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El-Masry, A. A.

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CORPORATE GOVERNANCE, OWNERSHIP STRUCTURE AND FIRM PERFORMANCE OF EGYPTIAN LISTED COMPANIES

Ahmed A. El-Masry*

Abstract

The study investigates the relationship of corporate governance mechanisms, ownership structure and the Egyptian firm performance. This study utilizes a sample of 50 firms using the accounting and market data available for the period 2004-2006. The sample firms are all listed in either the Cairo or Alexandria Stock. The cross-sectional regression analysis is employed to test the hypotheses of the study. The results indicate a positive significant relationship between firm performance and the percentage of outside directors in boards and the existence of institutional representatives in boards. Furthermore, a significant negative relationship exists between firm performance and board size, role duality and the existence of firm's website. The results also reveal a significant, positive relationship between firm performance measures and the percentage of women members in boards of directors in Egyptian firms. Our results support previous literature and show consistency with the agency theory.

Keywords: corporate governance, firm performance, ownership structure, Egyptian Stock Exchange, EGX

**Ph.D., Plymouth Business School, School of Management, UK*
Tel.: +441752585671; Email: ahmed.el-masry@plymouth.ac.uk
Affiliate professor at Faculty of Commerce, Mansoura University, Egypt

1. INTRODUCTION

Corporate governance is nowadays one of the most discussed topics by academics, practitioners and regulators. Most of the discussion is targeted at publicly held corporations. However, during the last few years the world has been shocked by numerous corporate scandals including WorldCom, Enron, Adelphia, and Tyco. Those corporate scandals when combined with the Asian crisis during the late 1990s raise some questions: What are the best mechanisms that can be used to govern corporations? Does corporate governance matter? What is the relationship between corporate governance mechanisms and firm performance? Do the agency problems remain unresolved or could they be overcome through governance mechanisms? Those questions have resulted in academic and professional debates which contributed to originate a stream of research investigating the effect of corporate governance mechanisms on firm performance. In fact, most of previous studies on the relationship between corporate governance and firm performance have been, in large scale, limited to those of developed countries or large emerging countries. Therefore, it seems that developing countries e.g. Egypt, are very understudied in the literature, so this study is an attempt to fill this gap by investigating the relationship between corporate governance mechanisms, ownership structure and firm performance of the top listed companies in Egypt. The Egyptian Exchange is one of the oldest stock markets established in the Middle East. The Egyptian Stock Exchange (ESE), now renamed "Egyptian Exchange" (EGX) and formerly known as Cairo and Alexandria Stock Exchange (CASE), traces its origins to 1883 when the Alexandria Stock Exchange was established, followed by the Cairo Stock Exchange in 1903. Alexandria and Cairo Stock Exchanges were competing with each other since their formation. In recent years the two exchanges were integrated. They are governed by the same board of directors and they share the same trading, clearing and settlement systems, so that market participants have access to stocks listed on both exchanges. The ESE was the fifth most active stock exchange worldwide prior to the nationalization of industries and acceptance of central planning policies in the early 1950s. These policies led to a considerable reduction in stock exchange activity and the market stayed largely inactive throughout the 1980s (Mecagni and Sourial, 1999). The ESE began operating again as a market for capital only in 1990s, when the Egyptian government's restructuring and economic reform program resulted in the revival of the Egyptian stock market; and a major change in the organisation of the Cairo and Alexandria Stock Exchanges took place in January 1997 with the election of a new board of

directors and the establishment of a number of board committees, which brought about significant modernisation, culminating in 2008 by the Exchange winning the award of the most innovative African Exchange during the annual Summit organized by Africa Investor in collaboration with NYSE Euronext. In the case of individuals, mutual funds and international funds, no taxes are levied on dividends, capital gains and interest on bonds. There is no stamp duty on securities. Profits of Egyptian corporations from investing in securities are subject to capital gains tax (www.egyptse.com). EGX's life cycle could be divided into three distinct stages at which it experienced dramatic changes. Firstly, it was very active since its establishment till 1940s in which it reached its vertex as it was ranked the fifth stock exchange in the world (Abdel-Shahid, 2003). That era was followed by dramatic changes in the Egyptian social and economic structure through the adoption of socialist, central planning, and nationalization policies that had led to a severe reduction in the level of activities of the EGX which started a dormancy stage that lasted till early 1990. In 1991-1992, the Egyptian government introduced programs of economic reform and restructuring; this period was characterized by a rapid movement towards a free market economy and a process of deregulation and privatization which stimulated the economy and led to the revival of the EGX. During the last few years EGX has experienced many changes regarding its size, number of listed companies, regulations, and structure. The Egyptian Stock Exchange (EGX) has witnessed increased activity in recent years. Equity market capitalization grew from 30 to 90 percent of GDP between 2001 and 2007, and the turnover ratio increased from 14 to 49 percent in the same period. However, the number of traded companies remains small, at under 200. Due to the reduction in the level of market activities in 2001-2002, the list of the one hundred most active Egyptian companies was replaced by more concise list of 50 most active companies (Abdel-Shahid, 2003). EGX was always characterized by private investors' dominance. This was changed in 2001 at which institutional owners represented the majority 67%. The number of the Egyptian listed companies has fallen from 978 companies to 211 companies during the period from 2005 to 2009 due to the new listing restrictions (restrictions concerning the minimum values, volumes of trade and number of transactions) which were imposed by the Stock Exchange. The investor base expanded significantly, with foreign investors increasing their equity holdings from 7 to 10 percent of GDP.

