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MODERATING EFFECT OF OWNERSHIP CONCENTRATION ON THE RELATIONSHIP BETWEEN CEO, AUDIT PARTNER CHARACTERISTICS AND REAL EARNINGS MANAGEMENT IN JORDAN

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Abstract

Earnings management has become a major issue in many global corporate scandals. It can be interpreted as an action purposely conducted by managers of companies to report the accounting earnings which are not in line with the economic reality of the firms for opportunistic or informative purposes. Opportunistic earnings management can cause the quality of published earnings to deteriorate, while also diminishing the trust that investors have in the financial reports. This study investigated the relationship between the characteristics of the Chief Executive Officer (CEO) and the audit partners in relation to real earnings management (REM) in Jordan. Furthermore, the study investigated the moderating role of ownership concentration on the relationship between CEOs, audit partner characteristics and real earnings management. The sample of the study was 348 firm-year observations on firms listed on the Amman Stock Exchange from 2013 to 2018. To test the hypotheses of the current study, multiple regression analysis using STATA software was employed. The results of this study revealed that a CEO’s experience and a CEO’s political connections are positively related to REM. In contrast, CEO duality is negatively associated with REM. Regarding audit partner characteristics it was found that audit partner tenure is related positively with REM, while audit partner affiliation is negatively related to REM. Upon further analysis, the results showed that ownership concentration negatively moderated the relationships between CEO experience and CEO tenure with REM. The findings have implications on investors, regulators and market participants by affording a considerable indication that the characteristics of CEOs, the characteristics of audit partners and ownership concentration are very crucial in explaining REM activities.

Keywords: CEO characteristics, Audit partner characteristics, Real earnings management, Jordan.
Abstrak

Pengurusan pendapatan telah menjadi isu utama yang berlaku dalam banyak skandal korporat global. Situasi ini boleh ditafsirkan sebagai tindakan yang sengaja dilakukan oleh pengurus sesebuah syarikat untuk tujuan orpotunistik atau memberi maklumat ketika melaporkan pendapatan perakaunan yang tidak selari dengan realiti ekonomi firma itu. Pengurusan pendapatan yang orpotunis menyebabkan kualiti pendapatan yang dikeluarkan merosot, seterusnya mengurangkan kepercayaan para pelabur terhadap laporan kewangan. Kajian ini akan menyiapkan hubungan antara ciri-ciri ketua pegawai eksekutif (CEO) dan rakan audit berhubung dengan pengurusan pendapatan sebenar (REM) di Jordan. Di samping itu, kajian ini turut mengenali pasti peranan pemusatan pemilikan terhadap hubungan antara CEO, rakan audit dan pengurusan pendapatan sebenar. Sebanyak 348 sampel pemerhatian ke atas firma yang disenaraikan di Bursa Saham Amman dari tahun 2013 sehingga tahun 2018 digunakan dalam kajian ini. Untuk menguji hipotesi kajian, analisis regresi berganda melalui perisian STATA digunakan. Hasil kajian mendedahkan bahawa pengalaman CEO dan hubungan politik CEO mempunyai hubungan yang positif dengan REM. Sebaliknya, dwi-peranan CEO mempunyai hubungan yang negatif dengan REM. Bagi ciri-ciri rakan kongsi audit pula, didapati bahawa tempoh rakan kongsi audit mempunyai hubungan yang positif dengan REM, manakala gabungan rakan kongsi audit mempunyai hubungan yang negatif dengan REM. Hasil analisis selanjutnya menunjukkan bahawa pemusatan pemilikan menyederhanakan hubungan antara pengalaman CEO dan tempoh menjadi CEO dengan REM. Dapatan kajian semasa memberi implikasi kepada pelabur, pengawal selia, dan peserta pasaran sebagai petunjuk yang besar bahawa ciri-ciri CEO, ciri-ciri rakan audit dan pemusatan pemilikan adalah sangat penting dalam menjelaskan aktiviti REM.

