THE IMPACT OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE IN EGYPTIAN LISTED COMPANIES

Ehab K. A. Mohamed*, Mohamed A. Basuony**, Ahmed A. Badawi***

Abstract

This paper examines the impact of corporate governance on firm performance using cross sectional data from non-financial companies listed in the Egyptian Stock Exchange. The 88 non-financial companies on EGX100 index of listed companies on the Egyptian Stock Market are studied to examine the relationship between ownership structure, board structure, audit function, control variables and firm performance by using OLS regression analysis. The results show that ownership structure has no significant effect on firm performance. The only board structure variable that has an effect on firm market performance is board independence. Firm book value performance is affected by both board independence and CEO duality. Firm size and leverage have varying effects on both market and book value performance of firms.

Keywords: Ownership Structure, Board Structure, Audit, Corporate Governance, Firm Performance, Egypt

* Corresponding author, Professor of Accounting & Vice of Academic Affairs, Faculty of Management Technology, German University in Cairo, New Cairo, Post Code: 11835, Cairo, Egypt
Tel. +20 227590764,
Fax +20 227581041,
E-mail: ehab.kamel@guc.edu.eg
** American University in Cairo, Egypt
*** American University of the Middle East, Kuwait

1. Introduction

Corporate governance has assumed a central place in the continued effort to sanitize corporate reporting and shore up public confidence in financial markets around the world. The issue seems to revolve around putting the right rules, regulations and incentives in place to ensure transparency and accountability in the management of the affairs of corporate entities (Cadbury, 1992). Interest in corporate governance has grown in the last three decades bringing the term from obscurity to the centre of attention of many academic and professional studies. This interest appears more appropriate at this time, when business executives and auditors are continually being held to higher standards of accountability and responsibility, even though corporate governance issues may be traced back to the nineteenth century with the advent of limited liability incorporation (Vinten, 1998). Corporate governance is viewed as an indispensable element of market discipline (Levitt 1999) and this is fuelling demands for strong corporate governance mechanisms by investors and other financial market participants (Blue Ribbon Committee 1999; Ramsay 2001).

Corporate Governance has received a lot of attention in recent years both in the professional and academic literature. Regulators enthusiastically recommend it and have successfully enacted corporate governance reforms into law in some countries such as the USA (Sarbanes-Oxley Act, 2002). In other countries such UK (Combined Code of Corporate Governance, 2003) the corporate governance codes are principles of best practice with some indirect element of legislature operating through the respective stock exchange listing rules.

The term corporate governance describes the system by which companies are directed and controlled. The overall objective of good governance is to ensure sustained growth or survival of companies and the attainment of multiple goals of corporate stakeholders, that is, investors, employees, and society in general (Charkham, 1994). It is defined as the system by which companies are controlled, directed and made accountable to shareholders and other stakeholders; control being understood as including indirect influences of financial markets (Demirag, 1998). Hence control is a major element of corporate governance, both in terms of environment and organizational activities (Committee of Sponsoring Organizations of the Treadway Commission (COSO), 1992; Public Oversight Board (POB), 1993; Cohen and Hanno, 2000).

Comparative studies of corporate governance, performance pressures, and accountability of management reveal significant variations among countries (Charkham, 1994). Some of these
differences may be traced to cultural differences (Hofstede, 2001), institutional differences (North, 1990), political structures, and ownership forms (Thomsen and Pedersen, 1995), as well as board composition and characteristics (Finkelstein and Hambrick, 1996). Cultural differences between countries, industries, and companies can explain a great deal of the diversities in corporate governance structures and processes in different countries (Kuada and Gullestrup, 1998). For example, the extent to which corporate governance is legally regulated will depend on the degree of uncertainty avoidance in a society. To avoid uncertainty, societies may institute formal and/or informal rules, which are used as regulatory mechanism to ensure that deliberate steps are taken to guard against unacceptable future conditions. Hence, in societies where a viable coalition of stakeholders is the primary objective of corporate governance, regulations encourage long-term orientation of management decisions and professionalism in their implementation.

Despite the impact of cultural differences on corporate governance, there is evidence suggesting that most of the issues and challenges of corporate governance in a rapidly changing global business environment are similar, irrespective of geographical locations. Byrne (1996; 1997), for example, find that too few people are constantly appearing on the same boards, and consequently, attending too few board meetings, and that many board members have vested interest in the companies and hence could not devote their full attention to management and control issues that require objectivity and independence. Despite cultural differences, this is common in many other countries, and notably so in Egypt. Arguably, an emerging economy, such as Egypt is likely to require more effective and stronger governance mechanisms than their western developed counterparts if they are to become equal, full and active participants in the global financial marketplace.

