theory also states that the board be controlled by management, which is empowered by corporate assets responsibly.</td>
</tr>
<tr>
<td>Resource dependence theory</td>
<td>This theory considers the board as strong external links and a co-optation mechanism for firms to access external resources</td>
</tr>
<tr>
<td>Stakeholders theory</td>
<td>This theory increases the shareholder returns. However, it is not the sole objective; all stakeholders should be equally honoured.</td>
</tr>
</tbody>
</table>
2.6 Conclusion

To summarise, this chapter consisted of three parts. The first part outlined what corporate governance is with accordance to how various scholars define it. After defining what corporate governance is, the second part outlined the emergence of corporate governance and the factors that lead to this spread of corporate governance. The last and most important part of the chapter described the four main theories of corporate governance, namely: agency theory, stakeholder theory, resource dependence theory and stewardship theory. Each of those theories has a different approach to the relationship between the agent and the principal, and, consequently, where a conflict of interest arises between the agent and the principal, each of the theories has a catch on how that issue could be resolved.

The following chapter will overview the recent developments in corporate governance in Egypt, and the chapter will also shed light on some of the studies that were carried out in Egypt regarding Egyptian corporate governance.

Additionally, the effects of corporate governance on firm performance will be illustrated, mainly focusing on the characteristics of the board of directors and the audit committee, giving details as to how each affects a firm's financial performance.
Chapter Three: Literature Review

Part One: Corporate Governance in Egypt

3.1 Introduction

The former chapter discussed the definition of corporate governance; corporate governance has no one definition amongst scholars. Several definitions of corporate governance from different scholars around the world were laid out as to give a broad meaning to the term. Chapter Two reviewed the four theoretical perspectives of corporate governance; these perspectives give a better understanding and a more in-depth analysis of corporate governance. Those four theories are agency theory, stakeholder theory, resource dependence theory and stewardship theory. This chapter is divided into two parts: part one will give a review of the recent developments and improvements in the Egyptian market regarding corporate governance. It will also discuss the few studies done in Egypt regarding the relationship between corporate governance and firm performance in the country. While part two will focus on the effects of corporate governance on firm performance with a main focus on the characteristics of the board of directors and audit committee, and how the two affect a firm's financial performance. Finally it identifies the gap in the academic literature and develops the conceptual framework for the study.
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Corporate Governance in Egypt

3.2 The Egyptian Market

EGX is one of the world's oldest stock exchanges, and it is composed of two separate exchanges. The first is the Alexandria Stock Exchange, established in 1888, and the second is the Cairo Stock Exchange, established in 1903. Those two stock exchanges have been in competition ever since they were formed. Recently, the two exchanges have been merged into one, as they are now both governed by the same board of directors, and they now both share the same trading, clearing and settlement system.

Before the early 1950s' nationalisation of industry and adoption of central planning policies, EGX was the fifth most active stock exchange in the world. The policies integrated by the government during the early 1950s significantly reduced the stock exchange's activity. This resulted in the market remaining mostly inactive up until the 1980s. The stock market in the country started operating again in the 1990s only as a capital market, when the market underwent financial reforms that resulted in the country's financial institutions, along with their operations and policies, to become in close proximity to internationally-accepted principles and practices.

This reactivation of the Egyptian stock market in the nineties occurred within a thorough development in deregulating and privatising the economy. This led to the development of the stock exchange in becoming a medium to divert state-owned enterprises through public stock offerings and as a means that would enable and assist the private sector in raising capital.

The Egyptian stock market is subject to numerous rules and regulations that govern the establishment and operations of the firms within the Egyptian market. What follows are the laws that govern the operations of the Egyptian stock market.
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The Capital Market Law (Law 95/1992)

This law came into effect in 1992 and replaced law 161/1957. This law lays down the main regulatory framework for the stock market's activities. It does so by recognising the primary and secondary markets, the organisation of the market's listed firms and stockbrokers, and the provision of a modern mechanism to trade and invest in the market and the exemptions and incentives which boost the market.

One of this law's main advantages is how it recognises the central role of the Capital Market Authority (CMA), and it also recognises the powers this law gives it to organise and control Egypt's market. After this law had been enacted, the CMA played an important role in modernising Egypt's market by authorising listed firms and by participating in the monitoring function of the stock exchange so that it would have fairer deals and so that it would be more transparent.

Capital Depository Law (Law 93/2000)

The Capital Depository Law lays down the legal framework for Egypt's central depository. It identifies rights of the shareholders and their legal ownership, which passes on the settlement date from the seller to the buyer of securities when the trade is actually settled at the stock exchange.

This law also recognises foreign ownership rights, similar to those of Egyptian shareholders, and it provides a mechanism for membership and operation of organisations that carry out bookkeeping activities for themselves or for their clients.

The law also initiated the legal recognition of nominee trading and the depository’s obligation to establish and control a guarantee fund. This guarantee fund ensures that
the settlement of trades is done on time so that a smoother market operation can be achieved.

**The Companies Law (Law 159/1981)**

This law provides the framework for establishing and operating firms in the Egyptian market. The law covers all aspects a company may face during its lifetime, such as establishment procedures, management and control responsibilities, and extent of owner liability.

**The Privatisation Law (Law 203/1991)**

The Privatisation Law is the central legislation that develops the privatisation program and that encourages economic reform. The aim of this law is to transfer government-owned firms into self-run holding ones under which public sector firms can be given more flexibility in running their business operations away from the control of the central government.

This law is considered to be a transitory phase to allow public-sector firms restructuring mechanisms so that they would become more attractive candidates for privatisation. This law regulates firms that are more than 50% owned by the government. When the government's share of ownership drops below 51%, the firm's regulation passes from Law 203 to Law 159.

**The Investment Law (Law 8/1997)**

This law was passed as to encourage foreign direct investment in specific industries and sectors of the market. The law provides guarantees against asset expropriation, tax exemptions, freedom from price controls, and appealing custom tariffs.
Additionally, in association with the CMA, EGX established a number of listing rules for firms that wish to be listed and traded on the exchange.

In general, the French civil law is the main source of Egypt's corporate legal framework (Companies’ Law 159/1981). Yet, the Anglo-American common law concepts prevail in the Capital Market Law and the Central Depository Law. At present, there are ongoing efforts to plan and discuss a unified law that would substitute various laws and discrete provisions. This unified law shall ensure that all businesses in Egypt stick to the same law following a rationalised regulatory system, which would help investors to deal with administrative authorities, as well as promoting transparency. It is expected that by replacing the current laws with the unified companies’ law, conflicts and obstacles to local and foreign investments in Egypt would be removed.

There are now efforts to draft and discuss a single unified law to replace numerous laws and dispersed provisions. This unified law will remove any conflicts or hindrances to local and foreign investments in the Egyptian market (Dahawy & Samaha, 2010).

3.3 Corporate Governance in Egypt

Because of Egypt's nature as a developing country, progress in it is not as swift as that of a developed nation. What is more is the struggle to enact new rules and regulations. To understand the development of corporate governance in Egypt, what is presented next is a chronological order of the development of corporate governance in the Egyptian market.

In the late 1990s, Egypt recognised the importance of gaining both the international community's and the foreign direct investment's trust. To that end, Egypt tailored and implemented an economic reform program so wide that it covered its whole economic
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spectrum (Soliman, 2013). The Egyptian government revived its capital market by improving its reputation and by developing investor confidence as part of its privatisation program (Samaha, 2010). Resultantly, the government realised that to reach such aspired goals, its corporate governance was in need of a high-level of development.

Because of so, the term corporate governance was not familiar in Egypt until the late 1990s. However, the constitutional framework that governs its operation is based on some laws that originated in the 1980s, which meant that the framework was an outdated one. The legal framework that influences the concepts of corporate governance in Egypt is being governed by two main groups of laws: the first group governs the incorporation of firms in Egypt, and the second governs firms listed in the Egyptian stock exchange (EGX).

The main objective is to attract new foreign capital and to persuade more Egyptian investors to shift their investments from abroad into the domestic markets instead. This development program is intended to establish sound financial principles, provide reliable corporate information and adopt international accounting and auditing standards (Samaha & Stapleton, 2008). To be able to accomplish such aspired goals, the Egyptian government recognised the need for a high level of corporate governance practices.

There have been three international organisations considered to be predominant in establishing the need for improved corporate governance mechanisms in Egypt. In 2000, when examining the corporate governance policy framework in Egypt, the Privatisation Coordination Support Unit, supported by USAID, suggested that a strong, clear and well-enforced legal framework is needed, together with the availability of greater information disclosure levels and the existence of independent, accountable
oversight (Carana, 2000). The World Bank and the International Monetary Fund (IMF) first started assessing corporate governance in Egypt in 2001, as Egypt was the first Arab country that underwent a ROSC analysis (ROSC, 2001). Their assessment evaluated the practice of corporate governance in Egypt against the principles of OECD regarding corporate governance.

Because Egypt was the first Arab country to undergo such an assessment, the results of the ROSC show that of the Egyptian firms studied, only 62% of those applied the principles of corporate governance. Because of the findings of the ROSC, new rules in Egypt were issued to ensure that firms will implement corporate governance. Thus, not surprisingly, the government examined where it stood on the topic of corporate governance; the examination led to two important resultant measures over the years.

The first was the government's issuance of new rules that would increase the compliance of the firms with corporate governance practices and measures, the most important being the 2002 EGX listing rules (CASE, 2002). These included new disclosure requirements for corporate governance, detailed requirements for preparing and presenting financial reports, supplementary disclosures about the members of the board and contracts signed with other firms, auditors and audit committees. Furthermore, new rules have been applied to force the country's listed firms into making a commitment to the requirements of corporate governance. If the firms did not abide by those new rules, they would be unlisted from the stock exchange.

McKinsey Consulting made a survey of 200 institutional global investors and concluded that amongst all respondents, 80% were willing to pay a premium for well governed firms, and, outstandingly, this premium could be 40% in the case of Egypt (McKinsey, 2002).
The second resultant measure was how the Egyptian government managed to improve the legal, regulatory and institutional frameworks for its corporate governance. In 2003, under the Ministry of Foreign Trade, the government founded the Egyptian Institute of Directors (EIOD) and launched rules and regulations of corporate governance for both the private and the state-owned firms. The EIOD works jointly with an array of international organisations, such as the United Nations, World Bank, International Finance Corporation and the Centre for International Private Enterprise (CIPE). The EIOD’s purpose is to help spread and improve corporate governance practices not only in Egypt, but also in the Middle East and North Africa (MENA) (EIOD, 2003).

In 2004, the World Bank reassessed the implementation of corporate governance in Egypt and noticed that the percentage of applied principles in the Egyptian firms increased to 82 per cent (World Bank, 2004). Though the second assessment realised improvements that were only related to basic shareholders rights, no change was noticed regarding the stakeholders’ role in corporate governance. Amongst the policy recommendations resulting from this assessment is the strengthening of the Egyptian CMA and EGX and the need for a code of corporate governance to be developed by the EIOD.

The first Egyptian Code of Corporate Governance (ECCG) was introduced in 2004 under the supervision of the Ministry of Investment and the General Authority for Investment and Free Zones (GAFI). This serves as guidelines that shall be followed by those firms listed on EGX (Soliman, 2013).

The rules of this code shall supplement the corporate-related requirements, rules, regulations, and the executive decrees regarding their implementation. Furthermore, the code’s recommendations are not mandatory but supplementary to legislation; they rather
promote and regulate transparent and responsible behaviours in managing firms in accordance to international standards.

In 2006, the Ministry of Investment announced the Code of Corporate Governance for state-owned corporations. This code was based on the report of the OECD on privatisation and corporate governance of state-owned assets and the ECCG, which was issued in 2004. The code introduces the principles of how to govern state-owned firms by presenting an organisational and legal framework for state-owned firms, and it highlights the actions of the state as a regulator in contrast to its role as an owner. The code also presents the principles for equitable treatment of all shareholders, such as the state being a shareholder, the conflict of interests issue, the issues of disclosure and transparency, and the responsibilities of the board of directors (Soliman, 2013).

Various non-profit organisations had also begun recognising the importance of corporate governance in developing the Egyptian market. The Egyptian Junior Businessmen association (EJBA), which was founded in 1999, focused on creating an awareness campaign that was composed of several events including workshops and roundtables (Dahawy & Samaha, 2010).

Additionally, in 2006 the EJBA issued the Corporate Governance Manual for family businesses, which is considered the first guide to Egypt's and MENA's family firms that seek growth, continuity and sustainability (Dahawy & Samaha, 2010). Bremer and Elias (2007), who examined the challenges and assessed the progress of corporate governance in Egypt, conclude that the Egyptian market is starting to appreciate the need for good corporate governance.

The Egyptian government changed the legal and regulatory framework to provide stricter insider trading-related provisions, to reinforce disclosure rules, to compel firms
to institute board-level audit committees and to modernise the accounting and auditing frameworks so that they meet international standards (UNCTAD, 2007).

The CMA created a special corporate governance department, and EGX consistently began enforcing its listing rules. This led to a remarkable wave of firms being delisted from the market. On the other hand, actual corporate governance practices of EGX's listed-firms continue to lag behind the law in the books, particularly the firms that are outside EGX-30 (ROSC, 2009).

The focus of this research is examining the role of corporate governance in improving firms’ performance for the Egyptian listed firms in the period between 2004 and 2012. Therefore, the preceding section will provide a thorough discussion about the major trends in the Egyptian economy and the Egyptian stock market during the study period.

The stock market has positively received the major economic and political developments that have occurred in the year 2004, which have served to place the exchange on top of the global market, as well as the emerging markets. The year 2004 can be divided into three major phases, each of which reflects the market performance associated with the political and economic developments that have taken place during this period:

**Phase One**

In the beginning of 2004, there was a boom due to the strong performance of both the global and the emerging markets in 2003. The main factors that have helped in driving the market up at that time were the relative stability of the foreign exchange market and the establishment of the guarantee fund by the Central Bank of Egypt at the end of 2003, which guarantees the repatriation of foreign investors’ proceeds from securities trading in the Egyptian Stock Exchange. This upward trend was fuelled with Egypt’s
removal from the list of non-complaint countries in combating money laundering in March 2004 side by side with the enactment of European Union (EU) agreement in June 2004. (EGX report, 2004)

**Phase Two**

When a new prime minister (Dr. Ahmed Nazif) is appointed on July 8, 2004, followed by a Cabinet reshuffle soon after, this phase starts. The market reacted positively to this news, particularly after the announcement of the revival of the privatization program.

**Phase Three**

During that period, a number of reform measures were announced. The first of these was with the tariff and custom restructuring which was issued by the Minister of Finance on September 9th, 2004. This was followed by the announcement of the restructuring of public banks on September 14, 2004. These announcements had a positive impact on the market, resulting in a sharp increase that became even steeper after the announcement of a new draft tax code, on 21 December 2004. Another thing that pleased the public was the appointment of new reformers in the top level posts of the economy. These appointees were expected to implement a number of long-awaited reforms in the areas of, taxation, customs, banks and privatization. What is also worth mentioning is that the Taba accident, on the 7th of October, had a marginal effect on the performance of the stock exchange. (EGX report, 2004)

Furthermore, on December 14, 2004, Egypt signed the Qualified Industrial Zone Protocol (QIZ) which was expected to stimulate foreign investment in Egypt as well as promote Egyptian exports to USA. One other equally important factor that maintained the elevating trend of the market till the end of the year was Fitch Rating revision to the outlook on Egypt's long-term local currency rating of 'BBB' to ‘stable’ from ‘negative’. (EGX report, 2004)
The next year, 2005, presented a turning point in Egypt’s economy. The fierce economic reform measures that were taken, along with the series of sweeping political reforms implemented by the government led the Egyptian economy to grow by 5% in fiscal year 2005/2006, with World Bank expectations to reach 8% in the coming 3 years, (2006-2008) up from a previously targeted growth of around 6%. Accordingly, the Egyptian economy climbed on top of the developing countries in terms of the implemented reform programs during 2005 (EGX report, 2005).

This outstanding performance was driven by the External sector, which showed high growth levels reflected in the balance of payments surplus that registered its highest record ever at $ 4.5 billion during 2004/2005 and also by the Domestic sector.

It is also worth mentioning that of this surplus, $ 3.76 billion occurred during the first half of 2005, owing to the growth in foreign direct investment (FDI) flows and the Egyptian exports rather than the tourism and Suez canal proceeds, which increased by only 15.6% and 11.7%, respectively. The Egyptian exports, however, grew by 32%, resulting primarily from the hike in non-petroleum exports which recorded a 31% increase over the year before, to settle at US$ 8.5 billion.

The main contributor to this surplus was the FDI, which skyrocketed by a robust 858% over fiscal year 2004/2005, to culminate at US$ 3.9 billion, which is actually the highest ever annual FDI achieved in Egypt. Thanks to the fast pace of economic reform adopted by the government since its appointment in July 2004, flows worth US$ 2.1 billion were realised during the first half of 2005, which is six folds the FDI flows to Egypt during the same comparable period of the year before. The efforts of the Ministry of Investment to support the investing environment and to attract more foreign and local investments also aided in this boom.
In that way, the government added a new chapter to the current Investment Guarantees and Incentives Law 8 of 1997 in order to facilitate investment procedures. This included accelerating the establishment of new companies with a maximum of 2-3 days, the establishment of a number of “one Stop Shops” in various governorates, as well as unifying the dealing system with only one organization - that is the General Authority For Investment and Free Zones (GAFI).

The privatization program as well kicked off this year, with proceeds surpassing the L.E 15.8 billion, which are more than eight folds the value realised during the past 3 years. For the first time in years, the privatization program works in conformity with a well-defined plan to sell and manage the public assets. As for the financial restructure front, the government has taken serious steps to improve the efficiencies of the banking and the non-banking sectors through restructuring both of them.

Within the banking restructuring program, 2005 has witnessed the largest acquisitions and mergers deals in the banking sector. This aims at the creation of big conglomerates capable of attracting more domestic savings and competing in the global arena as well. Last but not least, the political reform which the government implemented in 2005 allowed for multi-candidate elections for the first time in Egypt, helped in boosting both domestic and international confidence in the Egyptian market. At the end of December 2005, the traits of the new Cabinet were announced, where the key economic-related ministries are expected to remain together with some business men and reform oriented new comers. Mergers between some ministries were also expected to take place. This Cabinet was also expected to continue the reform at a faster pace, a message that was well perceived by all participants in the market.
Chapter Three

Corporate Governance in Egypt

The Stock Market in its turn broke new records in 2005, outperforming both developed and emerging markets, as per Standard & Poor’s and Morgan Stanley indices, which pushed the Newsweek magazine to choose Egypt as one of the best 10 stock markets in the world in 2005. This was not only witnessed in the outstanding performance of the Egyptian market but also in the institutional development witnessed in 2005, where the government—particularly the Ministry of Investment—gave special attention to the stock exchange rendering it the main gateway for domestic and foreign investments.

The privatization program was powerfully back on track in 2005 and the Ministry of Investment showed commitment towards its activation through the stock exchange. Nineteen privatization deals, worth L.E 14.9 billion, representing 94% of total privatization proceeds, were successfully conducted through the stock exchange during 2005.

There was a significant increase in investments that were injected into the market in 2005. This led the average daily traded value to break the threshold of L.E. 1 billion, for the first time, in the last couple of weeks of the year, versus an average of L.E. 500 million during the first half of the year, with around 35,000 transactions per day.

In turn, this has caused investors to direct their investments towards the Egyptian Stock Market, especially non-Egyptian investors, whose participation has spiked in 2005, exceeding a third of the market’s turnover, with a net equity inflow of L.E. 6 billion compared to 2004’s net equity inflow which was L.E. 266 million only. This increase in investment piqued the interest of international organizations such as CASE, following which the World Federation of Exchanges granted Egypt full membership, the first Arab country to do so. This success has also inspired the development of structured products on Egyptian underlings by many financial institutions.
Towards the end of the year, in October of 2005, the intra-Day trading system was established and implemented. This system allows for the buying and selling of active stocks in the same day and was grasped and implemented gradually, recording over L.E. 380 million in just its first two months. As the beginning of 2006 came in, new financial mechanisms were planned to increase market efficiency and further augment its liquidity, including short selling, margin trading, and online trading. In summary then, the advancements made in the year 2005 can be more easily understood by splitting them into two phases:

**First Phase**

The Egyptian Stock Market fared quite well in 2004, starting the following year off on a good foot. This success can be attributed to the appreciation of the Egyptian pound along with the elimination of a parallel market following the establishment of the foreign exchange Inter-bank market. These advancements resulted in increased investor optimism about the performance of the Egyptian economy. On January 17, the long-awaited Anti-Trust and Competition Protection Law was passed and the Taxation Law was approved, both re-affirming a strong government commitment to business reform. This climate of economic success translated into a positive review from Standard and Poor’s: increasing the outlook on Egypt from negative to stable.

Also included in phase one was the implementation of a system known as the automated linking system between the clearing system in Misr Clearing Settlement and Depository company and the trading system in CASE. This system was implemented in an effort to create a Straight Through Processing environment. This has had several benefits, including the elimination of illegal short selling, the reduction of cancelled transactions, an increase in market liquidity and the assurance of timely and proper settlement.
Accompanying and reinforcing this economic success was positive political reform in the form of constitutional change allowing for multiple presidential candidates for the first time in Egypt’s history. This sparked a market increase of 6% in one day, and continued for several weeks in the early spring of 2005, netting over 14% gains.

The combination of political and economic reform translated into an increase in investor confidence in the future of Egypt’s respective stability. Resulting from this increased confidence was expansion of investment flows in the market. CASE 30 indexed upward as a result and settled at 4829 points: a robust increase of 88% within just the first half of the year.

**Second Phase**

Following the presidential elections of the latter half of the year, the CASE 30 index was pushed upward by more than 10%. Egypt’s membership in the World Federation of Exchanges (WFE) further pushed a market increase of 7% in the first week of November. Yet another positive influence was the Central Bank of Egypt’s second reduction of the interest rate on deposit, directing inflows increasingly to the stock exchange and pushing the market up.

The new Cabinet was announced at the end of the year, which was a positive indicator for a faster, continuing reform for the market. The last 2 days of 2005 witnessed a 3.2% spike. The year ended with the CASE 30 index at 6325 points.

The Egyptian Market was strong and resilient throughout 2006 and maintained a steady performance. It has also shown remarkable sustainability despite three major blows that hit the markets of the Middle East and concluded the year with a year-on-year growth of approximately 10%. During the second half of the year, the Egyptian market witnessed
a 45% gain during the second half of the year, compared to losses exceeding 53% in leading regional markets in the same timeframe.

The momentum gained from the Egyptian economy in the last couple of years was the primary driving force for this solid performance. The economy reached its highest growth rates in 20 years, peaking at 7% in the fiscal year 2005/2006, with expectations from the World Bank to reach 8% in the years to come, supported by the constant commitment to economic reform and flexible fiscal policies. This economic growth was accompanied by an expanding openness of the Egyptian economy and an active implementation of the privatization program. (EGX report, 2006)

This has added to the solidity of the Egyptian capital market and its attractiveness to non-Egyptian investors, pushing FDI to rapidly ascend during the fiscal year 2005/2006 to peak at approximately $6.1 billion. Simultaneously, the net foreign inflows in the stock market reached approximately $1 billion after excluding major deals, with 30% participation in value traded in that year. This has subsequently helped increase Egypt’s foreign reserves to $26 billion at the end of December 2006, securing the exchange rate of EGP-USD at approximately L.E. 5.71 for US $1, to add to investors’ confidence in the Egyptian market.

The market kicked off the year once again with a good start, maintained by the exceptional performance in 2005, overcoming performances of emerging and developed markets. This advancement was further enforced by the announcement of expansionary plans by some blue chip companies, the announcement of the privatization of the Bank of Alexandria, which will include a 20% IPO, with more potential candidates for privatization on the auction block, alongside the decision of the CBE to cut discounts and deposit/lending rates. These circumstances have driven CASE 30 index from 6000
points to 8000 points for the first time in history, exceeding LE 2 billion in daily trading value and scoring an outstanding 25% monthly gain.

That market witnessed once again a surge in foreign investment, a result of increasingly attractive prices. These investments helped the market pull through a rough patch in regional economic trends, and managed to close with only a 6% decline. This was redeemed the very next day with a 7% increase, remaining at a gradual incline into mid-April. Coinciding with this was CBE’s announcing of yet another cut in deposit and lending rates (8 and 10 per cent, respectively. Along with phenomenal corporate quarter results, these conditions allowed for a record CASE 30 index gain of 17% for the first quarter of the year.

The market’s resilience was tested following these gains with an unfortunate terrorist attack in Dahab, a popular Egyptian vacation destination, during the last week of April. The Egyptian market bode quite well through this however, proving worthy of investor confidence. In the three consecutive days following the attack, the market still managed to record a CASE 30 index increase of 1.6%. May brought with it Egypt’s first World Economic Forum, held in Sharm el-Sheikh, wherein international institutions reaffirms their praise and confidence in Egypt’s successful economic performance. Consequently, both Fitch and Moody rating agencies raised their ratings for Egypt’s economy: rating its debt outlook as stable and raising its private sector foreign financing rate, respectively.

Egypt continued to outperform its neighbours through the second half of 2006 despite a surge in conflict and tension in the Middle East. This phase of the year was marked with optimism as Egypt awarded a third mobile license covering companies namely Etisalat, The award grossed a remarkable LE 16.7 billion in proceeds, which were, in turn,
invested in development projects and used to alleviate budget deficits. The consortium was expected, in addition, to make further direct and indirect investments. Consequently, the CASE 30 index made its largest weekly increase in the last two years, increasing by 12.5%.

Riding on strong corporate earnings from the first half of the year, Egypt, despite the Lebanon war which hit hard the economies of much of the region, emerged once again above the threshold of 6000 points that summer. Yet another positive impact in August of that year was the privatization of government-owned land in Sidi AbdelRahman. The land was repurposed for touristic projects, transferring to the jurisdiction of an international touristic company with over LE 10 billion worth of investments and driving Egypt's trading activity up for the month.

The economy found itself subsequently riding out yet another obstacle as the Central Bank of Egypt put out two consecutive raises, raising deposit rates to 8.75% and lending rates to 10.75%, coinciding with rising domestic demand and inflationary pressure. Egypt’s economy proved its strength once again by emerging almost entirely unaffected by these changes, and closed the year with a remarkable CASE 30 index of 6937 points.

Egypt continued to outperform other emerging markets into 2007 despite numerous shocks to both emerging and developed markets globally. Not only was the market outstanding in its resilience and resistance to these obstacles, but it also managed a remarkable growth rate, breaking new thresholds and outperforming regional markets by a landslide. (EGX report, 2007)

Emerging from this success was the exceptional momentum of the Egyptian economy, now two years strong. As 2007 drew to a close, Egypt’s economy peaked, reaching its highest growth rate in 25 years: a total of 7.1%, with the IMF fully expecting it to hit
8% in subsequent years following the same momentum. The government planned, in addition, to foster improved investment through the removal of obstacles such as high customs and tariffs for both domestic and international investors.

As a result of these initiatives, the World Bank recognized Egypt as one of the top countries globally in 2006 in investment attraction and business climate. Following this, the FDI recorded an astounding LE 7.1 billion within just the first 9 months of 2007, and projected a closing of LE 11 billion by the end of the year, sparking further international recognition. The UNCTAD, for example, ranked Egypt among the most investment-attractive countries on the entire African continent.

Additional successes included a balance of payments surplus of $5 billion and a foreign reserves increase to $31.5 billion by the end of November of 2007, an almost 27% increase. This progress manifested itself in a record high Egyptian exchange rate against the American dollar, with one dollar registering in at LE 5.5, as compared to LE 5.7 the previous year.

Despite rigid CASE listing rules resulting in a decreased number of listed companies, market capitalization jumped 44% since last year, forming 105% as opposed to 76% of the Gross Domestic Product (GDP) at LE 768 billion. Additionally, trading companies also fared well, rising from 68% in 2006 to 77% during 2007.

Success has also come with increased public interest and awareness in the stock exchange resulting from initiatives, programs, and campaigns organized by CASE. In 2007 alone, CASE held “Borsa Step x Step,” a beginner course demystifying the stock market, in over 10 campuses in several Egyptian governorates, including five campuses in Cairo alone: American University in Cairo (AUC), German University in Cairo (GUC), Cairo University, Ain Shams, and Helwan University, and other top universities
around Egypt, most notably Alexandria University, the Arab Academy for Science Technology and Maritime Transport, Mansoura University, Monufeya University’s faculty of commerce, and the central Conference Centre in Bani Suef.

The market was sustained at the beginning of the year due to the decision by the government to decrease import duties for 1,114 items, along with the CBE’s decision to maintain overnight deposit and lending rates at 8.75% and 10.75% respectively, incrementing the CASE 30 index to 7500 points. Meanwhile, the decline in international markets in late February, with the US market recording the most significant losses since September 11th, affected the Egyptian negatively for short period of term after which the market rebounded again after the release of positive corporate earnings. The market’s reaction to the decisions was positive, soaring with the trading figures upwards during this period and raising the CASE 30 index to one of the highest climaxes since inception, approaching 8000 points, finishing strong in the first half of 2007 at 7803 points, accomplishing a growth rate of 12% over that period of time.

The beginning of the second half of the year was marked with the signing of the OECD Investment Declaration, a historic event as Egypt became both the first Arab and the first African nation to do so. This brought monumental success as the CASE 30 index surpassed the 8500 threshold for the first time in Egypt’s history. This new milestone, remarkable on its own, did not plateau, but rather continued to advance at an incline of 5.6% in the month of July. The market dealt with a subsequent rough patch in the first weeks of August, following an international trend of sharp market decline, but recovered and recouped its losses in the last week of August following a steep reduction of the US Federal Reserve's interest rate, reaching its lowest rate in 15 years and enabling the recovery of international markets dependent on it.
This improvement saw increased international recognition and praise. The CI (Capital Intelligence credit rating agency) raised Egypt’s credit rating in several categories: raising the short term foreign currency rating from a B to an A3, and raising the respective long term rating from a BB+ to a BBB. Additionally, Egypt was selected as the world’s most improved business reformer in 2007 by the World Bank. Egypt entered September of 2007 on a strong tide, witnessing the launch of twelve sector indices following the introduction of new sectors’ classifications by CASE.

The end of 2007 was marked with further cuts to US Federal Reserve's interest rates to 4.25%, alongside maintenance of CBE deposit rates at 8.75% and lending rates at 10.75%, together fortifying the Egyptian market (EGX report, 2007).

Year 2008 was a troublesome year for world economics and stock markets in general, starting off with an extreme crisis in developed and developing economies and ending with the global financial crisis, which was described as the worst recession globally since the Great Depression of the 1920s that resulted in rapid loss of billions of dollars for international markets. Although the US government and other significantly strong governments took emergency measures and formulated recovery and salvage plans, there were still high doubts and concerns about slipping into a global economic recession in the next period, especially after major countries like the US, Japan, England and other leading economies declared that they have fallen into economic recession.

Despite this, the Egyptian economy proved well equipped to withstand the effects of the global financial crisis. This can be attributed to the economic reform program adopted in 2004 maintaining strong economic activity through the international market turbulence. The economy, naturally, is not entirely unaffected by international trade decline, and exhibited a slower growth rate, but a growth rate nonetheless, as a result.
The Egyptian economy has been enhanced by the economic reforms attempted by the Egyptian government during the last four years, which have made it more durable against the financial crisis’ impact. The Egyptian economy sustained a 7% growth rate over the last two years, alongside a significant balance of payments surplus. This was a result of growing exports revenues, tourism revenues and direct foreign investment inflows, securing Egypt’s position as the largest FDI recipient in North Africa.

Additionally, the Egyptian Banking system was in a better condition than many others. This was a result of the Egyptian government’s contributions in the reformation of structural banking since 2004, which have given the banking sector a significant competitive edge. The mortgage finance risk did not negatively affect the Egyptian banking sector due to its restricted exposure to real estate and mortgage lending, alongside a comparably low loan/deposit ratio, which allows banks to acquire sufficient liquidity.

The Egyptian government attempted to support the Egyptian economy against the aftermath of the crisis by offering a stimulus package of L.E 15 billion. The package would be distributed as follows: L.E 10 billion would be directed towards projects concerning infrastructure, L.E 3 billion would be directed towards exports and L.E 2 billion would be directed towards a cut on sales taxes and customs on capital and intermediary goods. Furthermore, the government has shown great interest in supporting SMEs which compose almost 80% of Egyptian employment and their products are distributed in the local market. Therefore, the government currently targets SMEs heavily, since they have the potential of elevating economic growth in the coming period. As a result, the Central Bank of Egypt has made the decision to exempt banks that provide loans and credit facilities to small and medium enterprises from the 14%
reserve requirements. This is to encourage the development and advancement of these SMEs.

Several international institutions have reported that the adverse effects of the financial crisis will not affect the Egyptian economy as harshly as other economies in the world. The banking company Merrill Lynch reported that Egypt ranked amongst the ten least vulnerable economies affected by the global financial crisis in the world. Standard & Poor’s Rating Services have also affirmed Egypt’s credit ratings, stating that Egypt is able to endure the adverse effects of the global financial crisis thanks to the reforms that have been carried out in different sectors recently.

