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Corporate Governance in Egyptian SMEs and Its Relation with Earnings Management: In Terms of Board of Directors Composition

Abstract

Several researches have been made on the relation between earnings management and corporate governance characteristics, which suggests that it is imperative to have corporate governance controls; to mitigate firm's behavior. The study addresses the impact of Board of Directors composition on earnings management phenomenon for Egyptian firms, focusing on Small to Medium Enterprises, after controlling for firm age and leverage. One of the most important reasons for choosing SMEs as a sample is due to the immense size of small to medium enterprises that are established in Egypt, out of which are mostly family based. This encourages data manipulation to refine the image of the firm. Hence data have been collected from listed companies in Nile Stock Exchange; due to data accessibility from the year 2011 to 2013. In this emerging market it examines whether independent directors that are not dominated by corporate boards are associated with less earnings management, in the form of percentage of non-executive board members and CEO duality. It examines the effect of presence of board diversity by measuring the percentage of female members and members of different ethnicities. Finally, the board size is cho-

sen as a variable to measure board attributes. Based on the hypotheses developed in this research, the sample base was empirically tested. Results revealed that the variables chosen from Board of Directors composition insignificantly affected the manipulation of firm's earnings. Variables like Board Independence and CEO Duality showed insignificant negative relationship with earnings management; which implies that the presence of CEO as a chairman of the firm, does not necessarily encourage manipulation, but increases the transparency. On the other hand, board diversity showed an insignificant positive relationship and board Size showed no correlation with earnings management.

1. Introduction

Effective monitoring techniques on the management is essential; to ensure that the manager's action is in accordance with shareholder interest. A conflict of interest appears when a separation is found between those manage the firm and those who own it, this conflict between managers and shareholders becomes more apparent (Jensen & Meckling, 1976). This separation is inevitable in the current business ownership structure, especially in large listed firms where the owners are disseminated more intensely among shareholders and the

management in charge may have minor shareholding. Therefore, failure to monitor the management may lead to some extent, corporate scandals, as well as inefficient resource allocation, which is often followed by an unclear and obscure reporting to hide the scandals from reaching shareholders

This paper studies the role of independent members on the board, the CEO duality phenomenon where the chief executive officer also takes on the role of the chairman of the company, board independence, size and board diversity on earnings management practices.

Based on previous studies conducted in this field, the following studies have investigated the relation between earnings management and different board characteristics, for example:- (1) Park & Shin, 2004 and Peasnell et al., 2005 investigated board independence; (2) Carapeto et al., 2005 and Bowen et al. 2002 focused on CEO duality; (3) Agrawal & Chanda, 2005 and Xie et al., 2003 measured board competency, and Gul, 2002; Yi, 2005; and Cheng, 2005, investigated manager share ownership. Only a few studies such as Abdul Rahman and Ali (2006) and Soliman and Ragab (2013) examined the Egyptian market, however they all used the 50 most active companies in EGX with little interest in investigating the issue in Small to Medium Enterprises (SMEs) in the Egyptian society.

Different from prior researches, this research also investigates whether independent board competency and independent board might lead to better control over earnings management. It also examines whether the size or diversity affect this manipulation. The results in-

dicate that all relationships are deemed insignificant, however a combined chairman-CEO roles (CEO duality) and board independence negatively influences the practice of earning management in Egyptian firms. On the other hand, the presence of a diverse board member in fact resembles a positive influence on the earnings management, whereas, it was found that board size is simply uncorrelated.

This research focused on the attributes of the board excluding audit committee attributes since its' members are also members of the board. Therefore, the characteristics of the board could, to some extent, also determine the attributes of audit committee. However a vast number of board characteristics will be highlighted throughout the research.