The aim of this paper is to examine the effect of corporate governance on both book value and market value firm performance in Egyptian firms. The rest of the paper is organised as follows: the following section provides a brief overview of the institutional framework in Egypt, followed by the theoretical background and hypothesis development. The research methodology is provided in section 4, followed by the findings and analysis in section 5; and finally summary & conclusion are provided in section 6.

2. Institutional Framework

The corporate legal framework in Egypt has its origin in French civil law. However, Anglo-American common law concepts became more prominent in Egyptian corporate law with the drafting of the Central Depository Law in 2001 and the proposed new Capital Market Law in 2002. The main laws governing the legal framework that impacts the concepts of corporate governance in Egypt can be divided into two main groups (UNCTAD, 2007):

(a) Laws governing incorporation of companies:
1. Companies’ Law (CL 159/1981), which regulates joint stock companies, limited liability companies and partnerships limited by shares;
2. Investment Law (IL 8/1997), which endorses investment in specific industrial locations or economic sectors by offering specific income tax exemptions or tax free zones; and
3. Public Business Sector Law (PBLS 203/1991), the law that governs the incorporation of public business sector companies;

(b) Laws governing public and private sector companies listed on the Cairo Alexandria Stock Exchange (CASE):
1. Capital Market Law (CML 95/1992), the main law regulating the Egyptian financial market in terms of monitoring the market status in general and maintaining steadiness and growth; and
2. Central Depository Law (CDL 93/2000), which aims at reducing risks associated with trading physical securities, enhancing market liquidity, in addition to assuring fast securities exchange. In other words, the law maintains all registration, clearance and settlement procedures associated with trading transactions.

Egypt started engaging in a number of activities aimed at improving its corporate governance practices even before the Enron-type scandals broke. Since the early 1990s the government and business leaders in Egypt recognized that if applied properly, corporate governance should help the country realize high and sustainable rates of growth. Then following the developments around the world, regulatory authorities in Egypt attempted to respond to the need for greater transparency and accountability with regards to corporate governance disclosure. The first Egyptian Code of Corporate Governance (ECCG) introduced by the Ministry of Investment and the General Authority for Investment and Free Zones (GAFI). These guidelines are to be primarily implemented in joint-stock companies listed on the stock exchange, and companies that use the banking systems as a major source of finance. The Capital Market Authority (CMA) further contributed to the corporate governance reforms by restructuring its organization and initiating three major sectors: (a) the Corporate Finance and Corporate Governance sector; (b) The Market Regulation sector; and (c) the Market Surveillance and Enforcement sector, in addition to other central departments and units. Furthermore, a Code of Corporate Governance for State-Owned Companies was issued by the Ministry of Investment in 2006. This code is primarily based on the ECCG and the report of the OECD working group on
privatization and corporate governance of State-owned assets (UNCTAD, 2007).

3. Theoretical background and Hypothesis Development

Corporate governance is a multi-disciplinary research field and has a range of meanings and definitions depending on how one uses it and which discipline and which country one is considering. Traditional finance literature has indicated several mechanisms that help solve corporate governance problems. There is a consensus on the classification of corporate governance mechanisms to two categories: internal and external mechanisms. However, there is a dissonance on the contents of each category and the effectiveness of each mechanism. In addition, the topic of corporate governance mechanisms is too vast and rich research area to the extent that no single paper can survey all the corporate governance mechanisms developed in the literature and instead the papers try to focus on some particular governance mechanisms.

Jensen (1993) criticises the existing governance mechanisms in USA, UK, Japan and Germany and outlines four basic categories of individual corporate governance mechanisms: (1) legal and regulatory mechanisms; (2) internal control mechanisms; (3) external control mechanisms; and (4) product market competition. In their survey of corporate governance, Shleifer and Vishny (1997) concentrate on: incentive contracts, legal protection for the investors against the managerial self-dealing, and the ownership by large investors.

Denies (2001) provides the following four mechanisms: (1) legal and regulatory mechanisms exist outside the firm; (2) internal control mechanisms within a firm, (which include; the board of directors; executive compensation and ownership; non executive owners; and debt); (3) external control mechanisms such as the corporate takeover market; and (4) product market competition. Then Denis and McConnell (2003) survey the international corporate governance concentrating on countries other than United States and using a dual classification of corporate governance mechanisms (They use systems as synonym to mechanisms) as follows: (1) internal governance mechanisms including: boards of directors and ownership structure and (2) external ones including: the takeover market and the legal regulatory system.

