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# Antecedents and Consequence of Governance Characteristics, Earnings Management, and Company Performance: An Empirical Study in Iraq

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## Abstract

The outbreak of the financial crisis, the lack of corporate governance practices in Iraqi companies, the high level of earnings management (EM), and weak firm performance (FP) have all encouraged the purpose of this study. This study proposes to achieve the following objectives: (I) to investigate the influence of governance mechanisms on the earnings management practices, (II) to investigate the consequence of EM on FP. The study sample includes 65 Iraqi firms listed on the Iraqi stock exchange for six years from 2012 to 2018, with 390 firm-year observations. The hypotheses were tested using panel data regression. According to the findings, Iraqi companies prefer to use real EM rather than accruals EM to avoid reporting losses. Discretionary cash flow, production costs, and cash flow from operation are examples of actual operations employed to undertake EM. Furthermore, according to the findings of this study, board meeting frequency and female onboard have a significant and negative influence on EM. Besides, the internal audit function was found not to affect EM. On the other hand, results revealed a significant and negative relationship between EM and FP. According to the study, management prefers to minimize cash and accrual expenditure during the economic downturn.

**Keywords:** M-Score Model, Return on Assets, Internal Audit Function, Board Meeting Frequency, Female on Board

**JEL Classification Code:** C58, G20, M21, C12, M14

## 1. Introduction

In recent years, earnings management (EM) has increasingly received attention from accounting scholars and academic researchers and has become a significant issue in accounting literature (Kankanamage, 2016). In accounting, earnings management is a method of manipulating financial records to improve the appearance of the company's financial position. Companies use earnings management to present the appearance of

consistent profits and to smooth earnings' fluctuations (Idris et al., 2018). Accordingly, opportunistic behavior and manipulation that happen on financial statements play an essential role in some of the accounting scandals that occurred in many companies across the globe (Gopinath et al., 2015). Nonetheless, previous research has linked EM to firm performance (FP) (Espahbodi et al., 2018). Likewise, prior studies have clarified how managers select special accounting procedures and how these procedures influence FP (Tang & Chang, 2015). As a result, the link between EM and FP varies depending on the management quality of a company (Dakhlallah et al., 2020).

Besides, corporate governance (CG) can reduce or even eliminate the extent of earnings management. Corporate governance is the collection of mechanisms, processes, and relations used by various parties to control and operate a corporation. A large number of corporate accounting scandals around the world reduced the trust and reliability of financial reports. The codes of corporate governance provide a common standard for governing a corporate business (El Diri et al., 2020; Al-Rahahleh, 2017; Kakanda et al., 2017). Mohamad et al. (2020) stated that

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the fundamental goal of the CG is to defend the interests of shareholders by monitoring management. Besides, CG can lead to professional, transparent, and clean management (Gras-Gil et al., 2016).

Accordingly, this study focuses on EM practice in Iraqi companies because many Iraqi companies practice EM. However, according to previous reviews about the Iraqi listed companies, most Iraqi companies suffer from opportunistic EM practices (Donker & Zahir, 2008). Iraq is going through a transition state to improve its economic system, leading to significant developments in the Iraqi economy, especially in the Iraqi security exchange (ISX) and Iraqi companies. This transmission will lead to growth in the years to attract foreign investors and foreign companies to invest in Iraq. Therefore, this study proposes the CG mechanism to limit the EM practices in Iraqi listed companies. On the other hand, when it comes to the association between CG and EM, there are not many studies in Iraq that have looked at it. Therefore, this paper investigates the opportunistic type of EM in Iraqi companies, examines how CG limits this type of EM practices, and examines the connection between EM and FP.