Kata kunci: Ciri-ciri CEO, Ciri-ciri Rakan Kongsi Audit, Pengurusan Pendapatan Sebenar, Jordan.
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<tr>
<td>ASE</td>
<td>Amman Stock Exchange</td>
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<tr>
<td>AUDPARAFF</td>
<td>Audit Partner Affiliation</td>
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<td>AUDPARAGE</td>
<td>Audit Partner Age</td>
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<tr>
<td>AUDPAREDUB</td>
<td>Audit Partner Educational Background</td>
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<tr>
<td>AUDPARTEN</td>
<td>Audit Partner Tenure</td>
</tr>
<tr>
<td>CCD</td>
<td>Companies Control Department</td>
</tr>
<tr>
<td>CG</td>
<td>Corporate Governance</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CEODTY</td>
<td>CEO Duality</td>
</tr>
<tr>
<td>CEOEXP</td>
<td>CEO Experience</td>
</tr>
<tr>
<td>CEOPOL</td>
<td>CEO Politically connected</td>
</tr>
<tr>
<td>CEOTEN</td>
<td>CEO Tenure</td>
</tr>
<tr>
<td>COSO</td>
<td>Committee of Sponsoring Organizations of the Treadway Commission</td>
</tr>
<tr>
<td>CPA</td>
<td>Certified Public Accountant</td>
</tr>
<tr>
<td>EM</td>
<td>Earnings Management</td>
</tr>
<tr>
<td>GAAP</td>
<td>Generally Accepted Accounting Principles</td>
</tr>
<tr>
<td>GC</td>
<td>Going Concern</td>
</tr>
<tr>
<td>IASB</td>
<td>International Accounting Standards Board</td>
</tr>
<tr>
<td>JACPA</td>
<td>Jordanian Association of Certified Public Accountants</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>JCGC</td>
<td>Jordanian Corporate Governance Code</td>
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<tr>
<td>JD</td>
<td>Jordanian Dinar</td>
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<tr>
<td>JFED</td>
<td>Jordanian Forum for Economic Development</td>
</tr>
<tr>
<td>JSC</td>
<td>Jordan Security Commission</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<tr>
<td>OWNCON</td>
<td>Ownership Concentration</td>
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<td>REM</td>
<td>Real Earnings Management</td>
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CHAPTER ONE

INTRODUCTION

1.0 Introduction

Chapter one of this study has the following structure: Section 1.1 deliberates the background of the study, and section 1.2 highlights the problem statement of the study. Research questions are elaborated in section 1.3, while the following section 1.4 elaborates on the research objectives. Meanwhile, section 1.5 describes the scope of the study. The significance of the study can be viewed in section 1.6, while section 1.7 illustrates the organisation of the thesis.

1.1 Background of the Study

The downfall of respectable companies, for instance, Enron which occurred in 2001 and Arthur Andersen and WorldCom which occurred in 2002, has brought the attention of the world towards the integrity of financial reporting and efficiency of internal and external control mechanisms (Leventis & Dimitropoulos, 2012). In this regard, reliability is crucial because financial information offered by financial reports is a significant source of decision-making for investors, while financial scandals have robbed the confidence of investors towards the accuracy of the information supplied by listed companies (Liu, 2012; Alsraheen & Saleh, 2017). This has intensified the scepticism among users of financial reports particularly in the quality of financial reports as there are reports concerning irregularities in addition to the exposures of intolerable accounting practices utilised by the managers of even prominent companies to manipulate accounting information (Alsraheen & Saleh, 2017).
Among the items in the financial statement, published earnings are regarded as vital information as it has impacts on business activities, investment and management decisions (Healy & Wahlen, 1999). Due to these impacts, it is possible that managers would be drawn to manipulate their earnings to improve the financial status of their companies. Within such context, earnings management is interpreted as any activity purposely conducted by the managers to disclose results of accounting that are not in line with those obtained for opportunistic or informative purposes (Osma, Noguer, & Clemente, 2005; Bermejo-Sánchez, Rodríguez-Ariza, & Martínez-Ferrero, 2015).

Researchers have been showing interest in the issue of earnings management (EM), and this issue is potentially the most prominent factor associated with the manipulation of financial statements. Thus, most of the studies were focusing on the actions adopted by management to manipulate the earnings and how to discover such manipulation (Al-ibbini, Abdallah, & Al-Waqqad, 2016). Thus, practitioners and regulators who are concerned with earnings management seek to control the activities of managers by creating a set of corporate governance (CG) devices to curb this phenomenon. With respect to agency theory, the introduction of controlling mechanisms is seen as potentially reducing managerial discretion and agency costs (Lakhal, 2015). Furthermore, the Chief Executive Officer (CEO) has the authority to access all relevant information concerning the firm’s activities and operations. This dominance of information increases his/her aptitude to manage earnings (Qawasmeh & Azzam, 2020).

The relationship that exists between CG mechanisms and EM has been explored mainly by studies with variables such as board size, audit committee and audit firm (e.g., Abed et al.,
Moreover, according to Altarawneh, Shafie and Ishak (2020), the association between financial reporting quality and CEO characteristics remain unclear; hence, they recommended that additional research is required to investigate whether CEO characteristics have impacts on financial statement fraud such as REM. Liu (2017) claimed that there are contradictory results in previous studies that examined the relationship between the characteristics of the audit partner and quality of the audit, and subsequently recommended future studies to include more individual characteristics in examining the relationship between audit quality and the practices of REM.

On the other hand, external auditing is a form of external governance where an 'independent' auditor audits the company's internal controls and financial statements and presents his report to the company owners. The report of the auditor entails an independent opinion to confirm that financial reports are adequately declared following GAAP. Also, these financial reports reflect the entity's actual economic status and operating outcomes. Thus, an auditor's report is deemed as the ending process or conclusion of the auditing which the auditor uses in communicating a report about the firm's position (Porter et al. 2003; Habbash & Alghamdi, 2017). Therefore, the external audit is expected to deter management from managing earnings (Rajpal & Jain, 2018).

