

Testing the Moderating Role of Managerial Ownership in Audit Committee Characteristics-Real Earnings Management Nexus

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This study is deemed indispensable on the premise that research on the extent and predictors of Earnings Management (EM) would have significant implications for regulators, analysts, scholars and practitioners. Therefore, this study investigated the moderating effect of managerial ownership on audit committee characteristics' (ACC) relationship with real earnings management (REM) practices in the listed Jordanian firms. Data covering seven years (2011-2017) were gathered via yearly reports of the listed manufacturing and service sector corporations on ASE and analysed via the hierarchical multiple regression analysis technique. The overall result indicates that the significant role played by ACC in curbing REM practices in the listed Jordanian firms can be strengthened by managerial ownership (MOWN). This result is substantiated by the fact that MOWN could mitigate the problem of managerial myopia by allying the interests of shareholders and managers, and it can serve as a deterrent factor that can reduce agency costs and influence or strengthen the corporate governance mechanisms (CGM). This finding indicates that REM practices will be reduced when MOWN is great, and this could particularly be attractive to likely investors who can invest in the firms where there is great level of MOWN and low level of REM. Although ACC is a significant factor that ensures compliance with CG best practices, other mechanisms such as board characteristics have been empirically identified as important constituents of CG that can mitigate EM. So, future research can examine the moderating role of MOWN in the connection amongst board characteristics and EM.

Key words: *Real Earnings Management, Corporate Governance Mechanisms, Audit Committee Characteristics, Managerial Ownership.*

Introduction

EM refers to the managerial discretion practice (within GAAP) which is given preference over real economic discretions, accounting choices, and earnings reporting choices to stimulate how essential economic proceedings are discovered in one or more measures of earnings (Walker, 2013). Firms all over the world face different kinds of challenges, given the swiftly varying dynamics of globalisation and growing market competition. To surmount the challenges and enhance the competitive advantage of the firms, there is need for adaptation of modern strategies and policies in curtailing EM. This is of much importance, because EM practice is a vital subject within accounting study. Specifically, real earnings management (REM) events are harmful to a firm's long-term performance, reported earnings and real economics, especially when firms produce in excess, offer price discounts to increase sales capacity and build up stock to reduce the cost of goods sold which influence earnings (Fan, 2017; Rowchowdhury, 2006).

The extant literature on EM has signified that managers do involve in EM practices to maximise their salary (Walker, 2013). The literature analysing this matter has established that earnings could be manoeuvred to indicate secluded information regarding anticipated impending cash-flows to shareholders or motivate the third parties like suppliers, creditors and personnel. EM could be linked to various market pressures, incentives of self-preservation and evasion of the breach of contractual agreements (Watts & Zimmerman, 1978; Healy & Wahlen, 1999), and financial crisis (Chia, Lapsley & Lee, 2007).

EM could cause the companies to wind up, which could eventually give rise to high rates of unemployment, loss of market, declining entrepreneurial growth, and a recessive economy; as well as endangering investors' protection. In the context of Jordan, the existing empirical evidences have indicated prevalence of EM (most especially REM) in Jordan. The country has been ranked high among the 38 countries sampled for the ranking-based research, which was conducted by Enomoto, Kimura, and Yamaguchi (2015). The outcomes of the study indicated that REM practices in the Jordanian corporations are being carried out.

Moreover, there have been many scholastic efforts (e.g., Madi, Ishak, & Abdul-Manaf, 2014; O'Callaghan, Ashton, & Hodgkinson, 2018; Supriyaningsih & Fuad, 2016) to unravel the factors that could determine and predict EM. For example, Supriyaningsih and Fuad (2016) and Madi, Ishak, and Abdul-Manaf (2014) identified audit committee characteristics (ACC) as the significant determinants of EM. According to agency theory, ACC are a significant factor

that ensure compliance with corporate governance (CG) best practices. In addition, agency theory postulates that ACC play a significant role in constraining EM, particularly, when the ACC are constituted by independent directors who use independent judgment while studying the management's financial reporting activities, which could have an impact in ensuring that the financial information is transparent and not misleading.