2. Literature Review

2.1 Earnings Management

Earnings management has been defined in many ways, one of which defines this practice as "purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain", Schipper (1989). The question becomes why are earnings are being managed. According to Watts et al. (1986), Eccles et al. (2001) and Patten et al. (2003), they observed that earnings are manipulated to the extent in which the accounting figure can help managers meet some of their personal interest. Others find that managers are interested in manipulating earnings for the sake of bonus incentive and to avoid debt covenant violations (Sweeney, 1994 and Healy et al., 1985). The concerns are that this practice was becoming vast and the methods became more and more sophisticated (Levitt, 1998). Most managers tend to manage their

company's earnings to obscure the financial position of business organization, in addition to all necessary information that investors opt to know (Lomis, 1999). The where about of this non-alignment comes from the separation of owners (who are the shareholders) and managers in a firm (Holthausen et al., 1995 and DeFondet al., 1994). On the other hand, according to agency theory (Jensen et al., 1976), since the separation of managers and owners creates a room for the management to provide misleading information to the shareholders, managers often maximize their utility and reduce the shareholders' (owners') claim on the firm. This in turn gives rise to agency costs; that eventually results in inappropriate decisions (Guidry et al., 1999 and Eccles, 2001).

How can earnings management be measures? Since it is impossible to observe earnings management directly, researchers have investigated two paths for managing their earnings, either using the accounting methods or managing the accruals. According to Du Charme et al. (2000): "Accruals models are preferred because this approach captures the subtle income management techniques allegedly used to avoid detection by outsiders, they not only reflect the choice of accounting methods but also the effect of recognition timing for revenues and expenses, asset write-downs and changes in accounting estimates". Prior studies done by Healy (1985) and De Angelo (1986) used as an attempt to measure earnings management, total accruals as a proxy for earnings management. Meanwhile several other studies, like: Jones (1991), Rangan (1998), Teoh et al. (1998) used discretionary accruals as a measure of ea-

rnings management. They explained that since non-discretionary accruals are used to reflect business conditions; that it is in fact subject to firm conditions and sales growth, hence it cannot be controlled by managers.

It was found in prior studies that in earnings management, discretionary accruals are responsible for the change of management's accounting decisions; where they represent managerial interventions into financial reporting process. Prior researchers have faced a difficult problem when it came to distinguishing between discretionary and non-discretionary components of total accruals (Abdul Rahman, 2013). For example, during a period of economic growth, accounts receivable and accounts payable are expected to change with the increase of sales without the occurrence of any earnings management. In contrast, discretionary accruals are represented by the managerial interventions of the financial reporting process; if a change occurred in the allowance for doubtful accounts, then this is a discretionary change in accruals (Islam et al. 2011).

All adjustments that enables a business to divert from cash basis to an accrual basis, through allocations, provisions or changes in accounting methods is what defines accruals. The idea for researchers is to detect the discretionary part of accruals; this was found to be a difficult issue; as non-discretionary and discretionary accruals are not detected directly, hence it is essential to develop methods for the estimation of the discretionary accruals.

Several techniques were developed to aid the estimation of discretionary accruals. First approach used total ac-

cruals as an estimate and by comparing the amount of accruals in different firms; earnings management was detected. The second method used the differences in accruals between certain periods; where non-discretionary accruals was assumed to not change between different periods; hence these differences were attributed in the total accruals to management discretion. The third approach used regression to separate the two components of accruals. This was first done by Jones (1991), where she developed what later came to be the most famous model for detecting earnings management. This model was able to decompose accruals. It then later was modified; when changes in sales were adjusted for the change in receivables (Dechow et al.1995).

The study by Dechow et al. (1995) found that the modified Jones model provided the most powerful test for detecting earnings management compared to previous models developed by both authors Healy and DeAngelo. Moreover, Peasnell, Pope and Young (2000) found that Jones model was able to generate powerful tests for the detection of earnings management, where it was more powerful for the revenue and bad debt manipulations.

2.2 Corporate Governance For Sme's Background

In 2009, in collaboration with the Business Development Services Support Project (BDSSP/CIDA), a specialized Small and Medium enterprises unit was established at the Egyptian Banking Institute, based on the Central Bank of Egypt's Decree for improving access to finance. This unit offered a wide range of capacity building services that enhanced the awareness of entrepreneurs.

The corporate governance inside Egyptian SMEs is increasingly gaining importance on the agenda of the MENA region. According to The Egyptian Institute of Directors (EIOD): "SMEs are estimated to account for 80% of the total value added produced by the private sector and over 13% of adults in Egypt are reported to be in the process of starting a business or own a young enterprise". With similarly approximate results, the CAPMAS has published a census where they declared that: "85 per cent of the Egyptian companies were small and 9 per cent were medium size and only 5 per cent are large companies".

