

DOES THE COMPETENCY ATTRIBUTES OF BOARD MEMBERS' ENHANCE THE MONITORING OF EARNING MANAGEMENT? EVIDENCE FROM A DEVELOPING COUNTRY

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Abstract

How to cite this paper: Ghazalat, A. N. M., Islam, Md. A., Noor, I. B. M., & Abu Haija, A. A. (2017). Does the competency attributes of board members' enhance the monitoring of earning management? Evidence from a developing country. *Corporate Board: role, duties and composition*, 13(1-1), 100-108.

<http://dx.doi.org/10.22495/cbv13i1c1art4>

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ISSN Online: 2312-2722

ISSN Print: 1810-8601

Received: 22.12.2016

Accepted: 10.04.2017

JEL Classification: G32, G34, M41

DOI: 10.22495/cbv13i1c1art4

The monitoring role of the board of directors has been extensively slammed as being ineffective since it depends on several factors. This study sheds light on some of the directors' attributes and the impact on mitigating the opportunistic behaviour. By adopting different perspectives, we argued whether the directors with more expertise, tenure, outside directorships become more effective in mitigating the opportunistic behaviour. These attributes could have a curvilinear effect since such optimal attributes could improve the competency level of the directors. Hence, the board becomes more effective. Meanwhile, its effect could turn inversely to make the directors ineffective. This study adopted discretionary accruals as an indicator for earnings management. A sample of 114 service and industrial firms listed in Amman Stock Exchange (ASE) from 2009-2015 were chosen for this study. Pooled OLS regression model is enlisted to avoid the inconsistency of the slope across individual units and time period. Results show that the directors with financial expertise are more effective to minimise the level of earnings management practices. Conversely, the independent directors with high tenure besides the higher directors with outside directorships are engaged with a high level of earnings management practices. This implies the existence of each of the friendliness hypothesis and the busyness hypothesis in the Jordanian market. Similarly, this also explains the weakness of the board of directors in complying to their monitoring role in the emerging markets in general.

Keywords: Discretionary Accruals (DAC), Director Expertise, Directors' Tenure, Outside Directorships, Amman Stock Exchange (ASE)

1. INTRODUCTION

Agency theory postulated that managerial opportunistic behaviours arise as a result of the separation between the operational control (Agent) and ownership (Principal) of the company (Jensen & Meckling, 1976). Managers could exploit their power and the elasticity that inherent in the accounting procedures to maximise their benefits at the expense of the shareholders (Habib et al., 2013). In general managers have a different motivation to managed earnings such as the job security, self-interest, contractual arrangements, regulatory, taxation and meet the market expectations (Healy & Wahlen, 1999). Thus, earnings management practises lead to provide a contrary vision of reality.

This, in turn, will influence the expectations of the financial statement users and transfer the wealth from owners to controllers since it provides inaccurate financial information by violating the accounting standards.

In light of the financial scandals in the international markets, regulators, academics and the international organisations embarked on determining and explaining the reasons that lead to such these turmoil. Accounting manipulation and the ineffective monitoring system by corporate governance and the weakness of applying these recommendations is one of these reasons (Downes & Russ, 2005; Uwuigbe et al., 2014). These financial scandals such collapse of the HealthSouth Corporation, 2003; Bristol-Myers Squibb, 2002;

Enron, 2001 and WorldCom, 1990 in the US; One-Tel, 1995; HIH, 2001 and Harris Scarfe, 2001 in Australia; Parmalat, 2003 in Italy and Lernout & Hauspie, 2000 in Belgium. Overall, regulators in sought to develop effective systems to limit the opportunistic behaviours and the financial problems such as the corporate governance. In Jordan, regulators issued the Jordanian corporate code in January 2009 (JSC, 2009). This code defined and covered the composition, responsibilities and the subcommittee of the board of directors, shareholder rights, disclosure and transparency in attempted to establish the rational governance principles.

