

# Earnings Quality and Corporate Governance in Jordan: An Exploration in a Developing Market Context

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*Abstract:* - The primary purpose of this research is to examine the impact of corporate governance mechanisms, namely, the board of directors' characteristics (expertise, independence, and directors' remunerations) and AC characteristics (AC Independence, AC Expertise, and AC Activity) on earnings quality in the Jordanian context. Using the Eviews software to analyze panel data of 94 non-financial listed companies from 2015 to 2021, the results revealed that board expertise, board independence, AC Activity, and AC Expertise have significantly negative effects on EM, which reflects that these mechanisms have a significant and positive influence on earnings quality in Jordanian non-financial companies. This supports the predictions of agency theory, which predicts that active audit committees, expert members on the audit committees, and the experience and independence of the board members expect to enhance the quality of earnings. Conversely, the findings show that AC Independence and directors' remuneration have an insignificant effect on EM. The results reveal the critical role of board members and audit committees in enhancing the earnings quality of Jordanian companies. This study suggests that Jordanian policymakers need additional support and enhancement regarding CG mechanisms, particularly in Jordan's transitioning economy, to attract additional investors.

*Key-Words:* - CG Mechanisms, Earnings Quality, Audit Committee, Board Of Directors, Directors' Remunerations, Directors' Expertise, Directors' Independence, AC Expertise, AC Activity.

Received: February 19, 2024. Revised: July 19, 2024. Accepted: August 13, 2024. Published: September 26, 2024.

## 1 Introduction

The various crises and scandals in the world highlight the vital need for enterprises in various economies (developed or developing economies) to enhance corporate governance standards and reclaim investors' trust in the accuracy of accounting numbers, [1]. Corporate governance (CG) measures, particularly earnings quality (EQ), are critical in strengthening financial reporting quality. Due to global business failures, the attention to the impact of CG on profit quality has been increased, [2]. Without a doubt, financial reporting is considered one of the fundamental foundations of any economy's financial systems to provide the necessary information to assess a company's true profitability and performance. Such information must be created to allow various users

to determine and evaluate profitability, while effectively measuring prior performance.

The reported net profit is also included in the financial statement, which is essential in determining the performance and value of the firms. Furthermore, a diverse group of users uses the disclosed net profit, including management, potential investors, analysts, stockholders, and researchers. As earnings in financial statements can be determined on an accrual basis, they can be influenced by accounting estimations and techniques, [3].

As financial reporting is a crucial tool that users are required to make sound economic decisions, the information must be validated by an impartial and effective audit. Nonetheless, recent financial reporting issues have seen various concerns about companies' scandals regarding

accounting and financial issues that have raised several questions about the accuracy of financial reports. The aftermath of rich profits, followed by the final collapse of large corporations worldwide, is considered an unavoidable indicator. This has led to criticism of the effectiveness of CG processes and boards regarding overall firm management and financial reporting duties, [4], [5].

Earnings quality has been a significant topic, following a string of corporate failures caused by the revelation of false and transient earnings. Consequently, investors become overly preoccupied with evaluating organizations' stated earnings and using them to make financing decisions, [6], [7]. High earnings quality is an unavoidable requirement for decision-making and investment, which results in profitable returns. While poor earnings quality indicates concerns regarding the integrity and reliability of disclosed earnings, investors face the danger of receiving unsatisfactory returns on their business, [8].

In Jordan, the protection of investor rights remains below average, indicating that investors' rights are inadequate. Jordan's capital market might face challenges in convincing investors that their businesses are managed responsibly, [9]. Various incentives for-profit management strategies have been identified in Jordanian enterprises, including tax avoidance to attract more investors, increasing management salaries and share prices, and lowering customs fees. Furthermore, favoritism, tribalism, and the recent Middle Eastern revolutions (Arab Spring) were the main factors that created pressure on Jordanian firm management to exercise earnings management (EM) and the obstacles that prevented CG mechanisms from being deterrent mechanisms in enhancing FRQ, [10].