It is predicted that in Egypt, a vast number of the 94 per cent of the small-medium sized companies would have a legal form of by Stock, which mandates the existence of a board for the company. As such, Corporate Governance evaluation would be very important, at least, when lending to medium-size and the upper tier of small-size companies. (Azab, 2007)

Moreover, the Small and Medium enterprise are more likely to face separation of ownership from management. Therefore, the claim that Corporate Governance is not relevant; as the owners suffer the consequences is a fallacy. In fact, it was found that the improper strategic management of owners especially in such small and medium enterprises may cause a systematic failure the economy as a whole.

Apart from the 50 large companies listed in the Egyptian stock market, most boards of the remaining amount of firms do not monitor corporate governance. According to world Banks ROSC in 2009 "Only 8.6 percent of boards

carried-out self-evaluations, considered by many as a key component in ensuring that boards carry-out their responsibilities efficiently". The EIOD has accredited over 100 directors, managers, and regulators to date, training these on how to implement good corporate governance. However, this training is not widely accepted, also continuous professional awareness of good corporate governance needs to take place.

3 Research Hypothesis

3.1 Ceo Duality And Earnings Management

Corporate governance framework has proven to establish the necessary guidance for independent directors, where in reality a small scale of firms have truly independent directors. Many boards in Egypt are composed of family members and insiders.

Bowen et al. (2002) stated that it is essential for the separation of the roles of CEO and chairman; this is to avoid earnings management activities. In their study, earnings smoothing activities were found higher for firms where CEO duality existed. This was found consistent with a Malaysian conducted by Mohd Saleh et al. (2005). He provided evidence that firms with CEO duality were positively related with management of earnings.

In addition, according to the study conducted in Egypt by Soliman and Ragab (2013), they found discretionary accruals as a proxy for earnings management is positively related to the existence of CEO duality. However, this was tested on a sample of 40 companies listed in the top 50 most active companies on EGX, our study will examine this fact on family-based enterprises in Egypt, which is allowed under the Law

No. 159 of 1981 Promulgating the Law on Joint Stock Companies limited by shares and limited liability companies, which in fact allows the CEO the right to also take on the duties of the company chairman.

Hence, the following hypothesis is proposed (in an alternate form):

H1: There is a significant positive relation between the CEO duality and earnings management in SMEs

3.2 Board Diversity And Earnings Management

Many authors study board diversity also in terms of cultural diversity. Richard (2000) assesses a relationship between cultural diversity, firm strategy and performance. Although he finds a positive relationship between the two variables, the study concludes that this result needs to be interpreted in a broader context. Ruigrok et al. (2007) also study gender and nationality diversity.

Marimuthu (2008) studies ethnic diversity, measured in terms of the number of foreign directors out of total directors, in a sample of Malaysian firms and he finds a positive relationship between the foreign directors and firm performance. On the other hand, according to the tokenism theory, "the minorities in larger groups are subject to discriminating behavior and hence face barriers in influencing group decisions: this can happen when the percentage of women on the board is lower than 15%" (Elstad and Ladegard, 2010). However, these authors, in a study on 458 women on Norwegian corporate boards, show that, even although in many cases the presence of women is very low, they are still able to influence

the decisions of boards. For this reason, the authors maintain that tokenism is not acknowledged by women directors.

The board diversity (measured in terms of gender representation on boards), In particular, the executive gender diversity may impact managerial behavior (Peni and Vahamaa, 2010) which relate with either ethical or unethical behavior. With regard to the discretionary accruals practices, Healy and Wahlen (1999) viewed it as unfair to competitors, also there is an evidence showing that female is more risk averse and more ethical than male (Wei and Xie, 2010).

Following the claim of prior research the following hypothesis is proposed (in an alternate form):

H2: There is a significant negative relationship between diversity of board and earnings management SMEs.

3.3 Board Independence And Earnings Management

Relating to agency theory, an independent board includes a substantial number of non-executive directors; hence it is more likely to be found cautious for agency problems. (Shah et al., 2009). These directors are dedicated to monitor management's performance and behavior (Peasnell et al., 2005)

Many studies have been made in UK, Peasnell et al.,(2005), examine whether the association between board composition and earnings management differs between the pre and post-Cadbury periods, also Osma (2008) tackles different types of earnings manipulation to detect the effect of Board Independence on R&D. The investigation took place in Canadafor the effect of board

composition on the level of earnings management, Park and Shin (2004), most of them detected a negative relationship on the fraud and manipulation of discretionary accruals.

