

## **The effect of Audit Quality on Earnings Management in Developing Countries: The Case of Egypt**

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### **Abstract**

Over the past years, the markets have witnessed several accounting scandals mainly because of the manipulation of the accounting figures reported in the financial statements. This has led to questioning the ability of auditors to effectively constrain such practices, especially in developing countries. The purpose of this study is to examine the effect of Audit quality on Earnings Management in the listed firms in Egypt. In this research, OLS regression analysis is used to explore the relationship between Audit quality proxies which are Audit firm size, auditor industry specialization and auditor tenure and Earnings management in listed companies during the period 2012-2016. The results revealed that; auditor tenure has a significant positive relationship with earnings management, while the rest of the Hypotheses indicate that the other variables remain to have an insignificant relationship with earnings management.

### **Keywords:**

### **I. Introduction**

The last decade has witnessed several accounting scandals, mainly because of the manipulation of the accounting figures provided in the financial statements. (Goncharov, 2005) Because during the preparation of financial statements managers can have the opportunity to exercise judgment in financial reporting, as they have motives to mislead the users of financial statements through the use of different accounting choices in financial reporting (Barzegar and Salehi, 2008).

The following dilemma has raised a serious question about the effectiveness of auditor role in monitoring and controlling managerial opportunistic behavior, since the responsibility of the audit mechanism in ensuring the quality of reported earnings has received considerable inspection due to recent corporate accounting scandals. The audit quality provided reflects a variation in the credibility offered by the auditors, and in the earnings quality of the clients. (Lin and Hwang, 2010)

However, the quality of auditing function may vary, given there are many audit firms with different capabilities. Audit quality describes how well an audit detects and reports material misstatements of financial statements. (Gul *et al.*, 2009) High audit quality should be associated with high information quality of financial statements because financial statements audited by high quality auditors should be less likely to contain material misstatements (Balsam *et al.*, 2003) and consequently reduce earnings management.

Still, it is noticeable that the measurement of audit quality is complex and problematic (Broberg *et al.*, 2017) as it cannot be directly observed. Therefore, it has to be measured using different indirect proxies. This study employs audit firm size, auditor industry specialization and auditor tenure as indicators of audit quality.

Accordingly, the purpose of this study is to provide evidence on the relationship between the Audit Quality and earnings management in one of the developing countries, which is Egypt.

## **II. Background**

There is a growing attention on earnings management among practitioners and regulators in the accounting literature (Shah *et al.*, 2009). This is because of the manipulation methods used in order to permit managers to meet reporting goals under certain economic circumstances (Chen *et al.*, 2006), which affect the healthy life of business firms and their financial statements; it also distorts the interests of stakeholders.

Earnings management has various definitions, but they all share the same underlying meaning reflecting that earnings management's objective is to misrepresent a firm's performance.

Earnings management has been defined by Schipper (1989, p. 92) as “*a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain*”

Another commonly used definition by Healy and Wahlen (1999) is that earnings management takes place when managers try to maneuver transactions that can affect the outcome presented in the financial reports in order to hide the real economic performance of the company or to influence some contractual outcomes.

According to Fields *et al.* (2001), earnings management is initiated from the flexibility of accounting choices given by the Accounting Principles, allowing managers to choose the proper reporting procedures and pick assumptions and estimations that are suitable for each business environment. Giving managers with an opportunistic behavior a chance to choose certain reporting procedure that helps them maximize their wealth (Watt & Zimmerman, 1990). Therefore, Stakeholders find it hard to recognize the exact net worth and economic value of a firm, as financial reports do not reflect the actual performance of the firm.

Earnings management is commonly estimated in literature using the discretionary accruals models; it is popular that discretionary accruals are usually used as a synonym for earnings management (Kothari 2001).

### **Audit quality and earnings management**

From an agency theory perspective when the interests of management conflict with the interests of stockholders, management may not act in the best interests of stockholders. Management compensation is usually tied to reported earnings therefore managers have incentives to manage reported earnings and they often have the ability to do so. (Healy & Wahlen 1999) Thus, an auditor is required to provide reasonable assurance that financial statements are free of material misstatements and therefore protects the interests of stockholders.

