

Board of Director's Attributes and Earning Management: Evidence from Egypt

Mohamed Moustafa Soliman* and Aiman Ahmed Ragab**

Abstract

Board of directors play a vital role in controlling agency problem between shareholders and managers arise due to earnings management. This paper examines the roles of independent members on the board, chief executive officer who also serves as a chairman of the company (hereinafter called CEO duality), board size on earnings management practices. After controlling for size, leverage and growth, we found discretionary accruals as a proxy for earnings management is positively related to the existence of CEO duality, and negatively related to board size. Also, examination of the data shows that the ratio of independent board members is not significantly related to earnings management. The findings of this paper will be of interest to investors in the Egyptian stock market. This paper also provides many recommendations to the regulatory authorities in Egypt regarding ways to strengthen and reinforce the Board of Director's Attributes of companies

JEL Code:

1. Introduction

Corporate governance codes all over the world chalk out the procedures for improving the quality and accuracy of financial statements. Role of board of directors, in this regard, has given special importance specially to restrict the opportunistic earnings manipulation and conveying true information about firm operations as result (Young *et al.*, 2000).

In many emerging markets, a number of studies have also emerged which examine whether the initiatives of corporate governance have led to an improvement in the quality of financial reporting and whether these initiatives have been effective in tackling the problem of earnings management. Shen and Chih (2007), for example, find in nine Asian countries that firms with good corporate governance tend to conduct less earnings management. Also, In India, Sarkar *et al.* (2008) show that diligent boards are associated with lower earnings manipulation. Additionally, in Jordan, Al-khabash and Al-thuneibat (2009) provide

*Dr. Mohamed Moustafa Soliman, Associate Prof. in Accounting and Finance, College of Management & Tech., Arab Academy for Sciences & Tech., Egypt, E mail: momostafasol@yahoo.com.

**Prof. Dr. Aiman Ahmed Ragab, Dean of College of Management & Tech., Arab Academy for Sciences & Tech., Egypt, E mail: aaragab@hotmail.com.

evidence that the existence of internal governance structure has a significant influence on the practice of illegitimate earnings management. In support, Kamel and Elbanna (2010) find a consensus among their respondents regarding the importance of combating earnings management in Egypt through greater reliance on internal corporate governance mechanisms.

There has so far been relatively little or no research into earnings management practices in Egypt (Kamel and Elbanna, 2012). The multi-cultural roots of Egyptian society make it different from other societies and hence distinguish it as a setting for this paper. This paper provides many recommendations to the regulatory authorities in Egypt regarding ways to strengthen and reinforce the internal governance structure of companies. Of course, knowing current attitudes towards the application of corporate governance mechanisms could be useful to regulatory authorities and professional associations as they develop their own policies, standards and educational programmes regarding this matter.

In particular, this paper examines the roles of independent members on the board, chief executive officer who also serves as a chairman of the company (hereinafter called CEO duality), board size on earnings management practices. Despite the fact there are many prior studies that have investigated the issue of earnings management and board independence (Peasnell *et al.*, 2005; Klein, 2002; Chtourou *et al.*, 2001; and Shah *et al.*, 2009), CEO duality (Bowen *et al.* 2006; and Weir *et al.*, 2002), and board size (Johari *et al.*, 2008; and Agrawal & Chadha, 2005), only a few studies have investigated the issue in Egypt context. We extend their study by making an in-depth investigation on the issue.

The focus of this study is on the attributes of the board. This study excludes attributes of audit committee since members of audit committee are also members of the board. Therefore, some attributes of the board would, to some extent, determine attributes of audit committee. However rest of the corporate governance practices and board characteristics are also highlighted through literature.

This paper is organized as follows. The next section describes the theoretical background that forms the basis for empirical predictions. Subsequently, hypotheses are developed in the same section. The third section explains the research methods used to test the predictions and variables used in the study. Research results are presented and discussed in section four, followed by the conclusion and limitation.

2. Literature Review

2.1. Earning management: A Theoretical Background

The end of the 1990s and the beginning of 21st century have witnessed a series of corporate accounting scandals across the United States and Europe.

Examples include Enron, HealthSouth, Parmalat, Tyco, WorldCom and Xerox. At the core of these scandals was usually the phenomenon of earnings management (Goncharov, 2005). Earnings management has been a great and consistent concern among practitioners and regulators and has received considerable attention in the accounting literature (Shah *et al.*, 2009). It has been argued that earnings management masks the true financial results and position of businesses and obscures facts that stakeholders ought to know (Loomis, 1999). Healy and Wahlen (1999), in their article states that earning management is often done by the management to increase compensation and job security. Beside it, earning management is also done to avoid rules breaking in a loan contract, reduce regulatory cost, or increase regulatory benefit (Cornett *et al.*, 2008).

The literature does not offer a single accepted definition of the term “earnings management”. One of the most used definitions is “Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers.” (Healy and Wahlen, 1999).

