Board Components and Quality of Financial Reporting: Mediating Effect of Audit Quality

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Abstract: The main purpose of this study is to investigate the mediating effect of audit fees as an indicator of audit quality on the board components, the directors’ remunerations, and the financial reporting quality in the Jordanian context. This study used Panel Data of 180 listed firms in Amman Stock Exchange from 2009 to 2017. The collected data were analyzed using the multiple regression analysis and Causal Steps Method. The results showed that the larger size of the board and independent directors on the board have a negative and significant influence on FRQ, whereas the board expertise and directors’ remuneration have a significantly positive impact on FRQ, as supported by the Agency Theory. Regarding the audit quality, the results revealed that the board size, the board independence and the directors’ remunerations have a positive and significant effect on the audit fees as an indicator of the audit quality. In contrast, the board expertise has significantly negative impact on the audit fees, and the audit quality has a partial mediating effect on the relationship of board components with FRQ. The findings are particularly important for the shareholders and regulators in introducing new legislations regarding the board composition and audit profession, increasing the monitoring role of the independent directors and large boards on the managerial performance when preparing the financial reports and highlighting the interaction between the board effectiveness and audit quality in restricting the EM practices and ensuring FRQ in one of the developing countries (Jordan). It is shown that the factors affecting FRQ can definitely enhance their ability through the interaction with the external factors to achieve the role of board of directors in in reducing the financial fraudulent.

Originality/value – To the best knowledge of the authors, the current study is one of the first studies that addresses the directors’ remuneration and the mediating effect of the audit fees in the relationship between the board components and FRQ in Jordan and the Middle East.

Keywords: Jordan, Audit quality, Board components, Directors’ remuneration, Financial Reporting Quality.

INTRODUCTION

The past financial scandals have led the profession to the circle of doubt in terms of its relevance and integrity. Consequently, the global crisis has impeded the user’s confidence in accounting reporting and information (Aifuwa and Embele, 2019). For instance, the fail of big firms, such as WorldCom, Parmalat, Enron with the big external auditors, has raised the concerns over the impartiality of the profession. Hence, the researchers have delved into the reasons behind the failure of these big firms, whereby some reasons were attributed to the poor corporate governance (CG) mechanisms (Anderson et al., 2004; Ezelihe et al., 2017; Ilaboya and Lodikero, 2017). Financial reporting is useful tools and the users need it to make effective economic decisions. Therefore, it is important that the information and reports are verified through an independent and efficient audit that is meaningfully reliable and realistic. Nonetheless, contemporary financial reporting cases have witnessed several issues of corporate accounting and financial scandals that have put forward many questions regarding the financial reporting quality (FRQ). Also, the aftermath of juicy profit accompanied by the ultimate collapse of major firms across the globe is seen as inevitable indicators. This has led to criticizing the roles of the CG mechanisms and the board’s responsibilities towards the overall administration of the firms as well as the financial reporting responsibilities (Aifuwa and Embele, 2019).

The issues of FRQ and corporate governance have been widely discussed in the previous literature and business environment, and several guidelines, laws and regulations have been introduced to abolish, complement or adopt another mechanism. In the case of Jordan, CG code was introduced in 2009. Accordingly, the motivation for the current study is the increasing relevance that contemporary corporate governance mechanisms have gained from shareholders, investors, capital market operators and regulatory agencies. Therefore, this research aims at examining the impact of one of the CG mechanisms (board structure) on the FRQ, as well as the role of the audit quality on this relationship in the Jordanian context. As a result, the main contribution is that the current study is
the first study which examines the impact of the directors’ remuneration on audit quality and FRQ in the Middle East, since no previous study has examined the issue of directors’ remuneration in Jordan or the Middle East, as well as the mediating effect of external audit fees on relationship of the board components with FRQ.

LITERATURE REVIEW
The financial statements of any company are expected to have the required qualitative and objectivity attributes as stated by the International Financial Reporting Standards (IFRS), which include comparability, relevance, understandability, timeliness, verifiability and faithful representation (Aifuwa and Embele, 2019). In other words, the financial statement should depict the detailed reports and information about the economic and financial performance of a company, cash flows, the statement of the financial position, changes in equity and income statement in order to ensure that the provided statements have a faithful representation and a high quality.

The quality of financial statements should represent the faithfulness of information existing in the financial statements as well as the non-financial statements provided by the management (Martínez et al., 2015; Aifuwa and Embele, 2019). In other words, it should have some components of the truth and trust in the information. Thus, the financial statements must have high level of the quality and credibility to enhance the confidence of all users and improve the financial performance. In this study, FRQ is “the financial statements that are characterized by qualitative and objectivity attributes, timeliness, faithful representation, reliability, provide detailed information regarding the financial performance and faithfulness of information conveyed”.

Moreover, the quality of financial reports reflects the transparency and power of the company. When the financial statements are unable to explain the changes in the firm’s performance and shareholders’ wealth, the shareholders will need a good monitoring mechanism (Arieffiara and Utama, 2018) since the FRQ is important for the effective distribution of the resources of the markets (Rotich, 2017).