They suggested that non-executive directors had the potential to detect earnings management, which leads to reduced level of earnings management in their presence on board. The independence can be measured by the percentage of independent non-executive directors from total number of directors, Xie et al. (2003), Bedard et al., (2004), Peasnell et al.,(2005), and Osma, (2008). In the essence of former researches, the following hypothesis was developed (in an alternate form):

H3: There is a significant negative relationship between board independence and earnings management SMEs

3.4 Board Size And Earnings Management

Board size was first studies by Jensen (1993). They argued that smaller board size is the reason for technological change in the firm; that ultimately lead to cost reduction and downsizing. In 2007 and 2009, it was found in several researches, that better performing companies had fewer directors in their board. This was most true for Hong Kong, the US and Europe. Board size had the strongest correlation with share price performance of all the elements of board composition examined. (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

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. However, in real life, directors point to the fact that a board is a collection of people and smaller groups lead to more active engagement with each individual. The role the Chairman plays is crucial on an effective board, drawing out contributions from the non-executive directors who possess the relevant skills and creating a culture of constructive challenge. For this to be a success, the Chairman has to have a close relationship with each of the directors, which is made difficult when there are a large number of directors.

Hence, the hypothesis suggests the follow (in an alternate form):

H4: There is a significant positive relationship between board size and earnings management SMEs

3.5 Control Variables

3.5.1 Financial Leverage

The second issue studied in the paper is the association between leverage and earnings management. Several studies have found that companies with a high leverage use income increasing accounting methods (Sweeney. 1994). A reason for this is that companies approaching debt covenant violations respond with income increasing accounting methods (Defond, 1994).

Bowen et al. (1995) suggest that considerations towards stakeholders, such as customers, suppliers and short term creditors, give companies the incentive to manage earnings although there are no explicit contracts related to accounting numbers. Suppliers might for similar reasons sell on more favorable terms to firms having used income increasing accounting methods. Titman (1984) argues that customers care about the future of a company if they expect future services, such as new versions of a computer program or repairs of products, from the supplier.

3.5.2 Firm Age

Many researches propose that investor's uncertainty decrease as the firm grows older. Evans, (1987) investigated the relationship between a firm's age and survival, where results were found ambiguous. Earlier studies suggested that young firms face higher risks of failure, however more recently, researchers began to take interest in the firm age role in the surveying firms. Calvo (2006) investigated how age affectsthe firm by focusing on samples of recently operating firms. Nevertheless other researches like Barron et al (1994) found that older firms face higher hazards when exiting the market. The following table summarizes independent and control variables.

Table (1): Independent and Control Variables

| Test Variables | Operationalization | Expected relation |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------|
| Independent Variables | | |
| Board Diversity (DIV) | Coded 1 if a firm has at least 1 director who is of ethnical background or is of different gender, and 0 otherwise. | — |
| CEO Duality (DUAL) | Coded 1 if the firm has a CEO who is also serving as the chairman, 0 otherwise. | + |
| Board Size (BSize) | The number of board members in the firm | + |
| Board Independence (IND) | Percentage of independent non-executive directors from total number of directors. | — |
| Control Variables | | |
| Financial Leverage (LEV) | Long term liabilities over total assets | + |
| Firm Age (AGE) | Total years in which the firm has been operating | + |

Independent and Control Variables expected relation

4 Methodology

4.1 Research Sample

Based on the sample chosen for previous researches, most used the 50 most active companies listed in the Egyptian Stock Market, however there were few researches found studying the SME market in this specific topic. Therefore, the sample database on which this research has been conducted includes only firms listed companies in Nile Exchange stock market; for the accessibility of data. The total number of firms sum up to a total of 23 companies, for the given years from 2011 to 2013. Annual Reports, Board of Directors Reports and Firm's Published Financial covering the years 2011 to 2013 have been gathered from EGID-Egyptian Company for Information Dissemination- and the firm's website.