The successful implementation of CG procedures and the independence of members in audit committees and boards are still inactive, as previous impediments played an essential role in limiting such issues in one of the developing economies, Jordan, [11]. Several prior studies have revealed that EM practices exist among Jordanian companies, and some Jordanian companies manipulate their earnings to meet specific goals by utilizing the flexibility provided by regulations and accounting standards, [10], [12], [13], [14]. Thus, this study is motivated by the rising importance that earnings quality and corporate governance systems have earned from shareholders, investors, and all stakeholders, as well as the critical role of earnings quality in assuring FRQ.

Various studies have been conducted on CG mechanisms in developed economies. Countries in

the MENA context, however, have received little attention, and investigations into CG issues in such regions are underdeveloped. Investigations and research from developed economies raise questions about the direction or extent of the expected association in developing economies, like Jordan. Such uncertainties stem from institutional differences between developed economies and Jordanian markets, such as Jordan's less stringent auditor liability, low disclosure requirements, as well as weaker government enforcement, [15].

In light of Jordan's economic development, CG legislation is needed to organize the connections between all stakeholders. These regulations define the responsibilities and duties of all stakeholders who contribute to the firm's aims and plans, and the rights of all stakeholders interested in the firm, [16], [17]. However, the Arab Spring, tribalism, and favoritism were the principal impediments to CG serving as deterrent mechanisms for activating the monitoring and controlling duties of these mechanisms in Jordanian enterprises. Furthermore, little emphasis has been placed on the association of CG with earnings quality in Jordan, [11], [18]. Therefore, issues related to CG and earnings quality in Jordan need further examination, and the mechanisms of CG have not been well investigated in previous studies, such as the board of directors (BOD) and audit committees (AC) in the Jordanian context.

BOD and ACs are monitoring mechanisms that may affect earnings quality and FRQ, [3], [19], [20], [21]. Investigating the board of director-audit committee relationship, as well as how such tools could affect the earnings quality of the various firms is considered an important topic in the current changing economics. Thus, this study investigates the effect of CG mechanisms, (namely; the board's components and AC's components) on the quality of the earnings in the Jordanian market. In addition, the current research utilized the performance-matched model to discover the discretionary accruals levels in the study's sample. This model has been presented by the study of [22] in order to discover the earnings management practices. The adopted Kothari model possesses a significant ability to discover EM practices. Furthermore, it is widely used in prior studies that investigate the EM practices among the various firms, [23].

## 2 Literature Review

This part of the study shows the research's literature review, related prior studies, an explanation importance of the earnings quality

(EQ), CG tools (board's components and AC's components), as well as the association of such topics. Furthermore, this part of the study shows the hypotheses development based on the agency theory.

## 2.1 Earnings Quality

Preparing the financial statements is considered as the most important function in the accounting profession. The main goal is to provide the needed data in order to evaluate the performance and earnings of the companies. Such data and reports have to be presented in a way that the related parties can understand and determine the real earnings levels of the company, [24]. Net profit in the income statement is an essential pillar in evaluating the performance and profitability of any firm, and because the net profit is made using the accrual basis, it is influenced by estimates and various accounting methods as well as the possibility of manipulating the reported profit. Therefore, EQ in the final financial reports is one of the most critical research areas, [25], [26].

The issue of EQ has always been an important topic of interest among all related parties and the accounting and auditing profession itself, [27]. The study of [28] considered EQ as an ability of the reported statements to provide vital information regarding the organizations' performance, which is associated with an economic decision taken by the specific decision-makers, and to help future decision-making. Nevertheless, there have been multiple instances of changing and manipulating profits to alter the real picture of a company's economic success, [29]. The differences in information access between owners and agents can lead to opportunistic actions by management, thereby influencing the level of the EQ.

Suitable CG mechanisms are expected to have an essential impact on EQ within the firm context. In addition, CG mechanisms play a crucial role in EQ, [30]. Moreover, management prepares the financial statements for the principals and other users to assess their stewardship function; the principals, in turn, use the information in the financial statements to reward management. However, utilizing earnings in financial statements in several contractual agreements can motivate EM, which may lead to a lower quality level of reported earnings, [31].