Opportunity of earnings management is provided to the firms by GAAP allowing them the use of accrual accounting. According to FASB (1985) accrual accounting “attempts to record the financial effects on an entity of transactions and other events and circumstances that have cash consequences for the entity in the periods in which those transactions, events, and consequences occur rather than only in the period in which cash is received or paid by the entity.” This holds that by use of accrual accounting managers can control the timing of expense and timing of revenue recognition and thus can manipulate the actual earnings of a firm for a given period (Shah *et al.*, 2009 and Johari *et al.*, 2008).

Since this manipulation does not erode the bounds of accounting treatments, it can not be considered illegal. In this situation it becomes the duty of board of directors to check out that correct accounting treatment has been selected, compliance with the standards is made and correct value of firm has been reported to stakeholders. It is widely been held that company’s board of directors influence earnings manipulation and the quality of financial statements to large extent and the degree of this influence depends on board attributes such as board’s independence, CEO duality and board size. Therefore, it is important to identify whether these proposed attributes of boards of directors have a bearing on the incidence of earnings management. There follows an examination of relevant prior research in order to study the effects of each of these variables.

2.2. Board's Independence and Earnings Management

Fama (1980) and Fama and Jensen (1983) describe the board of directors as the most important mechanism in the internal corporate governance structure. They argue that establishing a board that provides effective monitoring of management actions depends on its composition. From an agency perspective, an independent board is more likely to be vigilant for agency problems as it includes a substantial number of non-executive directors (NEDs) who are dedicated to monitoring management's performance and behaviour (e.g. Johnson *et al.*, 1996; Shah *et al.*, 2009). Peasnell *et al.*, (2005) states that independent non-executive directors have the potential to detect earnings management. This leads to reduced level of earnings management in their presence on board.

Most of the prior studies on the relationship between corporate governance and earnings management document a negative relationship between the presence of outside directors and the occurrence of fraudulent financial statements or discretionary accounting accruals (Peasnell *et al.*, 2005; Bedard *et al.*, 2004; Klein, 2002; Xie *et al.*, 2003; and Osma, 2008)

In the UK, Peasnell *et al.*, (2005), examine whether the association between board composition and earnings management differs between the pre and post-Cadbury periods. They find evidence of accrual management to meet earnings targets in both periods. However, only the post-Cadbury period indicates less income-increasing accrual management to avoid earnings losses or earnings declines when the proportion of non-executive directors is high. These results offer clear evidence of the impact of independent outside directors on constraining earnings management in the UK.

More recently, Osma (2008) explores different types of earnings manipulation and analyses the effect of independent boards on constraining research and development (R&D) spending manipulation. They use all UK non-financial firms and their sample consisted of 3,438 firm-years, for the period 1990 to 2002. The results indicate that independent directors are capable of identifying and constraining earnings management represented by R&D cuts and can see through this type of manipulation.

In Canada, Park and Shin (2004) investigate the effect of board composition on the level of earnings management in a sample of 539 firm-years. Using the modified Jones model as a proxy for earnings management, they find that independent outside directors *per se* do not reduce discretionary accruals whereas outside directors from financial intermediaries and active institutional shareholders do reduce earnings management. They also find evidence that officer of financial intermediaries on the board and the tenure of outside directors restrain earnings management.

Prior studies find that board members who are independent from management can have a positive effect on the governance of a company, particularly in relation to fraud and discretionary accounting accruals (Beasley, 1996; Peasnell *et al.*, 2005; Chtourou *et al.*, 2001; Klein, 2002; Xie *et al.*, 2003; Jaggi *et al.*, 2009 and Dimitropoulos and Asteriou 2010). Therefore, consistent with most of the previously mentioned studies, board independence (IND) is operationalised in this study as the proportion of independent NEDs to the total number of board members. Consequently, the following hypothesis is proposed.

H1: There is a significant negative relationship between independent board members and earnings management.

2.3. CEO duality and Earnings Management

Another main variable considered in corporate governance is CEO duality. Chaganti *et al.*, (1985) suggest that to make the board of directors more independent, the CEO should not serve as a chairman of the company. The board may not be effective and independent when the chairman is also the CEO of the company. According to Dechow *et al.*, (1996) when the same individual dominates the decision making and firms' operation, it may cause conflict of interest and higher business risk. A CEO is a full time post and he/she is responsible for the operation of the company and strategic implementation, whereas the chairman of the company is responsible to monitor and evaluate the executive directors including the CEO (Weir *et al.*, 2002). In addition, he/she is responsible to chair the meeting and monitor the appointment process, termination, evaluation and provide compensation for senior management. Therefore, the separation of the post between CEO and chairman of the company is important for effective monitoring. However, the advantage of the same person serving both posts is that he/she will have a better understanding and knowledge on the firm operation and environment (Weir *et al.*, 2002). Bowen *et al.*, (2002) indicates that separation of roles between CEO and chairman is important to prevent earnings management activities.