However, the board of directors is one of the important corporate governance mechanisms (such as the audit committee, nomination-compensations committee, compensation contract, disclosure and external audit factors). When the agency conflict a raise between agent and principal the board can play a pivotal role in minimising the divergence gap. The effectiveness level of the board of directors in monitoring the opportunistic behaviours can be achieved from different characteristics such as independence directors, board size, meeting, CEO duality and the subcommittees (Xie, 2001; Ebrahim, 2007; Goh, 2009). This, in turn, leads to reducing the level of the agency costs through monitoring the managerial opportunistic behaviours. Hence, the effectiveness of the board of director could improve through different other factors that refer to the competency of the board members such as their financial expertise, tenure, holding outside directorships. This attributes would indicate to the director knowledge, familiarity and ability to dealing with the market, taking decisions and accounting aspects (Beasley, 1996; Lanfranconi & Robertson, 2002; Vafeas, 2003).

This study empirically examines whether the board of directors with more financial expertise, tenure and holding outside directorships have become more effective in monitoring the earnings management practices. These attributes enhance the board member ability to achieve their tasks since directors are the coordinator between inside and outside environment. Directors should be familiar with the financial and accounting aspects. Hence, directors gain more knowledge and become familiar with the firm's operations when served for a long-time period on the board "long tenure". While, outside directorships assist directors to acquire new skills and quality of knowledge thus improve their monitoring power and the governance expertise (Lanfranconi & Robertson, 2002; Anderson et al., 2004; Jiraporn et al., 2009; Kim et al., 2014).

The directors would act with these attributes to maintain their reputations and increase experiences which explain the improving of the directors' monitoring role. Fama and Jensen (1983) argued monitoring responsibilities of the board of directors under the reputation hypothesis since the directors should achieve their tasks effectively in an attempt to increase and maintain their reputational capital. Also, Vafeas (2003) recommends that the directors who worked for a long period on the same firm, under the expertise hypothesis, become more able to monitor the opportunistic behaviours and control the company interests with high competence and commitment. Directors with the outside directorship could provide extra value for the firm's governance policy thus lead them to achieve the responsibilities in the pivotal way (Kiel & Nicholson, 2003). In

contrary, these attributes could be shifted the board of director to be ineffective. Since it could have a curvilinear effect, hence, it's could be engaged directors with a lower level of monitoring roles. Friendly relations could arise between the board members and managers of the firm when the directors served for a long time "the entrenchment hypotheses". Thus the independent directors or the directors as all worthless while they do not appear any effectiveness for monitoring process (Vafeas, 2003). On the other hand, directors with multiple directorships become exhausted, distraught and too busy, under the busyness hypothesis, as a consequence of the multitude of activities related to the companies they represent (Lipton & Lorsch, 1992; Ferris et al., 2003). Therefore, directors could become less effective in monitoring the managerial opportunistic behaviours depending on the degree of preoccupation attributable to the multiple directorships. Empirically, this study contributes to the literature through examining the association between the competency attributes (i.e.: financial expertise, the length of tenure, the proportion of multiple directorships) of the board of directors and earnings management.

The rest of the paper is organised as follow. Section two comprise an explanation for a literature and hypotheses development within the outline of the theoretical background; section 3 describes the sample and data collection process. Also, discusses the models and the variables measurement approach. Section 4, present the empirical results and discussion. Finally, section 5 concludes the paper.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Directors on the personal level should enjoy variety skills and experiences to achieve their responsibilities optimally. In constraining and monitoring, managerial opportunistic behaviours directors with a high level of competency would be more effective. For instance, competency of the board can achieve through directors with financial expertise, long tenure or the combining outside directorship. However, companies with competent directors would be more stable since they are able to monitor and interrogate managers, developed strategies of the company and focused on the company operations to achieve the optimal financial objectives (Barton et al., 2004). The familiarity of directors with the financial and accounting procedures would improve the ability of directors to monitoring managerial behaviours effectively. Hence, minimise the opportunistic behaviours and improve the quality of financial statement (Beasley, 1996; Anderson et al., 2004). Directors financial expertise could derive from the director tenure and combine outside directorships (Badolato et al., 2014).