The agency problems arise because of the information asymmetry that existing between the agents and principals. The investors and principals require that the activities of the agents should be intended to increase the firm’s value, wealth and firm’s performance. In addition, the users and investors possess few information to ensure that the agents’ activities are to increase the financial performance and the firm’s value. In contrast, the agents possess more information about the financial performance compared to the investors and principals. Thus, the shareholders need an active and good mechanism to observe all the management activities, as well as increase and ensure the accountability of the management in running the company, including implementing, formulating, and evaluating the strategies. As a result, effective implementation of CG mechanisms can lead to the transparency of the achievement of the agents’ work (Arieffiara and Utama, 2018).

Earnings management is considered as amendment of the financial and accounting transactions to suit the managers' interests and mislead the shareholders and investors (Healy and Wahlen, 1999). The managers use the opportunistic behaviors through involving in the manipulation of earnings to meet the expectations of the investors and shareholders (Abdul Rahman and Ali, 2006), thus impacting negatively the firm’s value and investors’ capital.

Hence, the current study considers some of the corporate governance mechanisms which can reduce the managerial opportunistic behaviors (Miko and Kamardin, 2015).

Board size and FRQ
The previous studies between board size and FRQ relies on agency theory. Several studies confirmed the interaction between board size and FRQ, whereby some of these studies disclosed that a larger board has additional resources and time to monitor the EM activities in the companies. In contrast, Kuang (2008) revealed that smaller board size can't detect EM. As a result, Abdul Rahman and Ali (2006) disclosed that the bigger board size increases EM.

The board size usually affects the management from two aspects, including first its capabilities and educational and professional qualifications and second through the efficiency and effectiveness which it communicates and the quality of its decisions. It has been argued that a larger boards of directors have less effective monitoring role than a small boards since the larger board has a lower level of coordination activities and more problems related to communication (Dimitropoulos and Asteriou, 2010). In this context, Vafeas (2005) argues that the observation function of the large board can be difficult, thus leading to a lower quality in the financial reporting.

In this domain, Rotich (2017) revealed a significantly positive effect of the board size on FRQ. In another study by Yasser et al. (2017), it was revealed that the larger board size is associated positively with EM, which implies that when the board is large, it will be difficult to monitor and observe the management. On the other hand, Al Azeez. (2019) disclosed that the size of the board have no any effect in reducing earnings management. This finding is also enhanced by Ibrahim and Jehu (2018) who found that the board size does not show any significance of financial reporting quality.

Obviously, empirical evidence was mixed and the findings have been inconsistent. For instance, Bradbury et al. (2006) showed significant correlation between the board size and abnormal accruals. In this context, studies on the relationships between size of the board and FRQ have three aspects: negative relationship (Xie et al., 2003; Anderson et al., 2004), a positive relationship (Alzoubi, 2014; Beasley, 1996), and no relationship (Abbott et al., 2004). This inconsistency formed the following hypothesis:
H1: The Board size has a significant effect on FRQ.

**Board Expertise and FRQ**

When the board includes members with experience, there be always a level of confidence in the financial and accounting statement reported (Onuorah and Imene, 2016). For any director, to become an expert in a board, a member must possess adequate professional and educational experience in the areas of accounting, finance and auditing. However, Kang et al. (2007) asserted that expertise comes with age. When the director is older, it will be better, thereby implying that the existence of older members on the board will lead to a better performance and better FRQ. Consequently, several studies have resulted in mixed and varied results on the association between the board expertise and FRQ.

The qualifications of the board such as education, experience and foundation background are referred to as expertise. In this regard, Onuorah and Friday (2016) assert that the board expertise will increase the level of trust in the financial and accounting reports, as their experience and qualifications will enhance FRQ. In addition, Aifuwa and Embele (2019) revealed that the board expertise has a significantly positive impact on FRQ.

Therefore, it is assumed that the presence of members with good expertise in the board will affect the FRQ (Anderson et al., 2004; Kang et al., 2007; Onuorah and Friday, 2016). Briefly, several studies have found that the board expertise positively and significantly affects FRQ (D’Onza and Lamboglia, 2014; Klai and Omri, 2014; Kantudu and Samaila, 2015; Onuorah and Friday, 2016). In contrast, Kankanamage (2016) revealed that the board expertise has a significantly negative effect on FRQ using the level of EM as a measurement. This inconsistency formed the basis of the second hypothesis:

H2: The board expertise has a significant effect on FRQ.

**Independent Directors and FRQ**

The independence of the board means that majority of the members on the board are non-executive. For the board of director, to be independent, the majority of the directors have to be non-executive (independent) (Miko and Kamardin, 2015). In this regard, Anderson et al. (2004) argue that when the members on the board are related to the managers or the employees, they may be willing to hide the information and data to obtain direct benefits and consequently conceal this dealing from the stakeholders and investors of the firm. Therefore, the board should be independent and willing to serve the investors, stakeholders and management by means of right monitoring, observing and full disclosing of real financial and non-financial statements.

Based on the Code of the Corporate Governance in Jordan (2015), the board of director must comprise executive and non-executive members. The responsibility of the board is considered an important function which affects the quality level in the financial statements through providing an independent observation of the managers’ activities and the firm’s performance (DeFond and Jiambalvo, 1994; Dichev and Skinner, 2002).

Although several prior studies are conducted on the relationships between the board independence and FRQ, mixed results have been obtained. For instance, Klein (2002) and Cornett et al., (2009) discovered that the board independence is negatively related with FRQ. Similarly, Rotich (2017) found the independent directors have significantly negative influence with FRQ. In contrast, García and Gill-de-Albornoz (2007) showed positive association of independent members and lower EM, thereby implying when having independent directors in the board, they are more likely to engage in accounting and financial manipulations.