Furthermore, financial scandals that have occurred in the past two decades have raised the issue concerning the effectiveness of external auditing in restricting earnings management. Also, audit failure that has occurred on the capital market has led to the augmented concerns towards audit quality (Velury, 2005). Nevertheless, external audit still is integral
in assuring accountability and reliability of financial reporting. The amount of detected manipulation is affected by the quality of the services. Also, auditing services’ quality is impacted by the experience of the auditor, industry knowledge, and independence (Habbash & Alghamdi, 2017).

Researchers have started to concentrate on business-related interactions of audit partners based on the amount of knowledge, experience, and expertise of audit partners working with customers in a particular sector (Chi & Chin, 2011). Also, a lot of research on the individual auditors' conduct revealed that differences between auditors and their different characteristics affected their cognitive behaviour and the audit quality as well (Liu, 2017). Thus, audit quality may not only be attributed to an audit company's brand name and industry leaders but also the personal characteristics of the audit partner (Goodwin & Wu, 2014; Kharuddin, 2016). As indicated in DeFond and Zhang (2014), the characteristics of individual auditors may also contribute to the provision of high-quality audits, and in the encouragement of future research to take into account more features of individual auditors such as, amongst others, personal characteristics, age and gender.

Furthermore, as provided by agency theory, ownership concentration plays an essential role in the monitoring behaviour of managers (Jensen & Meckling, 1976). The idea is that investors who hold large shares should track the firm's operations more closely as the operating results of a firm affect their wealth as their ownership grows. In this context, ownership concentration may either have an alignment or entrenchment effect.

Regarding the alignment effect, the presence of larger shareholdings could align the interests of the managers and other principals (shareholders), discouraging management
from manipulating earnings (Tsao et al., 2019). Highly ownership concentration firms have more effective monitoring mechanisms and achieve superior performance over non-concentrated ownership firms (Anderson et al., 2003). Managers of firms with high concentrated ownership have less incentive to practice EM, and they care about the firm’s value and reputation (Alzoubi, 2016; Martinez-Ferrero et al., 2016; Tsao et al., 2019).

On the other hand, based on the entrenchment effect, controlling shareholders could expropriate the interests of non-controlling shareholders to increase their wealth, thus encouraging earnings manipulation (Abdullah & Ismail, 2016; Fama & Jensen, 1983; Shleifer & Vishny, 1997; Wang, 2006). Hence, as managers fear negative consequences on large shareholders’ deteriorating results, they may be highly motivated to participate in earnings management. Moreover, empirical evidence proved that firms with higher ownership concentration are more likely to engage in earnings management practices (Darmadi, 2016). Thus, it is expected that the level of ownership concentration would moderate the probable impact of CEO characteristics on REM.

Moreover, Dong and Zhang (2008) reported in their study that external auditors are less prone to have a high quality of auditing with higher share concentration at a slightly substantial level. This is because ownership concentration leads to eliminating the motivation of owners in using high quality auditing, so they do not tend to transfer clear and high-quality financial information to the market (Rad, Salehi, & Pour, 2016). Therefore, firms with ownership concentration will be more likely to engage in EM due to the low quality of auditing service, and the level of ownership concentration would moderate the possible impact of audit partner characteristics on REM.
Consequently, considering previous arguments, the present study explores the impacts of individual characteristics of the CEOs and audit partners on REM practices. In the current study, the characteristics of the CEO examined are CEO experience, CEO tenure, CEO duality and CEO political connections. In contrast, the examined characteristics of audit partners include audit partner tenure, audit partner affiliation (i.e., whether audit partner works at a Big 4 or non-Big 4 audit firm), audit partner’s age, and audit partner’s educational background. The moderating effect of ownership concentration on these relationships will be investigated as well.

The current study contributes to the theories of agency by adding further understanding concerning the characteristics of the CEOs and audit partners. Although an abundance of studies has explored the issue of CEO characteristics and audit partners using the Agency Theory, most of these studies focused on developed countries which have a different environment from Jordan as a developing country, where firms are controlled by high ownership concentration. Furthermore, this study contributes to the existing literature by using the Upper Echelons Theory, which discusses the role of individual characteristics of the top executives on their development of values, strategic decisions, and company-reporting decisions.

In addition, the findings of the current study offer a considerable indication that the characteristics of the CEO, the characteristics of the audit partner, and the ownership concentration are essentials in explaining REM activities. Moreover, the results of this study are practical in finding an opening point for additional empirical investigations on the significance of characteristics of the CEOs and audit partners in Jordanian listed firms.
1.2 Problem Statement

Earnings management (EM) has become a major issue in many global corporate scandals. In this regard, EM usually entails the manipulation of financial data. This manipulation can cause the quality of published earnings to deteriorate while also diminishing the trust that investors have towards financial reports (Sáenz González & García-Meca, 2014; Saleem, Alifiah, & Tahir, 2016). EM contains a manager’s premeditated intrusion in the reporting manner of the firm to achieve some personal benefits (Sani, Abdul Latif, & Al-Dhamari, 2020).