Therefore, directors with financial expertise would achieve better governance and preserve the value of the company (Güner et al., 2008). In line with this argument, Xie et al. (2003) noted that directors with financial knowledge and expertise are more effective to minimise earnings management practices. As well as, Park and Shin (2004) pointed that the earnings management practices are at the low level when the board members are from the financial intermediaries. Also, they referred that

possession of sufficient financial experience by the outside directors provides a comprehensive understanding of the company operations. Even so, Gul and Leung (2004) recommend that the higher presence of the directors with the financial expertise could explain the declining level of voluntary disclosure.

Empirically, Lin and Hwang (2010) found that board members with higher financial expertise play a pivotal role in minimising the level of discretionary accruals. Thus more monitoring power over the managerial opportunistic behaviours come from the experienced directors as well as high level of conservatism in preparing the financial statement (Yunos et al., 2011; Uwuigbe et al., 2014). As the high level of experienced directors on financial and accounting contribute to an active governance, hence, minimise earnings management practices as result of improved the board's monitoring role.

H₁: A higher proportion of director's financial expertise is significantly related to lower level of earnings management practices.

Directors tenure refer to the length of period that the directors served on the board (Byrd & Hickman, 1992). Under the expertise hypothesis, directors with serving for a long tenure on the company board become more experienced and familiar with company operations (Anderson & Bizjak, 2003; Vafeas, 2003). Thus, directors become more effective in monitoring managerial behaviours since Chtourou et al. (2001) noted a negative significant correlation between the outside director's tenure and earnings management. Beasley (1996) argued that longer member tenure on the board lead to decrease the probability of fraud in financial statements. Results in the UK provide evidence that the earnings management existing in low level in firms with longer directors tenure (Peasnell et al., 2005). Over the Post-SOX period, Ghosh et al. (2010) pointed out that directors are more likely to monitor the opportunistic behaviours when they are served for a long time and have sufficient financial expertise. Thus, Long tenure directors more competent directors. While in Malaysia, Abdul Rahman and Ali (2006) noted that the independent director tenures not sufficient to enhance the directors' competency for monitoring managerial behaviours and evaluating the outputs of the financial reports. In Canadian firms, Park and Shin (2004) noted an insignificant relationship between directors' length of tenure and the level of discretionary accruals. Likewise, Nugroho and Eko (2012) found that directors tenure does not affect the earnings management practices in Indonesian listed firms.

On the other hand, directors with longer tenure inside the company board could link to friendship relations with the company managers (Vafeas, 2003). Thus, for instance, independent directors' become meaningless since there are friendly relations that could combine the interests of the independent directors and managers. Kim et al. (2014) maintain that directors' tenure is not effective therapy, it leads to impair the monitoring power. Consistent with Marra and Mazzola (2014) who claim that the monitoring role of the independent directors is at a low level when served for a long period of time in the company. In keeping with the reputation hypothesis, under the agency theory, longer independent directors tenure in Jordanian firms is a

mere presence to enhance the independent directors monitoring role.

H₂: longer independent director's tenures are significantly related to lower level of earnings management practices.

In addition, multiple directorships refer to the sum of the outside memberships that occupied by the member of the board in the current time. Despite the lack of evidence, combining more one outside directorships considered as vital mechanisms that would co-opt external resources. Thus, they are more able to provide additional value for the firm governance policy since they take advantages from their memberships in other firms (Kiel & Nicholson, 2003). This agrees with the Zahra and Pearce (1989) perspective whose consider the board members as boundary spanners that can provide active communication channels with other companies in the markets. Thus, take advantage of experiences of others and the development of expertise. Moreover, directors keep attention to their reputations that would improve their experience since its rise through performing very well in the other firms (Fama & Jensen, 1983). Consequently, variate knowledge and experience can achieve through multiple directorships, then, improve the director's governance role (Jiraporn et al., 2009).