Other studies (Akeju and Babatunde, 2017; Alves, 2014; D’Onza and Lamboglia, 2014; Holtz and Sarlo, 2014; Kantudu and Samaila, 2015) have revealed that the independent boards are associated with FRQ positively. As a result, Peasnell et al. (2005), Marra, Mazzola, and Prencipe (2011) showed that the independent member is an essential mechanism in minimizing the levels of EM. In addition, Jaggi et al. (2009) found that the independent board provides effective monitoring of EM, whereas Fodio et al. (2013) revealed that the independent boards have a negative influence on the discretionary accruals.

In other studies, Aifuwa and Embele (2019) revealed that the independent members have an insignificant effect on FRQ. In contrast, Abdullah and Nasir (2004), Saleh et al. (2005), Abdul Rahman and Ali (2006) showed that the independent boards have no any effect in constraining EM. Similarly, Aifuwa and Embele (2019) disclosed that the independent directors have an insignificant effect on FRQ.

Briefly, the independent board will affect positively the performance of the firms and helps reduce the earnings management (Ilaboya and Lodikero, 2017), thereby increasing the financial reporting quality (Akeju and Babatunde, 2017). However, Klein (2002) does not support this opinion, stating that negative association exists between the independent boards and FRQ. Similarly, Al Azeez et al. (2019) revealed that the independent boards have negative and significant effect in reducing the EM practices.

However, other studies have revealed that the independent boards are not related to FRQ (Góis, 2009; Alkdaie and Hanefah, 2012; Chalaki et al., 2012). The inconsistent and mixed results of these empirical studies suggest that the issue of the impact of independent boards and FRQ is far from being settled. Based on the above results, the following hypothesis is formulated:

H3: Independent directors have a significant effect on FRQ.
Directors’ Remuneration and Financial Reporting Quality

The remunerations can be a form of salaries, reward, bonuses, phantom stock plans, stock appreciation rights, stock award, stock options and allowances received by the directors (Murphy, 1985; Oviantari, 2011). In the course of the directors discharging their responsibilities and duties, they are expected to receive some remunerations. Remunerations may consist of remuneration based on shares and cash remuneration. The rules of CG require the directors’ remunerations to be related with the estimate of the firm’s performance. Also, the codes of corporate governance are convinced that the directors’ remuneration is an essential mechanism for the efficient implementation of the CG systems (Oviantari, 2011). Remunerations are provided in order to obtain and retain the directors. Moreover, remunerations should reflect the experience and responsibilities of the directors as well as the financial performance. The remunerations should also be aligned with the business’ strategies and firm’s goals (Jaafar and James, 2014).

Most studies on the CG mechanisms and director’s remunerations were conducted in the developed countries. The discussions related to the issues of directors’ remuneration are based on the argument that some members in the board are overpaid to the detriment of the investors, shareholders, and the firm as a whole. Therefore, the urgent need for the practice of good CG mechanisms is necessary which could be defeated since it will hurt the shareholders’ wealth when the level of the remunerations is not questioned (Omeye and Ogiedu, 2016). The directors may not involve in the earnings manipulation directly, but some of them may be aware of such issue, but they choose to be satisfied and go along with such manipulations if they will get some benefits from the manipulated earnings through increased remunerations. For instance, Ke (2004), Cheng and Warfield (2005), and Bergstressed and Philippon (2006) provide empirical evidence about the directors with higher remunerations who are more likely in engage with earnings manipulation.

In this domain, Okolie (2014) showed insignificant influence of directors’ remuneration on EM practices. Similarly, Erickson et al. (2006) showed also insignificant impact of the director’s remuneration and accounting fraud. Also, Ruparelia and Njuguna (2016) found an insignificant association between the board’s remunerations with financial performance, ROA and ROE. In contrast, Miyienda et al. (2013) found positive effect for remunerations on the financial performance, but the association was weak with Tobin’s Q, ROA, and strong with earnings after tax. In addition, Yatim (2013) noted that the director’s remunerations have a significantly positive influence on the growth opportunities and the financial performance. Due to the limited studies conducted on the issue of the directors’ remunerations and FRQ, and based on these results, the following hypothesis can be developed:

H4: The Directors’ remuneration has a significant effect on FRQ.

Audit quality

The issues of audit quality have received massive considerations from the decision makers, the auditing profession, the government controllers and regulatory agencies, particularly after the prominent corporate scandals such as Arthur Andersen, WorldCom, Enron, Tyco and Global Crossing. These concerns discourage the investors or shareholders to invest in local and foreign businesses.

The audit quality refers to the services performed by the external auditors and are engaged by the client companies. In this sense, companies demand a higher audit quality because of the experience and reputation they have gained. As a result, hiring a high quality auditor will attract more investors and will result in a better firm’s performance. Therefore, investors and stakeholders will have confidence and trust in the firm that hires an auditor for a firm with a higher quality.

It seems that high audit process can enhance and improve the internal control, the corporate governance, the strong risk management, as well as the firm’s performance. In other words, a high and strong audit quality play a vital role in the capital markets. In addition, audit firms with a high quality can meet the investors’ and shareholders’ expectations and increase the firm’s performance (Khudhair et al., 2019). Further, the reputational incentives and interests motivate the audit firms to avoid the audit failure (Skinner and Srinivasan, 2012). Consequently, audit firms aim at providing a high audit quality to meet the expectations of all parties.