Far from immune to the fallout of the global financial crisis, Egypt, following the trends of emerging and developed markets around the world, suffered under a spike in investor panic and withdrawal, incurring a CASE 30 index loss of 40% over the year 2008. This is still a testament to the strength of the Egyptian economy when considering comparatively the losses incurred by other significant global economies, with India, Turkey, Russia, and Dubai incurring losses ranging between 62% and 74%.

The reason for these drastic drops is mainly twofold. On the one hand, the rumour that taxes would be imposed on capital gains drove the market down almost 30% within a short span of a few weeks. On the other, the eruption of the global financial crisis catalysed a 42% loss following mid-September of 2008. In combination, these two events dealt a heavy blow to the economy, rolling back many of the economic gains made previously in the first four months of 2008.

90% of the listed companies gained profits in the third quarter of 2008. In consequence, Egypt was able to maintain attractive valuations compared to other countries, with 62% of the companies being traded at a PE ratio lower than 10 times and nearly 29% of the
companies being traded at a PE ratio lower than 5 times. Concerning the dividend yield, its value has doubled during 2008, skyrocketing to 9% towards the end of 2008, which is one of the highest recorded yields among emerging markets.

Despite this crisis, when considered in total, foreign outflows over the year 2008 remain insignificant. Figures reveal that during this period, foreign portfolios were not fully liquidated. Arab investors generated a LE 1 billion net equity outflow, excluding deals, while non-Arab foreigners contributed a LE 40 million inflow following the December decline in foreigners’ sales. When considered with previous years, where, in combination, Arab and non-Arab foreigners recorded a total net inflow of LE 17 billion over the 2005-2007 time period, the outflows recorded under the crisis are comparably minor.

The Egyptian market maintained its attraction of new investors in 2008, by which the number of newly coded investors, including institutions and individuals, was approximately 64,000 investors, making the total number of investors in the market approximately 1.7 million investors. From another point of view, the year was busy with dense activity by institutional investors, especially foreign institutions, with newly coded institutions reaching 1450 institutions that year. Those numbers assured that the Egyptian market was growing increasingly attractive to investors. In defiance of the pessimistic outlook of world economies and stock markets, the Egyptian Exchange made it loud and clear that the global financial crisis will not stand in the way of its development and innovation plans and that it will resume its implementation of the organizational development program adopted in 2004.

The Egyptian Exchange, as the primary provider of liquidity, committed itself to maintaining trading hours for current and potential investors. Furthermore, the EGX
provided issuers with access to growth capital, specifically financing small and medium enterprises, and contributed to the enhancement of the value and transparency of financial reporting.

Relatively, EGX made the decision to incorporate 20% price limits on the orders placed on the trading system for the shares traded without price limits, which was very effective in downsizing the unjustified reduction in prices. Furthermore, the launch of the new trading system was an introduction to the pre-opening session. This system helps determine the most appropriate prices that ensure the best liquidity rate while preventing manipulation. From another point of view, EGX has been consistent with its promotional attempts, which focus on highlighting the competitive advantages of the Egyptian market to domestic and foreign investors. Some of the main focal points are the current captivating stock prices and international reports assuring that Egypt’s economy is one of the least vulnerable economies to the global financial crisis (EGX report, 2008).

Continuing from the previous year, the EGX further promoted its education of the general public through its Borsa Step x Step forum, holding it in universities spanning four governorates: Cairo, Mansoura, Damietta, and Alexandria, in 2008. The program included lectures introducing the basics of investment and trading, as well as the specific ins and outs of the Egyptian market, and increased in popularity, drawing the attendance of over 5000 students.

Taking credit off its outstanding performance in 2007, the Egyptian market began 2008 with record highs: recording over LE 2 billion in trades daily, and achieving a CASE 30 index surpassing 11,000 points. This high was short-lived however, as world market declines and international commodity inflation contributed to a slowdown in the
Egyptian economy. The market managed to rebound briefly in May, recording 11,937 points, a 13% increase since the beginning of the year, but this too was followed with a decline as rising inflation and the previously mentioned rumour of capital gain tax imposition took a toll on investment activity and the market saw a subsequent decline.

In detail, contributing factors to this crisis included the mid-September bankruptcy of the American Lehman Brothers Bank, along with the Merrill Lynch and AIG collapse following significant mortgage losses. Merrill Lynch was subsequently bought out by Bank of America, and the American government, frantically attempting to put a stopper on this collapse, lent AIG approximately US $85 billion.

The market saw a brief improvement during the last few weeks of the year, caused by foreign inflows. This came as a result of the Egyptian government’s reform measures that were announced to cope with the adverse effects of the financial crisis on the Egyptian economy. This followed local and international attempts to alleviate the effects of the economic crisis, examples of which include emergency rescue plans adopted by the US and a Federal Reserve interest rate cut to a range between zero and 0.25 per cent, one of its lowest levels, almost doing away with interest entirely to boost international investment and economic activity.

It is worth mentioning that the global financial crisis did not negatively affect the Egyptian banking sector due to its restricted exposure to real estate and mortgage lending, alongside a comparably low loan/deposit ratio, estimated at 50%, which allows banks to acquire sufficient liquidity.

The year 2009 was a tedious and demanding year for all developed and emerging economies. The year showed to be a true challenger of the economies’ capacities to endure the reverberations of the global financial crisis, which was described as the worst
recession globally since 1929’s Great Depression. However, the Egyptian economy performed well in 2009, with its performance being described as “better than expected” by numerous international institutions. Despite the predictions that the financial crisis would negatively affect the Egyptian economy by slowing down the growth rate to 3-4%, the Egyptian economy performed much better by achieving a 4.7% growth rate during the fiscal year 2008/2009. This rate is one of the highest growth rates when compared to peer countries. Merrill Lynch has described the Egyptian economy as “a safe haven for investment in the middle of the crisis” as result of this performance.

The Egyptian economy saw a comparably speedy recovery. Even though foreign investments decreased in the fiscal year 2008/2009 by 39% reaching US $8.1 billion, which was 27% better than expected, since the economic performance began to accelerate in the last quarter of the fiscal year 2008/2009, whereby direct foreign investments increased by 45% when compared to the percentage at the same time the year before. Similarly, foreign reserves increased significantly since May to hit US $34.1 billion in November 2009. This was after a withdrawal of 9% was experienced during the first four months of the year 2000, reaching US $31.2 billion (EGX report, 2009).

The inflation rate was one of the most important economic indicators that had shown notable improvement in 2009. It retreated significantly to reach 9% in August. This was despite the increase that happened once again to exceed 10%. This remarkable improvement gave the Central Bank of Egypt the chance to decrease the overnight deposit and lending rates 6 successive times during 2009, reaching 8.25% and 9.75% respectively.
Boosted by its strong economic performance in 2009, the Egyptian Market was quickly able to recover despite the economic crisis. Despite a brief Interruption caused by the debate that crisis at the end of the year which affected several stock market globally Egypt's Market was able to take off by 83% from its lowest point in February of 2009 and by a total of 35% over the year.

In addition, the Egyptian Exchange maintained high trading records in 2009. The total trading volume recorded 37 billion securities, a total rise of 43% compared to the previous year. The global financial crisis did not go without impacting the Egyptian economy however, and the total value traded declined by 15% in 2009 as compared to 2008.

The financial crisis did not impede the capital market plans, as the year 2009 presented a number of significant events; most notably was establishing the Egyptian Financial Supervisory Authority (EFSA), which is a conglomerate, composed of the Insurance Authority, the Capital Market Authority and the Mortgage Finance Authority, along with the financial leasing, factoring and securitization activities under one entity.

Towards the end of the year, EGX amended its listing rules to enhance market liquidity in the Egyptian Market. Companies were granted a grace period following the amendments into the beginning of 2010. Hence, companies that did not comply by the end of the grace period were subject to delisting. Notably, the companies subject to delisting represented less than 8% of EGX trading aggregates, and hence were negligible and had little effect on trading activity.

The global economy has healed significantly in the year 2010, with an approximate growth rate of 3.9%, in contrast with 1.5% and (-2.2%) recorded in 2008 and 2009, respectively. (The World Bank- Global Economic Prospects January 2011). The
recovery of the economy is, yet, not regarded as enough to cause the surge that can completely extinguish the negative effects of the global financial crisis.

The following fiscal year was marked with continued growth, growing at a rate of 5.2% as compared with 4.7% in the previous year. The most notable increase in growth rate occurred in the third quarter of 2010, from July to September, reaching a 5.5% growth. Increase in domestic demand and plans to stimulate Egyptian exports forecast a maintenance of this positive momentum in the coming years. Additional notable advancements include growth in the energy and gas sectors in Egypt and a forecasted expansion of infrastructure projects by the Public-Private Partnership (PPP).

Resulting from this significant growth was the recognition of Egypt among one of the best 6 emerging markets globally by The Economist. Egypt was placed among a group of countries labelled collectively as the “CIVETS” (Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa), recognized for their potential for growth in the next decade. In addition, the Egyptian external sector realized a surplus of 3.4 billion dollars during the 2009-2010 fiscal year, bouncing back from the 3.4 billion dollar deficit the previous year. Thanks to structural reforms aimed at promoting investment and facilitating business, the Foreign Direct Investments recorded around 6.8 billion US dollars in the 2009-2010 fiscal year despite the crisis.

Ending the year with 15% in gains, the Egyptian Exchange has declared the year 2010 to be the year of regaining investors’ trust in the Egyptian market by creating and implementing regulatory reforms aiming to improve the market integrity and efficiency. Egypt ranked third among Arab markets, falling behind Qatar and Casablanca, which achieved 25% and 15% growth, respectively. Amongst emerging markets, the Egyptian market surpassed the average return recorded by emerging markets, as it outperformed
China, Czech Republic, Hungary and Brazil as well as other markets that withdrew during the year. According to the Morgan Stanley Index (in USD terms), the Egyptian market achieved a 9% growth rate and a 15% growth according to the Morgan Stanley Index (in local currency terms), in contrast with an average of 16% (in USD terms) and 12% (in local currency terms) recorded for emerging markets.

With an EGX 30 index surge of 15% over the year, the Egyptian Market continued to outperform many Middle East stock indices during 2010. Notably, the country's GDP was set to increase by 5.1% this year, promoting economic optimism and placing itself among the healthiest economies in the region. The year was not without turbulence however as the market encountered challenges resulting from litigations that affected the real estate sector along with pressure experienced by some Blue Chip companies and overseas markets emerging out of the uncertainties surrounding negotiations for acquisition. (EGX report, 2010)

The unforeseen obstacle to the projected growth the following year was the revolution that occurred on the 25th of January in 2011. Deviating from its previous trend of withstanding economic crises, the Egyptian economy was dealt a heavy blow as it faced both internal and external pressures simultaneously. Internally, following the ouster of the old regime was as increase of political and economic tensions during the transitional phase. Resulting from this was an unprecedented economic drawback to one of its lowest level in history. Reserves began to diminish as budget deficit and revenues hit a sharp decline. Consequently, foreign investment reached its lowest levels in seven years, recording only 2.2 billion dollars in the 2010/2011 fiscal year. An additional blow was dealt through the 4 time downgrading of the government bond credit in just one year (EGX report, 2011).
The situation was not better on the external level; with the intensifying of the economic crisis caused by the deterioration of the debt pinch in the USA and the demotion of its creditworthiness. Furthermore, the US debt crisis affected more countries, especially European countries, which constituted a serious threat to the global financial system, risking increased economic uncertainty and financial instability. Simultaneously, fears of a global recession are strong, causing the global market performance to vigorously deteriorate.

Despite this, it is important to note that most of the losses incurred occurred prior to the 28th of January, reaching a total a 50% year-on-year losses. 20 of these 50% were lost prior to the revolution, while the remaining 30% spanned over the subsequent 9 months. Notably the Egyptian Exchange fared similarly to other foreign markets impacted by economic crisis. In fact, the Egyptian Market was in a better place than many other global markets undergoing internal and external crises. This astounding performance will be highlighted in subsequent analysis.

To ensure the maximum protection of investors' rights, EFSA has carried out numerous precautionary measures for trading continuation on EGX. First, price limits on listed shares were modified, according to which trading will be suspended on a stock for half an hour after a 5% change and will be fixed, after which trading will resume until the end of the trading session after a 10% change. Intra-day trading will be suspended.

Numerous rules and measures have been managed during the trading suspension period in line with disclosure which obliged listed companies to continuously disclose their administrative, operational and financial status. For companies who fail to comply, trading would be suspended.
EFSA and EGX, in an attempt to achieve increased market protection, switched to a more legislative focus in 2011. These precautionary measures subsequently minimized market decline following reopening. Yet another amendment to listing rules was approved in an effort to raise transparency levels in the Capital Market. In addition, the EFSA, in an attempt to develop new investment tools, issued a preliminary approval on the rules governing the issuance and trading of sukuk. This approval was made in the hopes of attracting more investments into the Egyptian Capital Market.

As the year closed, the specialized activities standards were amended to include larger numbers of listed companies and intraday trading rules were altered and reactivated after being hindered post-revolution.

Average daily trading achieved approximately LE 716 million in 2011, decreasing from LE 1.3 billion in 2010 due to the events in transitional phase which occurred simultaneously with the global crisis. Notably, there was a severe decline in the average daily trading in the last quarter of the year, recorded at LE 255 million. Even though the economic conditions were grim, 79% of listed companies procured profits during the first half of the year.

To restore foreign investor confidence in the Egyptian Market, the Egyptian Exchange Management undertook several promotional campaigns abroad. These campaigns, largely aimed at the Gulf region, Europe and the United States, attempted to improve the image of the Egyptian economy internationally. One tactic employed by the Egyptian Exchange was the invitation of a number of public figures and representatives of various institutions to the opening of trading sessions, drawing social attention to the Egyptian market and its importance for economic well-being.
Within the first round of parliamentary elections, the EGX 30 index soared by 11% and realized a strong rise in index performance. This return of investment was indicative of investors’ yearning for political and economic stability and was reflected in the strength of listed companies. This small improvement was followed, however, by increased political turbulence in 2012, greatly impacting Egypt's economic performance, and causing a decline in growth rate and investor confidence.

Though the economy grew by 2.2% in 2012, up from the previous year’s 1.8%, this growth was minor and not significant enough to restore the Egyptian economy’s strength. Indicators of the economic failure included a decline in foreign investment and a steeper budget deficit, reaching 10.8% of the GDP for the 2011/2012 fiscal year. Egypt's net International reserves also declined by 3 billion dollars between December 2011 and December 2012. Resulting from this was the devaluation of the Egyptian pound, pushing it down to 6.32 LE/US$ as compared to 6.032 LE/US$ the previous year.

Trading volumes have proportionately increased in 2012 in contrast with the previous year, with the volume traded recorded at 34 billion securities; a number that has not been recently recorded even before the revolution. Similarly, the value traded surged up to LE 185 billion in contrast with LE 148 billion in the previous year, and the number of transactions skyrocketed to 6 million transactions in contrast with 5.6 million in the previous year. A significant increase in the market capitalization for listed companies on the main market has also escalated from LE 294 billion in 2011 to LE 376 billion at the end of 2012.

Provided that Egypt experiences more economic and political stability in the coming years, the Egyptian Exchange should improve in performance and in growth rates.
Already, the EGX has yielded a dividend of 8.3% as compared to 2.6% for comparable emerging markets and 3.2% total for the Middle East and Africa region (according to Standard and Poor’s). Despite a period of economic turmoil, Egypt’s companies’ profitability remains the highest among all regional emerging markets and its growth can be attributed to investor optimism in the Egyptian Market based on its previous success. (EGX report, 2012)

The Egyptian Exchange constantly stresses its role in supporting the Egyptian economy as a leader in helping businesses by contributing with necessary funds for potentially promising companies and not only as a platform for trade and capital movement. EGX has funded the development of 22 companies with approximately LE 1.3 billion despite the tedious conditions witnessed in 2012. It is notable that the EGX trading structure offers more financing for companies that have more ambitious expansion plans.

Following the transfer of power to the parliament at the beginning of the year, the market saw a positive boost lasting through February and into March. This took a turn following political turbulence resulting from preparation for the 2012 presidential election, and the economy hit a bad patch lasting until the end of the second round of the election.

The economy recovered slightly as the second half of the year rolled in, performing well up until the political tensions of November took yet another toll on the economy. The market managed to redeem itself once again by the end of December, however, following the finalization of the constitutional referendum and an easing of tensions. The market pushed on and continued to rise until the end of the year even as its credit rating downgrade disturbed its growth.
3.4 Corporate Governance and Firm Performance in the Egyptian Market

The role of boards in Egypt and the impact of board characteristics on Egyptian firm performance have been investigated by a limited number of studies. Some of those are by Dahawy (2006), Kholief (2008), Samaha (2010) and Sorour (2011).

Dahawy (2006) concentrated on the corporate disclosure practices of corporate governance in the Egyptian listed firms, and he indicated that there was a low level of disclosure in Egypt. The study suggested that the lack of knowledge about the needs and benefits of corporate governance might be the reason behind this non-conformity. Kholief (2008) tackled only one variable – CEO duality – for the year ending 2007. Using this variable to examine the relationship between corporate governance and accounting-based performance, it was found in his study that CEO duality negatively affects corporate performance. Samaha (2010) investigated the effect of board independence and the presence of an audit committee on the level of disclosure of the firms listed on EGX for the year ending 2005.

The results indicated that the different categories of corporate governance disclosure are related to board independence, which is consistent with a complementary relationship between independent directors and disclosure. Sorour (2011) discussed corporate governance practices in Egypt, particularly in the Egyptian banking sector (EBS). The study then provided the main features of EBS corporate governance and pointed out the areas that needed further enhancement to be in line with international practices. Moreover, the paper compared corporate governance quality indicators of the EBS to the international benchmark of the World Bank in terms of the board of director's characteristics and structure.
To sum up, the key for Egypt to enhance its corporate governance performance is to build a set of experienced, qualified and professional directors and owners who both understand the market in Egypt and who could effectively implement good quality corporate governance. Furthermore, it is clear from what is mentioned previously that there is a lack of corporate governance studies in Egypt. Investigating the effect of the board of directors and audit committees on firm performance will provide a better understanding of the determinants of board effectiveness for the Egyptian listed firms. Filling the gaps in these areas will provide a better understanding of board practices and their effects on firm performance.
Part Two: Corporate Governance and Firm Performance

Literature

This part discusses the effects of corporate governance on firm performance with a main focus on the characteristics of the board of directors and audit committee, and how the two affect a firm's financial performance. Additionally it identifies the gap in the academic literature and develops the conceptual framework for the study.

3.5 Corporate Governance and Firm Performance

Generating economic and financial returns to its owners is the chief goal of a business. Though the relationship between a firm's corporate governance and its financial performance is a topic of hot debate, it is certain that practicing good corporate governance provides a reliable and dependable framework for a firm's board of directors so that they may respond, in a timely fashion, to different situations that affect the firm's value.

On paper, corporate governance may seem like an abstract goal, but on the contrary, it is there to serve a corporation's purposes by providing, as aforementioned, a reliable and dependable structure within the corporation, which the directors could follow to achieve the corporate goals in the most effective manner. Because of so, the lack of good corporate governance, even in financially successful corporations, is an indication to stockholders that the corporation is vulnerable and prone to collapse, due to a deficient structure that is not optimally positioned for dealing with new financial or managerial challenges (The Business Roundtable, 2005).
Furthermore, a good corporate governance structure provides a corporation with a reliable system for effective decision-making and an appropriate monitoring of performance and compliance. Because of a well-defined and responsive structure, a firm's CEO and management team, along with the board of directors, can effectively interact with one another and swiftly react to challenges that may arise, thus providing a value to the firm that stockholders could trust and depend on (The Business Roundtable, 2005).

Fama (1980) asserts that a corporation could be regarded as a team, and its members could be viewed as players who compete with other teams' players. He further stated that every individual's productivity directly affects the overall performance of the team and its members. Hence, there is an incentive for every manager within each team (firm) to monitor other managers' behaviours. Fama (1980) also states that a firm's compensation system, since the firm is always on the lookout for new managers in the market, must be performance-based so that it would attract new good managers or retain the ones it already holds.

What was discussed earlier in Chapter two, regarding the various definitions and mechanisms of corporate governance, supports the fact that corporate governance, in fact, has an effect on corporations in numerous ways. From the market-based perspective, funds are required to operate a business, which, once supplied, would ultimately lead managers to take advantage of all the firm's stakeholders, which includes, but is not limited to, shareholders. This dilemma is one to do with the separation of ownership and control, one which is known as the agency problem of the relationship between agents and principals.
Several scholars have deduced that good corporate governance leads to better management and to a better allocation of a firm's resources. Furthermore, good corporate governance improves a firm's performance, thus significantly increasing its share price and, consequently, the value of the shareholders, resulting in the improvement of the firm's overall financial performance (Yermack, 1996; Coleman, et al., 2007; Imam & Malik, 2007; Tsifora, 2007; Shakir, 2008; Heenetigala, 2011). On the other hand, other scholars have argued that corporate governance has a negative effect on a firm's financial performance (Sharon & Filbeck, 2006; AlFarooque et al., 2007). Other studies have suggested that corporate governance does not affect a firm's financial performance (Bolbol et al., 2004; Mehemet, 2011).

Morck and Steier (2004) affirm that a CEO dictates each corporation's corporate policies and strategies to a board of directors that is, by and large, passive. Morck and Steier (2004) see that a big corporation is truly owned by several million middle-class shareholders, with each of those owning a several hundred or thousand shares. Because the true owners, which are the millions of middle-class owners, are highly disorganised and powerless, the board of directors uses and abuses its considerable powers in accordance with each of its members' own individual economic, political and social beliefs (Morck & Steier, 2004).

Chapter Three Corporate Governance and Firm Performance Literature

Other scholars explained the relationship between corporate governance and performance, but only from an agency perspective. For instance, Fama (1980), Fama and Jensen (1983) and Lorsch and Maclver (1989) talked about board independence, CEO duality and the benefits of increasing the number of independent directors in order to increase the effectiveness of the board monitoring role. Generally speaking, studies create conflicts when supporting or proving theories. For example, Bhagat and Black (1999) and Keil and Nicholson (2003) positively relate firm performance to the proportion of executive directors. Others relate it to the non-executive ones (Fox, 1998; Rhoades et al., 2000; Chiang, 2005; Fan et al., 2007). Whereas Boyd (1995) and Kula (2005) support the CEO duality notion, the separation of chair and CEO positions, on the other hand, was supported by Rechner and Dalton (1991), Fox (1998), Coles and Hesterly (2000) and Daily et al. (2003).

Upon reviewing the literature on corporate governance, the following section will focus on the characteristics of the board of directors and the audit committee, and its effect on the firms’ financial performance. Additionally it will review both the theoretical and empirical analysis of this relationship.

3.5.1 Board Characteristics

Numerous researchers and scholars have carefully investigated the different aspects of corporate governance mechanisms. Those include the board characteristics, audit committee, corporate reporting, ownership structure, and overall level of control of the board. Those scholars have found that these factors could have a major influence on a firm's performance (Boyd, 1994; Yermack, 1996; Eisenberg et al., 1998; Vafeas, 1999). But because of the varying determinants and dimensions to corporate governance that
ultimately control a firm and its operations, the following section will only be focusing on one of those determinants, which is the board characteristics.

Basically, the board should be the main mechanism of internal governance and monitoring of management (Barnhart et al., 1994; Shleifer and Vishny, 1997). An effective and strong board could aid firm performance economically as – according to Williamson (1996) and Hillman et al. (2000) – it can link a firm to its environment, secure critical resources and – according to Fama and Jensen (1983), Davies (1999), and Kemp (2006) – significantly affect the firm’s strategic decision making. Hence, such a board would likely help the firm to improve its performance (Hawkins, 1997; Gompers et al., 2003).

Various scholars have investigated the direct relationship between the board characteristics and the firm's performance (e.g. Jensen and Meckling, 1976; Jensen, 1993; Adams & Mehran, 2005; Haniffa & Hudib, 2006; Ramdani & Witteloosuijn, 2009).

After reviewing what different scholars said about how the characteristics of a board affect a firm's performance, the next section will dissect the board characteristics into five main attributes: board independence, board meetings, CEO duality, director ownership and board size. Each of those attributes will be discussed in detail, reviewing what scholars stated about each one.
3.5.1.1 Board Independence

A non-executive board member is one who is an outside director in contrast to insiders. The board independence, traditionally, is a measurement of the percentage of non-executive directors on the board. However, there have been other definitions to what an outside director means (Pfeffer, 1972). Up until the 1960s, boards in the United States were mostly composed of internal directors. Since then, however, firms have had more predictable wisdom that turned a board's composition to mostly consist of external directors (Bhagat and Black, 2002).

It has been well investigated whether directors should be insiders, i.e. employees of the firm or affiliated to it, or outsiders. Different scholars, depending on how they view it, disagree on whether directors should be this or that. On one hand, internal directors are more aware of the firm’s activities, and if they seize the opportunity to step into positions held by inefficient executives, they could easily monitor the top management. On the other hand, non-executive directors may serve as professional referees to guarantee that competition among insiders prompt actions that favour the maximization of shareholder-value (Fama, 1980).

Agency conflicts can be reduced by means of the board of directors. This is done by the board implementing its power and authority to monitor and control management (Fama & Jensen, 1983). Because of their dispersed levels of ownership of common stock, shareholders may find difficulty in exercising control over a firm's management. It is, therefore, presumed that outside directors perform the monitoring function on the shareholders' behalf, thus maximising shareholders' interests, by guaranteeing that the firm's management is in place (John & Senbet, 1998).
A key point here is that the non-executive board members are to be autonomous and independent of the executive management, free from any business to do with the firm. Fama and Jensen (1983) state that not only does having non-executive directors as professional referees enhance the board's competence, but it also reduces the probability of the top management conniving to grab hold of shareholder wealth. Weisbach (1988) and Cotter *et al.* (1997) supported this view, emphasising that outside directors play a critical role in protecting shareholders’ interest through effective decision control.

In addition, Xie *et al.* (2003) declared that the extent of benefit for shareholders from which a higher proportion of outside directors has been a critical issue of much debate. It seemed that non-executive directors prove to be more beneficial, as they can monitor and control the actions of opportunistic executive directors, thus easily resolving agency problems between managers and shareholders (Fama, 1980; Fama & Jensen, 1983).

Furthermore, according to the agency theory, a firm's performance is enhanced when there are a bigger proportion of non-executive directors. This has been concluded by several scholars, where they agreed that the ratio of non-executive to executive directors has a direct effect on a firm's performance (Ramdani & Witteloostuijn, 2009).

The agency theory recommends that independent directors’ representation improves firm performance, however mixed results were shown by empirical evidence (Haniffa and Hudaib, 2006; Baranchuk and Dybvig, 2009; Gordini, 2012). Gordini (2012) investigated the impact of outsiders on firm performance, measured by ROA and ROI, using a sample of 950 Italian small family firms within the time period of the years 2007 to 2009. The findings showed a positive association between them and reported that independent directors helped in improving the firm performance and adding value.
to it through their contributions such as skills, experiences and their linkage to the external resources.

Similarly, Khan and Awan (2012) found that the existence of outside directors is significantly and positively related to firm performance, measured by ROA, ROE and Tobin's Q. They reported that a higher percentage of outsiders in the board leads to better firm performance and value added to the firm. This is due to the close monitoring, their valuable advice, and their contribution to the firm. These findings match the agency theory and resource dependence theory perspective, which views independent directors as effective monitors and a disciplining device for managerial behaviour.

Therefore, from an agency perspective, independent directors are important for the monitoring function; acting as a safeguard for the shareholders’ interests to be able to monitor the managers’ behaviour, and hence reduce the agency problems and improve firm performance. The resource dependence theory view also supported this notion; from its perspective, independent directors provide the board with external experience, skills, knowledge and links to external network relationships. This will compensate for the skills of the internal directors and contribute with more ideas and knowledge. Thus, the agency problem could be reduced and the performance could be positively affected. Accordingly, with the effective performance of the independent directors’ monitoring tasks and duties, it would be more likely to prevent management from expropriating the firm assets. This highlights the appropriateness of independent directors as a trustworthy regulatory mechanism in boards which ensures that managers are functioning to maximise shareholders’ wealth.

Studies recommend that the greater the number of independent directors on the board, the more efficient the firm becomes (Lin, 2011; Dharmadasa et al., 2014). They argued
that board independence helped in improving stock prices of firms. The main reason for realizing such findings might be that independent directors do their best in making a project profitable since their reputation is at stake; as their reputation and earnings will suffer from failed projects.

Many studies, such as Brickley and James (1987), Weisbach (1988), Byrd and Hickman (1992) and Lee et al. (1992), have proved the hypothesis stating that in case of an agency problem, shareholders would be protected in specific instances by independent outside directors. Also, MacAvoy and Millstein (1999) found that board independence is positively correlated with accounting-based measures of firm performance. There is practically proven evidence that supports the prediction that board effectiveness in protecting shareholders’ wealth is a positive function of the proportion of outside directors on the board (Abdul Rahman & Ali, 2006). Several studies present evidence suggesting that effective governance with board independence improve firm performance (Baysinger & Butler, 1985).

In this context, most of the studies support outside directors. For instance, Weisbach (1998) finds that CEO turnover is more sensitive to performance in firms with outsider-dominated boards than it is in firms with boards that are dominated by inside directors.

In their study, Rosenstein and Wyatt (1990) showed a significant positive market reaction following the announcement of outsider board appointments in the Wall Street Journal. Likewise, John and Senbet (1998) argue that the higher the proportion of non-executive directors on the board, the more the board becomes independent.

Baysinger and Butler (1985) and Rosenstein and Wyatt (1990) showed that firms are rewarded for appointing non-executive directors. Brickley et al. (1994) found a positive
relationship between the proportion of non-executive directors and stock-market reactions to poison pill adoptions.

Hill and Snell (1988) found that the proportion of outside directors on the board and profitability were positively associated. Similarly, Brown and Caylor (2004) found that boards whose majority of members are independent directors help firms achieve higher returns on equity, higher profit margins, larger dividend yields and larger stock repurchases.

As mentioned previously, many researchers noticed a significant relationship between the proportion of non-executive board members and a firm's financial performance (e.g. Kosnik, 1987; Coleman & Biekpe, 2006; Gordini, 2012; Khan, & Awan, 2012). An array of studies supported the assertion of the agency theory (e.g. Rechner & Dalton, 1991; Pearce & Zahra, 1992; Ibrahim et al., 2010). Likewise, there were many other studies that claimed that when a firm has a board of directors that is dominated by outsiders, it performs better (e.g. Adams & Mehran, 1995; Bolbol et al., 2004; Cheng, 2005; Heenetigala & Armstrong, 2011).

On the contrary, the stewardship theory perspective denies this view; it advocates that the lack of the information that the independent directors have and them being part-time workers would most probably reduce their ability to apply their function efficiently, and hence affects the firm performance negatively. There are many other arguments opposing outside directors, Some researchers (Shan & McIver, 2011; Koerniadi & Tourani, 2012; Leung et al., 2014; Darko et al., 2016) argued that directors’ independence and firm performance cannot be positively associated, as independent directors may not have adequate information and knowledge about the firm.
Agrawal and Knoeber (1996) found that the existence of more outsiders on the board was linked to higher levels of debt financing and lower levels of firm performance. Ehikiyoa (2007) in his study of Nigerian firms found out that there is a negative association between non-executive board members and ROA.

Other researches did not even identify the benefits of non-executive directors. According to Klein (1998), Bhagat and Black (2000), and Bhatt & Bhattacharya (2015), there has not been any empirical evidence that supports the relationship between the proportion of outside directors and a corporation's financial performance.

Previous research has shown that a significant relationship between non-executive board members and firm performance does not exist (e.g. Hermalin & Weisbach, 1991; Sanda et al., 2005; AlFarooque et al., 2007; Dunstan & Karim, 2007; Al-Matari et al., 2014). In one of his studies, Fosberg (1989) showed that there is no relationship between the ratio of outside directors and the different performance measures. Also, Bhagat and Black (2002) and Azeez (2015), asserted the same and found that there is an insignificant relationship between the ratio of non-executive directors and a firm's financial performance.

Yermack (1996) showed that the percentage of non-executive directors does not significantly affect firm performance. Also, Hermalin and Weisbach (1991) concluded from their study that there isn’t any significant impact of the insider/outsider ratio of boards on Tobin’s Q.

In summation, the empirical literature on whether a board's independence affects firm performance is as diverse as it is contradictory. Various scholars noted that board independence positively affects a firm's financial performance, while others denied that notion and reported that board independence affects a firm's financial performance.
negatively. A third fraction, however, found in their studies that there was no significant relationship between board independence and firm performance.