Saleh et al. (2005) noted expert directors with additional outside directorships become more effective in monitoring the earnings management, while, they pointed out that only the unmanaged negative earnings are negatively affected by the multiple directorships. Field et al. (2013) refers to the multiple directorships as mechanisms that improve the directors' expertise since they found a higher presence of directors with multiple directorships the higher firm value. This, in turn, would lead directors to be more effective in monitoring and advising. On the other hand, Nugroho and Eko (2012) and Jamaludin et al. (2015) noted the insignificant relationship between busy directors and earnings management proxy in Indonesian listed firms and Malaysian Government Linked Companies respectively. Contrariwise, Sarkar et al. (2008) pointed out that the earnings management practices are in high level when independent directors are busy in the larger 500 Indian firms. likewise, Sharma and Iselin (2012) noted that the financial misstatements are significantly and positively correlated with the independence directors tenure and multiple directorships in the audit committee. Thus, the multiple directorships would lead to weakens of the monitoring role of the board. Overall, the effect of the multiple directorships is inconclusive. Thus, following the reputation hypotheses, directors with outside memberships in Jordan would be more effective to monitor the opportunistic behaviours.

H₃: A higher proportion of directors with additional outside directorships are significantly related to lower earnings management practices.

3. RESEARCH METHODS

3.1. Sample and Data

In this study, data was derived from the financial statement for the firms listed in the industrial and services firms (non-financial firms) of Amman Stock Exchange (ASE). Our sample covers the period from

2009-2015 because the Jordanian corporate code was established and activated at the beginning of 2009. However, data comprise 798 firm-observation for 114 continues firms over the study period. Panel data methodology used in the attempt to achieve the study objective by exploration the effect of independents variables on the earnings management proxy. Panel data considered as a combination of both type of data cross-sectional and time-series (Yaffee, 2003). Using data for a long time of period and different companies in different sectors would provide more efficient results for the measuring the proxy of earnings management (Ronen & Yaari, 2008; Muchoki, 2013). Pooled OLS regression model is enlisted to avoid the inconsistently of the slope across individual units and time period (Baltagi, 2005).

3.2. Measurement Variables

3.2.1. Earnings Management Measure

Kothari et al (2005) model or which is known as the performance-adjusted discretionary accruals is used as a proxy measure of the level of the practice of

$$\frac{TOAC_{iy}}{TA_{iy-1}} = \alpha_0 + \alpha_1 \frac{1}{TA_{iy-1}} + \alpha_2 \frac{\Delta Rev_{iy} - \Delta Rec_{iy}}{TA_{iy-1}} + \alpha_3 \frac{PPE_{iy}}{TA_{iy-1}} + \alpha_4 ROA_{iy} + \varepsilon_{iy} \quad (2)$$

Where: TA - ending balance of total assets; ΔRev - change in total revenue ($Rev_y - Rev_{y-1}$); ΔRec - change in total receivable ($Rec_y - Rec_{y-1}$); PPE - the ending balance of the total property, plant and

$$\frac{NAC_{iy}}{TA_{iy-1}} = \bar{\alpha}_1 \frac{1}{TA_{iy-1}} + \bar{\alpha}_2 \frac{\Delta Rev_{iy} - \Delta Rec_{iy}}{TA_{iy-1}} + \bar{\alpha}_3 \frac{PPE_{iy}}{TA_{iy-1}} + \bar{\alpha}_4 ROA_{iy} \quad (3)$$

Step4 finally the value of TOAC in step one deducting from the value of NAC in step three to found the discretionary accruals DC amount:

$$DC_{iy} = TOAC_{iy} - NAC_{iy} \quad (4)$$

3.2.2. Measurement procedures

The study variables and its measures are summarised in Table 1. In line with prior studies, this study disregards the orientation of the earnings management practices by taking the absolute value of the DC_{iy} as the independent variable. Thus, comprise the mutual effect of the upward and downward earnings management.