## 2. Literature Review and Hypotheses

### 2.1. Earnings Management (EM) and the Internal Audit Function

Internal audit is regarded as an important component of CG (Al-Shetwi et al., 2011). In this regard, Goodwin-Stewart and Kent (2006) indicated that large firms are more likely to rely on the internal audit to ensure that the internal control system is adequate. The role of internal audit is to provide independent assurance that an organization's risk management, governance, and internal control processes are operating effectively. The audit committee's existence and the internal audit function reduce the level of EM. The number of meetings between the audit committee and the internal audit function also reduces discretionary accruals. The audit committee existence and internal audit function decrease EM and improve the financial reporting quality (Cosma et al., 2017).

Previous studies have shown different results about the impact of internal audits on EM practices. Some studies indicate that a skilled internal audit staff can limit and deter EM incidence (Bajra & Cadez, 2018; García et al., 2012; Prawitt et al., 2009). Davidson et al. (2005) asserted that the existence of an internal audit does not influence EM level. Furthermore, the internal audit function is less influenced by management (Gras-Gil et al., 2012). Based on these findings, the following hypothesis is proposed:

*H1: The internal audit function is negatively related to EM.*

### 2.2. Earnings Management (EM) and Frequency of Board Meetings

The board meeting frequency is considered as one of the essential CG characteristics (Chen et al., 2006; Vafeas, 1999). Increasing the number of board meetings constrains the level of EM and increases the transparency in the financial reports. Therefore, the higher board meeting frequency leads to improving board monitoring, as well leads to lower discretionary accruals (Kankanamage, 2016; Gulzar & Zongjun, 2011; Vafeas, 1999).

However, there are many findings on the association between the frequency of board meetings and EM. According to certain research, EM and board meetings have a favorable link (Rahman & Ali, 2007; Obigbemi et al., 2016). At the same time, some studies found a negative relationship between the number of times the board meets and EM (Abbadi et al., 2016; Kankanamage, 2016; Monsif & Khamees, 2016). Besides, Laksmanna (2008) found a significant association between EM and the frequency of board meetings. Based on these findings, the following hypothesis is proposed:

*H2: The board meeting frequency is negatively related to EM.*

### 2.3. Earnings Management (EM) and Female on the Board

Females incline to work with good performance companies (Farrell & Hersch, 2005). Liao et al. (2014) showed that the increased presence of female directors on boards is associated with lower EM and lower CEO incentive compensation. Firms with a higher number of female and independent female directors are adopting restrained EM practices (Adams & Ferreira, 2009). However, females on the board are considered a key factor contributing to CG (Abbadi et al., 2016; Thiruvadi & Huang, 2011; Gull et al., 2018). As a result, having females on the board minimizes the risk of fraud in the workplace (Capezio & Mavisakalyan, 2016; Cumming et al., 2015) because financial reporting fraud is more likely to be reported by women (Kaplan et al., 2009).

Recent research has focused on the impact of gender diversity on EM, fraud processing, and the wrong proceedings (Gavious et al., 2012; Gopinath et al., 2015; Gull et al., 2018;). Gavious et al. (2012) examined the association between female directors and EM in high-tech companies and discovered evidence of a negative association between the two. While Sun et al. (2011) did not find any evidence concerning the proportion of women on audit committees and EM. In contrast, Thiruvadi and Huang (2011) indicated that female managers on the audit committee are negatively

associated with EM. Based on these findings, the following hypothesis is proposed:

**H3:** *The presence of a female on the board has a significantly negative impact on EM.*

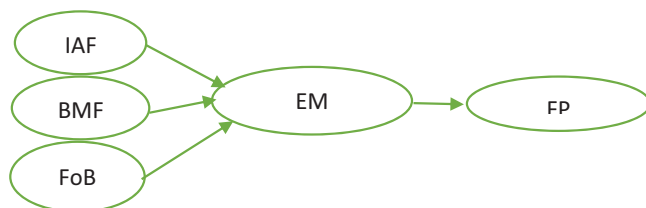
## 2.4. Firm performance and the Consequence of Earnings Management (EM)