Audit quality practices are procedures established by audit firms in order to ensure that the provided financial statements transfer the reliable and relevant information to investors, public, shareholders and other parties. These practices vary based on each audit firm depending on the nature of the activities, their size, and applicable legislations (Nwanyanwu, 2017). However, previous studies have not considered the relationships between the audit quality and FRQ.

The external auditor plays an essential role in the accounting and financial process, due to the auditor’s possess relations and communications with all parties related to the firm, as well as many parties and actors are relying on the audited reports by the external auditor. In other words, the auditor has an essential role in all firm’s financial issues as well as the transactions of related-parties taking into consideration what happened with Arthur Andersen and energy giant Enron’s scandal in (2002). Therefore, the external auditor is considered a corner stone in the financial process and all related-party’s transactions. Consequently, the following hypotheses can be formulated:

H5a: Audit quality mediates the relationship of board size and FRQ
H5b: Audit quality mediates the relationship of board expertise and FRQ.
H5c: Audit quality mediates the relationship of board independence and FRQ.
H5d: Audit quality mediates the relationship of board remunerations and FRQ.

AGENCY THEORY
According to Agency Theory, the management has a motivation to manage the financial reporting process to attain the earnings target, thereby receiving any remunerations that may be associated with the good performance. This will lead to a conflict of interests and an information asymmetry through the discretion of the accruals, which minimize the quality and reliability of reported earnings and the whole financial and accounting reports (Emmanuel et al., 2019).

Agency Theory demonstrates that the boards have a responsibility to protect the investors and shareholders’ interests through monitoring and observing the management. However, there is a generally held concern that the board of directors may lack the ability to ensure that the actions of the agents are in the interest of the shareholders. This concern stems from the notion that the managers often dominate their boards who play a passive role in their observation function. Since the discretionary accruals indicate to the earnings management fraud in the financial statements which mislead the investors and the shareholders with bogus information, boards of directors are obliged to constrain from such unethical practices (Ibrahim and Jelu, 2018).

Thus, the major problem is how to ensure the agents will achieve the interests of the stakeholders and investors, as well as the personal interests, and effectively limiting and reducing the agency costs as a result of the ownership separation. Hence, Fama and Jensen (1983) showed that the companies need mechanisms to separate the decision making from the control of decision. This may reduce the agency costs through the observation of the management as well as ensuring the proper consideration of the interests of the stakeholders and the current investors.

The Agency Theory has been utilized as the prevalent way to deal with the role of boards and often addresses the issue of the clashing interests of proprietors and managers. Therefore, Fama and Jensen (1983) noted that boards must work as safeguard and watchdogs of shareholders and investors’ interests by controlling and monitoring the management and reducing agency problems. Further, Resource Dependency Theory contends that the effective boards have an external role in connecting the firm with the outside operating environment through the system administration (Pfeffer and Salancik, 2003).

RESEARCH DESIGN
Data Collection
The study population consisted of the companies listed in ASE that have disclosed their information, from 2009 to 2017 (180 companies). Given that the Jordan has been adopted the CG codes in 2009. Data are collected manually through firm’s annual reports, and from the Datastream database.

Measuring the variables
In this study, the Discretionary Accruals (DACC) are an inverse measurement to the FRQ, depending on the presumption that DACC captures EM practices, thus, it provides an inverse indicator for FRQ. A low level of DACC indicates a good level of FRQ (Jones, 1991; Miettinen, 2008). In addition, this study utilized model of the Performance-Matched which introduced by Kothari et al. (2005) to capture the level of DACC.

\[ \text{ACCR}_{it}/\text{TAit}_{it-1} = \alpha_0 + \alpha_1(1/\text{TAit}_{it-1}) + \alpha_2(\Delta\text{REVit}_{it} - \Delta\text{ARit}_{it}/\text{TAit}_{it-1} + \alpha_3(\text{PPEit}/\text{TAit}_{it-1}) + \delta_4 \text{ROAit}_{it-1} + \epsilon_{it} \]

Where:
ACCR it: Total Accruals
TAit: Total assets
\( \Delta\text{REVit} \): Changes of Revenues
\( \Delta\text{ARit} \): Changes of Receivable
PPEit: property, plant, equipment
ROAit: Return on Assets
\( \epsilon_{it} \): Error term.

The Discretionary Accruals level is residual of the equation above that is; the difference between Total Accruals and the normal accruals by the fitted values. The measurement of ACCR is the difference between the net-income in income statement, and operating cash flows. Thus, to enhance the model, this research separates between the companies with conservative strategies (DAcc < 0) and other companies that engage in aggressive strategies (DAcc > 0) (Miettinen, 2008).

<table>
<thead>
<tr>
<th>Table 1: Measurement of the variables</th>
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<tbody>
<tr>
<td>variable</td>
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Financial reporting quality | Dependent variable | Discretionary accruals
---|---|---
Audit quality | Mediator variable | LN of Audit fees
Board size | Independent variable | “The number of directors on the board.”
Board expertise | = | Percentage of members with accounting & financial expertise.
Board independence | = | Percentage of number of the non-executive directors divided by total members on the board.
Board remunerations | = | LN of the total amount of remuneration paid out to the board of directors.