However, three variables that represent the competency attributes of the board members are the proportion of directors' financial expertise, directors tenure, the proportion of directors' multiple directorships. The proportion of directors' financial expertise as the percentage of directors with financial expertise to the board size (Yunos et al., 2011). Similar to Abdul Rahman and Ali (2006), directors tenure measured as the average of the total independence directors service years over the company board. The proportion of directors' multiple directorships measured as the total number of the directors who combined at least one

earnings management by adopting the total accruals approach under the cash flow method, then, using a cross-sectional technique to determine the model parameters. Under the cash flow approach, the total accruals defined as the output of the deducting process of the firm net income from the cash flow from operations (Shah et al., 2009). However, total accruals classified for non-discretionary and discretionary accruals (Healy, 1985). Following steps explains the mustering value of discretionary accruals:

Step1 determine the total accruals (TOAC) value using cash flow approach for each firm (i) in each year (y) ended by deducting the net income before discontinued operations and extraordinary items (NI) from the cash flow from the operations (CFOp):

$$TOAC_{iy} = NI_{iy} - CFOp_{iy} \quad (1)$$

Step2 estimating the non-discretionary accruals regression parameters ($\alpha_1, \alpha_2, \alpha_3$) by applying the OLS regression for all firms in each industry in each year (cross-sectional):

equipment; ROA - return on assets ratio; ε - error term.

Step3 estimating the non-discretionary accruals NDC for each firm at the end of each year by using the parameters computed in the second step:

additional outside membership to the board size, comparable to that employed by Nugroho and Eko (2012).

The aim of this study will be achieved by exploring the effect of competency effect on the earnings management practices. This study uses five variables to control the influence of the factors that could affect the dependent and independent variables. Following Chtourou et al. (2001), Xie et al. (2003) and Abdul Rahman and Ali (2006), the influence of the firm size (FSZ) is controlled by using the natural logarithm (LN) for the company total assets. Xie et al. (2003) provide evidence that managers in the small companies are more likely to involved in earnings management practices. However, Peasnell et al. (2005) refer to the probability of the role the external auditor could play in minimising the violation of accounting procedures. The type of the external audit firms (AFM) is controlled. In an attempt to understand the level of the earnings management in industrial and services sectors, this study controls the type of sector (TSE). Finally, to avoid any uncertain effect for the endogeneity problem on the corporate governance this study as precautionary step control the proportion of the board independence (BIN) and the board size (BSZ). This, in turn, will provide the actual effect of the independent variables.

Table 1. Summary of the variables measurement

Variables	Symbol	Measurement
<i>Dependent variables</i>		
Earnings management	DA	Obtained using Kothari et al. (2005) model by adopting the absolute value of the discretionary accruals.
<i>Independent variables</i>		
Directors' financial expertise	DFE	A percentage of directors with financial expertise to the board size.
Director tenure	DTE	The average of the total independence directors service years over the company board.
Multiple directorships	DMD	The total number of the directors who combined at least one additional outside membership to the board size.
<i>Control Variables</i>		
Firm size	FSZ	The natural logarithm (LN) for the company total assets.
Audit firm	AFM	Dummy variable takes a value of one if the company audited by one of the Big 4, otherwise zero.
Type of sector	TSE	Dummy variable takes a value of one if the company under observation is listed under the industrial sector, otherwise zero.
Board independence	BIN	The proportion of a total number of independence directors to the board size.
Board size	BSZ	The aggregate number of the board of directors.

4. EMPIRICAL RESULTS AND DISCUSSION

Table 2 presents the descriptive statistics of the continuous and categorical variables defined in this study. The average value of the earnings management proxy (DA) was 0.109 that ranged between 1.4 and 0.0001 which is too close to zero. This result agrees with Park and Shin (2004) where the average value of DA among Canadian firms was 0.103. Also, agree with Abdul Rahman and Ali (2006) who noted the minimum value of the DA among Malaysian firms was close to zero. The directors with financial expertise were 23% on average of the sample that ranged from 100%-0%. This indicates that there is some firms listed in ASE did not have

any members with financial experience in its board, exactly, 19.67% of the firms (157 firm-observation) from the study sample. This result very close to other studies in the Asian countries, for instance, Yunos et al. (2011) who pointed the proportion of directors with financial expertise was 27% on average in Malaysian listed firms. However, the descriptive statistic indicates also that the independence director tenure on average was 3.6 year with 16 years as the longest serving period. This result can consider as a reasonable value compared with the results of Abdul Rahman and Ali (2006) who pointed 28 years as the longest serving period of the independence director in Malaysia.