Auditors of higher quality are less willing to accept doubtful accounting methods and are more likely to report errors and irregularities revealed during the audit work. Thus, the external auditor is considered to have an impact on the effectiveness of the firm's monitoring function, and hence the incidence of earnings management. (Johl *et al.*, 2003)

Suseno (2013) emphasizes that audit quality is normally related to the capability of the auditor to identify material misstatement in the financial statements. It is also concerned with the auditor willingness to disclose an unbiased audit report based on the audit result. Gul *et al.* (2009) define audit quality as the auditor ability to detect and correct misstatements and

Yu (2011) indicates that audit quality occurs when an auditor issues a report, which is appropriate for the current circumstances. In this study we define audit quality as the audit that is performed by a highly specialized, independent auditor who issues a proper opinion based on the appropriate evidence.

Efforts in measuring audit quality can be classified to direct measures and indirect measures. Direct measures include financial reporting compliance with GAAP, quality control review, bankruptcy desk review and SEC performance. Examples of outcome measures of audit quality include litigation or regulatory enforcement actions against auditors, correct issuance of a going concern opinion, and, under certain circumstances, auditor switches (Francis 2011). These proxies are limited in the sense that they only effectively identify examples of poor audit quality. On the other hand, audit firm size, auditor tenure, industry expertise, audit fees, economic dependence, reputation and cost of capital are indirect measures of audit quality (Chadegani, 2011). This study refers to the indirect proxies as they can reveal high and low levels of audit quality.

### **III. Hypotheses Development**

#### **III.1 Audit firm size and Earnings Management**

The variation in audit quality provided by Big Firms and Non-Big audit firms has received considerable attention in prior research. Most auditing studies categorize audit firms as a big 4/5/6/8 firm or a non-big firm. A big audit firm is perceived as prestigious and reputable that consequently provides high audit quality.

The Big 4 auditors can sustain a high audit quality level due to the fact that they have a greater number of clients, thus revenues are derived from several clients so their revenue streams will not be affected by a single client, which makes them more independent. Lee *et al.* (1993) in Febrianto and Widiastuty (2010) also stated that if the audit firm and the client are small-sized firms, then there is a high probability that the income of the audit firm relies mainly on the audit fee charged from certain clients, confirming that non big four are more dependent on their clients than big four.

Moreover, Big 4 have greater opportunities to deploy significant resources to auditing. According to Lawrence *et al.* (2011) the largest audit firms are considered to have more resources -financial and operational- and therefore they can provide better services. Also, DeAngelo (1981) and Lawrence (2011) referred to the greater competencies that large audit firms possess because of their large investments in audit technology and staff training. Thus, the larger the audit firm, the higher the quality of the audit and the better the quality of the accounting information reported.

Consistent with these findings, Soliman and Ragab (2014) and Inaam *et al.*, (2012) confirmed that audit quality proxied by audit firm size is negatively associated with earnings management when earnings management is measured by using discretionary accruals.

Kordelas (2012) investigated earning management and audit quality in public companies in USA listed at NYSE and NASDAQ stock exchanges during 2000-2010. The findings show that audit firm size has a negative and significant correlation with discretionary accruals. It indicates that big 4 auditors produced lower discretionary accruals than non-big 4 did.

It is enlightening to note that the researches examining the ability of audit quality to constrain earnings management were usually performed in developed countries like USA where effective audit and oversight mechanism for auditors exists.

According to Jeong & Rho (2004) if the institutional setting does not encourage high quality audits, auditors may not constrain the earnings management practices of clients who may then behave opportunistically. They examine whether Big Six auditors provide higher quality audits in Korea where the institutional setting does not motivate auditors to provide high-quality audits. They find no variation in audit quality provided by Big Six and non-Big Six auditors, under weak regulatory institutional regimes, Big 4 auditors may not provide higher audit quality than non-Big 4 auditors (Ajekwe and Ibiame, 2017).

Furthermore, yasar (2013) examined the firms in Istanbul stock exchange during 2003-2007, finds that audit firm size does not have an impact on discretionary accruals, and argued that the audit quality of Big Four may not restrain accrual earnings management in some institutional environments.