Dechow *et al.* (1996) examine 96 U.S. firms subject to earnings manipulation enforcement action by the Securities and Exchange Commission (SEC) and find that firms whose CEO is also chair of the board of directors are more likely to be subjected to accounting enforcement action by SEC for alleged violations of GAAP. In addition, Klein (2002) finds that earnings management is positively related to the CEO holding a position on the board's nominating and compensation committees. Anderson *et al.* (2003) find that the separation between CEO and board chair positions appears to positively influence the information content of accounting earnings. On the other hand, other empirical studies found no association between CEO duality and earnings management. Peasnell *et al.*, (2005) examine this association between CEO dominance and earnings management in the UK's largest 1000 listed firms and find no

association. Bedard *et al.*, (2004) and Xie *et al.* (2003) also find no association. Consequently, this study proposes the following hypothesis:

H2: There is a significant positive association between the CEO duality and earnings management.

2.4. Board Size and Earnings Management

Board size has been shown to be a significant part of the ability of boards to effectively monitor management and to work efficiently together to oversee the running of the business (Persons, 2006). Board size is an indicator of both its monitoring and advisory roles, both of which may contribute to its insight into management behavior (e.g., Anderson *et al.*, 2004; Coles *et al.*, 2008). Larger boards are likely to provide more expertise and diversity and to increase the board's monitoring capacity (Dalton *et al.*, 1998; Pearce and Zahra, 1992 and John and Senbet, 1998). Additionally, larger boards are more likely to include more independent directors with valuable experience and, hence, they are able to delegate more responsibilities to board committees than smaller boards; this also can prevent or limit managerial opportunistic behaviour (Xie *et al.*, 2003).

Xie *et al.* (2003) examine the characteristics of the board in constraining earnings management using discretionary current accruals to measure earnings management for a sample of 282 US firms for the years 1992, 1994 and 1996. Their results show that earnings management is less likely to take place in firms with larger boards. Also, Yu (2008) find that small boards seem more prone to failure to detect earnings management. One interpretation of this effect is that smaller boards may be more likely to be "captured" by management or dominated by blockholders, while larger boards are more capable of monitoring the actions of top management.

On the other hand, Alonso *et al.*, (2000) argue that large boards exhibit poorer coordination and communication between members, and their results display a significant positive association between larger board size and earnings management. However, the findings of this study were inconsistent and should not be generalised due to several limitations. Firstly, the study covers only one year. Secondly, their study sample uses mixed data from ten different countries without controlling for different external factors, such as accounting standards and regulatory rules and, consequently, their study may be biased. Kao and Chen (2004) examine the relationship between board characteristics and earnings management in Taiwan. They find that large board size is related to a higher extent of earnings management. Their sample consists of 1,097 observations and they apply the cross-sectional Jones model to measure earnings management. Also, Abdul Rahman and Ali (2006) investigate the extent of the effectiveness of the board of directors, the audit committee and concentrated ownership in constraining earnings management among 97

Malaysian listed firms over the period 2002-2003. Their study reveals that earnings management is positively related to the size of the board of directors.

However, this study is more concerned about the monitoring role of the board. Klein (2002) suggests that the board's monitoring capacity increases as the size of board increases. Adams and Mehran (2002) advocate that some firms need larger boards for effective monitoring. Moreover, previous empirical studies that examine the monitoring effect of the board by testing the relationship between board size and earnings management find that larger boards are more effective. Consequently, this study proposes the following hypothesis:

H3: There is a significant negative relationship between large board size and earnings management

2.5. Development of Corporate Governance in Egypt

In the late 1990s Egypt noted the need and importance of gaining trust of the international community and foreign direct investment. As a result, Egypt started implementing a well-tailored economic reform program that covers the whole economic spectrum. As part of the privatization program, the Egyptian government revitalized its capital market, by improving its reputation and building confidence among investors (Samaha, 2010). As a result the Egyptian government recognized the need for a high level of corporate governance practices to reach its aspired goals.

The World Bank and the IMF started their first assessment of corporate governance in Egypt in 2001, as the first Arab country to undergo a ROSC analysis (ROSC 2001). The assessment evaluated Egypt's corporate governance practices against the requirements of the OECD Principles of Corporate Governance. The ROSC results indicated that 62% of the principles were applied by Egyptian companies that were studied. As a result of the ROSC, Egypt started issuing new rules to guarantee companies' implementation of corporate governance.

In 2005, the first Egyptian Code of Corporate Governance (ECCG) was 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 code indicates that its rules should be considered an addition to the corporate related provisions stated under various laws and the executive regulations and decrees regarding their implementation. Also, the code's recommendations are additional to legislation and are not mandatory; rather, they promote and regulate responsible and transparent behavior in managing corporations according to international best practices.

Bremer and Elias (2007) investigate the challenges and assess the progress of corporate governance in Egypt. They concluded that Egypt has started to appreciate the need to introduce corporate governance in the Egyptian businesses. However, they report that there are many integral factors that hinder the development of corporate governance in Egypt like: (1) family owned or closely held corporations dominate the Egyptian private sector, (2) State owned enterprise still play a major role in the Egyptian Economy, (3) new and thin capital market, and (4) lack of awareness of corporate governance concepts and benefits, lack of board independence, weaknesses in the Egyptian economic structure.