Nevertheless, consensus on the significant effects of ACC on EM has not emerged, with the findings of the existing studies regarding the connection between ACC and EM activities being inconsistent, indicating the presence of a research gap, because when inconclusive and mixed findings are involved, it is pertinent to introduce an interacting variable (Frazier, Tix, & Barron, 2004). Furthermore, managerial ownership (MOWN) is capable of mitigating EM activities carried out to upsurge managers' proportion of firm cash-flows. Managers with relatively small or no equity could have diverse opportunistic inducements to conceal poor firm performance, given that the managers can be sacked by the shareholders (O'Callaghan, Ashton, & Hodgkinson, 2018). It is held that EM activities could adversely affect the shareholders' dividends. Managers who possess a great proportion (or all) of the corporate's equity do not get such inducements.

MOWN could mitigate the problem of managerial myopia via creation of alignment between the managers' interests and shareholders' interests (Singh & Davidson, 2003). It could likewise serve as a deterrent factor that can reduce agency cost and influence or strengthen the corporate governance mechanisms (CGM) (Alzoubi, 2016; Jean, 2000; Ramadan, 2016). Thus, the questions like; does MOWN strengthen the effect of ACC on EM, or can MOWN moderate the relationship between ACC and EM, are pertinent, and examining this concern in the setting of Jordanian firms is persistent in light of the prevalence of EM practices among Jordanian firms, the consequent recessive economy, the indispensability of efficient monitoring of the managerial performance and extermination of earnings management behaviours in the present company environments (Saona & Muro, 2018) – and the sparse empirical literature examining EM in the context of Jordan. In addition, the research on the extent and causes of EM would provide vital insights for the regulators, analysts, academics and practitioners (Kothari, Leone, & Wasley, 2005),

Review of Literature and Development of Hypotheses

Diverse incentives have given rise to several contractual conflicts between the contractual parties (Jensen, 1993; Jensen & Meckling, 1976). A series of business activities such as bond issuance, seasonal equity donations, initial public offerings (IPOs), and corporate scandals have signified that managers manipulate earnings. This behaviour of the managers, which represents managers' self-interest at the detriment of the shareholders' interests, could be triggered by various market pressures, incentives of self-preservation, evasion of the breach of contractual

agreements (Watts & Zimmerman, 1978; Healy & Wahlen, 1999), and financial crisis (Chia, Lapsley & Lee, 2007). Agency conflict, incentives, rationalisation and the tendency of managers to manipulate financial reports are considered causes of EM practices (Kazemian & Sanusi, 2015). As posited by Peasnell, Pope and Young (2005) as well as Aljifri (2007), managers do manipulate earnings using different techniques such as management of accounting choice and real activities manipulation.

Given the fact that EM practices could give rise to any anomalies such as collapse of companies and the consequent recessive economy, several studies (e.g., Fodio, Ibikunle & Oba, 2013; Siam, Laili, & Khairi, 2014) were carried out to investigate the determinants of EM, but CGM have been widely recognised as the predominant predictors of EM, given the need for some mechanisms that would make the managers act in the best interest of stockholders and consequently mitigate the conflict of interest between stockholders and managers. These mechanisms are called CG systems. Consistent with the agency theory, CGM could stimulate alignment between management interests and stockholders' interests and thus curtail EM behaviours (Alves, 2012).

ACC has become the most common mechanisms of CG. A global acceptance of AC has been recommended by the specialists and the governing bodies in several nations, and it is advisable that AC be augmented (Turley & Zaman, 2004; Abdullatif, 2006). The Basel Committee in 2001 is in favour of the creation of the firms' AC to proffer solutions to the problems arising in the board. Agency theory suggests that ACC is a significant factor that ensures compliance with CG best practices. In addition, agency theory postulates that ACC plays a significant role in constraining EM, particularly, when the ACC is made up of autonomous directors who independently assess the management's financial reporting activities, which could have an impact in ensuring that the financial information is transparent and not misleading.

AC could augment the effectiveness of CGM through main four characteristics (size, independence, financial expertise and frequency of meetings,) (Bedard, Counteau & Chtourou, 2004; Bronson et al., 2009). In this study, ACC are proxied with four characteristics, involving AC size, independence, expertise and meeting. This conforms to the Jordanian Code of CG (JSC, 2009).