Farinha (2003) surveys two categories of governance (or disciplining) mechanisms, the first one is the external disciplining mechanisms including: takeovers threat; product market competition; managerial labour market and mutual monitoring by managers; security analysts; the legal environment; and the role of reputation. The other category is the internal disciplining mechanisms which include: large and institutional shareholders; board of directors; insider ownership; compensation packages; debt policy; and dividend policy.

Despite the existence of different corporate governance structures, the basic building blocks of the structures are similar. They include the existence of a Company, Directors, Accountability and Audit, Directors’ Remuneration, Shareholders and the AGM. Cadbury (1992), Greenbury (1995) and Hampel (1998) called for greater transparency and accountability in areas such as board structure and operation, directors’ contracts and the establishment of board monitoring committees. In addition, they all stressed the importance of the non-executive directors’ monitoring role.

Ownership Structure

Large shareholders and institutional investors can be seen as potential controllers of equity agency problems as their increased shareholdings can give them a stronger incentive to monitor firm performance and managerial behavior (Demsetz, 1983; Demsetz and Lehn 1985; and Shleifer and Vishny, 1986; Shleifer and Vishny, 1997, La Porta et al, 1998; La Porta et al, 1999; Claessens et al, 2000, and Denis and McConnell, 2003). This potentially helps to circumvent the free rider-problem associated with ownership dispersion. Another potential benefit relates to the potential challenge that large shareholders offer to outside raiders, thus increasing the takeover premium (Burbart, 1995).

Ownership concentration in both developed and developing countries show high concentration of ownership (La Porta et al, 1998 & 1999; Faccio et al, 2001; Lemmon and Lins, 2003; Ginglinger and L’her, 2006). It is also noted that in several countries around the world control of proportional ownership is usually achieved through pyramidal ownership structures in which one firm is controlled by another firm, which maybe itself controlled by some other entity (Lemmon and Lins, 2003).

One rather intuitive way by which equity agency costs can be reduced is by increasing the level of managers’ stock ownership, which may permit a better alignment of their interests with those of shareholders. In fact, in the extreme case where the manager’s share ownership is 100%, equity agency costs are reduced to zero (Jensen and Meckling, 1976). As managerial ownership increases, managers bear a large fraction of the costs of shirking, perquisite consumption and other value-destroying actions. Further, larger share ownership by managers reduces the problem of different horizons between shareholders and managers if share prices adjust rapidly to changes in firm’s intrinsic value.

A limitation, however, of this mechanism as a tool for reducing agency costs is that managers may not be willing to increase their ownership of the firm because of constraints on their personal wealth. Additionally, personal risk aversion also limits the
extension of this monitoring device as the allocation of a large portion of the manager's wealth to a single firm is likely to translate into a badly diversified portfolio (Beck and Zorn, 1982). Management buyouts, whereby insiders increase dramatically their shareholdings in the firm, provide a natural field study for the effects of insider ownership in the reduction of conflicts between owners and managers.

In accordance with the proposition that larger managerial ownership reduce agency costs, Kaplan (1989) finds that following large management buyouts, firms experience significant improvements in operating performance. He interprets this evidence as suggesting that operating changes were due to improved management incentives instead of layoffs or managerial exploitation of shareholders through inside information. Smith (1990) reports similar results and notes that the amelioration observed in operating performance is not due to reductions in discretionary expenditures such as research and development, advertising, maintenance or property, plant and equipment. Macus (2008) argues that the basic issue from an agency perspective is how to avoid such opportunistic behavior. Previous studies suggest that corporate governance is an effective tool to control the opportunistic behaviours of management (Denis and McConnell, 2003; Bhagat and Bolton, 2008; Chen et al., 2009).

In a study of the effects of changes in ownership structure on performance for a sample of thrift institutions that converted from mutual to stock ownership, Cole and Mehran (1998) find that changes in performance are significantly associated with changes in insider ownership. They document that the greater the increase in insider ownership, the greater the performance improvement, which is consistent with the alignment of interests hypothesis arising from a larger insider ownership. Also consistent with that hypothesis of Subrahmanyam et al (1997) who find evidence, in a sample of successful bidders in bank acquisitions, of a positive association between insider ownership and profitability ratios. This explains the strong positive relationship typically present results that have very low explanatory power (R’s usually between 2% and 6%).

A possible explanation for these mixed results is that many of the studies do not properly distinguish the possibility of alignment of interests across a certain range of ownership values and of entrenchment over another range. Furthermore, these analyses usually do not take into account the possibility that several different mechanisms for alignment of interests can be used simultaneously, with substitution effects with insider ownership. It is quite conceivable that different firms may use different mixes of corporate governance devices (Rediker and Seth, 1995).