In Jordan, the issue of REM practices is critical and frightening compared to other countries around the world (Kharashgah, Amran & Ishak, 2019). Using a sample of 38 countries, the study of Enomoto et al. (2015), has proved that Jordanian firms practice REM activities as high as 81% compared to other countries. Moreover, the number of reported disclosure violations has increased in Jordan based on the study of Shakhatreh, Alsmadi, & Alkhataybeh (2020) which is reported that 36% of examined firms (industrial and service sectors) were reported as violators in 2010, compared with 44% in 2016.

Furthermore, many previous researches have shown that earnings management practices are widespread among listed Jordanian companies (Al-khabash & Al-Thuneibat, 2008; AlMousawi & Al-Thuneibat, 2011; Almarayeh, Guzmán & Abdullatif, 2020). In addition, several studies have proved an enormous increase of earning management practices in Jordanian listed firms (Abed et al., 2012; Alzoubi, 2016; Abbadi, Hijazi & Al-Rahahleh 2016; Ibrahim & Al Awawdeh, 2017; Alqatamin, Aribi & Arun, 2017; Shahwan & Almubaydeen, 2020). Indeed, Almasarwah (2015) found that around 25% of Jordanian
industrial firms practiced high earnings management, and Qallap (2014) concluded that 26.2% of Jordanian service firms listed on the ASE exercised earnings management.

However, the participation of CEOs in fraudulent activities related to accounting and financial reporting has been documented for a long time. The report of the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 1999) concluded that 83% of fraud cases in 1987 were directed by the CEO. Since 1999, the involvement of CEOs in financial statement fraud has run rampant. For example, Tyco lost a market value of US$ 100 billion (a sum above the total Enron loss) after CEO Kozlowski manipulated earnings in 2002 (Troy, Smith, & Domino, 2011).

The financial world has since been dominated by momentous stories of corporate bankruptcy. Jordan has been no exception, where corporate scandals have led to the necessity for better monitoring of financial manipulations. In fact, a number of financial collapses have occurred in Jordan, including those involving Petra Bank in 1989, and the case of Shamayleh Gate in 2002 (Jordanian Forum for Economic Development, 2003). Notably, the Shamayleh Gate case cost the Jordanian market more than $1 billion (JFED, 2003). Due to these shocking incidents, Jordan was confronted with a severe financial crisis, which led to further company crashes and a decline in the Jordanian dinar (JD) (Alawaqleh, 2008; Shbeilat, 2013).

In 2019, the Council of the Integrity and Anti-Corruption Commission in Jordan referred five cases of corruption to the judiciary, which involved a suspected number of millions of Jordanian dinars. One of these cases was linked to a member of the current parliament. As mentioned by an official source in the commission, practices of corruption had been
committed, with incidents in the Arab Investors Co Ltd, Investors and the Arab East for Industrial and Real Estate Investments, and the Aqaba Development Company among the prevalent ones (Ammon News, 2019).

Within the context of Arab Investors Company and the Arab East company, the CEO was involved in the financial violations, specifically by making decisions, signing agreements and performing actions that were causing damage to the financial position of the two companies by approximately "40" million dinars at least, resulting in losses to approximately twenty thousand shareholders (Ammon News, 2019).

This may indicate the CEO’s engagement in accounting information manipulation to conceal the losses in the firm. These crises have attracted policymakers' interest in promoting the principles and implementation of corporate governance structures to monitor the CEOs' work and the value of external auditors for Jordan’s economy (Zureigat, Fadzil, & Ismail, 2014).

Chief executives are widely known as the most dominant leaders of an organization because they are the ones with control over corporate decisions, including financial information reporting, board shaping and financial performance. According to Chou and Chan (2018), responsibility over firm performance potentially increases earnings management by managers, as managers could engage in EM to conceal any losses or to report better earnings to enhance the company’s performance in the short term.

Furthermore, the Agency theory assumes that managers are encouraged to follow their goals while sacrificing the interests of shareholders (Jensen, 1986). CEO characteristics
might enforce their personal preference on firm strategy decisions and affect executive effectiveness (Liu & Jiang, 2020). However, research on the influence of CEO individual characteristics on financial reporting quality has mainly focused on age, gender, education and experience, and the literature provides mixed results (Taleatu, Adetula & Iyoha, 2020). For this reason, it is necessary to have further understanding of the link between the attitudes of CEOs and the earnings management of firms (Chou & Chan, 2018).