Opportunistic managers can manipulate earnings through two approaches: the accounting choices approach through legal and illegal transactions and operations decisions, [32]. The EM achieved by the operating-decision approach is

difficult to detect because it requires particular information. Therefore, existing studies have focused on the accounting choice approach. Such EM practices can lead to long-term negative consequences. Previous accounting and financial scandals have shown that EM activities can even threaten a firm's existence. Thus, it is critical to discover and restrict EM, [33].

## 2.2 Boards of Directors and Earnings Quality

The most important feature of the board in the context of an agency perspective is the members' independence from the firm's management, [34]. Independent members are experts in decision-making [35], and they do not possess financial or personal interests in the firm or close ties with management, [36], [37]. Consequently, independent board members possess a good position to observe and monitor management objectively and protect the interests of shareholders and firm value, [21].

In addition, a firm's practical and active BOD can strengthen and enhance the FRQ and transparency of the disclosure. More specifically, it can be concluded that expert members in accounting or financial issues benefit from the BOD to better understand the financial reporting process. By possessing such expertise, directors will be able to identify misstatements or errors in financial statements, and management will be hesitant to manipulate or adjust financial statements for their self-interest, [38].

On the other hand, directors' remuneration has received increasing attention and continuous investigation by researchers, the public, and regulators in several fields, for instance; management, accounting, psychology, and human resources, [39], [40]. Remuneration refers to every form of salary, reward, bonus, and allowance given to employees or directors [41], [42], such as salary, bonus, stock appreciation rights, stock options, and stock awards. Remuneration involves motivating directors to do their jobs. The definition of remuneration based on agency theory cost suggests that shareholders should pay directors to run the firm, owing to the separation between the management and the ownership in the companies, [43].

Previous studies have investigated the association between BOD and EQ. Study of [44] argue that an independent board is more effective in monitoring and control the managers' actions. In addition, In addition, study of [45] revealed that independent directors are a prerequisite for

protecting a firm's interests. Similarly, the research by [32] show that independent directors play a significant role in reducing EM. [46], showed that the independent board has a significantly negative impact on EM. In contrast, study of [47] indicated that director independence possesses insignificant impact on EM activities, and [38] shows that board expertise is positively correlated with EM practices. [48], found that the directors' expertise was positively associated with real EM. The studies of [49] and [50] revealed that the directors' expertise has an insignificant association with EM practices.

However, limited studies have been carried out on the issue of directors' remuneration with EQ and EM. [51], revealed that directors' remuneration has no relationship with a firm's profitability (ROA). Also, [52] showed that there is no relationship between the remuneration of the directors with accounting fraud. [53], revealed that there is an insignificant association between director remuneration and EM. [54], revealed an insignificant association between the directors' remuneration and financial performance, ROA, and ROE. [55], showed that remuneration does not significantly influence EQ. Thus, this study proposes the hypotheses as follows:

*H<sub>1a</sub>: The Board's expertise has a positive influence on the firms' earnings quality.*

*H<sub>1b</sub>: Board independence has a positive influence on the firms' earnings quality.*

*H<sub>1c</sub>: Directors' remuneration positively influences earnings quality.*

### 2.3 Audit Committee and EQ

Several prior studies have focused on some effective AC characteristics, for instance, AC independence, the expertise of its members, and its activity due to the monitoring effectiveness and competence of these characteristics in improving quality levels of the financial statements. In addition, such characteristics lead to more effective AC performance, [56], [57], [58], [59]. In addition, it is widely believed that independent ACs provide adequate oversight over the financial discretion of management and can ensure the quality and reliability of financial reports, [60]. The primary function of the AC is to ensure the reliability and quality of a firm's financial reporting. Several parties blamed and criticized the audit committees for failing to fulfil their duties regarding financial reporting monitoring due to independence issues, [61]. However, there is inconsistency in the prior studies regarding the association of independent ACs for detecting and preventing EM practices.