EM occurs when managers within organizations use accounting methods and techniques to present a distorted number of their company’s earnings. Low-performance firms engage in more EM (increase their EM practices) than high-performance firms (Gill et al., 2013). The process of EM involves the intentional manipulation of accounting accruals by firm managers, the aim being to modify reported earnings. Opportunistic EM serves the interests of managers at the expense of stakeholders. This is because the inaccurate earnings reported by managers inform the investment and lending decisions made by key personnel inside and outside the organization (Shah et al., 2009). Hence, EM impacts the FP and could also threaten shareholders’ wealth by changing the financial information to mislead stakeholders about the firm’s actual economic position (Healy & Wahlen, 1998). EM can also involve the intentional implementation of poor operating decisions, specifically those relating to the scale and timing of structuring business transactions through the manipulation of real activities (Gras-Gil et al., 2016).

Besides, some studies tested the link between EM and FP (Gill et al., 2013; Louis, 2004), and found varying results. Some studies have indicated a negative relationship between EM and performance (Chiraz & Anis, 2013), while others have found no indication of a link between EM and FP (Gill et al., 2013; Gong et al., 2008). Based on these findings, the following hypothesis is proposed:

**H4:** *There is EM and FP have a negative relationship.*

The conceptual framework of this study is depicted in Figure 1.



**Figure 1:** Research Framework

## 3. Methodology

### 3.1. Sample

The population for this study is Iraqi firms. The sample of the study is thirty-seven non-financial and fifty-one financial companies Iraqi companies listed on the Iraqi stock exchange and have been identified from the website: <http://www.isx-iq.net/>. The period under review is 2013–2018. The data comes from the database maintained and compiled by Iraq’s stock market (ISX). The total sample is one hundred and twenty-nine companies. Furthermore, the final samples are filtered during the process:

First, utility companies are excluded from the initial sample due to distinct characteristics and restrictions that may have an impact on the results. Second, some insurance and investment firms are omitted because their market valuations differ from those of other firms. Third, companies in the money transfer services industry are excluded because their accounting standards differ from those of other businesses.

### 3.2. Measurement of Variables

Consistent with the previous studies, the dependent variable, which is EM, is measured by the M-score model of Beneish (Beneish, 1999; Omar et al., 2014). Firm performance, as evaluated by return on assets (ROA), is the second dependent variable (Gopinath et al., 2015; Liao et al., 2014). Besides, there is the moderator variable between EM and FP. Finally, the independent variable will be CG which will include measurement through three indexes, (internal audit function, board meeting frequency, and females on the board).

### 3.3. Measuring Firm Performance

ROA has been widely used in several studies on performance (Dhamadasa et al., 2014; Price et al., 2011; Tang & Chang, 2015). ROA is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company’s management is at using its assets to generate earnings. ROA is the most effective, broadly available financial measure to assess company performance. It captures the fundamentals of business performance holistically, looking at both income statement performance and the assets required to run a business.

Therefore, the following is the equation used to measure ROA for this paper:

$$ROA = \frac{\text{Net Income After Tax}}{\text{Total Asset}}$$

### 3.4. Measuring EM

This study used the M-Score model, which is widely regarded as the most powerful tool for examining EM. The Beneish model is a mathematical model that uses financial ratios and eight variables to identify whether a company has manipulated its earnings. The variables are constructed from the data in the company's financial statements to create an M-Score that serves to describe how much the earnings have been manipulated. The model also helps to identify the incentives involved in GAAP violations. Furthermore, researchers added several variables to capture the distortions in financial data as per GAAP violations. Moreover, it aids organizations in detecting abnormal accruals. Therefore, this study used the Beneish model to identify EM. The model by Beneish is detailed as follows:

$$\text{M-score} = -4.84 + (\text{DSRI} + \text{GMI} + \text{AQI} + \text{SGI} + \text{DEPI})$$

Where:

DSRI: Days Sales in Receivables Index.

GMI: Gross Margin Index.

AQI: Asset Quality Index.

SGI: Sales Growth Index.

DEPI: Depreciation Index.