Furthermore, most of the studies mentioned were carried out in developed countries; this research, however, is focusing on the Egyptian market and according to the Egyptian code of corporate governance, (ECCG, 2004), the board of directors should include a majority of non-executive directors with an appropriate mix of skills, technical, or analytical experience that is of benefit to the corporation. Therefore this research expects that a positive relationship exists between the proportion of non-executive directors and a firm’s financial performance, hence the following hypothesis was developed:

**Hypothesis 1 (H1): There is a positive relationship between the proportion of non-executive directors and firm performance.**

### 3.5.1.2 Board Meetings

The board of directors is responsible for critical decisions in a firm and is, thus, deemed as a crucial mechanism of corporate governance (Lipton & Lorsch, 1992; Jensen, 1993). It has been suggested that the board advises and supervises the management as to ensure that managers would pursue the best interests of the firm's shareholders (Jensen & Meckling, 1976; Ntim, 2009).

The time by which directors have to perform their duties and the level of monitoring activity are being proxied by the frequency of meetings, which are also considered as a value-relevant board attribute (Collier & Gregory, 1999; Vafeas, 1999; Carcello *et al*., 2002; Laksmana, 2008). One of the important proxies to measure the intensity and the effectiveness of corporate monitoring and disciplining is the frequency that the board members meet, as this is one of the main characteristics of the board (Jensen, 1993;
There are, however, as the previous mechanisms have displayed, mixed views as to whether board meetings positively or negatively affect financial performance (Lipton & Lorsch, 1992; Jensen, 1993).

According to the agency perspective, the more the board exhibits greater conscientiousness in discharging its responsibilities, the more control it will gain and the more the level of oversight will be improved. Lipton and Lorsch (1992) reported that running out of time in accomplishing board duties could be a considerable obstacle to the board's effectiveness. In this sense, meeting frequently enables the board to perform its duties persistently while considering shareholders’ interests (Byrne, 1996).

One of the theoretical propositions is one that states that the frequency of board members meetings is a measurement of the intensity of the board’s activities, which means it also shows the effectiveness and the quality of the board's monitoring (Vefeas, 1999).

Similarly, in a study by Conger et al. (1998), it was stated that “to make effective decisions, directors need sufficient, well-organised periods of time” (p. 142). This research referred to the board meeting time as an important resource for board effectiveness. This view is strengthened by the criticism mentioned in Byrne (1996) and NACD (1996), which criticised directors who take up multiple directorships preventing them from attending meetings frequently and, thus, reducing their ability to monitor the management process.

Prior research and academic literature have shown that meeting frequency provides several benefits to shareholders. Definitely, the first benefit is providing more time for directors to set and discuss corporate strategies and to monitor the management (Vafeas, 1999). Besides, meeting frequently enhances the level of oversight on the financial
reporting process (Carcello *et al*., 2002), increases the degree of transparency about the executive compensation practices and generates more frequent earnings forecasts (Laksmana, 2008).

Additionally, Lawler *et al*. (2002) concludes that board meetings positively affect firm performance because of effective governance, and he suggests that the board's meeting time is an important resource to improve a board's effectiveness. In fact, Sonnenfeld (2002) suggests that regularly attending meetings is one characteristic of a good director.

Everything else equal, the more frequently boards meet, the higher the quality of managerial monitoring, and consequently the more positively the firm's financial performance will be affected (Ntim, 2009). Moreover, some studies declared that regular meetings provide greater opportunity for directors to set the firm's strategy and to assess the management performance (Vafeas, 1999). In such a way, directors will be always updated with the recent knowledge and developments about the firm; hence, they would better address the crucial issues timely (Mangena & Tauringana, 2008).

Carcello *et al*. (2002) have shown implicitly that the number of board meetings directly affects the quality of audit work, which, when higher, protects the shareholders’ interest and improves the whole firm’s performance. Yet, there are also some costs incurred in frequent board meetings. These are the costs of wasting managerial time, travel expenses and directors’ fees (Vafeas, 1999). Accordingly, an optimum number of meetings should be decided so that the board could outweigh the associated costs.

Vafeas (2005) concludes that there is a positive connection between board meeting frequency and financial performance, by studying a sample of 275 listed US firms from 1995 to 2000. Also, by using a sample of 157 listed Zimbabwean firms from 2001 to
2003, Mangena and Tauringana (2008) demonstrated that corporate performance and the frequency of board meetings are positively associated. Carcello et al. (2002) argued that, other than mere board meetings, many factors; such as pre-meeting preparations, participation, attentiveness, and post-meeting follow-ups, would also imply board persistence. Nonetheless, the only publicly documented indicator is the number of board meetings.

At the same time, Letendre (2004) suggested that to enable a firm to effectively monitor its management, permitting plenty of time for discussing issues deeply cannot work alone; boards should also review performance regularly to ensure its improvement.

Vafeas (1999) has precisely found a significant relationship between board meetings and firm performance. In his study, Vafeas argued that independent directors are likely to demand more board meetings to enhance their ability to monitor management. At the same time, boards with higher numbers of independents are likely to need more meetings to brief members than what would be required on boards with high insider membership. Shivdasani and Zenner (2004) stated that boards should be ready to increase meeting frequency whenever the situation requires a high level of supervision and control. Jensen (1993) was very similar, suggesting that a board should be active only when a problem occurs, otherwise it should be relatively inactive.

However, Yermack (1996) averred that the limited time the directors spend together is usually not utilised for fruitful discussions. Instead, Yermack (1996) comments, routine tasks, like the presentation of management reports and the various formalities, consume much of the meetings' time, thus reducing the amount of time that the outside directors could have rather utilised in effectively monitoring management. This, according to Lipton and Lorsch (1992) and Mercedes et al. (2014), can negatively impact corporate
performance. Also, because board meetings tend to be costly in terms of managerial time, travel expenses, refreshments and directors’ meeting fees, board meetings can have a negative influence on corporate performance.

In a study that used a sample of 307 listed US firms from 1990 to 1994, Yermack (1996) reports a significantly negative relationship between the frequency of board meetings and firm performance, as measured by Tobin’s Q.

Finally, in a study done on a sample of listed Ghanaian firms from 2000 to 2005, Coleman et al. (2007) showed that the frequency of board meetings has no relationship to financial performance. Also Uzun et al. (2004) did not detect any significant relationship between board meetings and firm performance.

Thus, it is apparent that the empirical evidence and literature are not only conflicting, but they are also overly concentrated on only a few developed countries in Europe and North America (Yermack, 1996; Carcello et al., 2002). Various scholars showed that the more frequently boards meet, the better the firm performance. Other scholars showed that lesser meetings meant less money being spent on the meetings, hence simultaneously improving the financial performance of the firm. Some scholars found no significant relationship between the number of times a board meets and firm performance.

This research argues that board meetings are considered a resource that would lead to board diligence. Moreover, the benefit of the increased number of board meetings lies in the more amount of time enabled for directors to discuss, set strategy, and control management effectively. The increased frequency of board meetings would most probably protect shareholders’ value, and improve firms’ performance is an efficient way; as it is considered a less expensive way than changing other board characteristics.
Additionally, since most of the studies were carried out on developed nations' markets, this research will focus on Egypt, a developing nation, knowing that it is recommended by the Egyptian code of corporate governance that the board of directors should convene no less than once every three months (ECCG, 2004); therefore the following hypothesis was developed:

**Hypothesis 2 (H2): Board meetings are positively associated with firm performance.**

### 3.5.1.3 CEO Duality

CEO duality refers to combining the roles of the CEO and the chairperson, where both are held by a single person who would obviously dominate the board (Lechem, 2002). CEO duality is one of two options regarding the board leadership structure, where the other option is to separate both roles. Some theorists and regulators support the notion of a CEO duality and others support the separation of roles. For instance, Fama and Jensen (1983), Cadbury Report (1992) and Higgs Report (2003) all argued that, for a board to be effective, it is imperative to separate the chief executive and the chairman roles.

In his report, Higgs (2003) empowers this view by stating that separating the two roles prevents the concentration of authority and power in one individual and differentiates leadership on the board from the running of the business. Higgs distinguishes the roles of CEO and chairperson as follows; the CEO is responsible for executing the firm’s policies and running the firm, while the chairperson of the board is responsible for running the board and monitoring and evaluating managerial activities. The board is also responsible for overseeing the process of hiring, firing, evaluating and compensating the CEO.
Leighton and Thain (1993) and Lechem (2002) highlighted that the board chair plays a significant role in the decision-making process of the firm, and they also noted the effectiveness of the board chair in monitoring the management while headed by the chief executive. However, in many cases, these two positions are merged, making only one person in charge to build a unified leadership. Stewardship theorists supported this view, referring to it as CEO duality, arguing that it enhances the effectiveness of leadership in organisations (Finkelstein & D’Aveni, 1994). On the other hand, agency theorists support the separation of the two positions to ensure the effective monitoring of management.

On paper, the agency theory favours the separation of the CEO and chairman positions within an organisation. This is based on the importance of establishing an efficient and effective balance between the CEO and board. Non-duality, effectively, enhances a firm’s performance more than its counterpart (Fama & Jensen, 1983; Ramdani & Witteloostuijn, 2009).

Agency theorists argue that CEO duality is generally a sign of a dominant CEO and could, hence, render the board ineffective in monitoring managerial opportunism (Daily & Dalton, 1993; Jensen, 1993). As a result, CEO duality enhances CEO entrenchment and reduces board independence (Finkelstein & D’Aveni, 1994; Rhoades et al., 2001). In this respect, the agency model, assuming managers are opportunistic, argues that separating the CEO and chairman roles enables shareholders to effectively monitor management decisions. Also, Yermack (1996) shows that firms are more valuable when the CEO and board chair positions are separate. Yermack (1996) argues that when the positions of the CEO and the board chair are separated, a firm’s value is increased. White and Ingrassia (1992) specify that CEO duality could lead to a board's performance to decline, due to the board's inability to remove an underperforming CEO.
Several empirical studies have been carried out regarding the relationship between CEO duality and firm performance. The results, however, are inconsistent. Previous studies by Cheng (2005), Coleman et al. (2007), Al Farooque et al. (2007), Ehikioya (2007), and Azeez (2015) reported a significant negative association between CEO duality and a firm's financial performance.

Additionally, duality is viewed as giving too much power to one particular individual, hence reducing the checks and balances in the top management (Jensen, 1993). Having both positions of CEO and the chairman of the board can give rise to power abuse and could prompt the individual that holds both positions to engage in activities that do not correspond to the shareholders' best interests. A study by Bai et al. (2004) on listed Chinese firms stated that duality reduced firm performance.

Yermack (1996) argues that, when the board chair and CEO positions are separated, a firm’s value increases. Along the same lines, White and Ingrassia (1992) assert that CEO duality causes boards to perform worse, because it is unable to remove the underperforming CEO, resulting in the generation of agency costs in cases where the CEO operates and performs for his own interests rather than maintaining the shareholders'. Empirical studies by Cheng (2005), Coleman et al. (2007), Ehikioya (2007) and Al Farooque et al. (2007) found out that a significantly negative association exists between CEO duality and firm financial performance. Also a study on a sample conducted on listed Chinese firms by Bai et al. (2004) shows that CEO duality reduces firm performance.

On the other hand, Dechow et al. (1996) supports CEO duality. Besides, Core et al. (1999) found that when the CEO and board chair positions are separated, CEO compensation becomes lower. In addition, stewardship theorists expect that CEO
duality could affect firm performance positively. They argue that managers are inherently trustworthy and are good stewards of firm resources (Donaldson, 1990; Donaldson & Davis, 1991, 1994).

They believe CEO duality could promote a unified and strong leadership with a clear sense of strategic direction. As the CEO has knowledge of the business and industry and knows how to run the firm, combining these two roles can help in making timely and optimal decisions (Brickley et al., 1997). Recalling that both CEO duality and roles’ separation have been supported by different theorists and regulators, the existence of practical evidence on the duality-performance relationship is being rendered. And, hence, this relationship is still mixed and inconclusive (Daily & Dalton, 1997; Dalton et al., 1998; Kang & Zardkoohi, 2005).

By using a sample of US firms, Donaldson and Davis (1994) studied the relationship between CEO duality and firm performance. Their study showed that there is a positive relationship between combining the functions of the CEO and chairperson with performance; they concluded that firms with CEO duality showed a higher ROE and shareholder wealth as compared to those without CEO duality. Furthermore, in a study of Nigerian firms, Sanda et al. (2005) showed that there was a positive relationship between CEO duality and firm performance.

In the same sense, Rechner and Dalton (1991) studied a sample of US Fortune 500 firms and found that the CEO duality has a strong and positive impact on a firm's financial performance. Also, Boyd (1995), Al-Matari et al. (2012), Arosa et al. (2013), and Bansal and Sharma (2016) reported a positive relationship between firm’s performance and CEO duality.
In addition, studies, like those of Anderson and Anthony (1986), Donaldson and Davis (1991) and Charan (1998) supported CEO duality. They argued that separating the chairman and CEO positions would prevent the firm from having the unified focus of its energies, which are vital in realising the organisational goals. They declared that a CEO serving the chairman position as well will have full authority over the firm and that would aid improve firm performance.

Additional studies do not detect any significant relationship between board leadership structure and firm performance (e.g. Daily & Dalton, 1992, 1993, 1997; Dalton et al., 1998; Dulewicz & Herbert, 2004; Mercedes et al., 2014; Arora and Sharma 2016). For instance, Daily and Dalton (1992), when investigating entrepreneurial firms, did not find any relationship between CEO duality and firms’ performance. Brickley et al. (1997) claimed that CEO duality does not relate to inferior performance. Similarly, Baliga et al. (1996) and Vafeas and Theodorou (1998) showed that CEO duality and firm performance have not got any significant relationship. In addition, it was found by Bolbol et al. (2004) and Ghosh (2006) that the concept of CEO duality does not affect firms’ performance.

Finally, it has been empirically proven that not a single universal optimal leadership structure is agreed upon, the results still lack consistency, therefore it will be very beneficial to test for this relation in the Egyptian market, knowing that it is recommended by the Egyptian code of corporate governance that the board of directors undertakes the designation of the chairperson and managing director. It is preferred that the two posts not be held by the same person (ECCG, 2004), therefore this research proposes the following hypothesis:

Hypothesis 3 (H3): CEO duality is negatively associated with firm performance.
3.5.1.4 Director Ownership

Basically, in recent corporations, ownership and control are usually separated (Berle & Means 1932). As a result, conflicts of interests are raised between management and shareholders. The reason behind this is because of the owners or stockholders aiming to maximise the firm value and, thus, gaining the maximum possible return, while managers usually consider their own wealth and prestige in the first place, regardless of how their actions may or may not affect the firm’s value. Although the agent (manager) works for the principal (owner) upon a signed contract, the control of the owners’ capital is in the hands of the agents, enabling them to substantially control and decide upon the allocation of the investors’ funds (Shleifer & Vishny, 1997).

Here arises the agency problem, where the capital, supplied by the owners (shareholders), has to be prevented from being seized or wasted by the managers. Entering projects that are in the managers’ favour and not the firm’s, and managers being embedded or staying on a job while lacking the needed competencies and skills for it, are all different ways for the expropriation of owners’ capital to occur.

This conflict could be resolved or at least reduced by aligning the interests of shareholders and managers (Davis et al., 1997). The agency theory deploys this alignment by allowing shareholders to be directors at the same time, and, hence, their strong personal incentive will enable them to effectively control the firm’s management. For instance, Brickley, Lease and Smith (1998) suggested that if managers and board members own some stocks, they will be motivated to assure the efficiency of running the firm and to carefully monitor the management process. Also, Jensen and Murphy (1990) found that firm performance is positively correlated to CEO stock options.
Various studies (e.g. Mangena and Tauringana, 2007; Bhagat and Bolton, 2008) reported that director ownership positively affects the firm performance. Mangena and Tauringana (2007) examined the relationship between director ownership and firm performance, as measured by ROA and Tobin’s Q, using a sample of 72 listed Zimbabwean firms within the time period 2002 to 2004. A positive relationship was reported. Their findings support the notion that increased director ownership enabled the alignment of interests between shareholders and managers; therefore it increases the possibility of resolving the agency problem, which might have a positive impact on the firm performance.

On the other hand, Becht et al. (2005) argued that stock options could ease CEOs’ enrichment and, thus, help them in seizing shareholders. For that reason, Farrar (2001) reported that independent persons or committees should be responsible for setting the compensation structure.

Becht et al. (2005) empower this view by stating that directors and executives, when increasing firm performance, consider both the amount they will get paid plus the extent to which their future career opportunities will be affected. Fama (1980) argued that reputation and compensation are linked because managers are compensated according to the market’s predictions of the extent to which they are working in the shareholders’ favour, as revealed by their historical performance.

The stewardship theory also handled managers’ concern about reputation, suggesting that this concern pushes managers to work in the interests of the firm. Moreover, from a resource dependence perspective, this concern appears to be true as reputation could be considered a firm resource, due to its effect on raising future capital and nominating the environment.
This literature emphasises on director’s ownership, being part of the internal controlling mechanism. Empirically, many studies (e.g. Jensen & Murphy, 1990; Chung & Pruitt, 1996; Palia & Lichtenberg, 1999) indicated that director ownership improves firm performance. However, other studies, such as, Dalton, et al. (2003) and Sheu and Yang (2005), denied the relationship between director ownership and firm performance.

Lastly, it could be concluded that the effect of director ownership on firm performance has room for doubt. At the same time, it is quite apparent that firms use different compensation tools, like fees, stocks, options or a combination of these (Elson, 1996; Shleifer & Vishny, 1997; Bebchuk et al., 2002). And so, as the director ownership appears to be an important feature of many firms, studying its impact in more depth would be very advantageous, providing useful understandings to researchers.

The literature on director ownership is varied and conflicting, where some scholars illustrated how director ownership significantly and positively affects firm performance, while others showed that it has no significance whatsoever.

There are an extensive number of studies that support the notion that director ownership helps in aligning the owners’ and the management's interests, and provides a way of monitoring the risk taking behaviour of managers (e.g. Jensen & Meckling, 1976; Fama, 1980; Chung & Pruitt, 1996; Core, Holthausen & Larcker, 1999; Bebchuk et al., 2002; Becht et al., 2005). Also, as argued by Shleifer and Vishny (1996), aligning interests could constrain the free-riding problem of monitoring to boost board effectiveness. Nonetheless, the stewardship theory denies the existence of conflict of interests between directors or managers and shareholders. It rather argues that both of them unite their interests with organisational goals (Donaldson & Davis, 1994; Davis et al., 1997).
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In accordance to the agency theory perspective that director ownership is expected to align the interests of the shareholders with agents, thus reducing the agency problem and maximising shareholders’ wealth, driving the firm to better performance. Accordingly this research proposes the following hypothesis:

*Hypothesis 4 (H4): Director Ownership is positively associated with firm performance.*

3.5.1.5 Board Size

The number of board members is normally referred to as board size. Xie *et al.* (2003) stated that it is practically documented that board size may be related to firm performance. But determining the appropriate board size for a firm to function effectively has been debatable among scholars (Jensen, 1993; Yermack, 1996; Dalton *et al.*, 1999; Hemalin & Weisbach, 2003). Some studies called for small size of boards to enhance firms’ performance (e.g. Lipton & Lorsch, 1992; Jensen, 1993; Yermack, 1996; Azeez, 2015), whereas others suggested that larger boards would better aid in improving firms’ performance (e.g. Pfeffer, 1972; Klein, 1998; Adam & Mehran, 2003; Anderson *et al.*, 2004; Coles *et al.*, 2008; Mercedes *et al.*, 2014; Bhatt & Bhattacharya 2015; Bansal and Sharma 2016).

Starting with the views that support a smaller board, governance literature found that several factors – such as having a high degree of membership coordination, less communication difficulties and lower incidence of severe free-rider problems – help in making small boards more effective than large boards.

Many studies support this foundation. Amongst those are Jensen (1983), Lipton and Lorsch (1992) and Jensen (1993), all of which suggested that a board should not exceed seven or eight members in order to function effectively, claiming that boards with seven
or more people make it easier for a CEO to dominate. Lipton and Lorsch (1992) and Jensen (1993) also added that larger boards usually face problems of social loafing, which in return reduces the efficiency of the board. Plus, large boards pose a difficulty for independent directors to express their ideas and opinions; this influences the effectiveness of the independent directors’ control and decision-making. This makes the whole board less effective.

Many other researchers favour smaller boards and view that larger boards result in non-cooperation and waste of time in decision-making as they suffer from social loafing. Thus, their knowledge and skills remain unutilised (Drakos, & Bekiris, 2010; Lin, 2011; Dharmadasa et al., 2014).

Yermack (1996) argued that large boards are usually less coherent and have poorer communication which might drive board members to monitor the management inefficiently. This results in greater agency problem and costs leading to lower firm performance. Consequently, according to the agency problem, large boards cause more directors’ free-riding problems, increasing the sharing costs and internal conflicts among directors, which increases the agency problem and thus lower returns and worse firm performance would follow. According to Yermack (1996), as the number of board members increases, the incremental cost increases as well, and companies having smaller number of board directors have higher market value. He proved that corporations and companies are more valued in the capital markets by examining various independent variables, such as board composition, the presence of growth opportunities, diversification, and company age. All of those independent variables supported the result that the small boards are better from the large ones in improving firm performance. It was found that small boards are more productive than large ones,
due to the evidence that large boards decrease efficiency as a result of the barriers in coordination and processes.

However Eisenberg et al., (1998) argued that Yermack’s (1996) sample focused on large firms only and thus his findings cannot be transposed to smaller firms, which vary according to different cultural environments.

Monks and Minow (1995) showed that a large board is usually slow to make decisions, thus making it a hindrance to change. Another reason for the support of a smaller board size is that directors do not usually criticise the top managers' policies, and the bigger the number of directors, the more this problem becomes (Lipton & Lorsch, 1992).

Furthermore, as a board becomes bigger, coordination becomes more difficult, information costs increase and decision-making turns out to be confused due to the developed conflicting views. Smaller boards enhance decision-making because they reduce the possibility of free riding, and they increase the accountability of individual directors. In this regard Eisenberg et al. (1998) proved that firms with smaller boards have higher market values, relating small board size with good governance, whereas larger boards negatively affect firm performance.

Vafeas (2000) provided evidence that the returns-earnings relation is greater for firms with smaller board sizes. Moreover, Firstenberg and Malkiel (1994) stated that smaller boards are more likely to reach a consensus, and members are allowed to take on authentic discussions and interactions.

Furthermore, Forbes and Milliken (1999), Pye (2000), Mak and Kusandi (2005) and Yawson (2006) all argued that agency problems are much likely to appear in firms with larger boards, since the board could not easily coordinate and make value-maximising
strategic decisions. Larger board sizes that influence a firm's performance negatively are mostly in businesses of larger sizes (Baysinger & Butler, 1985; Kosnik, 1990).

Moreover, Jensen (1993) states that the larger a board, the lesser the truthful discussions of critical issues concerning the firm. This, in turn, the study states, results in poor monitoring. Huther (1997), too, sees that the larger the board size, the more negatively it impacts firm efficiency.

Board size in countries other than the US has also been examined. Eisenberg et al. (1998) examined a sample of Finnish firms and found that larger boards are associated with a lower market value. In one study of small and medium-sized Finnish and Swedish firms, Eisenberg et al. (1998) also acknowledged a significant negative correlation between a board's size and profitability.

Also, in Singapore and Malaysia, Mak and Kusnadi (2002) examined the impact of the board size of 550 firms on a firm’s performance (measured by Tobin’s Q), and found an inverse relationship between board size and Tobin’s Q. More recently, Ahmed et al. (2006) found similar results in New Zealand.

On the other hand, large boards were supported for their higher likeliness to provide greater monitoring and advice (e.g. Pfeffer, 1972; Klein, 1998; Adam & Mahran, 2003; Anderson, et al., 2004; Coles et al., 2008). For example, Klein (1998) and Hermalin and Weisbach (1998) all argued that complex organisations that are diversified and that operate in multiple segments increase the CEO’s need for advice.

Several studies such as (De Oliveira Gondrige et al., 2012; Ujunwa, 2012; Saibaba, 2013) argued that a larger board size brings more knowledge, visions, opinions and investment proposals that would eventually benefit shareholders. Similarly, Hambrick et
al. (2008) stated that smaller boards are less likely to make strategic changes due to their inefficiency in considering various alternatives for firm growth.

Prior studies (John and Senbet, 1998; Haniffa and Hudaib, 2006; Lehn et al., 2009; Arosa et al., 2013) supported larger boards for their wider diversity of backgrounds, communications skills, experience, and business contacts outside the firm, which they provide. Besides, large boards aid the improvement and enhancement of the decisions taken through sharing the ideas and contributions, thereby providing the management with new ideas and opinions which might help to reduce the agency problem leading to better performance (Lehn et al., 2009).

Other studies found that increased board size positively impacts the firm performance. Larmou and Vafeas (2010); Sheikh et al. (2012) found that the market responds favourably when the board size increases. In their study they argued that large boards are better in monitoring firms with poor operating performance due to the diverse backgrounds and communications skills that they provide.

In theory, the agency theory argues that the larger a board is, the more it can reduce conflicts between shareholders and management because of the board's increased caution and watchfulness to monitor the firm's management’s actions (Kiel & Nicholson, 2003). In addition, Kiel and Nicholson (2003) added that large boards provide more access and links to a firm's resources. From data obtained from Australian firms, Kiel and Nicholson (2003) deduced that the relationship between a board's size and Tobin’s Q is a positive one. Coleman et al. (2007) state that, in relation to the agency theory, larger boards are associated with better performance and to the corporation's operations as a whole.
Also, Goostein et al. (1994), Psaros (2009) and Mercedes et al. (2014) argued that large boards are beneficial as they provide an increased pool of expertise, greater management oversight and more access to a wider range of contracts and resources. Plus, Singh and Harianto (1989) showed that large boards reduce CEO domination, leading to an improved firm performance. Lorsch (1997) also suggested that a board size of twelve members could enable the discussion to be more effective, while permitting staffing of board committees.

Additionally, a study carried out by Rechner and Dalton (1991) reported that a large board is associated with a firm's stronger performance. Earlier studies show that there is a direct relationship between a firm's board's size and its performance, while a large board enhances corporate performance (Sanda et al., 2005; Florackis, 2005; Coleman et al., 2007; Ehikioya, 2007). The same results were supported by Pfeffer (1972) and Zahra and Pearce (1989), whose studies concluded that there is a positive relationship between a board's size and a firm's performance.

Other studies supporting large board size include Dalton et al. (1999), Mak and Li (2001) and Kiel and Nicholson (2003). Furthermore, Dalton et al. (1999) conducted a meta-analysis of 131 various study-samples, carried out with a combined sample size of 20,620 observations, and accordingly recognized a significantly positive association between board size and firms’ financial performance.

On the other hand, studies like Bolbol et al. (2004), Ibrahim et al. (2010), Ujunwa (2012), Al-Matari et al. (2014) and Darko et al. (2016) found that board size and firms financial performance are not significantly related. By and large, strong international proof supports the notion that the size of a board does have an effect on a firm's performance.
To sum up, while smaller boards provide a greater room for CEO domination of boards which in result creates agency costs, larger boards seem to be beneficial for firms as they enable an effective oversight of management, help in seizing the available necessary resources, and allow different stakeholders to be represented in the firm. This makes larger boards more beneficial in improving firm performance. Consequently, this research proposes the following hypothesis:

*Hypothesis 5 (H5): There is a positive relationship between board size and firm performance.*

### 3.5.2 Audit Committee Characteristics

In order for corporate governance to be improved, three well accepted oversight committees were established through which board duties could be rigorously discharged (Higgs, 2003). As stated by Tricker (1994), these committees are audit, nomination and remuneration (or compensation).

Moreover, a recent perspective has been raised, pointing out that not only the composition of the board is responsible for controlling the board, but that also both the structure and composition of the board’s subcommittees are responsible. As discovered by Kesner (1988), the most critical board decisions are usually initiated at the committee level. Also, Vance (1983) outpointed four board committees which are claimed to have a great impact on corporate activities. These are audit, compensation, investment and nomination committees.

The insight in these works is that outside directors may be more important on committees that handle agency issues (e.g. compensation and audit committees), and
insiders may best use their firm knowledge on committees that focus on firm-specific issues (e.g. investment and finance committees).

Amongst these mentioned committees, the most attractive or the most discussed is the audit committee, whereas the nomination and remuneration committees received little attention in corporate governance literature. However, the evidence reported by Dechow et al. (1996) highlights the importance of both committees (nomination/remuneration) for adjusting executives’ cash compensation as a way of preventing opportunistic behaviours. Thus, nomination and remuneration are still very important for a firm to be well governed.

Regarding the audit committee, it appears to be the most critical, since it is concerned with establishing and monitoring the accounting processes to provide relevant and credible information to the firm’s stakeholders (Beasley, 1996). Accordingly, this research will focus on the audit committee rather than on the other two committees.

The main function of an audit committee is to monitor the firm’s financial performance and its financial reporting. In this sense, it is expected that audit committees should strongly affect the selection, removal and remuneration of auditors; the content and extent of audit work; the auditor independence; and the resolution of disputes between auditors and executive management. Also, audit committees should review and agree upon chosen accounting policies; and they should also influence a firm’s approach to financial reporting, levels of disclosure, and adherence to standard practice. Furthermore, besides monitoring the reliability of the firm’s accounting processes, audit committees should ensure the compliance with corporate legal and ethical standards, including the maintenance of preventive fraud controls (Turley & Zaman, 2004).
A wide range of studies have discussed the importance of audit committees. For instance, Wild (1996) stated that forming an audit committee enhances investors’ expectancy of receiving improved financial reports. As a result, the firm will more likely experience an increase in its earnings response coefficients. Similarly, McMullen (1996) finds that firms with an audit committee are less likely to experience errors, irregularities and other indicators of unreliable financial reporting.

Recent high profile accounting scandals (e.g. waste management and WorldCom) and the collapse of Enron are among the main causes behind the flourishing of the role of audit committees in ensuring the quality of corporate financial reporting. Since then, the role of the audit committee has come under the microscope, attracting the majority of the corporate governance studies (Lin et al., 2006).

Former US Securities and Exchange Commission (SEC) Chairman Levitt called for an essential cultural change for corporate management and a strengthening of corporate governance, emphasising most on improving the effectiveness of audit committees. Moreover, the occurrence of high profile corporate failures, especially since the year 2000, including fraud, poor accounting and failure of internal control prove – at least anecdotally, i.e. not based on any research or statistics – that firms should be concerned about the extent to which audit committees provide adequate monitoring.

To address the concerns, the Blue Ribbon Commission on Improving the Effectiveness of Corporate Audit Committees (BRC, 1999) was formed, establishing more formalised approaches to develop and publish precise recommendations that audit committees could address to improve their effectiveness. The Blue Ribbon Committee was comprised of representatives of the NYSE and NASDAQ, who directed ten recommendations to NYSE, NASDAQ, SEC, AICPA, and to listed firms. Myers and
Ziegenfuss (2006) briefly explained the ten recommendations as follows: “the first two define independence for the audit committee members and recommend that listed companies should have an audit committee whose members are independent. The next eight recommendations were designed with the aim of making the audit committee more effective” (p. 12).

The third recommendation suggests that listed firms of a certain size have an audit committee and further specifies that the audit committee should include at least three financially literate members. The fourth recommendation encourages audit committees to adopt a charter and to review it annually for adequacy. Each of the fifth, sixth and seventh recommendations specifies a provision that should be included in the audit charter; these provisions, respectively, concern disclosure, responsibility for auditor relations, and discussions with auditors about auditor independence. The eighth recommendation is directed to outside auditors, suggesting that outside auditors should discuss the quality, not just the acceptability of the firm’s accounting, with the audit committee (BRC, 1999). The two final recommendations, the ninth and tenth, promote that the annual report and interim financial information should be audited and reviewed by the audit committee and discussed with the management.

These BRC recommendations were successfully utilised by many firms. This effect was clearly shown in the study of Raghunandan et al. (2001), when they surveyed 114 manufacturing firms shortly after the BRC was published and reported that 74 % had independent audit committee members and 21.9 % had financially literate audit committee members. By the year after the BRC publication, it was found that efforts in the manufacturing industry group had increased such that the percentage of firms reporting all independent audit committee members increased from 74 to 92 %, and the
percentage of firms reporting all financially literate audit committee members increased from 21.9 to 86.2%.

Furthermore, by 2002, the occurrence of the Enron, WorldCom and other accounting frauds influenced the US Congress to enact the Sarbanes-Oxley Act (SOX) (see Hamilton and Trautmann, 2002) containing specific provisions regarding audit committees. The following year, in 2003, the SEC issued more strict regulations for audit committees of publicly traded firms.

The audit committee is, thus, considered to be an additional internal governance mechanism whose impact is to improve the quality of financial management of a firm and hence its performance. In this respect, an audit committee has four main characteristics that should be considered: audit committee independence, audit committee size, audit committee meetings and audit committee financial expertise.

3.5.2.1 Audit Committee Size

The number of audit committee members is normally used to measure the audit committee size, which is broadly viewed as a critical audit committee element (Hsu & Petchsakulwong, 2010; Nuryana & Islam, 2011; Obiyo & Lenee, 2011).