Study of [62] reveals that AC meetings negatively and significantly affect discretionary accruals. [63], show that AC diligence has a significant and inverse influence on EM practices. [46], [57], [64] and [65] showed that the meetings of the AC members possess a significantly negative influence on EM. [60], concluded that the AC, which includes most independent members, reduces the EM practices. [63] showed that AC independence possesses a significantly inverse impact on EM practices. Similarly, [57], [65] and [66] find that AC independence has a significant and negative effect on EM activities. Such findings support the outcomes of the Sarbanes-Oxley Act (2002), which emphasizes the complete independence of ACs. Moreover, [60] showed that members' expertise in AC is associated with a low level of EM practices. [63], found that AC members' expertise has a significantly inverse effect on EM practices. [57], [65], [67] and [68] concluded that the expertise of the AC's members has a significant and negative influence on EM activities. Similarly, [59] and [64] showed that AC expertise reduced EM levels. [69] and [70] found that the experience of the AC members significantly and negatively affects discretionary accruals. Thus, based on the previous discussion and according to the predictions of Agency Theory, the current study formulated the following hypotheses:

*H<sub>2a</sub>: AC activity positively influences earnings quality.*

*H<sub>2b</sub>: AC expertise positively influences earnings quality.*

*H<sub>2c</sub>: AC independence positively influences earnings quality.*

## 3 Methodology

The population of the current research involves all Jordanian-listed companies in the Amman Stock Exchange (ASE), covering the period (years) from 2015 to 2021 (due to the reforms on the CG systems conducted in 2015). There were 221 listed companies in the ASE at the end of 2021. At the same time, the sample contains all non-financial companies that disclose their information regarding the boards of directors, ACs, and earnings quality. The total of non-financial companies in ASE at the end of 2021 was 117 companies. Financial companies are excluded because of the business differences and unique regulatory environments. The sample also excludes listed companies with missing information. The final sample was 94 non-financial companies (658 observations), and it will

be distributed over the industrial and service sectors.

The independent variables in this research are represented by CG mechanisms, namely, the board of directors' components (board expertise, independence, and directors' remunerations) and characteristics of AC characteristics (AC Independence, AC Expertise, and AC Activity). Board expertise is measured by the percentage of members with accounting and financial experience. Board independence is measured by the percentage of members who do not belong to the company. Remunerations are measured by the LN of the total amount of remunerations received by the members on the board. The independence of AC members is measured by the percentage of members who do not work at the company. The expertise of the AC members is measured by the percentage of members with accounting and financial experience, and finally, AC activity is measured by number of the meetings conducted in the specific year. These variables were measured as shown in Table 1.

Table 1. The Variables' Measurement

Variable	Measurement
Board expertise	% of directors who have accounting or financial qualification
Board independence	% of non-executive members
Directors' remuneration	LN of remuneration and bonuses paid out to directors.
AC Independence	% of non-executive directors of AC
AC Expertise	% of members who have accounting or financial qualifications on AC
AC Activity	Number of AC meetings

EQ represents the dependent variable in the current research. Previous studies primarily used measurements of the EQ that were designed to detect opportunistic EM. The most frequently used proxies are based on several models, for example, Healy's model (1985), DeAngelo's model (1986), Jones (1991), Modified Jones's model (1995), and the Performance Matched model, [22]. The current research utilizes the discretionary accruals (DACC) level to measure EQ (earnings quality) based on a performance-matched model. This is based on the basic assumption that the DACC captures the EM practices, and an inverse measurement is provided for earnings quality. Thus, low levels of DACC are expected to indicate high earnings quality, [62], [71]. The data required to calculate DACC based on Kothari's model are shown in the following equation:

$$TACC_{it}/TA_{it-1} = \beta_0 + \beta_1(1/TA_{it-1}) + \beta_2(\Delta REV_{it} - \Delta AR_{it})/TA_{it-1} + \beta_3(PPE_{it}/TA_{it-1}) + \beta_4ROA_{it-1} + \epsilon_{it}$$

Where:

*TACC<sub>it</sub>*: Total Accruals (company *i*, year *t*)

*TA<sub>it-1</sub>*: Total assets (company *i*, year *t-1*)

*ΔREV<sub>it</sub>*: Revenues in the year *t* less revenues in *t-1*, company *i*,

*ΔAR<sub>it</sub>*: Changes in the Accounts Receivable,

*PPE<sub>it</sub>*: Property, Plant, and Equipment,

*ROA<sub>it-1</sub>*: Return on Assets,

*ε<sub>it</sub>*: Residual from the regression.

