Impact of Accounting Standards on Earnings Management in Selected Middle-East Countries

Zahra Yousefi Amin[a]*, Masoud Yousefi Amin[b]

[a] Department of Accounting, Firoozkuh Branch, Islamic Azad University, Firoozkuh, Iran
[b]Department of Finance and Banking, Otto von Guericke University, Magdeburg, Germany
[a]Email: z_yousefi_a@yahoo.com
[b]Email: m.yousefi1360@yahoo.com

Abstract

The Middle East accounting standards were reformed to improve the quality of accounting information. The Middle-East countries, to a large extent, have welcomed the International Accounting Standards. The current research addresses the question whether the adoption of International Financial Reporting Standards (IFRS) is associated with a lower level and magnitude of earnings management. This study uses the level of earnings management as a proxy for earnings quality, and therefore the quality of financial statements. In this way, earnings management has been quantified by discretionary accruals. Francis et al., (2008) model and Modified Jones model (1995) have been used to determine the level and magnitude of earnings management in selected countries. This research employed two-step Generalized Method of Moments (GMM) estimator to investigate the effect of accounting standards reform on earnings, different unbalanced panels were used based on a sample of non – financial public companies (Iran 1996 to 2010, Bahrain 1998 to 2010, UAE 1998 to 2010 and Saudi Arabia 1998 to 2010).

Keywords: Earnings management, earnings quality; accounting standards.

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* Corresponding author.

E-mail address: author@institute.xxx .

1. Introduction

Financial reporting plays a significant role in communicating financial information to users in a right time and credible conduct [29; 214-219]. There are different user groups of financial statements. These groups are lenders, investors, suppliers, customers, government and general public. The users are interested in using the accounting information, because this information has fulfilled a decision usefulness information criterion [17: 5-6]. The users of financial statements make decisions based on information which is obtained from the financial statements. In this way, having the amounts of earnings is the easiest criterion for evaluating of companies' economic performance. Thus, the financial reporting effectively has to communicate financial information to users in a credible and timely manner.

Academic research has concluded that managers engage in earnings management to accomplish certain objectives such as avoiding loss, meeting market expectations, avoiding debt covenant violations etc. Whatever the motivation, it is documented that earnings management harms earnings quality [16: 92-222] and misleads financial reporting users. According to author [1:617-652] managers are given opportunities for misleading the financial information users. In many cases, managers manipulate earnings amount to meet specific intentions. For instance, sometimes the bonus or compensation is related to the result of financial performance; therefore, managers have incentives to show desired amount of earnings by doing earnings management. While maybe the financial statements are manipulated, it is not easy for the financial statements users to evaluate the operating performance and the financial position. Therefore, it can be concluded that cosmetic of financial reports or financial statements may mislead the users. There is information asymmetry between external users and managers that allow managers to use their discretion in reporting accounting information for their own benefits. The issue of the quality of accounting information is very crucial to analysts when they assess the fundamentals of a firm. The quality of accounting information comes from the implementation of an accounting information system quality [3: 14]. Since the information contained in the financial statements is a result of a particular firm's accountant's applications of various accounting procedures, therefore it is difficult, if not impossible, for an analyst to arrive at the "true" or the "theoretical" value of the firm by relying solely on the firm's annual report.

Middle East countries implement economic reforms to stimulate private investment, promote economic growth and support the transition to market economy. It is difficult to define the direct impact of the accounting system reform on economic transformation, as many other conditions have influenced the transition process. In this way, Middle East accounting bodies have experienced some major changes during the past several years. Prior to 1990, there were no national accounting standards for countries in this region because of the absence of accounting organizations. Underdevelopment of accounting and auditing standards is one of the main problems for auditors' confirmative job and investors in making investment decisions. For example, this was one of the main reasons for Kuwait's stock market crash in 1982 [27]. Therefore, Middle East countries had to use accounting standards of other countries to start the process of making reliable financial information. Development of accounting during this period was essentially a result of the influence of several economic factors such as: entrance of multinational enterprises and international accounting firms, licensing of international financial institutions and increasing presence of expatriate accountants and foreign technology [30].