According to the agency theory, the conflict of interests between managers and shareholders most probably results in managerial decisions that satisfy the top managers’ own interests over those that favour the shareholders; especially in the case of opportunistic management (Jensen & Meckling, 1976). Due to the lack of effective control procedures, top management might tend to perform against protecting the shareholders’ interests (Fama & Jensen, 1983). Hence, an effective and efficient audit
committee must exist to be able to resolve these conflicts and achieve a sustainable positive performance for the firm (Klein, 2002; Mohd et al., 2009).

The resource dependence theory promoted that audit committees of bigger size is better for the firm performance, due to the diversity of skills and knowledge that does not exist in smaller audit committees; making them ineffective. Members who could engage experience and expertise to satisfy the shareholders’ interests usually exist in an ideal sized audit committee (Pfeffer, 1987; Pearce & Zahra, 1992).

Coleman et al. (2007) examined how the audit committee size affects firm performance, by using a sample of 103 listed firms in Ghana, Kenya, Nigeria and South Africa between 1997 and 2001. They concluded that there is a positive relationship between audit committee size and a firm's performance.

Yasser et al. (2011) also examined the size of the audit committee and related it two firm performance measures – return on equity and profit margin – by using a sample of thirty listed firms in the Karachi Stock Exchange. Their conclusion was that there is evidence to support a positive relationship between audit committee size and firm performance.

Moreover, the size of the audit committee plays a significant role in enhancing the quality of the financial reports, effectively boosting the financial performance of the firm. Felo et al. (2003) find that there is a positive relationship between the audit committee size and the quality of a firm's financial reporting. However, Mak and Kusnadi (2005) could not find any evidence relating size of the audit committee with firm performance in Malaysia and Singapore.
The relationship between audit committee size and firm performance has been investigated by many researchers in developed (e.g. Bozec, 2005) as well as developing countries (Moilah & Talukdar, 2007; Hsu & Petchsakulwong, 2010; Al-Matari et al., 2012). They all reported a negative relationship between the two variables. Though, some studies found a positive relationship in developed countries (e.g. Khanchel, 2007; Premuroso & Bhattacharya, 2007; Reddy et al., 2010), and in the developing countries as well (e.g. Heenetigala & Armstrong, 2011; Swamy, 2011).

Although the agency theory and resource dependence theory have been supported by many studies, the relationship between the audit committee size and firms’ performance has been denied by other studies (e.g. Abdurrouf, 2011; Ghabayen, 2012; Darko et al., 2016).

Although literature has extensively discussed the relationship between the audit committee size and firm performance, the reported results are still questionable. Plus, the Egyptian code of corporate governance recommends that an audit committee be set up comprising at least three board members (ECCG, 2004). Subsequently, this research proposes the following hypothesis:

**Hypothesis 6 (H6): There is a positive relationship between audit committee size and firm performance.**

### 3.5.2.2 Audit Committee Independence

As mentioned previously, the first two recommendations of the 1999 BRC promoted independent audit committees. In this regard, it is expected that the larger the proportion of the audit committee is of independent outside directors, the more this committee will be able to monitor the firm’s financial performance effectively. Such a committee is
Audit committee independence refers to the ratio of non-executive members compared to the executive ones (Abdullah et al., 2008; Kang & Kim, 2011). The greater the number of non-executive directors, the more the committee becomes independent (Mohd et al., 2009). Similarly, audit committee members play a major role in guaranteeing corporate governance practices throughout the auditing process (Swamy, 2011). Moreover, as reported by Abdullah et al. (2008), firms that are mainly comprised of internal directors and do not have an audit committee would more likely commit financial fraud compared to their controlled counterparts in a similar industry and with the same size.

Audit committee is considered a critical element of corporate governance as the independent directors of the audit committee, using several monitoring processes, could regularly check the faulty conduct of managers. As argued by Cohen (2011), the effectiveness of an audit committee most importantly arises from its independence. An independent audit committee might ensure a reliable financial reporting process by keeping a check on the manipulative, self-centred activities of managers. Governance codes worldwide entail firms to set audit committees and ensure their independence. Bouaziz and Triki (2012) and Arslan et al. (2014) declared that independent audit committees improved the quality of audit reports and enhance firm performance. The existence of a fair independent audit committee would curb the frauds occurring in firms (Yunos et al., 2014). Independent members of the committee could fairly check financial statements and recognize components such as equity, net income, total assets and sales, which represent the performance and financial position of the firm (Sarkar, 2013).
Vicknair et al. (1993) strengthened that expectation by stating that the more the audit committee is independent, the more effective it will perform, as both, external and internal auditors will be protected from excessive influences and unjustified interference of corporate executives.

Both theories; the agency and resource dependence, suggest that self-governance aids in taking the right decision without barriers and easily identifying errors because of the independence of reviewers. Accordingly, a positive relationship is expected between the audit committee independence and firm performance. Nonetheless, out of all the studies that examined this relationship in developed countries (Khanchel, 2007) and developing ones (Nuryanah & Islam, 2011; Swamy, 2011; Yasser et al., 2011), only a few found a positive result.

Also, in 1999, the SEC adopted rules requiring that audit committees consist entirely of independent directors. Accordingly, it is commonly expected that independent audit committee directors would ensure better financial reporting and hence improved firm performance. This expectation is generally supported by existing empirical evidence (Abbott et al., 2000; Beasley et al., 2000).

Nonetheless, several researchers, in developing countries, found that audit committee independence and firms’ performance are negatively related (Dar et al., 2011), while other studies reported that these two variables are not associated (e.g. Khan and Javid, 2011; Al-Matari et al. 2012; Ghabayen, 2012 ; Bansal and Sharma 2016).

Sunday (2008), studied the relationship between the audit committee composition of a firm and firm performance in a sample of non-financial listed Nigerian firms, but he could not find any significant relationship between them.
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It is recommended by the Egyptian code of corporate governance for audit committees to be set up comprising of non-executive board members (ECCG, 2004). Subsequently, this research proposes the following hypothesis:

_Hypothesis 7 (H7): There is a positive relation between audit committee independence and firm performance._

3.5.2.3 Audit Committee Financial Expertise

Economic scandals (e.g. Enron, WorldCom) resulting from fraudulent accounting resulted in investors losing trust in both the US and the European financial markets. The investment community’s claim to have launched measures that improve the market's transparency focuses on the audit committee’s role with regards to improving the quality of the firm's financial statements. Ever since 1972, the SEC recommended listed US firms to form audit committees; indeed, since 1978, this has become a requisite for being listed (Goddard & Masters, 2000).

Because of the numerous accounting scandals, a lot of reconsideration has been given to the workings of audit committees – particularly to their composition and to their independence from managerial teams. The Cadbury Report (1992) and the Blue Ribbon Committee (1999) both recommend that independent directors who have an adequate amount of knowledge in auditing activities should be part of audit committees. The Sarbanes-Oxley Act (2002) not only entails that the members of the audit committee be independent, but it also stipulates that one or more members of the committee must have an adequate amount of experience in the financial field.

Also stated by the BRC 1999 as the third recommendation, is a reference to the number of or the extent to which members of the audit committee have financial experience.
Obviously, it is crucial for audit committee members to comprise directors who are competent and experienced in financial aspects, mainly because an audit committee is primarily formed with the aim of monitoring the financial reporting process of an organisation and hence improves the firm performance (Rashidah & Fairuzana, 2006). Major studies and literature strongly support this. For example, SEC requires that every audit committee includes at least one member with financial expertise.

DeZoort and Salterio (2001) argue that the audit committee’s financial expertise increases the likelihood of detected material misstatements, which is reflected in better financial performance. Further, DeZoort et al. (2003a, b) found that more experienced audit committee members, and those audit committee members who were CPAs, are more supportive of the external auditor. Also, the Blue Ribbon Panel argues that audit committee members should be financially sophisticated; otherwise, the audit committee may, indeed, be largely ceremonial. An audit committee that has members with some financial and/or corporate background would serve better as financial monitors.

It is recommended by the Egyptian code of corporate governance that at least one of the audit committee members should have financial and accounting expertise, (ECCG, 2004). Subsequently, this research proposes the following hypothesis:

**Hypothesis 8 (H8): There is a positive relation between audit committee financial expertise and firm performance.**

### 3.5.2.4 Audit Committee Meeting Frequency

There is a commonly held belief that the more audit committees meet (active committees), the more effective their monitoring. An audit committee that seldom meets (inactive committees) has a lesser chance to effectively monitor management. The
average number of audit committee meetings shows the level of that audit committee's activity (Menon & Williams, 1994; Xie et al., 2001).

The frequency by which the audit committee meets is considered to be a significant attribute for the committee’s monitoring effectiveness. Anderson et al., 2004, reported that audit committee monitors the internal control and provides reliable information to the shareholders. Thus, audit committee reinforces the internal auditing function and supervises management's assessment of business risk (Hsu & Petchsakulwong, 2010).

The frequency of audit committee meetings is also one of the most widely examined audit committee factors, where previous studies used it as a proxy for audit committee activeness (e.g. Khanchel, 2007; Hsu & Petchsakulwong, 2010).

Vafeas (1999) concludes that the activity of the board is a vital attribute of board operations, and he announces that the number of times a board meets affects the firm's value. Bedard et al. (2004) state that an audit committee willing to effectively carry out its function of control must sustain a certain level of activity through increasing the frequency of its meetings. The study by Bedard et al. (2004) concludes that firms that have fewer audit committee meetings are frequently involved with financial statement fraud, and this notion was supported by Beasley et al. (2000).

Recent academic literature affirms that the level of audit committee activity, measured by the frequency of its meetings, brings several benefits to a firm's shareholders. These benefits include an improved level of supervision over the firm's process of financial reporting (Carcello et al., 2002) and better transparency, which effectively means shareholders could forecast earnings more frequently and effectively (Laksmana, 2008).

As stated by Abbott et al. (2004), frequent meetings of an audit committee results in
improved financial accounting processes which in turn drive the firm to superior performance.

Therefore, the more frequent the audit committee meets with the internal auditors, the better it will be informed about auditing and accounting issues as they arise. That way the audit committee can direct the proper level of internal audit function to address the problem immediately. Accordingly, an audit committee that meets frequently can minimize the possibility of financial fraud (Raghunandan et al., 1998; Abbott et al., 2004). Inactive audit committees with fewer numbers of meetings would more likely encounter ineffective supervision (Menon and Williams, 1994). Beasley et al. (2000) found that fraudulent firms with earning misstatements have fewer audit committee meetings than non-fraud firms, whereas an active audit committee with more frequent meetings has the opportunity to administer the financial reporting process, identify management risk, and monitor internal controls. Thus, firm performance is improved with audit committee activity. More importantly, among the very few studies that examined the effect of audit committee meetings frequency on firm performance, Hsu (2007) reported a positive relationship. Also Al-Mamun (2014) supported the view that audit committees that meet regularly are capable of reducing agency problems and information asymmetry of a firm as they provide fair and timely information to investors.

The relationship between audit committee meetings and firms’ performance has been extensively discussed provided by several scholars, however, the reported results are still inconclusive. Many researchers declared that these two variables are positively related in developed countries (Khanchel, 2007), as well as in developing (e.g. Kang & Kim, 2011), whereas others reported a negative relationship (e.g. Petchsakulwong,
2010; Darko et al., 2016). Moreover, some authors did not recognize any relationship between the two variables (e.g. Al-Matari et al., 2012; Bansal and Sharma 2016).

Recommendations as to the minimum number of times an audit committee meets so as to guarantee that it is maintaining an effective level of control are supported by empirical evidence. This evidence shows that the meeting frequency of an audit committee and a firm’s financial performance are related (Xie et al., 2003; Abbot et al., 2004). To that, this research proposes the following hypothesis:

**Hypothesis 9 (H9): There is a positive relation between audit committee meeting frequency and firm performance.**

### 3.6 Literature Gap and Conceptual Framework

This research will fill the gap in the academic literature in three ways. The first one lies in the multi-theoretical framework provided by this research, which identifies the different characteristics of the board of directors and the audit committee. Future studies could use this framework as a basis to accumulate empirical findings on the efficacy of boards. Second, this research will recognise the boundary conditions for various theoretical explanations regarding the relationship between board and audit committee characteristics and firm performance.

Given that the “one size fits all” approach has not proved to be very meaningful in the context of board composition, focusing on such a multi-theoretical framework can help in understanding significant insights into the effectiveness of different boards. Finally, this research will provide empirical findings on the efficiency of boards in the Egyptian
market, which is largely unexplored in literature, and thus usefully parting from
primarily UK and US-based studies.

The extensive corporate scandals and failures worldwide have renewed the interest in
examining the effect of corporate governance on firm performance. However, the
majority of that research has been conducted in developed countries and markets,
specifically the UK and the US, whereas relatively little evidence is provided in the
Middle East, particularly Egypt, where diverse cultural and economic considerations
prevail.

Oman et al. (2004) and Allen (2005) argued that more attention has been lately drawn
on corporate governance in emerging markets due to the weaknesses of corporate
governance in developing countries, which significantly resulted in a series of economic
crises that affected these countries. Emerging markets tend to have quite well-developed
physical financial infrastructure including central banks, commercial banks and stock
exchanges. However, they have less well-developed processes and systems of
accounting, governance, regulation and other financial infrastructure. Also, their
markets are less efficient, having less liquidity than the world's most advanced systems.
These differences lead to greater uncertainty and risk, and they enhance the
international diversification possibilities for investors from countries all over the world
(Kearney, 2012).

Tsamenyi et al. (2007) have argued that developing economies are facing a multitude of
problems, including risk and uncertainty, political instability, weak legislation, high
levels of government intervention and low levels of protection for investors. Accordingly,
the adoption of effective structures of corporate governance is necessarily
needed. Some measures have been suggested to help improve governance structures,
including the improvement of the strength and transparency of capital market structures to surge the investors’ overall confidence, the improvement of the domestic firms’ performance, and encouraging growth through the use of equity instead of debt (Reed, 2002).

As mentioned by Nenova (2009), there are three main challenges regarding corporate governance in developing countries; these are ineffective disclosure practices, weak legal framework, and audit problems. Several aspects of emerging markets have been shown to have fundamentally influence the choices made in the context of corporate governance, such as the board structure, and the audit committee quality (Fan et al., 2011; Ararat and Dallas, 2011; Claessens and Yurtoglu, 2013).

This research focuses on Egypt because of its market's rapid growth and because of its role as an emerging market with various potential foreign investments, besides Egypt's business environment, which has experienced a striking reform throughout the past few decades. The Egyptian environment and market have been dynamic. In recent years, the Egyptian economy has witnessed a considerable progress. In the 1990s and 2000s, the Egyptian government has made a significant effort in order to attract investors and to be able to integrate the Egyptian economy with the global economy; for example, they liberalised capital markets and reconstructed the corporate governance structure (Soliman, 2013).

In addition, three major institutions were established in Egypt; namely, the capital market authority (CMA), the Egyptian institute of directors (EIOD) and the Egyptian Stock Exchange (EGX), to make the regulatory environment more robust, to improve transparency, accountability and disclosure, and to enhance the overall quality of the corporate governance.
This research’s aim is to fill the gap in the academic studies by focusing on Egyptian firms from 2004 to 2012. It does so by using secondary data and by analysing the different characteristics of the board and audit committees and seeing whether or not they have an effect on the firm's financial performance. Therefore, an investigation of the mechanisms of corporate governance in Egypt would assist in assessing whether the findings of prior research from around the world could be applied to Egypt or not. The research would give more insight and suggestions to have better corporate governance practices in Egypt. The results should be beneficial, as it will be able to identify what board characteristics are needed to reduce the agency-related problems and improve the firm's financial performance, thus increasing its profitability. Also from an empirical point of view, this research will cover the main limitations that were addressed in previous studies and literature, a summary of these limitations and studies are discussed below.

First, there are only a few studies covering the Egyptian market, such as those of Dahawy (2006), Kholief (2008), Samaha (2010) and Sorour (2011). Most of those focused on only one aspect of governance. Dahawy (2006) concentrated on the corporate disclosure practices of corporate governance in the Egyptian listed companies. Kholief (2008) tackled only one variable – CEO duality – for the year ending 2007. Samaha (2010) investigated the effect of board independence and the presence of an audit committee on the level of disclosure of the companies listed on EGX for the year ending 2005. Sorour (2011) discussed corporate governance practices in Egypt, particularly in the Egyptian banking sector (EBS).

Second, in their study, Bansal and Sharma (2016) examined 235 non-financial companies listed in India over a time period of ten years (2004 to 2013). Their results showed that both; board size and CEO-Chairman dual role are significantly positively
associated with firm performance. Nonetheless, there were not any findings revealing the effect of audit committee independence and audit committee meeting frequency on the Indian firms’ financial performance. There were also some limitations for this study: among them is the focus being only on certain corporate governance determinants (board composition and size, duality of leadership structure, audit committee independence and frequency of its meetings) to measure their impact on firm performance. The study thus lacks other determinants like, director ownership, audit committee size, qualifications of audit committee members, etc. which may have impact on the firm performance as well. These factors will be covered in this research.

Third, Darko et al (2016) conducted a study focusing on 20 out of the 34 listed companies on the Ghana Stock Exchange across a five-year period (2008 to 2012). They revealed in their results that directors’ independence and frequency of audit committee meetings negatively affect firms’ performance. However, the findings did not show any evidence to support the effect of board size and audit committee size on firms’ performance. One of the major limitations of this study is the time period for which the data was used (five years from 2008 to 2012), where there exist gaps in the data set outside of this range. When a wider time period is covered by a study, the quality of its results is improved. Moreover, exploring more variables through studying other mechanisms of corporate governance would definitely enhance the validity of the established relationship between good corporate governance and firm performance.

Fourth, using a sample of 115 listed firms of the Indian Information Technology (IT) sector within the period from 2006 to 2012, Bhatt & Bhattacharya (2015) did not indicate any relationship between the proportion of independent directors and firm performance. Both, the non-dual leadership structure, and the board size, was found to have a significant positive relationship with firm performance. The board meeting
frequency was found to be not associated with firm performance. The main limitation of this study lies in its focus on the listed IT firms only, and therefore it could not be generalized for any other industries or emerging markets.

Fifth, Arora and Sharma (2016) reported in their study that board size and ROA are negatively associated. As for board meetings, they were reported by the findings to be positively related to firm performance, though it is a slightly weak relationship. Finally, the study found no evidence to support the impact of CEO duality on any of the performance measures; hence, it does not seem to be a critical determinant of firm performance. This study used only a limited number of the factors that influence the firm performance, where there are many other factors that were missed. Examining a wider range of variables like board committees such as the audit and remuneration committees would help to develop more elaboration and understanding of the corporate governance-performance relationship, and would be particularly beneficial in the context of developing countries.

Unlike the previously mentioned studies, this research is going to discuss an extensive set of governance variables, such as the proportion of non-executive directors, board meetings and board size. In addition, the research will handle corporate governance mechanisms that deal with the possible separation of CEO responsibility from that of the chairperson and director ownership. Plus, this research will emphasise the critical role of the audit committee, including the audit committee's financial expertise, size, independence, and meeting frequency. These variables together provide a comprehensive image of the company and its governance practices, as well as the mechanisms that could be recommended to improve governance practices.
Moreover, the sample used in this research will cover about twelve industries, which are oil and gas, building materials and construction, chemicals, technology, communication, media, industrial goods and services, travel and leisure, food and beverage, housing and real estate, information technology, and health and pharmaceuticals (See appendix A). Also, in this research, firm performance is measured by the firm's profitability and value. Because the aim of the research is to determine how different corporate governance mechanisms affect firm performance, those measures of performance are both accounting-based and market-based performance measures: ROE, ROA and Tobin's Q.

Although this research is concerned with the effects of corporate governance on firm performance and in identifying the specific effect of board characteristics on firm performance, it is important to control for other factors that may be related to other than corporate governance practices and may also contribute to improving firm performance the research control for the effect of firm size, firm age and firm leverage.

Finally, based on the different theoretical perspectives discussed in the earlier chapter, a thorough and critical review of literature has been undertaken that subsequently helped in proposing a conceptual model that explicates the effect of corporate governance (board of directors and audit committee characteristics) on the firm financial performance. Also, a set of hypotheses are stated.
Figure 3.1 The Conceptual Framework of the Study

Table 3.1: Research Hypotheses

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3.7 Conclusion

In this chapter, the recent developments in corporate governance in Egypt were illustrated. It also shed light on the previous studies that were carried out in Egypt regarding the Egyptian corporate governance. The effects of corporate governance on firm performance were also illustrated, mainly focusing on the characteristics of the board of directors and the audit committee, giving detail as to how each affects a firm's financial performance. Finally the chapter developed the conceptual framework for this research.

The next chapter reviews the methods of how different variables were measured in accordance with previous studies in the same area. Additionally, the chapter will give a detailed explanation of how the research was conducted and how the data was obtained, all while focusing on the particular methods used. Besides giving the details of the methods used, the chapter illustrates the research processes and procedures and the reasons for doing using those particular methods. This is provided alongside the research design, the sample used, the data collection and the methods used for measuring the selected independent variables (board and audit committee characteristics).
Chapter Four: Research Hypotheses and Methodology

4.1 Introduction

The former chapters demonstrated the various theoretical perspectives as well as the literature review appropriate for the research in hand. This chapter’s main aim is developing an empirical association between the effect of board of directors and audit committee characteristics on firm financial performance. Besides that, this chapter describes and analyses the main techniques that could be utilized to collect and prepare the necessary data used to examine whether board of directors and audit committee characteristics are related to firm performance or not.

Firstly, after highlighting the research philosophy of this research, the research theoretical approach will be justified. Following this, the research classifies the independent variables into two broad categories: the characteristics of the board of directors, and the characteristics of the audit committee. The measurement of the dependent variables (firm performance) and independent variables (board of directors and audit committee characteristics) will be clarified, and this is followed by a discussion of how the control variables will be measured. Secondly, this chapter discusses the sample selection and data-collection processes. The database used to collect the information required for this research will be specified. Thirdly, alternate possible analytical methods will be explained so as to select the most suitable and relevant one for this research. The analysis procedures undertaken will then be detailed. Finally, a conclusion of the variables, models and hypotheses of the research will be presented. The results and discussions will be presented in Chapter Five.
4.2 Research Philosophy

As argued by Burrell and Morgan (1994) a suitable paradigm must be selected for a research study. The philosophical assumption is considered the crucial matter of any research in social sciences. In this research, the positivist paradigm is selected; in which the hypotheses are developed upon perceiving the impact of the corporate governance on the firm performance, that is further investigated and empirically examined using the researcher‘s tools of analysis and the theoretical assumptions. Burrell and Morgan (1994) argued that a positivist tends to explain and predict what happens in the social world through searching for consistencies and causal relationships between its fundamental elements. Saunders et al. (2009) declared that positivism is most likely associated with deduction, which ease the description of casual association between or among variables, and the generalization of conclusions. Therefore, the nature of this research infers using the deductive approach rather than the inductive.

As mentioned by Saunders et al., (2009) and summarized by Marashdeh, (2014), the following are the reasons why the deductive approach is the one appropriate for such a study:

1. It seeks knowledge by scientific principles rather than concentrating on human-constructed meanings related to events.

2. It tends to test hypotheses, not to build a new theory.

3. It depicts spontaneous relationships among variables rather than clarifying the research context.

4. It uses quantitative data.

5. It is more structured.
6. This research does not consider past expertise nor prior opinions; it rather depends on analytical procedures, thus research independence is maintained.

7. Given a sufficient sample size, the deductive approach aids the generalization of conclusions.

To implement this approach, the following consecutive steps must be taken (Robson, 2002):

1. Developing testable hypotheses regarding the relationship between variables through relying on well-defined theory.

2. Explaining the way by which these hypotheses will be tested, as well as how the variables will be measured, by declaring them in operational terms.

3. Adopting an experimental research strategy to dedicate the causal relationships among variables as a way of examining the abovementioned operational hypotheses.

4. Testing particular inquiry results that either confirm the theory eventually, or reveal the necessity for certain modification in the light of empirical results.

Regarding the population where the deductive approach is used, Burrell and Morgan (1994) suggested that deductive research is most likely sited in the functionalist paradigm; whereby the population is governed by regulations and the epistemology uses the objective positivism. The objectives of this research are developed based on the idea of examining the impact of corporate governance on the firm performance practically using the research analysis tools. Consequently, the law of occurrence is deducted using positivism to specify the phenomena occurrence. Hence, the causal relationships among variables of the research are eventually explained, along with identifying anticipated relationships explaining the occurrence of phenomena in recurring scenarios. This goal
would be attained by developing hypotheses and designing the appropriate research strategy by which these hypotheses could be tested (Hussey and Hussey, 2009; Saunders et al., 2009).

In summary, the research philosophy of this research is based on the fact that the research does not seek to produce a new theory; it rather tends to test existing hypotheses through analysing quantitative data, and hence the deductive approach is the one appropriate for this research.

The aim of this research is to examine corporate governance effectiveness; specifically the characteristics of the board and audit committee, on firm performance in the Egyptian market, along with founding the relationship between those components. Accordingly, the philosophy of positivism was employed in this research, where data was analysed to test the relationship between corporate governance and some dependent financial variables of listed companies. This method mainly identifies the relationship between board characteristics (board size; independence; CEO duality; director ownership; board meetings) and audit committee characteristics (audit committee size; independence; meetings; financial expertise) and a set of control variables (namely firm size, firm age and firm leverage on the firm's financial performance as measured by ROA, ROE and Tobin’s Q). Using this philosophy the researcher would be able to test the implemented theory against the distinctive and huge samples observed, which generalize the outcomes to the research population as a whole. Figure 4.1 illustrates and summarises the research methodology of the study.
4.3 Choice of Research Approach

To begin an academic research and answer the research questions, an appropriate methodology must be selected, and suitable tools for data collection (and analysis) have to be chosen. There are two main research approaches in the theoretical field: the quantitative and the qualitative approaches.

4.3.1 Quantitative Approach

A quantitative research approach is part of the positivist social sciences paradigm, reflecting the scientific method of social sciences (Creswell, 1994; Jennings, 2001). The positivist paradigm adopts a deductive approach to the research process. It begins with theories and hypotheses on a particular phenomenon, then the data collection, and subsequently analyses the data statistically to reject or support the initial hypotheses (Blanche and Durrheim, 1999; Welman and Kruger, 2001).
With the quantitative approach, the researchers implement a deductive approach and draw on a theory to direct the design of the research and the explanation of their results (Neuman, 1997). This research approach verifies and tests a proposed theory, rather than to construct one (the identified theory proposes a framework for the whole study, aiding as an organizing model for the research hypotheses and data collection process). Conclusively, this research approach is objectively constructed. The research outcomes are often representative of the population being studied.

### 4.3.2 Qualitative Approach

The qualitative research approach is part of the interpretative paradigm. It was developed from the recognition of the importance of the experiential life of human beings (Babbie, 1995; Blanche and Durrheim, 1999). The qualitative approach collects data as text-based units, which represent the context attributes and social reality of the studied phenomenon (Jennings, 2001). Gilbert (1994) emphasized that this approach offered possibilities that can lead to the discovery of a deeper understanding of meaning. Easterby-Smith et al. (2002) stated that the qualitative research approach help detect what people do and say, how they understand the complexity of their world, and to interpret events from the views of the participants.

Finally, the qualitative research approach is subjective, since it relies on the discussions, opinions, comments, and texts of participants, and entails small numbers of participants being involved in the research process (Gilbert, 1994). The data collection methods in this process include: in-depth interviews, observation and/or focus groups (Jennings, 2001). Due to the small number of participants, the qualitative approach does not presume to represent the wider population. Thus, they adopt a more descriptive and
narrative style aimed at a better understanding of the research questions at hand (Blanche and Durrheim, 1999; Easter-Smith et al., 2002).

In this research, the quantitative research approach was used. The researcher’s justification for using a quantitative approach specifically in relation to this research is that quantitative methods; like financial data analysis, are usually used by empirical studies to determine the effectiveness of corporate governance. As shown in prior related research board independence for instance (as an example of the board composition variable) is measured as a percentage of non-executive directors out of total number of directors. These measures are used to interpret the influence of board composition on firm’s financial performance. There is a scarcity of research that uses qualitative approaches on corporate governance due to the limited information available as to how boards work (as board meetings and their processes are usually confidential), which, in turn, makes it challenging for researchers to capture the relative information on how a corporate board may contribute in enhancing firm performance.

The corporate governance role and its effect on firm performance have been conclusively investigated by previous research. This eased the development of testable hypotheses and research intentions. Therefore, in this research, the adoption of the positivist approach was applied. This explanatory research used database surveys constructed from an analysis of published sources (Clarke, 1998; Clarke, 2004). This research is related to the experimental, scientific, quantitative, and deductive frameworks. The researcher seeks explicit quantifiable observations. Hence, the researcher uses statistical methods regularly to test the hypotheses (Neuman, 1997). This research could not use the other paradigms due to the fact that it was difficult to obtain access to the required information needed.
The aim of this research is to examine corporate governance effectiveness; specifically the characteristics of the board and the audit committee, on firm performance in the Egyptian market, along with founding the relationship between those components. Accordingly, the quantitative approach was employed in this research, where data was analysed to test the relationship between corporate governance and some dependent financial variables of listed companies. Using this approach the researcher would be able to test the implemented theory against the distinctive sample observed, which generalize the outcomes to the research population as a whole.

4.4 Research Design Overview

The purpose of this section is to assess the research design adopted for this research. The relevant issues required for the design of the research process are evaluated and are arranged into four sub-sections as follows: in the first section, the measurement of the dependent variables (firm performance), independent variables (board of directors and audit committee characteristics), and control variables will be clarified. The second and third sub-sections discuss the sample selection and data-collection process. Alternate possible analytical methods will be explained. This will help the researcher to select the most suitable and relevant approach for this research. The analysis procedures undertaken will be detailed in the fourth and final sub-section.

4.4.1 Variables Definition and Measurement

Independent variables (corporate governance) will be grouped into two main categories. The first category contains the board characteristics (independence, size, CEO duality, meeting frequency and directors’ ownership). The second category contains audit committee effectiveness (size, independence, meeting frequency and financial
expertise). The dependent variable (firm performance), will be measured by both accounting-based measures (ROA and ROE) and market-based measures (Tobin’s Q). Each variable will be discussed in turn in the following section.

### 4.4.1.1 Measurement of the Independent Variables

Many researches essentially tackled the effect of corporate governance on firm performance, focusing mainly on the role of the board. The board of directors is considered the main control mechanism to protect the interest of shareholders against aggressive management actions. In addition to monitoring management, board roles help management to accomplish a corporate ethical and legal compliance (BRC, 1999).

In addition to the characteristics of the board, what will also be taken into consideration are the characteristics of the audit committee where the latter is considered the extended arm of governance.

The next section thoroughly reviews how each independent variable will be measured. The variables were grouped into two categories. Each category included individual variables representing the attributes concerning the boards of directors, like size, independence, meetings, ownership and duality, and specific attributes pertaining to audit committee, like size, independence, meetings and financial expertise. The individual variables for each of these categories are discussed below.

**Board of Directors**

This section will explore the measurement of each of the board characteristics that would likely affect the firm financial performance in accordance to the literature review explained in chapter three. These board characteristics are mainly board independence, meetings, chairman duality, director ownership and board size.
Board Independence

A board of directors consists of two types of directors: executive and non-executive directors. Executive directors are responsible for setting a firm’s strategic objectives, providing leadership and supervising management. Non-executive directors are appointed on a part-time basis and are responsible for various functions; in some cases, they act as a firm’s chair person or on different key committees: audit committees; nomination committees; remuneration committees. In other cases, they act as guardians of the firm, monitor management actions and ensure that a firm is working in the best interest of the shareholders and other stakeholders. Board independence has been extensively investigated, whether directors should be insiders (executive) or outsiders (non-executive). Empirical evidence is mixed; some studies found out that having more independent directors on the board improves a firm's performance (e.g. Daily & Dalton, 1992; Barnhart et al., 1994). On the other hand, there were many other arguments and studies that opposed outside directors (e.g. Klein, 1998; Bhagat & Black, 2000). Furthermore, there were other studies that found that there is no significant relationship between a board's composition and a firm's performance (e.g. Fosberg, 1989; Hermalin & Weisbach, 1991).

Following various studies, such as: Fama (1980); Baysinger and Butler (1985); Fama and Jensen (1989); Hermalin and Wesback (1991); Yermack (1996); Bhagat and Black (2002); Abdullah (2004); Abor and Biekpe (2007); Sunday (2008); Ehikiyoa (2007); Redy et al. (2010), this research measures board independence as the proportion of non-executive directors over the total number of directors.

Board Meetings

Board meetings are considered an essential indication of board diligence and an essential part of the board process (Carcello et al., 2002) because when directors
frequently meet, they will more likely fulfil their duties in conformity to shareholders’ interests. In contrast, when boards meet rarely they will not have time to handle complex issues as such. As board meetings increase, this is viewed as an increase in the intensity of the board’s activity (Vafeas, 1999).