H1: there is a significant relationship between audit firm size and earnings management

### III.2 Industry specialization and Earnings Management

Industry specialization is considered to be another proxy for audit quality. Industry specialist auditors are audit firms that have significant knowledge and expertise in a particular sector due to the continuous work in certain field (Gul et al., 2009 and Sun and Liu, 2011). Cahan *et al.* (2008) expected that the attractiveness of specialization will be directly related to the amount of industry-specific knowledge requirements needed to complete the audit, and that these requirements are likely to vary widely across industries.

Kusharyanti (2003) stated that auditing procedures in manufacturing companies and insurance companies are almost the same, but the nature of business, accounting principles, accounting systems, and prevailing tax rules may be different, which necessitates audit firms to have specific knowledge on the characteristics of certain industries that affect auditing. He also acknowledged the specialist auditor's ability to recognize any audit risk linked to the features of the industry.

The significance of specialization is reflected in the client's willingness to pay a premium to industry specialists for this reason because it reduces costs associated with higher information asymmetry for the client firm (Balsam *et al.*, 2003; Krishnan, 2003).

It is argued that higher audit quality is provided when audits are conducted by specialists, they are expected to have a deeper knowledge compared to non-specialists because of their expertise and experience in a particular industry, which places them in a better position to make better audit judgments (Bierstaker et al., 1999). In addition, Solomon *et al.* (1999) argue that industry specialist are able to produce higher quality audit work, they also find that specialist auditors have more accurate non-error frequency knowledge than non-specialists.

The industry knowledge discussed before enables specialist auditors to provide higher quality audit service to the clients by controlling the management opportunistic behavior and detecting fraud and earnings management. The majority of the literature has focused on earnings quality by examining the effect of industry specialization on constraining earnings management. For example Rusmin (2010) argue that the discretionary accruals of industry

specialist auditor clients are lower than discretionary accruals of non-industry specialist clients.

In addition, Kwon et al. (2007) extend evaluation of the impact of specialist auditors on earnings quality of firms across countries and they document that audit by industry specialists is especially effective in improving earnings quality in countries with weak legal environment. Following their work, Jaggi *et al.* (2012) confirmed the negative association between industry specialist auditors and earnings quality only in countries with weak investor protection.

However, other studies found no considerable difference in earnings management level proxied by discretionary accruals of firms audited by industry specialist auditors (e.g., Jenkins *et al.*, 2006 and Chi *et al.*, 2009).

H2: there is a significant relationship between auditor industry specialization and earnings management

### III.3 Audit tenure and Earnings Management

Myers et al. (2003) defined auditor tenure as the number of years an auditor is retained by the firm, in other words it is the length of the auditor- client relationship. Following prior research, audit tenure is identified as short when the same auditor has audited the financial statements of a company for two or three years (Stice, 1991).

Recent studies show that a long audit relationship improves the conditions of the audit work performance. Thus, they argue that the duration of the audit-client relationship can have a positive impact on the quality of the audit performed.

The accounting profession mentions that with short tenure, there are more risks involved, because auditors with insufficient client-specific knowledge has to rely more on estimates and representations made by the client and this can be avoided with the client-specific knowledge and experience that can only be accumulated over time are important for auditors to produce a high quality audit (Chi *et al.*, 2009)

Casterella and Johnston (2013) state that auditing the same firm for several years allows auditors to gain valuable knowledge about their clients, when the audit firm tenure increases, the auditor's ability to evaluate the risk of material misstatements increases as they gain more experience and better insights into the client's operations and business strategies as well as internal controls over financial reporting. Confirming the findings of Brooks *et al.* (2011) about the auditors experience perspective, audit quality raises when audit tenure increases as the auditor gains a better understanding of the client system, industry environment, business and internal controls.

The previous studies testing the effect of auditor tenure on earnings management by Balsam *et al.* (2003) and Reichelt and Wang (2010) have reported a significant negative relationship between auditor tenure and earnings management. Thus, a long tenured auditor can minimize manipulations of discretionary accruals.