These different mixes can, however, all be optimal as a result of varying marginal costs and benefits of the several monitoring instruments available for each firm. If so, then one would not be able to observe a relationship between performance and any of these particular mechanisms.

It appears that the main conflict is between owners and managers in common law countries due to the existence of dispersed control and ownership structures. While, in civil law countries the control and ownership structures are concentrated, thus the main governance problem arises between minority and controlling shareholders. Therefore, ownership structure has greater importance in civil law countries where protection of shareholders right is weak (La Porta et al., 1998; Beck et al., 2003). The situation is more prevalent in developing countries where large concentration of ownership is more evident while the stock markets weak. In those countries there is a higher degree of economic uncertainties coupled with weak legal controls and investor protection, and frequent government intervention; all resulting in poor performance (Ahunwan, 2002; Rabelo and Vasconcelos, 2002; Tsamenyi et al; 2007).

The fact that the logical argument goes for a causal relationship between the ownership structure and firm performance on the basis of placing ownership structure as the independent variable can influence firm performance. This is the underlying assumption of several studies (Claessens and Fan, 2002; Klapper and Love, 2004; Lins, 2003; and Sung Wook, 2003; Kumar and Singh, 2013). Another line of research suggested that, contrary to the logic suggested that firm performance is the independent variable that can influence ownership structure and not the opposite (Demsetz and Lehn, 1985; Loderer and Martin, 1997; Cho, 1998). Chang (2003) reveals that the concentration of ownership, which enables owners to reduce managers’ discretion, and increased ownership by managers, which aligns managers’ interests with those of shareholders, improve firm performance. Krivogorsky (2006) indicates that a strong positive relationship between the level of relational ownership and profitability ratios. This explains the strong reliance on the ownership structure as corporate governance mechanisms that might
significantly affect the firms’ performance. This prompt the first hypothesis:

**H1**: There is a significant relationship between ownership structure and firm performance.

**H1a**: There is a significant relationship between ownership structure and book value performance.

**H1b**: There is a significant relationship between ownership structure and market value performance.

**Board Structure**

Based on the agency perspective the separation of the roles of CEO from chairman is another crucial monitoring mechanisms. CEO duality is when the CEO also serves as chairman. This situation is problematic from an agency perspective as the CEO seems to get dominant influence on board decisions by chairing the group of people in charge of monitoring and evaluating his performance. This in effect results in weakening the board's independency and may result in ineffective monitoring of management. Therefore good governance will occur when the two roles of Chairman and CEO are separated (Baliga et al., 1996; Brickley et al., 1997; Coles and Hesterly, 2000; Wier and Liang, 2001; William et al. 2003).

Moreover, several studies reveal that there is a negative relation between the size of the board and performance. Larger boards seems to be less efficient due to the slow pace of decision making and the difficulty in both arranging board meeting and reaching consensus. It is also argued that the CEO seems to have more dominant power when the board size is too large. (Jensen 1993; Yermack 1996; Eisenberg et al., 1998; Singh and Davidson, 2003; Cheng, 2008)

Hermalin and Weisbach (1991) find that in the US board size is negatively related to both general firm performance and the quality of decision-making. Evidence of a negative relation between board size and firm performance is also revealed in Singapore and Malaysia (Mak and Yuanto, 2003) Finland (Eisenberg et al., 1998) and UK (Carline et al., 2002).

It is not only the size of the board that seems to have a governing effect on firm performance, it is argued that the board composition in terms of the number of outside directors versus inside directors results in better performance through better monitoring. This argument is mainly based on the agency theory (Fama 1980; Demsetz and Lehn, 1985). Several studies find that the larger the number of outside directors on the board, the better the firm performance (Rosenstein and Wyatt, 1990; Weisbach, 1988; Huson, 2001).

On the other hand, some argue that based on the stewardship theory executive directors have a positive effect on corporate R&D costs and better performance based on improved strategic innovation (Donaldson, 1990; Kochar and David, 1996; Davis et al., 1997). Several studies reveal negative relation between the number of outside directors and firm performance (Agrawal and Knoebber, 1996; Kochar and David, 1996; Bhagat and Black, 2002). Meanwhile, several other studies find no significant relation between the number of outside directors and corporate performance (Hermalin and Weibach, 1991; Dalton et al., 1998; Vafeas and Theodorou, 1998; Liang and Wier, 1999; Lam and Lee, 2012). Hermalin and Weisbach (1991) find that in the US higher proportions of outside directors are not associated with superior firm performance, but are associated with better decisions concerning issues such as acquisitions, executive compensation, and CEO turnover. Further explanation is provided by Adams and Ferreira (2007) who suggest that CEOs may be reluctant to share information with more independent boards, thereby decreasing shareholder value.