Egypt offers a very interesting environment for studying the relationship between corporate governance mechanisms and firms' performance because of i) the Egyptian rules and regulations are based on the French civil law of companies, and the French civil law provides less protection to shareholder, which contradicts common-law countries like UK and USA which provide a high level of shareholders' protection. In those countries, the corporate governance codes are serving as a compensation for the inherent lack in the legal systems (Berg and Capoul, 2004); ii) the Egyptian economy during the last few years has experienced integration in the global economy through the internationalization of the capital market which resulted in increasing the importance of the private sector in the economy (Abdel-Shahid, 2001); iii) many Egyptian listed companies are closely held by a very few number of shareholders as a result of the Egyptian tax law which encourages listing, and in addition many small-size companies that are listed in the EGX would not be listed in any other stock market around the world (Berg and Capoul, 2004); and iv) Egypt has observed an increasing interest among academics and practitioners to corporate governance. This interest can be noticed by a number of proposed codes of corporate governance in Egypt combined with some reports aiming to evaluate the compliance of the Egyptian companies with international corporate governance principles and standards such as the code issued by the Organization for Economic Co-operation and Development (OECD). These reports and codes were started by the delegation from the Egyptian Ministry of Foreign Trade and Investment to the International Monetary Fund (IMF) and the World Bank (WB) to prepare a report on the observance of the corporate governance standards and codes (ROSC) which aimed to evaluate the recent improvements in the corporate governance regulations in Egypt through evaluating the compliance with the five main principles of the corporate governance code issued by the OECD; namely, the rights of shareholders, equitable treatment of shareholders, role of stakeholders in corporate governance, disclosure and transparency, and responsibilities of the board of directors. This report shows that although there is no corporate governance standard that is completely not observed, most of standards are not completely observed either. This report is supported by report conducted by Fawzy (2003), for the Egyptian Centre for Economic Studies. The report concluded that, although the standards of corporate governance in Egypt have been improved significantly over the last few years, the degree of progress varies among different principles. It has also pointed out that Egyptian firms are still far from properly implementing corporate governance principles. These reports are followed by some proposed corporate governance codes which are issued by different institutions, such as the Egyptian Institute of Directors (EIoD) in 2006. In conclusion, all these trials to develop a corporate governance code in Egypt and the globally increasing attention to corporate governance have not yet convinced the Egyptian companies of the tremendous benefits that they will yield if they comply with corporate governance principles. This was one of the motives behind this study, which is

conducted to contribute to building the trust in the effects from adopting corporate governance principles by the Egyptian companies on their performance. This study is organized as follows. Section 2 reviews the literature and develops the hypotheses. Section 3 is to present the methodology and data set used in the study and to explain the detailed analytical procedures used to test hypotheses. Section 4 shows and explains the study results. Finally, section 5 concludes the study.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The association between corporate governance mechanisms and corporate performance is considered one of the most controversial issues in corporate finance, yet this relationship is suffering both a theoretical mixture and empirical ambiguity. The following section reviews relevant literature and develops the main hypotheses of the current study.

2.1 Board Size and firm performance

Board size refers to the total number of directors in a company (Hermalin and Weusbach, 1991; Abdullah, 2004; Ponnu and Karthigeyan, 2010). The number of directors in a board of directors of a company ranges from small to large number; in recent years, on average, the number of directors is about 20 (Othman et al. 2009). The number of directors in firm's board is a relevant feature that has much effect on the monitoring and disciplining ability of the board (Musteen et al., 2010 and Bozec et al., 2010). Contradictory arguments have been raised concerning the relationship between the size of the board of directors and firm performance. There are studies that have shown increases in board size would negatively affect company's performance (Zahra and Pearce, 1989; Bhagat and Black, 1997; Yermack, 1996; Elsayed, 2010). These studies' findings are consistent with the argument of Jensen (1993) that states the increase in group size would result in a less effective performance due to the overwhelming problems in coordination and process. In addition, larger board size makes communication and decision-making more troublesome and larger board size may trigger free-riding issues among the many board members. All this may lower firm performance (Lipton and Lorsch, 1992; Jensen, 1993; Hermalin and Weisbach, 2003). The opponents of larger boards have stated many arguments about the disadvantages of having a large board such as poorer communication and decision making problems associated with larger groups (Lipton and Lorsch, 1992; Jensen, 1993; and John and Senbet, 1998), and poorer processing of information (Huther, 1997). Moreover, larger groups have more emphasis on "politeness and courtesy" and hence they are easier for CEOs to control (Cornett et al., 2007). Furthermore, boards of directors having grown too big, become more symbolic rather than being the main part of the decision-making process (Hermalin and Wiesbach, 2000). Furthermore, Mak and Roush (2000) argue that larger boards are more difficult for CEOs to dominate and control. Most of the empirical studies have found a negative relationship between board size and firm performance. Fuerst and Kang (2004) have used Ohlson's expected residual income valuation metric to test the relationship between corporate governance mechanisms and firm performance in companies listed in NYSE, AMEX and NASDAQ exchanges for years 1992-1993. They have found a negative relationship between board size and firm performance. Kamran et al. (2006) test the association between earnings' contents and two corporate governance variables (i.e. board size and proportion of outside directors) using New Zealand firms. They find a negative relationship between earnings' contents and board size. Basu et al. (2007) analyze 174 large Japanese corporations and use, among other variables, board size as a monitoring devise to measure corporate governance mechanisms. They find a negative relationship between board size and subsequent accounting performance. Moreover, Kula (2005) has investigated the effect of board characteristics on firm performance on small and non-listed companies in Turkey using both a survey and OLS modelling; he reached the same conclusion of the negative association between board size and firm performance. The same conclusion has been reached by various studies (e.g. Eisenberg et al., 1998; Bozec, 2005; Cornett et al., 2007 and Haniffa and Hudaib, 2006; Abdullah, 2004; Ahmed et al., 2006; Chaganti et al., 1985; Yermarck, 1996). Most of these studies showed a negative relationship between board size and company's performance in which smaller board size would provide higher firm's performance compared to larger board size. However, there are studies that conclude that increases in board size improve firm's performance (Eisenberg et al., 1998; Lanser, 1969). Larger board size provides, potentially, more monitoring resources, which may enhance firm performance (Alexander et al., 1993; Goodstein et al., 1994; Mintzberg, 1983; Pfeffer, 1972; Ben-Amar and Andre, 2006). Uadiale (2010) suggests that large board size should be encouraged. The proponents of larger boards pointed out that the monitoring ability of the board is increased as more members are added (Lipton and Lorsch, 1992). Moreover, larger boards provide companies with the diversity that could help companies by providing critical resources and eliminate environmental uncertainties (Pearce and Zahra, 1992; Goodstein et al., 1994). There are, however, studies that found no relationship between board size and company's performance (such as Preffer, 1972; Chaganti et al., 1985; Van Ees et al., 2003). Huang (2010) examines the effects of board structure and ownership on a bank's performance using a sample of forty-one commercial banks of Taiwan. He shows that board size is positively

associated with performance in Taiwan. Uadiale (2010) examines the impact of board structure on corporate performance in Nigeria. He investigates the composition of boards of directors in Nigerian firms and analyses whether board structure has an impact on financial performance, as measured by return on equity (ROE) and return on capital employed (ROCE). Using ordinary least squares (OLS), Uadiale finds that there is a strong positive association between board size and corporate financial performance. We note that the empirical evidence on the relationship between board size and firm performance is not as ambiguous as the most other board characteristics. This implies that board size might moderate the impact of board independence on firm performance. In conclusion, empirical studies on the relationship between the characteristics of board of directors and firm performance have not reached a conclusive result that can shape a clear association between them. The inconsistent findings motivate this study to re-examine this issue. Therefore, the following hypothesis is developed:

H1: There is not a significant relationship between board size and firm performance.

