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THE ROLE OF THE AUDIT COMMITTEE AND THE BOARD OF DIRECTOR IN MITIGATING THE PRACTICE OF EARNINGS MANAGEMENT: EVIDENCE FROM JORDAN

Abstract:

Recently, the audit committees and boards of directors have been considered to be corporate governance mechanisms that can play key roles in mitigating earnings management practices. This study’s purpose is to explore the impact of the board of directors (i.e., size, CEO duality, independence and financial expertise and knowledge) and the presence of an audit committee with earnings management practices in Jordanian firms. The study used the leverage ratio as a control variable. The sample covered industrial firms listed in the Amman Stock Exchange from the years 2014-2016. This study used multiple regression in determining if the board of directors and the audit committee affect earnings management practices. The study revealed that the presence of an audit committee negatively affected the earnings management practice in industrial Jordanian firms. This study suggested that characteristics of the board of directors, namely, independence and CEO duality, significantly influenced the practices of earnings management Furthermore, the findings indicate that separating the position of CEO and chairman along with more independent board members plays an increasingly important role in preventing earnings management practices by ensuring the effective monitoring of management. The study recommends extending such research to offer a more comprehensive awareness of earnings management in emerging capital markets using new variables of corporate governance.

Keywords:

Earnings management, board of director, audit committee and Jordan.

1. Introduction

The issue of earnings management practices has been of greater concern among government, accounting and public circles following the high-profile corporate governance scandals that have rocked the business world. Most of these firm scandals have been referred to as major accounting scandals owing to the underpinning reason behind their failure, which were financial misstatements made to hide the true financial information made possible through weak corporate governance (Kankanamage, 2015). Against this background, earnings management refers to the use of flexible accounting principles allowing managers to manipulate reported earnings, which, in turn, causes the reported income to be either higher or smaller than it actually is (Zouari, Lakhal & Nekhili, 2015).

The role of corporate governance is of utmost importance and invaluable when managers are incentivized to steer away from meeting the interests of shareholders. This may be exemplified by the management of earnings via the use of accounting accruals. In this regard, corporate governance works to minimize the incidence of earnings management (Roodposhti & Chasmi, 2010). As such, corporate governance remains a worthwhile area for study, particularly because earnings management remains a salient issue (Man & Wong, 2013). Issues regarding corporate governance in several emerging markets have been highlighted owing to a series of corporate accounting scandals in the United States, Europe and East Asia (Siam, Laili & Khairi, 2014), which were due to bad practices. These included Enron in 2001, Adelphia Communications in 2002, WorldCom in 2002, and Fannie Mae in 2006 in the United States, Parmalat in 2003, Banco Espirito Santo in 2014, and Tesco in 2014 in Europe, and Olympus in 2014, Toshiba in 2015, and Fuji Xerox in 2017 in Asia. In this context, the role of corporate governance is to either mitigate or eliminate earnings management. Generally speaking, an institutional environment providing an optimum legal protection is able to monitor the self-interests of management to some level (Man & Wong, 2013).

1.1 Audit Committee and Earnings Management

Audit committees primarily provide independent monitoring of internal control effectiveness and financial reporting quality and the work of external auditors. The committee also provides a conduit between the board, external auditors, internal auditors and the related entities (Man & Wng, 2013). The committees form one corporate governance mechanism that works to establish coordination among the administration, the external auditor and performance to increase the effectiveness of corporate governance in securing financial disclosure transparency (Hamdan, Mushtaha, Al-Sartawi & Abdalmuttaleb, 2013). According to Chandrasegaram, Rahimansa, Rahman, Abdullah and Mat (2013), the monitoring and oversight roles of the audit committee establishes a check-and-balance that curbs unexpected earnings management. In relationship to this, the independence of the audit committee is among the main corporate governance

mechanisms that limits earnings management, and audit committee independence can enhance investor confidence by doing so (Garcia-Meca & Sanchez-Ballesta, 2009).