Investors' need for reliable financial information has been the key factor of accounting reform in the Middle East. This factor protects domestic and foreign investors from any fraud or misleading financial data [27]. In spite of all efforts for developing financial markets, economic and accounting, there is no empirical evidence to examine the effect of accounting information on earnings management in this region. Previous studies have investigated earnings management practices and examined monitoring mechanisms in different legal environments and economies; however, despite this region's vital role in the global economy as the largest exporter of petroleum in the world, the Middle East environment has not yet been the subject of academic studies which would inevitably play a significant role in improving internal and external monitoring mechanisms.

By adopting IAS, these countries seek to enter global capital markets and participate in the benefits globalization is thought to bring. While the adoption of IAS is relatively simple, its implementation is not, and developing countries and emerging economies face particular challenges if they want to make IFRS a reliable, regulated reality and not just an image. Furthermore, this research focuses on earnings management in selected Middle Eastern countries and the relationship between accounting standards and earnings management in these countries. It investigates earnings management and also shows how accounting standards can effect on earnings management. Moreover, it argues that high quality accounting standards constrain earnings management, and thus provide high quality reported financial information.

1.1 Literature review

In recent times, one of the news that is most attractive is a series cases abut financial crisis which is related to the public companies. A number of these companies are well-known and also have high stock prices. Consequently of the financial crisis, mostly it is too late for many creditors that can to withdraw their loans, and also for investors to buy their own stocks. Thus, it hardly damages investors and creditors. We could conclude that it is due to creditors and investors do not find through the earnings manipulated by managers absolutely [15: 365-383]. In addition, the companies that manipulate earnings will have significant stock price decrease when the manipulations news will inform in public [9: 51-89].

In literature, many researches [7], [20] and [21] are about earnings management that only focus on recognizing some of factors that are related to earnings management which can affect earnings management significantly. Thus, we can only understand the relation between earnings management and these factors, but for predicting of earnings management level cannot use these factors directly in advance, such as downward and upward earnings management. In order to reduce earnings management risks that are related to the financial crisis and obtaining information for the investors to avoid a great loss in the stock market, we need to develop a model that can predict the earnings management level [25: 7183-7191].

Earnings management does not have a common definition in the literature and authors explain it in a large range of terms about the same experience or its different aspects. It can clearly explained as follow: "Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers" [15: 365-383].

The most important role of financial information is to communicate financial information effectively to outsiders in a well-timed and reliable manner. For achieving this purpose, managers have to do judgment in financial reporting. Thus, they have opportunities to exercise earnings management. If managers have incentives to misinform the users of financial statement by doing discretion via accounting method choices in financial reporting, then earnings management may occur [29: 214-219].

There are many increasingly cases about financial crisis that are related to the public companies recently, but for most of creditors and investors are difficult to predict the financial information crisis, particularly in the cases related to earnings management. Earnings management is done by managers by manipulating earnings to meet purposes of managers by using certain processes or methods. In literature, most of studies that are related to earnings management focus on recognizing some factors which are related to earnings management and also can significantly affect it. Hence, we can only describe the relation between earnings management and these factors. However, it is impossible to predict the level of earnings management by considering these factors directly in advance (such as downward and upward earnings management). In order to decline the earnings management's risks in financial crisis and giving information to the investors for avoiding a great loss in the stock market [25: 7183-7191].

A major part of earnings management literature describes the expression of earnings management. Author [23: 91-102] conceptually explains a framework to analyze earnings manipulation from an information view. Author [8: 3-36] uses the earnings management in some parts in buyout. Author [6: 99-126] deduces that firms" managers manage earnings to have forecasts of financial analysts. Author [28: 112-134] say that earnings management can be described from a point of view by contract (with lenders and/or managers), because it is expensive for decision makers to have "see through" the earnings management. Also, it must be highlighted that most literature focuses on earnings management in assertion of income smoothing techniques and is as a focus on accruals accounts. Author [26: 365-380] suggests earnings management models for analyzing [21].