First and foremost, although it has been recognised that the size of AC does have significant influence on AC effectiveness (Al-Zoubi & Selamat, 2012) – the small size of AC could tamper with the committee's oversight effectiveness (Vafeas, 2005). Small AC may find it difficult to discharge its duties efficiently, given the increasing nature of committee assignments. In the same vein, large AC could cut down management performance, given the challenges of coordination which could also hinder monitoring effectiveness (Jensen, 1993; Vafeas, 2005). However, the outcomes of the existing studies regarding the effect of AC on EM practices are

mixed. Research findings on AC size-EM connection are of 3 sets: research like Supriyaningsih and Fuad (2016) and Madi, Ishak, and Abdul-Manaf (2014) discovered that the size of the AC is significant in increasing the EM practices in the sampled firms; the research of (Abbadi, Hijazi & Al-Rahahleh, 2016; Hassan & Ibrahim, 2014) found that the size of the AC is significant in decreasing the EM practices in the sampled firms. The third set of the studies (Bedard, Chtourou, & Couteau, 2004) establishes a non-significant relationship between AC size and EM.

Moreover, the oversight role played on behalf of shareholders is encouraged with greater independence of AC. This agrees with the theory of agency which proposes that the autonomy of AC members is a vital mechanism which gives support to ACs real supervisory role (Fama & Jensen, 1983). Yet, the present literature in the EM research field contains inconsistencies, as the findings in the study conducted by Abbott, et al. (2003) indicated a positive connection between NED and EM, and the research by Kinney, Palmrose, and Scholz (2004) gives support to these findings, but Klein (2002) found a significant negative connection between AC independence and EM, signifying that AC independence can significantly curtail EM practices in the firm. Hassan and Ibrahim (2014) accentuated this finding in their study. But, Rahman and Ali's (2006) and Peasnell, Pope, and Young's (2001) findings revealed a non-significant association between AC independence and EM.

Given that AC members with the required skills, qualifications and professional certificates would help improve the audit procedure to guarantee precision in the fiscal reports, proficiency level of AC membership is crucial to fiscal reports' quality, (Hamdan, Mushtaha, & Al-Sartawi, 2013; Bedard, Chtourou, & Courteau, 2004). The AC that is constituted by the experts who have in-depth knowledge of accounting or other related areas would be effective in curtailing EM practices in the firm (Puat, Nelson, & Devi, 2013). In the context of Jordan, Al-Zoubi and Selamat (2012) stated that the companies with efficient ACs are less likely to allow EM since opportunistic earnings are those leading to uncertainty in the corporate's economic rate. According to Firth, Lo, and Wong (2004), companies with an AC constituted by a good number of expert members would have a low-level of EM activities.

It has been signified that the independent and expert AC must be active in effective monitoring exercises (Bedard, Chtourou, & Courteau, 2004). The numbers of meetings the AC hold would enable the firms' management to resolve any conflicting issue. This may also assist in the improvement of inner control within the companies (Stewart & Munro, 2007). Nonetheless, the findings of the many researches on the connection amongst AC meetings and EM practices are conflicting. For instance, while the findings of the studies like Davidson Goodwin-Stewart, and Kent (2005), Xie, Davidson, and DaDalt (2003), and Bedard, Chtourou, and Courteau (2004) indicate that the frequency of meeting by the AC has a significant negative influence on EM, the findings of the studies such as Saleh, Mohd Iskandar, and Mohid Rahmat (2007)

and Rahman and Ali (2006) reveal that the frequency of meeting of the AC has a positive effect on EM.

Overall, the findings of the extant literature on the role of ACC in curtailing EM practices are conflicting. To attain a profound insight and at the same time advance the field of knowledge further, this study hypothesises thus:

A Significant Inverse Relationship is Expected Between AC Size and EM; Between AC Independence and EM; Between AC Expertise and EM, and between AC Meetings and EM in the Listed Jordanian Industrial and Service Firms.

Furthermore, the inconsistency in the findings of the existing studies regarding the connection between ACC and EM activities has signified the presence of a research gap, because when inconclusive and mixed findings are involved, it is pertinent to introduce an interacting variable (Frazier, Tix, & Barron, 2004). According to Gulzar and Wang (2011) and Liu (2012), the directors could engage in EM practices to upsurge their proportion in the company's cash-flows and consequently diminish the dividends of the stockholders. The stimulant of this behaviour could have a negative effect on MOWN, given that it is a significant element of ownership structure employed to reduce managers-shareholders conflicts (Gulzar & Wang, 2011; Liu, 2012). Thus, MOWN is considered a befitting interacting (moderating) variable that can serve as a factor to lessen agency cost and influence or strengthen the CGM in curtailing EM practices (Alzoubi, 2016; Jean, 2000; Ramadan, 2016).