Following various studies (e.g. Vafeas, 1999; Beasley et al., 2000; Carcello et al., 2002), board meetings will be measured by considering how many meetings are annually held by the board of directors.

**CEO Duality**

CEO duality is a situation where the role of the CEO of the firm and the chairman of the board are held by the same person. Some studies supported CEO duality (e.g. Boyd, 1995; Sanda, et.al, 2005). On the other hand, Finkelstein and D’Aveni (1994) and Carlsson (2001) found that CEO duality weakened the board monitoring effectiveness. Following various studies, like those of Boyd (1995), Muth and Donaldson (1998), Weir et al. (2002) and Abdullah (2004), this research will examine this variable by taking a value of 1 if the CEO and chairman are the same person; otherwise, that value will be 0.

**Director Ownership**

Director ownership refers to the proportion of shares held or owned by directors. Brickly et al. (1988), Davis et al. (1997), Shleifer and Vishny (1997) and Becht et al. (2005) suggested that the alignment of interest between shareholders and firm managers through directors’ ownership includes both executive and non-executive directors could reduce agency problems and enhance firm performance. Following the literature on director ownership and firm performance, such as: Cho (1998); Bhagat et al. (1999); Palia and Lichtenberg (1999), director ownership will be measured by the proportion of
shares owned by directors over the total number of shares outstanding in a particular year.

**Board Size**

As stated by Hermalim and Weisbach (1988), Klein (1998), Adam and Mehran (2003), Anderson *et al.* (2004) and Coles *et al.* (2008), board size is an indicator for both monitoring and advisory roles. It is found that board size increases with firm age and firm size (Coles *et al.*, 2008). To test its effect, various studies measured board size as the total number of directors on the board of a firm (e.g. Yermach, 1996; Bhagat & Black, 2002; Adam & Mehran, 2003; Bonn, 2004; Coles *et al.*, 2008). Following these studies, board size will be measured by the number of directors on the board.

**Audit Committee Characteristics**

This section will explore the measurement of each audit committee characteristic that is expected to have an effect on firm financial performance, and this will be based on the literature review that was illustrated in Chapter Three, namely audit committee size, independence, meetings and financial expertise.

**Audit Committee Size**

The number of members on the audit committee indicates the availability of resources for that committee. Regarding the size of the audit committee, the 2003 UK Corporate Governance Code, the 1999 BRC and the 1999 SRC all mandate that the audit committee must consist of at least three directors. Following Lin *et al.* (2006), an audit committee's size will be measured as a variable which takes a value of 1 if the audit committee consists of at least 3 members, 0 if otherwise.
Audit Committee Independence

The audit committee acts as an intermediary between management and auditors. As a result, it is expected that an audit committee consists of independent outside directors in order to be independent from management and to be able to monitor the firm’s financial performance effectively. Vicknair et al. (1993) stated and strengthened that in order for the audit committee to function effectively, an audit committee must be independent from management. Hence, following various studies, such as Lin et al. (2006), the audit committee will be measured as a variable which takes a value of 1 if all audit committee members are independent and 0 if otherwise.

Audit Committee Meeting Frequency

Audit committee meetings refer to the frequency that the committee members meet. Active audit committees that meet often are expected to be effective monitors, while audit committees that rarely meet are considered to be less likely to effectively monitor management. The average number of audit committee meetings is considered as an indicator for the level of audit committee activity (Menon & Williams, 1994; Xie et al., 2001). According to Xie et al. (2001), the impact of audit committee meeting frequency will be measured by the frequency or number of meetings held per year.

Audit Committee Financial Expertise

Monitoring the financial process of an organization is considered the primary role of the audit committee; hence it is expected for the audit committee to consist of directors who are both competent and experienced in the financial issues and aspects (Rashidah & Fairuzana, 2006). The audit committee's financial expertise attribute measures that. Following Felo et al. (2003), audit committee's financial expertise will be measured as a proportion of audit committee members with financial expertise over the total number of audit committee members.
4.4.1.2 Measurement of the Dependent Variables

The way corporate performance is constituted has been debated by many studies (Cochran & Wood, 1984; Ittner & Larcker, 2003). In order to empirically examine board characteristics’ impact on firm performance, appropriate performance measures should be selected to be able to analyse objectively. A variety of financial measures were traditionally used in exercising the role of the boards. Those financial measures are ROA (e.g. Zajac & Westphal, 1996; Shrader, Blackburn & Iles, 1997; Kiel & Nickolson, 2003); Tobin’s Q (e.g. Yermack, 1996; Weir et al., 2002; Kiel & Nicholson, 2003); return on investment (e.g. Boyd, 1995; Adjaoud et al., 2007); sales revenue (e.g. Bhagat et al., 1999); ROE (e.g. Bhagat et al., 1999; Adjaoud et al., 2007); stock returns (e.g. Bhagat et al., 1999); earning per share (e.g. Adjaoud et al., 2007).

As a result, and based on the literature, this research will use both accounting-based and market-based performance measures. ROA and ROE will be used as the accounting-based performance indicators and Tobin's Q will be used as the market-based one.

**Return on Assets**

The return on assets measures the performance through showing investors to what extent the firm has generated earnings from its invested capital (Epps & Cereola, 2008). In other words, ROA indicates the management achievement in regards to the given assets or resources, as managers are responsible for utilizing the firm’s assets being part of the firm’s operations. Agency theorists argue that managers would most probably disseminate profits with less return left for shareholders; a lower return on assets indicates the inability of management to efficiently utilise corporate assets.

The relationship between managing the firm and the efficiency, by which mangers employ the corporate assets owned by shareholders, is directly reflected by the ROA. A lower ROA indicates inefficiency (Mehran, 1995). Accordingly, ROA could reliably measure firm performance, thus it is used by this research.

As concluded by various studies, ROA is regarded as a dominant measure of firm performance used in many studies (Zajac and Westphal, 1996; Shrader et al., 1997; Kiel & Nicholson, 2003; Carter et al., 2003; Erhardt et al., 2003). The research will use ROA as a measure of operating performance. According to Demsetz and Lehn (1985), Mehran (1995), Ang et al. (2000) and Taghizadeh and Saremi (2013), ROA is taken as a performance proxy, measured as a percentage of net income to total assets.
Return on Equity

Generating income for the benefit of the shareholders is one of the primary reasons and objectives for operating a corporation. Return on equity (ROE) is an indicator that shows the investors the profit generated from the money invested in the firm by its shareholders (Epps & Cereola, 2008).

ROE is a ratio that is used to assess the amount of return a shareholder gets from an investment (Brigham and Houston, 2009). It is a reflection of the management's effectiveness to generate additional earnings for the firm and its shareholders (Tezel & McManus, 2003). Wall Street analysts support the use of this ratio because the higher the ROE, the faster the shareholder equity's total growth is. Hence, the stock price of a firm increases by maximising the shareholders' wealth (Rothschild, 2006). One peculiarity about ROE is that it does not consider risk, though shareholders do care about that (Abdullah, 2004).

Various studies (e.g. Bhagat et al., 1999; Adjaoud et al., 2007; Epps & Careola, 2008) have used ROE as a measurement of operating performance. According to the studies of Demsetz and Lehn (1985), Mehran (1995), Ang et al. (2000) and Taghizadeh and Saremi (2013), ROE will be measured as a percentage of net income to total equity.

Tobin’s Q

Tobin’s Q is named after James Tobin, and it is defined as the ratio of book value of debt and market value of equity of the firm to the cost of replacement of the firm (Nor et al., 1999). Majumdar and Chhibber (1999) used various measures to evaluate firm financial performance, including accounting-based ones, such as ROE and ROA, calculated from a firm’s financial statements; market-based ones, such as stock returns
and volatility; and Tobin’s Q measurement, which mixes market values with accounting values. Tobin's Q combines several accounting and market values by taking into consideration the firm's market value. Other measurements, as reviewed earlier, do not do the same. Tobin's Q, as a result, is a powerful tool to utilise, since it analyses corporate performance from a market perspective, unlike the other ratios that use the firm's financial statements (De Jong, 2002).

Tobin’s Q as a performance measure is commonly and frequently used as a dependent variable in exploring the relationship between corporate governance and firm performance. It is considered the classic valuation measure extensively used in literature regarding corporate governance (Garay & Gonzalez, 2008). Shleifer and Vishny (1988), Agrawal and Knoeber (1996), Hussain et al. (2001), La Porta et al. (2002), Gompers et al. (2003) and Redy et al. (2010) all used Tobin's Q as a market-based performance measure, so will the research in hand. Based on Coleman et al. (2007), Tobin’s Q will be measured as the market value of equity and book value of total debts divided by book value of total assets.

4.4.1.3 Measurement of the Control Variables

This research mainly focuses on corporate governance effect on firm performance, specifically identifying the effect of board characteristics on firm performance; however it is important that other factors must be controlled. Those factors are ones that may not be related to corporate governance practices yet may also contribute to improving firm performance, such as the effects of firm size, age and leverage (Fiegner et al., 2000; Kiel & Nicholson, 2003).
Firm Size

Firm size is a factor that influences governance. Booth et al. (2002) and Peasnell et al. (2003) stated that governance structures could be substituted, and that a firm should select the most suitable governance options. The more complex a firm becomes, the more sophisticated governance structures and processes are required. Larger firms have more agency costs as larger spans usually allow greater managerial discretion and opportunism, which in result requires increased monitoring (Jensen & Meckling, 1976). On the contrast, large organizations have more capacity to generate funds, avoid financial constraints, and use their available funds to invest in profitable projects more than smaller firms do (Short & Keasey, 1999). Definitely, as the firm size changes, different characteristics of the board might be affected. Therefore, this research uses the firm size as a control variable to investigate the impact of board characteristics on firm performance. Firm size will be measured as the natural logarithm of total assets.

Firm Age

Firm age is referred to by the number of years a firm has been operating. As suggested by Berger and Udell (1998) and Gregory et al. (2005), with greater age, firms experience a financial-growth cycle and a change in their capital structures. It was also stated by Boone et al. (2007) that as a firm grows, complexity increases with age, and boards grow in response to the need for more monitoring and specialisation by board members. As a result of the uncertain relationship of firm age on board characteristics and on firm performance, the research will control for firm age. Firm age will be measured by the number of years since its incorporation in its logarithm.
Firm Leverage

As stated by Grossman and Hart (1982) and Jensen (1986), leverage is viewed as a positive signal of firm value, and management-leveraged firms have devoted themselves to creditors to accomplish a level of cash flow in order to cover interest and principal payments. Several studies use leverage as one of the control variables (e.g. Short & Keasey, 1999; Ehikioya 2007). This research measures leverage as total debt divided by total assets.

4.4.2 Sample Selection

This research covers the Egyptian firms listed in the EGX that provided full information for the period (2004 – 2012). This time period was selected because the guide used for corporate governance variables; the 2004 ECCG, has been effective since 2004. Thus, this research will reflect the impact of the recent developments in corporate governance in Egypt on corporate performance from 2004 onwards. The sample ends in 2012 because this is the most recent year for which the data was available at the time during the data collection process.

The total number of listed companies in the Egyptian Stock Exchange is shown in table 4.1 (Source: EGX). The research is restricted to listed firms because of the assumption that listed firms adhere to the rules and standards set by regulatory bodies in the course of their business activities. Additionally, listed firms are expected to prepare and publish their financial information in compliance with the prevailing accounting regulations. The sample used in this research is based on the Egyptian enterprises listed in the Egyptian stock market; these companies are considered the best reflection of the Egyptian market. Furthermore, targeting those companies guarantee the statistical power of the tests and maximize the data availability. These companies cover about
twelve industries: oil and gas, building materials and construction, chemicals, technology, communication, media, industrial goods and services, travel and leisure, food and beverage, housing and real estate, information technology, and health and pharmaceuticals (see Appendix B).

Financial companies are not included in this sample because they differ from non-financial companies in their regulatory tax requirements and their financial reporting characteristics (Alsaeed, 2006). Mehran et al. (2011) identified one main difference in governance between financial and non-financial sectors. The intricacy of the financial sectors, especially the banking sector, causes difficulty for implementing formal regulations. Because of the differences in regulations between non-financial firms and banks, this research does not include any financial firms. Banks and financial institutions are omitted too, because of their different nature of their accounting practices and because they have particular governance issues, making this sector different from all others (Faccio & Lasfer, 2000).

Table 4.1: Number of Listed Firms in the Egyptian Stock Market 2004-2012

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of listed firms</td>
<td>803</td>
<td>770</td>
<td>656</td>
<td>544</td>
<td>377</td>
<td>333</td>
<td>215</td>
<td>211</td>
<td>212</td>
</tr>
</tbody>
</table>

By doing this and based on data availability, a final sample of 56 Egyptian firms was obtained for a period of nine years. This selected sample includes firms that are considered top enterprises in Egypt that most likely tend to attract and employ competent and skilled personnel on the board. Furthermore, these firms are expected to have sufficient access to capital as well as other resources that are necessary for both; their survival, and their performance enhancement. This sample is classified into 12 industrial sectors (see table 4.2).
### Table 4.2: Sample Sector Classification

<table>
<thead>
<tr>
<th>#</th>
<th>Sector</th>
<th># of Firms in the Sector</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oil and Gas</td>
<td>1</td>
<td>1.78%</td>
</tr>
<tr>
<td>2</td>
<td>Chemicals</td>
<td>5</td>
<td>8.93%</td>
</tr>
<tr>
<td>3</td>
<td>Constructions and Materials</td>
<td>11</td>
<td>19.64%</td>
</tr>
<tr>
<td>4</td>
<td>Food and Beverage</td>
<td>8</td>
<td>14.29%</td>
</tr>
<tr>
<td>5</td>
<td>Real Estate</td>
<td>9</td>
<td>16.07%</td>
</tr>
<tr>
<td>6</td>
<td>Technology</td>
<td>1</td>
<td>1.78%</td>
</tr>
<tr>
<td>7</td>
<td>Telecommunication</td>
<td>3</td>
<td>5.36%</td>
</tr>
<tr>
<td>8</td>
<td>Media</td>
<td>1</td>
<td>1.78%</td>
</tr>
<tr>
<td>9</td>
<td>Industrial Goods, Services and Automobiles</td>
<td>8</td>
<td>14.29%</td>
</tr>
<tr>
<td>10</td>
<td>Personal and Household Products</td>
<td>6</td>
<td>10.73%</td>
</tr>
<tr>
<td>11</td>
<td>Travel and Leisure</td>
<td>2</td>
<td>3.57%</td>
</tr>
<tr>
<td>12</td>
<td>Health and Pharmaceutical</td>
<td>1</td>
<td>1.78%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

#### 4.4.3 Data Collection

Secondary sources of data were used in this research. The annual disclosure book issued by EGX is the primary source of data in this research. The book contains the annual reports of the companies listed in Egypt's stock exchange at that year. The variables of board characteristics and firm performance are calculated using these annual reports. The research in hand used the disclosure books for years 2004–2012.

Some of the companies were missing their annual reports. Those annual reports were purchased from Egypt for Information Dissemination (EGID). EGID is a subsidiary fully owned by EGX, and it is there to enhance Egypt's market transparency. EGID is responsible of spreading EGX trading-data as well as information about listed...
companies locally and internationally; yet few firms' data remain unavailable in terms of board-related information. Therefore, those firms were eliminated from the sample.

4.4.4 Research Analysis and Procedures

Two models are developed to test the research hypothesis. The research is separated into two models mainly due to the debate raised by some corporate governance research that different governance mechanisms could be substitutable; like board independence and audit committee independence, board meetings frequency and audit committee meetings frequency (e.g. Rediker & Seth, 1995; Agrawal & Knoeber, 1996; Carcello et al., 2002; Boo & Sharma, 2008). Therefore, to avoid the substitution problem that might exist between board variables and audit committee variables, a separate model was constructed for each set of variables in this research.

By using two separate models in this research, we will be able to examine the effect of each of the board characteristics and the audit committee characteristics on firm performance separately. The first model will focus only on board attributes, and the second model will focus on the audit committee attributes. Hence, the practical models with the main variables of the research are formed as follows.

4.4.4.1 First Empirical Model

The first empirical model investigates the impact of board characteristics on firm performance. Five main hypotheses will be formulated and tested. Table 4.3 shows these five statements.
Table 4.3: Board Characteristics Hypotheses

<table>
<thead>
<tr>
<th>Board Characteristics Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
</tr>
<tr>
<td>H2</td>
</tr>
<tr>
<td>H3</td>
</tr>
<tr>
<td>H4</td>
</tr>
<tr>
<td>H5</td>
</tr>
</tbody>
</table>

The proposed regression model is defined by the following equation:

\[
\text{PERF}_{i,t} = \beta_0 + \beta_1 \text{BSIZE}_{i,t} + \beta_2 \text{BINDEP}_{i,t} + \beta_3 \text{BMEET}_{i,t} + \beta_4 \text{CEODUAL}_{i,t} + \beta_5 \text{DOWN}_{i,t} + \beta_6 \text{FSIZE}_{i,t} + \beta_7 \text{FAGE}_{i,t} + \beta_8 \text{FLEV}_{i,t} + \mu_{i,t}
\]

Where \( \text{PERF}_{i,t} \) is a measure of performance taken as ROA, ROE and Tobin’s Q for firm \( i \) at time \( t \), and \( \mu_{i,t} \) is the error term.

The following table explains and summarises the variables used in this research, the definition of each variable and the measurement of each variable.

Table 4.4: Variables Definition and Measurement for the First Empirical Model

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>DEFINITION</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>Return on equity</td>
<td>Measured as percentage of net income to total equity</td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>Tobin’s Q</td>
<td>Measured as the market value of equity and the book value of firm’s debt divided by the book value of total assets</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on assets</td>
<td>Measured as percentage of net income to total assets</td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSIZE</td>
<td>Board size</td>
<td>Number of directors on the board</td>
</tr>
<tr>
<td>BINDEP</td>
<td>Board independence</td>
<td>Proportion of non-executive directors over the total number of directors</td>
</tr>
<tr>
<td>BMEET</td>
<td>Board meeting frequency</td>
<td>Number of meetings held</td>
</tr>
<tr>
<td>CEODUAL</td>
<td>CEO duality</td>
<td>1 if CEO is also the chairman, 0 otherwise</td>
</tr>
</tbody>
</table>
### VARIABLES

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DEFINITION</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWN</td>
<td>Director ownership</td>
<td>Proportion of shares owned by directors among total firm shares outstanding</td>
</tr>
</tbody>
</table>

#### Control Variables

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DEFINITION</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSIZE</td>
<td>Firm size</td>
<td>The total assets owned by the firm, measured as the natural logarithm of total assets</td>
</tr>
<tr>
<td>FAGE</td>
<td>Firm age</td>
<td>Measured as the number of years since its incorporation in its logarithm</td>
</tr>
<tr>
<td>FLEV</td>
<td>Firm leverage</td>
<td>Measured as percentage of total debt to total assets</td>
</tr>
</tbody>
</table>

#### 4.4.4.2 Second Empirical Model

The second empirical model examines the impact of audit committee characteristics on firm performance. Four main hypotheses will be formulated and tested. Table 4.5 shows these four statements.

**Table 4.5: Audit Committee Characteristics Hypotheses**

<table>
<thead>
<tr>
<th>Audit Committee Characteristics Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6</td>
</tr>
<tr>
<td>H7</td>
</tr>
<tr>
<td>H8</td>
</tr>
<tr>
<td>H9</td>
</tr>
</tbody>
</table>

The proposed regression model is defined by the following equation:

\[
\text{PERF}_{i,t} = \beta_0 + \beta_1 \text{ACSIZE}_{i,t} + \beta_2 \text{ACINDEP}_{i,t} + \beta_3 \text{ACFINEXP}_{i,t} \\
+ \beta_4 \text{ACMEET}_{i,t} + \beta_5 \text{FSIZE}_{i,t} + \beta_6 \text{FAGE}_{i,t} + \beta_7 \text{FLEV}_{i,t} + \mu_{i,t}
\]

Where \(\text{PERF}_{i,t}\) is a measure of performance taken as ROA, ROE and Tobin’s Q for firm \(i\) at time \(t\), and \(\mu_{i,t}\) is the error term.
The following table explains and summarises the variables used in this research, the definition of each variable and the measurement of each variable.

**Table 4.6: Variables Definition and Measurement for the Second Empirical Model**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>DEFINITION</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>Return on equity</td>
<td>Measured as percentage of net income to total equity</td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>Tobin’s Q</td>
<td>Measured as the market value of equity capital and the book value of firm’s debt divided by the book value of total assets</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on assets</td>
<td>Measured as percentage of net income to total assets</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACSIZE</td>
<td>Audit committee size</td>
<td>1 if audit committee consist of at least 3 members, 0 otherwise</td>
</tr>
<tr>
<td>ACINDEP</td>
<td>Audit committee independence</td>
<td>1 if all audit committee members are independent, 0 otherwise</td>
</tr>
<tr>
<td>ACFINEXP</td>
<td>Audit committee financial expertise</td>
<td>Proportion of audit committee members with financial expertise over the total number of audit committee members</td>
</tr>
<tr>
<td>ACMEET</td>
<td>Audit committee meeting frequency</td>
<td>Number of meetings held</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSIZE</td>
<td>Firm size</td>
<td>The total assets owned by the firm, measured as the natural logarithm of total assets</td>
</tr>
<tr>
<td>FAGE</td>
<td>Firm age</td>
<td>Measured as the number of years since its incorporation in its logarithm</td>
</tr>
<tr>
<td>FLEV</td>
<td>Firm leverage</td>
<td>Measured as percentage of total debt to total assets</td>
</tr>
</tbody>
</table>
4.4.4.3 Hypotheses Testing

The main method used in this research is regression analysis which is almost certainly the most important method at the econometrician’s disposal (Brooks, 2008), as well as the most commonly used technique of multivariate analysis. This research examines the effect of multi corporate governance variables on firm performance as a dependent variable. A multiple regression is considered to be suitable for this research. According to Hutcheson and Sofroniou (1999), the Ordinary Least Squares (OLS) regression is considered to be a powerful technique when the model contains both dummy and continuous variables, which is similar to the case in this research. However, the use of OLS regression is subject to certain conditions that will be illustrated in the following section.

1. Valid standard errors. One of the problems that might result in invalid interpretations is Heteroscedasticity; as it violates the assumption of homoscedastic error terms (Gujarati, 2003). White’s test for heteroscedasticity will be used to discover if heteroscedasticity exists.

2. Another problem is the serial and cross-sectional correlations (autocorrelation) which may cloud the interpretations due to violating the assumption that the covariance between the error terms over time and cross-sections is zero (Wooldridge, 2002). This will be tested using a numerical test on STATA.

3. OLS has an implicit assumption; the Multicollinearity, which denies the correlation between the explanatory variables. On the contrary, the possibility of high correlation between the explanatory variables is one of the common problems in multiple regression. Multicollinearity creates several problems in the model driving significance tests to give misleading conclusions, and hence making it difficult to draw functional interpretations (Brooks, 2008). Multicollinearity could simply be detected by analysing the correlation matrix.
between the explanatory variables to identify any signs of high correlation between them. The researcher also will test for multicollinearity, using the correlation coefficient and variance inflation factors (VIF) to calculate each board of directors and audit committee factors. According to Hair et al. (1998) and Kennedy (2008), value of the variance inflation factor greater than 10 and a tolerance factor close to 0 indicate the existence of multicollinearity in the models.

4. Omitted variable bias results in biased and inconsistent estimates of the coefficients (Brooks, 2008). To be able to avoid this problem, this research will conduct a comprehensive analysis on prior research in the area of corporate governance to identify the most important factors that affect the firm performance. Furthermore, omitted variable bias could be potentially solved through panel data.

Panel data sets commonly include both; time series and cross sectional elements. It embraces data about the same individuals or firms and studies them over a period of time. Compared to time series and cross sectional data, panel data sets are richer and can provide the researcher with more useful information through tackling a greater range of problems. Moreover, using panel data sets encounter a higher degree of freedom and less collinearity, as well as an improved efficiency of estimates and a broader scope of interpretation (Baltagi, 2001). Econometrically panel data sets are described as follows:

\[ Y_{it} = \alpha + \beta X_{it} + \epsilon_{it} \]
Chapter Four Research Hypotheses and Methodology

Where Yit is the dependent variable, \( \alpha \) is the intercept, \( \beta \) is a \( k \times 1 \) vector of parameters; where \( k \) represents the number of explanatory variables, and \( x_{it} \) represents a \( 1 \times k \) vector of observations on the explanatory variable, where \( t=1,\ldots, T \) and \( i=1,\ldots, N \).

Based on the previous discussion the researcher preferred a GLS regression to OLS regression. Consequently, GLS regression is more suitable, especially in this research, because it corrects the omitted variable bias and the presence of autocorrelation and heteroscedasticity. This methodology allows researchers directly examine the variations among cross-sectional units with variations within the individual units over time (Gaur & Gaur, 2006). Furthermore, the regression parameters do not differ between the various cross-sectional units, enhancing the reliability of the coefficient estimates.

4.4.4.4 Random-Effect versus Fixed-Effect

In academic research, there are two approaches used to explain the relationship weight within or between each cross-section. First, fixed effect approach assumes that in a regression model, the individual constant is a group specific constant term. Second, the random effect approach assumes that the individual constant is a group specific disturbance similar to the error term, except for each group. As a result, there is a trade-off concerning the efficiency of the random effects approach and the consistency of the fixed effect approach (Baltagi, 2001; Greene, 2007).

As commonly practiced in several economic research, one of both approaches should be chosen based on the “Hausman (1978) test” or the “Robust Hausman Test (1993)”. The Hausman specification test benefits and assists researchers in differentiating between random and fixed effects models, by analysing the correlation between the various variables in a study and the individual random effects. If no correlation is found, the
researcher should use the random effects. However, if correlation exists, the researcher should use the fixed-effects.

In this research, the researcher followed the McKnight and Weir (2009) approach regarding the implementations of the Robust Hausman Test. The researcher used to check the assumption and to examine the appropriateness of using the random-effects estimation. When the insignificant result was obtained from the Robust Hausman Test, it showed that the assumptions for the random effects estimation were not violated.

This research will use the random effects approach. This approach is selected as a superior approach, not only based on the Robust Hausman Test, but for other multiple reasons. The fixed effect approach is relevant to the cross-sectional firms in the tested sample and cannot be generalised outside that sample (Greene, 2007). In addition, Greene (2007) suggested that when the cross-sectional sample of firms is drawn from a large population, the individual specific constant terms are viewed as randomly distributed across cross-sectional firms. The sample in this research is drawn from a large population that consists of all firms listed on EGX over nine years. So Greene’s view may apply.

In this research, the researcher covers nine years of time series data and has a relatively large number of cross-sectional units, which make the random effects approach more appropriate. According to Judge et al. (1985), when the number of time series data is small and the number of cross-sectional units is large, the statistical implication is restricted to the observed cross-sectional units in the sample. Therefore, the choice of the random effects approach is preferable. Moreover, the fixed effects approach uses a
dummy variable to identify firms. This, in turn, would result in a large number of parameters relative to the number of observations. Thus, the power of the model would be weakened due to the loss of degrees of freedom.

According to this research, the major statistical techniques used in the data examination and evaluation are descriptive analysis of the data – including the analysis of the overall mean scores, standard deviations, median, minimum and maximum for each individual variable – and the GLS (random effects) regression test, which tests for the existence of a relationship between firm performance and attributes of board of directors and audit committee factors. The researcher used a GLS (random effects) model to test the proposed relationships. Statistical analysis and examination of the data are accomplished using the computer program STATA. This package delivers and offers researchers a platform where multivariate-testing methods can be applied to the research design utilized by this research.

4.5 Conclusion

When conducting a research, the phase of choosing the most suitable research methods, and the appropriate methods to be used for data collection, is a critical one. The chosen method shall ensure the achievement of the research goals. This chapter fully describes the steps incurred in the preparation of the analysis phase. These steps include developing the hypothesis for each variable, measuring the dependent, independent, and control variables, identifying the sampling process and the data collection issues, the research design, and selecting the appropriate analytical techniques. In addition, this chapter provides information regarding the issues considered during the implementation of each step.
In summary, this research collected corporate governance data from the annual disclosure book issued by EGX, to practically examine the board of directors’ indicators, the audit committee factors, and the firm performance. This research used a sample of 56 firms listed on the Egyptian stock market, and comprised a time period of nine years from 2004 to 2012. Banks and financial institutions are omitted because this sector has particular governance issues that make it different from all other sectors, as well as they have different accounting practices. The positivist approach is adopted in this research, while the cross-sectional approach is utilized in testing the hypotheses as the corporate governance factors are independent over time. The GLS regression is used for testing the models. The forthcoming chapter presents the results of the tests applied to analyse the gathered data based on the steps described in the current chapter.
Chapter Five: Data Analysis and Discussion

5.1 Introduction

Chapter five explains the data analysis results according to the research methodology described in chapter four. Empirical evidence was provided through applying several statistical tests aimed at answering the primary research question: Do the board of directors and audit committee characteristics enhance firm financial performance in Egypt?

In this chapter, the nine hypotheses discussed in chapter four are tested. This research adopted two empirical models to be used in testing these hypotheses. The descriptive statistics of the variables adopted are illustrated and presented in section 5.2. Next, the correlation coefficients are presented and discussed in section 5.3. Then, a demonstration and a discussion of the results raised from testing the hypotheses for each empirical model are provided in section 5.4, and finally section 5.5 concludes and summarises the analysis and findings.

5.2 Descriptive Statistics

Table 5.1 presents all the variables’ descriptive statistics. The percentage of board independence shown in the sample is relatively high; around 65%. This percentage highly complies with the corporate governance recommendations in Egypt which called for maintaining a board that is mainly composed of non-executive directors. The average number of board meetings was about 4 times per year (mean = 4.44), which is just above the minimum number of meetings as recommended by the ECCG. Also, the
research shows that 71.42% of the sample had the chairman and the CEO held by the same person, which is against the Egyptian corporate governance recommendation that the positions be split into two roles or, in other words, that the two roles should be held by two different people. In most of the firms in the sample, directors appear not to have significant ownership, with a mean of 8.5%. This is considered a relatively small percentage. As for the board size, 9 members was shown to be the average size (mean = 9.33). This means that boards in Egypt seems to be smaller than those in US, which have a mean size of 11.45 (Bhagat & Black, 2002), but larger than the boards in Australia which have a mean size of 6.6 (Kiel & Nicholson, 2003), as well as those in UK which have a mean board size of around 8 members (Peasnell et al. 2005).

Regarding the audit committee size, 93.45% of the sample followed the Egyptian corporate governance recommendation of having at least three directors on the audit committee. Also, the sample shows a high percentage of independence in the audit committee, at around 80% (mean = 79.56%). The average number of audit committee meetings per year was about four times (mean = 4.27), which is relatively very close to that of US which is 4.53, as reported by Xie et al. (2003). However, this figure is higher than that of Australia which had a figure of 2.50 times, as reported by Davidson et al. (2005). Also, the sample shows a high percentage of financial expertise in the audit committee, at around 46% (mean = 46.44%).
Table 5.1: Descriptive Statistics

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<tr>
<th>Variables</th>
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<th>Std. Dev.</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Skewness</th>
<th>Kurtosis</th>
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5.3 Correlation Coefficients

The Pearson correlation was used to test the correlations amongst the variables of the board of directors, audit committee and firm performance. The correlation coefficients were checked for the presence of high collinearity amongst variables using the Pearson correlations. Table 5.2 presents the Pearson correlation with the ROA; Table 5.3 presents the Pearson correlations with the ROE; and Tobin’s Q will be presented in Table 5.4.

The correlation coefficients presented in tables 5.2, 5.3 and 5.4 shows that there is no high significant correlation between the variables. Therefore, collinearity could not threaten the interpretation of regression coefficients of the independent variables in this
model. Nonetheless, the Pearson correlation showed that the highest coefficient between audit committee meetings and board meetings is 0.55. This correlation was anticipated and found by prior studies (e.g. Abdul Rahman and Ali 2006), who reported an even higher collinearity of 67%, yet considered it harmless.

Another significant correlation (28.5%) is between audit committee independence and board independence. Similarly, this correlation was found in many previous studies, recommending that corporate governance variables can substitute each other. Firms having less independent and less active boards, accompanied with a non-independent chairman, were found to have higher director ownership. The same finding was shown in earlier studies (Lasfer, 2006).

Firm size and board size appeared to have a significant correlation of 42.6% between each other. Similarly, earlier studies found the same, recommending that the larger the size of the firm, the larger the board will be. Also, there is a positive and significant correlation between firm size and all of board size, audit committee financial expertise and return on equity. In addition, a positive and significant correlation is found between firm leverage and return on equity (22.2%), and Tobin’s Q (17.4%).
### Table 5.2: Pearson Correlation Coefficients for ROA

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Table 5.4: Pearson Correlation Coefficients for Tobin’s Q

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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACMEET</td>
<td>1</td>
<td>0.340*</td>
<td>0.163*</td>
<td>-0.052</td>
<td>0.113*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACFINEXP</td>
<td>1</td>
<td>0.173*</td>
<td>0.022</td>
<td>0.199*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSIZE</td>
<td>1</td>
<td>-0.128*</td>
<td>0.227*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAGE</td>
<td>1</td>
<td>0.004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>FLEV</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
None of these correlations were significant, since the correlations are lower than 0.80. As recommended by Hair *et al.* (1995) and Gujarati (2003), 0.80 is considered the threshold at which multicollinearity concerns might be threatening for the regression analysis. Furthermore, Variance Inflation Factor (VIF) tests were carried out.