According to author [4], the quality of accounting information reflects the interaction of characteristics of the financial system that include accounting standards, their enforcement, interpretation and litigation. In this way, the IASB (International Accounting Standards Board) has applied an approach for development of different standards from the Financial Accounting Standards Board (FASB) which can result with different quality in accounting information. In particular, the approach of IASB more relies on principles, whereas the approach of FASB more relies on rules. Guidelines are specified by reliance on principles, but judgment in application is required. Reliance on rules more specifies requirements which less leave room for discretion. Author [11: 1101-1124] expands a model of rational expectations that shows some accounting standards which limit result of opportunistic discretion in earnings of accounting that are more reflective economy of an underlying firm and, therefore, has higher quality. The flexibility of IAS principles based standards try to allow firms to manage earnings, thus accounting quality decrease. This flexibility feature has long been a focus of regulators of securities markets, especially in international area [5].

The work of Author [14] had an important impact on empirical research in cross country differences in accounting practices and standards. They showed countries that have English common law in their legal systems

are eager to have better development in economy, better accounting standards, stronger capital markets and more effective enforcement than countries have code law legal systems. In many of recent studies in accounting, distinction between code law and common law countries and differences in economic development and enforcement have been considered as country level determinants that used either in the Author [14] data or more recent measures like [2: 235-270].

Author [19: 471-517] investigated that countries under English common law systems have much better quality in accounting standards in comparison with countries under German origin legal systems, and in turn these countries have significantly better quality in accounting standards in comparison with countries under French origin legal systems. About some enforcement mechanisms, Author [19] also showed that civil law countries are considerably weaker than countries with English common law.

By considering cultural dimensions of Hofsted, author [14] expanded the four legal control accounting value dimensions versus professional regulation of accounting, sameness of accounting rules versus flexibility, conservatism in accounting measurement versus optimism, and transparency in accounting disclosures versus secretiveness. The last dimension transparency in accounting disclosures versus secretiveness is relevant here. Author [14] Argued: "the higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism and masculinity, then the more likely it is to rank highly in terms of secrecy." In this way, it is expected firms from such countries to have poorer transparency in financial reporting. Put another way, firms from countries that have low uncertainty avoidance, to have higher disclosure levels, high individualism, low power distance and/or high masculinity cultural ranks [14: 1-15].

Author [24: 155-180], investigates whether adoption of IFRS is associated with lower earnings management. They investigate whether German companies that have adopted IFRS engage significantly less in earnings management compared to German companies reporting under domestic GAAP, while controlling for other differences in earnings management incentives and enforcement mechanisms. The results of their study suggest that without the possibility of using hidden reserves to manage earnings, IFRS-adopters turn more to discretionary accruals to manage their earnings. However, when hidden reserves are taken into consideration, IFRS adopters do not present different earnings management behavior compared to companies reporting under German GAAP. Author [31] systematically investigates the relation between accounting standards and international earnings management. He find that international accounting standards, accrual-based accounting standards, accounting standards with increased disclosure requirements, and separating tax and financial reporting all constrain earnings management. He concludes that accounting standard policy is an important institution in determining the quality of reported financial information.

2. Data and methodology

In this study independent variables or specific financial statement variables are: total assets, total liabilities, total cash, total debt, total depreciation, total revenue and total property, plant and equipment. Information about these variables is collected from annual financial statements in selected countries listed companies.

Dependent variable in this study is:

Discretionary accruals as a proxy for determining earnings management are used.

Independent variables in this study are:

Accounting standards reform that is shown by dummy variable Dst.

Prior researches have indicated that many other factors are being that effect on earnings management. There are some controls variables that are considered to more reliable results about impact of accounting standards on earnings management. These variables are size, debt, growth, liquidity and loss. In next paragraph all control variables are explained.

This research incorporates two directions of earnings management: it measures the level of earnings management by two different methods (Francis et al., and Modified Jones Model) and then investigates the effect of accountings standards reform on earnings management. Previous studies in different countries were done by discretionary accruals to determine earnings management (e.g., [13]; [21]).

Hypothesis for this study as follow:

There is positive impact of accounting standards reforms on earnings management in selected Middle East countries (Saudi Arabia, Bahrain, UAE and Iran).

Sub hypotheses:

1- There is a positive impact of accounting standards reform on earnings management in Iran stock market.