2.2 Board composition and firm performance

Board composition, board independency or the percentage of outside directors in the board has received a great interest in the academic literature. Outside directors are those directors who are not working in the firms. The importance of the outside directors in boards and its effect on firm performance has always been a subject of theoretical and empirical debate. The agency theory supports the notion that boards of directors should include a majority of outside directors as they are independent of the management and are more willing to effectively monitor the management. On the other hand, stewardship theory suggests that control should be kept in the hands of inside directors as there is no need for independent monitoring devices on people, who are considered trustworthy and committed. A number of studies found that a higher proportion of non-executive directors in the board would result in higher performance of the company (Preffer, 1972; Baysinger and Butler, 1985). These studies argued that non-executive directors would have less biasness in their role as a monitoring officer. Proponents to boards dominated by outsiders argued that non-executive directors provide superior performance to the firm as they are independent from firm's management (Baysinger and Butler, 1985). Moreover, Lauenstein (1981) pointed out that outside directors are in a better position to see the "big picture' and are more able to make strategic changes when needed. The same opinion was stated by Kesner and Dalton (1986), who argued that outside directors have different perspectives and greater objectivity than executive-directors. Furthermore, Firstenburg and Malkiel (1980), Weisback (1988) and Bryd and Hickman (1992) noted that outside directors show a higher level of response to lower performance by replacing the CEO. Haniffa and Hudaib (2006) have studied the relationship between corporate performance measured by Tobin's Q and ROA and various corporate governance mechanisms in listed Malaysian companies. They found a positive relationship between the proportion of outside directors and firm performance. Another study by Cornett et al. (2007) has regressed ROA on the percentage of institutional ownership and various corporate governance mechanisms in order to examine the effect of institutional investors on firm performance and the relative effect of pressure sensitive versus insensitive institutional investors in a sample of firms of S&P100. They found a positive relationship between the proportion of boards' outside directors and firm performance. Various studies support this positive association, such as by Baysinger and Butler, 1985; Kesner and Dalton, 1986; Rosenstein and Wyatt, 1990; Byrd and Hickman, 1992; Denis and Sarin, 1997; Leng, 2004; and Helland and Sykuta, 2005. Uadiale (2010) also finds that there is a positive association between outside directors sitting on the board and corporate financial performance. The opponents to board dominance of outsiders argued that non-executive directors may not have the required expertise and knowledge to understand the complexities and the highly technical business issues in corporations. Furthermore, non-executive members are usually part-timers and normally they do not have the information required to take efficient decisions (Baysinger and Hoskisson, 1990; Bhagat and Black, 1997; Bozec, 2005). Finally, insiders usually are better supplied with information required to evaluate the performance of managers (Baysinger and Hoskisson, 1990). Empirical studies found that a higher proportion of executive directors would result in better performance as they could communicate and liaise with the management (Kesner, 1987; Peng et al., 2003). These studies argued that executive directors would assist the management in the day-to-day operations which eventuate in high levels of performance. Uadiale (2010) suggests that the composition of outside directors as members of the board should be sustained and improved upon to enhance corporate financial performance. Bozec (2005) examined the relationship between corporate governance and firm performance by using data that covers the period 1976-2000 for State-Owned Enterprises (SOE) in Canada. He pointed out a negative association between board outsiders and firm performance. The same conclusion has been reached by Agrawal and Knoeber (1996) who investigated the interdependence among different mechanisms used to control agency cost in the US context. They have also found a negative relationship

between the proportion of independent directors and firm performance. This negative relationship is concluded in many empirical studies (e.g. Bhagat and Black, 1997; Klein, 1998; Fuerst and Kang, 2004; Kula, 2005). Other studies found contradictory results (Mace, 1971; Vancil, 1987) or no significant influence (Hermalin and Weisbach, 1991; Schellenger et al., 1989; Laing and Weir, 1999). We note that empirical evidence on the relationship between firm performance and board composition is not conclusive. This leads to the following hypothesis.

H2: there is not a significant relationship between board composition and firm performance.