The relationship between corporate performance and corporate governance is measured using only one of the two variables (ownership structure and board structure) in relation with the firm performance (Krivogorsky, 2006). There is a debate regarding the effect of board composition on firm performance (Dulewicz and Herbert, 2004; De Andres et al., 2005; Ehikioya, 2009). Bhagat and Black (2002) find a negative relationship between the proportion of outside directors and corporate performance. Moreover, Yermack (1996) reported evidence that a higher percentage of independent directors leads to worse performance. In addition, Klein (2002) suggests that high percentage of outside directors will have the same negative effect. On the other hand, a meta-analysis of studies in this area conducted by Dalton et al. (1998) fails to find any relationship between corporate performance and non-executive director’s independence. Moreover, other studies based on data from UK companies do not show any evidence of an existing relationship between the proportion of non-executive directors and firm performance (Vafeas and Theodorou 1998; Liang and Wier, 1999). Dalton et al. (1998) point out that the empirical literature examining leadership structure in relation to firm performance fail to provide any consistent results. This leads to the second hypothesis:

**H2**: There is a significant relationship between board structure and firm performance.

Rechner and Dalton (1989) find no significant differences in firm performance between separated leadership structure firms and combined leadership structure firms over a five year period. However, further study of the same sample reveal that firms with separated leadership structure have higher performance than the firms with combined leadership structure measured with ROE, ROI and profit margin (Rechner and Dalton, 1991).

**H2a**: There is a significant relationship between board structure and book value performance.

Sundaramurthy et al. (1997) provide evidence that separating the positions will affect the shareholder wealth positively. Moreover, Coles and
Hesterly (2000) find that firms that separate CEOs and board chairs will have better stock returns than firms that do not separate the two roles. On the other hand, Baliga et al. (1996) do not find sufficient evidence to support a performance distinction between separated and combined leadership firms when the performance was measured using the market value added (MVA) and economic value added (EVA) as performance indicators.

**H2b: There is a significant relationship between board structure and market value performance.**

**Audit Function**

Auditing is an important function that contributes to a trustful relationship between the agent and the organisation’s principals and other stakeholders who rely on the financial information. The audit adds to the reliability and quality of the financial reporting through scrutinizing the accounting and reporting (Porter et al., 2008; Collin et al., 2013).

Audit committees are identified as effective means for corporate governance that reduce the potential for fraudulent financial reporting (NCFFR, 1987). Audit committees oversee the organization’s management, internal and external auditors to protect and preserve the shareholders’ equity and interests. To ensure effective corporate governance, the audit committee report should be included annually in the organization’s proxy statement, stating whether the audit committee has reviewed and discussed the financial statements with the management and the internal auditors. As a corporate governance monitor, the audit committee should provide the public with correct, accurate, complete, and reliable information, and it should not leave a gap for predictions or uninformed expectations (BRC, 1999). The BRC report provides recommendations and guiding principles for improving the performance of audit committees that should ultimately result in better corporate governance. The importance of the audit function in terms of the audit committee and audit firm is further strengthened by the Sarbanes-Oxley Act of 2002.

It is assumed that all auditors whether large international firms (i.e., Big 4) or national and local firms are professionals and apply the standards issued by professional bodies. Nonetheless, it can be assumed that audit practice in the Big 4 is more influenced by international development than in the national audit firms. The acquisition of more up-to-date practice and strength from international experience that put power behind the Big 4 demands and audit effort can lead us to assume that use of a Big Four audit firm will positively impact performance (Collin et al., 2013).

The presence of a large international audit firm (i.e., Big 4) has been considered as a significant factor in the possibility of having a good corporate governance mechanism. These firms are expected, on average, to provide a relatively high quality of auditing service (Kane & Velury, 2004). Chen et al. (2005) examine empirically the relationship between audit quality (measured by industry specialization) and the number of audit committee meetings in a year (as a signal of good corporate governance practice). They find that an association exists between the presence of an audit committee and an industry specialist audit firm. To sum up, it is possible for big audit firms to control opportunistic management behaviours, reduce agency costs, and increase the firm’s value.