Therefore, the current study indicates that the DACC designates EM and can be used as a proxy for EQ. More specifically, this research focuses on the negative side of EM/DACC and follows the view that EM is undesirable, as it is considered an additional cost to investors, stakeholders, and others. Hence, this study measures earnings quality as the level of EM in the firm, since low levels of EM indicate high EQ levels.

The DACC level is the residual of the above model, it is the difference between the total accruals (TACC) deflated by *TA<sub>it</sub>* and the non-discretionary accruals (normal accruals) estimated by the fitted values of the above equation. In this regard, TACC is the difference between the net income before the extraordinary items and operating cash flows resulting from cash flows:  
 $DACC = TACC_{it}/TA_{it-1} - [\beta_0 + \beta_1(1/TA_{it-1}) + \beta_2(\Delta REV_{it} - \Delta AR_{it})/TA_{it-1} + \beta_3(PPE_{it}/TA_{it-1}) + \beta_4ROA_{it-1}]$

As mentioned, the independent variables in this study consisted of two categories. First, the components of boards of directors, namely; (board expertise, board independence, and directors' remuneration). Second: audit committee (AC) characteristics, namely; (AC Independence, AC Expertise, and AC Activity). The dependent variable was the EQ. In addition, this study utilized several control variables – to avoid misspecification in the model – such variables might potentially impact the dependent variable, namely, Firm Size, Firm age, AC size, board size, and loss. Thus, this study establishes the following model/equation:

$$EQ = \beta_0 + \beta_1Bdind + \beta_2Bdexp + \beta_3Rem + \beta_4ACInd + \beta_5ACExp + \beta_6ACActivity + \beta_7Fsize + \beta_8Fage + \beta_9ACsiz + \beta_{10}Bdsiz + \beta_{11}Loss + E$$

Where:

*EQ*: Earnings quality

*Bdind*: Board independence  
*Bdexp*: Board expertise  
*Rem*: Directors' remunerations  
*ACInd*: AC Independence  
*ACExp*: AC Expertise  
*ACActivity*: AC Activity  
*Fsize*: Firm Size  
*Fage*: Firm age  
*ACSiz*: AC size  
*Bdsiz*: Board size  
*E*: error term.

Finally, based on prior studies, the current research indicates that the DACC reflects EM practices and can be used as a proxy for the EQ. That is, this research focuses on the negative aspects of EM practices and adopts the perspective that EM practices are undesirable because they are costly to shareholders. The central assumption is that the DACC captures EM activities and provides an inverse proxy for EQ. Consequently, whenever the independent or control variables possess a negative impact on EM, they imply a positive influence on EQ and vice versa in case of a positive impact.

## 4 Discussion of the Results

### 4.1 Descriptive Statistics

Table 2 (Appendix) shows the descriptive statistics for the study variables. As shown in Table 2 (Appendix), the mean of the Earnings management (dependent variable) is -0.035. The minimum (Min) and maximum (Max) of the EM vary between -0.594 and 0.763, respectively. Given that discretionary accruals are considered a measurement of EM, such results are considered an indicator that some Jordanian companies are involved in EM activities, while others are not. The mean of AC Activity (ACact) is 3.9, varying between 0 to 10; AC Expertise (ACexp) is 0.43, varying between 0 to 1; and AC Independence (ACind) is 0.42, varying between 0 to 0.88. Meanwhile, the mean of board expertise (Bdexp) is 0.39, board independence (Bdind) is 0.49, and directors' remuneration (Rem) is 9.5 in terms of natural logarithm.