2- There is a positive impact of accounting standards reform on earnings management in Bahrain stock market.

3- There is a positive impact of accounting standards reform on earnings management in Saudi Arabia stock market.

4- There is a positive impact of accounting standards reform on earnings management in UAE stock market.

The statistical population in this research is the companies in four selected Middle Eastern countries (Saudi Arabia, Bahrain, UAE and Iran). The period of study is between 1996 till 2010. Due to different date of reform in selected countries and limitation for data gathering, these periods for these countries are different (Bahrain: 14 years (1997-2010), 22 companies, Iran: 15 years (1996-2010), 283 companies, Saudi Arabia: 13 years (1998-2010), 98 companies and UAE: 13 years (1998-2010), 47 companies). A sample of statistical population is selected out of the total companies listed in stock market in selected countries (all companies except banks and insurance companies).

The practice of using discretionary accruals to proxy for EM is consistent with the extant EM literature. In this study two methods are used to measure the earnings management, namely the Francis et al., [32] and Modified Jones (1995) models. The model of Francis [32] extends the Dechow and Dichev [33] accrual quality model by adding two variables, namely the change in revenues (REW), and property, plant and equipment (PPE), both of which are scaled by the average total assets.

Step 1: Determining total Accruals by equation (1) for each firm for any year.

$$TA_{it} = \Delta As_{it} - \Delta CL_{it} - \Delta Cash_{it} + \Delta SDEBT_{it} \qquad (1)$$

Where:

TA_{it} = firm's i's total current accruals in year t

ΔAS_{it} = Firm's i's change in current assets between year t-1 and year t

ΔCL_{it} = Firm's i's change in current liabilities between year t-1 and year t

$\Delta Cash_{it}$ = Firm's i's change in cash between year t-1 and year t

$\Delta STDEBT_{it}$ = Firm's i's change in debt included in current liabilities between year t-1 and year t

Step 2: Estimate the parameters α_1, α_2 and α_3. The evaluated parameters of specific industry are used for computing the non discretionary accruals.

$$\frac{TA_{it}}{A_{it-1}} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{\Delta REV_{it}}{A_{it-1}} + \alpha_3 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it} \qquad (2)$$

Where:

TA_{it} = Firm's i total accruals in year t

ΔREV_{it} = Firm's i's change revenues between year t-1 and year t

PPE_{it} = Firm's i's gross value of property, plant and equipment in year t

ε_{it} = error term in year *t* for firm *i* (unexplained component of total accruals).

Step 3: evaluating of non-discretionary accruals in year t for each firm.

$$NDA_{it} = \ddot{\alpha}_1 \left(1/A_{it-1}\right) + \ddot{\alpha}_2 \left[\frac{(\Delta REV_{it} - \Delta REC_{it})}{A_{it-1}}\right] + \ddot{\alpha}_3 \left(\frac{PPE_{it}}{A_{it-1}}\right) \qquad (3)$$

Where:

A_{it-1} = total assets at year t-1for firm i

ΔREV_{it} = revenues in year t less revenues in year t-1 for firm i

ΔREC_{it} = net receivables in year t less net receivables in year t-1 for firm i

PPE_{it} = Gross property, plant and equipment in year t for firm i

α_1, α_2 and α_3 = industry specific parameters that estimated from equation (4)

Step 4: Determining the amount of discretionary accruals.

$$DA_{it} = \frac{TA_{it}}{A_{it-1}} - NDA_{it} \qquad (4)$$

Where:

DA_{it}: Discretionary accruals for firm i in year t (estimated in equation 2)

TA_{it}: Total accruals for firm i in year t (estimated in equation 1)

A_{it-1} = total assets for firm i at t-1

Second Measurement for Earnings Management

In this study [32] was considered as a latest modified model in estimation of discretionary accruals (as a proxy for measuring earnings management), while there are some researches that applied Modified Jones (1995) model, in this way, this research also estimates earnings management (discretionary accrual) based on Modified Jones model for having comparable result in first objective between two methods (Francis model and Modified Jones model).