3. Methodology

3.1. Sample selection

We selected the Egyptian companies from amongst the top 50 most active-traded companies listed in the Egyptian Stock Exchange over the period 2007-2010. The banking and insurance sectors are not included in this study as the characteristics of these firms are different from the firms in other industrial sectors in terms of financial statement profitability measures and liquidity assessment. Also, they were specialized in nature and were subject to different regulations, tax and accounting rules (Zeitun and Tian 2007). This gave us a sample of 40 firms. As no relevant Data Stream exists in Egypt, the annual reports and the Board of Directors reports, covering the four year period 2007-2010, were purchased from the Egyptian Company for Information Dissemination (EGID) to extract the information on the variables needed to test each of our hypotheses.

3.2. The proxy for earnings management

Consistent with prior research, we use discretionary accruals as a proxy for financial misrepresentation or earnings management. Most prior literature uses Modified Jones (1991) model because it was found to be superior to other extant methods at the time in detecting abnormal accruals i.e. discretionary accruals (Dechow and Skinner, 2000). Discretionary accruals (*DA*) are defined as the difference between total accruals (*TA*) and non-discretionary accruals (*NDA*). In order to find discretionary accruals we calculated first of all total accruals (*TA*) as follows (Collins and Hribar (2002) and Shah *et al.*, 2009):

$$TA_t = N.It - CFO_t$$

Where:

TA_t: is total accrual in year t.

N.It: is Net Income in year t.

CFO_t: is cash flows from operating activities in year t.

Second, we calculated non-discretionary accruals (*NDA*) as follows (Johari *et al.*, 2008 and Shah *et al.*, 2009):

$$NDA_t = \alpha_1 \left(\frac{1}{A_{t-1}} \right) + \alpha_2 \left(\frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \alpha_3 \left(\frac{\Delta PPE_t}{A_{t-1}} \right) + \varepsilon$$

Where:

ΔREV_t is revenues in year t less revenue in year t-1.

ΔREC_t is net receivables in year t less net receivable in year t-1.

ΔPPE_t is gross property plant and equipment at the end of year t.

A_{t-1} is total assets at the end of year t-1.

$\alpha_1, \alpha_2, \alpha_3$ are firm specific parameters.

ε is the residuals.

Finally, we calculated discretionary accruals (*DA*) as a proxy for earnings management as follows (Shah *et al.*, 2009):

$$DA_t = TA_t - NDA_t$$

Where:

DA_t is discretionary component of accruals in year t.

TA_t : is total accrual in year t.

NDA_t is non-discretionary accruals in year t.

3.3. Independent variables

Independent variables are defined and shown in Table 1. Most measurements and expected relations are consistent with prior research.

Table 1: Independent and Control Variables

Test Variables	Operationalization	Expected relation
Independent Variables		
Directors independence (IND)	Percentage of independent non-executive directors from total number of directors. <i>Xie et al. (2003), Bedard et al., (2004), Peasnell et al.,(2005), and Osma, (2008).</i>	-
CEO Duality (DUAL)	Coded 1 if the firm has a CEO who is also serving as the chairman, 0 otherwise. <i>Dechow et al., (1996), Klein (2002), and Anderson et al., (2003).</i>	+
Board Size (BOSIZE)	The number of directors in the board. <i>Xie et al., (2001), Yu (2008), and Kao and Chen (2004)</i>	-
Control variables		
Firm size (FSIZE)	Natural log of total assets. <i>Meek et al. (2007), and Johari et al, (2008)</i>	-
Firm Growth (Grow)	Market-to-book assets ratio (MTB). <i>Carcello and Nagy,(2004), and Dimitropoulos and Asteriou, (2010)</i>	+
Financial leverage (LEV)	Debt-to-assets ratio. <i>Peasnell et al., (2005), and Weber, (2006).</i>	+

3.4. Control variables

In addition to the hypothesized board features' effects, we also apply a variety of control variables to minimize specification bias in the testing of hypothesis.

3.4.1. Firm size

Large firms face greater political costs relative to their small counterparts. Political costs refer to costs arising from direct or indirect regulation causing a heavy scrutiny by stock market. Consequently, large firms may have a greater incentive to manage earnings downward to escape from such constraints (Watts and Zimmerman (1978). However, Meek *et al.*, (2007) argue that earnings management may be lower in large firms because, compared to other firms they have lower information asymmetry, stronger governance structures and stronger external monitoring. We include natural log of total assets as a proxy for firm size.

3.4.2. Firm Growth

Consistent with a number of earlier studies (Carcello and Nagy, 2004; Abbott *et al.*, 2004; Abbott *et al.*, 2000; and Dimitropoulos and Asteriou 2010), this study controls for the effect of company growth. It is essential to control for a firm's pace of development because, in times of rapid growth, a company may experience pressure to maintain or exceed anticipated growth rates. The pressure to achieve a targeted rate of growth, or alternatively to mask downturns, may create an incentive for management to engage in EM (Carcello and Nagy, 2004). This study measures growth (GROW) as the market-to-book assets ratio (MTB).

3.4.3. Financial leverage

Empirical research documents that firms with financing needs and firms approaching debt covenant default triggers have higher levels of abnormal accruals, a higher incidence of GAAP violation and a higher likelihood of committing accounting fraud (Weber, 2006). We use debt-to-assets ratio to proxy for the effects of debt covenants on earnings management (Peasnell *et al.*, 2005). The larger the firm is leveraged, the more likely managers are to choose income decreasing.