Hassanzadeh *et al.* (2013) tested the effect of audit tenure on earnings management in Tehran during 2008-2011 using a sample of 73 listed firms in Tehran stock exchange and found that there is a negative relationship between audit tenure and earnings management.

However, other studies consider that a long relationship audit could corrupt the auditors' independence, and thus the existence of a negative relationship between the duration of the audit relationship and audit quality (Meys *et al.* 2003). Bearing in mind that familiarity tends to create unavoidable client pressures on the auditor if a situation of audit conflict arises.

Also, Davis *et al.* (2003), declare that discretionary accruals increase with auditor's tenure, providing evidence that audit tenure is associated with lower financial reporting quality. They conclude that management gains additional reporting flexibility and it becomes easier to meet earnings forecasts.

H3: there is a significant relationship between auditor tenure and earnings management.

#### **IV. Research Methods**

##### **IV.1 The proxy for earnings management (Dependent Variable)**

Earnings management is not observable; but the commonly used measure is discretionary accruals (Johnston & Rock, 2005) as managers prefer to practice earnings management through managing accruals as this technique is less detectable and external users of financial statement cannot distinguish any misstatement easily (Habbash 2010).

While there are many ways to estimate discretionary accruals, the Modified Jones Model has been shown to outperform other discretionary accrual models in detecting earnings management as it results in a smaller amount of errors in computing discretionary accruals when compared to prior models based on the study conducted by Dechow *et al.* (1995).

This study computes the Non-discretionary accruals using the Modified Jones model by Dechow *et al.* (1995):

$$NDA_t = \beta_1(1/A_{t-1}) + \beta_2[(\Delta REV_t - \Delta REC_t) / A_{t-1}] + \beta_3(PPE_t / A_{t-1})$$

where:

$\Delta REV_t$  = revenues in year t less revenues in year t-1;

$\Delta REC_t$  = net receivables in year t-1.

$PPE_t$  = gross property plant and equipment at the end of year t;

$A_{t-1}$  = total assets at the end of year t-1;

$\beta_1, \beta_2, \beta_3$  = firm-specific parameters (estimated using a different model).

First, total accruals should be determined and by referring to previous studies (Shah *et al.*, 2009 and Soliman and Ragab 2014), the cash flow statement approach is applied to find out the total accruals.

Total accruals are calculated as follows:

$$TAC_t = NI_t - CFO_t \quad (1)$$

Where:

$TAC_t$ : total accruals in year t

$NI_t$ : net income in year t

$CFO_t$  : cash flows from operating activities in year t

All the variables are scaled by previous year total assets to reduce the heteroscedasticity of the regression.

Second, an OLS regression is used to obtain industry-specific parameters for the model of the Non-Discretionary Accruals (NDA) equation, a regression equation is used to find those parameters and this equation is as follows:

$$TAC_{it}/A_{it-1} = \beta_1j[1/A_{it-1}] + \beta_2j[(\Delta REV_{it}/ A_{it-1})] + \beta_3j[PPE_{it}/ A_{it-1}] + \epsilon_{it} \quad (2)$$

Finally, after calculating the total accruals using the cash flow statement approach and calculating the non-discretionary accruals using the equation of the modified Jones model 1995, the discretionary accruals can then be calculated using the following equation: (Uwuigbe *et al* 2015).

$$DAC_{it} = TAC_{it}/A_{it-1} - NDA_{it} \quad (3)$$

#### IV.2 Measures of Audit Firm Size

The first independent variable being investigated in this study is the auditor size. Following Becker *et al.* (1998) suggestion, this study utilized Big Four auditors to proxy for higher audit quality and used non Big Four auditors to a proxy for lower audit quality. Evidence exists that earnings of firms audited by Big N audit firms have superior quality compared to firms audited by non-Big N audit firms (e.g. Krishnan, 2003).

A dummy variable is used to measure the audit firm size, 1 is given to the firm if it is audited by one of the big 4 firms while it is given 0 if otherwise (Soliman and Ragab, 2014; crockett and Ali, 2015; Habbash and Alghamd, 2017). Big 4 audit firms are the four international audit firms PriceWaterhouseCoopers, Deloitte & Akintola Williams, KPMG and Ernst and Young; while the others are the non-Big 4.