### 4.2 Correlation

The correlations of the various variables, namely; the independent variables (IV), the control variables (CV), and the dependent variable (DV), as well as the correlations significance, are presented in Table 3 (Appendix). The findings

reveal that the correlation between all study variables was low (<0.8); study of [72] pointed out that the general threshold of harmful multicollinearity is ( $\pm 0.8$ ); thus, as seen in the table, a high correlation does not exist between the variables. Therefore, no issues arise.

### 4.3 Testing of the General Assumptions

This section contains some important assumptions to examine the validity of the data for the analysis. These assumptions are Multicollinearity through the Variance inflation factor, heteroscedasticity assumption, and serial correlation assumption.

#### 4.3.1 Multicollinearity

Variance inflation factor (VIF) test was adopted in the current research to examine the issue of multicollinearity. VIF is a popular test for examining collinearity among variables, [73]. As seen in Table 4, the VIF results revealed that the variables' values under investigation were less than the ideal conditions of  $VIF < 3$ , [74], indicating that the current research had no issues regarding the multicollinearity.

Table 4. Variance inflation factors

Variable	Centered VIF
AC_ACT	1.115
AC_EXP	1.041
AC_IND	1.025
BDEXP	1.335
BDIND	1.320
LNREM	1.107
BDSIZ	1.377
AC_SIZE	1.017
COMPANIESIZ	1.495
FAGE	1.105
LOSS	1.120
C	NA

#### 4.3.2 Serial Correlation and Heteroscedasticity Assumptions

Regression models must have no serial correlation or heteroscedasticity, [73]. This research utilized Breusch-Pagan–Godfrey's LM test to examine whether heteroscedasticity or serial correlation exists. Table 5 (Appendix) shows no issues regarding heteroscedasticity because the p-value of the heteroscedasticity test was found to be insignificant (0.472). The results presented in Table 5 (Appendix) show that the p-value of the serial correlation problem is insignificant (0.236). Therefore, no issues regarding serial correlations were identified in this research.

#### 4.4 Results

As mentioned, the DACC is utilized to measure the EM activities, in which an inverse measurement is provided for the quality of earnings. Thus, if the independent or control variables are found to possess a negative impact on the DV (EM), they indicate a positive influence on EQ, and also vice versa if they possess a positive effect. Table 6 (Appendix) shows the effects of CG mechanisms on the EQ. The results in Table 6 (Appendix) reveal that among the AC characteristics, AC\_ACT (AC Activity) and AC\_EXP (AC Expertise) have

In addition, among the board components, BDEXP (board expertise) with BDIND (board independence) have significantly negative effects on EM, as seen in Table 5 (Appendix), which indicates that these variables have significantly positive effects on EQ. Thus, *H2a* and *H2b* were accepted. These results indicate that expert and independent board members lead to high earnings quality levels and reduced EM levels in Jordanian companies. Several prior studies have reported the same findings, such as [32], [44], [45] and [46]. Finally, regarding directors' remuneration (LN\_REM), the results revealed that there is an insignificant effect of LN\_REM (directors' remuneration) on EM, and thus, *H2c* is rejected. Many previous studies have also supported this result; for example, [52], [53], and [55].

The main points of the current study can be summarized as follows; discretionary accruals are widely adopted and employed as an indicator for earnings management practices. It is also considered an inverse measurement of the earnings quality. In this study, results showed that the active audit committee and the experience level of the members of the audit committee possess an important role in preventing earnings management activities and in turn, enhancing the quality level of the firm's earnings. Through reducing the discretionary accruals. Furthermore, more experienced level and independent members on the firm's board also possess an important function in preventing discretionary accruals and earnings management practices taken by the management. Which in turn, lead to improve the quality level of the firm's earnings in the Jordanian companies.