3.5. Common Effect Model

To test the hypothesis common effect model in panel data analysis has been used.

$$DA_t = \beta_0 + \beta_1 IND_t + \beta_2 DUAL_t + \beta_3 BOSIZE_t + \beta_4 FISIZE_t + \beta_5 GROW_t + \beta_6 LEV_t + \varepsilon$$

Where:

DAC_t : Discretionary accruals

IND_t : Directors independence

DUAL_t : CEO duality

BOSIZE: Board size

FISIZE_t: Firm size

GROW_t: Firm growth

LEV_t : Financial leverage

ε : Error term

4. Results and Discussion

4.1. Descriptive Statistics

This section of the study is devoted to presenting the results of the analysis performed on the data collected to test the propositions made in the study and answer the research questions. Analyses were carried out with the aid of the Statistical Package for Social Sciences (SPSS). Table 2 provides the mean, median and standard deviation of the variables in the study. The results reveal that average DA stood at $-0,9875$, while the median is $3,0176$ from prior year's total assets. Examination of the skewness and kurtosis shows significant non-normality exists. This conclusion is reached after testing the distribution using the Jarque-Bera test. It appears from the Table regarding the composition of the board of directors, the average ratio of independent directors is (72%). The data also shows that nearly 47% of the firms have their chairman who also acts as CEO (duality).

Table 2: Descriptive Statistics

Variable	Label	Mean	Median	Std. Deviation
Discretionary accruals	DA	-0,9875	3,0176	7,8765
Board Independence	IND	0,7218	0,6874	0,1081
CEO Duality	DUAL	0,4746	0,3567	0,4887
Board Size	BOSIZE	6,6702	5,6574	4,9874
Size of the Company	FISIZE	7,6789	7,5345	4,8758
Firm Growth	Grow	0,8765	0,8564	0,1587
Firm's Financial Leverage	LEV	-0,9123	-0,9010	4,0543

4.2. Results of Regression Model

After descriptive statistics, correlation analysis has been performed to check the relationship between independent and dependent variables and amongst independent as well so that problem of multicollinearity can be checked. The Pearson's correlation matrix shows that the degree of correlation between the independent variables is either low or moderate, which suggests the absence of multicollinearity between independent variables. As suggested by Bryman and Cramer (1997), the Pearson's *R* between each pair of independent variables should not exceed 0.80; otherwise, independent variables with a coefficient in excess of 0.80 may be suspected of exhibiting multicollinearity. The highest correlation as disclosed in table 3 is between board independence (IND) and board size (BOSIZE) with the amount of 0.745. This confirms that there is no multicollinearity among the variables.

Table 3: Correlation coefficients Matrix of the variables used in the study

	DA	IND	DUAL	BOSIZE	FISIZE	GROW	LEV
DA	1						
IND	-0,073	1					
DUAL	0,205	0,576	1				
BOSIZE	0,425	0,745	-0,043	1			
FISIZE	0,547	-0,057	0,046	-0,050	1		
Grow	-0,073	-0,311	-0,230	-0,127	-0,020	1	
LEV	-0,116	-0,079	-0,208	-0,015	0,387	-0,004	1

This section of the results, the multivariate analysis, is devoted to provide information about the regression model. Table 4 shows the results of the regression analysis. The results show the explanatory power of the model as measured by the R Square and adjusted R Square. The later, the adjusted R Square provides a better estimation of the true population value, especially with a small sample (Tabachnick and Fidell, 1996). The value of the adjusted R Square in the current study is %57.8. Therefore, the model adequately describes the data.

Consistent with the first hypothesis that states there is a significant negative relationship between earnings management and the proportion of independent directors on the board, the result in Table 3, 4 indicates that there is a negative and non-significant relationship (coefficient = -0.073 and $p > 0.05$) between board independence and the indicator of earnings management which enables us to reject our H1. This finding is in line with the previous findings of some studies conducted outside the Anglo-American countries, especially in Asian countries such as Malaysia (Abdul Rahman and Ali, (2006), Indonesia (Siregar and Utama, 2008) and Hong Kong (Jaggi *et al.*, 2009), where no significant relationship is found between board independence and earnings management. The results may be interpret due to the dominance of family-controlled firms in Egypt, which may result in family dominance over board matters as a result of weak corporate governance regimes and less investor protection.

Unlike the result in Xie, *et al.* (2003), we found CEO-Chairman duality to have a positive significant influence on earnings management. The results in Table 3, 4 indicate that the correlation coefficient on Duality is 0.205, significant at $p < 0.05$. Thus, H2 is supported. This finding reflects the need to strengthen the compliance to the Corporate Governance Code in Egypt that relates to the duality status of the BOD. Although the Code clearly restricts managers from holding these two posts, duality persists in practice, and the CEO-Chairmans are managing earnings more than firms with the two roles separated. We conclude that compliance to the Code by separating the roles of chairman and CEO in this regard has shown its positive impact.