Measuring Earnings Management by Modified Jones (1995) Model

$$TA_{it} = \Delta As_{it} - \Delta CL_{it} - \Delta Cash_{it} + \Delta STDEBT_{it} - \Delta DPN_{it}/A_{it-1} \qquad (5)$$

Where:

TA_{it} = firm's i's total current accruals in year t

ΔAS_{it} = Firm's i's change in current assets between year t-1 and year t

ΔCL_{it} = Firm's i's change in current liabilities between year t-1 and year t

$\Delta Cash_{it}$ = Firm's i's change in cash between year t-1 and year t

$\Delta STDEBT_{it}$ =Firm's i's change in debt included in current liabilities between year t-1 and year t

ΔDPN_{it} = Depreciation & amortization expense for firm i between year t-1 and year t.

A_{it-1} = total assets (net) in year t-1

Step 2: compute the parameters: α_1, α_2 and α_3. Industry specific parameters' estimation will be used to measure the non-discretionary accruals.

$$TA_{it} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + \alpha_3 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it} \qquad (6)$$

Where:

TA_{it} =Firm's i total accruals in year t

A_{it-1} = net total assets in year t-1

ΔREV_{it} = Firm's i's change revenues between year t-1 and year t

ΔREC_{it} = net receivables in year t less net receivables in year t-1

PPE_{it} = Firm's i's gross value of property, plant and equipment in year t

ε_{it} = error term in year *t* for firm *i* (unexplained component of total accruals).

α_1, α_2 and α_3 = specific parameters of industry

Step 3: estimating the non-discretionary accruals in year t for each firm

$$NDA_{it} = \ddot{a}_1 \left(1/A_{it-1} \right) + \ddot{a}_2 \left[\frac{(\Delta REV_{it} - \Delta REC_{it})}{A_{it-1}} \right] + \ddot{a}_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) \qquad (7)$$

Where:

NDA_{it}= non-discretionary accruals for firm i in year t

A_{it-1} = total assets for firm i at t-1

ΔREV_{it}= revenues in year t less revenues in year t-1 for firm i

ΔREC_{it} = net receivables in year t less net receivables in year t-1 for firm i

PPE_{it} = Gross property, plant and equipment in year t for firm i

α_1, α_2 and α_3 = industry specific parameters that estimated from equation

Step 4: Determining the amount of discretionary accruals.

$$DA_{it} = TA_{it} - NDA_{it} \qquad\qquad (8)$$

Where:

DA_{it} = Discretionary accruals for firm I in year t

NDA_{it}: Discretionary accruals for firm i in year t

TA_{it}: Total accruals for firm i in year t

In the second part of this study, the effect of accounting standards on earnings management is investigated. The relationship between discretionary accruals (proxy on earnings management) and accounting standards is examined.

$$EM = \beta_0 + D_{st} + \beta_1(CR_t) + \beta_2(SIZE_t) + \beta_3(GROWTH_t) + \beta_4(LOSS_t) + \beta_5(DEBIT_t) + \in_t$$
(9)

D_{st} = dummy variable for accounting standards reform that is 1 for the year of enforcement of accounting standards reform and 0 for the other years.

SIZE = is calculated by the natural logarithm of market value of equity.

GROWTH = is calculated the growth in sales in year t.

LOSS = is a dummy variable that is one when there is negative net income, and otherwise zero.

CR = is the current ratio for controlling the liquidity. $\in_t$ is the error term in year t.

DEBIT = is calculated by the ratio of long term and short term debts to total assets in year t.

2.1 Descriptive analysis

Table 1: Descriptive Statistics: Bahrain sample

Name of variables	N	mean	Std. Dev.	median
EM (Earnings Management)	251	0.342	0.505	0.223
CR (Current Ratio	251	3.115	1.963	2.604
Growth	251	0.118	0.178	0.084
Debit	251	0.100	0.135	0.039

Size	251	2.367	0.584	2.252
Leverage	251	0.108	0.146	0.044
Loss	251	0.191	0.139	0
Dst	251	0.517	0.500	1