4.2 Earnings Management

Consistent with prior researches, discretionary accruals was used as a proxy for financial misrepresentation or earnings management. Most prior literature used Modified Jones (1995) model because it was found to be superior to other existing methods in detecting abnormal accruals i.e discretionary accruals (Dechow et al., 1995). Later on, Bartov et al. (2001) discovered that the cross-sectional version of the model was more efficient than the time-series version; due to larger sample size. In addition it also solved the problem of survivorship bias (Peasnell et al., 2000). However, as the sample base in this research is considerably limited, this research will be following the Modified Jones model; as it was proven to be the most suitable for the circumstances under which the research was conducted. Furthermore, this model was modified

to eliminate the speculation about the ability of the Original model to measure the discretionary accruals when it is exercised over revenues.

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

Where

ΔREC_t = Net Receivables in Year t less net receivables in year t-1 scaled by total assets at t-1.

ΔREV_t =Revenues in year t less revenues in year t-1 scaled by total assets at t-1.

A_{t-1} =Total Assets at t-1

PPE_t = Gross property, plant and equipment in year t scaled by total assets at t-1.

$\alpha_1, \alpha_2, \alpha_3$ = Firm Specific Parameters

The estimates $\alpha_1, \alpha_2, \alpha_3$ and nondiscretionary accruals of the estimated period are obtained, when there is no systematic earnings management assumed, from the original Jones Model (Jones, 1995 cited in Dechow et. al, 1995).

The sole minor change made to the original Jones model is related to the revenues, where they were adjusted to the change of receivables in the period of measurement. The original model on

In the modified model, nondiscretionary accruals are estimated during the event period as:

the other hand assumes that discretion is not exercised over revenue in neither estimated nor event period. Whereas the modified model suggests that all changes in credit sales in the event period are a mere result from earnings managements; that is because it was found that it is easier to exercise earnings management by the disposition of the recognition of revenue on credit sales than on cash sales.

The model for calculating nondiscretionary accruals was originally developed by De Angelo 1986 (Cited in Jones, 1991). They both used total “normal” accruals as a difference between total current accruals and normal total accruals, which was then separated to what we know as discretionary and nondiscretionary accruals.

$$\Delta TA_t = (TA_t - TA_{t-1}) = DA_t - NDA_t$$

Where the composition of total accruals TA_t is used as follows:

$$TA_t = (\Delta Current\ Assets - \Delta Cash - \Delta Current\ Liabilities - Depreciation\ expense)$$

And the change Δ is computed between year t and year t-1

4.3 Independent And Control Variables

As stated above in the research, the independent variables consist of Board of Directors characteristics as :- (1) Board diversity (DIV), represented by a dummy variable, 1 if the board has at

least one member who is a female or of a different ethnic background, 0 if not; (2) CEO Duality (Dual), represented by a dummy variable, 1 if the firm's CEO also serves as the chairman, 0 if not; (3) Board Size (B Size), represented by a natural algorithm of the number of members in the firm's board; and finally (4) Board Independence (IND), represented by the percentage of independ-

ent non-executive directors of total number of directors serving on the firm's board.

Also two control variables were used in this research, (1) Financial Leverage, where leverage is calculated as the long term liabilities of the firm over the total assets; and (2) Firm's Age, computed as the total years in which the firm has been operating. A table of hypothesized direction of correlation, whether positive or negative, between the independent, control variables and dependent variable, can be found in Appendix 1 Table 1: "Independent Variables and Control Variables Expected relations".

Now that the methodology and hypotheses have been set, the selected sample database will be used to empirically test the research's hypotheses; to reach a conclusion as to whether board of director's characteristics affects the earnings management in small and medium enterprises in Egyptian firms.

5 Statistical analysis and results discussion:

In this part of the research, in order to formulate an appropriate answer as to whether Corporate Governance better regulates earnings management in small to medium enterprises in the Egyptian Market, there are certain calculations that must take place. All analysis presented below is done with the aid of SPSS – Statistical Package for Social Sciences-. Firstly, descriptive statistics for the variables is calculated, followed by Skewness and Kurtosis. Furthermore, correlation between variables is what shows if in fact the hypotheses are valid and to what extent these variables influence earnings management.

5.1 Descriptive statistics

First, the descriptive statistics was calculated, which can be seen in Table 2: 'Descriptive Statistics' below.