Table 4: The regression results of the variables used in the study

Model	Unstandardized Coefficients		Standardized Coefficients	t.	Sig.
	B	Std. Error			
Constant	5.785	16.65		.356	.000
IND	.392	.279	.089	1.415	.057
DUAL	-5.705	1.127	-3.960	5.115	.016
BOSIZE	-.291	.093	-.184	-.504	.036
FISIZE	7.976	1.727	4.808	5.124	.000
GROW	.719	.134	.755	5.390	.915
LEV	-.214	.040	-1.172	-5.363	.000
R square	.627				
Adjusted R Square	.578				
F	10.619				
Significant	.000				

Dependent variable: DA

This study finds that board size is significantly and negatively associated with earnings management. The results in Table 3, 4 indicate that the correlation coefficient on board size is -0.425, significant at $p < 0.05$. Thus, H3 is supported. The results indicate that larger boards are more effective in monitoring financial reporting. This supports the argument of John and Senbet (1998) that an increase in board size increases the board's monitoring capacity. Large boards are likely to increase financial expertise and diversity on the board. Also, these findings support the argument presented by Zahra and Pearce (1989) that larger boards are more capable than smaller boards of monitoring the actions of management. Hence, smaller boards may be more likely to be "captured" by top managers or controlled by major institutional investors and blockholders, with the result that monitoring by the independent directors is weakened.

Table 3, 4 also, show results from control variables, firm size as measured by the natural log of total assets has a significant positive effect on earnings management which corroborate the positive accounting theory's claim that large firms face greater scrutiny from investors, and thus more likely to manage earning to satisfy their forecasts. Financial leverage measured by debt-to-assets ratio, the result indicates that there is a negative and significant relationship (correlation coefficient = -0.116 and $p < 0.05$) between financial leverage and the indicator of earnings management. Also, firm growth as measured by Market-to-Book assets ratio (MTB), has a non-significant negative effect on earnings management (correlation coefficient = -0.073 and $p > 0.05$).

5. Conclusion and Limitation

The company ownership and control separation grounds a number of conflicts of interest and has encouraged the research for mechanisms mitigating those conflicts. This is why both academia and practitioners have paid an increasing attention to corporate governance. Although both the external and the internal corporate governance mechanisms have been in the core of this attention, the most prominent interest has focused on the boards of directors. In turn, the boards of directors are considered as the main instrument at the shareholders disposal to monitor and control manager's behavior. It makes then much sense any intent to identify the board's features and actions in order to know more in depth their ability to reduce the possible managers' discretionarily. This paper investigates how an effective board of directors is able to provide a monitoring mechanism to ensure high quality of earnings in Egypt.

Our findings rejected the hypothesis that there is a significant negative relationship between independent board members and earnings management. This result may be interpret due to the dominance of family-controlled firms in Egypt, which may result in family dominance over board matters as a result of weak corporate governance regimes and less investor protection. On the contrary, we found discretionary accruals as a proxy for earnings management is positively related to the existence of CEO duality, and negatively related to board size. The findings of this study will be of interest to investors in the Egyptian stock market. This paper also provides many recommendations to the regulatory authorities in Egypt regarding ways to strengthen and reinforce the Board of Director's Attributes of companies.

Limitation of the study is that this study is using a small sample of 40 companies. This sample may be small in size and, by construction, composed of the most active Egyptian listed companies and thus may not be representative of the population of Egyptian firms, consequently, caution should be considered in evaluating the results. Thus, it might have been better to look at companies from a wider range.

References

- Abbott, L.J., Park, Y., and Parker, S. 2000. "The Effects of Audit Committee Activity and Independence on Corporate Fraud", *Managerial Finance*, vol. 26, no. 11, pp. 55-67.
- Abdul Rahman, R., and Ali, F.H.M. 2006. "Board, Audit Committee, Culture and Earnings Management: Malaysian Evidence. *Managerial Auditing Journal*, vol. 21, no. 7: pp. 783-804.
- Adams, R., and Mehran, H. 2002. "Board Structure and Banking Firm Performance" Working paper, Federal Reserve Bank of New York.