Considering the findings of some studies (e.g., Alzoubi, 2016; Alves, 2012; Warfield, Wild, & Wild, 1995), MOWN can lessen EM, signifying that EM practices will be at a low ebb in the firms that have high levels of MOWN. According to Alzoubi (2016) and Ramadan (2016), EM practices of Jordanian companies can be curtailed by MOWN in the Jordanian context. In a scenario where owners are slightly detached from managers, there would be less pressure on the managers to exhibit the firm value to the financial markets, and managers would not pay due attention to the financial statement in the short-term (Klassen, 1997). This depicts that high stakes possessed by insiders could be a deterring factor to earnings manipulation, given that a shortage of market discipline could stimulate insiders' accounting choices based on self-interest more than the increase in the wealth of the shareholders (Sanchez- Ballesta & Garsa-Meca, 2007).

In line with agency theory, MOWN inspires managers to guarantee enhanced firm value, because managers, like shareholders, share the effects of the wealth. Thus, managers' stock ownership can give rise to harmonised managers-shareholders interests, indicating MOWN's significant role in curtailing EM activities. Additionally, where managers have no ownership stake in the firm, shareholders' wealth maximisation could be endangered (Jensen & Meckling,

1976). Breaking ownership away from control in a firm would confine value-maximising behaviour (Warfield et al., 1995). Thus, as opined by Warfield et al. (1995), less stakes owned by managers could induce the firms' management to manipulate the accounting income to lessen the contractual constraints that depend on the outcomes of the accounting system.

Furthermore, Ratnawati and Abdul-Hamid (2015) observed that EM activities would be on the rise where there is shortage of MOWN. This implies that high control rights of the major shareholder will upsurge the likelihood of EM practices. MOWN, which is regarded as a CGM, can mitigate the manager's EM behaviours (Herawaty, 2009), indicating MOWN's negative connection with EM (Midiastuty & Machfoedz, 2003).

Given the discussion above, the hypothesis is that:

The Inverse Relationship between ACC (Size, Independence, Expertise, and Meetings) and EM in the Listed Jordanian Industrial and Service Firms Will be Strengthened by Managerial Ownership.

Methodology

The data used in the current study were extracted from the yearly reports of the selected companies comprising the firms in the industrial and service sector on the Amman Stock Exchange (ASE). The data covered a seven-year period from 2011 to 2017, in addition to 2010 for calculation of the changes in sales. The total samples of the study are 103 firms representing 721 observations, because as at the end of 2017, there were 54 services sector firms (24.1%) and 63 industrial sector firms (28.1%), but 14 firms were excluded, because the data extracted from some of the excluded firms were either unclear or incomplete.

The data obtained from the yearly reports of the selected companies were analysed to test the hypotheses of the study. The data analysis techniques adopted include Ordinary Least Squares (OLS), correlation analysis and descriptive statistics. The statistical analysis technique is held to provide more informative data variables sufficiency since the variables will be multiplied by time, a high level of freedom and efficiency with fewer collinearities among variables (Baltagi, 2008), hence the selection.

The REM approach is employed to represent EM in this study, although there are three EM techniques adopted by the corporate managers to engage in REM practices (Roychowdhury, 2006). The three methods indicated the abnormal activities through cash flow from operations, discretionary expenses and production cost. The formulas are as below:

$$CFO_t/A_{t-1} = \alpha_0 + \alpha_1 (I/A_{t-1}) + \beta_1 (S/A_{t-1}) + \beta_2 (\Delta S/A_{t-1}) + \epsilon_t \dots \dots \dots \text{(Model 1)}$$

$$DC_t/A_{t-1} = \alpha_0 + \alpha_1 (I/A_{t-1}) + \beta (S_{t-1}/A_{t-1}) + \epsilon_i \dots \dots \dots \text{(Model 2)}$$

$$ECOGS_t/A_{t-1} = \alpha_0 + \alpha_1 (I/A_{t-1}) + \beta (S_{t-1}/A_{t-1}) + \epsilon_i \dots \dots \dots \text{(Model 3)}$$

Where:

CFO_t = Cash Flow from Operation Activities of year t

DC_t = Discretionary Expenses of year t

$ECOGS_t$ = Cost of Goods Sold in year t

A_{t-1} = Total Assets at the Beginning of year t

α_0 = Constant or Intercept

S_t = Sales During year t

ΔS = Change in Sales from year $t - 1$ to t

S_{t-1} = Sales During year $t-1$

ϵ_t = Error term

The variance between actual cash flow from operations (ACFO) and estimated cash flow (ECFO) from operating activities is known as abnormal cash flow from operations (AbCFO) as stated below:

$$\mathbf{AbCFO = ACFO - ECFO}$$

The difference between actual discretionary expenses and estimated discretionary expenses is known as abnormal discretionary expenses. The formula is expressed as below:

$$\mathbf{AbDC = ADC - EDC}$$

The difference between ACOGS and ECOGS is known as abnormal cost of goods sold. The formula is expressed as below:

$$\mathbf{AbCOGS = ACOGS - ECOGS}$$

Therefore, the REM formula is finally expressed as:

$$\mathbf{REM = AbCFO + AbDC + AbCOGS}$$

Moreover, the literature review guides the measurement of ACC in this study. AC size, independence, expertise, and meetings constitute the measures of ACC. The total number of directors occupying the AC of a company's corporate board at the end of the financial year represents AC size in this study (Kang & Kim, 2012; Saleh, Mohd Iskandar, & Mohid Rahmat, 2007). In addition, AC independence is measured with the number of NEDs, as a proportion of total AC members (Al-Rassas & Kamardin, 2015; Rahman & Ali, 2006). Consistent with

the JCGC, the number of members with accounting or financial expertise on the AC stands for AC expertise in the present study (Akhtaruddin & Haron, 2010; Othman, Ishak, Arif, & Abdul, 2014). Measures of AC meetings involve the number of AC meetings held within the financial year of the annual report (Azman & Kamaluddin, 2012; Barros Boubaker, & Hamrouni, 2013 etc.).

Regarding the measurement of MOWN, it represents a proportion of executive directors' shares, including CEO ownership at the financial year's end (Bekiris, 2013; Mustapha & Che Ahmad, 2011). Besides, this study employs control variables (firm size, leverage and profitability) to minimise the measurement errors and enhance validity of the interpretation. Firm size represents the total assets at the end of the financial year (Afify, 2009; Akle, 2011), but firm profitability stands for the ratio of profit after tax to total assets of the company at the end of the financial year (Hashem, Bahman, & Azam, 2012). Firm leverage refers to the ratio of total debt to total assets of the company at the financial year's end (Tsagem, Aripin, & Ishak, 2015).

Research Models

The following regressions were estimated to enable hypotheses testing:

$$REM = \beta_0 + \beta_1 ACSIZ_{it} + \beta_2 ACIND_{it} + \beta_3 ACEXP_{it} + \beta_4 ACMTG_{it} + \beta_5 SFIRM_{it} + \beta_6 FLEV_{it} + \beta_7 PROFIT_{it} + \epsilon_{it} \dots\dots\dots \text{(Equation 1)}$$

Moreover, MOWN was introduced to the model as a moderator. So, to explore the moderating effect of MOWN on the CGM's connection with EM, the hierarchical regression analysis technique was used. Hierarchical regression offers a clear interpretation with regards to the presences of moderator effects (Baron & Kenny, 1986; Evans, 1985). Thus, the hierarchical regression model of the study is:

$$REM = \beta_0 + \beta_1 ACSIZ_{it} + \beta_2 ACIND_{it} + \beta_3 ACEXP_{it} + \beta_4 ACMTG_{it} + \beta_5 MOWN_{it} + \beta_6 ACSIZ_{it} * MOWN_{it} + \beta_7 ACIND_{it} * MOWN_{it} + \beta_8 ACEXP_{it} * MOWN_{it} + \beta_9 ACMTG_{it} * MOWN_{it} + \beta_{10} SFIRM_{it} + \beta_{11} FLEV_{it} + \beta_{12} PROFIT_{it} + \epsilon_{it} \dots\dots\dots \text{(Equation 2)}$$

Where:

REM = Real Earnings Management.

ACSIZ = Audit Committee Size.

ACIND = Audit Committee Independence.

ACEXP = Audit Committee Expertise.

ACMTG = Audit Committee Meeting.

MOWN = Managerial Ownership.

ACSIZ*MOWN = Interaction between AC Size and Managerial Ownership.

ACIND*MOWN = Interaction between AC Independence and Managerial Ownership.
 ACEXP*MOWN = Interaction between AC Expertise and Managerial Ownership.
 ACMTG*MOWN = Interaction between AC Meeting and Managerial Ownership.
 SFIRM = Firm Size.
 FLEV = Financial Leverage.
 PROFT = Profitability.
 it = Panel indicator for i = Company, t =Time.
 ϵ_{it} = Error term.