2.3 Role duality and firm performance

Agency theory argues that personal separation of the CEO and chairperson roles is important to develop effective monitoring by the board. If the CEO and chair of the board are the same person, agency theory argues that this is likely to create abuse of power, since this person will be very powerful without effective checks and balances to control her or him. Consequently, agency theory predicts that firms with separation of the CEO and the chair of the board perform better than their counterparts without separation (Fama and Jensen, 1983). On the other hand, stewardship theory argues that putting the roles of CEO and chair of the board in a single hand is essential to unify and to remove ambiguity from firm leadership. According to stewardship theory, when the roles of CEO and chair of the board are performed by different people, they often have contrary objectives (see, for example, Dalton et al., 1998). Therefore, stewardship theory predicts that firms with CEO duality perform better than firms without such duality. Again, this theoretical state of the art is reflected in empirical work. Some studies support agency theory (Rechner and Dalton, 1991; Pi and Timme, 1993; Kiel and Nicholson, 2003), others provide evidence for stewardship theory (Donaldson and Davis, 1991; Cornett et al., 2008) and yet others fail to support either theory (Chaganti et al., 1985; Kesner et al., 1986; Daily and Dalton, 1992, 1993; Baliga et al., 1996; Cheung et al. 2006; Elsayed, 2007; Al Farooque et al., 2007). Boyd (1995) argues that the sign and magnitude of the CEO duality–firm performance relationship vary systematically across the environmental conditions of munificence, complexity and dynamism. Elsayed (2007) explains the mixed results in the CEO duality–performance literature by arguing that the direction and magnitude of this link are different across industries. This is also supported by Black et al. (2006). Role duality could increase firm performance: i) duality provides a unified leadership (Finkelstein and D'Aveni, 1994); ii) duality could increase the understanding and knowledge of the firm environment and operations which will have a positive effect on firm performance (Bozec, 2005); iii) role duality helps improving management by focusing on company objectives and permitting faster implementation of operational decisions (Stewart, 1991); and iv) role duality permits CEO with strategic vision to take decisions with minimal board intervention (Dahya et al., 1996). Ramdani and Witteloostuijn (2010) study the effect of board independence and CEO duality on firm performance for a sample of stock-listed enterprises from Indonesia, Malaysia, South Korea and Thailand. They find that the effect of board independence and CEO duality on firm performance is different across the conditional quantiles of the distribution of firm performance. Additionally, they find a negative moderating effect of board size on the positive relationship between CEO duality and firm performance. Kholeif (2009) examines the predictions of agency theory with regard to the negative association between role duality and firm performance of most actively-traded Egyptian companies in 2006. He also examines the role of other corporate governance mechanisms (board size, top managerial ownership and institutional ownership) as moderating variables in the relationship between role duality and firm performance. His results indicate that the hypothesized relationships between role duality, the moderating variables and firm performance have changed. For companies characterized by large boards and low top management ownership, firm performance is negatively affected by role duality and positively impacted by institutional ownership. The main limitation of this study is the use of accounting-based performance measures because of the expected earnings management behaviours by CEOs. On the other hand, role duality could negatively affect firm performance because: i) duality minimizes board independency by giving the person great control over the firm's destiny which might increase CEO entrenchment (Bozec, 2005); ii) duality also enables the CEO to control the stream of information available to board members that affect their monitoring role (Jensen, 1993; Cornett et al., 2007); iii) independent non-executive chairmen are more likely to provide objective opinions in different decision-making situations (Weir and Laing, 2001). A negative relationship between role duality and firm performance is concluded by various studies (such as by Cornett et al., 2007; Eisenhardt, 1989; Rechner and Dalton, 1991; Fuerst and Kang, 2004; Bozec, 2005; Haniffa and Hudaib, 2006). In addition, Uadiale (2010) finds a negative association between ROE and CEO duality, and a strong positive association between ROCE and CEO duality. However, a positive association is concluded in a few studies (Boyd, 1995; Huang, 2010). To sum up, other studies have found an insignificant relationship between role duality and firm performance (such as by Berg and Smith, 1978; Rechner and Dalton, 1989; Brickley et al. 1997; Laing and Weir, 1999; and Heracleous, 2001). As above, we can see that mixed evidence has been found on the

relationship. Therefore, the following hypothesis is developed.

H3: there is not a significant relationship between role duality and firm performance.

2.4 Board diversity and firm performance

The issue of board diversity is not commonly discussed in the corporate governance literature. However, during the last few years there has been an increasing emphasis on the gender of top executives and board members of firms. Till now the percentage of women reaching top positions in companies is still low in the majority of countries except for USA and UK and some European countries. Recently some governments like Sweden and Norway have introduced regulations of gender composition of the boards of directors in private corporations. More diverse boards usually experience more conflicts (Hambrick et al., 1996). In their study on the effect of diversity in organizational groups Millken and Martins (1996) also introduced a conflicting effect of diversity. On one hand, board diversity increases the aggregate level of resources available to the groups but, on the other hand, it is associated with high level of conflicts and communication problems. They have pointed out that these contradicting consequences are more obvious in the board context. This is because board members are part-timers who meet each other periodically so they normally have fewer time and opportunities to overcome the differences that separate them. The diversity of the board of directors could have a positive effect on firm performance as more diversified boards are taking their decisions based on a wider range of alternatives than more homogeneous boards. Moreover, women directors due to their different working and non working experiences are expected to have different perspectives than men in some fields and some segments of the market. Furthermore, women directors may increase the creativity and quality of decision-making of the firm (Singh and Vinnicombe, 2004). Smith et al. (2006) investigate the relationship between gender diversity in management and firm performance for all Danish firms with more than 50 employees over the period 1994-2003. Their analysis suggests that the proportion of women in top management jobs has from none to positive influence on firm performance. However, the results show that the strength of the effects of women in top management depends on how top CEOs are defined and on the method of estimation of the model. In addition, the results point towards a positive influence on firm performance of the staff representation in the supervisory board of the firm but more women representing the shareholders in the supervisory board of the firm, seems to be unimportant. Furthermore, if men are the only possible candidates for board positions then the selection process would be inefficient as it ignores a great pool of experiences and qualifications which -if considered- would provide higher level of skills to choose among as mentioned in Smith et al. (2006). Finally, women in top positions will positively affect the career aspiration of those in lower levels to perform better (Ely, 1990; Burke and Mckeen, 1996; and Bell, 2005). On the other hand, a more diverse board will produce more opinions and questions which might increase the time required to take decisions and hence affect the board efficiency. Empirical evidence on the effect of gender diversity in the boards of directors is not conclusive. Some studies have provided evidence against board diversity such as by Shrader et al. (1997), who analyzed the effect of board gender diversity in the top 200 largest companies in USA and concluded a negative relationship with firm performance. On the other hand, the overwhelming evidence supports the notion of positive association between gender diversity and firm performance (e.g. Adler, 2001; Catalyst, 2004; and Smith et al. 2006). These arguments have contributed to build the following hypothesis.

H4: there is not a significant relationship between board diversity and firm performance.

2.5 Ownership structure and firm performance

2.5.1 Managerial ownership and firm performance

Managerial ownership was originated mainly to solve the moral hazard problem raised by the separation of ownership and control which underpins the main assumption of agency theory (Jensen and Meckling, 1976). Morck et al. (1988) have pointed out that there are two possible consequences of the managerial ownership, namely, incentive alignment and entrenchment. They argued that when the managers' ownership share increases, their interests are aligned with those of shareholders and then their behaviour will serve both interests. However, as the ownership increases the managers' bargaining power is increased as well and then managers can achieve self-interests without fearing the control power of other shareholders (Fuerst and Kang, 2004). Most of the empirical literature has concluded a non-linear relationship between managerial ownership and firm performance, such as by Fama and Jensen (1983) and Morck et al. (1988), who pointed out that even when managers own a low proportion of companies they have higher incentives to make strategies in line with the best interests of shareholders. However, when this proportion reaches a specific percentage, managers will start taking decisions that serve their personal interests regardless of whether it is aligned with those of other shareholders or not. Some empirical studies support the assumptions of agency theory by providing evidence of a positive relationship between

managerial ownership and firm performance (e.g. Leland and Pyle, 1977; Hermalin and Weisbach, 1991; Agrawal and Knoeber, 1996; Lins, 2003; Fuerst and Kang, 2004; Haniffa and Hudaib, 2006 and Cornett et al., 2007). On the other hand, Jensen and Ruback (1983) and Stulz (1988) have stated that managerial ownership and firm performance are negatively related. There are also some studies which concluded intermediate evidence by founding no relationship between managerial ownership and firm performance such as by Fernandez and Anson (2006) and Shen et al. (2006). The above discussion leads to the following hypothesis:

H5: there is not a significant relationship between managerial ownership and firm performance.