- Alonso, P., Palenzuela, V., and Iturriaga, F. 2000. “Managers” Discretionary Behavior, Earnings Management and Corporate Governance: An Empirical International Analysis”, Working Paper, Universidad de Valladolid.
- Al-khabash, A. and Al-thuneibat, A. 2009. “Earnings management practices from the perspective of external and internal auditors: evidence from Jordan”, *Managerial Auditing Journal*, vol. 24 no. 1, pp. 58-80.
- Anderson, R.C., Mansi, S.A., and Reeb, D.M. 2004. “Board Characteristics, Accounting Report Integrity, and Cost of Debt”. *Journal of Accounting and Economics*, vol. 37, no. 3: pp. 315–342.
- Agrawal, A., and Chadha, S. 2005. “Corporate Governance and Accounting Scandals”, *Journal of Law and Economics*, vol. 48, pp. 371–406.
- Ball, R., Robin, A. and Wu, J. 2003. “Incentives versus standards: properties of accounting income in four East Asia countries”, *Journal of Accounting and Economics*, vol. 36 nos 1-3, pp. 235-270.
- Bedard, J., Chtourou, S.M., and Courteau, L. 2004. “The Effect of Audit Committee Expertise, Independence and Activity on Aggressive Earnings Management”, *Auditing: A Journal of Practice & Theory*, vol.23, pp. 55-79.
- Bowen, G.J., Bralower, T.J., Delaney, M.L., Dickens, G.R., Kelly, D.C., Koch, P.L., Kump, L.R., Meng, J., Sloan, L.C., Thomas, E., Wing, S.L. & Zachos, J.C. 2006. “Eocene Hyperthermal Event Offers Insight Into Greenhouse Warming. EOS”, *Transactions, American Geophysical Union*, vol 87no. 17, pp. 165, 169.
- Bremer, J., and Ellias, N. 2007. “Corporate Governance in Developing Economies –The Case of Egypt.” *International Journal of Business Governance and Ethics*, vol. 3 no.4, pp. 430-445.
- Bryman, A., and Cramer, D. 1997, *Quantitative Data Analysis with SPSS for Windows: A Guide for Social Scientists*, Routledge, London
- Carcello, J., and Nagy, A. 2004. “Client Size, Auditor Specialization and Fraudulent Financial Reporting”, *Managerial Auditing Journal*, vol. 19, no. 5, pp. 651–668.
- Chaganti, R.S., Mahajan, V. and Sharma, S. 1985. “Corporate board size, composition and corporate failures in the retailing industry”, *Journal of Management Studies*, vol.22 no. 4, pp. 400-417.

- Chtourou, S.M., Be´dard, J. and Courteau, L. 2001. “Corporate governance and earnings management”, working paper, Universite´ Laval, Que´bec.
- Coles, J., Daniel, N., and Naveen, L. 2008. “Boards: Does One Size Fit All?”, *Journal of Financial Economics*, vol. 87, pp. 329–356.
- Collins, D., and Hribar, P. 2002. “Errors in Estimating Accruals: Implications for Empirical Research”, *Journal of Accounting Research*, vol. 40 no. 1, p105-135.
- Cornett, M.M., Marcus, A.J., Tehranian, H. 2008.” Corporate governance and pay-for-performance: the impact of earnings management”, *Journal of Financial Economics*, vol. 87, pp.357–373.
- Dalton, D., Daily, C., Ellstrand, A., and Johnson, J. 1998. “Meta-Analytic Reviews of Board Composition, Leadership Structure, and Financial Performance”, *Strategic Management Journal*, vol. 19, pp. 269- 290.
- Dechow, P., Sloan, R., and Sweeney, A. 1996. “Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC”, *Contemporary Accounting Research*, vol. 13, pp. 1-36.
- Dechow, P. M., and Skinner, D. J. 2000. “Earnings management: Reconciling the views of accounting academics, practitioners and regulators”, *Accounting Horizons*, vol.14 no.2, pp.235-250.
- Dimitropoulos, P.E., and Asteriou, D. 2010. “The Effect of Board Composition on the Informativeness and Quality of Annual Earnings: Empirical Evidence from Greece”, *Research in International Business and Finance*, vol. 24, pp. 190–205.
- Fama, E. 1980. “Agency Problems and Theory of the Firm”, *Journal of Political Economy*, vol. 88, pp. 88-107.
- Fama, E.F., and Jensen, M.C. 1983. “Separation of Ownership and Control”, *Journal of Law and Economics*, vol. 26, pp. 301-25.
- Goncharov, I. 2005. “Earnings Management and its Determinants: Closing Gaps in Empirical Accounting Research (Frankfurt am Main: Peter Lang).
- Healy, P.M., and Wahlen, J. 1999. “A Review of the Earnings Management Literature and its Implications for Standard Setting”, *Accounting Horizons*, vol. 13 no. 4, pp. 365-384.

- Jaggi, B., Leung, S., and Gul, F. 2009. "Family Control, Board Independence and Earnings Management: Evidence Based on Hong Kong Firms" *Journal of Accounting and Public Policy*, vol. 28, pp. 281– 300.
- John, K., and Senbet, L. 1998. "Corporate Governance and Board Effectiveness", *Journal of Banking and Finance*, vol. 22, pp. 371-403.
- Jones, J. J. 1991, "Earnings management during import relief investigations", *Journal of Accounting Research*, vol. 29 no. 2, PP.193-226.
- Johnson, J.L., Daily, C.M., and Ellstrand, A.E. 1996. "Boards of Directors: A Review and Research Agenda", *Journal of Management*, vol. 22 no. 3: pp. 409–438.
- Johari, N., Saleh, N., Jaffer, R., and Hassan, M. 2008. "The Influence of Board Independence, Competency and Ownership on Earnings Management in Malaysia", *Int. Journal of Economics and Management*, vol.2 no.2, pp.281-306.
- Kamel, H. and Elbanna, S. 2010. "assessing the perceptions of the quality of reported earnings in Egypt", *Managerial Auditing Journal*, vol. 25 no. 1, pp. 32-52.
- Kamel. H. and Elbana, S. 2012." Investigating the phenomenon of earnings management in the Egyptian stock market", *Corporate Governance*, vol.12 no.3, pp. 337-352.
- Kao, L., and Chen, A. 2004. "The Effects of Board Characteristics on Earnings Management", *Corporate Ownership & Control*, vol. 1, no. 3: pp. 96–107.
- Klein, A. 2002. "Audit Committee, Board of Director Characteristics, and Earnings Management", *Journal of Accounting and Economics*, vol. 33, no. 3: pp. 375-401.
- Report on the Observance of Standards and Codes. 2004. "corporate governance country assessment, Egypt", available at: www.cma.gov.eg/en/pdf/Egypt_Corporate_Governance_Web_March_2004.pdf (accessed 24 July 2011).
- Samaha, K. 2010. "Do Board Independence and Audit Committees Motivate Disclosure on Different Corporate Governance Information Categories in the Annual Reports in Developing Countries?", *International Research Journal of Finance and Economics*, vol. 57, pp. 206-25.