#### IV.3 Measures of Industry Specialization

In addition to auditor size, this study also considers industry specialization auditors to be another proxy for audit quality like Krishnan (2003). The rationale is that industry specialization auditors invest heavily in technologies, physical facilities and personnel that enable them to detect irregularities and misrepresentations more easily (Kanagaretnam *et al.* 2010).

Most measures of auditor industry specialization are based on the market share of the auditor (Van Bergen, 2013) because industry expertise is obtained by repetition of the audit task in similar settings and therefore people perceive that auditing a large share of a certain industry indicates specialization (Balsam *et al.* 2003).

The market share approach describe an industry specialist as an audit firm that has a larger market share in comparison with other competitors in a particular industry. Mayhew and Wilkins (2003) confirm that large market share firms are capable of enhancing more industry-specific knowledge and expertise which leads to a higher quality service than small market share firms.

The commonly used measure is the relative sales of a client firm within a given industry (Balsam *et al.*, 2003; Krishnan, 2003). However, this method is relatively complicated as total sales of each industry are difficult to find in database. This research will try to measure market share using client numbers in specific industry (Rahmat and Iskandar, 2004) such a base avoids the bias towards large clients that is implied by using sales as the base. Thus, situations where an auditor has a number of small clients in an industry and has developed the

knowledge base to be a specialist may be captured by a number-of-clients-based measure and not by the sales-based measures.

According to the studies of Mohd Iskandar and Aman (2003) and Ahmed *et al.* (2016), industry specialization is calculated as follows:

$$\frac{\text{Number of audit clients of the firm}}{\text{Number of audit clients of all firms}} \times 100$$

A dummy variable is used, in accordance with Rusmin (2010) if audit firms has a 20% threshold or more of audit market share in a particular industry then the auditor is specialized in this sector 1 is given, otherwise is 0.

#### IV.4 Measures of Auditor Tenure

Audit tenure reflects the relation between auditor and client; it is one of the most controversial issues in the study of discretionary accruals. After the audit scandals in the last decades, it is argued that long tenure damages auditor's independence, scepticism and even audit quality. However, some studies argue that long audit firm tenure helps improve audit quality by increasing auditors' ability to detect earnings management (Myers *et al.*, 2003) , still these positive findings were formed by testing US observations where investors have high protection.

Some prior studies like Myers et al. (2003), measure tenure as the cumulative number of years the auditor has been employed by the firm. However, we do not employ a continuous measure for auditor tenure following lim *et al.* (2010) as they preferred the use of dummy variable taking into consideration that the relation between auditor tenure and audit quality may not be linear.

Following Almomani (2015), who used the client retention period as one of the audit quality indicators. We use a dummy variable when the client is maintained by audit office for more than three continuous years it is given 1 and 0 when it is audited for less than 3 years. (Liu, 2012 and Okolie, 2014)

#### IV.5 Control Variables

Controlling the determinants will lead to stronger findings in future studies of earnings management because they help mitigate the impact of omitted variables on earnings management. (Dechow *et al.*, 2012).

##### IV.5.1 Firm size and earnings management

Client size was included in the model because it might have 2 different effects on discretionary accruals. According to Kordelas (2012), big firms have less incentive to be involved in earning management because their financial statements are inspected and analyzed by third party financial specialists, so the larger the company, the less chance they perform earning management.

On the other hand, some researchers argue that the larger the firm size, the higher the likelihood that the managers will engage in earnings management. Watt and Zimmerman (1990) found that larger firms are associated with higher political costs, and that there is thus a higher incentive to manipulate reported earnings. Moreover, Alzoubi (2016)) argue that the larger the firms in Iran, the more they engage in earnings management in order to be

perceived more favorably by shareholders Suggesting a positive relationship between firm size and earnings management.