### 3.5. Measuring Corporate Governance (CG) Mechanisms

As in detail prior, the CG is measuring by Board independence, Audit committee, Internal Audit Function, Board Tenure, Board Meeting Frequency, and Females on the board. To test the CG mechanisms' effectiveness, a list of the variables that were measured is shown below (Table 1).

**Table 1:** Variables Measurement

Variables	Code	Measurement
Internal Audit Function	IAF	Assign one of the firms has its internal audit function or it outsources its internal audit activities, and 0 otherwise
Board Meeting Frequency	BOMF	The number of meetings during a year for the board directors
Females on the Board	FoB	The percentage of females on board to the total number of directors
<b>Control Variables</b>		
Board Size	BS	Number of the board members
Firm Leverage	LVGI	The percentage of the total of liabilities to the total of assets
Type of Sector	ToS	a dummy variable that takes a value of "1" if the banks' sector "0" otherwise. The industries that are grouped as 1 are manufacturing, service, beverages, and construction firms

### 3.5. Analytical Model

This study will consider secondary data and use panel data techniques through Stata software to test the study hypotheses. Besides, this study has three equations. The first is a simple linear model that examines the link between CG and EM as an antecedent.

The first equation is the Impact of CG on EM.

$$\text{EM}_{it} = \beta_0 + \beta_1 \text{IAF}_{it} + \beta_2 \text{MF}_{it} + \beta_3 \text{FoB}_{it} + \beta_4 \text{LAV}_{it} + \beta_5 \text{ToS} + \beta_6 \text{bSIZE}_{it} + \varepsilon_{it}$$

Where:

EM is earnings management, IAF is the Internal Audit Function, MF is Meeting Frequency, FoB is Female on the Board, LAV is Firm Leverage, Bszie is board size, and ToS is a type of sector.

The second equation is about the outcome relation between EM and FP.

$$\text{FP}_{it} = \beta_0 + \beta_1 \text{EM}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{LAV}_{it} + \beta_4 \text{TOS}_{it} + \varepsilon_{it}$$

Where:

FP is firm performance, EM is earnings management, LAV is Firm Leverage, ToS is a type of sector, and Bszie is board size.

## 4. Empirical Results

### 4.1. Descriptive Statistics

The data for the independent, dependent, and moderating variables are described in this section (Table 2). The goal is to test for the normality of the data. As described in the methodology section, this study uses EM as the dependent

variable and is measured using the M-SCORE model. The explanatory variables include Internal Audit Function, Board Meeting, and Female on Board. The explanatory/independent variables are tested on EM to confirm hypotheses H1–H3 of the study. The relationship between EM and financial performance (measured using ROA) is tested. The control variables are leverage, the board size, and sector types.

Some non-financial firms perform internal audit functions (IAF) while other companies do not have an internal audit unit. This can be seen in the minimum and maximum values of the variable. The internal audit function is measured as 1 for firms having an internal audit function, and 0 for firms without an internal audit function with no internal audit function. 71.28 percent of Iraqi firms have IAF, suggesting that 46 firms out of 65 sampled Iraqi firms perform internal audit functions through the firms’ internal audit committees and departments. Four different types of sectors are in this study’s sample, including financial and non-financial firms.

Table 3 shows the descriptive statistics for the study’s variables. The board meeting may be held at intervals depending on the decisions of the board and the organization’s policy. Board meeting defines the total number of times the board of directors meets and sit for the year. The minimum and maximum board meetings for the sampled firms are 0 time and 64 times, respectively. The mean board meeting is 10 times, suggesting that,

approximately on average, the sampled firms conduct meetings ten times a year. The board meeting results show that the maximum number of times Iraqi company directors meet to review corporate performance is 64 times. However, the minimum board meeting is 0 time for firms in both financial and non-financial firms, which does not conform with the regulations that guide the activities of listed firms in Iraq. The regulation specifies that the directors of firms must have a formal meeting three times at least in a financial year.