Aside from the above studies, Elijah and Ayemere (2015) revealed a significant effect of audit committee in limiting accrual-based distortions of financial reporting credibility, which leads ultimately to enhanced financial reporting quality. This is why Salihi and Jibril (2015) argued that the size of the audit committee determines earnings management in that the size of the audit committee has a negative and significant effect on practices of earnings management, meaning that the presence of more members of the audit committee reduces the tendency for managing earnings practices. Moreover, an audit committee in a firm positively contributes to enhanced performance by reducing the negative influence of the non-audit provisions of services by auditors on corporate performance (Al Daoud, Al-Sraheen & Alslehat, 2015). Meanwhile, Mishra and Malhotra (2016) showed that an audit committee is a very important component of corporate governance structure as size of audit committee, multiple directorships of members, and the frequency of meetings positively impact earnings quality. Thus, this study hypothesizes that:

H1: The presence of an audit committee will have a negative effect on earnings management practices.

1.2 Board Size and Earnings Management

Board size is also a significant governance mechanism that influences the reported earnings of a company that are made by the earnings manipulations of management to satisfy a predetermined goal (Salihi & Jibril, 2015). In the Nigerian case, Obigbemi, Omolehinwa, Mukoro, Ben-Caleb and Olusanmi (2016) revealed a significant association between board structure and practices of earnings management among firms. They reported a negative association between board size and earnings management. Meanwhile, in Indonesia, Nugroho and Eko (2012) related that the size of the board did not affect the earnings management practices of companies listed on the Indonesian Stock Exchange. However, in a study conducted by Chouaibi, Harres and Brahim (2016), the authors revealed that the board of directors appear to significantly influence sales management practices, and the number of directors significantly and negatively influenced sales manipulation. In effect, an increase in the number of the board members was found to be likely to play an effective role in the monitoring of sales manipulation.

Ab Razak and Palahuddin (2014) contended that the size of the board was negatively related with earnings management, implying that bigger boards are related with lower degrees of total discretionary accruals. Kankanamage (2015) found that a firm with a small board size but comprising a majority of independent non-executive directors with sound financial expertise was also capable of limiting earnings management practices of

management and of enhancing financial reporting quality. Therefore, this study hypothesizes that:

H2: A large board size will affect earnings management practices positively.

1.3 CEO Duality and Earnings Management

One of the top issues in European codes of corporate governance is CEO duality, a situation in which a CEO also serves as chairman of the board of directors (Zouari *et al.,* 2015). In Nugroho and Eko's (2012) study of the Indonesian Stock Exchange, they revealed that dual leadership or CEO duality significantly influenced earnings management practices. In other words, the dual role of the manager in the firm created opportunities for earnings management practices, with power concentrated in the hands of management. This concentration makes it possible for management to practice earnings management through income increasing or income decreasing strategies.

In contrast, Chouaibi *et al.* (2016) found no relationship between CEO duality and the sales management level in Tunisia. According to them, although the Tunisian legislators granted autonomy to firms to choose their management structures, the CEO did not leverage the dual executive leadership structure for sales manipulation. In a study of the Nairobi Stock Exchange, Iraya, Mwangi and Muchoki (2015) found that earnings management was positively related to CEO duality, indicating that an increase in CEO duality will lead to a corresponding increase in earnings management. Moreover, earnings management is more likely to arise in firms, whose CEO is also the chairman of the board and holding higher portion of the firm's equity (Zouari *et al.,* 2015). This indicates that a CEO in a company with duality leverages his autonomy and managerial discretion to maximize the fulfilment of his self-interests. The same positive relationship between CEO duality and earnings management was revealed by Ab Razak and Palahuddin (2014) in a study of the Bursa Malaysia, and the authors explained that CEO duality firms were more likely to engage in earnings management. Thus, this study hypothesizes that:

H3: CEO duality will affect the practice of earnings management positively.