Table 2. Descriptive statistics

Variables Symbol	Obs.	Mean	Std. Dev.	Minimum	Maximum
<i>Continuous Variables</i>					
DA	798	0.1090571	0.1360086	0.0001029	1.462804
DFE	798	0.2329623	0.1923484	0	1
DTE	798	3.61294	2.987482	0	16
DMD	798	0.4616278	0.2755147	0	1
FSZ	798	16.9455	1.430832	13.06016	21.31029
BIN	798	0.2942533	0.1717389	0	0.7142857
BSZ	798	8.016291	2.296904	3	13
<i>Categorical Variables</i>					
AFM	798		513 (64.29%)		285 (35.71%)
TSE	798		378 (47.37%)		420 (52.63%)

Source: Authors' computation using STATA 13.0

On the other hand, the directors with multiple directorships in ASE is 46.16% on the average. All members of the board in some of the companies listed in ASE have at least one additional outside directorship. Only 73 firm-observation (9.15%) of the study sample did not record any outside directorship for the company board member. This can be attributed to the institutional structure of the firm, for instance, some of the directors represent their families. Moreover, the natural logarithm of the firm assets was 16.94 on average. As well as, financial statements for 64.29% of the firms in ASE are not audited by one of the Big4 audit-firms.

The Mean of the independence directors is 29.42% of the study sample with maximum 71.42% and zero as a minimum. This result is very low compared with the result of Xie et al. (2003) in the USA where the proportion of the independence directors on average was 67%, while 38.5% reported

by Abdul Rahman and Ali (2006) in Malaysia. However, the average of the board size is 8.01 member with minimum 3 and maximum 13 members. This indicates that there is some of the companies violate the Jordanian corporate code where the independence directors should be at least one-third the company board. also, the board size should be at least 5 members and not more than 13 members (JSC, 2009). Actually, only 1.88% of the sample violate the sample size condition where its board size was less than 5 members. Whereas, 41.36% violate the independence directors condition where the proportion was less than on third. Finally, 47.37% of the firms in study sample are listed in the industrial sector and 52.63% are listed in the services sector.

In line with the panel data assumptions, this study applied Levin, Lin and Chu test (LLC) as one of the preferable unit root tests on the panel data to

check if the data is stationary or not (Baltagi, 2005). The data consider as non-stationary data (unit root exists) when the p-value of the unit root test (LLC) for any variable is over than the significance level. However, Table 3 shows that all the variables are significant. Thus, the data of this study is stationary and all variables are free. However, under this study, the sector type variable is used as an explanatory variable "dummy". Hence, this variable omitted from the LLC test where it's already stationary regardless of the test result. Actually, it is impossible to compute any results for this variable because it represents nearly identical observations. This

variable represents 60 firms under the industrial sector and 54 firms under the services sector. There are no critical values can be observed for such this variable (Baltagi, 2005).

In respect of the heteroscedasticity problem, the Modified Wald Test has been applied. The results in Table 3 show that the chi-square value is $1.7e^{+07}$ and significant at 0.001. Thus, the regression model in this study suffers from the heteroscedasticity problem. While the result of the Wooldridge Test indicates that there is no serial correlation between the regression variables (insignificant F-value = 0.002).

Table 3. Diagnostic checks

Variables Symbol	Multicollinearity		LLC	
	VIF	1/VIF (Tolerance)	statistic	p-value
DFE	1.07	0.930608	-13.3832	0.000
DTE	1.51	0.664144	-11.5351	0.000
DMD	1.09	0.918115	-17.4445	0.000
FSZ	1.43	0.700351	-95.5559	0.000
AFM	1.29	0.777763	-8.80456	0.000
TSE	1.06	0.947290	omitted	omitted
BIN	1.42	0.703089	-17.4063	0.000
BSZ	1.40	0.716242	-8.82504	0.000
Mean VIF	1.28			
Modified Wald Test		$1.7e^{+07***}$		
Wooldridge Test		0.002		