- Sarkar, J., Sarkar, S. and Sen, K. 2008. "Board of directors and opportunistic earnings management: evidence from India", *Journal of Accounting, Auditing & Finance*, vol. 23 no. 4, pp. 517-42.
- Shah, s., Nousheen, Z., and Tahir, D. 2009. "Board Composition and Earnings Management an Empirical Evidence Form Pakistani Listed Companies", *Middle Eastern Finance and Economics*, vol.3, pp. 28-38.
- Shen, C.-H. and Chih, H.-L. 2007. "Earnings management and corporate governance in Asia's emerging markets", *Corporate Governance: An International Review*, vol. 15 no. 5, pp. 999-1021.
- Siregar, S.V., and Utama, S. 2008. "Type of Earnings Management and The Effect of Ownership Structure, Firm Size, and Corporate-Governance Practices: Evidence From Indonesia", *The International Journal of Accounting*, vol. 43, pp. 1–27.
- Tabachnick, B & Fidell, L 1996, *Using multivariate statistics*, 3rd edition, Harper Collins, New York.
- Loomis, C.J. 1999. "Lies, Damned Lies, and Managed Earnings", *Fortune*, vol. 140 no.2, pp.74-92.
- Meek, K.J., Roa, P.R. and Skousen, J.C. 2007. "Evidence on factors affecting the relationship between CEO stock option compensation and earnings management", *Review of Accounting and Finance*, vol. 6 no. 3, pp. 304-323.
- Osma, B.G. 2008. "Board Independence and Real Earnings Management: The Case of R&D Expenditure", *Corporate Governance: An International Review*, vol. 3, pp. 231-260.
- Park, Y.W. and Shin, H.-H. 2004. "Board composition and earnings management in Canada", *Journal of Corporate Finance*, vol. 10 no. 3, pp. 431-57.
- Pearce, J.A., and Zahra, S.A. 1992. "Board Composition from a Strategic Contingency Perspective", *Journal of Management Studies*, vol. 29 no. 4, pp. 411–438.
- Peasnell, K.V., Pope, P.F., and Young, S. (2005), "Board Monitoring and Earnings Management: Do Outside Directors Influence Abnormal Accruals?", *Journal of Business Finance and Accounting*, Vol. 32: pp. 1131-1346.
- Persons, O.S. 2006. "Corporate Governance and Non-Financial Reporting Fraud", *The Journal of Business and Economic Studies*, vol. 12 no. 1, pp. 27-40.

- Uzun, R., Szewczyk, H.S. and Varma, R. 2004. "Board composition and corporate fraud", *Financial Analysts Journal*, vol. 60 no. 3, pp. 33-43.
- Watts, R. and Zimmerman, J. 1978. "Toward a positive theory of the determination of accounting standards", *The Accounting Review*, vol. 53, pp. 112-34.
- Weber, M. 2006. "Sensitivity of executive wealth to stock price, corporate governance and earnings management", *Review of Accounting and Finance*, vol. 5 no. 4, pp. 321-54.
- Weir, C., Laing, D., and McKnight, P.J. 2002. "Internal and External Governance Mechanisms: Their Impact on the Performance of Large UK Public Companies", *Journal of Business Finance & Accounting*, vol. 29, no. 5, pp. 579–611.
- World Bank. 2001, *Report on the Observance of Standards and Codes (ROSC). Corporate Governance Country Assessment: Arab Republic of Egypt*, September 2001.
- Xie, B., Davidson, W. and DaDalt, P. 2003. "Earnings management and corporate governance: the role of the board and the audit committee", *Journal of Corporate Finance*, vol.9, pp. 295-316.
- Young, M., Peng, M., Ahlstrom, D., Bruton, G., and Jiang, Y. 2008. "Corporate Governance in Emerging Economies: A Review of the Principal-Principal Perspective", *Journal of Management Studies*, vol. 45 no.1, pp 196-220.
- Yu, F. 2008. "Corporate Governance and Earnings Management" *Journal of Financial Economics*, vol. 88, pp. 245-271.
- Zeitun, R. and Tian, G. 2007. "Does ownership affect a firm's performance and default risk in Jordan?", *Corporate Governance*, vol.7 no. 1, P. 66-82.