Firm size is measured as the natural logarithm of total assets ( Rusmin 2010 and Uwuigbe *et al.*, 2015)

#### IV.5.2 Firm's financial leverage

Highly leveraged firms could be expected to engage more in upward earnings management to avoid debt covenant violations (Watts and Zimmerman, 1990) In particular, highly leveraged firms have a greater incentive to engage in managing the discretionary accruals to avoid debt covenants violation, this may suggest a positive relationship between leverage and earnings management.

On the contrary, some studies proved that the increase of debt can constrain the opportunistic behavior of managers. Jelinek (2007) studied the effect of leverage increase on accrual earnings management and concluded that increased leverage is associated with lower levels of earnings management

Finally, financial leverage is measured using the total debt ratio, which is calculated by dividing total debt, by total assets of the firm as used in the researches done by (Rusmin 2010 and Uwuigbe *et al.* 2015).

#### IV.5.3 Cash flow from operations (CFO)

The control variable CFO is included because firms with higher cash flow from operations are more likely to be better performers (Frankel *et al.*, 2002). Sloan (1996) concluded that on average accruals and cash flows are negatively correlated.

Cash flow from operations is measured as net cash flows from operations scaled by the beginning book value of total assets. Consistent with previous literature (Chen *et al.*, 2005 and Habbash and Alghamdi, 2017)

#### IV.6 Data

The unit of analysis in this research will constitute of a sample with a population of firms that are listed in the Egyptian stock exchange (EGX). The study is using the companies included in the Egyptian index EGX100 as its sample, this index tracks the performance of the most 100 active companies in Egypt. This study covers the financial period over 5 years from 2011 to 2016.

The secondary data were extracted from annual reports and non-consolidated financial statements of the companies which are included in the Egyptian index EGX100 on 31 December 2016. However, financial and insurance companies were excluded since they have specific practices and operations, prior studies such as Chen *et al.* (2005) and Habbash (2012) suggest that financial and insurance companies have an incentive to apply different accounting practices leading to difficulty in capturing management's opportunistic manipulations, so 20 firms are excluded which leave us with 80 firms. Finally, 10 firms are eliminated due to a lack of sufficient data, reducing the sample size to 70 firms, which leaves us with a sample of 350 observations.

## V. Model Specifications

We apply ordinary linear regression analyses to test the relationship between the dependent variable (DAC) and the identified independent audit variables.

The model is specified as follows:

$$|DAC| = \beta_0 + \beta_1(\text{Big4}) + \beta_2(\text{SPCZ}) + \beta_3(\text{TNR}) + \beta_4(\text{SIZE}) + \beta_5(\text{LVR}) + \beta_6(\text{CFO}) + \varepsilon$$

Where:

|DAC|: absolute value of discretionary accruals

Big4: audit firm size

TNR: auditor tenure

SIZE: client firm size

LVR: financial leverage of client

CFO: cash flow from operations

$\varepsilon$ : error term

## VI. Results

### VI.1 Descriptive statistics

the results state that the mean value of the dependent variable which is the absolute discretionary accruals |DAC| for the selected sample of firms is equal to (0.711) with a standard deviation of about (8.4%), close to the findings of Chen *et al.* (2011) whose distribution of the values showed that the mean value of discretionary accruals was 0.094, which reflects the average level of earnings management.

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Table 1: Sample descriptive statistics

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Descriptive statistics for full sample, n = 350

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Variable	Minimum	Maximum	Mean	Std. Deviation
DAC	.00	.53	.0711	.08423
BIG4	.00	1.00	.4171	.49379
SPCZ	.00	1.00	.3857	.48746
TENURE	.00	1.00	.5629	.49674
SIZE	7.37	10.57	8.9021	.70714
LVR	.00	2.84	.4095	.33808
CFO	-.62	.39	.0316	.10049

VI.2 Main results

Table 2: Regression results for earnings management

$ DAC  = \beta_0 + \beta_1(\text{Big4}) + \beta_2(\text{SPCZ}) + \beta_3(\text{TNR}) + \beta_4(\text{SIZE}) + \beta_5(\text{LVR}) + \beta_6(\text{CFO}) + \varepsilon$		
Model	Unstandardized coefficients	Significance
(Constant)	.264	.000
BIG4	.014	.153
SPCZ	-.003	.789
TENURE	.020	.022
SIZE	-.025	.000
LVR	.039	.007
CFO	-.083	.107

\*Adj R square = 0.084

\*Model sig = 0.000

The adjusted R square of the model as shown in table 4.6 amounts to (0.084) which means that 8.4% variation in the dependent variable (earnings management) is explained by the independent variables (Audit Quality). This value is somehow low but this is due to the existence of many other factors that might affect earnings management like those of corporate governance.