The number of females on the board is calculated as a percentage of the total number of females on the board to the total number of directors. The minimum percentage of females on the board is 0 indicating that some sampled firms do not have any female members on the board of directors. The maximum percentage of females on the board is 60%, suggesting that a few Iraqi firms have not more than 60 percent of their board members as females. Meanwhile, the mean value of females on board is 8.605 percent, suggesting that, approximately, the sampled firms have an average of 8.6 percent of their board members as females, suggesting that some companies do not have female members on their boards of directors.

EM shows positive values across the mean, minimum, and maximum. EM has positive values for its minimum and maximum, suggesting less EM practice in Iraqi firms.

**Table 2:** Descriptive Statistics (Categorical Variables)

Variables	Obs.	Measure	Percent	Cum. Pert
Internal Audit Function	390	0	28.72	28.72
		1	71.28	100.00
Sector type	390	1	53.85	53.85
		2	18.46	72.31
		3	21.54	93.85
		4	6.15	100.00

**Table 3:** Descriptive Statistics (Continuous Variables)

Variables	Obs	Min	Max	Mean	Std.Dev	Median	p25	p75	Skewness	Kurtosis
Return on Assets	389	-10.730	11.070	1.202	5.892	1.500	-1.390	4.520	-0.380	2.921
EM	390	0.384	3.770	1.594	0.819	1.346	0.972	2.144	0.831	2.697
Internal Audit Function	390	0	1.000	0.713	0.453	1.000	0	1.000	-0.941	1.885
Board Meeting	390	0	64.000	10.021	6.045	9.000	6.000	13.000	2.602	19.600
Female on the Board	390	0	60.000	8.605	13.919	0	0	14.286	1.987	6.797
Board Size	390	4.000	13.000	7.100	1.479	7.000	7.000	7.000	0.768	4.444
Leverage	390	-0.581	96.974	26.468	23.394	13.874	9.372	42.936	1.006	3.035

The mean value for EM is 1.594, suggesting that, on average Iraqi firms practice less EM. Meanwhile, the maximum value of EM is 3.770, indicating that a few Iraqi firms still manipulate firms' earnings for investors and other stakeholders to have a favorable view of their firms. It may also suggest that the financial statement information of Iraqi firms has less reliability. In conclusion, EM in Iraqi financial firms is still high.

FP is determined by asset return. The minimum and maximum values of financial performance are  $-10.73$  percent and  $11.07$  percent, respectively. It suggests that for the period under study, 2013–2018, some of the firms experienced negative ROA (net loss on their firms' assets) and are prone to losses, and have a higher risk of bankruptcy. However, during the study period, Iraqi firms' maximum return of assets is  $11.07$  percent (after controlling for outliers using winsorization). This indicates that non-financial firms are prone to losses and have a higher risk of bankruptcy.

The debt-to-asset ratio is referred to as leverage. As expected, Iraqi firms are highly leveraged. The average (mean) value of the sampled firms is  $26.46$  percent, while the maximum leverage is  $96.97$  percent. This is not surprising as loans and advances of Iraqi firms (especially financial firms) constitute their asset values. At the same time, deposit from banks and customers, and debt securities issued constitutes their liabilities. Meanwhile, a few Iraqi firms have much higher leverage.

## 4.2. Test of Research Hypotheses

Hypotheses formulated are tested to confirm or reject them. A total of 4 hypotheses are tested in the present study. Panel estimation using a regression estimator is used to analyze the research hypotheses. The POLS, REM, and FEM regression estimators are performed to test the hypotheses.

Table 4 presents the relationships between CG mechanisms and EM in Iraqi firms. The panel static estimators, including the fixed effect model (FEM), ordinary least square (POLS), and random effect model (REM), are adopted. Two columns are presented in Table 4, with and without control variables.