The current study depends on the Causal Steps Method introduced by Baron and Kenny (1986) to assess and test the mediation model. Thus, based on the mediation model, the current study has three equations as follows:

1. \[
\text{EM} = \beta_0 + \beta_1\text{BDSIZ} + \beta_2\text{BDEXP} + \beta_3\text{BDIND} + \beta_4\text{REMUN} + \varepsilon
\]
2. \[
\text{AFEES} = \beta_0 + \beta_1\text{BDSIZ} + \beta_2\text{BDEXP} + \beta_3\text{BDIND} + \beta_4\text{REMUN} + \varepsilon
\]
3. \[
\text{EM} = \beta_0 + \beta_1\text{AFEES} + \beta_2\text{BDSIZ} + \beta_3\text{BDEXP} + \beta_4\text{BDIND} + \beta_5\text{REMUN} + \varepsilon
\]

Where:
- EM: Earnings management
- AFEES: Audit fees
- BDSIZ: Board size
- BDEXP: Board expertise
- BDIND: Board independence
- REMUN: Directors’ remunerations

The current study utilized the Variance Inflation Factors (VIF) test for Multicollinearity assumption. The VIF is a test to measure the collinearity between the independent variables (Gujarat and Porter, 2009). Based on the correlation matrix, there is no significant correlation between the independent variables, which ensures that the VIF test results are valid.

**FINDINGS**

Summary of descriptive statistics for all variables are provided in Table II. The mean of the EM is 0.00034, which is an indication that not all the Jordanian firms were involved in the earnings manipulations during the study period, whereas the mean of \(\ln'\text{AFEES}\) is 8.52, they broadly disperse -1.399073 to 8.400316 and 4.00733 to 11.59910; respectively. The independent variables were presented by the Board size (BDSIZ), the Board expertise (BDEXP), the Board independence (BDIND), and the Board remunerations (REMUN). The means of BDSIZ, BDEXP, BDIND and REMUN are 7.740741, 0.339807, 0.653663 and 32578.35, respectively.

**Table 2: Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>EM</th>
<th>LN’AFEES</th>
<th>BDSIZ</th>
<th>BDEXP</th>
<th>BDIND</th>
<th>REMUN</th>
</tr>
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<tbody>
<tr>
<td>Mean</td>
<td>-0.00034</td>
<td>8.520025</td>
<td>7.740741</td>
<td>0.339807</td>
<td>0.653663</td>
<td>32578.35</td>
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<tr>
<td>Median</td>
<td>0.002918</td>
<td>9.071078</td>
<td>7.000000</td>
<td>0.333330</td>
<td>0.666660</td>
<td>24000.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>8.400316</td>
<td>11.59910</td>
<td>14.00000</td>
<td>1.000000</td>
<td>1.000000</td>
<td>291500.00</td>
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<tr>
<td>Minimum</td>
<td>-1.399073</td>
<td>4.007333</td>
<td>3.000000</td>
<td>0.000000</td>
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</tbody>
</table>

EM: Earnings management; LN’AFEES: LN’ Audit fees; BDSIZ: Board size; BDEXP: Board expertise; BDIND: Board independence; REMUN: Directors’ remunerations.

The Correlation Matrix among the variables applied in the study, is presented in Table III. The correlation of the EM with LN’AFEES is high which maybe sign for the mediating effect. Following that, the rest has a lower correlation, which is not causing any problem.

**Table 3: Correlation Matrix**

<table>
<thead>
<tr>
<th>Probability</th>
<th>EM</th>
<th>AFEES</th>
<th>BDSIZ</th>
<th>BDEXP</th>
<th>BDIND</th>
<th>REMUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>AFEES</td>
<td>-0.389942</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>BDSIZ</td>
<td></td>
<td>0.000000</td>
<td>-0.045227</td>
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<tr>
<td>BDEXP</td>
<td>-0.011893</td>
<td>0.015550</td>
<td>0.012325</td>
<td>1.000000</td>
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<td></td>
</tr>
<tr>
<td>BDIND</td>
<td>0.6324</td>
<td>0.5317</td>
<td>0.6201</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REMUN</td>
<td>0.034708</td>
<td>-0.042446</td>
<td>0.227245</td>
<td>0.253920</td>
<td>1.000000</td>
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<td></td>
<td>0.1626</td>
<td>0.0877</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.156973</td>
<td>0.280568</td>
<td>0.399526</td>
<td>0.111193</td>
<td>0.122822</td>
<td>1.000000</td>
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<tr>
<td></td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
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</table>

The current study utilized the Variance Inflation Factors (VIF) test for Multicollinearity assumption. The VIF is a test to measure the collinearity between the independent variables (Gujarat and Porter, 2009). Based on the correlation matrix, there is no significant correlation between the independent variables, which ensures that the VIF test results are valid.
results shown in Table IV, the VIF results of the variables (varied between 1.3 and 1.08) are less than 5. Consequently, there is no Multicollinearity issue in this study.