1.4 Board Independence and Earnings Management

Studies dedicated to the effect of board independence on earnings management have reported mixed and inconclusive findings. For instance, Klein (2002) revealed a negative relationship between independence of board and abnormal accruals, indicating that reducing board independence would lead to large amounts of abnormal accruals. On the other hand, Nugroho and Eko (2012) reported no effects between an independent board of directors and practices of earnings management in the Indonesian firms listed on the Stock Exchange while a negative and significant correlation was found between board independence and sales manipulation by Chouaibi *et al.* (2016) who studied firms on the Tunisian Stock Exchange. This suggests that with an increase in the percentage of

independent directors on the board, firms will adopt less sales management. Iray *et al.* (2015) revealed a negative relationship between earnings management and independence of board in a study of the Nairobi Stock Exchange. They reached the conclusion that outside directors of the board may better at enhancing governance practices as they are more effective in monitoring management of earnings. Thus, this study hypothesizes that:

H4: The independence of the board of directors will negatively affect earnings management practices.

1.5 Board Expertise and Knowledge and Earnings Management

A manager's manipulation of reported earnings in an opportunistic manner is limited by robust and effective internal monitoring in the form of corporate boards (Siam *et al.,* 2014). The independence of the board from the CEO makes it more effective in monitoring corporate financial accounting procedures (Klein, 2002). According to Liu and Tsai (2015), better quality board members could lead to greater control of actual earnings management. While Bala and Gugong (2015) reported a significant and negative association between financial expertise and earnings management. This indicates that the members of the board with financial expertise are better able to detect earnings management, thus minimizing the possibility of earnings management by management. Similarly, Johl, Kaur and Cooper (2015) stated that board accounting/financial expertise positively relates to the performance of the firm, implying that board members who are expert in accounting are in a better position to conduct their oversight responsibilities and serve the interests of shareholders. Thus, the present study hypothesizes that:

H5: Board expertise and knowledge will negatively affect earnings management practices.

2. Research Methodology

The present study made use of secondary data to examine the association of board of directors and earnings management. The study sample covered industrial firms listed on Amman Stock Exchange from 2014 to 2016. The total listed firms by the end of 2016 was 63, but 14 firms were excluded from the sample due to missing annual financial reports in the same span of years. Therefore, the final number of firm observations was 147. Data were collected from annual financial reports and the Amman Stock Exchange website.

2.4 Measurements of the Variables

For the existence of audit committee (ACM), this study measured the presence by a dummy variable of 1 if an audit committee was present and 0 if otherwise (Al Daoud, Ismail, & Lode, 2015). Regarding board size (BSIZ), this study used the total number of board members for measuring board size (Al Daoud, Ismail, & Lode, 2014).. CEO duality (CEO) arises when the CEO and chairman are same person, and a value of 1 is assigned if CEO duality is present and 0 if otherwise. Moreover, board independence (BIND) is

calculated by the proportion of non-executive directors to the total number of directors at the year end. Board expertise and knowledge (BFEXP) was measured as the percentage of the board of directors with experience/qualifications in finance or accounting. The ratio of total debts to total assets was used to measure company leverage (CLEVR). With respect to the sign of discretionary accruals as a proxy of earnings management practice (EM), this study used the modified Jones model that Dechow et al. (1995) proposed for the estimation of earnings management practice and is computed by following equations:

Equation (1) to calculate total accrual:
TACC $=NI_{it}$ (Net Income) – CF_{it} (Cash Flow from Operation)

Equation (2) to calculate accrual for each company of the study sample in year

$$\frac{TACC_{it}}{TA_{i,t-1}} = a_1\left[\frac{1}{TA_{i,t-1}}\right] + a_2\left[\frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{i,t-1}}\right] + a_3\left[\frac{PPE_{it}}{TA_{i,t-1}}\right] + \varepsilon_i$$

Note, TACC refers to total accruals; TA refers to total assets; ΔREV refers to change in revenues from the preceding year; ΔREC refers to change in accounts receivable from the preceding year; PPE represents firm's gross property, plant and equipment. Meanwhile, α1-α3 entail the regression parameters and ε refers to equal error term.