#### 5 Conclusions

Investigating the influence of CG mechanisms, such as BOD characteristics and AC features, on EQ in developing countries (particularly Jordan) is important for several reasons. For instance, understanding how CG practices impact EQ helps

significantly negative effects on EM, which reflects that these variables have significantly positive effects on EQ. Thus, *H1a* and *H1b* were accepted. Meanwhile, AC\_IND (AC Independence) is found to possess an insignificant impact on EM and *H1c* was rejected. These results indicate that active audit committees and expert members on the audit committees lead to high levels of earnings quality and low levels of DACC. Such results have been reported by various prior studies, such as [10], [46], [60], [62], [63], [65] and [68].

to build investor confidence. Healthy governance practices signal transparency, integrity, and accountability, which can attract investors and maintain trust. Additionally, high-quality earnings are crucial for accurate financial reporting. Strong CG mechanisms ensure that reported earnings reflect the actual performance of the company, reducing the likelihood of misstatements or manipulation.

This research provides valuable insights with significant recommendations to guide policymakers, regulators, and companies in implementing and improving CG practices, enhancing the overall economic environment, and fostering sustainable growth. The findings reveal that board expertise, board independence, AC Activity, and AC Expertise have significantly negative effects on EM, reflecting that these mechanisms significantly and positively affect EQ in a unique Jordanian environment. These four characteristics are essential in CG practices to enhance Jordanian companies' earnings quality. This supports - in turn - the predictions of agency theory [75], which assumes that the influential role played by the BOD and AC can deter agents from malpractices, which also improves quality level of the earnings. Although the findings showed that AC Independence and directors' remuneration have an insignificant effect on EM, the other factors significantly support these notions in the Jordanian environment.

This study has several implications. For instance, it indicates that policymakers in Jordan need additional support and enhancement regarding CG mechanisms, particularly in a transitioning economy (Jordan), to attract more investments. Thus, the Government in Jordan must raise awareness of the importance of CG mechanisms among investors, companies, and shareholders by introducing significant CG codes. Moreover, practitioners and policymakers in the market could use the outcomes of this research to address EM

practices and enhance the implementation of CG mechanisms.

Beyond the contribution of the current study to the prior studies, it provides valuable and essential outcomes for regulatory bodies to consider earnings management activities, helps investors in decision-making, and provides an additional understanding and explanation of the significant role played by CG regime in Jordan. CG mechanisms are crucial given that they establishes a set of rules and policies that regulate how the firms runs and align with the interests of all related parties. Strong CG mechanisms promote ethical business practices, resulting in financial viability. This research, in addition, extends the explanation of the association between CG mechanisms and earnings quality. In addition, there is a need for more research to investigate whether the various mechanisms of CG (internal and external mechanisms), such as ownership structure or external audit characteristics, would lead to high or low levels of EM activities in weakly protected contexts for investors. The population in the current research consists of non-financial firms, and future studies could conduct this research using financial firms. The future studies could also investigate the motives behind EM activities among Jordanian companies.

#### Acknowledgement:

The authors are gratefully acknowledged the valuable comments and reviews receive from the editor and reviewers.

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#### **Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)**

All authors are equally contributed to the current study at all stages.

#### **Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself**

No funding to report for this research.

#### **Conflicts of Interest**

The authors declare no conflicts of interest.

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## APPENDIX

Table 2. Descriptive statistics

	EM	acact	acexp	acind	bdexp	bdind	lnrem	bdsiz	acsize	loss	fage	companiesiz
Mean	-0.035	3.922	0.432	0.425	0.387	0.487	9.518	8.021	3.491	0.325	2.523	10.264
Med	-0.024	4	0.4	0.4	0.346	0.556	10.221	8	3	0	2.639	10.204
Max	0.763	10	1	0.889	1	0.786	12.583	14	6	1	3.584	14.394
Min	-0.594	0	0	0	0	0	0	4	0	0	0.693	5.979
Obs	658	658	658	658	658	658	658	658	658	658	658	658

Where: EM (Earnings management), acact (AC Activity), acexp (AC Expertise), acind (AC Independence), bdexp (board's director's expertise), bdind (board's director's independence), lnrem (remunerations), companiesiz (Firm Size), fage (Firm age), acsize (AC size), and bdsiz (Board size).