Table 4: Variance Inflation Factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Centered VIF</th>
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<tbody>
<tr>
<td>AFEES</td>
<td>1.09</td>
</tr>
<tr>
<td>BDSIZ</td>
<td>1.25</td>
</tr>
<tr>
<td>BDEXP</td>
<td>1.08</td>
</tr>
<tr>
<td>BDIND</td>
<td>1.14</td>
</tr>
<tr>
<td>REMUN</td>
<td>1.30</td>
</tr>
<tr>
<td>C</td>
<td>NA</td>
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</tbody>
</table>

The test of the Breusch-Pagan-Godfrey is used to check the heteroskedasticity problem. Table V showed that there is no any problem of the heteroskedasticity assumption, since that the P-Value of this test is insignificant (0.1289).

Table 5: Heteroskedasticity Test

<table>
<thead>
<tr>
<th>Test</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Pagan-Godfrey</td>
<td>0.1289</td>
</tr>
</tbody>
</table>

Table VI displays result of Serial Correlation through the test of Breusch-Godfrey LM regarding the assumption of Serial Correlation issue, whereby the result revealed that the Prob of Chi-Square is insignificant (0.124), thereby indicating no serial correlation issue.

Table 6: Serial Correlation Test

<table>
<thead>
<tr>
<th>Test</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Godfrey LM</td>
<td>0.124</td>
</tr>
</tbody>
</table>

Regarding the mediation model, to assess the mediating effect of audit fees, three equations were applied. 1) The impact of (BDSIZ, BDEXP, BDIND and REMUN) on the dependent variables (EM) was analyzed. 2) The impact of the independent variables (as mentioned above) on the mediating variable (AFEES) was assessed. 3) The effect of the mediator on the relationship between the independent variables and the dependent variable was analyzed. Furthermore, because all the equations/models are Panel data, this research applied three important tests within the analysis of Panel data in order to choosing between Pooled OLS, Fixed or Random effect, whereby the best method of all models was the Fixed effect.

Table VII displays the final results of the first model/equation and shows the impact of all independent variables on EM. R-squared = (0.45), and P-Value (F-statistic) = (0.000). Based on these results, all the independent variables are explain 45% percent of the dependent variable (EM), which is statistically significant.

Table 7: The Final Results of Equation 1 (IVs on DV)

<table>
<thead>
<tr>
<th>Dependent Variable: EM</th>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BDSIZ</td>
<td>0.0057</td>
<td>0.0007</td>
<td>8.358</td>
<td>0.000</td>
<td>(H1) Accepted</td>
</tr>
<tr>
<td></td>
<td>BDEXP</td>
<td>-0.096</td>
<td>0.010</td>
<td>-9.559</td>
<td>0.000</td>
<td>(H2) Accepted</td>
</tr>
<tr>
<td></td>
<td>BDIND</td>
<td>0.075</td>
<td>0.008</td>
<td>9.356</td>
<td>0.000</td>
<td>(H3) Accepted</td>
</tr>
<tr>
<td></td>
<td>REMUN</td>
<td>-3.81E-07</td>
<td>7.07E-08</td>
<td>-5.388</td>
<td>0.000</td>
<td>(H4) Accepted</td>
</tr>
<tr>
<td></td>
<td>LAGEM</td>
<td>-0.166</td>
<td>0.016</td>
<td>-10.359</td>
<td>0.000</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>-0.048</td>
<td>0.006</td>
<td>-8.296</td>
<td>0.000</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.448</td>
<td>Adjusted R-squared</td>
<td>0.367</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F-statistic</td>
<td>5.532</td>
<td>Durbin-Watson stat</td>
<td>1.979</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prob(F-statistic)</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results indicate that Board size (BDSIZ) and the Board independence (BDIND) have a significantly positive impact with EM. It reflect if these factors increase, EM will increase, too. (It also means that these variables have a significantly negative influence with FRQ). The results related to the BDSIZ have been supported by several studies (Xie et al., 2003; Anderson et al., 2004; Abdul Rahman ans Ali, 2006; Dimitropoulos and Asteriou, 2010; Yasser et al., 2017). The findings related to BDIND are also in line with several previous studies (Klein, 2002; Anderson et al., 2004; Osma and Noguer, 2007; Cornett et al., 2009; Rotich, 2017). On the other hand, the Board expertise (BDEXP) and the Directors’ remunerations (REMUN) have a significantly negative association with EM. This result implies that if these factors increase, the EM will decrease, too (they have significantly positive impact on FRQ). Moreover, the findings related to BDEXP are consistent with several previous studies (Klai and
Omri, 2014; D’Onza and Lamboglia, 2014; Kastudu and Samaial, 2015; Onuorah and Friday, 2016; Aifuwa and Embele, 2019). In addition, the results regarding the REMUN are supported by several previous studies (Oviantari, 2011; Miyienda et al., 2013; Yatim, 2013; Jaafar and James, 2014).

Table VIII illustrates the results of the second model/equation, which displays the impact of the independent variables on the mediator (audit quality). As shown, R-squared = (0.303), P-Value (F-statistic) = (0.000). Based on these results, all the independent variables are explain 30% percent of the Audit Fees, which is statistically significant.