Equation (3) to calculate the non-discretionary accruals (NDACC).

$$\frac{NDACC_{it}}{TA_{i,t-1}} = [a_1\left[\frac{1}{TA_{i,t-1}}\right] + a_2\,[\Delta REV_{it} - \Delta REC_{it}] + a_3\,[PPE_{it}]$$

Equation (4) to calculate the discretionary accruals (DACC) through deducting non-discretionary accruals from the total accruals.
DACCit = TACCit – NDACCit

2.1 Descriptive Analysis

The descriptive analysis results of the study variables are shown in Table 1. It is evident that the average of presence of audit committee in the companies of study sample was about 44.2%. The mean size of the board of directors was 8.795, with a minimum of 5 directors and a maximum of 14, showing that most firms complied with the Jordanian Code of Corporate Governance, which calls for a minimum of 5 members. Moving on to CEO duality, the results of the descriptive statistics show that, on average, 39.8% of the listed firms in Jordan have CEO duality, indicating that most companies employed the CEO duality form of leadership. As for the independence of the board, the mean of independent board members was found to be 40.2%. The mean value of the board expertise and knowledge was 29.6%, with 0% as a minimum and 74% as a maximum. On average, the leverage of industrial companies was 43.9%, with a minimum of 18% and a maximum of 94%. Finally, the average of the earning management practice in

companies of study sample was .0915. These results indicate that industrial Jordanian companies tend to involve in earnings management practices.

Table 1 Descriptive Statistics (n = 147)

	Minimum	Maximum	Mean
EM	.0001	.649	.0915
ACM	0	1	.442
BSIZ	5	14	8.795
CEO	0	1	0.398
BIND	.01	.93	0.402
BFEXP	.00	.74	0.296
CLEVR	.18	.94	0.439

Note: EM = Earnings management, ACM = Audit committee, BSIZ = Board size, CEO = CEO duality, BIND = Board independence, BFEXP = Board financial expertise and knowledge, and CLEVR = Leverage.

2.2 Pearson correlation

The test's objective is to determine the existence of multicollinearity issues among the variables. According to Hair *et al.* (2010); Tabachnick and Fidell (2007), the problem occurs between variables if a correlation is present that exceeds 0.9. From the Table 2, the Pearson correlation values between the dependent and independent variables show that the highest correlation was audit committee (ACM) and CEO duality (CEO) at 0.229, a correlation value that is far below 0.9, indicating no multicollinearity issue.

Table 2 Pearson Correlations

	EM	ACM	BSIZ	CEO	BIND	BFEXP	CLEVR
EM	1						
ACM	-.235**	1					
BSIZ	-.003	-.100	1				
CEO	.165*	.229**	.037	1			
BIND	-.225**	.005	-.146	-.069	1		
BFEXP	.073	.067	-.051	-.046	.017	1	
CLEVR	.266**	.060	.038	.070	.083	.026	1

Note: EM = Earnings management, ACM = Audit committee, BSIZ = Board size, CEO = CEO duality, BIND = Board independence, BFEXP = Board financial expertise and knowledge, and CLEVR = Leverage. ** correlation is significant at the 0.01 level (2-tailed) and * correlation is significant at the 0.05 level (2-tailed).

2.3 Regression Analysis

This study employed multiple regression analysis to examine the influence of the board of directors on earnings management practice among industrial firms for the years 2014-2016. In addition, this study used company leverage as a control variable. The following is the structural equation model that was used to test the regression analysis between the independent and dependent variables.

$$EM = \beta_0 + \beta_1 ACM + \beta_2 BSIZ + \beta_3 CEO + \beta_4 BIND + \beta_5 BFEXP + \beta_6 CLEVR + \varepsilon$$

Where: EM = Earnings management, ACM = Presence of audit committee, BSIZ = Board size, CEO = CEO duality, BIND = Board independence BFEXP = Board financial expertise and knowledge, and CLEVR = Leverage ratio.