The VIFs values of both models are within acceptable limits. Gujarati (2003) suggested that a value of less than 10 shall be accepted. The VIF values of each independent variable are presented in table 5.5, showing that the maximum VIF for audit committee meetings in both models is 1.24.

The mean of VIF for both models is 1.12 and 1.11 respectively. Therefore, multicollinearity does not appear to be a problem in both models.

### Table 5.5: VIF Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>Second Model</th>
<th>Variable</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Independence</td>
<td>1.06</td>
<td>Audit Committee Size</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>Board Meetings</td>
<td>1.10</td>
<td>Audit Committee Independence</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>CEO Duality</td>
<td>1.14</td>
<td>Audit Committee Meetings</td>
<td>1.24</td>
<td></td>
</tr>
<tr>
<td>Director Ownership</td>
<td>1.15</td>
<td>Audit Committee Financial Expertise</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>Board Size</td>
<td>1.04</td>
<td>Firm Size</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td>Firm Size</td>
<td>1.23</td>
<td>Firm Age</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Firm Age</td>
<td>1.05</td>
<td>Firm Leverage</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td>Firm Leverage</td>
<td>1.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.12</td>
<td>Mean VIF</td>
<td>1.11</td>
<td></td>
</tr>
</tbody>
</table>

### 5.4 Hypotheses Testing

In the descriptive analysis, it is apparent that some variables show a high level of both skewness and kurtosis. A skewness value of ±1.96 and a kurtosis value of ±2 are required for data to be considered normal (Abdul Rahman & Ali, 2006).
Table 5.1 showed that the majority of the independent variables, as well as all of the dependent ones, are not normally distributed. Therefore, the important assumption of normality is not satisfied. This is, however, expected in such types of studies as this one (Abdul Rahman & Ali, 2006).

By and large, when all of the assumptions are met, OLS regression is more powerful. However, GLS regression would be more appropriate in case the data violates any of the OLS assumptions (Balian, 1982). First, the insignificant result obtained from the Hausman test $\chi^2$ of 45.73 ($p = 0.37$) shows that the assumption for the random effects estimation is not violated. Second, the significant result obtained from the White test chi$^2$ of 177.62 ($p = 0.0000$) shows that the assumption for the homoscedasticity is violated. Third, the significant result obtained from the Ramsey test of 7.76 ($p = 0.0000$) shows that the assumptions for the Omitted Variable Bias is violated. Fourth and finally, the significant result obtained from the Wooldridge test of 7.732 ($p = 0.0075$) shows that the assumption for the autocorrelation is violated.

In regard to the above discussion, data in this research violates the OLS assumptions. Hence, the GLS, being a multivariate test technique, is adopted instead of the OLS regression.

5.4.1 Results and Discussion of the First Empirical Model

This section presents and discusses the first empirical model that examines the relationship between board characteristics and firms’ financial performance. The regression results for this relationship will be illustrated and discussed. Board independence, board meetings, CEO duality, director ownership, and board size, are the attributes used to measure the board characteristics. Whereas, return on equity, return on assets, and Tobin’s Q, are the variables used to measure firms’ financial performance.
in the regression. Firm size, age and leverage are used as control variables or firm specific variables.

According to the above discussion, fifteen sub-hypotheses will be formulated and tested. Table 5.6 shows these fifteen statements.

### Table 5.6: Board Characteristics Sub-Hypotheses

<table>
<thead>
<tr>
<th></th>
<th>Board Characteristics Sub-Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1–1</td>
<td>There is a positive relationship between Board independence and ROE.</td>
</tr>
<tr>
<td>H2–1</td>
<td>There is a positive relationship between Board meetings and ROE.</td>
</tr>
<tr>
<td>H3–1</td>
<td>There is a negative relationship between CEO duality and ROE.</td>
</tr>
<tr>
<td>H4–1</td>
<td>There is a positive relationship between Director ownership and ROE.</td>
</tr>
<tr>
<td>H5–1</td>
<td>There is a positive relationship between Board size and ROE.</td>
</tr>
<tr>
<td>H1–2</td>
<td>There is a positive relationship between Board independence and ROA.</td>
</tr>
<tr>
<td>H2–2</td>
<td>There is a positive relationship between Board meetings and ROA.</td>
</tr>
<tr>
<td>H3–2</td>
<td>There is a negative relationship between CEO duality and ROA.</td>
</tr>
<tr>
<td>H4–2</td>
<td>There is a positive relationship between Director ownership and ROA.</td>
</tr>
<tr>
<td>H5–2</td>
<td>There is a positive relationship between Board size and ROA.</td>
</tr>
<tr>
<td>H1–3</td>
<td>There is a positive relationship between Board independence and Tobin’s Q.</td>
</tr>
<tr>
<td>H2–3</td>
<td>There is a positive relationship between Board meetings and Tobin’s Q.</td>
</tr>
<tr>
<td>H3–3</td>
<td>There is a negative relationship between CEO duality and Tobin’s Q.</td>
</tr>
<tr>
<td>H4–3</td>
<td>There is a positive relationship between Director ownership and Tobin’s Q.</td>
</tr>
<tr>
<td>H5–3</td>
<td>There is a positive relationship between Board size and Tobin’s Q.</td>
</tr>
</tbody>
</table>

The results of the Generalised Least Square (GLS) regression used in testing the relationship between board characteristics and firms’ financial performance are presented in the following table. The board characteristics are considered the independent variables, while the firm’s financial performance is the dependent variable.
Table 5.7: GLS Regression Results of the First Empirical Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Equation 1 ROE</th>
<th>Equation 2 ROA</th>
<th>Equation 3 Tobin’s Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.245</td>
<td>0.098</td>
<td>2.46</td>
</tr>
<tr>
<td>Z</td>
<td>2.10</td>
<td>1.55</td>
<td>3.75</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.018</td>
<td>0.060</td>
<td>0.000</td>
</tr>
<tr>
<td>BINDEP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.007</td>
<td>0.019</td>
<td>-0.062</td>
</tr>
<tr>
<td>Z</td>
<td>0.09</td>
<td>0.40</td>
<td>-0.07</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.463</td>
<td>0.343</td>
<td>0.471</td>
</tr>
<tr>
<td>BMEET</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.019</td>
<td>0.005</td>
<td>0.028</td>
</tr>
<tr>
<td>Z</td>
<td>2.18</td>
<td>1.26</td>
<td>0.31</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.0145</td>
<td>0.104</td>
<td>0.377</td>
</tr>
<tr>
<td>CEODUAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.111</td>
<td>0.002</td>
<td>-0.589</td>
</tr>
<tr>
<td>Z</td>
<td>1.25</td>
<td>0.45</td>
<td>-0.65</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.1065</td>
<td>0.327</td>
<td>0.256</td>
</tr>
<tr>
<td>DOWN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.001</td>
<td>0.000</td>
<td>-0.033</td>
</tr>
<tr>
<td>Z</td>
<td>0.33</td>
<td>0.28</td>
<td>-0.73</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.037</td>
<td>0.038</td>
<td>0.234</td>
</tr>
<tr>
<td>BSIZE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.011</td>
<td>0.001</td>
<td>-0.173</td>
</tr>
<tr>
<td>Z</td>
<td>0.90</td>
<td>0.17</td>
<td>-1.29</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.018</td>
<td>0.043</td>
<td>0.038</td>
</tr>
<tr>
<td>FSIZE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Coefficient</td>
<td>-0.151</td>
<td>-0.056</td>
<td>-1.057</td>
</tr>
<tr>
<td>Z</td>
<td>-4.39</td>
<td>-3.05</td>
<td>-2.99</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.576</td>
<td>0.595</td>
<td>0.003</td>
</tr>
<tr>
<td>FAGE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.048</td>
<td>-0.042</td>
<td>1.057</td>
</tr>
<tr>
<td>Z</td>
<td>1.21</td>
<td>-1.99</td>
<td>0.83</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.112</td>
<td>0.023</td>
<td>0.020</td>
</tr>
<tr>
<td># of Observations</td>
<td>475</td>
<td>475</td>
<td>475</td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>8.24%</td>
<td>6.46%</td>
<td>5.41%</td>
</tr>
<tr>
<td>Wald chi 2</td>
<td>32.51</td>
<td>15.08</td>
<td>14.56</td>
</tr>
<tr>
<td>Prob &gt; chi2</td>
<td>0.000***</td>
<td>0.037**</td>
<td>0.026**</td>
</tr>
</tbody>
</table>
5.4.1.1 ROE as a Dependent Variable

Board characteristics (independent variables) have been regressed against the ROE (dependent variable). The Adjusted R-square for this model was equal to 8.24%, which implies that only 8.24% of the variations in ROE were determined by board characteristics, namely board independence, board meetings, CEO duality, director ownership and board size; while the remaining 91.76% of variations is attributed to other variables. The probability of chi$^2$ showed that the overall model is significant.

Inconsistent with the first hypothesis, specifically with H1–1, which states that there is a positive relationship between the proportion of independent directors on the board and firm financial performance as measured by ROE, the results showed that there is a positive but not significant relationship with ROE; implying that external independent directors cannot influence a firm’s financial performance. This supports the findings of Rashid et al. (2010), as well as the earlier findings of Fosberg (1989), Hermalin and Weisbach (1991), Yermack (1996), Klein (1998), Bhagat and Black (2000), Bhagat and Black (2002) and AlFarooque et al. (2007), which showed no significant relationship between a high proportion of independent directors and firm performance. Based on this result, H1–1 was rejected.

This result differs from that of other studies conducted on Asian countries such as Taiwan (e.g. Cheng, 2005) and Sri Lanka (e.g. Heenetigala & Armstrong, 2011), which found a positive significant relationship between non-executive directors and firm performance. The difference in the results is due to the corporate governance regimes in these countries, which may differ from the Egyptian market.

Consistent with this research’s expectation, board meeting results showed a positive significant relationship with ROE, which is supported by Zahra and Pearce (1989),
Lipton and Lorsch (1992), Vafeas (1999), Carcello *et al.* (2002), Lawler *et al.* (2002), Karamanou and Vafeas (2005) and Mangena and Tauringana (2008), all which reflect that as the frequency of board meetings increase, the firm financial performance will increase. This is acceptable and consistent with the formulated hypothesis H2-1.

On the other hand, the result is different from that found by Yermack (1996), who used a sample of US listed firms which reported a statistically significant and negative association between the board meetings frequency and firm performance. The results may be different as this research is on the Egyptian market, and Egypt is considered as a developing country with an emerging market compared to the US, which is considered a developed country.

Hypothesis 3–1 predicts a negative relationship between CEO duality and firms’ financial performance. The positively signed coefficient and the significant relationship showed in the results reject this research’s argument and hypothesis. CEO duality results are also supported by the study conducted by Sanda *et al.* (2005), where CEO duality showed a significant positive relationship with ROE.


Hypothesis 4–1, based on the agency theory, predicts that director ownership was positively related to firms’ performance as measured by ROE. A positive but insignificant coefficient was found on director ownership. This result might be due to neglecting the director ownership in the research sample.
As shown in table 5.2, the director ownership has a mean of value of .08. Such a low level of directors’ equity interest implies the unlikeliness of director ownership to lessen the potential conflict of interests resulting from the separation of control and ownership. Consistently, the same finding was shown in De Angelo and De Angelo (1985), Dalton et al. (2003), Sheu and Yang (2005) and Ehikioya (2007), which showed a positive insignificant relationship with firm performance.

In this research, board size is found to have a positive and significant relationship with ROE, which is consistent with this research’s argument and, therefore, accepts hypothesis H5–1. This result is similar to that found by Sanda et al. (2005), which was conducted in Nigeria, and found that board size showed a significant positive relationship with ROE.

However, some evidence from the US market provided by Yermack (1995) shows that board size and firms’ financial performance are negatively and significantly associated. These results vary as the corporate governance regimes and markets differ among the countries in which these studies were based. In addition, another reason behind the opposite results found by these studies is that, as mentioned before, Egypt is considered a developing country with an emerging market compared to the US, which is considered a developed country.

As for the control variable, firm size, this shows a positive significant relationship with ROE. The same finding was shown previously in Berk (1997). Thus, this result supports previous studies which claimed that large-sized firms usually experience higher financial performance. Firm age showed an insignificant negative relationship, while firm leverage showed a positive but not significant relationship with ROE, both of which are supported by the findings of Fooladi (2012).
To summarise the results of the regression model of board characteristics (independent variables) against the ROE, it is obvious that most of the sub-hypotheses formulated earlier were rejected due to either opposing coefficients or insignificance. Table 5.8 summarises the findings of the sub-hypotheses, accepted or rejected.

### Table 5.8: Summary of Board Characteristics Sub-Hypotheses findings for ROE

<table>
<thead>
<tr>
<th>Summary of Board Characteristics Sub-Hypotheses findings for ROE</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1–1 There is a positive relationship between Board independence and ROE.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2–1 There is a positive relationship between Board meetings and ROE.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3–1 There is a negative relationship between CEO duality and ROE.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4–1 There is a positive relationship between Director ownership and ROE.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5–1 There is a positive relationship between Board size and ROE.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

### 5.4.1.2 ROA as a Dependent Variable

Board characteristics (independent variables) were regressed against ROA (dependent variable). The Adjusted R-square for this model is equal to 6.46%, which implies that only 6.46% of the variations in ROA are determined by the board characteristics, namely board independence, board meetings, CEO duality, director ownership and board size; while the remaining 93.54% of variations is attributed to other variables. The probability of chi2 showed that the overall model is significant.

Inconsistent with the first hypothesis, specifically H1–2, which states that there is a positive relationship between the proportion of independent directors on the board and firm financial performance as measured by ROA, similar to the ROE results, the results showed that there is a positive but not significant relationship with ROA. This implies that the outside independent directors cannot influence firms’ financial performance. Based on this result, H1–2 will be rejected.
Inconsistent with this research’s expectation, board meeting results showed a positive but insignificant relationship with ROA. The same result appeared previously in Coleman et al. (2007) in a study conducted on a sample of multiple African countries. According to this result, H2–2 will be rejected.

H3–2, based on the agency theory, predicts that CEO duality is negatively related to firm financial performance. The positively signed coefficient and the insignificant relationship showed in the results reject this research’s argument and hypothesis.

This result is similar to the previous findings of Baliga et al. (1996), Brickley et al. (1997), Vafeas and Theodorou (1998) and Abdullah (2004), which stated that CEO duality has no effect on firm performance.

On the other hand, the result is different from other studies conducted by Cheng (2005) and Ehikioya (2007), where they showed that CEO duality had a negative significant relationship with ROA.

Hypothesis 4–2 predicts that director ownership is positively associated with firm performance as measured by ROA. The coefficient on director ownership is positive but insignificant. As mentioned above and similar to the ROE findings, such result occurred due to neglecting the director ownership in this research.

Consistent with this research’s expectation, board size results showed a positive significant relationship with ROA. This is supported by Ehikioya (2007), who showed a positive significant relationship with ROA. On the other hand, the result is different from that conducted by Ghosh (2006), which stated that board size showed a negative significant relationship with ROA.
As for the control variables, firm size showed a similar result to that of ROE, which is a positive significant relationship with ROA. Firm age showed an insignificant negative relationship, while firm leverage showed a negative significant relationship with ROA, which is similar to the previous findings of Ehikioya (2007), who stated that firm leverage showed a negative significant relationship with ROA. On the other hand, Sanda et al. (2005) stated that firm leverage had a significant positive relationship with performance measures.

To summarise the results of the regression model of board characteristics (independent variables) against the ROA, it is obvious that most of the sub-hypotheses formulated earlier were rejected due to either opposing coefficients or insignificance. Table 5.9 summarises the findings of the sub-hypotheses, accepted or rejected.

Table 5.9: Summary of Board Characteristics Sub-Hypotheses findings for ROA

<table>
<thead>
<tr>
<th>Summary of Board Characteristics Sub-Hypotheses findings for ROA</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1–2 There is a positive relationship between Board independence and ROA.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2–2 There is a positive relationship between Board meetings and ROA.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3–2 There is a negative relationship between CEO duality and ROA.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4–2 There is a positive relationship between Director ownership and ROA.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5–2 There is a positive relationship between Board size and ROA.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

5.4.1.3 Tobin’s Q as a Dependent Variable

Board characteristics (independent variables) were regressed against Tobin’s Q (dependent variable). The Adjusted R-square for this model is equal to 5.41%, which implies that only 5.41% of the variations in Tobin’s Q are determined by the board characteristics, namely board independence, board meetings, CEO duality, director ownership and board size; while the remaining 94.59% of variations is attributed to other variables. The probability of chi^2 showed that the overall model is significant.
Hypothesis 1–3 predicts that there is a positive relationship between the proportion of independent directors on the board and firm financial performance as measured by Tobin’s Q. The results showed that there is a negative but not significant relationship with Tobin’s Q; this implies that outside independent directors cannot influence a firm's financial performance. This supports findings of AlFarooque et al. (2007), where board independence showed no significant relationship with Tobin’s Q. Based on this result, H1–3 was rejected.

Inconsistent with this research’s expectation, and similar to ROA findings, board meeting results showed a positive but insignificant relationship with Tobin’s Q. This is supported by Uzun, Szewczyk and Varma (2004), where they did not detect any significant relation between the numbers of times a board meets and firm performance. Also, in a study conducted on a sample of listed Ghanaian firms, Coleman et al. (2007) finds that the frequency of board meetings has no association with financial performance.

Inconsistent with hypothesis H3–3, which predicts that CEO duality is negatively associated with the firm financial performance, and similar to ROE findings, the results showed that there is a positive significant relationship between CEO duality and Tobin’s Q. CEO duality results are also supported by the study conducted by Sanda et al. (2005), where CEO duality showed a significant positive relationship with ROE.

Inconsistent with Hypothesis 4–3 that predicts director ownership to be positively associated with firm performance as measured by Tobin’s Q, the coefficient on director ownership is negative but insignificant. Similar findings appeared previously in Dalton, et al. (2003) and Sheu and Yang (2005), where they denied any relationship between director ownership and firm performance.
Opposing this research’s argument and with H5–3, that board size is positively and significantly associated with Tobin’s Q, board size showed an insignificant negative relationship with Tobin’s Q. This finding supports findings of a previous study by Yermack (1995) but different from Coleman *et al.* (2007), where in the latter's study the board size showed a significant positive relationship with Tobin’s Q.

As for the control variables, all control variables showed significant relationships with Tobin’s Q. Firm size indicated a significant negative relationship with Tobin’s Q, which supports the findings of Sanda *et al.* (2005), where firm size showed a significant negative relationship with Tobin’s Q. This was, however, different from the study conducted by Cheng (2005), where firm size was shown to have a significant positive relationship with both ROA and Tobin’s Q. Also, firm age indicated a significant negative relationship with Tobin’s Q. On the other hand, firm leverage showed a significant positive relationship with Tobin’s Q. This was consistent with the findings of Sanda *et al.* (2005) and Ehikioya (2007), where leverage had a significant positive relationship with Tobin’s Q.

To summarise the results of the regression model of board characteristics (independent variables) against the Tobin’s Q, it is obvious that most of the sub-hypotheses formulated earlier were rejected due to either opposing coefficients or insignificance. Table 5.10 summarises the findings of the sub-hypotheses and whether they were accepted or rejected.
### Table 5.10: Summary of Board Characteristics Sub-Hypotheses findings for Tobin’s Q

<table>
<thead>
<tr>
<th>Summary of Board Characteristics Sub-Hypotheses findings for Tobin’s Q</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1–3 There is a positive relationship between Board independence and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2–3 There is a positive relationship between Board meetings and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3–3 There is a negative relationship between CEO duality and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4–3 There is a positive relationship between Director ownership and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5–3 There is a positive relationship between Board size and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

#### 5.4.2 Results and Discussion of the Second Empirical Model

This section presents and discusses the second empirical model that tests the relationship between audit committee characteristics and firm performance. The regression results for the relationship between audit committee characteristics and the firm's financial performance will be illustrated and discussed. Four attributes were used to measure the audit committee characteristics: audit committee size, independence, financial expertise and meetings. Three variables were used to measure the firm’s financial performance in the regression: return on equity, return on assets and Tobin’s Q. Firm size, age and leverage were used as control variables or firm specific variables. Based on the above discussion, twelve sub-hypotheses were formulated and tested. Table 5.11 shows the twelve sub-hypotheses.
### Table 5.11: Audit Committee Sub-Hypotheses

<table>
<thead>
<tr>
<th>Audit Committee Sub-Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H6–1</strong> There is a positive relationship between audit committee size and ROE.</td>
</tr>
<tr>
<td><strong>H7–1</strong> There is a positive relationship between audit committee independence and ROE.</td>
</tr>
<tr>
<td><strong>H8–1</strong> There is a positive relationship between audit committee financial expertise and ROE.</td>
</tr>
<tr>
<td><strong>H9–1</strong> There is a positive relationship between audit committee meetings frequency and ROE.</td>
</tr>
<tr>
<td><strong>H6–2</strong> There is a positive relationship between audit committee size and ROA.</td>
</tr>
<tr>
<td><strong>H7–2</strong> There is a positive relationship between audit committee independence and ROA.</td>
</tr>
<tr>
<td><strong>H8–2</strong> There is a positive relationship between audit committee financial expertise and ROA.</td>
</tr>
<tr>
<td><strong>H9–2</strong> There is a positive relationship between audit committee meetings frequency and ROA.</td>
</tr>
<tr>
<td><strong>H6–3</strong> There is a positive relationship between audit committee size and Tobin’s Q.</td>
</tr>
<tr>
<td><strong>H7–3</strong> There is a positive relationship between audit committee independence and Tobin’s Q.</td>
</tr>
<tr>
<td><strong>H8–3</strong> There is a positive relationship between audit committee financial expertise and Tobin’s Q.</td>
</tr>
<tr>
<td><strong>H9–3</strong> There is a positive relationship between audit committee meetings frequency and Tobin’s Q.</td>
</tr>
</tbody>
</table>

The following table (Table 5.12) presents the results of the GLS regression used in testing the relationship between audit committee characteristics and firm financial performance, where audit committee characteristics are independent variables and firm financial performance is a dependent variable.
Table 5.12: Results of the Second Empirical Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Equation 1</th>
<th>Equation 2</th>
<th>Equation 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROE</td>
<td>ROA</td>
<td>Tobin’s Q</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.207</td>
<td>0.139</td>
<td>4.883</td>
</tr>
<tr>
<td>Z</td>
<td>1.75</td>
<td>2.07</td>
<td>4.09</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.04</td>
<td>0.019</td>
<td>0.000</td>
</tr>
<tr>
<td>ACSIZE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>-0.166</td>
<td>-0.020</td>
<td>-1.093</td>
</tr>
<tr>
<td>Z</td>
<td>-0.29</td>
<td>-0.62</td>
<td>-1.86</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.387</td>
<td>0.026</td>
<td>0.031</td>
</tr>
<tr>
<td>ACINDEP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.029</td>
<td>0.040</td>
<td>0.470</td>
</tr>
<tr>
<td>Z</td>
<td>0.60</td>
<td>1.36</td>
<td>0.96</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.273</td>
<td>0.018</td>
<td>0.016</td>
</tr>
<tr>
<td>ACFINEXP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.015</td>
<td>0.0117</td>
<td>0.424</td>
</tr>
<tr>
<td>Z</td>
<td>0.15</td>
<td>0.19</td>
<td>0.43</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.043</td>
<td>0.423</td>
<td>0.334</td>
</tr>
<tr>
<td>ACMEET</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.025</td>
<td>0.002</td>
<td>0.055</td>
</tr>
<tr>
<td>Z</td>
<td>2.10</td>
<td>0.38</td>
<td>0.45</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.017</td>
<td>0.351</td>
<td>0.325</td>
</tr>
<tr>
<td>FSIZE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.010</td>
<td>0.001</td>
<td>-0.172</td>
</tr>
<tr>
<td>Z</td>
<td>0.82</td>
<td>0.16</td>
<td>-1.33</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.207</td>
<td>0.434</td>
<td>0.091</td>
</tr>
<tr>
<td>FAGE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>-0.150</td>
<td>-0.056</td>
<td>-0.987</td>
</tr>
<tr>
<td>Z</td>
<td>-4.43</td>
<td>-3.04</td>
<td>-2.85</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.002</td>
<td>0.004</td>
</tr>
<tr>
<td>FLEV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected sign</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.051</td>
<td>-0.042</td>
<td>0.344</td>
</tr>
<tr>
<td>Z</td>
<td>1.30</td>
<td>-1.99</td>
<td>0.85</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.097</td>
<td>0.023</td>
<td>0.198</td>
</tr>
<tr>
<td># of Observations</td>
<td>475</td>
<td>475</td>
<td>475</td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>11.21%</td>
<td>5.79%</td>
<td>6.18%</td>
</tr>
<tr>
<td>Wald chi 2</td>
<td>30.71</td>
<td>15.63</td>
<td>17.50</td>
</tr>
<tr>
<td>Prob &gt; chi2</td>
<td>0.0001***</td>
<td>0.02**</td>
<td>0.01**</td>
</tr>
</tbody>
</table>
5.4.2.1 ROE as a Dependent Variable

Audit committee characteristics (independent variables) have been regressed against the ROE (dependent variable). The Adjusted R-square for this model is equal to 11.21%, which implies that only 11.21% of the variations in ROE are determined by the audit committee characteristics, namely audit committee size, independence, financial expertise and meetings; while the remaining 88.79% of variations is attributed to other variables. The probability of chi$^2$ showed that the overall model is significant.

Inconsistent with the first hypothesis, specifically H6–1, which states that there is a positive relationship between the audit committee size and firm financial performance as measured by ROE, the results showed that there is a negative but not significant relationship with ROE; this implies that the audit committee size didn’t influence a firm's financial performance. This supports Mak and Kusnadi (2005) findings which did not identify any relationship between the size of audit committee and firm performance in Malaysia and Singapore. This differs than the previous findings of Coleman et al. (2007), who used a sample of 103 listed firms to examine the relationship between the size of audit committee and the firm performance in four different African countries; namely Ghana, Kenya, Nigeria and South Africa in the time period 1997–2001, and found that audit committee size and firm performance are positively related.

Hypothesis 7–1 predicts that audit committee independence and firms’ financial performance are positively related. The positively-signed coefficient and the insignificant relationship showed in the results reject this research’s argument and hypothesis. Audit committee independence result is also supported by the study conducted by Sunday (2008), who used a sample of non-financial listed firms in Nigeria
to examine the relationship between audit committee composition and firm performance, and found that there is not any significant association between them.

Consistent with this research’s expectation, audit committee financial expertise results showed a positive significant relationship with ROE which is supported by Rashidah and Fairuzana (2006), who reflect that as the audit committee’s financial expertise increases, the firm financial performance will increase, which is acceptable and consistent with the formulated research hypothesis H8–1.

This research finds that audit committee meetings are positively and significantly associated with ROE, which is consistent with this research’s argument, and accepts H9–1. The significant positive association between audit committee meetings and firm performance is in line with the results of Carcello et al. (2002), Xie et al. (2003) and Abbot et al. (2004).

As for the control variable, the firm size, this showed a positive insignificant relationship with ROE. This finding opposes previous studies that claimed that larger-sized firms are more likely to have higher firm performance. Firm age showed a significant negative relationship, while firm leverage showed a positive but not significant relationship with ROE.

To summarize the results of the regression model of audit committee characteristics (independent variables) against the ROE, it is obvious that two of the sub-hypotheses formulated earlier were rejected due to either opposing coefficients or insignificance, and two of the sub-hypotheses formulated earlier were accepted. Table 5.13 summarises the findings of the sub-hypotheses and whether they are accepted or rejected.
### Table 5.13: Summary of Audit Committee Sub-Hypotheses findings for ROE

<table>
<thead>
<tr>
<th>Summary of Audit Committee Sub-Hypotheses findings for ROE</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6–1 There is a positive relationship between audit committee size and ROE.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7–1 There is a positive relationship between audit committee independence and ROE.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H8–1 There is a positive relationship between audit committee financial expertise and ROE.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H9–1 There is a positive relationship between audit committee meetings frequency and ROE.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

#### 5.4.2.2 ROA as a Dependent Variable

Audit committee characteristics (independent variables) have been regressed against the ROA (dependent variable). The Adjusted R-square for this model is equal to 5.79%, which implies that only 5.79% of the variations in ROA are determined by the audit committee characteristics namely, audit committee size, independence, financial expertise, and meetings, while the remaining 94.21% of variations is attributed to other variables. The probability of chi² showed that the overall model is significant.

Inconsistent with this research’s expectation, audit committee size results showed a negative significant relationship with ROA, which means that as the number of members serving in the audit committee increases, firm performance decreases. The result is different from that conducted by Coleman et al. (2007), which found that audit committee size and firm performance are positively related.

Consistent with hypothesis H7–2 which states that, there is a positive relationship between the audit committee independence and firm financial performance as measured by ROA, the results showed that there is a positive significant relationship with ROA. This implies that audit committee independence positively influences firms’ financial performance, which supports findings of Vicknair et al. (1993).
Hypothesis H8–2 predicts that audit committee financial expertise and firms’ financial performance are positively related. The positively-signed coefficient but insignificant relationship showed in the results rejects this hypothesis implying that the extent to which members of the audit committee have financial expertise did not influence firm financial performance.

This research finds that audit committee meetings are positively but insignificantly associated with ROA, which is inconsistent with this research’s argument, and rejects hypothesis H9–1, and different from the ROE findings where a significant positive relationship was found.

As for the control variables, firm size showed a similar result to that of ROE, which is a positive insignificant relationship with ROA. Firm age showed a significant negative relationship which is also similar to that of ROE, while firm leverage showed a negative significant relationship with ROA.

To summarise the results of the regression model of audit committee characteristics (independent variables) against the ROA, it is noticeable that the results are opposing the ROE results where the two sub-hypotheses formulated for audit committee financial expertise and meetings frequency were rejected. Also the sub-hypothesis formulated for audit committee size was rejected due to opposing coefficient. And the only sub-hypothesis accepted is the audit committee independence. Table 5.14 summarises the findings of the sub-hypotheses and whether they are accepted or rejected.
Chapter Five

Data Analysis and Discussion

Table 5.14: Summary of Audit Committee Sub-Hypotheses findings for ROA

<table>
<thead>
<tr>
<th>Summary of Audit Committee Sub-Hypotheses Findings for ROA</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6–2 There is a positive relationship between audit committee size and ROA.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7–2 There is a positive relationship between audit committee independence and ROA.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H8–2 There is a positive relationship between audit committee financial expertise and ROA.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H9–2 There is a positive relationship between audit committee meetings frequency and ROA.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

5.4.2.3 Tobin’s Q as a Dependent Variable

Audit committee characteristics (independent variables) have been regressed against Tobin’s Q (dependent variable). The Adjusted R-square for this model is equal to 6.18%, which implies that only 6.18% of the variations in Tobin’s Q were determined by the audit committee characteristics namely, audit committee size, independence, financial expertise, and meetings, while the remaining 93.82% of variations is attributed to other variables. The probability of chi² showed that the overall model is significant.

Hypothesis 6–3 predicts that size of the audit committee and firms’ financial performance are positively associated. Similar to the ROA results, the research finds a negative significant relationship between audit committee size and Tobin’s Q. The negatively-signed coefficient showed in the results rejects this research’s argument and hypothesis.

Also similar to the ROA results and consistent with hypothesis H7–3 that states there is a positive relationship between the audit committee independence and firm financial performance as measured by Tobin’s Q, the results showed that there is a positive significant relationship with Tobin’s Q. This implies that the audit committee independence positively influences firms’ financial performance.
Inconsistent with this research’s expectation, audit committee financial expertise showed a positive but insignificant relationship with Tobin’s Q. The positively-signed coefficient but insignificant relationship showed in the results rejects this research’s hypothesis H8–3.

This research finds that audit committee meetings are positively but insignificantly associated with Tobin’s Q, which is inconsistent with this research’s argument and rejects hypothesis 9–1. It is similar to the ROA findings but different from the ROE findings, where a significant positive relationship was found.

As for the control variables, firm size, shows a negative insignificant relationship. Firm age showed a significant negative relationship, while firm leverage showed a positive but not significant relationship with Tobin’s Q.

To summarise the results of the regression model of audit committee characteristics (independent variables) against the Tobin’s Q, it is clear that the results are similar to the ROA results, where the three sub-hypotheses formulated for audit committee, size, financial expertise and meeting frequency were rejected. Only one sub-hypothesis was accepted for the audit committee independence. Table 5.15 summarises the findings of the sub-hypotheses and whether they are accepted or rejected.