2.5.2 Ownership concentration and firm performance

Ownership concentration is perceived by agency theory assumptions as an effective monitoring technique by which shareholders can ensure that managers are behaving in the line with their interests. Ownership concentration provides another conflicting area of research in the relationship between corporate governance mechanisms and firm performance. Ownership concentration comes in the best benefit of organizational performance as larger shareholders have both the incentives and the power to monitor and control the behaviour of management (Xu and Wang, 1999). Shleifer and Vishny (1997) stated that the "potential takeover threats" imposed by large outside block holders are considered effective monitoring devices. Finally, Grossman and Hart (1982) pointed out that monitoring and disciplining managers is so expensive which make it difficult for small shareholders to conduct. So monitoring will be applicable if –and only if- a single party becomes large enough to bear the costs of control (Fernandez and Anson, 2006). However, this lets the small shareholders benefit from the monitoring power played by larger ones without bearing any costs (free-riding). Conversely, ownership concentration has its own limitations. Firstly, as the shareholding increase the block holders will have the incentives to expropriate other shareholders' interests in order to achieve their ones (Fuerst and Kang, 2004). Furthermore, block holders' domination may damage corporate performance due to greater exposure to firm's risk (Demsetz and Lehn, 1985). Empirical work on ownership concentration serves as another part of the ambiguity chain in the corporate governance-firm performance relationship. The work conducted by Fuerst and Kang (2004), Leng (2004), Wang (2005), and Haniffa and Hudaib (2006) have concluded a negative relationship between ownership concentration, as measured by the percentage owned by the largest five shareholders, and firm performance. On the other hand, various empirical studies have reached a positive relationship (e.g. Agrawal and Knoeber, 1996; Xu and Wang, 1999; Gedajlovic and Shapiro, 2002; Lins, 2003; Earle et al., 2005 and Fernandez and Anson, 2006). In addition, Demsetz and Lehn (1985) concluded that ownership concentration is not related to firm performance. This discussion develops the following hypothesis.

H6: there is not a significant relationship between ownership concentration and firm performance.

2.6 Identity of the largest blockholder and firm performance

The role of large shareholders on firms' governance has been studied from the theoretical and empirical perspective, since Shleifer and Vishny (1986) pointed out an agency problem in listed corporations that arises when large shareholders and dispersed and atomistic minority shareholders face a possible tender offer. Their model shows the conditions that minimize the free rider problem by reducing the takeover premium of the external raider and increasing the market value of the firm. Large blockholders serve as an internal control on managerial behaviour when there is an effective separation between ownership and control. Monitoring reduces management's perk-consumption and overinvestment in risky projects. Bennedsen and Wolfenzon (2000) argue that control structures with multiple shareholders may be the most efficient ownership structure in environments with poor shareholder protection because controlling coalitions can align their incentives to prevent extraction of rents. Bloch and Hege (2001) also claim that multiple blockholders can compensate for the poor legal protection of minorities. They argue that the relevant concept of control is the contestability of an incumbent shareholder's position of power and that corporate control is contestable if the incumbent cannot increase the level of control rents without losing a control contest. In their model, the presence of two or more large blockholders acts to limit private rent extraction and attracts the votes of the minority shareholders when proposals are contested. Maury and Pajuste (2005) develop a model on the effect of multiple blockholders in a company and empirically implement it on the Finnish market. Maury and Pajuste (2005) find that the effect of multiple blockholders is not necessarily positive and primarily depends upon the size and identity of these large shareholders. Analysing family firms their findings indicate a value reduction for firms in which the family dissociates ownership and control through control-enhancing mechanisms as it allows for a higher probability to extract private benefits. A second large shareholder could reduce this effect. Their results suggest that a second blockholder only has a positive influence on firm value if it is not another family. Thus, the presence of two families in a company destroys even more value while the presence of a second non-family blockholder lowers

the possibility of extraction of private benefits. The findings reported in these studies are inconclusive. Therefore, the following hypothesis is set to test the relationship between the identity of the largest shareholder and firm performance.

H7: there is not a significant relationship between the identity of the largest shareholder and firm performance.

2.7 Institutional representatives in the Board and firm performance

The Egyptian corporate law permits institutional investors to have representatives from their companies in the boards of directors of the firm at which they hold ownership. Institutional investors are considered as a major governance mechanism that improves firm performance. Demsetz (1983) and Shleifer and Vishny (1986), among others, argue that institutional investors are well-informed and practice their voting rights systematically to monitor the managers. They explain the so-called 'active monitoring hypothesis' which expects a positive relationship between institutional ownership and firm performance. The relationship between institutional investors in the boards and firm performance was tested by Cornett et al. (2007), who pointed out a positive relationship between the number of institutional investors in the boards and firm performance measured by adjusted return on assets which is consistent with the assumption of the agency theory. However, Pound (1988) expects a negative relationship due to the strategic alignment between the institutional investors and the managers of the firm. Boards dominated by institutional representatives will experience more conflicts among board members. Moreover, institutional representatives are required- not only motivated- to achieve the interests of a single shareholder party regardless of the interests of the remaining shareholders groups. This leads to the following hypothesis.

H8: there is not a significant relationship between the existence of institutional shareholder representatives in the boards and firm performance.