Data Analysis and Discussion

Table 1, which contained the descriptive statistics, demonstrates that the REM's mean value, which is the sum of the three proxies (AbCFO, AbDC and AbCOGS), is about -0.033, but the value of standard deviation is 0.364, and the minimum and maximum values are -3.770 and 3.327 respectively. This finding is higher than the findings by Kang and Kim (2012) who reveal that the average value of REM was -0.016 with the maximum and minimum value of 0.538 and -0.643 respectively. However, the average value of real earnings management is relatively high. Moreover, this result supports the findings of Enomoto, Kimura, and Yamaguchi (2015), who reported that REM practices in the Jordanian companies are high compared to 38 countries sampled for the ranking-based research.

Table 1: Variables' Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
REM	721	-3.770	3.327	-0.0332	0.3646
ACSIZ	721	2	7	3.3143	0.7225
ACIND	721	0	1	0.8155	0.2794
ACEXP	721	0	5	1.8585	1.1239
ACMTG	721	1	10	4.4956	1.3500
MOWN	721	0	.1894	0.0700	0.5766
SFIRM (Log.)	721	2.504	9.853	7.5460	0.7616
FLEV	721	0.001	0.896	0.3440	0.2282
PROFT	721	-0.7299	0.7127	0.0171	0.1137

ACSIZ= Total number of audit committee size, **ACIND**= Audit Committee independence **ACEXP**= Audit Committee financial expertise, **ACMTG**= Number of Audit Committee meetings held during the financial year, **MOWN**= proportion of executive directors' shares, including CEO ownership at the end of the financial year, **SFIRM (Log.)**= Natural logarithm of company size measured by total assets, **FLEV**= leverage ratio of total debts to total assets, and **PROFT**= ratio of total profit to total assets.

ACSIS= Total number of audit committee size, ACIND= Audit Committee independence
 ACEXP= Audit Committee financial expertise, ACMTG= Number of Audit Committee meetings held during the financial year, MOWN= proportion of executive directors' shares, including CEO ownership at the end of the financial year, SFIRM (Log.)= Natural logarithm

of company size measured by total assets, FLEV= leverage ratio of total debts to total assets, and PROFT= ratio of total profit to total assets.

AC size in the listed industrial and service firm in Jordan ranges from 2 to 7 as presented in Table 1. On average (mean), the companies have about 3 persons constituting AC membership, signifying the companies' compliance with the Jordanian code of governance requirement as well as the findings of Alzoubi (2016). With 81.55% non-executive directors in the AC, the requirement of JCGC is thus fulfilled. This infers that the majority of Jordanian firms complied with the AC independence requirements set by the JCCG. As for the AC expertise and experience, Table 1 indicates that about 2 members of the committee have the required experience and expertise. This result is consistent with the Jordanian code of governance requirement.

Also, Table 1 indicates the presence of a maximum of 10 meetings and an average of 4.5 meetings of the AC. The AC meeting has the highest mean (4.5), indicating that the result supports the findings of Alzoubi (2016) and Almasarwah (2015) in Jordan. This result implies that the majority of Jordanian firms thus conform to the JCGC which recommends the AC should meet a minimum of four times yearly. The mean value of MOWN is 7%. This implies that 7% of the Jordanian firms are owned by managers.

Also, the average company size represented by the natural log of the firm's total assets is 7.546. This ratio is similar to Azzoz and Khamees' (2016) findings. Furthermore, it appears that the average leverage is 34.4%. The average leverage is similar to the ratio found by Al-Daoud, Saidin, and Abidin (2015), who reported that the mean of leverage in Jordanian listed companies is 34.37%. Table 1 demonstrates that the mean value of firm profitability is about 2%.

Furthermore, this study adopted the hierarchical multiple regression analysis technique. In Table 2, control variables are the company leverage, company size, and profitability in the regression model in the first step, the adjusted R² is found to be 0.150. This implies that 15% of the magnitude of REM can be explained by the control variables. In Step 2, it is indicated that ACC can on their own, without MOWN, influence the level of REM in Jordanian listed firms. This is reflected in the increase in the adjusted R² (0.275). The adjusted R² change (0.125) is significant because F change is significant (0.000). In Step 3, with the effect of MOWN, the adjusted R² has upsurged to 0.284. The adjusted R² change (0.09) is significant because F change is significant (0.000), signifying that MOWN can increase the model's explanatory power by 0.09.