Table 5.15: Summary of Audit Committee Sub-Hypotheses findings for Tobin’s Q

<table>
<thead>
<tr>
<th>Summary of Audit Committee Sub-Hypotheses findings for Tobin’s Q</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6–3 There is a positive relationship between audit committee size and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7–3 There is a positive relationship between audit committee independence and Tobin’s Q.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H8–3 There is a positive relationship between audit committee financial expertise and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H9–3 There is a positive relationship between audit committee meetings frequency and Tobin’s Q.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
5.5 Summary and Discussion of the First Empirical Model

To summarise the results of the first empirical model, the results will be discussed and divided into two main parts. The first ties the results with the main theoretical perspectives of corporate governance, mainly focusing on the agency and stewardship theory because they show conflicting and contradictory views. The results will be linked to the theories at hand to find if board characteristics in Egyptian firms follow the agency theory, the stewardship theory or both. The second part of the results relates the empirical results of previous scholars' studies with the findings of this research.

For effective control, the agency theory expects the board to have the majority of its directors from the non-executive ones. The theory claims that this way the conflict of interest between the agents and principals would be reduced, ensuring that the board’s independence in monitoring management and in passing fair and unbiased judgment onto them. Stewardship theory, on the other hand, expects that the board of directors appoints executive directors whose involvement ensures the sustainability of the business by increasing the effectiveness and the decision-making process of the board. Having the majority of the board from the inside (executive) directors leads to higher firm performance due to the better understanding of the business that insiders possess, as well as them being better situated to govern the firm more than outside (non-executive) directors. Therefore, inside directors can make superior decisions as compared to outside ones.

The results demonstrate a positive, but insignificant relationship with ROA and ROE, as for Tobin’s Q, the results demonstrate a negative, but also an insignificant relationship. Since the findings were insignificant regardless of the positive and negative coefficients; this means that the research cannot make certain a link toward either the agency theory
or the stewardship theory, as the results imply that outside independent directors cannot influence firm financial performance.

Agency theory is based on the foundation that managers are self-centred individuals who act out of self-interest. This, by definition, the theory states, gives less attention to the interests of the shareholders, resulting in an overall negative impact on the firm value. To find a solution to this quandary, agency theory suggests the separation of the CEO and the chairman positions because this, as the theory states, divides the power into two parts, the CEO and the chairman each holding one part, hence reducing the influence of power of one particular individual on the management and on the board members. On the other hand, the stewardship theory takes a dramatically different approach. It considers the directors and managers to be essentially and fundamentally good and trustworthy stewards of the firm's resources entrusted to them. In that sense, the stewardship theory suggests that both the CEO and chairman positions be held by the same individual because this gives the CEO the prospect of quickly going through decisions without the board's interference.

The results of the research showed that a positive significant relationship between CEO duality and both ROE and Tobin’s Q exists. This means that, from the descriptions of the theories above, and based on the sample used for the research, the Egyptian market conforms to the stewardship theory where CEO duality was shown to positively affect firm financial performance. Hence, an assumption is presumed that the CEO would never have conflicts of interest with the shareholder, hence benefiting the firm's performance.

There was a positive association seen between CEO duality and firm performance in contrast to the expectation that one person having the position of the CEO and the chairman
will cause agency problems leading to poor firm performance. Consequently, this finding supports the stewardship theory which states that a unified board structure would result in effective leadership for the firm (Donaldson & Davis, 1991; Finkelstein & D’Aveni, 1994; Davis et al., 1997; Charan, 1998).

Stewardship theory considers that, within any firm, the composition of the board of directors, the position of the CEO, and the size of the board are fundamental ingredients of effective corporate governance. As for the board's size, the stewardship theory encourages that boards be of a small size, since this results in a more effective communication, hence ensuring a smoother decision-making process. Larger boards, on the other hand, as viewed through the lens of agency theory, have the potential of reducing shareholder-management conflicts because of the increased vigilance of overseeing management’s actions. This, as a result, prompts larger boards to be associated with better firm performance and as a more beneficial ingredient to the firm as a whole.

This research's findings reveal that there is a positive significant association between board size and ROE and ROA. This means that for board size, it was found to be consistent with the agency theory, meaning that larger boards are associated with better performance in Egypt.

Agency theory claims that the limited time directors spend together during their meetings is usually not dedicated to a meaningful exchange of ideas between one another. Instead, the theory states, routine tasks, like presentation of management reports, and various formalities consume most of a meeting's time. According to the theory, because of this reduction in the amount of time that outside directors have in effectively monitoring management, this means board meetings can negatively impact
firm performance. Moreover, board meetings as held by the agency theory are costly in terms of managerial time, travel expenses, refreshments, and directors’ meeting fees. All those add up to a negative influence on firm performance.

The results of the board meetings showed a positive significant association with ROE. The results also found a positive but insignificant relationship with ROA and Tobin’s Q. Based on the ROE results, the higher the frequency of board meetings, the more positive impact this can have on firm financial performance. Therefore, board meetings matched stewardship theory.

In corporations today, ownership and control are generally separated. This results in a conflict of interest between agents and principals. The reason behind this is that owners or stockholders (principals) aim at maximising the firm’s value, thus gaining the maximum possible return. Managers, on the other hand, usually view their own wealth as a priority. One way to resolve or at least reduce this conflict is by uniting the interests of principal and agent. Agency theory claims that if managers and board members are stock owners, they will be motivated in guaranteeing the efficiency of running the corporation and in carefully monitoring the management process.

The results show a positive but insignificant association between director ownership and ROE and ROA. On the other hand, the results showed a negative insignificant relationship between director ownership and Tobin’s Q. Those finding imply that director ownership has no influence on firm financial performance, meaning that the study's findings do not support the agency theory. The reason for this is because all the results, whether they showed a positive or a negative correlation, were insignificant.

The board independence results show a positive but insignificant relationship with ROE and ROA. The results showed a negative insignificant relationship with Tobin’s Q.
These findings are similar to previous studies, like Hermelin and Weisbach (1991), Sanda et al. (2005), AlFarooque et al. (2007) and Dunstan and Karim (2007), all of which showed no significant relationship between non-executive board members and a firm's performance. A study by Forsberg (1989) found similar results when it showed that there was no association between the proportion of outside directors on a board and the various performance measures. Similarly, Bhagat and Black (2002) found no relationship between the proportion of non-executive board members and firm financial performance. When comparing results with Nigeria, which is similar to Egypt, a developing country and an emerging market, Sanda et al. (2005) showed that there was no significant relationship between non-executive directors and firm performance. AlFarooque et al. (2007) showed similar results in Bangladesh; he revealed that non-executive directors do not significantly affect firm performance.

On the other hand, there were several studies that showed evidence relating board independence and firm performance (e.g. Baysinger & Butler, 1985; Agrawal & Knoeber, 1996). Many studies supported the assertion of the agency theory. Those include Rechner and Dalton (1991), Pearce and Zahra (1992) and Ibrahim et al. (2010). Other studies, such as, Adams and Mehran (1995); Bolbol et al. (2004); Cheng (2005); Heenetigala and Armstrong (2011), found that a firm with a board of directors that is dominated by outsiders is able to perform better. In his research on a study sample in Taiwan, Cheng (2005) supported agency theory by showing that non-executive directors do have a significant positive relationship with firm performance.

In a similar study on a sample of firms in Sri Lanka, Heenetigala and Armstrong (2011) displayed the same results. Along the same lines, Coleman et al. (2007) studied a sample of firms from Ghana, Kenya, Nigeria and South Africa, and he showed that independent boards have a significant positive relationship with a firm's performance.
As for a board's size, this research's findings show that a large board size positively and significantly affects ROE and ROA. Those results draw a similarity to a study by Rechner and Dalton (1991), which showed that larger boards are positively associated with a firm's performance. Similarly, studies by Sanda et al. (2005), Florackis (2005), Coleman et al. (2007) and Ehikioya (2007) showed a direct and positive relationship between a large board and a firm's performance. Klein (1998), Adam and Mehran (2003), Anderson et al. (2004) and Coles et al. (2008) all displayed the same results as this research's findings regarding board size and firm performance.

The results of this research support the conclusion drawn by Pfeffer (1972), who stated that larger boards tend to have a higher propensity in providing greater monitoring and advice to management, essentially leading to improving the firm's performance. Similarly, Goodstein et al. (1994) and Psaros (2009) both argued that larger boards are beneficial to firms because, due to their size, they provide a larger pool of know-how and a greater management oversight.

Additionally, by using data from a sample of Australian firms, Kiel and Nicholson (2003) discovered a positive relationship between a board's size and firm performance. Sanda et al. (2005) and Ehikioya (2007) studied a sample of firms in Nigeria and found similar results (i.e. larger boards showed a positive and significant relationship with firm performance). Coleman et al. (2007) displayed similar results from a sample containing firms from Ghana, Kenya, Nigeria and South Africa. Similar studies in the UK showed the same results (e.g. Florackis, 2005).

Eisenberg et al. (1998), on the other hand, examined a group of firms from Finland and discovered that larger boards were associated with a firm's lower market value. Eisenberg et al. (1998) also showed there was a significant negative relationship
between a board's size and firm performance in a sample of small to medium-sized Swedish firms. This difference between this research's results and the results of Eisenberg et al. (1998) may be due to the differences in the size of firms studied in each sample. Whereas our research sample was based mainly on the top firms listed in Egypt's stock exchange, which means they are large enterprises in the Egyptian market, the sample of Eisenberg et al. (1998), on the other hand, is composed of small to medium-sized firms.

Mak and Kusnadi (2002) studied the impact of board size on firm performance of 550 Singaporean and Malaysian firms. Their findings showed an inverse relationship between a large board and firm performance. Because of the differences in the sample size, whereas the sample in this research consisted of 56 firms and the sample of Mak and Kusnadi (2002) was comprised of 550 firms, a difference in results may have occurred.

Comparing the results obtained from this research to studies done on US firms, they differ. For instance, Lee and Filbeck (2006) studied the impact of a board's size on small firms' performances, and they showed a significant negative relationship. The difference between our results and theirs may be due to the size of the firms that Lee and Filbeck (2006) used. Their study was done on a sample of small firms; ours showed a sample of large firms. Similarly, Yermack (1995), in his study of US firms, board size was associated with a significant negative relationship with firm performance.

As for the concept of CEO duality, this research's results showed a positive significant association between CEO duality and both ROE and Tobin’s Q. This is supported by Donaldson and Davis (1994), where they studied a sample of US firms and explored the relationship between CEO duality and firm performance. Their findings showed that
CEO duality and firm performance are positively related. They concluded that firms where both the chairman and CEO positions are held by the same individual showed a greater ROE. A similar study was conducted by Rechner and Dalton (1991) on a sample of US Fortune 500 firms. They discovered that CEO duality strongly and positively influences the firm financial performance. Similarly, Boyd (1995) found a positive association between CEO duality and firm performance of US firms.

Our results were compared to similar studies conducted in Egypt, such as that of Kholief (2008), who examined the relation between CEO duality and firm performance and indicated that CEO duality significantly and negatively affected corporate performance. The difference in results may be a result of the time scale used. Kholief (2008) only used 2007 (i.e. one year) for his study, whereas this research tackled the years of 2004 to 2012 (i.e. nine years), so this provided a better reflection on the effect of CEO duality on performance.

Sanda et al. (2005) showed similar results in a study done on Nigerian firms, where CEO duality revealed a significant positive relationship with firm performance. On the other hand, Ehikioya (2007) showed in his study that CEO duality showed has a negative significant relationship with a firm's performance. On a sample done on firms from Ghana, Kenya, Nigeria, and South Africa, Coleman et al. (2007) showed a significant negative relationship with firm performance.

Compared to Asian studies, our research shows contradicting results. For instance, Cheng (2005) investigated the impact of CEO duality on firm performance in Taiwanese firms, and he showed that there was a significant negative relationship between them. Similarly, in Bangladesh, AlFarooque et al. (2007) showed that CEO duality negatively and significantly affected firm performance.
As for board meetings, the results showed that firms whose boards met on a more frequent basis showed a greater ROE. Those results are supported by Carcello et al. (2002) where it was shown that the number of board meetings has a direct effect on the quality of audit work, which, when higher, protects the interests of the shareholders and enhances the overall firm performance. Lawler et al. (2002) concluded that more frequent board meetings are positively related to firm performance because of more effective governance. He suggests that board meetings are considered an important resource for improving the effectiveness of a board. Similarly, Ntim (2009) stated that the more frequently boards meet, the higher the quality of managerial monitoring, and hence more frequent board meetings have a positive impact on firm financial performance.

Similar result were found by Mangena and Tauringana (2008), who studied a sample of 157 Zimbabwean firms between 2001 and 2003, showing a positive relationship between board meeting frequency and corporate performance. Their results supported the proposal that firms whose boards meet on a more frequent basis perform better.

Compared to US studies, this research showed similar results. For instance, Karamanou and Vafeas (2005) used a sample of 275 listed US firms for the time period 1995 to 2000, and found a positive relationship between the board meetings frequency and firm financial performance. On the other hand, the study of Yermack (1996) used a slightly larger sample of US firms, 307 listed ones, between 1990 and 1994. The study reported a statistically significant negative correlation between the frequency boards meet and firm performance.

Lipton and Lorsch (1992) had opposing results by arguing that board meetings are costly due to travel expenses, refreshments, and directors’ meeting fees. Because of so,
Lipton and Lorsch (1992) showed that board meetings can have a negative influence on firm financial performance.

Next in our study's results comes director ownership. Our results showed that there is no significant association between director ownership and firm performance. This means that director ownership has no influence on a firm's financial performance, which coincides with the findings of De Angelo and De Angelo (1985), Dalton et al. (2003), Sheu and Yang (2005) and Ehikioya (2007), all of which show an insignificant relationship between director ownership and firm performance.

As previously mentioned, a possible explanation for this result is that in our research sample, director ownership was negligible. The descriptive statistics show a director ownership mean of 0.08, which is considered a low level of directors’ equity interest, and thus, director ownership would unlikely be able to mitigate any potential conflict of interests that arise from separating the control from the ownership.

Other similar studies, such as Dalton et al. (2003) and Sheu and Yang (2005), found no relationship between director ownership and firm financial performance. On the contrary, many empirical studies had shown proof that director ownership does indeed improve firm performance, such as Jensen and Murphy (1990), Chung and Pruitt (1996) and Palia and Lichtenberg (1999).

Regarding the control variables, firm size showed contradictory results. The results displayed a significant positive relationship with both ROE and ROA, which is similar to the previous results of Berk (1997), Cheng (2005), Coleman et al. (2007) and Ujunwa (2012), all of which showed that there is a significant positive relationship between a firm's size and firm performance. This also is supported by claims of other studies that showed a higher firm performance in larger-sized firms. Our results also
showed that firm size and firm performance as measured by Tobin’s Q is negatively and significantly related, which is supported by the findings of Sanda et al. (2005).

Firm age showed a negative insignificant relationship with ROE and ROA, while firm age showed a significant negative relationship with Tobin’s Q.

Firm leverage showed a positive but not significant relationship with ROE, which is supported by the findings of Fooladi (2012). Firm leverage showed significant negative relationship with ROA, which is similar to the previous findings of Coleman et al. (2007) and Ehikioya (2007), who stated that firm leverage showed significant negative relationship with ROA. Firm leverage showed a significant positive relationship with Tobin’s Q which is consistent with the findings of Sanda et al. (2005) and Ehikioya (2007), where leverage had a significant positive relationship with Tobin’s Q.

5.6 Summary and Discussion of the Second Empirical Model

The agency theory proposes that audit committees be fully independent to have effective control. The results of this research showed a positive significant relationship between the independence of the audit committee and firm performance. This means that the results support agency theory. Empirically, the results are supported by prior existing empirical evidence, such as that of Abbott et al. (2000) and Beasley et al. (2000), which showed that independent audit committee directors guarantee a higher quality of financial reporting and, consequently, a higher firm financial performance.

Agency theory regarding the audit committee was supported by the Cadbury Committee (1992), which recommended an independent audit committee to oversee and audit the firm's financial statements. By having non-executive directors on the audit committee, shareholders tend to have greater confidence in the firm (Davis, 2002). These
recommendations—adopted by the Sarbanes-Oxley Act of 2002, NYSE, and NASDAQ—were incorporated in the ECCG (ECCG, 2004).

On the contrary, in a sample of non-financial listed Nigerian firms, the relation between the independence of audit committee and firm performance is investigated by Sunday (2008). He provided no evidence to support any significant association between them.

In the second model, and in contrast to the research hypothesis that proposes that an audit committee's size will be positively associated with firm financial performance, there was found a significant negative association. This result means that bigger audit committees do not significantly improve a firm's financial performance more than smaller ones do. According to the study’s findings, an audit committee with more than three directors will have a negative effect on firm financial performance.

By using a sample of 103 listed firms in Ghana, Kenya, Nigeria and South Africa between the period of 1997 and 2001, Coleman et al. (2007) found results that contradicted ours. He found that there was a positive association between the size of an audit committee and firm financial performance. Similarly, Yasser et al., (2011), studied the relationship between an audit committee's size and firm performance in thirty firms listed in the Karachi Stock Exchange, and they were able to provide evidence that showed a positive relationship between them. A possible explanation between the results of this research and the results of other scholars' is the variable measurement of an audit committee's size, where the size of an audit committee was measured as a variable that takes a value of 1 if the audit committee has at least three members, 0 otherwise.

The results matched what this research expected regarding how an audit committee's financial expertise will have a significant positive effect on firm financial performance.
The results reflect that when an audit committee's financial expertise increases, the firm's financial performance does too. This is supported by the findings of Rashidah and Fairuzana (2006), who argued that it is crucial for an audit committee to include directors who are competent and experienced in financial aspects. The reason for this is because an audit committee is first and foremost formed with the intent of monitoring a firm's financial reporting process (Rashidah & Fairuzana, 2006). Similarly, DeZoort and Salterio (2001) asserted that the financial expertise of the audit committee’s members increases the chances of detecting material misstatements, resulting in an overall better financial performance.

This research found that the frequency of the audit committee meetings positively and significantly enhanced firm performance. Those results corresponded with the study's argument that expected more frequent meetings from the audit committee would result in better firm performance. Besides matching the expectations of the study, those results support earlier results—such as those by Vafeas (1999), who concluded that an audit committee's activity is a considered an essential factor of board operations, and he showed that the audit committee's meeting frequency was associated with a higher firm valuation. Bedrad et al. (2004) also showed similar results. He stated that for an audit committee to carry out its control function, it is vital for it to maintain a certain level of activity through more frequent meetings. Beasley et al. (2000) also supported those results, when they showed that more frequent audit committee meetings meant a lesser likelihood of financial statement fraud.

As for the control variable firm size, it shows a positive insignificant relationship with ROE. This result opposes claims in prior studies that demonstrate that larger-sized firms are associated with better performance. Firm size showed a similar result to that of ROE
which is a positive insignificant relationship with ROA. Firm size showed a negative insignificant relationship with Tobin’s Q.

Firm age showed a negative significant relationship with ROE, ROA, and Tobin’s Q. As for firm leverage, it showed a positive but insignificant relationship with ROE. It also showed a negative significant relationship with ROA. Firm leverage showed a positive but insignificant relationship with Tobin’s Q.

5.7 Conclusion

This chapter has presented the results of the data analysis based on the research methods detailed in the previous chapter. The chapter illustrates and presents the descriptive statistics for the variables adopted in this research, it also presents and discusses the correlation coefficients results and demonstrates and discusses the results of testing the hypotheses for each empirical model.

The next chapter will conclude the research by summarizing the main findings and contributions of the research that scholars and practitioners could make use of. It will also identify the limitations of the study, while suggesting several recommendations for future research; it also includes an overview of the findings of this research. Moreover it will include implications of the research for the market and policy makers.
Chapter Six: Summary and Conclusions

6.1 Introduction

The whole research along with its major findings is summarized in this chapter; structured into eight parts. The first part summarises the research methodology. The second part summarises the main research findings. The third part highlights the research contributions. Following so, the fourth part identifies the limitations of the research, followed by the fifth part, which identifies the main implications of this research regarding what is needed by corporations to accomplish shareholders’ satisfaction and attraction of potential investors. In the sixth part the opportunities for future research are pointed out. The final part of the chapter concludes the research.

6.2 Summary of Research Methodology

This research aimed to empirically investigate the effects of board and audit committee characteristics on the financial performance of firms in Egypt, especially firms listed on EGX.

Two models are established, along with a listed set of hypotheses. The sample used for testing the models are derived from those listed on the EGX. Firms in the financial sector are excluded from this research as they have different characteristics than those in other industrial sectors in terms of financial statement profitability measures and liquidity assessment. Besides, these firms were naturally specialized, and were undergone by different regulations, taxes, and accounting rules (Wilson et al., 2010). A final sample of 56 Egyptian firms was obtained. The research covered a time period of nine years from 2004 to 2012. The
GLS Random Effects was used as a statistical method for testing the hypotheses. The Random effect is a panel data technique used to correct for omitted variable bias and presence of autocorrelation and heteroscedasticity (Gaur & Gaur, 2006).

6.3 Research Findings

The empirical examination of the hypotheses revealed a mixed set of results. The findings of the research hypotheses are summarized as follows:

Hypothesis 1 stated that the proportion of independent board directors has a positive relationship with firms’ financial performance. Inconsistently to this, the results indicate that board independence and firm performance have an insignificant positive relationship. This implies that external directors have not got influence on firms’ financial performance in the Egyptian market.

Hypothesis 2 stated that board meeting frequency and firm performance are positively related. The coefficients of the number of board meetings are positive and significant. This result could possibly be explained by realizing that the number of board meetings indicates the board’s efficiency in monitoring the quality of a firm’s financial reporting and improving firm performance.

Hypothesis 3 predicted a negative relationship between CEO duality and firm performance. The positively-signed coefficient and the significant relationship showed in the results reject this research’s argument and hypothesis. In other words, CEO duality was positively related to firm financial performance. This means that, from a theoretical perspective and based on this research sample, the data for the Egyptian market supports stewardship theory and not agency theory. This result assumes that the CEO would never have conflicts of interest with
the shareholders. In such circumstances, for one person to be both the CEO and the chairman of the board would be beneficial to the performance of the firm.

Hypothesis 4 stated that there is a positive association between director ownership and firm performance. The coefficient on director ownership is an insignificant positive. This result may be due to the fact that director ownership in this research sample is negligible.

As for Hypothesis 5, it was found in this research that board size and firm performance are significantly and positively related. The results indicate that the larger the board the more effective it was in improving a firm’s performance. A positive association is found between board size and firm performance, which indicates for firms how beneficial a larger board could be. Collectively, the results of both board size and board meetings advocates that in case of large boards, like the majority of firms in this sample, board meetings might be the best way by which directors could communicate.

In the second model – and in contrast to Hypothesis 6, which suggested that the audit committee size will have positive association with the firm financial performance, it was found that the audit committee size and the firm’s financial performance are negatively and significantly associated. The debate that larger audit committees do not significantly differ than smaller ones in enhancing a firm’s financial performance was supported by this result.

Hypothesis 7 predicted a significantly positive association between a fully independent audit committee and firm financial performance, as suggested by regulatory codes. The results of this research support that hypothesis, where they document the role of an independent audit committee in enhancing firm performance in Egypt.
Hypothesis 8 predicted that an audit committee’s financial expertise and a firm’s financial performance are positively related. The significant positively signed coefficient on the audit committee’s financial expertise supports this hypothesis. This means that the more the audit committee is composed of members possessing accounting or financial management expertise, the more they will be able to enhance and improve a firm’s financial performance.

Lastly, testing Hypothesis 9 revealed a significant positive relationship between the number of audit committee meetings and firm financial performance. This result supports the argument that the frequency of audit committee meetings effectively improves firms’ financial performance in Egypt. It is also implied by this finding that the number of audit committee meetings better indicates the diligence and activity of the audit committee, particularly as both board and audit committee meetings significantly affect firms’ financial performance.

In summary, the overall results revealed that board and audit committee characteristics affect firm financial performance. As for board characteristics, the results reveal that board size, meetings frequency and CEO duality are all positively and significantly associated with firm performance. Regarding audit committee characteristics, the results revealed that audit committee independence, frequency of meetings and financial expertise are all positively and significantly associated with firm performance, while audit committee size is negatively and significantly associated with firm performance.

The research found that board and audit committee characteristics are associated with firm performance. These relationships play a critical role in determining whether or not a specific characteristic is beneficial to firms. As a result of so, the research indicated the critical
importance of the constitution of the board of directors and audit committee so that a firm’s performance would be enhanced.

6.4 Research Contributions

This research was conducted in order to provide more knowledge and insight to the subject matter (board and audit committee characteristics’ effect on firm performance). Several contributions emerge from this research, both academic and practical.

6.4.1 Contributions to Knowledge

This research provides several inputs and contributions to the academic field. The main contribution to knowledge of this research is extending the literature on corporate governance role in improving a firm’s financial performance in Egypt. This research added more knowledge regarding how the board of directors and audit committee characteristics enhance firm financial performance. Other academic contributions are:

This research contributed to a well understanding of the association between CEO duality and firm performance in Egypt. The findings provided evidence that CEO duality and firm financial performance are positively and significantly related. Based on this result, for one person to be both the CEO and the Chairman of the Board would be beneficial to the performance of the firm.

A much debated subject is the suitable board size for a firm so that it would function effectively. Scholars that tackled this issue included: Jensen (1993); Yermack (1996); Dalton et al. (1999); Hermalin and Weisbach (2003). This research made an additional and significant contribution towards comprehending the influence of board size on a firm’s performance in Egypt. The findings proved that the larger a board is the more effectively it
improves a firm’s performance. A positive association is found between the size of the board and firm financial performance, which indicates for the firm how beneficial larger boards are. This result shows that larger boards provide the firm with more resources than smaller ones, leading to an improved firm performance. A larger board allows for better debates aided by peer pressure to contribute. In addition, it would be more difficult for the CEO to exert control over a larger group of directors. Hence, larger boards may be more functional in the Egyptian market.

This research tackled the notion of the board of directors’ effectiveness in monitoring the corporation’s management, with respect to the board meetings frequency and its effect on firm financial performance. It showed that board meetings in the Egyptian market positively and significantly contribute to firm performance.

The research in hand explored the impact of board independence on firm financial performance using Egyptian data. It showed that non-executive directors cannot influence firms’ financial performance in the Egyptian market. Finding an insignificant relationship between board independence and firm performance can be attributed to the fact that the concept of board independence is a new phenomenon in developing countries, and thus, it might take a few more years to have a momentous impact of this on firm performance. Also maybe because there are limited people suitable for the position of independent directors. In such firms, monitoring and judgments by the independent directors may not be bias-free and will be influenced by what they expect others to do on the board where they are the executive directors. The firms in emerging countries need to ensure that the independent directors are not hired for namesake but actually act independently as in the case of developed countries. Therefore, a clear criterion should be put in place for becoming an independent director in a firm and the guidelines on corporate governance should take into account this phenomenon.
To the best of my knowledge, this research is the first one to examine the influence of director ownership on Egyptian firms’ performance. The findings proved that director ownership in Egyptian boards does not contribute to firm performance.

Besides supplementing research to the inadequate amount carried out on the impact of audit committee size on firm performance, the findings revealed that audit committee size in Egypt negatively and significantly affects firm performance. According it this finding, an audit committee of more than three or more directors will negatively affect the firm's financial performance in Egypt.

The relationship between the audit committee's financial expertise and its impact on firm performance was examined. The result revealed that the financial expertise of the audit committee in the Egyptian market positively contributes to firm performance.

This research showed how the audit committee's independence affects firm performance. Evidence was provided in the research that showed that, in the Egyptian market, audit committee independence positively and significantly improves firm performance.

The impact of audit committee meetings on firm performance was revealed, where the results showed that the meetings frequency of an audit committee in the Egyptian market positively and significantly contributes to firm performance.

This research was the first to cover a nine-year time period, from 2004 to 2012. Why this time period was selected is because this research used the 2004 ECCG, effective that same year, as a guide for the variables of corporate governance. Thus, this research is a reflection of the recent developments in corporate governance in Egypt and their impact on corporate performance from 2004 until 2012.
The main issue in corporate governance research is the extent to which “good” governance practices are universal (one size mostly fits all) or whether they vary according to country and firm characteristics. This research provided evidence that supports the second view. There is, by now, substantial evidence that one size does not always fit all firms in all countries. Optimal governance likely differs between developed and emerging markets, and potentially also between different emerging markets. An often better approach, our results suggest, will be to provide regulatory flexibility, coupled with sufficient disclosure so that investors can assess a firm’ governance choices. That flexibility could come through a comply-or-explain governance code.

Finally, and based on what is mentioned above, the empirical examination of the effect of the board of directors and audit committee characteristics on firm financial performance in Egypt enabled the researcher to successfully fill in this gap by developing a research model that revealed the significant board and audit committee attributes that affect firm performance. As for the board of directors, the characteristics that significantly affect the firm’s financial performance are: board size, meetings frequency and CEO duality. Regarding the audit committee characteristics, those that significantly affect firm performance are audit committee independence, frequency of meetings, financial expertise and audit committee size. Figure 6.1 illustrated the newly formed research model that is considered the major academic contribution of this research.
Effective corporate governance has been considered a crucial means to improve the long-term value of a corporation. It is an essential element of market discipline. Because of the increasing demands of investors that corporate boards and audit committees must show greater accountability, the quality of managerial practice is likely to improve and lead to more competent capital markets. Furthermore, good corporate governance has become significant in protecting investors and in strengthening and stabilizing capital markets. Sound corporate governance improves firm performance, hence attracting investment.
Good corporate governance also enables management to recognise corporate objectives, meet legal requirements, and protect shareholder rights.

This research examined the association between the characteristics of the board of directors and the audit committee and the performance of firms listed on EGX. The evidence put forward in this research regarding the characteristics of board composition and displaying their effects on firm performance will contribute and help the shareholders in making the most suitable decisions about their boards to enhance their firm’s value and performance. The findings of this research will aid regulators in identifying which of the corporate governance attributes are the most effective, and in evaluating the requirements for the board of directors and audit committee governance practices.

This research provided empirical examination concerning the effect of the board of directors and audit committee characteristics on firm financial performance in Egypt. The outcomes and conclusions of this research are beneficial to various practitioners (e.g. investors, stock market participants, corporate governance authorities) for example:

Investors and stock market participants’ decision making processes could be improved by assessing the role of these monitoring systems (like the board of directors and the audit committees) in enhancing how shareholders view the firm's financial performance. If shareholders are provided with reliable and viable information regarding corporate governance, their decisions can become more accurate and effective.

In addition, investors and stock market participants’ decision making processes could also be improved by measuring various aspects of the board of directors and the audit committee. This will increase investors' knowledge in evaluating the reliability of the financial
statements. It will also enable them to become more alert with the management’s ability in manipulating accounting earnings.

Corporate governance authorities can develop new regulations and make additional recommendations regarding corporate governance. They can also assess the current board requirements of corporate governance practices along with the audit committee's role in enhancing firm financial performance.

6.5 Research Limitations

This research was supervised by qualified and specialised supervisors, and it was theoretically conducted on a systematic basis. Nevertheless, like any other research, there are potential limitations to it, and these should be pointed out to any reader interpreting its findings. These limitations are mainly data and sample limitations. Nonetheless, significant measures were taken as to guarantee that this research's objectives were met and that its research question was answered.

Some criteria were predefined, upon which the sample used in this research was selected. The non-random selection of the sample, as done in this research, results in inherited bias and inaccuracy of the relationships. Nonetheless, it is quite difficult to select random sample in Egypt because only few firms reveal comprehensive and relevant corporate governance information publicly.

The size of the firms in this research sample is another concern in regard to the validity of statistical conclusions and the possibility that the statistical results are representing the actual relationship within the data set. This research used the top Egyptian firms listed on the Egyptian stock market as its sample. The sample selected represents firms which are
considered top enterprises in Egypt; hence a size bias might exist. Yet, the size bias would most probably reduce the survivorship bias throughout the research period, due to the fact that it is less likely to delist larger firms, on contrast to smaller firms.

The entire sample comprises of only 56 firms, these were chosen as only they could provide the data necessary for this research. The establishment of an electronic database of corporate governance for the EGX would be more beneficial for such research, enabling research such as this one to be conducted on a larger sample. Non-financial data like board size, non-executive board members, CEO duality, and board meeting frequency are usually unavailable in annual reports, thus collecting such data was difficult in Egypt.

Finally, as illustrated, this research uses Egyptian data. Therefore, some variations shall be considered if the results are to be generalized. First, countries have different stock markets in terms of regulations, practices and economic features. Second, the characteristics of the capital market differ from one country to the other, in terms of size, number of listed firms, and market valuation. Nonetheless, this research revealed similar results to research conducted in other countries which indicates a high degree of generalisation.