The external auditor is responsible for ensuring that the financial reports are issued in compliance with accounting standards and that the actual financial condition and the operating results of these statements are reflected (Nawaiseh, 2016). Thus, a high-quality audit is anticipated to limit opportunistic earnings management, and highlight hazards in financial statements such as material misstatements or exclusions (Alzoubi, 2016).

However, the users of financial statements are frustrated because of the auditor’s failure that in turn led to many global accounting scandals (Nawaiseh, 2015). A report was issued by the Jordanian Association of Certified Public Accountants (JACA) in 2014 which stated that there is weak audit quality in Jordan, and apparently increasing tax evasion cases of numerous Jordanian companies (Alsmairat, Yusoff & Salleh, 2018).

Furthermore, the JACA in 2014 informed that they decided to punish many auditors by prohibiting them from practicing auditing services for two years for infringing international auditing standards and ethical rules. The same case occurred in 2013 as the JACA punished five auditors of the association by prohibiting them from conducting auditing services due to disciplinary offenses and non-compliance with ethical rules. Moreover, in 2018, the JACA had dismissed nine external auditors and banned them from conducting auditing
services because of manipulations in issuing audit reports and tax evasion cases in many listed Jordanian companies (Khaberni, 2019).

The issue of an audit partner’s characteristics has been shown to be associated with EM. In particular, audit partner’s tenure significantly affects earnings management practices, and this connection can affect earnings management positively (Chi & Huang, 2005; Lennox et al., 2014; Litt, Sharma, Simpson, & Tanyi, 2014) or negatively, according to Nawaiseh (2016), Manry, Mock, and Turner (2008).

Past discussions on the association between the independent variables (CEO characteristics, audit partner characteristics) and the dependent variable of this study (real earnings management) showed inconsistency and mixed results. In other words, there is no definite answer to the issues at hand. In this study, new evidence is sought to fill the gaps by investigating the individual characteristics of the CEO and the audit partner on REM particularly within the context of Jordan.

To provide a better understanding of the relationship between the CEO characteristics and audit partner characteristics with REM, this study also included a moderating variable which is ownership concentration. Previous studies show that firm performance and the rights of minority shareholders in firms with highly concentrated ownership can be affected by large shareholders in two ways. Firstly, it can be positive by way of protecting the minority shareholders from the major shareholders. The second is a negative impact whereby major shareholders conspire with the managers for benefits, regardless of the impact on the minority shareholders (Almasarwah, 2015).
Regarding the relationship between ownership concentration and EM, some researchers found that ownership concentration is negatively related to earnings management (e.g., Guo & Ma, 2015; Al-Rassas & Kamardin, 2016; Abdallah & Ismail 2016; Usman & Yero, 2012). Contrarily, other studies concluded with evidence that a positive relationship exists as it indeed induces managers to engage in earnings management (e.g., Lyu et al., 2016; Reyna, 2012; Al-Fayoumi & Abuzayed, 2010). Therefore, ownership concentration is expected to moderate the relationship between CEO characteristics and REM practices.

In addition, as indicated in previous literatures (e.g., Dong & Zhang, 2008; Rad, Salehi & Pour, 2016; Akinwunmi et al., 2020), external auditors are less prone to have high quality auditing with a higher share concentration. This is because ownership concentration lowers the motivation of owners to use high quality auditing, so they do not tend to transfer clear and high-quality financial information to the market (Rad, Salehi & Pour, 2016).

Therefore, this variable is expected to moderate the relationship between the characteristics of the audit partner and REM practices. Notably, Jordan is a fitting ground for examining the impacts of ownership concentration, and Jordan, unlike some other developed countries, has a high concentration of ownership (Alzoubi, 2016), especially among industrial and service firms. In fact, Almasarwah (2015) found that 85% of the sampled firms in his study had block ownership with family ownership. High concentration of ownership leads to difficulty in protecting minority shareholders considering the ability to control shareholders to manipulate information and use company assets to retain company control rather than to increase productivity (Al-Jaifi, 2017).
Due to the shortcomings concerning corporate governance and the relationship between CEOs and audit partners as mentioned above, this study will further investigate the relationship of CEOs and audit partner characteristics on REM practices within the context of Jordan, as well the moderating role of ownership concentration on this relationship.

1.3 Research Question

This study addresses the following research questions:

1. Do CEO characteristics (CEO experience, CEO tenure, CEO duality, CEO political connection) significantly influence real earnings management practices in non-financial Jordanian listed firms?

2. Do audit partner characteristics (audit partner tenure, audit partner affiliation (Big 4 firm or not), audit partner’s age, audit partner’s educational background) significantly influence real earnings management practices in non-financial Jordanian listed firms?

3. Does ownership concentration moderate the relationship between CEO characteristics and real earnings management practices in non-financial Jordanian listed firms?

4. Does ownership concentration moderate the relationship between audit partner characteristics and real earnings management practices in non-financial Jordanian listed firms?