Table2: Descriptive Statistics: Iran sample

Name of variables	N	mean	Std. Dev.	median
EM (Earnings Management)	4086	0.649	0.081	0.621
CR (Current Ratio	4086	1.241	1.300	1.087
Growth	4086	0.258	1.196	0.136
Debit	4086	0.818	0.625	0.721
Size	4086	5.860	3.371	4.600
Leverage	4086	1.859	1.912	1.205
Loss	4086	0.196	0.397	0
Dst	4086	0.066	0.249	0

Table 3: Descriptive Statistics: UAE sample

Name of variables	N	mean	Std. Dev.	median
EM (Earnings Management)	566	0.617	0.113	0.544
CR (Current Ratio	566	1.658	1.643	1.312
Growth	566	0.504	0.680	0.680
Debit	566	2.325	1.496	2.152
Size	566	2.661	0.676	2.647
Leverage	566	0.593	0.652	0.652
Loss	566	0.035	0.184	0
Dst	566	0.769	0.266	0

Table 4: Descriptive Statistics: Saudi Arabia sample

Name of variables	N	mean	Std. Dev.	median
EM (Earnings Management)	1091	0.359	0.510	0.401
CR (Current Ratio	1091	1.578	1.383	1.246
Growth	1091	0.732	1.515	0.126
Debit	1091	0.357	0.491	0.202
Size	1091	2.871	0.661	2.771
Leverage	1091	0.358	0.472	0.139
Loss	1091	0.074	0.262	0
Dst	1091	0.153	0.361	0

Table 5: Correlation matrix for sample of Bahrain

	EM	CR	Debt	Leverage	Growth	Loss
CR	-0.121					
Debt	0.072	-0.258				
Leverage	-0.243	-0.136	0.042			
Growth	0.058	0.045	-0.162	-0.069		
Loss	0.050	-0.089	0.105	0.109	-0.168	
Size	0.118	- 0.270	0.344	0.324	-0.046	0.184

Table 6: Correlation matrix for sample of Saudi Arabia

	EM	CR	Debt	Leverage	Growth	Loss
CR	-0.052					
Debt	0.032	-0.064				
Leverage	0.022	-0.313	0.077			
Growth	-0.029	0.022	-0.016	-0.078		
Loss	0.060	-0.010	0.021	0.406	-0.099	
Size	0.072	-0.014	0.026	-0.087	0.096	-0.051

Table 7: Correlation matrix for sample of Iran

	EM	CR	Debt	Leverage	Growth	Loss
CR	-0.013					
Debt	0.018	-0.284				
Leverage	-0.019	-0.104	0.217			
Growth	-0.009	0.013	-0.064	-0.049		
Loss	0.012	-0.157	0.501	0.209	-0.131	
Size	0.030	-0.093	0.318	0.085	0.072	-0.325

Table 8: Correlation matrix for sample of UAE

	EM	CR	Debt	Leverage	Growth	Loss
CR	-0.036					
Debt	0.045	-0.013				
Leverage	0.019	-0.035	0.098			
Growth	-0.057	-0.076	-0.185	-0.013		
Loss	0.050	-0.048	0.054	0.031	-0.022	
Size	0.030	0.009	0.042	-0.197	0.086	-0.018

Table 9: The Mean of Earnings Management (EM) before and after Accounting Standards Reform

Country	Before Accounting Standards Reform		After Accounting Standards Reform	
	Mean of EM		Mean of EM	
	Modified Jones Model	Francis Model	Modified Jones Model	Francis Model
Bahrain	0.730	0.577	0.535	0.413
UAE	0.911	0.777	0.708	0.605
Iran	0.877	0.725	0.742	0.598
Saudi Arabia	0.487	0.391	0.452	0.351

(H_1) Enforcement of accounting standards reform has decreased earnings management in Iran.

Table 10: The results of fixed effect OLS model for sample of Iran Dependent variable: EM (Earnings Management)

Variables	coefficient	Std. Error	t-statistic	P-value
CR	-0.013	0.018	-0.704	0.481
Debt	0.082	0.095	0.865	0.387
Dst (Dummy for accounting standards)	-1.419	0.192	-7.386	0.001***
Growth	-0.005	0.030	-0.175	-0.861
Loss	0.098	0.141	0.692	0.488
Size	0.146	0.063	2.298	0.022**
Const	-0.800	0.885	-0.904	0.366
R squared	0.49			
Durbin Watson1.66			J- statistic6.93	

(H_2) Enforcement of accounting standards reform has decreased earnings management in Bahrain.