According to the results in table 2, the auditor tenure is the only significant independent variable to the dependent variable (Discretionary accruals) which leads to accepting the third hypothesis, which means that the longer the relationship between the auditor and the client the higher the discretionary accruals reported demonstrating a lower audit quality and subsequently an increase in earnings management.

Furthermore, there is no significant relationship between the audit firm size and discretionary accruals, which means that big 4 could not constrain the accrual earnings management performed by managers in the Egyptian listed firms. Also The results show an insignificant relationship between industry specialization and discretionary accruals which indicates that there is no significant difference between industry specialist auditors and non-specialists in constraining earnings management.

Finally, the control variable client firm size is significantly negative in relation to earnings management and financial leverage is significantly positive to earnings management. However, the CFO variable is insignificant in relationship to the dependant variable.

**VII. Conclusions and Limitations**

According to the findings, we found that the two audit proxies. Audit firm size and Auditor industry specialization fail to support the argument that auditor can play a role in constraining earnings management practice. To begin with, firms audited by Big4 reported same levels of discretionary accruals like those who are audited by Non-big 4, contradicting the concepts of Becker *et al.* (1998) and DeAngelo (1981), and questioning the wide use of audit firm size as a measure of audit quality in the accounting literature. However, the findings are consistent with Yassar (2013) who referred to the dissimilarity between the audit environment in developing countries and developed countries like USA and UK.

Next, is the inability of specialization to affect the level of discretionary accruals in the Egyptian stock market, which also contradicts most of the prior literature. The reason why

specialized auditors can't reduce earnings management might be that specialization is still in an early stage in Egypt also a very small number of firms are audited by specialized auditors. The third audit proxy which is auditor tenure, had a significant effect on earnings management, as the retention period increases the amount of discretionary accruals reported by auditors tend to increase. According to Lys & Watts, 1994 tenure increases the level of closeness between auditors and clients, threatening auditor's independence leading to excessive familiarity because of long audit tenure. Furthermore, it is argued that audit team shows less skepticism among long tenure leading to an increase in earnings management (Carcello and Nagy 2004).

It comes into sight that firm's size and financial leverage have effect on earnings management, as firm size increase managers engagement in managing accruals decrease as they are being monitored by external parties and their performance is relatively stable (Ahmad *et al.*, 2014). But, when it comes to financial leverage it has a positive relationship earnings management, as the firm is highly leveraged the expected level of discretionary accruals increase, because managers try to manipulate the figures in order to avoid any debt covenant violations and to make the firm perceived favorably (Farouk and Hassan, 2014).

The study rejects the agency theory prediction that effective audit quality characteristics could reduce earnings management; at least not in all cases, it can be concluded that this concept is not always valid in developing countries. The Investor protection might be one of the reasons for such a conclusion because countries with stronger investor protection have lower levels of discretionary accruals as (Enomoto *et al.*, 2012). Another reason might be the weak regulatory regimes in developing countries which reduces the auditors' exposure to litigation risk. These reasons indicate that the auditor effectiveness is highly dependent on the national audit environment.

The limitation in this study is that Earnings management and auditor quality are unobservable so reliance was placed on proxy measures that are widely used in accounting literature, however, these measures are not free of criticism.

Future research could consider other Audit quality proxies rather than those used in this study, that might have a greater impact on discretionary accruals and consequently on earnings management like auditor's opinion in its audit report and the auditor's level of experience for example. It is proved that the audit quality proxies used in this research, explain a small percentage of the variations in earnings management.

Another point is that the results cannot be generalized, because the research is conducted only on the firms listed in the index EGX100 and not all the firms listed. Also, there might be other factors that can explain the changes in earnings management.

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