### Table 8: The Final Results of Equation 2 (IVs on Mediator)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDSIZ</td>
<td>0.022</td>
<td>0.009</td>
<td>2.410</td>
<td>0.016</td>
</tr>
<tr>
<td>BDEXP</td>
<td>-1.020</td>
<td>0.117</td>
<td>-8.753</td>
<td>0.000</td>
</tr>
<tr>
<td>BDIND</td>
<td>0.841</td>
<td>0.097</td>
<td>8.626</td>
<td>0.000</td>
</tr>
<tr>
<td>REMUN</td>
<td>1.57E-06</td>
<td>9.40E-07</td>
<td>1.668</td>
<td>0.096</td>
</tr>
<tr>
<td>C</td>
<td>-0.299</td>
<td>0.078</td>
<td>-3.837</td>
<td>0.000</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.303</td>
<td></td>
<td></td>
<td>0.202</td>
</tr>
<tr>
<td>F-statistic</td>
<td>2.990</td>
<td>Durbin-Watson stat</td>
<td>1.756</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results indicate that Board size (BDSIZ), the Board independence (BDIND) and the Directors’ remunerations (REMUN) have significantly positive influence on the audit quality (audit fees). This result implies that if these variables increase, the audit fees will increase, too. The results associated with BDSIZ are supported by several studies (Kikhia, 2014; Akhalumeh et al., 2017). In addition, the results related to the BDIND are also enhanced by several studies (Kikhia, 2015; Alhababash, 2016). Further, the results regarding the REMUN are consistent with several previous studies (Sori and Mohammad, 2008; Kee et al., 2017). In addition, the Board expertise (BDEXP) have significantly negative effect on the audit quality (audit fees), thereby implying if these variables increase, and the level of the audit fees will decrease. These findings related to the BDEXP are in line with several studies (Miettinen, 2008; Krishnan and Visvanathan, 2009).

Table IX illustrates the final outcomes of the third model/equation 3 showing the impact of the mediator variable (audit fees) on the relationship of the Board Components and the EM. As shown in Table 9 below, R-squared = (0.503). P-Value (F-statistic) = (0.000). Based on these results, all the independent variables are explain 50% percent of the EM, which is statistically significant.

### Table 9: Results of Equation 3. The Mediation Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>P-Value</th>
<th>Result</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFEES</td>
<td>-0.032</td>
<td>0.002</td>
<td>-16.087</td>
<td>0.000</td>
<td>No mediation</td>
<td>(H5a) Rejected</td>
</tr>
<tr>
<td>BDSIZ</td>
<td>0.0059</td>
<td>0.001</td>
<td>9.120</td>
<td>0.000</td>
<td>Partial mediation</td>
<td>(H5b) Accepted</td>
</tr>
<tr>
<td>BDEXP</td>
<td>-0.077</td>
<td>0.008</td>
<td>-9.050</td>
<td>0.000</td>
<td>Partial mediation</td>
<td>(H5c) Accepted</td>
</tr>
<tr>
<td>BDIND</td>
<td>0.067</td>
<td>0.007</td>
<td>9.421</td>
<td>0.000</td>
<td>Partial mediation</td>
<td>(H5d) Accepted</td>
</tr>
<tr>
<td>REMUN</td>
<td>3.23E-07</td>
<td>6.64E-08</td>
<td>4.859</td>
<td>0.000</td>
<td>Partial mediation</td>
<td>(H5e) Accepted</td>
</tr>
<tr>
<td>C</td>
<td>-0.051</td>
<td>0.006</td>
<td>-9.219</td>
<td>0.000</td>
<td>No mediation</td>
<td>(H5f) Rejected</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.503</td>
<td></td>
<td></td>
<td></td>
<td>Adjusted R-squared</td>
<td>0.430</td>
</tr>
<tr>
<td>F-statistic</td>
<td>6.906</td>
<td>Durbin-Watson stat</td>
<td>2.142</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With regard to the mediation model, Baron and Kenny (1986) offers four conditions that should be met in the mediation model to assess the mediating impact, as follows:

- Independent variable (IV) X must have a significant influence on the dependent variable Y in equation 1.
- The IV (X) must have a significant influence on the mediator in equation 2.
- The mediator variable should have a significant influence on the dependent variable Y in equation 3.
- The impact of the IV (X) on the dependent variable “Y” (in equation 3) should be smaller than its impact in the first equation in terms of the absolute value.

Therefore, as shown in Tables 7 and 8, all the independent variables met the conditions 1 and 2, since they have significant effect on both the dependent and mediator variables. In addition, the results showed that the mediator (AFEES) has significant impact on EM in equation 3 (Table 9), which means that the third condition is met. Regarding the fourth condition, the results as shown in Table 7 revealed that the impact (Coefficient) of the Board Size (BDSIZ) is significantly associated with EM (dependent variable), (B = 0.0057, P < 0.01) in the first equation.
However, after the mediator variable (AFEES) was included in the third equation, the impact of BDSIZ increased and its association with the DV (EM) is still significant ($B = 0.0059, P < 0.01$). Thus, the fourth condition is not met, since the impact of BDSIZ became bigger than its impact in the first equation.