Table 11: Dynamic panel data estimates the effect of Accounting Standards Reform on Earnings Management for sample of Bahrain

Dependent variable: EM (Earnings Management)

Variables	coefficient	Std. Error	t-statistic	P-value
CR	-0.009	0.024	-0.380	0.703
Debt	0.061	0.324	0.188	0.851
Dst (Dummy for accounting standards)	-0.195	0.064	-3.021	0.003***

Growth	-0.476	0.203	-2.343	0.020***
Loss	0.005	0.231	0.020	0.973
Size	-0.025	0.077	-0.323	0.746
Const	0.469	0.225	2.082	0.038
R squared	0.258			
J_ statistic	1.06		Durbin Watson2.071	

(H₃) Enforcement of accounting standards reform has decreased earnings management in Saudi Arabia.

Table12: Dynamic panel data estimates the effect of Accounting Standards Reform on Earnings Management
for sample of Saudi Arabia

Dependent variable: EM (Earnings Management)

Variables	coefficient	Std. Error	t-statistic	P-value
CR	-0.016	0.008	-2.026	0.043**
Debt	0.031	0.019	1.628	0.104*
Dst (Dummy for accounting standards)	-0.053	0.017	-3.078	0.002***
Growth	-0.019	0.014	-1.323	0.186
Loss	0.050	0.050	0.988	0.323
Size	-0.040	0.033	-1.180	0.238
Const	0.208	0.109	1.914	0.055
R squared 0.116				
J_ statistic 1.21			Durbin Watson2.023	

(H₄) Enforcement of accounting standards reform has decreased earnings management in UAE.

Table 13: Dynamic panel data estimates the effect of Accounting Standards Reform on Earnings Management
for sample of UAE

Variables	coefficient	Std. Error	t-statistic	P-value
CR	-0.002	0.013	-0.173	0.862
Debt	0.008	0.017	0.473	0.636
Dst (Dummy for accounting standards)	-0.104	0.066	-1.577	0.015**
Growth	-0.062	0.032	-1.975	0.048**
Loss	0.078	0.106	0.736	0.462

Size		-0.088	0.045	-1.944	0.052[*]
Const		0.862	0.137	6.281	0.001
R squared	0.188				
J_ statistic	5.65			Durbin Watson2.129	

Dependent variable: EM (Earnings Management)

Findings of regressions are presented separately in this chapter. Summary of the results revealed accounting reform decreased earnings management in Bahrain, Iran, Saudi Arabia and UAE. Therefore, overall, the findings showed 1) the level of earnings management in selected countries in Middle East. 2) Accounting standards reforms had significant effect on earnings management in selected stock markets.

3. Conclusion

This study includes three objectives. The first objective of the study is, to examine earnings management in selected countries. These four countries were selected from Middle Eastern countries because of availability of data, importance of these countries in this area in aspects of economy and politically and reform in accounting bodies during recent years. The second objective is to examine the relationship between accounting standards reform and earnings management. The last objective is, to examine the relationship between leverage and earnings management in selected countries. This study uses two approaches for evaluating earnings management for achieving to first objective. First, the Francis et al., [32] and second, Modified Jones Model [34] were applied to measure earnings management. The regression variations approach was needed to measure the impact of accounting standard reform on earnings management and secondly to measure the relation between leverage and earnings management in selected countries (for regression models earnings management by Francis model was considered).

Because of the variety of accounting standards and other differences across selected countries, this study considers each country separately to test of sub hypotheses. After that, the main hypotheses are tested with using analyses of the results of selected countries.

According to the findings of this study, there is a negative significant relationship between accounting standards reform and earnings management in Iran, Bahrain, Saudi Arabia and UAE. Therefore second main hypothesis and all sub hypotheses are supported. It means accounting standards reform reduced earnings management in UAE, Iran, Saudi Arabia and Bahrain. The results of this study are consistent with [35] & [36] that studied the relation between accounting standards and earnings management in the other countries.

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