Results in Step 4 show that when the interactions were entered in the final step, adjusted R² has increased to 0.336. The adjusted R² change (0.052) is significant, establishing that MOWN

moderates the ACC's relationship with REM. This implies that when ACC is interacted with MOWN, REM became lower, as shown by the negative coefficients of MOWN*ACIND and MOWN*ACMTG. It is noteworthy that the increase in the explanatory strength represented by the significant increase in the adjusted R² change (0.052) conforms with the agency theory, which postulates that incentives for directors or managerial owners is expected to motivate agents towards the creation of a total surplus, because as the ownership of managers increases, the managers' and shareholders' interests become aligned more, and as a result, opportunistic incentives behaviour decreases (Jensen & Meckling, 1976).

Table 2 also indicates the effects of ACC on REM. With the result ($\beta = -0.180$, p-value < 0.001; $\beta = -0.025$, p-value < 0.05; $\beta = -0.072$, p-value < 0.001), AC independence, AC expertise as well as AC meeting respectively have significant negative effects on REM. The implication of the result is that autonomy of the members of the AC, and their activities being separated from the management influence can go a long way in reducing REM practices. Independent AC can effectively and efficiently report on the firm's internal control. This result supports JCGC and the findings of Azzoz and Khamees (2016) and Alzoubi (2016). Moreover, the result gives support to the supposition of agency theory, which indicates that effective control and oversight of management behaviour could be driven by the AC's directors' independence.

Given this study's result, monitoring EM practices could be effective with the presence of independent AC, expertise and meetings in the listed industrial and service firms in Jordan. Also, the incidence of REM could be curtailed with AC expertise and AC meetings. This implies that AC members with relevant accounting knowledge and skills will guarantee zero issue of financial statements manipulation, since the AC's monitoring and oversight power could be strengthened when the AC members have relevant accounting knowledge and skills. This result gives support to the earlier findings of some studies (e.g., Inaam & Khamoussi, 2016; Hassan & Ibrahim, 2014; Puat, Nelson & Devi, 2013; Al-Zoubi & Selamat, 2012).

Likewise, this research's finding that the frequency of meeting of the AC could significantly help in curbing the occurrence of REM in the listed industrial and service firms in Jordan confirms the findings of Azzoz and Khamees (2016) and Alzoubi (2016), and the signalling theory's supposition that regular AC meeting could be a precondition for effective monitoring, signifying that frequent meetings make it easy for AC to perform an oversight role on the company's management and discover EM activities. Nevertheless, AC size could not predict REM in the listed industrial and service firms in Jordan ($\beta = 0.013$, p-value > 0.10), signifying that AC size cannot significantly curtail REM practices in the listed industrial service firms in Jordan. The finding confirms the Hamdan, Mushtaha, and Al-Sartawi's (2013) finding indicating a non-significant AC size's connection with discretionary accruals.

Furthermore, the result signifies that REM are negatively associated with firm size, indicating that smaller companies can engage more in REM practices than large companies, because larger companies, unlike small companies, do have stronger internal control systems. The finding confirms the findings of Azzoz and Khamees (2016) and Azoubi (2016). However, the result of this study signifies that firm leverage and profitability are significantly and positively connected with REM. This result portends that the more the profit of the organisation, the greater the chance of REM practices. Companies that are profitable tend to exhibit their capability to investors and other stakeholders by disclosing more information so as to enable them to gain access to capital on competitive terms, while those that are not profitable may disclose less information to cover up losses and declining profit. Likewise, the result indicates that the proportion of the debt of a firm determines and enhances the magnitude of REM. This supports the position of DeFond and Jiambalvo (1994) and the finding in the study by Bartov et al. (2000), which provides that the firms with high leverage proportion have higher incentives to engage in EM activities.