The results under fixed effect (robust) with and without control variables are thereby discussed. In the column with control variables, board tenure is significant at the 10% level with a coefficient of  $-0.0201$ . This means that an increase in the frequency of Board meetings is significant at the 1% level with a coefficient of  $-0.0036$ , meaning that increasing the frequency of board meetings reduces EM by 0.3 percent. Female on the board is significant at the 5% level with a coefficient of  $-0.0022$ . This suggests that increasing representations of females on the board reduces EM by 0.2%. However, the results showed that the internal audit function has insignificant EM effects.

However, the heteroskedasticity test result showed a heteroskedasticity problem in the model ( $\chi^2 = 8576.17$ ;

prob. = 0.000). The serial correlation test also revealed the presence of a serious autocorrelation problem ( $F = 53.93$ ; prob. = 0.000). Therefore, because of the existence of both heteroskedasticity and serial correlation problems, the study corrects both problems by using a robust fixed-effect model.

The probability of the  $f$ -statistics indicates that the model can be relied upon. It implies that board meetings and females on the board significantly affect EM in Iraqi firms. The  $R^2$  square of the robust fixed effect model is 3.72%, which implies that board meeting frequency and females on the board combined can explain about 3.72% variations in EM. This indicates that suitable CG mechanisms reduce EM. Thus, it suggests that Iraqi firms should adopt strong CG mechanisms to reduce EM practices.

The empirical findings on the correlations between EM and FP in Iraqi firms are presented in Table 5. EM has a negative significant association with FP at 5% level (Beta =  $-0.742$ ;  $p$ -value = 0.015). This shows that a 1% increase in EM practices reduces FP in the Iraqi firms (measured as return on assets) by 0.742 percent. Thus, the hypothesis that tests for the relationship between EM and FP is significant and supported. However, the two control variables, the size of the board and its leverage are insignificant. The  $R^2$  for the relationships between EM and FP without leverage and board size is 23.69%. It implies that EM can explain about 23.69 percent variations in return on Iraqi firms' assets.

## 5. Conclusion

Estimation results revealed that board meeting frequency and females on board have significant negative relationships with EM in Iraq firms. Board meetings and females on the board significantly affect EM in Iraqi firms. This indicates that suitable CG mechanisms reduce EM. Thus, it suggests that Iraqi firms should adopt strong CG mechanisms to reduce EM practices. That is, Iraqi firms should hold more board meetings with more female members of the board. Increasing the frequency of board meetings reduces EM by 0.3 percent. Increasing representations of females on the board reduces EM by 0.2%. However, the results showed that the internal audit function has insignificant EM effects. Besides, EM has a negative correlation with FP in Iraqi firms. For example, EM has a coefficient of  $-0.742$ , suggesting that a 1% increase in EM results in a 0.742 percent decrease in Iraqi firms' financial performance.

Although the study provides some insights into the relationship under consideration, certain shortcomings should be noted. First, it will be helpful to research and compare various institutional contexts, such as Iraqi financial and non-financial firms in relation to the Iraqi institutional background. Second, it will be important to show the impact of qualitative characteristics of the internal audit function, board meeting frequency, and female