**Auditing**

**Control Variables**

Firm size, age industry type and leverage are control variables which are proved to have an effect on firm performance and are used widely in the empirical literature of corporate governance. (for example: Klapper and Love, 2003; Bahgat and Bolton, 2008; Ehikioya, 2009; Kumar and Singh, 2013). The hypothesis to be tested is as follows:

**H4: There is a significant relationship between control variables and firm performance.**

**H4a: There is a significant relationship between firm size, age, industry type, leverage and book value performance.**

**H4b: There is a significant relationship between firm size, age, industry type, leverage and market value performance.**

### 4. Research Methodology

The research models in figure (1) consist of corporate governance variables, control variables and firm performance. The corporate governance variables adopted in this research consists of three variables which are the audit function variable, ownership structure variable and, board structure variable. ROA and ROE are the two variables used to represent the book value performance, while Tobin’s Q is the variable adopted to represent the market value performance. Finally, the age, industry type, firm size and leverage are the control variables used.
The sample comprises of the top 88 firms listed on the Egyptian Stock Exchange top 100 index EGX100 for the year 2010; excluding all financial firms (including Banks). Data collected is cross sectional for the year 2010. Data are collected from Osiris and Kompass Egypt databases.

Definition and measurement of all variables used in the research are provided in table (1).

**Table 1. Definition and Measurement of Variables**

<table>
<thead>
<tr>
<th>Variable Groups</th>
<th>Symbol</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governance Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Independent Variables)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit committee</td>
<td>AC</td>
<td>takes the value of 1 if exists, 0 otherwise</td>
</tr>
<tr>
<td>Audit type</td>
<td>AudType</td>
<td>takes value of 1 if auditor is one of the big 4 audit firms, 0 otherwise</td>
</tr>
<tr>
<td>Ownership Structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Ownership</td>
<td>IOwn</td>
<td>takes the value of 1 if exists, 0 otherwise</td>
</tr>
<tr>
<td>Directors Ownership</td>
<td>DOwn</td>
<td>takes the value of 1 if exists, 0 otherwise</td>
</tr>
<tr>
<td>Ownership Concentration</td>
<td>OwnCon</td>
<td>Adding up all share ratios of shareholders of 5% or more</td>
</tr>
<tr>
<td>Board Structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duality</td>
<td>Duality</td>
<td>takes the value of 0 if exists, 1 otherwise</td>
</tr>
<tr>
<td>Board Size</td>
<td>BrdSize</td>
<td>Total number of board members</td>
</tr>
<tr>
<td>Board independence</td>
<td>BIndp</td>
<td>Number of non-executive members on the board / Board Size</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Age</td>
<td>Takes the value of 1 if the firm is old, 2 for medium age, and 3 for new firms.</td>
</tr>
<tr>
<td>Industry Type</td>
<td>Indtype</td>
<td>takes the value of 1 for manufacturing firms, 2 for</td>
</tr>
</tbody>
</table>
nonfinancial services firms

<table>
<thead>
<tr>
<th>Size</th>
<th>Leverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>natural log of total assets</td>
<td>Debt / Equity</td>
</tr>
</tbody>
</table>

**Performance Variables**

(Independent Variables)

**Book Value Performance**

<table>
<thead>
<tr>
<th>ROE</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>return on equity = net income / equity</td>
<td>return on assets = net income / total assets</td>
</tr>
</tbody>
</table>

**Market Value Performance**

<table>
<thead>
<tr>
<th>Tobin’s Q</th>
<th>Tobin’s Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>We use Chung and Pruitt (1994) measure of Q (CPQ) as an approximation of Tobin Q, since it does not require an estimate of the market values of debt and preferred stock. C-P Q = (MV (CS) + BV (PS) + BV (LTD) + BV (INV) + BV (CL) - BV (CA)) / BV (TA)</td>
<td></td>
</tr>
</tbody>
</table>

To test the research objective outlined in section 1, regression analysis (OLS) is used to depict the effect of CG and control variables on firm performance. Four equations are used (using SPSS) to test the hypotheses as follows.

\[
Tobin's \ Q = \alpha + \beta_1 Bldnp + \beta_2 Duality + \beta_3 Brdsize + \beta_4 Ac + \beta_5 AudType + \beta_6 IOwn + \beta_7 DirOwn + \beta_8 OwnCon + \beta_9 Size + \beta_{10} IndType + \beta_{11} Age + \beta_{12} Leverage + \varepsilon
\]

\[
ROE = \alpha + \beta_1 Bldnp + \beta_2 Duality + \beta_3 Brdsize + \beta_4 Ac + \beta_5 AudType + \beta_6 IOwn + \beta_7 DirOwn + \beta_8 OwnCon + \beta_9 Size + \beta_{10} IndType + \beta_{11} Age + \beta_{12} Leverage + \varepsilon
\]

\[
ROA = \alpha + \beta_1 Bldnp + \beta_2 Duality + \beta_3 Brdsize + \beta_4 Ac + \beta_5 AudType + \beta_6 IOwn + \beta_7 DirOwn + \beta_8 OwnCon + \beta_9 Size + \beta_{10} IndType + \beta_{11} Age + \beta_{12} Leverage + \varepsilon
\]

5. **Findings and Analysis**

Table (2) illustrates the minimum and maximum values for the models variables. The descriptive findings show the central tendency and dispersion of the indicators of the CG. The calculated means of ROE and ROA are 14.55 and 8.66, where the standard deviations as a measure of dispersion are 11.45 and 8.12 respectively. Meanwhile, the mean of Tobin’s Q is 2.08 with standard deviation of 1.02. The table shows details of descriptive statistics for CG and control variables.