1.4 Research Objectives

With the purpose of answering the research questions of the current study, the following objectives are as follows:
1. To examine the effect of CEO characteristics (CEO experience, CEO tenure, CEO duality, CEO political connections) on real earnings management practices in non-financial Jordanian listed firms.

2. To examine the effect of audit partner characteristics (audit partner tenure, audit partner affiliation (Big 4 firm or not), audit partner age, audit partner educational background) on real earnings management practices in non-financial Jordanian listed firms.

3. To examine the moderating effect of ownership concentration on the relationship between CEO characteristics and real earnings management practices in non-financial Jordanian listed firms.

4. To examine the moderating effect of ownership concentration on the relationship between audit partner characteristics and real earnings management practices in non-financial Jordanian listed firms.

1.5 The Scope of the Study

This study explores the relationship between CEO characteristics, audit partner characteristics and real earnings management, and the moderating role of ownership concentration on these relations.

In the Jordanian context, firms listed on the Amman Stock Exchange are classified as the financial sector, industrial sector and service sector. As of 2019 (ASE, 2019), there were 96 firms in the financial sector, 48 in the industrial sector and 47 in the service sector. For this study, the industrial and service sectors were the covered sectors, involving 570 firm-year observations between 2013 and 2018.
Owing to the different rules and procedures imposed by Jordan's Central Bank and Insurance Commission, this study did not include the financial sector. Besides, firms with inadequate data and those that have no inventory and cost of goods sold were eliminated. Hence, the final sample comprised 58 firms (43 industrial and 15 service firms), with 348 company-year findings (58 firms multiplied by 6 years).

1.6 Significance of the Study

From the reviewed literature, studies that investigated the relationship between CG, both internal and external and EM were mostly restricting the measures to one or two CG variables and bind them to EM. As far as the researcher is concerned, only some examined the connection between corporate CEO characteristics, audit partner characteristics and real earnings management in Jordan.

The significance of the present study is its contribution to the literature and knowledge on corporate governance, auditing and earnings management. In addition, the present study, as is best understood by the researcher, is the first comprehensive study that examines the moderating role of ownership concentration on the relationship between CEO characteristics, audit partner characteristics and real earnings management in an emerging market namely Jordan.

Some research explored the relationship between some features of the CEO or audit partner in the earnings management domain separately (e.g., Francis, Huang, Rajgopal & Zang, 2008; Krishnan & Parsons, 2008; Jiang et al., 2013; Ran et al., 2015), and the results were mixed, and thus, no definitive answers exist concerning this issue. As such, the present
study is the first to converge the influence of CEO characteristics and those of audit partner in one model to fill these gaps in the literature.

A comprehensive review of previous studies reveals that most studies in this field have concentrated on the role of common variables such as board size, audit committee, and audit firm on EM (e.g., Abed et al., 2011; Klein, 2002; Shen & Chih 2007; Wan Mohammad, Wasiuzzaman, & Nik Salleh, 2016), while the current study looks into the effect of CEO characteristics and those of audit partners on real earnings management practices in developing countries like Jordan.

Furthermore, the present study highlights the importance of CEO characteristics (CEO experience, CEO tenure, CEO duality and CEO’s political connection) that might affect their real earnings management practices and explore how these characteristics impact real earnings management practices of CEOs of ASE listed companies. Further, the present study brings to the attention the importance of the characteristics of audit partners (audit partner tenure, audit partner affiliation (Big 4 firm or not), audit partner’s age, audit partner’s educational background) that might have an impact on real earnings management practices among Jordanian companies listed in the ASE.

In addition, the current study contributes to Agency Theory and the Upper Echelons Theory by adding further understanding concerning the characteristics of the CEOs and audit partners. While an abundance of researches has investigated the issue of CEO characteristics and audit partners using the Agency Theory, most of the studies concentrated on developed countries which have a unique environment from developing countries. Hence, the first theoretical implication of this study is enriching the literature by
adding to the understanding of Agency Theory in an emerging developing country, where firms are controlled by high ownership concentration. Furthermore, this study contributes to the existing literature by using the Upper Echelons Theory, which discusses the role of individual characteristics of the top executives on their development of values, strategic decisions, and company-reporting decisions.

The reported results in this study are expected to help the users of the financial statements to know that firms with high ownership concentration and with experienced CEOs have better earning qualities and low REM practices. In addition, the results of this study are expected to help the users of the financial statements to be aware that in firms with high ownership concentration, the CEOs with long tenure will be less likely to engage in REM. Furthermore, the findings of the present study are expected to be beneficial for the regulators and the policymakers to know that the combining roles of the CEO and the Chairman will minimise board interference and insistence to report better earnings in achieving their intents.