6.6 Research Implications

Despite the research potential limitations this research provides several contributions to literature regarding the corporate governance effect on improving firms’ financial performance. It documents evidence that the characteristics of both the board and the audit committee help to improve a firm’s financial performance. This research provides corporations with the practical implications that would help them satisfy shareholders and attract potential investors.
The results of this research have implications for setting standards and contribute to the constant debate of whether or not it would be feasible to harmonise corporate governance practices worldwide. In theory, as shown in the literature review chapter, and in practice, as shown in the results and discussion chapter, the findings of this research imply that the effectiveness of corporate governance varies from one country to another, most probably because of their different macro and micro economic characteristics, such as, board structure, size of firms, and disclosure requirements, along with stock-market regulations and ownership structures.

Given that the Egyptian context is considered as an example of an emerging country, which totally differs from the US and the UK, therefore implications from studies conducted in these countries might be misleading when used to test the effect of the characteristics of the board of directors and audit committee and the performance in Egypt. As a result, using a new data set that reflects different features helps to shed additional light on different institutional aspects of emerging countries. By doing so, the results may also be valid and applicable for firms in other emerging countries that have similar features to the Egyptian context.

One of the essential themes of recent corporate governance developments in the UK, and US, is for a greater proportion of independent directors to be on the board. As recommended by Higgs Report, (2003), the more the board is composed of independent directors the more it is guaranteed that the shareholders’ interests will be protected and considered. The results of this research opposed the conventional wisdom that greater representation of non-executive directors on the board is necessarily associated with better financial performance. Therefore one implication from this research is drawing the attention of corporate governance regulators
in the Egyptian market that adding more external directors to the board is unlikely to improve a firm’s financial performance, yet it might lead to additional agency costs.

The results of the research revealed that an audit committee composed entirely of non-executive members is positively and significantly improving a firm’s financial performance. This result implies that it is supportive of the approval of the 2004 ECCG about how an audit committee must be composed of at least three independent members. Therefore the research recommends that the recommendation of the 2004 ECCG about audit committee independence should be mandated.

Also, the recommendation of the 2004 ECCG regarding audit committee size, where an audit committee is to have three or more non-executive board members, is empirically tested. The research finds a negative association between the audit committee size and a firm's performance. Accordingly, this research finds that an audit committee of more than three or more directors will negatively affect the firm's financial performance in Egypt. Based on this result this research gives a recommendation to firms listed on EGX that an audit committee of more than three directors will be unbeneﬁcial for firm performance, and it might be an extra cost from the agency theory perspective.

This research found that the number of times the board of directors and audit committee meets can measure their diligence. This research supplies support for the two recommendations of the 2004 ECCG regarding the number of times both the board of directors and the audit committee should meet, which should be at least four meetings per year. This outcome implies that if the number of meetings increases, a firm's financial performance will be improved. Therefore corporate governance authorities should mandate
these recommendations. Additionally, this research supports the recommendation that there should be at least one financial expert among the audit committee.

Based on the above discussion, the researcher recommends that empirical evidence from studies as such should be the baseline for current corporate governance codes and recommendations. Therefore, the most important implication of this research is to draw the attention of regulators to assessing the weaknesses in their corporate governance, as well as emphasising other effective governance mechanisms that match their institutional and regulatory needs.

Finally, the findings of this research have significant implications that put good corporate governance into practice across developing countries in general and emerging countries in particular. The outcomes of our analyses advocated that complying with good corporate governance practices increases the likelihood for firms to achieve higher accounting and market performance. Theoretically, it implies that good corporate governance practices reduce agency costs. Thus, implementing good corporate governance practices could possibly help firms of the developing world to enhance their performance. However, the research findings on the relationship between several governance indicators and firm performance indicators suggest that not all corporate governance indicators significantly affect firm performance.

6.7 Future Research Directions

The aforementioned limitations should be addressed by future research. The results of this research provide evidence that some corporate governance attributes are significantly related
to a firm’s financial performance. However, there are other relevant areas regarding corporate governance and its effect on firm performance that were not covered by this research.

The work of this research could possibly be extended by several means. To start with, only a specific set of board characteristics, along with their effect on firm performance, was tackled by this research. Despite the importance of those characteristics, there are other additional corporate governance attributes that might have an impact on firm performance as well. Examples for such additional attributes are the gender of the board of directors, and the level of education of board members and/or their years of experience. Furthermore, other attributes apart from board characteristics can be studied as a proxy for corporate governance. Those include audit quality, institutional ownership and many others.

As stated by Yermack (2006), firms in the US benefit from the accounting and finance academic qualifications of their board members. It would be beneficial to depict the skills and competencies required from the Egyptian directors to enlarge their firms’ value.

Another possible opportunity for future research lies in examining the influence of additional corporate governance attributes on firm performance. Examples of such additional attributes are the nomination and remuneration committees. It would be advantageous to investigate the different aspects of these committees, like, the way they are comprised and structured.

Although earlier research has shown how institutional ownership, block ownership and other aspects of these ownership structures affect firm financial performance, they were not tested throughout this research. It will be useful to examine the influence of these various ownership structures on firm performance in the Egyptian market.
One other area that is worthy of further research, is to compare countries that have similar rules, regulations, practices and economic features, and whose capital markets show similar characteristics with Egypt’s market, such as size, number of listed firms and market valuation. The more similar the results, the more accurate and reliable the information we obtain in Egypt and one could then start drawing a higher degree of generalisation.

Future research is needed to investigate the role of ethics in corporate governance as business ethics is now being significantly demanded by most of the institutional and individual investors. The latter commonly require the board of directors’ participation in planning and implementing ethical behaviour in corporations. This is achieved by creating an ethics code and then monitoring its fulfilment (Garcia et al. 2015). Corporate ethics concerns have been mainly brought about due to the increasing corporate scandals, the extreme compensation of the majority of managers and directors, as well as the recent financial crisis. Similarly, these circumstances have thrown the lights on the needed attention to corporate governance practices. Accordingly, business ethics is a controversial topic that conclusively hits all organisational levels (Robertson 2008).

In this essence, ethics codes are among the mostly used instruments for designing and establishing a scheme of ethical behaviour, broadly used at the global level (Singh 2011). They could comprise an important document that reveals the firm’s wish to project a sense of responsibility, generate a positive ethical climate, and forecast and react to demands and external pressures arising from shareholders and the context in which it operates (Wotruba et al. 2001).

When creating and developing an ethics code, the participation and collaboration of all members of the organization; particularly its managers and leaders, is essentially required. In
fact, the increased participation of boards of directors in developing these codes boosts their acceptance as being part of corporate governance (Singh 2011). In this regard, Garcia et al. (2015) argues that ethics issues; displayed by means of a code, will not be implemented effectively throughout an organization unless that code is given priority by the Chief Executive Office.

Therefore, the board of directors particularly plays a significant role in attaining an ethical climate inside the firm, proved through a code of conduct. Boards must identify the firm’s values, attitudes and beliefs and integrate them into the corporate culture, as well as examine the firm behaviour concerning ethical issues in detail.

The board of directors is considered an internal control mechanism that monitors corporations; intending to make decisions on behalf of the shareholders, and ensures that management behaviour is ethically correct and reflects the owners’ interests (Li et al. 2008). In this context, the composition of the board in regard to its independence and diversity plays a main role in the ethical commitment shown by the firm. This role may result in the implementation of an ethics code (Garcia et al. 2015). The higher the level of scope by which a code is implemented, the more its diffusion and knowledge could be guaranteed. It should also help to enhance the sharing of values and behaviour rules regarding external relationships, the essential principles and values for firms, the adherence to law, as well as the internal, social and environmental commitment.

6.8 Conclusion

This chapter summarized and concluded the whole research. A summary of the research results was presented followed by the research contributions and a discussion of the research
implications. Finally, this chapter presented the potential limitations of the research and accordingly highlighted the possible opportunities for future research.
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APPENDICES

Appendix A: List of Companies included in the Sample

Table (A1)

<table>
<thead>
<tr>
<th>Name</th>
<th>Symbol</th>
<th>ISIN code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oil and Gas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alexandria Mineral Oils Co (AMOC)</td>
<td>(AMOC)</td>
<td>EGS380P1C010</td>
</tr>
<tr>
<td>Egyptian Financial and Industrial SAE</td>
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<td>EGS38381C017</td>
</tr>
<tr>
<td>Samad Misr</td>
<td>(SMFR)</td>
<td>EGS51191C012</td>
</tr>
<tr>
<td>Sidi Kerir Petrochemicals</td>
<td>(SKPC)</td>
<td>EGS38051C017</td>
</tr>
<tr>
<td>Misr Chemical Industries</td>
<td>(MICH)</td>
<td>EGS38211C016</td>
</tr>
<tr>
<td>Abou Kir Fertilizers</td>
<td>(ABUK)</td>
<td>EGS38191C010</td>
</tr>
<tr>
<td><strong>Chemicals</strong></td>
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<td></td>
</tr>
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<td>South Valley Cement</td>
<td>(SVCE)</td>
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<tr>
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<td>(ESRS)</td>
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</tr>
<tr>
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<td>(SCEM)</td>
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<td>(ASCM)</td>
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<td>Misr Beni Suef Cement</td>
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<tr>
<td><strong>Constructions and Materials</strong></td>
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<td>Sharkia National Food</td>
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<td>National Company for Maize Products</td>
<td>(NCMP)</td>
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<td></td>
</tr>
<tr>
<td>Name</td>
<td>Symbol</td>
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<tr>
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<td>Extracted Oils</td>
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<td>El Kahera Housing</td>
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**Personal and Household Products**

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<td>Alexandria Spinning and Weaving</td>
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<td>Arab Cotton Ginning</td>
<td>(ACGC)</td>
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<td>El Nasr Clothing and Textiles</td>
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<td>Nile Cotton Ginning</td>
<td>(NCGC)</td>
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<tr>
<td>Oriental Weavers Carpet</td>
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**Travel and Leisure**

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<td>Egyptian Resorts Co SAE</td>
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<td>Orascom Hotels and Development</td>
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**Health and Pharmaceutical**

<table>
<thead>
<tr>
<th>Name</th>
<th>Symbol</th>
<th>ISIN code</th>
</tr>
</thead>
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<tr>
<td>Egyptian International Pharmaceutical Industries</td>
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<td>EGS38081C013</td>
</tr>
</tbody>
</table>
### Appendix B: Company profile of the 56 sampled firms

**Table (B1)**

| Oil and Gas |  |
|-------------|--|---|
| **Company Name** | Alexandria Mineral Oils Co |  |
| **Company Profile** | Alexandria Mineral Oils Co (known as: AMOC) is a public company, listed on Egyptian Exchange since December 2004. AMOC operates within the coal & consumable fuels sector focusing on energy. It has one subsidiary operating across Egypt, working on specialty chemicals. AMOC is based in Alexandria, Egypt and was established in May 1997. |  |

| Chemicals |  |
|-----------|--|---|
| **Company Name** | Egyptian Financial and Industrial SAE |  |
| **Company Profile** | Egyptian Financial and Industrial SAE (known as: Egyptian Financial & Industrial) is a public company, listed on Egyptian Exchange (EGX) since March 1996. Egyptian Financial & Industrial operates within the Materials sector focusing on Fertilizers and Agricultural Chemicals. It has one subsidiary operating across Egypt, working on Fertilizers and Agricultural Chemicals. Egyptian Financial & Industrial is based in Cairo, Egypt and was established in May 1929. |  |

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Samad Misr</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Samad Misr (known as: EGYFERT) is a public company, listed on Egyptian Exchange since December 1999. EGYFERT operates within the materials sector focusing on fertilizers &amp; agricultural chemicals. It has 5 subsidiaries operating across Egypt. EGYFERT is based in Giza, Egypt and was established in October 1997.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Sidi Kerir Petrochemicals</th>
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</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Sidi Kerir Petrochemicals is a public company, listed on Egyptian Exchange (EGX)</td>
<td></td>
</tr>
</tbody>
</table>
since March 2004. It operates within the Materials sector focusing on Commodity
Chemicals. It has 2 subsidiaries operating across Egypt, working on Textiles and Oil
and Gas Refining and Marketing. Sidi Kerir Petrochemicals is based in Alexandria,
Egypt and was established in November 1997.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Misr Chemical Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Misr Chemical Industries is a public company, listed on Egyptian Exchange since August 1994. It operates within the materials sector focusing on commodity chemicals. Misr Chemical Industries is based in Alexandria, Egypt and was established in November 1959.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Abou Kir Fertilizers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Abu Qir Fertilizers is a public company, listed on Egyptian Exchange since September 1994. It operates within the materials sector focusing on diversified chemicals. It has 3 subsidiaries operating across Egypt, working on commodity chemicals, fertilizers &amp; agricultural chemicals and diversified chemicals. Abu Qir Fertilizers is based in Alexandria, Egypt and was established in July 1976.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Egyptian Iron and Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Egyptian Iron and Steel (known as: Egyptian Iron &amp; Steel) is a public company, listed on Egyptian Exchange (EGX) since November 1958. Egyptian Iron &amp; Steel operates within the Materials sector focusing on Steel. It has 2 subsidiaries operating across Egypt, working on Construction and Engineering and Construction Materials. Egyptian Iron &amp; Steel is based in Cairo, Egypt and was established in January 1991.</td>
</tr>
</tbody>
</table>

<p>| Company Name | Misr Cement - Qena |</p>
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misr Cement - Qena</td>
<td>Misr Cement - Qena is a public company, listed on Egyptian Exchange (EGX) since May 2000. It operates within the Materials sector focusing on Construction Materials. It has 4 subsidiaries operating across Egypt, working on Commodity Chemicals, Research and Consulting Services and Construction Materials. Misr Cement - Qena is based in Qena, Egypt and was established in May 1997.</td>
</tr>
<tr>
<td>South Valley Cement</td>
<td>South Valley Cement Co SAE (known as: South Valley Cement) is a public company, listed on Egyptian Exchange (EGX) since October 1998. South Valley Cement operates within the Materials sector focusing on Construction Materials. It has 4 subsidiaries operating across Egypt, working on Diversified Metals and Mining, Hotels, Resorts and Cruise Lines, Asset Management and Custody Banks and Construction Materials. South Valley Cement is based in Cairo, Egypt and was established in October 1997.</td>
</tr>
<tr>
<td>Ezz Steel</td>
<td>Ezz Steel Co SAE (known as: Ezz Steel) is a public company, listed on Egyptian Exchange (EGX) since May 1999. Ezz Steel operates within the Materials sector focusing on Steel. It has 15 subsidiaries operating across Egypt, United Kingdom, Germany and Algeria. Ezz Steel is based in Giza, Egypt and was established in April 1994.</td>
</tr>
<tr>
<td>Giza General Contracting and Real Estate Investment</td>
<td>Giza General Contracting and Real Estate Investment Co SAE (known as: Giza</td>
</tr>
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</table>
General Contracting) is a public company, listed on Egyptian Exchange (EGX) since September 1997. Giza General Contracting operates within the Real Estate sector focusing on Diversified Real Estate Activities. It has 2 subsidiaries operating across Egypt, working on Coal and Consumable Fuels and Construction Materials. Giza General Contracting is based in Cairo, Egypt and was established in June 1988.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Egyptian for Developing Building Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Egyptian for Developing Building Materials (known as: Lift Slab Misr) is a public company, listed on Egyptian Exchange since August 1999. Lift Slab Misr operates within the capital goods sector focusing on construction &amp; engineering. Lifat Slab Misr is based in Cairo, Egypt and was established in March 1978.</td>
</tr>
<tr>
<td>Company Name</td>
<td>Sinai Cement</td>
</tr>
<tr>
<td><strong>Company Profile</strong></td>
<td>Sinai Cement is a public company, listed on Egyptian Exchange since July 2000. It operates within the materials sector focusing on construction materials. It has 4 subsidiaries operating across Egypt, working on real estate development and construction materials. Sinai Cement is based in Cairo, Egypt and was established in January 1997.</td>
</tr>
<tr>
<td>Company Name</td>
<td>Al Ezz for Ceramics and Porcelain</td>
</tr>
<tr>
<td><strong>Company Profile</strong></td>
<td>Al Ezz for Ceramics and Porcelain (known as: Gemma) is a public company, listed on Egyptian Exchange since September 1998. Gemma operates within the materials sector focusing on construction materials. It has 3 subsidiaries operating across Egypt, working on security &amp; alarm services, specialized real estate investment trust and</td>
</tr>
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</table>
construction materials. Gemma is based in Alexandria, Egypt and was established in January 1995.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Orascom Construction Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Orascom Construction Industries (known as: OCI) is a public company, listed on Egyptian Exchange since September 1998. OCI operates within the capital goods sector focusing on construction &amp; engineering. It has 29 subsidiaries operating across Northern Africa, Middle East, Western Europe and Western Africa. OCI is based in Giza, Egypt and was established in March 1998.</td>
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<table>
<thead>
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<th>Company Name</th>
<th>Asek Company for Mining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Asek Company for Mining (known as: Ascom) is a public company, listed on Egyptian Exchange since October 2003. Ascom operates within the materials sector focusing on diversified metals &amp; mining. It has 10 subsidiaries operating across Northern Africa, Middle East and Eastern Africa. Ascom is based in Cairo, Egypt and was established in April 1999.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Misr Beni Suef Cement</th>
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</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Misr Beni Suef Cement is a public company, listed on Egyptian Exchange since August 1999. It operates within the materials sector focusing on construction materials. Misr Beni Suef Cement is based in Cairo, Egypt and was established in November 1997.</td>
</tr>
</tbody>
</table>

**Food and Beverage**

<table>
<thead>
<tr>
<th>Company Name</th>
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<tr>
<td><strong>Company Name</strong></td>
<td><strong>Company Profile</strong></td>
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<tr>
<td>------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Sharkia National Food</td>
<td>Sharkia National Food is a public company, listed on Egyptian Exchange since February 1995. It operates within the food, beverage &amp; tobacco sector focusing on agricultural products. It has 2 subsidiaries operating across Egypt. Sharkia National Food is based in Al Zagazig, Egypt and was established in January 1981.</td>
</tr>
<tr>
<td>National Company for Maize Products</td>
<td>National Company for Maize Products (known as: National Co for Maize Products) is a public company, listed on Egyptian Exchange since April 2004. National Co for Maize Products operates within the food, beverage &amp; tobacco sector focusing on agricultural products. National Co for Maize Products is based in Al Sharqiya, Egypt and was established in December 1981.</td>
</tr>
<tr>
<td>International Agricultural Products</td>
<td>International Agricultural Products is a public company, listed on Egyptian Exchange since December 1998. It operates within the food, beverage &amp; tobacco sector focusing on agricultural products. It has 9 subsidiaries operating across Egypt and Sudan. International Agricultural Products is based in Mansoura, Egypt and was established in May 1995.</td>
</tr>
<tr>
<td>Egypt for Poultry</td>
<td>Egypt for Poultry (known as: Egypco) is a public company, listed on Egyptian</td>
</tr>
</tbody>
</table>
Exchange (EGX) since December 2001. Egypco operates within the Food, Beverage and Tobacco sector focusing on Packaged Foods and Meats. It has two subsidiaries operating across Egypt, working on Agricultural Products. Egypco is based in Cairo, Egypt and was established in August 1977.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Delta Sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Delta Sugar is a public company, listed on Egyptian Exchange since April 1992. It operates within the food, beverage &amp; tobacco sector focusing on agricultural products. It has 3 subsidiaries operating across Egypt, working on textiles and agricultural products. Delta Sugar is based in Giza, Egypt and was established in January 1978.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Company Name</th>
<th>Extracted Oils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Extracted Oils is a public company, listed on Egyptian Exchange (EGX) since September 1995. It operates within the Food, Beverage and Tobacco sector focusing on Packaged Foods and Meats. It has one subsidiary operating across Egypt, working on Textiles. Extracted Oils is based in Alexandria, Egypt and was established in April 1959.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Company Name</th>
<th>Upper Egypt flour mills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Upper Egypt Flour Mills is a public company, listed on Egyptian Exchange since August 1996. It operates within the food, beverage &amp; tobacco sector focusing on agricultural products. It has 2 subsidiaries operating across Egypt, working on textiles and agricultural products. Upper Egypt Flour Mills is based in Sohag, Egypt and was</td>
</tr>
</tbody>
</table>
North Cairo Mills is a public company, listed on the Egyptian Exchange (EGX) since September 1995. North Cairo Mills operates within the Food, Beverage and Tobacco sector focusing on Packaged Foods and Meats, also the company added the real estate investment to its activities. It has one subsidiary operating across Egypt, working on Packaged Foods and Meats. North Cairo Mills is based in Cairo, Egypt and was established in January 1965.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Profile</th>
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</thead>
<tbody>
<tr>
<td>North Cairo Mills</td>
<td>North Cairo Flour Mills (known as: North Cairo Mills) is a public company, listed on Egyptian Exchange (EGX) since September 1995. North Cairo Mills operates within the Food, Beverage and Tobacco sector focusing on Packaged Foods and Meats, also the company added the real estate investment to its activities. It has one subsidiary operating across Egypt, working on Packaged Foods and Meats. North Cairo Mills is based in Cairo, Egypt and was established in January 1965.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egyptians for Housing and Development</td>
<td>Egyptians for Housing and Development Co SAE (known as: Egyptians for Housing) is a public company, listed on Egyptian Exchange (EGX) since August 1994. Egyptians for Housing operates within the Real Estate sector focusing on Diversified Real Estate Activities. It has 3 subsidiaries operating across Egypt, working on Diversified Real Estate Activities and Asset Management and Custody Banks. Egyptians for Housing is based in Giza, Egypt and was established in January 1986.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Kahera Housing</td>
<td>El Kahera Housing is a public company, listed on Egyptian Exchange (EGX) since March 1995. It operates within the Real Estate sector focusing on Diversified Real Estate Activities. It has 7 subsidiaries operating across Egypt. El Kahera Housing is based in Cairo, Egypt and was established in December 1969.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Profile</th>
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<tbody>
<tr>
<td>Al Shams Housing and Urbanization</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>Company Profile</td>
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</tr>
<tr>
<td>Al Shams Housing and Urbanization (known as: Al Shams Housing)</td>
<td>is a public company, listed on Egyptian Exchange (EGX) since September 1995. Al Shams Housing operates within the Real Estate sector focusing on Diversified Real Estate Activities. It has 2 subsidiaries operating across Egypt, working on Hotels, Resorts and Cruise Lines and Diversified Real Estate Activities. Al Shams Housing is based in Cairo, Egypt and was established in June 1946.</td>
</tr>
<tr>
<td>Heliopolis Company for Housing and Development</td>
<td>Heliopolis Company for Housing and Development (known as: Heliopolis Housing) is a public company, listed on Egyptian Exchange (EGX) since May 1995. Heliopolis Housing operates within the Real Estate sector focusing on Diversified Real Estate Activities. It has 5 subsidiaries operating across Egypt. Heliopolis Housing is based in Cairo, Egypt and was established in January 1906.</td>
</tr>
<tr>
<td>Madinet Nasr Housing and Development</td>
<td>Madinet Nasr Housing and Development (known as: Madinet Nasr Housing) is a public company, listed on Egyptian Exchange (EGX) since May 1995. Madinet Nasr Housing operates within the Real Estate sector focusing on Diversified Real Estate Activities. It has 4 subsidiaries operating across Egypt, working on Education Services, Construction and Engineering, Real Estate Development and Multi-Utilities. Madinet Nasr Housing is based in Cairo, Egypt and was established in January 1959.</td>
</tr>
<tr>
<td>Six of October for Development and Investment</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>Company Profile</td>
</tr>
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<td>----------------------------</td>
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</tr>
<tr>
<td>Sixth of October for</td>
<td>Sixth of October for Development and Investment (known as: SODIC) is a public company, listed on Egyptian Exchange (EGX) since March 1998. SODIC operates within the Real Estate sector focusing on Real Estate Development. It has 27 subsidiaries operating across Egypt and Syria. SODIC is based in Giza, Egypt and was established in May 1996.</td>
</tr>
<tr>
<td>Company for Housing and</td>
<td>United Company for Housing and Development (known as: United Co for Housing) is a public company, listed on Egyptian Exchange since December 1994. United Co for Housing operates within the real estate sector focusing on diversified real estate activities. It has one subsidiary operating across Egypt. United Co for Housing is based in Alexandria, Egypt and was established in March 1907.</td>
</tr>
<tr>
<td>Development</td>
<td>Talaat Moustafa Group Holding</td>
</tr>
<tr>
<td>Talaat Moustafa Group</td>
<td>Talaat Moustafa Group Holding (known as: TMG Holding) is a public company. TMG Holding operates within the Real Estate sector focusing on Real Estate Development. It has 13 subsidiaries operating across Egypt. TMG Holding is based in Giza, Egypt and was established in February 2004.</td>
</tr>
<tr>
<td>Holding</td>
<td>Palm Hills Development</td>
</tr>
<tr>
<td>Palm Hills Development</td>
<td>Palm Hills Development Co SAE (known as: Palm Hills) is a public company. Palm Hills operates within the Real Estate sector focusing on Real Estate Development. It</td>
</tr>
<tr>
<td>Co SAE</td>
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</table>
has 25 subsidiaries operating across United Kingdom, Singapore, Egypt and Saudi Arabia. Palm Hills is based in Giza, Egypt and was established in January 2004.

<table>
<thead>
<tr>
<th><strong>Technology</strong></th>
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<tbody>
<tr>
<td><strong>Company Name</strong></td>
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<td><strong>Company Profile</strong></td>
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<tr>
<th><strong>Telecommunications</strong></th>
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<td><strong>Company Name</strong></td>
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<tr>
<td><strong>Company Profile</strong></td>
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<td>Company Profile</td>
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<thead>
<tr>
<th>Company Name</th>
<th>Egyptian Media Production City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Egyptian Media Production City is a public company, listed on Egyptian Exchange since September 1999. It operates within the media sector focusing on cable &amp; satellite. It has 4 subsidiaries operating across Egypt, working on movies &amp; entertainment, hotels, resorts &amp; cruise lines, application software and broadcasting. Media Production City is based in Giza, Egypt and was established in January 1997.</td>
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<thead>
<tr>
<th>Company Name</th>
<th>Elsewedy Electric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Elsewedy Electric Co SAE (known as: Elsewedy Electric) is a public company, listed on Egyptian Exchange (EGX) since May 2004. Elsewedy Electric operates within the Capital Goods sector focusing on Electrical Components and Equipment. It has 37 subsidiaries operating across Northern Africa, Eastern Africa, Middle East and</td>
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<tr>
<td>Company Name</td>
<td>Company Profile</td>
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</tr>
<tr>
<td>United Arab Stevedoring</td>
<td>United Arab Stevedoring Co (known as: AELOAD) is a public company, listed on Egyptian Exchange (EGX) since April 1992. AELOAD operates within the Transportation sector focusing on Marine Ports and Services. It has one subsidiary operating across Egypt, working on Water Utilities, Diversified Banks and Marine Ports and Services. AELOAD is based in Alexandria, Egypt and was established in January 1991.</td>
</tr>
<tr>
<td>Ghabbour Auto</td>
<td>Ghabbour Auto SAE (known as: GB Auto) is a public company. GB Auto operates within the Automobiles and Components sector focusing on Automobile Manufacturers. It has 35 subsidiaries operating across North America, Australia and New Zealand, Western Europe, Northern Africa and Middle East. GB Auto is based in Giza, Egypt and was established in July 1999.</td>
</tr>
<tr>
<td>Industrial Engineering Company for Construction and Development</td>
<td>Industrial Engineering Company for Construction and Development (known as: ICON) is a public company, listed on Egyptian Exchange since February 1982. ICON operates within the capital goods sector focusing on construction &amp; engineering. It has one subsidiary operating across Egypt, working on construction materials. ICON is based in Cairo, Egypt and was established in April 1977.</td>
</tr>
<tr>
<td>Company Name</td>
<td>Canal Shipping Agencies</td>
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<tr>
<td>----------------------------------</td>
<td>--------------------------------------------------------------</td>
</tr>
<tr>
<td>Company Profile</td>
<td>Canal Shipping Agencies is a public company, listed on Egyptian Exchange since February 1995. It operates within the transportation sector focusing on air freight &amp; logistics. It has 5 subsidiaries operating across Egypt. Canal Shipping Agencies is based in Port Said, Egypt and was established in July 1965.</td>
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<thead>
<tr>
<th>Company Name</th>
<th>Maridive and Oil Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Maridive and Oil Services (known as: Maridive) is a public company, listed on Egyptian Exchange since April 1992. Maridive operates within the transportation sector focusing on marine ports &amp; services. It has 4 subsidiaries operating across Liberia and Egypt, working on energy and marine ports &amp; services. Maridive is based in Port Said, Egypt and was established in February 1978.</td>
</tr>
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<thead>
<tr>
<th>Company Name</th>
<th>Electro Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Profile</td>
<td>Electro Cable Co SAE - Egypt (known as: Electro Cable) is a public company, listed on Egyptian Exchange (EGX) since March 1995. Electro Cable operates within the Capital Goods sector focusing on Electrical Components and Equipment. It has 3 subsidiaries operating across Egypt, working on Electrical Components and Equipment and Industrial Machinery. Electro Cable is based in Banha, Egypt and was established in September 1954.</td>
</tr>
</tbody>
</table>

| Company Name                     | Egyptian Transport and Commercial Services                   |

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<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egyptian Transport and Commercial Services Co SAE (known as: Egytrans)</td>
<td>is a public company, listed on Egyptian Exchange (EGX) since December 1992. Egytrans operates within the Transportation sector focusing on Marine. It has 8 subsidiaries operating across Egypt. Egytrans is based in Giza, Egypt and was established in September 1973.</td>
</tr>
</tbody>
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### Personal and Household Products

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Company Profile</th>
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</thead>
<tbody>
<tr>
<td>Arab Polvara Spinning and Weaving</td>
<td>United Arab Stevedoring Co (known as: AELOAD) is a public company, listed on Egyptian Exchange (EGX) since April 1992. AELOAD operates within the Transportation sector focusing on Marine Ports and Services. It has 3 subsidiaries operating across Egypt, working on Water Utilities, Diversified Banks and Marine Ports and Services. AELOAD is based in Alexandria, Egypt and was established in January 1991.</td>
</tr>
<tr>
<td>Alexandria Spinning and Weaving</td>
<td>Alexandria Spinning and Weaving (known as: SPINALEX) is a public company, listed on Egyptian Exchange since September 1995. SPINALEX operates within the consumer durables &amp; apparel sector focusing on textiles. SPINALEX is based in Alexandria, Egypt and was established in January 1947.</td>
</tr>
<tr>
<td>Arab Cotton Ginning</td>
<td>Arab Cotton Ginning is a public company, listed on Egyptian Exchange (EGX) since July 1995. It operates within the Consumer Durables and Apparel sector focusing on Textiles. It has 10 subsidiaries operating across Egypt. Arab Cotton Ginning is based</td>
</tr>
</tbody>
</table>
in Cairo, Egypt and was established in January 1963.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>El Nasr Clothing and Textiles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>El Nasr Clothing and Textiles (known as: KABO) is a public company, listed on Egyptian Exchange (EGX) since February 1995. KABO operates within the Consumer Durables and Apparel sector focusing on Apparel, Accessories and Luxury Goods. It has 2 subsidiaries operating across Egypt, working on Distributors and Textiles. KABO is based in Alexandria, Egypt and was established in January 1940.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Company Name</th>
<th>Nile Cotton Ginning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Nile Cotton Ginning is a public company, listed on Egyptian Exchange since September 1996. It operates within the consumer durables &amp; apparel sector focusing on textiles. Nile Cotton Ginning is based in Giza, Egypt and was established in July 1965.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Company Name</th>
<th>Oriental Weavers Carpet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Oriental Weavers Carpet (known as: Oriental Weavers) is a public company, listed on Egyptian Exchange (EGX) since December 1994. Oriental Weavers operates within the Consumer Durables and Apparel sector focusing on Home Furnishings. It has 20 subsidiaries operating across United Kingdom, United States, Egypt and China. Oriental Weavers is based in Cairo, Egypt and was established in November 1981.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Travel and Leisure</th>
<th>Egyptian Resorts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Egyptian Resorts Co SAE (known as: Egyptian Resorts) is a public company, listed</td>
</tr>
</tbody>
</table>
on Egyptian Exchange (EGX) since February 1999. Egyptian Resorts operates within the Consumer Services sector focusing on Hotels, Resorts and Cruise Lines. It has one subsidiary operating across Egypt, working on Hotels, Resorts and Cruise Lines. Egyptian Resorts is based in Cairo, Egypt and was established in April 1996.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Orascom Hotels and Development</th>
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</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
<td>Orascom Hotels and Development (known as: Orascom Hotels &amp; Development) is a public company, listed on Egyptian Exchange (EGX) since June 1998. Orascom Hotels &amp; Development operates within the Consumer Services sector focusing on Hotels, Resorts and Cruise Lines. It has 52 subsidiaries operating across Northern Africa, Middle East and Southern Europe. Orascom Hotels &amp; Development is based in Cairo, Egypt and was established in December 1995.</td>
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<tr>
<th>Health and Pharmaceutical</th>
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<tbody>
<tr>
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