**Table 2. Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobinq</td>
<td>88</td>
<td>.34</td>
<td>5.35</td>
<td>2.0841</td>
<td>1.01500</td>
</tr>
<tr>
<td>ROE</td>
<td>88</td>
<td>-3.37</td>
<td>47.15</td>
<td>14.5522</td>
<td>11.45082</td>
</tr>
<tr>
<td>ROA</td>
<td>88</td>
<td>-2.78</td>
<td>34.00</td>
<td>8.6556</td>
<td>8.11681</td>
</tr>
<tr>
<td>Bldnp</td>
<td>88</td>
<td>.00</td>
<td>1.00</td>
<td>.3715</td>
<td>.32494</td>
</tr>
<tr>
<td>Duality</td>
<td>88</td>
<td>0</td>
<td>1</td>
<td>.34</td>
<td>.477</td>
</tr>
<tr>
<td>Brdsize</td>
<td>88</td>
<td>3</td>
<td>19</td>
<td>8.89</td>
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Figure (2) shows auditor type statistics based on “big 4” and “non-big 4” audit firms in Egypt. The mean is 0.45 where standard deviation is 0.50. The frequency for big 4 is 45.5% while for the non-big 4
is 54.5%. This means that the majority of Egyptian firms depend on the non-big 4 audit firms.

Figure 2. Audit Type

Figure (3) shows audit committee statistics based on “AC” and “non AC” in Egypt. The mean is 0.19 where standard deviation is 0.397. The frequency for firms that have AC is 19.3% while for the firms that do not have AC is 80.7%. This means that the majority of Egyptian firms do not have an audit committee.

Figure 3. Audit committee

Pearson correlation coefficients for all variables are presented in table (3). Table (3) indicates that there is a significant correlation between Tobin’s Q and the following CG variables: audit committee, audit type, board independence and duality. Firm size and leverage are also significantly correlated with Tobin’s Q. On the other hand, the only CG variable that is significantly correlated with ROE is board independence as well as firm size and industry type. While, ROA is significantly in correlation with board independence, director ownership, industry type and leverage.

Using OLS regression models to test the impact of corporate governance variables on performance in firms listed in the Egyptian stock exchange as in the equations above. Where, for equation 1 (F = 3.951, p < 0.01); equation 2 (F = 1.876, p < 0.10) and equation 3 (F = 2.624, p < 0.01); the maximum VIF for all three models is 2.070. The following results are reported in table 4.

Ownership Structure

The three variables used in this study for ownership structure are institutional ownership (IOwn), director ownership (Down), and ownership concentration (OwnCon). The results reveal that the coefficients of all three ownership structure variables are insignificant with all the three dependent variables of performance (Tobin’s Q, ROE, and ROA). The results reveal that ownership concentrate in Egypt shows high concentration which is consistent with prior studies that reveal high ownership concentration in both developed and developing countries (La Porta et al, 1998 & 1999; Faccio et al, 2001; Lemmon and Lins, 2003; Ginglinger and L’her, 2006). However, such high concentration together with high institutional and director ownership as in the case of Egypt does not seem to have any significant impact on performance. Nonetheless, the results show consistency with previous findings (Demsetz and Lehn, 1985; Loderer and Sheehan, 1989; Holderness and Sheehan, 1988; Denis and Denis, 1994; and Loderer and Martin, 1997; Pathirawasam and Wickremasinghe, 2012).
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* Statistically significant at the 0.10 level
** Statistically significant at the 0.05 level
*** Statistically significant at the 0.01 level
Board Structure

The three variables used in this study for board structure are board independence (BIndp), CEO duality (Duality), and board size (BrdSize). The results show that board independence (BIndp) appears to have significant positive effect on Tobin’s Q (β = 0.823, p < 0.01), ROE (β = 8.960, p < 0.05), ROA (β = 7.849, p < 0.01). This result is consistent with previous studies (Baysinger and Butler, 1985; Weisbach, 1988; Alonso and Gonzalez, 2006; Andres and Vallelado, 2008; O’Connell and Cramer, 2010; Muttakin et al., 2012). This supports the argument that based on agency theory a larger proportion of outside directors improves firm performance by ensuring better monitoring through effective management and reduction of conflict of interest between ownership and control.