3. Results of Regression Analysis

According to the outcomes of the regression analysis in Table 3, the value of adjusted R^2 for the study model was 19.3%, which indicates that independent variables (i.e., audit committee and board of directors) explained 19.3% of the variance of earnings management practice. Moreover, the model is statistically significant (F-statistic = 6.830, p = 0.000).

Table 3: Results of Regression Coefficients

Independent Variables		Standardized Coefficients Beta	t	SIG
ACM		-.288	-3.728	.000***
BSIZ		-.055	-.723	.471
CEO		.242	3.140	.002***
BIND		-.196	-2.592	.011**
BFEXP		.110	1.478	.142
CLEVR		.250	3.337	.001***
Model Summary: Dependent Variables (EM)				
N	147			
R^2	.226			
Adjusted R^2	.193			
F statistic	6.830			
Significate	.000			
Durbin-Watson	1.811			

As shown by the outcomes of the analysis in Table 3, the existence of an audit committee significantly and negatively affected the practice of earnings management (t = -3.728; sig

= 0.000). The results suggest that companies with an audit committee are more effective in monitoring and controlling management activities, and this, in turn, leads to the preventing earnings management practices. Board size did not have significant affect earnings management (t = -.723; sig = 0.471). This result shows that the practice of earnings management was insignificantly related to the number of board members. Therefore, the number of board members does not insure that earnings management will be lower. These outcomes are supported by Nugroho and Eko (2012); they revealed that no association was present between size of board and earnings management practices. With regard to CEO duality, Hypothesis 3 posits that CEO duality is positively correlated with the practice of earnings management. The outcomes of the regression as stated in Table 3 show that CEO duality was significant and positive as predicted related to earnings management (i.e., t = 3.140, sig = 0.002). In fact, the dual positions of CEO and chairman will lead to the absence of the controlling role of the board of directors and may lead to encouraging the practice of earnings management. The results of CEO duality item are consistent with Iraya *et al.* (2015), who suggested that CEO duality was positively related with the earnings management.

As shown in Table 3, board independence appears to restrict the practice of earnings management in Jordanian industrial companies. The results indicate that the relationship between independence of board and the practice of earnings management was significant and negative as predicted (t = -2.592 and Sig. = 0.011). In other words, the higher the level of board independence the better the board is able to monitor and to control the behaviour of managers, which, in turn, leads to limiting the level of earnings management. These findings are in line with the outcomes of Chouaibi *et al.* (2016), who asserted that an increase in the percentage of independent board members negatively affects sales management practices. In this study, board expertise and knowledge was expected to prevent the practice of earnings management in Jordanian firms. As reported in Table 3, the result of the analysis conflicted with the current study's expectations, showing no significant relationship between board expertise and knowledge with earnings management (i.e., t = 1.478, sig = 0.142). This means that the board members with financial expertise and knowledge do not have any effect on the practice of earnings management in Jordanian industrial companies. The results show no substantial difference in earnings management for board members who have financial expertise compared with those who do not have financial expertise. As shown in Table 3, the results of company leverage and earnings management were significant and positive (t = 3.337, sig = 0.001). This outcome of this study supports the idea that firms with an increased leverage ratio are more likely to encourage the practice of earnings management.

Conclusion

This study sought to enhance the prior research on the board of directors and practice of earnings management in emerging capital markets by exploring whether the board of directors reduced the earnings management practice in industrial companies listed on (ASE) for the years from 2014 to 2016. For determining earnings management, this study employed the modified Jones model that Dechow et al. (1995) proposed. Using a multiple regression analysis, this study found that a negative relationship existed between the presence of an audit committee, board independence and CEO duality with the practice of earnings management. This finding reveals that companies with an audit committee and board of directors who are independent and that separate the function of CEO and chairman are capable of discouraging management from manipulating earnings. However, this study failed to find any significant association between board size and board financial expertise and knowledge with the practice of earnings management. The study also found that increasing the leverage ratio would increase the practice of earnings management. Overall, the study asserts that corporate governance mechanisms represented by the audit committee and the board of directors reduce the practice of earnings management. Therefore, the study recommends that Jordanian companies employ a better corporate governance structure.

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