2.8 Website and firm performance

This relationship is extracted from the first principle of the OECD corporate governance principles, which is "the corporate governance framework should protect shareholders' rights. Basic shareholders' rights include the right to obtain relevant information about the corporation on a timely and regular basis" and websites are the lowest cost and the most efficient way to provide shareholders this right. Brynjolfsson et al. (2000) and Brynjolfsson and Hitt (2001) have found evidence of a relation between investment in information technology and an improvement in global business performance, and not only productivity of work factor. Taking as a global result indicator Tobin's Q ratio, based on the firm's value in the stock market, they concluded that those firms which invested more in IT achieved superior results. This association was stronger when the organization, along with the investment in IT, underwent a structural reorganization involving interdisciplinary workgroups, an increase in independent decision-making and a support for employee training. This positive view of the competitive impact of IT has, nevertheless, failed to convince many authors in this field. Strassmann (1998; 1999), for example, has not found evidence of a relation between IT investment – in which we can include technologies based on TCP/IP – and an increase in either productivity or company results (McCune, 1998). More recently, during the second half of the nineties, the discussion on the correlation between information technology and company results has seen a new development regarding strategic development. Specifically, the paradigm that sees an organization as a reflection of its internal resources, or resource-based view of the firm (Wernelfelt, 1984; Barney, 1991; 1995) provides, indirectly, the basis by which we can explain the effect of IT on the results of organizations (Ullmann and Voss, 2000) and, more specifically, on competitive advantage (Bharadwaj, 2000; Amit and Zott, 2001). In this line, the results of Bruque et al. (2002) do not provide support to the abundant professional literature which finds a net positive effect of the Internet on the position of the company. These arguments have contributed to build the following hypothesis.

H9: there is not a significant relationship between the existence of a firm's website and performance.

2.9 Firm size

The firm size is proved to have an effect on firm performance and is used widely in the empirical literature of corporate governance because it has a direct effect on firm performance. However, firm size could have an ambiguous effect on firm performance. For example, larger firms can be less efficient than smaller ones because they may encounter more government bureaucracy, more redundancy and bigger agency problems (Sun et al., 2002). But, large firms may turn out to be more efficient as they are likely to exploit economies of scale, employ more skilled managers and exercise market power (Kumar, 2004). Firm size is expected to have a positive sign for its impact on the performance due to the following reasons: i) larger firms are more able to undertake profitable projects (Aljifri and Mousafa, 2007); ii) larger firms are more able to find markets for their products and to hire a qualified workforce (Al-Khouri, 2005); iii) larger firms are more diversified, have economies of scale, and have access to new

technologies and cheaper sources of funds (Leng, 2004; Fama and French, 1995 and Gedajlovic and Shapiro, 2002). Firm size is used as a control variable in most of the studies investigating the corporate governance/firm performance relationship. The hypothesis to be tested is as follows:

H10: ***There is not a significant relationship between firm size and firm performance.***

3. RESEARCH METHODOLOGY AND DATASET

In this study, ordinary least squares (OLS) is employed by regressing corporate governance variables on various measures of firm performance. This study uses three measures of firm performance, namely, ROA, ROE and Tobin's Q. We test the following model of firm performance:

$$ROA, ROE, TOBIN'S\ Q = \alpha + \beta_1 BSIZE + \beta_2 BCOM + \beta_3 DUAL + \beta_4 BDIV + \beta_5 OUTSID + \beta_6 MOWN + \beta_7 LOWN + \beta_8 IDENT + \beta_9 INST + \beta_{10} WSITE + \beta_{11} SIZE$$

where:

- **ROA** is the return on assets. It is measured by the ratio of net income divided by total assets.
- **ROE** is the return on equity. It is measured by the ratio of net income divided by shareholders' equity
- **TOBIN'S Q**: it is usually defined as the market value of equity divided by the replacement cost of total assets. Tobin's Q reflects the growth opportunities or in other words expectations about a firm's growth prospects in the future. Due to the limitation of the available data, this study calculates Tobin's q as the result of the market value of equity plus the book value of the debt divided by the book value of the total assets. Tobin's Q is used widely in several different versions as a measure of performance in corporate governance empirical research as evidenced by Aljifri and Mousafa (2007) and Omran et al. (2008).
- **BSIZE** denotes board size and is measured by numbers of members in the boards of directors.
- **BCOM** denotes board composition and is measured by percentage of non-executive members in the boards of directors, i.e. the percentage of board members who are not at the same time working in the firm.
- **DUAL** denotes role duality, whether the same person is holding the CEO/Chairman positions at the same time or not and is used as a proxy of board independency. It is measured by a dummy variable, and takes 1 if the CEO is the Chairman and 0 otherwise.
- **BDIV** denotes board diversity, and is measured by percentage of female members in boards of directors.
- **OUTSID** denotes the percentage of shareholdings owned by the public or the outside individual investors. It reflects the dispersion of ownership among a large number of shareholders. It is a percentage of free float and is measured by shareholdings of the outside individuals.
- **MOWN** denotes the percentage of shareholdings owned by the top management of firms as a proxy for insider's ownership, and is measured by shareholdings of the top management.
- **LOWN** denotes the percentage of shareholdings owned by the largest block holder as a proxy for ownership concentration, and it is measured by shareholdings of the largest owner.
- **IDENT** denotes identity of the largest owner, whether the largest shareholder is an institution or not. This conveys the differences in monitoring capabilities of different block holders and it is measured by a dummy variable which takes 1 if the largest owner is a private institution and 0 otherwise.
- **INST** denotes institutional representatives and is measured by a dummy variable which takes1 if board of director includes institutional representative and 0 if not.
- **WSITE** denotes website and whether the firm has a web site or not. It is used as a proxy for meeting shareholders' right of having timely and regular information about the firm and is measured by a dummy variable; it takes 1 if the firm has a website and 0 if not.
- **SIZE** denotes size and is measured by the natural logarithm of the firm's market value.

The study data are obtained from the Egyptian Stock Exchange (EGX), which is the official provider of financial and non-financial information for companies listed in the stock market (www.egyptse.com). The sample represents the top 50 listed companies in the Egyptian stock exchange. The sample accounts for about 75% of the total market capitalization of the Egyptian market and about 80% of the total value and volume of trade for the period 2004-2006. The time frame for this study covers the period between 2004 and 2006, so as to allow some longitudinal dimension to the data; and, as a result, the estimation process draws on a panel data of firms and years making a total of 150 observations.

4. RESULTS AND ANALYSIS

Table 1 presents the descriptive statistics of the study variables. It is noted from Table 1 that the sample reflects a broad range of variation in the sample. ROA and ROE do vary among the sample firms. The percentage of free float and of the largest owner reflects the compliance with the ownership concentration structure that characterizes most of the emerging markets. The percentage of the managerial ownership reflects the weak use of the managerial stock as a governance mechanism to deal with the agency problem in the Egyptian firms. The board size of Egyptian firms is averaged to 10.74 which is consistent with the findings of previous studies. The percentage of the outside members in the boards is averaged to 78%. Boards in the Egyptian firms are dominated by outsiders.