The results of the current study are expected to help the regulators and the policymakers to realize that that politically connected CEOs can access more resources and obtain more support from the government, hence their incentives for engaging in REM. In addition, the findings of this study provide evidence for the users of the financial reports that firms audited by the same audit partner for an extended period will be more likely to have more REM practices. Moreover, the current study provides new evidence to the regulators, investors and policymakers that companies audited by audit partners affiliated to Big 4 audit firms will have fewer REM practices.
1.7 The Organisation of the Thesis

The present thesis is structured into five chapters whereby chapter one presents the overview of the study, the problem statement of the study, the questions and objectives of the study, the scope of the study and the significance and contribution of the study. Chapter Two gives an overview of corporate governance and the Jordanian corporate governance Code, earnings management, specifically looking into the definitions, types, incentives and the relationship between corporate governance and earnings management. The chapter then highlights the independent variables of this study (CEO characteristics and audit partner characteristics) and reviews the literature about the relationship between these variables and the dependent variable (REM). Next, the chapter discusses the moderator variable of this study (ownership concentration) and reviews the literature about the influence of ownership concentration on the association between CEO characteristics and audit partner characteristics and REM in companies listed in the ASE.

Chapter Three explains the research framework and hypotheses development. Accordingly, the chapter describes the methodology chosen in this study which encompasses research design, sample and data collection, unit of analysis, a method of data collection and measurement of variables.

Chapter Four shows the results of the data analysis associated with the study topic. Further, the descriptive statistics of the tested variables in the regression tests are presented in summary form. The results of multiple regression diagnosis tests are highlighted in this chapter. The chapter also discusses the result of the estimation models associated with the study variables, followed by the summarized findings of research hypotheses and findings.
on the relationship between the dependent, independent, and moderating variables. The last portion of the chapter entails the description of the additional analysis as well as the robustness of the test of the estimation models.

Finally, Chapter Five summarizes and discusses the main results and conclusions of the study. This chapter offers a comprehensive debate on the main findings and gives additional insights into the effect of the characteristics of the CEO and the audit partner on REM, and the moderating effect of ownership concentration on these relationships. Then, the chapter discusses the limitations and suggests avenues for future studies.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter illustrates prior literature related to the relationship between the characteristics of the CEO and the audit partner with earnings management and the moderating role of ownership concentration. The first section 2.1 presents an overview of corporate governance. Section 2.2 presents earnings management, and section 2.3 presents the independent variables (CEO characteristics), then section 2.4 presents the other independent variable (audit partner characteristics). After that, section 2.5 presents the moderator (ownership concentration). In addition, section 2.6 presents the control variables. Section 2.7 illustrates the underpinning theories. Finally, the summary of the chapter is presented in section 2.8.

2.1 Corporate Governance

Corporate governance is linked to the internal means by which corporations are operated and controlled (OECD, 1999). CG includes rules and practices governing the relationship between managers and corporate shareholders, as well as stakeholders, including employees and creditors. In addition, corporate governance intends to attain economic stability and growth by increasing market confidence, financial market integrity and economic efficiency (OECD 2004, p. 1). Indeed, the global financial crisis has shown why the issues of corporate governance transparency and accountability are of such significance to investor confidence and national economic performance in general.
Moreover, the structure of CG stipulates the distribution of rights and responsibilities between various members of the organisation, including the board of directors, managers, shareholders and other stakeholders, and contains rules and procedures for decision-making. Corporate governance is essential for organizations in Jordan in order to thrive in the competitive global market (Jordanian Corporate Governance Code, 2009).

2.1.1 Jordanian financial market and Jordanian Corporate Governance Code

The Amman Financial Market (AFM) was officially established in 1976. In 1994, the government of Jordan restructured the market to increase its size and liquidity and to improve the reliability and transparency of information disclosure. Accordingly, AFM was replaced by three main entities namely the Amman Stock Exchange (ASE), the Jordan Security Commission (JSC) and the Securities Depositary Centre (SDC) (Almustafa, 2017).

The ASE was established in 1999 and is responsible for managing the security market in Jordan. It has administrative powers and financial autonomy to regulate the trading of securities (Ramadan, 2020). It also uses regulatory and monitoring measures to ensure fairness and transparency in the securities market and to protect investors' rights (Al-Msiedeen, 2019). Furthermore, the ASE has released a set of guidelines for a smooth operation of the security market. Jordanian investors request for a secure regulatory environment in which their investment is safe. This increased the necessity in Jordan to introduce a Code of corporate governance so that the structure used to regulate Jordanian companies could be strengthened. Therefore, the regulators established the Jordanian Corporate Governance Code (JCGC) that brings harmony to the Jordanian capital markets.
Moreover, Jordan developed its corporate governance mechanism on an ‘insider-oriented’ corporate governance system. However, Jordan’s government has been improving the country’s legal and organisational structure. For this purpose, the government has introduced critical economic legislation, such as the Company Law (1997) and the New Securities Law (2002). These two frameworks provide necessary legislation regarding corporate governance roles and concepts to improve and enhance the country’s investment climate (Ramadan, 2020).