The results show that the impact of the other independent variables (BDEXP, BDIND and REMUN) was reduced compared to their impact in the first equation after the mediator variable (AFEES) was included in the third equation, as follows. First, the impact (Coefficient) of the BDEXP was reduced from ($B = 0.096, P < 0.01$) in the first equation to become ($B = 0.077, P < 0.01$) in the third equation, and its relationship with the dependent variable is still significant. Thus, such result reveals that the relationship of Board expertise (BDEXP) with EM is partially mediated by the audit fees. Second, the impact (Coefficient) of the BDIND was reduced from ($B = 0.075, P < 0.01$) in the first equation to become ($B = 0.067, P < 0.01$) in the third equation, and its relationship with the dependent variable is still significant, thereby indicating that the relationship of the Board independence (BDIND) with EM is partially mediated by the audit fees. Third, the impact (Coefficient) of the REMUN was also reduced from ($B = 0.00000038, P < 0.01$) in the first equation to become ($B = 0.00000032, P < 0.01$) in the third equation, and its relationship with the dependent variable is still significant, which implies that the relationship between the directors’ remunerations (REMUN) and EM is partially mediated by the audit fees. Accordingly, the outcomes of this equation supports the study hypothesis, which states that the external audit quality has a mediating impact on the relationship of the board components with EM. Final, the results supports the argument that the external audit quality partially mediates the existing relationship between both of board components and the earnings management or FRQ. These results on the same line with several previous studies (Miettinen, 2008; Alrshah, 2014).

As mentioned before, the discretionary accruals levels (DACC) are final measurement for FRQ. Because the general premise is that the discretionary accruals (DACC) capture EM practices, this provides an inverse proxy of FRQ. Hence, whenever the mediation or independent variables have a negative influence on the EM practices; it means that they have positive influence on earnings quality and quality of financial reports, and vice versa in the case of the positive influence.

**CONCLUSION**

The issues of board of directors, quality of external audit, EM practices and financial reporting quality have attracted the interests of the public population, audit profession, and all related-parties, particularly after the different scandals. The previous studies provided several ways to improving and restoring the confidence and faith of the public in the audit profession. So that, several of suggestions have arisen regarding enhance and improve the FRQ, such as; the effective implementation of the CG systems, the quality of external audit, the disclosures, the regulations, and the ethical compliance. As the directors’ independence on the board is concerned, it has a different relationship with all related-parties. Consequently, the decision-makers can consider this issue when decision-making, and they should reconsider the large boards and the real independence of the directors.

The current study presents new and modern empirical evidence regarding the association between of board components, audit quality, the earnings management, and FRQ in the Jordanian listed firms that voluntarily disclosed their statements in Amman Stock Exchange. Based on the sample of 180 firms from 2009 to 2017 with 1620 observations, this study focuses on four elements of the board structure, including the board size, the expertise, the independence, and the remunerations.

Based on the discussion, the findings indicated that the larger size of boards and directors’ independence have a significantly negative influence on FRQ through increasing EM, thus reducing the confidence of the shareholders and investors in the role of the independent and large boards in improving and ensuring the quality of the financial statements in the business environment. The directors’ expertise and the directors’ remuneration have a significantly positive impact on FRQ through reducing EM. This finding reflects that these components are considered effective components to prevent and monitor the EM practices, which is in line with the Agency Theory. However, the results of this research showed that the main role in constraining the EM practices is not played by the large boards or the independent boards. In contrast, board expertise, the directors’ remuneration, and the audit quality appear to be the most effective mechanisms for the Jordanian firms in enhancing and ensuring the quality in the financial reports and preventing the financial manipulation by the management.

As for the mediating effect, the results indicate that external audit quality has a mediating effect on the relationship between the board components and FRQ. The effect was partially mediating, whereas the audit fees affected FRQ significantly and positively through restricting and preventing the EM practices. It means that the audit fees as an indicator of the audit quality can enhance and ensure high quality-level in the financial statements through reducing and monitoring the EM practices. It should mentioned that even after entering the mediating (AFEES), the other variables are still have a meaningful impact and their effect does not change to zero, thus implying that the AFEES has a partial mediating effect rather than a full mediating effect.

The outcomes of the current study supported the hypotheses (H1, H2, H3 and H4) which state that BDSIZ, BDEXP, BDIND and REMUN have a significant impact on FRQ. In contrast, the outcomes did not support the hypothesis (H5a) regarding the board size, whereas the results supported the hypotheses (H5b, H5c and H5d).
This result implies that external audit quality (measured by audit fees) has a mediating effect in the relationship between BDEXP, BDIND and REMUN, and FRQ. The contribution of this study: it explains the relationship between one of the most important CG system (board structure) and the audit quality, FRQ, and the earnings management in a developing markets (Jordan), along with new and different perceptions due to lack of researches on this area. Second, these findings enhance our knowledge and understanding on how the board structure affects earnings management practices and FRQ, with the role of the audit quality. Third, this study is the first study that examines the impact of the directors' remuneration on the audit quality and FRQ in the Middle East, since no previous study has examined this issue in Jordan or the Middle East.

In addition, the findings of this study are particularly important in highlighting the issue of the boards’ effectiveness in restricting the EM practices and ensuring FRQ in one of the developing countries such as Jordan. Therefore, the study recommends decision makers to pay more attention for the board size and the independent directors, given that they have an effective role to monitoring the financial reports. Consequently, the outcomes of the current study could help the owners, investors and other related-parties understand the interaction between the board components, the audit quality, EM as well as quality of the financial reporting. Besides, theoretically, these findings provide a broader and better understanding of the agency theory predictions.

Future studies could investigate the effects of other CG mechanisms such as the ownership structure and the effectiveness of the audit committee. Future studies can also examine the characteristics of the external auditor along with CG mechanisms, and their impact on the firm’s FRQ, given that the auditor has an important and pivotal role in ensuring quality of the firm’s financial statements.

REFERENCES