Table 3. Correlation matrix

	em	acact	acexp	acind	bdexp	bdind	lnrem	bdsiz	acsize	companiesiz	fage	loss
em	1											
acact	-0.115	1										
	<i>0.003</i>											
acexp	-0.112	-0.003	1									
	<i>0.004</i>	<i>0.930</i>										
acind	0.045	-0.021	-0.002	1								
	<i>0.251</i>	<i>0.583</i>	<i>0.955</i>									
bdexp	-0.390	0.064	0.071	-0.015	1							
	<i>0.000</i>	<i>0.103</i>	<i>0.068</i>	<i>0.703</i>								
bdind	-0.385	0.077	0.044	0.021	0.464	1						
	<i>0.000</i>	<i>0.049</i>	<i>0.263</i>	<i>0.584</i>	<i>0.000</i>							
lnrem	0.011	-0.043	0.025	-0.065	0.047	0.009	1					
	<i>0.779</i>	<i>0.268</i>	<i>0.520</i>	<i>0.094</i>	<i>0.233</i>	<i>0.819</i>						
bdsiz	-0.045	0.178	0.038	-0.118	0.070	0.096	0.201	1				
	<i>0.245</i>	<i>0.000</i>	<i>0.326</i>	<i>0.003</i>	<i>0.071</i>	<i>0.014</i>	<i>0.000</i>					
acsize	-0.036	0.020	0.042	0.050	0.041	-0.009	-0.031	-0.004	1			
	<i>0.355</i>	<i>0.604</i>	<i>0.277</i>	<i>0.200</i>	<i>0.294</i>	<i>0.817</i>	<i>0.435</i>	<i>0.927</i>				
companiesiz	-0.018	0.290	-0.119	-0.109	0.060	-0.025	0.066	0.437	0.049	1		
	<i>0.640</i>	<i>0.000</i>	<i>0.002</i>	<i>0.005</i>	<i>0.123</i>	<i>0.530</i>	<i>0.089</i>	<i>0.000</i>	<i>0.212</i>			
fage	0.046	0.065	-0.002	-0.004	-0.093	-0.035	0.145	-0.041	0.056	0.180	1	
	<i>0.243</i>	<i>0.097</i>	<i>0.968</i>	<i>0.927</i>	<i>0.017</i>	<i>0.369</i>	<i>0.000</i>	<i>0.296</i>	<i>0.151</i>	<i>0.000</i>		
loss	0.289	-0.007	-0.063	0.022	-0.205	-0.162	-0.140	-0.033	-0.063	-0.169	-0.066	1
	<i>0.000</i>	<i>0.867</i>	<i>0.109</i>	<i>0.569</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.398</i>	<i>0.108</i>	<i>0.000</i>	<i>0.091</i>	

Table 5. Serial Correlation and heteroscedasticity tests

Test	P-Value.	Result
The Serial Correlation	Chi-Square = 0.236	No serial correlation
The Heteroskedasticity	Chi-Square = 0.472	Homoskedasticity

Table 6. Regression analysis of the impact of CG mechanisms on EQ

Variable	Coefficient	Std. Error	t-Statistic	P Value
AC_ACT	-0.007	0.003	-2.578	0.010
AC_EXP	-0.033	0.017	-1.950	0.052
AC_IND	0.026	0.019	1.404	0.161
BDEXP	-0.114	0.019	-5.860	0.000
BDIND	-0.137	0.023	-6.037	0.000
LN_REM	0.002	0.002	1.362	0.174
BDSIZ	0.000	0.002	-0.095	0.924
AC_SIZE	-0.002	0.005	-0.445	0.657
COMPANIESIZ	0.004	0.004	1.088	0.277
FAGE	0.004	0.007	0.611	0.541
LOSS	0.058	0.010	5.950	0.000
C	0.022	0.045	0.496	0.620
<i>R-squared</i>	<i>0.263</i>	<i>Mean dependent var</i>		<i>-0.035</i>
<i>F-statistic</i>	<i>20.919</i>	<i>Durbin-Watson stat</i>		<i>1.350</i>
<i>Value(F-statistic)</i>	<i>0.000</i>	<i>DV</i>		<i>EM</i>