Table 1. Descriptive statistics

Panel (A): Mean, standard deviation, minimum and maximum of variables				
Variable	Mean	Std. Deviation	Minimum	Maximum
ROA	0.09	0.22	-0.11	2.29
ROE	0.16	0.21	-0.59	1.00
TOBIN'S Q	0.96	1.08	0.01	5.30
BSIZE	10.74	3.98	5.00	25.00
BCOM	78.00	18.00	20.00	100.00
OUTSID	36.51	21.82	1.12	91.43
BDIV	0.09	0.10	0.00	0.40
MOWN	5.02	12.39	0.02	62.49
LOWN	33	22.1	0.19	91.51
SIZE	8.68	0.87	6.82	10.87
Panel (B): value, frequency and percent of binary variables				
Variable	Value	Frequency	%	
DUAL	0	58	39	
	1	92	61	
INST	0	53	35	
	1	97	65	
IDENT	0	97	65	
	1	53	35	
WSITE	0	89	59	
	1	61	41	

The average percentage of the women members in the board of directors reflects a very weak participation of women in the Egyptian companies' boards which is consistent with the case in most of the emerging countries. Finally, the above table shows that CEO/chairman duality is common among the boards of Egyptian companies as well as the existence of institutional representatives in the board of directors. It is clear also that a very high percentage of the Egyptian listed companies (59%) do not have websites. This is consistent with the research done by EIoD in 2008.

This study has employed ordinary least squares (OLS) multiple regression. The first step of the analysis is to diagnose the critical assumptions of each test. The multivariate regression assumption of multicollinearity has been tested using the correlation matrix shown in Table 2. The correlation matrix shows that the Pearson correlation coefficients are less than the 0.70 limit-pointed out by Gujarati (2004) who argued that multicollinearity might be a problem when the correlation equals or exceeds 0.70. The following section summarizes the multiple regression results. VIF and Tolerance tests do not also show any indication of colinearity (tests are not reported to save space).

Table 2. Correlation Matrix of Independent variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1. BSIZE	1	0.57	0.11	0.36	-0.08	-0.05	-0.28	-0.08	0.45	0.12	0.19
2. BCOM		1	0.07	0.15	-0.02	-0.05	-0.38	0.07	0.40	0.10	-0.06
3. DUAL			1	-0.07	0.13	-0.19	-0.07	-0.23	0.04	-0.28	-0.19
4. BDIV				1	0.14	-0.14	0.04	-0.09	-0.14	0.06	0.31
5. OUTSID					1	0.16	-0.60	-0.25	0.06	-0.10	-0.01
6. MOWN						1	-0.09	-0.16	-0.02	0.09	-0.01
7. LOWN							1	0.12	-0.44	0.12	0.15
8. IDENT								1	0.02	0.19	0.00
9. INST									1	-0.13	-0.28
10. WSITE										1	0.33
11. SIZE											1

Various corporate governance variables, ownership structure variables and size are regressed on firm performance variables. Table 3 summarizes the results of the OLS regression models.

Table 3. OLS regression of corporate governance, ownership structure and firm performance

Variable	ROA	ROE	Q-ratio
Constant	0.347**	0.950***	0.735***
BSIZE	-1.134***	-1.112***	-1.066***
BCOM	0.723***	0.411**	0.110*
DUAL	-1.020***	-0.802***	-0.783***
BDIV	0.777**	0.572**	0.876***
OUTSID	0.115*	0.105*	0.310**
MOWN	0.032	0.012	0.003
LOWN	-0.395**	-0.385**	-0.366**
IDENT	-0.245**	-0.229**	-0.225**
INST	0.335**	0.221**	0.123*
WSITE	-0.259*	-0.143*	-0.198*
SIZE	1.045***	1.129***	0.925***
Adjusted-R^2	62%	59%	52%
F-Value	55.44***	44.78***	36.82***

Notes: *** Significant at 1%; ** Significant at 5% and * Significant at 10%.

The results reveal that the adjusted R^2 ranges between 52% and 62% which is quite a respectable result. The table also shows that the model reaches statistical significance with a p-value <.0001. The table also shows superiority for accounting measures of corporate performance in capturing various characteristics of corporate governance. This conclusion is consistent with the arguments of Prowse (1992) who argued that accounting-based measures such as ROA are preferable in studies relating corporate governance and firm performance. The results also show that the directions of the relationships between corporate governance mechanisms and various firm performance measures are the same for all measures. The results show a significant negative relationship between the board size and firm performance. This significant relationship is concluded for all measures of performance which confirms the robustness of the results. This negative relationship is consistent with the majority of empirical work in corporate governance/firm performance relationship (e.g. Haniffa and Hudaib, 2006; Cornett et al., 2007) who argued that larger boards are ineffective and symbolic