Table (2): Descriptive Statistics

| | Mean | Median | Std. Deviation |
|------------------------------------|-------|--------|----------------|
| Discretionary Accruals (DA) | 4.76 | 7.99 | 4.00 |
| CEO Duality (DUAL) | .95 | 1.00 | .21 |
| Independence (IND) | .61 | .67 | .15 |
| Board Diversity (DIV) | .58 | 1.00 | .50 |
| Board Size (BSize) | 3.97 | 4.00 | 0.97 |
| Firm Age (AGE) | 11.70 | 12.00 | 4.25 |
| Financial Leverage (LEV) | .078 | .01 | .17 |

Descriptive Statistics, SPS

It included the mean, median and standard deviation for each variable measured in this study. We found that the Discretionary accruals which represents Earnings Management, has a mean of 4.7563, while median stands at 7.598 from prior year total assets.

Furthermore upon the examination of the skewness for DA, it showed a value greater than zero; hence most values are concentrated on left of the mean, with extreme values to the right. In addition, the kurtosis, it signifies a Lepto-kurtic distribution confirming the skewness for probability of high values, which shows that significant non-normality, exists.

Furthermore, other important observations could be concluded from the table; firstly, that 95% of Chief Executive Officers also serve as the firm chairman – represented by DUAL variable-. Secondly, 61% of boards are dominated by non-executive members; this represents a good indication of board independence, thirdly, almost 58% of boards are diverse; which signifies that the number of female to male members is relatively high, also boards including members of different ethnic and cultural backgrounds. This helps promote a better work environment and better conformity to the firm's rules and regulations. Finally, the results showed that the average board size is composed of four board members.

Table (3) Skewness and Kurtosis

| | DA | DUAL | DIV | BSize | IND | AGE | LEV |
|-----------------|-------|-------|-------|-------|------|------|------|
| Skewness | 3.62 | -4.43 | -.78 | .47 | -.83 | -.18 | 2.46 |
| Kurtosis | 20.65 | 18.17 | -1.45 | -.64 | -.49 | -.87 | 5.25 |

Skewness and Kurtosis, SPSS

5.2 Correlation

After the descriptive statistics was calculated for the variables, Correlation analysis has been performed to check the relationship between independent

and dependent variables. Also it is used amongst independent to check whether multi co-linearity exists. Test results are shown in the following table:

Table(4): Correlation Matrix

| | | DA | DUAL | DIV | BSize | IND | AGE | LEV |
|--------------|---------|---------------|---------------|---------------|---------------|-------|------|-----|
| DA | Pearson | 1 | | | | | | |
| | Sig. | | | | | | | |
| DUAL | Pearson | -.008 | 1 | | | | | |
| | Sig. | .475 | | | | | | |
| DIV | Pearson | .064 | -.152 | 1 | | | | |
| | Sig. | .307 | .113 | | | | | |
| BSize | Pearson | .000 | <u>-.232*</u> | <u>-.224*</u> | 1 | | | |
| | Sig. | .498 | .031 | .036 | | | | |
| IND | Pearson | -.010 | .316** | -.111 | <u>.274*</u> | 1 | | |
| | Sig. | .469 | .005 | .190 | .014 | | | |
| AGE | Pearson | .059 | -.120 | -.004 | <u>-.212*</u> | -.025 | 1 | |
| | Sig. | .319 | .170 | .489 | .045 | .421 | | |
| LEV | Pearson | <u>.490**</u> | .091 | .158 | .166 | .074 | .071 | 1 |
| | Sig. | .000 | .236 | .104 | .093 | .279 | .287 | |

Correlation Matrix, SPSS

According to the first hypothesis, it was hypothesized that there should be a significant positive association between the CEO duality and earnings management, Pearson correlation proves otherwise; with a coefficient -0.08 and $p > 0.05$. Hence, statistically in SMEs, there is a negative relationship between the duality and earnings manipulation; however, this relation is insignificant. This represents that with the duality of the position, given that the CEO also acts as the chairman, this does not urge the chairman to manipulate the earnings figures. Therefore, the first hypothesis has been rejected.

In addition, the analysis has rejected the second hypothesis as well, where it assumed that there is a significant negative relationship between the board diversity, through the presence of female members and members of different ethnic background. It was proven the opposite; as the coefficient 0.64 with $p > 0.05$; this means in fact, that there is an insignificant positive relationship; consistently meaning that with the presence of diverse board increases the manipulation of discretionary accruals, which consists with the research of Richard (2000).