Significant level *** 1% and ** 5%

Source: Authors' computation using STATA 13.0

Meanwhile, this study applied the Pearson correlation coefficients, the variance inflation factor (VIF) or the tolerance factor (1/VIF) to satisfy if there is any multicollinearity problem between the study variables either dependent or independent. According to Gujarati (2003), the multicollinearity problem exists when the correlation coefficients value between two variables is higher than 0.8. While

its exists also if the value of VIF is greater than 10 and the value of 1/VIF is below 10%. Table 3 shows that the VIF and the 1/VIF factor for all variables are within the standard range ($VIF > 10$; $1/VIF < 10\%$). As well as, Table 4 presents that no correlation value exceed 0.8 between any two variables. Hence, the study variables do not suffer from the multicollinearity (collinearity) problem.

Table 4. Pearson correlation coefficients

Variables Symbol	DA	DFE	DTE	DMD	FSZ	AFM	TSE	BIN	BSZ
DA	1.0000								
DFE	-0.1393	1.0000							
DTE	-0.0516	0.0969	1.0000						
DMD	0.0496	0.0689	0.1920	1.0000					
FSZ	-0.1551	0.0761	0.0491	-0.0273	1.0000				
AFM	-0.2390	0.2421	0.0848	0.0809	0.3927	1.0000			
TSE	-0.0925	-0.0006	-0.0686	0.0349	-0.1804	-0.1309	1.0000		
BIN	-0.2887	0.0917	0.5330	0.0855	0.0089	0.0891	0.0439	1.0000	
BSZ	-0.1069	0.1167	0.2529	0.1979	0.4353	0.2898	-0.0720	0.1614	1.0000

Source: Authors' computation using STATA 13.0

Overall, this study applied the correcting robust standard error to obviate the heteroscedasticity problem under Pooled OLS regression (Hoechle, 2007). Table 5 offers the results of the regression model, the model is significantly fit at 0.001 level (F-value = 24.3). The variable used in this regression explain 17.44% of the variation of the dependent variable (DA). Also, *t*-Statistic of the consistent of the regression is 4.84 and significantly at 0.001. The results of the Pooled OLS regression refers that more directors with financial expertise will improve the effectiveness level of the board of directors and increase monitoring power to

minimise the opportunistic behaviours. However, directors, financial expertise is negatively and significantly associated with earnings management proxy. Thus, the firms with professional directors whose have a sufficient financial expertise are not suffered from a high earnings management practices in ASE. These results agree with the agency theory perspective and the prior study's findings that noted that directors with financial knowledge and expertise are more effective to minimise earnings management practices such as Xie et al. (2003); Park and Shin (2004) and Lin and Hwang (2010). Thus the H_1 is accepted.

Table 5. The robust pooled OLS regression results

Variables	$DA = \beta_0 + \beta_1 DFE_n + \beta_2 DTE_n + \beta_3 DMD_n + \beta_4 FSA_n + \beta_5 AFM_n + \beta_6 TSE_n + \beta_7 BIN_n + \beta_8 BSZ_n + \varepsilon_n$		
	Coefficients	t-static	P>t
DFE	-0.0524594	-2.60	0.011
DTE	0.0061378	3.77	0.000
DMD	0.036985	6.02	0.000
FSZ	-0.0092151	-2.02	0.046
AFM	-0.0520808	-6.58	0.000
TSE	-0.0307649	-1.96	0.052
BIN	-0.2669605	-29.72	0.000
BSZ	-0.0003293	-0.16	0.877
_Con	0.3541707	4.84	0.000
R-sq	0.1744		
F-value (group)	6561.65***		
F-value	24.3***		