Testing the moderating effect of MOWN, the result ($\beta = -1.645$, $p\text{-value} < 0.05$; $\beta = -0.951$, $p\text{-value} < 0.01$) presented in Table 4 shows that MOWN moderates the AC independence-REM nexus, and the AC meeting-REM connection respectively, but it does not moderate the AC size-REM relationship, and the AC expertise-REM link respectively ($\beta = 0.497$, $p\text{-value} > 0.10$; $\beta = 0.050$, $p\text{-value} > 0.10$). Overall, the findings portend that independent operation of AC in combating the problem of financial record manipulation can be enhanced with the existence of MOWN controlling the affairs of listed industrial and service companies. In other words, the combination of these two mechanisms in firms will be a strong catalyst for the reduction or elimination of EM in companies. Moreover, both AC meetings and MOWN are essential for the reduction of undue altering of financial statements with a view to deceive the potential and actual investors in the investment decision making. This confirms the finding of Ramadan (2016).

Conversely, the result of the current study signifies that the decreasing or increasing in the managerial investor's portion have no effect on the link between number of AC members and REM level in the Jordanian listed firms. Also, MOWN cannot strengthen the audit expertise in curtailing EM activities, signifying that Jordanian listed industrial and service companies may not attain minimalised EM, if the companies are controlled by managers who also have an equity stake in the companies, and the AC members with financial knowledge.

Table 2: Result of Hierarchical Regressions

Variables	Step 1		Step 2		Step 3		Step 4	
	Ceffic.	Sig.	Ceffic	Sig.	Ceffic	Sig.	Ceffic	Sig.
(Constant)	1.421	0.000	2.070	0.000	2.214	0.000	2.684	0.000
SFIRM	-0.196	0.000***	-0.214	0.000***	-0.236	0.000***	-0.244	0.000***
PROFT	0.137	0.022**	0.048	0.394	0.074	0.191	0.096	0.088*
FLEV	0.460	0.000***	0.274	0.014**	0.279	0.012**	0.238	0.026**
ACSIZ			0.013	0.487	0.002	0.933	-0.053	0.094*
ACIND			-0.180	0.000***	-0.171	0.001***	-0.040	0.585
ACEXP			-0.025	0.034*	-0.025	0.038**	-0.019	0.333
ACMTG			-0.072	0.000***	-0.075	0.000***	-0.156	0.000***
MOWN					0.736	0.001***	-3.920	0.001***
MOWN * ACSIZE							0.497	0.560
MOWN * ACIND							-1.645	0.039**
MOWN * ACEXP							0.050	0.800
MOWN * ACMTG							-0.951	0.000***
R ²	0.153		0.282		0.292		0.347	
Adjusted R ²	0.150		0.275		0.284		0.336	
Adj. R² Change	-		12.5%		0.9 %		5.2%	
Sig.	0.0000		0.0000		0.0000		0.0000	

***, **, *Significant at 1%, 5% and 10% respectively

Conclusion

This research is deemed indispensable on the premise that research on the extent and causes of EM would have important implications for regulators, analysts, academics and practitioners. ACC has been empirically identified as a significant determinant of REM, but there is no consensus on the significant effects of ACC on EM, given that the findings of the existing studies regarding the connection between ACC and EM activities are inconsistent. Furthermore, managers could engage in opportunistic EM activities to increase their shares in the firm cash-flows. This could adversely affect shareholders' dividends and returns. The incentives that stimulate involvement in EM practices could have negative link with MOWN. It is thus germane to examine whether MOWN can moderate the ACC-EM nexus in the context of Jordanian firms, given the commonness of EM practices among Jordanian firms.

Consequent upon the facts above, this study examined the moderating role of MOWN in the ACC-EM connection in the listed Jordanian firms. Data covering seven years (2011-2017) were obtained via yearly reports of the listed industrial and service sector companies on ASE and analysed via the hierarchical multiple regression analysis technique. The two hypotheses of the study were supported. The overall result indicates that the significant role played by ACC in curbing REM practices in the listed Jordanian firms can be strengthened by MOWN.



This result is substantiated by the fact that MOWN could mitigate the problem of managerial myopia through harmonisation of both the interests of managers and shareholders (Singh & Davidson, 2003), and it can serve as a deterrent factor that can reduce agency cost and influence or strengthen the CGM (Alzoubi, 2016; Ramadan, 2016).

The result of the current study signifies that non-managing shareholders in the Jordanian firms with low level of MOWN incur substantial agency costs. This could discourage potential investors. However, potential and new shareholders are more likely to invest in firms where there is high level of MOWN and minimalised REM. Although ACC is a significant factor that ensures compliance with CG best practices, other mechanisms such as board characteristics have been empirically identified as important constituents of CG that can mitigate EM. So, future research can investigate the moderating role of MOWN in the connection between board characteristics and EM.

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