One hypothesis direction has been proven valid is the board independence, nevertheless this relationship has an insignificant value; with coefficient -0.01 and $p > 0.05$. Therefore, as the number of non-executive members increase in the firm's board, the level of managing the earnings decreases; this strengthens the direction of the assumption as stated by Park and Shin (2004).

The most intriguing result of all, was finding that board size and earnings management in Small to Medium enter-

rprises are in fact uncorrelated. This means that the increase or decrease of the size of board members shows no influence on their tendency to manipulate the earnings. Even though the data proven is relevant, however it seems somewhat practically is redundant; as most SMEs in Egypt are family based.

Other than the hypothesis suggested by this study, Pearson analysis validates a number of significant correlations: Firstly, financial leverage and Earnings Management; shows a positive correlation with coefficient 0.49, suggesting that with the increase of financial leverage in firms, this stimulates the urge to manipulate their earnings. This can be explained with the fact the when the firm is becoming more debt oriented – depending on more debt than equity to finance long term asset-, this may submerge the firm under the pressure of refinishing their image, hence adjusting their earning figures. Secondly, Board Size and CEO Duality/Board Diversity; shows a negative correlation with coefficient -0.232 and 0.224 respectively. Finally, firm Age and Board Size; shows a negative correlation with a coefficient -0.212, there might not be a valid explanation for this phenomenon; for it suggests that with the increasing age of the firm, the board members size tends to become less.

5.3 Regression Model

The results show the explanatory power of the model as measured by the R Square and adjusted R Square. The latter, 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 25.6%. Therefore, the mo-

del adequately describes the data. Regression test results are shown in the

following table:

**Table (5): Regression Model
R²**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .506 ^a | .256 | .179 | 3.62451 |

R², SPSS

6 Conclusion and limitations

To conclude for many years boards of directors have been considered as one of the main instruments at the shareholders disposal to monitor and control manager's behavior. Hence it makes much sense that any intent to identify the board's features and actions are a mere motive to know more in depth about their ability to reduce the possible managers' discretionarily. This paper investigated how an effective board of directors enables a better monitoring mechanism for firms in the Egyptian market to ensure high quality and transparency when transmitting the actual figure of earnings.

This research finding's consistently supported the direction of the third hypothesis; that there is a negative relationship between Board Independence and Earnings management. This result may be interpreted as due to the dominance of family-controlled firms in Egypt, which may result in family dominance over board matters. On the other hand, we found out that Board Size and Earnings Management is uncorrelated, which maybe explained by the fact that the sample is based on small to medium enterprise, which are mainly family based, hence the size will no matter in this case.

As for the first two hypotheses suggested about the relationship between

CEO duality and diversity and the manipulation of earnings management in the firm; they both have been rejected. The research proved that in small to medium enterprises, the fact that a CEO also acts as a chairman does not provoke the person in charge to manipulate the earnings to enhance the image of the company or himself. However, it was suggested that with the increase of female members on the board and ethnic diversity would encourage transparency in reporting the actual earnings, however it was proven that it promotes the opposite.

With all the results showing mixed signals of positive and negative, they have all been proven insignificant; hence any change in the characteristic of the board members will not promote or encourage the act of manipulating earnings. However the sample upon which the research is based is considerably a small sample; given most of the Egyptian market is dominated by small and medium enterprises.

One of the limitations that we faced while conducting this research, was testing a variable like management Competency in this emerging market and how the level of accounting background helps the CEO be associated with less earnings management, and whether their prior accounting and finance knowledge affects the strength of this rela-

tionship and whether it makes it stronger, weaker or even help moderate it. That was an issue of data accessibility, this type of information is not publicly accessible, since there is no form of public disclosure on the background of the board of directors in any company. Therefore, any means of data collection has to be done through personal contact, such as interviews with the board itself, and this is subject to the lack of reluctance from the board's side to disclose this information. In addition, for future researches conducted, the small to medium enterprises could be dissected into different industries and each would be empirically tested on its own; however data accessibility will remain one of the main barriers when it comes to conducting a research on small and medium enterprises in Egypt.

7 References

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