Notes: Significant level *** 1% and ** 5%

Source: Authors' computation using STATA 13.0

In contrast, each of the director's tenure and the director's multiple directorships is significantly and positively correlated with the earnings management proxy. This indicates that the independence directors with longer tenure are not effective to minimise the opportunistic behaviours. The independent directors with longer tenure are engaged with the earnings management practises. As well as, directors with multiple directorships lead to weakens the monitoring role of the board and shifted their orientation to be engaged with a high level of earnings management practices. These results agree with the friendliness hypothesis where the longer tenure inside the company board could be linked to friendship relations with the company managers (Vafeas, 2003). As well as, it agree with busyness hypothesis where the directors with additional outside directorships have become too busy to fulfil their responsibilities (Ferris et al., 2003). Overall, the monitoring role of the directors is shifted to be meaningless when they served for a long time in the board or/ and combined multiple outside directorships. In the other words, the monitoring role shifted to be exploiting role since directors are more likely to be involved in the opportunistic behaviours or not able to detect that at least. Thus, the $H_{2,3}$ are rejected since the higher director tenure and outside memberships are associated with higher earnings management.

In regard to the control variables, only the effect of the board size is insignificantly correlated with the DA. While the natural logarithm of the firm total assets (FSZ) is significantly negatively associated with DA. This specifies that the managers in larger companies less incentives to practices earnings management consisting Xie et al. (2003) in the USA; Abdul Rahman and Ali (2006) in Malaysia. Also, when the financial statement audited by one of the Big4 firms the earnings management practices are in low level. Thus, managers avoid manipulating earnings when the external auditor is one of the Big4 audit firms. The AFM is significantly negative correlated with DA.

Finally, each of the sector type (TSE) and the proportion of the independence directors (BIN) are negatively correlated with earnings management. This indicates that the firms sorted in industrial sectors are less suffers from the earnings management comparing with that sorted on the services sectors. Meanwhile, the board with more independent directors become more effective to monitor the opportunistic behaviours, consisting with agency theory perspective.

5. CONCLUSIONS

This study aimed to examine the nature of the relationship between the competency attitudes of the board members and earnings management practices by using the panel data technical method over the data collected from ASE for the non-financial firms during 2009-2015. The main objective of this study is to determine the effectiveness of the monitoring role of the board of directors by combining the perspectives of the agency and resource dependence theory. Thus exploring the optimal situation for the board competency attributes under the hypotheses of the reputation, expertise, friendliness and/or busyness.

The prediction made about the competency of board members and its role of the monitoring the discretionary accruals are inaccurate. Only the financial expertise of directors have negatively correlated with earnings management proxy. Meanwhile, each of the independence directors' tenure and the director's multiple directorships has a positive relationship with earnings management proxy. This implies that each of the friendliness or busyness hypotheses are more appropriate in Jordanian environment than the reputation and expertise hypotheses. This can explain the weakness of the board of directors to fulfil their monitoring role and the higher level of earnings management.

In the earnings management context, our findings advocate that the longer tenure of the independent directors and the multiple directorships would be destructive in the corporate governance. This advocate does not deny that such these attributes contribute to improving the competency level of the board member, but they are reflected on the directors monitoring role. The personal interests, friendly relations and busyness become the predominant situations that would shift these attributes to elements of the weakness of the corporate governance at a specific level in the developing countries.

These findings would likely to provide assistance for the policy makers and the regulatory institutions in Jordan to modify the corporate governance code. For instance, limit the service intervals of the independence directors to be not more than six years, as well as, limit the outside directorships for each director up to three outside directorships either in the personal capacity or in the representative of a legal person. Besides, link these attributes by the board size such as the

directors with multiple directorships not exceeds one-third of the board.

Despite these results, different limitations could restrict this study. For instance, this study examined on earnings management by adopting the discretionary accruals as a proxy. Future research can focus on the real earnings management, earnings conservatism, fraud, financial restatement. This would provide further insight into the ability to generalise these results in the developing countries. Also, in an attempt to explain the attitudes of the board of directors under the hypotheses of the reputation, expertise, friendliness and/or busyness, this study focused on the director's competency attributes. Thus, this study did not consider the other attributes of the board of directors such as meeting, CEO duality, gender and the attributes of the directors on the audit committee which opened up possible research areas in the future.

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