The results show that CEO duality appears to have significant positive effect on ROE (β = 4.507, p < 0.10). However, the coefficients of CEO duality are insignificant in terms of Tobin’s Q and ROA. The results are consistent with prior studies which report varying the impact of CEO duality on firm performance where certain industry type benefit from duality and separation of duties is better for others (Baliga et al., 1996; William et al. 2003; Elsayed, 2004, Arouri, 2011). However, Tobin’s Q is negatively affected by firm size (β = 2.825, p < 0.01) and ROA (β = 1.540, p < 0.05). This result is consistent with previous studies (Odegaard and Bohren, 2003; Klapper and Love, 2004, Arouri, 2011). However, Tobin’s Q is negatively affected by firm size (β = -0.208, p < 0.01). Meanwhile, the results show that financial leverage (Leverage) appears to have significant negative effect on ROA (β = -7.814, p < 0.05). The result is consistent with prior literature (see for example, Muttakin et al., 2012). On the other hand, firm age has no significant on any of the three performance variables.

Audit Function

The two variables used in this study for audit function are audit committee (AC) and audit type (AudType). The results reveal that the coefficients of both variables are insignificant with all the three dependent variables of performance. Taking into consideration that most firms in Egypt have no audit committees (81%) and the majority hire local audit firms instead of one of the big 4 audit firms, it appears that this aspect of corporate governance in Egypt still have to improve. Nonetheless, performance of firms in Egypt is not significantly affected by the audit function.

Control Variables

Four variables are uses as control variables in this study, they are: firm size (size), industry type (IndType), firm age (Age), and financial leverage (Leverage). The results show that firm size (Size) appears to have significant positive effect on ROE (β = 2.825, p < 0.01) and ROA (β = 1.540, p < 0.05). This result is consistent with previous studies (Odegaard and Bohren, 2003; Klapper and Love, 2004, Arouri, 2011) However, Tobin’s Q is negatively affected by firm size (β = -0.208, p < 0.01).

Table 4. OLS regression results

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<th>Model 2 (Dependent Variable ROE)</th>
<th>Model 3 (Dependent Variable ROA)</th>
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*Statistically significant at the 0.10 level
** Statistically significant at the 0.05 level
*** Statistically significant at the 0.01 level
6. Summary & Conclusion

This paper examines the effect of corporate governance on both book and market value performance in firms listed on the Egyptian stock exchange. Though Egypt enacted a Code of Corporate Governance for companies as far back as 2005; companies listed in the Egyptian stock exchange are operating under a voluntary CG reporting regime. This results in a varying corporate governance practices among companies in Egypt.

The importance of this paper is derived from the fact that it extends the previous studies in corporate governance by examining the effect of corporate governance mechanisms on firm performance among companies listed in the Egyptian Stock Exchange. Good corporate governance is critical to the investment activities in Egypt in a period of both political and economical instability when the country seeks to attract more investment particularly foreign investment. Therefore, the results of the paper provide valuable insight of the Egyptian market to those who invest in the Egyptian Stock Exchange.

The results reveal that both the ownership structure and audit function have no impact on the performance of firms operating in Egypt. Meanwhile, the only board structure variable that has an effect on firms' market performance is board independence. On the other hand, firms' book performance is affected by both the board independence and CEO duality. Firm size and leverage have varying effects on both market and book performance of firms listed in Egypt.

Though the regulatory authorities in Egypt have taken the necessary actions to have a strong financial market, the Egyptian corporate governance code is not as elaborate as corporate governance regimes in western countries. While, the code can be said to provide adequate coverage of the key disclosure issues of relevance in a market with a nascent disclosure culture, implementation is still patchy and regulators are facing the challenge of ensuring effective implementation of corporate governance, especially in the areas of transparency, disclosure and board practices.

Investors have an important role to play in the continuing efforts to improve corporate governance practices in Egypt. Shareholders in Egypt seem to be considered as financial investors with only short-term transient interest in the affairs of the company, rather than owners who are investing for the long-term. Shareholders are not exercising their ownership rights and obligations in a professional and effective manner. These include the rights of attending and voting at AGM meetings, appointing directors and approving their remuneration, approving the appointment of company auditors and their fees, being kept informed of the affairs and performance of the company etc. Therefore, investors should play a more active role in driving corporate governance reform. Investors should integrate corporate governance factors in their investment decision process.

References


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