Table 4: Relationships Between CG and EM

	Pooled Effect		FEM Model		REM Model		Robust FEM Model	
	Without	With Control	Without	With Control	Without	With Control	Without	With Control
Internal Audit Function	-0.0464 (0.434)	-0.0548 (0.256)	0.0031 (0.918)	-0.0058 (0.851)	0.0119 (0.692)	-0.0022 (0.943)	0.0031 (0.913)	-0.0058 (0.825)
Board Meeting	0.0015 (0.710)	0.0030 (0.381)	-0.0037*** (0.006)	-0.0036*** (0.009)	-0.0034** (0.012)	-0.0033** (0.018)	-0.0037** (0.005)	-0.0036*** (0.008)
Female on Board	-0.0083*** (0.000)	-0.0039*** (0.008)	-0.0024** (0.010)	-0.0022** (0.018)	-0.0028*** (0.003)	0.0026*** (0.005)	-0.0024** (0.012)	-0.0022** (0.014)
Leverage		0.0043*** (0.000)		0.0003 (0.564)		0.0005 (0.218)		0.0003 (0.600)
Board Size		-0.0202 (0.126)		0.0060 (0.590)		0.0025 (0.818)		0.0060 (0.665)
Constant	0.2092 (0.003)	0.6905 (0.000)	0.3894 (0.000)	0.3425 (0.000)	0.3729 (0.000)	0.8895 (0.000)	0.3894 (0.000)	0.3425 (0.003)
Years Effect	YES	YES	YES	YES	YES	YES	YES	YES
Industry Effect	YES	YES	YES	YES	YES	YES	YES	YES
R <sup>2</sup>	0.2334	0.5175	0.0372	0.0509	0.0897	0.4045	0.0372	
Adjusted R <sup>2</sup>	0.2214	0.5059						
F-Statistics	19.43	44.58	3.83	2.47	24.87	70.41	3.000	
Prob. (F-Statistics)	0.000	0	0.0011	0.0131	0.0004	0.0000	0.0121	
Root MSE	0.45259	0.36042						
Probability Test			124.33 (0.000)	109.86 (0.000)				
Breusch Pagan LM Test					781.21 (0.000)	727.93 (0.000)		
Hausman Test			20.08 (0.002)	21.44 (0.006)				
<b>Diagnostics Tests:</b>								
Multicollinearity (Mean VIF)	1.18	1.23						
Serial Correlation	48.037 (0.000)	53.935 (0.000)						
Heteroscedasticity (chi2)			8853.47 (0.000)	8576.17 (0.000)				

**Table 5:** Relationships Between EM and Financial Performance

	Pooled Effect		FEM Model		REM Model		Robust FEM Model	
	Without	With Control	Without	With Control	Without	With Control	Without	With Control
EM	-0.6196*** (0.000)	-0.8092*** (0.000)	-0.6023 (0.321)	-0.5208 (0.404)	-0.6222** (0.022)	-0.7427** (0.025)	-0.6222*** (0.009)	-0.7427** (0.015)
Leverage		-0.0103** (0.019)		-0.0003 (0.956)		-0.0034 (0.439)		-0.0034 (0.405)
Board Size		-0.1473*** (0.004)		0.0543 (0.6)		-0.0346 (0.644)		-0.0346 (0.727)
Constant	0.8934 0.000	2.8713 (0.000)	1.4700 (0.002)	1.0384 (0.242)	0.9010 (0.000)	1.6426 (0.036)	0.9010 (0.000)	1.6426 (0.065)
Years Effect	Yes	Yes	Yes	Yes	Yrs	Yes	Yes	Yes
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.2029	0.2552	0.0048	0.0199	0.2023	0.2369	0.2023	0.2369
Adjusted R <sup>2</sup>	0.197	0.2409						
F-Statistics	34.24	17.88	0.71	0.35	15.38	17.73	26.77	27.18
Prob. (F-Statistics)	0.000	0.000	0.4928	0.8468	0.0005	0.0033	0.000	0.0001
Root MSE	1.2537	1.223						
<b>Probability Test</b>			6.88 (0.000)	6.30 (0.0000)				
Breusch Pagan LM Test					128.75 (0.000)	97.61 (0.000)		
Hausman Test			2.12 (0.3473)	5.91 (0.2063)				
<b>Diagnostics Tests:</b>								
Multicollinearity (Mean VIF)					1.14	1.81		
Serial Correlation			6.012 (0.0181)	6.107 (0.0173)				



onboard on EM using the same samples and reviewing the model. Qualitative research involving the investigation of process variables to understand board behavior could contribute to the investigation of the relationship between CG and EM activities.

In addition, this study reveals some intriguing findings with consequences for both academics and professionals interested in earnings control and CG concerns. First, the study is one of the few to understand the Iraqi background and its peculiarities while discussing the EM in companies with agency problems. Second, this research discusses the most important aspects of CG mechanisms that can reduce EM.

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