rather than being a part of the management process. However it is inconsistent with Uadiale (2010) and Huang, (2010) who find a positive relationship between board size and firm performance measures. The results also reveal a positive and significant relationship between board composition and firm performance. This is supported by Helland and Sykuta (2005); Haniffa and Hudaib (2006); Cornett et al. (2007) and Uadiale (2010). A significant negative relationship has been found between role duality and firm performance measures. This result is consistent with the agency theory arguments and contradicts those of the stewardship theory which argued that managers are trustworthy enough to eliminate the need of other control devices and that duality may curb the success of managers with a prosperity vision. This negative relationship is not consistent with the findings of Boyd (1995) and Davis et al. (1997) who argued that managers are trustworthy and they will not use their power as a chairman to achieve personal interests at the expense of shareholders' rights. One of the most interesting results of this study is the positive association between the percentage of women in boards of directors and both accounting and market measures of firm performance. This finding supports the arguments of Singh and Vinnicombe (2004) who argued that women directors may increase the creativity and the quality of the firm's decision-making process. A significant positive relationship has been found between the percentage of outside directors and firm performance. The significance of the relationship appears to be much stronger with the market measures than with accounting measures. This relationship supports the arguments of the agency theory which assume that outside directors are independent of the management and are more willing to effectively monitor –and if required change- the manager. The same conclusions have been reached by many researchers such as Kesner and Dalton (2002); Leng (2004) and Helland and Sykuta (2005). One interesting result is that corporate governance is independent from corporate ownership structure as managerial ownership is not significantly related to any measure of corporate performance, which is consistent with what was concluded by Shen et al. (2006) and Fernandez and Anson (2006) who found no relationship between firm's ownership structure and firm performance. However, ownership concentration is negatively significantly related to firm performance measures. This is inconsistent with Demsetz and Lehn (1985) who found that ownership concentration is not related to firm's firm performance. The other corporate ownership structure variable which has a significant relationship with firm performance is the identity of the largest owner whether institutional investor or not by showing a significant negative relationship with firm performance. This finding could be due to the high ability of institutions to expropriate the rights of other dispersed shareholders. Moreover, individual investors sometimes avoid firms controlled by institutions, which- due to preferences of institutions that prefer capital gains- pay less amounts of dividends. The results show a significant positive relationship between the existence of institutional representatives in the board and firm performance measures. This relationship could be justified by the efficient monitoring role played by the institutions in controlling a firm's board which lead to more efficient and shareholders' interest-oriented decisions. Surprisingly, firms which do not have web sites outperform those which have website. This could be due to the unfamiliarity of the Egyptian investors and customers to deal with firms and acquire information about them through the internet. Moreover, looser firms and bad performers usually make web sites to signal their professionalism and to acquire a cheap competitive advantage. The results also indicate a significant relationship between firm performance measures and firm size as found also by Klapper and Love (2003), Bohren and Odegaard (2003), Larker et al. (2004) and Aljifri and Mousafa (2007). This result may reflect an independent source of value creation, possibly due to market power and economies of scale and scope (Bohren and Odegaard, 2003). In addition, the Egyptian large firms have more resources (e.g. more skilled managers) compared to medium and small firms which may help them to be more efficient to attract more investors and increase their firms' values.

5. CONCLUSION AND FUTURE RESEARCH

The main objective of this study is to analyze the effect of corporate governance and ownership structure on firm performance. Three measurements of firm performance, namely ROA, ROE and Tobin's Q-ratio have been investigated against various corporate governance mechanisms including board size, role duality, composition and diversity. The effect of corporate ownership structure including managerial ownership, institutional ownership and ownership concentration has also been analyzed. Moreover, the effect of various firm characteristics on firm performance has also been investigated, such as the existence of institutional representatives on the board of directors and the existence of firm's website. The sample of this study consists of the top 50 most active companies in the Egyptian Stock Exchange for the period 2004-2006. The study shows many interesting results. The results reveal that board of directors' characteristics show highly significant relationships with firm performance measures. This reflects the vital monitoring and controlling role played by boards of directors on the Egyptian firms. The results show a significant positive relationship between some board of director's variables and various performance measures, such as percentage of outside directors on boards, institutional

representatives on boards and the percentage of female members on boards. The latter was one of the most interesting results of this study which reflects the importance of having a diversified pool of skills and backgrounds in boards of directors even in emerging markets which in general have minimum percentages of women's participation in top managerial positions. It shows an insignificant association between managerial ownership and firm performance measured by accounting and market measures. However, the results show a positive and significant relationship between the percentage of outside directors and firm performance. On the other hand, some governance variables exhibit a significant negative relationship with firm performance, such as the size of the board of director's, role duality and the existence of firm's website. The latter represents another interesting finding which means that firms which have website have been performing worse than firms without one. One reason which could justify this result is that the electronic business is not completely established in Egypt. It also reflects the structure of the Egyptian market which is dominated by classical and more traditional philosophies of management. The structure of the Egyptian market shows also a dominance of governmental owned firms with a relatively small number of privately owned firms with modern management styles, but they are still not stable and not as profitable as the governmental classical corporations. In conclusion, the results of this study are consistent with the notion that internal corporate governance mechanisms are more efficient in emerging markets with weak external market capital mechanisms. Moreover, some findings are consistent with the assumptions of agency theory. However, this finding is not conclusive as some other findings are consistent with the assumptions of stewardship theory.

While this study employs the top 50 companies in the Egyptian Exchange, which account for more than 75 % of the total market capitalization and more than 80 % of the total value and volume of trade, it would be useful for future research to use a larger sample in order to acquire a broader presentation of the market and to build more accurate conclusions about the Egyptian market. This study deals with the financial information and corporate governance data for the period 2004-2006 which is considered a peak period in the Egyptian Exchange regarding the growth in the value and volumes of trade. This might yield misleading conclusions, so it could be better for future research to incorporate more years in order to capture more market moves. In addition, future research should incorporate more variables of corporate governance. In this regard it could be helpful to use a survey to collect primary data on corporate governance mechanisms instead of depending on secondary data which imposes many limitations over the scope of the research. The area of the board of directors' diversity has received very little attention in the corporate governance literature. Although, it is very important as it affects the performance of the board and hence affects firm performance. This study has dealt with the gender diversity among board members. However, further research is needed to consider other aspects of diversity such as racial diversity, language diversity, age diversity, and educational and industrial background diversity. Most of corporate governance studies deal with institutional investors as shareholders with high monitoring capabilities with minor consideration to the nature of this institution or its identity. Institution's identity could largely affect its monitoring capabilities and hence affect its governance role. So, further research is needed to consider the effect of institution's identity on its governance role. Similarly, there is the identity of the largest owners or the "block holders" and whether individuals, institutions, holding companies, or insiders will affect their monitoring power; therefore, further research should consider the effect of the block holder's identity on firm's performance. Future research should be conducted taking into consideration some important corporate governance variables, such as the insider ownership, the voting coalitions and product-market competition. Further research can also compare Egypt with other developing countries or developed countries to find out any unique characteristics of corporate governance mechanisms. Furthermore, this study has used the existence of a firm's website as a proxy to a shareholder's right to obtain timely and accurate information about the company without taking into account the content of the website and whether it provides financial information or information that could help investors taking investment decisions or not. Then future research should take into account the content of the websites. Therefore, further research should consider the effect of online reporting on corporate governance and firm performance in Egypt (see, for example; Ezat and El-Masry, 2008; and Elsayed et al., 2010). Finally this study has dealt with board composition or the proportion of outside directors on board of directors as a measure of board independency. However, for the board members to be independent it is not enough to be non-executive but there should be further focus on the family and business ties that could affect that independency, therefore, future research should focus on all dimensions of board independency.

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