The Jordan Security Commission (JSC), through the Ministry of Industry and Company Control Department (CCD) published the Jordanian Corporate Governance Code (JCGC) in September 2009. The aim of publishing the Code is to improve the global competitiveness of the national economy and increase investment (JCGC, 2009). This Code offers Jordanian investors a sense of safety and spreads a positive message about the country's capital markets at a global level (Ramadan, 2020).

This Code includes the rules of corporate governance that direct firms listed on the Amman Stock Exchange (ASE) to institute a clear framework that manages and controls their rights, duties, and responsibilities in order to achieve the firms’ objectives and protect the rights of all stakeholders.

This Code contains five sections; the first section explains the management board's roles and responsibilities, the second part explains Environmental Control, the third segment discusses transparency and disclosure, the fourth section describes shareholder and partner rights, and the last section explains the Stakeholder Rights (JCGC, 2009). In line with Jordan’s national vision, this Code aims to create an enhanced environment for business
and investment and to encourage sustainable growth through greater transparency, equity, accountability and organization responsibility.

The rules of the Code are based on several parts of the legislation such as the Jordan Companies Law, the Jordan Securities Law, and the international principles recognized by the Organization of Economic Cooperation and Development (OECD). The Code is based upon the “Compliance-or-Explain” approach. According to this principle, private shareholding companies, limited liability companies, and non-listed shareholding companies are required to comply with this Code; however, if they do not comply or are unable to for any reason, they must explain the reason for the non-compliance in the company’s annual report (Haddad, Sbeiti & Qasim, 2016). The Corporate Governance Code suggests that compliance with these rules will lead to several advantages such as enhancing the performance of the national economy and improving the practices of business communities.

According to the Code, the disclosure of information has to be published by a company promptly and primarily in Arabic, and English if possible. The Code also asks companies to ensure that there is equal access to information for all shareholders. The organization should disclose an assessment of its position and prospects as well as all information that may have material impact on the decisions of its shareholders and stakeholders (Haddad, Sbeiti & Qasim, 2016). In addition to the legal requirements, the organization has to disclose at least the following items of information: a CG statement, which explains compliance and/or non-compliance with this Code; materially significant related party
transactions, and details of directors’ remuneration and policy for evaluating the Board’s performance (JCGC, 2009).

The Code also states that the general assembly shall elect one or more licensed auditor/s to perform an external audit of the company following the international auditing standards, the requirements and rules of the profession, and the legislations in force. Moreover, the external auditor shall exercise his duties for one year renewable, provided that the renewal for the partner as the external auditor may not be for more than four consecutive years, and that the re-election may not take place before a minimum of two years (JCGC, 2009).

The Code determines the roles of the external auditor as follows:

1. Performing the duties assigned to him in impartiality and independently.
2. Monitoring the company’s operations.
3. Auditing the company’s accounts following international standards and the accepted professional rules.
4. Examining the financial, administrative, and internal auditing systems of the company and submitting his opinion on their effectiveness and ensuring their suitability for the company’s business and safeguarding of its assets.
5. Verifying ownership of the company’s assets and the legality of its obligations.
6. Attending meetings of the company’s general assembly.
7. Answering questions and inquiries from shareholders concerning the financial statements and closing accounts, at the general assembly meetings.
8. Expressing an opinion on the fairness of the company’s financial statements, and asking for their amendment on anything that affects their fairness.
9. Reporting to the authorities concerned about any violation of the law, or any financial or administrative issues that affect the company’s situation negatively. Furthermore, the Code states that the firms shall take appropriate measures to ensure that shareholders enjoy their rights in a manner that would achieve justice and equality without discrimination (JCGC, 2009). The shareholders' rights are explained in the Code as follows:

1. The company shall maintain the shareholders' ownership records containing information including their names, number of shares they hold, any restrictions on ownership, and any changes that occurred to such.

2. Access to shareholder records related to any shareholder for any reason whatsoever, and the complete record for reasonable cause.

3. Access to information and documents of the company following the laws in force.

4. Receiving periodic and non-periodic information that is disclosed following legislation in force.

5. Participating and voting in general assembly meetings in person or by proxy with several votes equal to the number of shares that he holds in the company.

6. Receiving annual dividends within thirty days from the date of the decision taken by the general assembly to distribute them.

7. Priority to subscribe to any new share issuance by the company before these shares are offered to other investors.

8. Filing a lawsuit against the board of directors or any of its members claiming compensation for damages incurred as a result of a violation of the legislation in force or of the company’s memorandum of association or any mistake or negligence in administering the company, or of disclosure of company secrets.
9. Filing a lawsuit against the company’s general manager or any of the company's employees claiming compensation for damages incurred as a result of disclosing the company’s secrets.

10. Requesting an extraordinary general assembly meeting by shareholders who hold 25% of the company’s subscribed shares.

11. Requesting an extraordinary general assembly meeting by shareholders holding 20% of the company shares to request the resignation of the Chairman of the board of directors or any board member.

12. Requesting the audit of the company’s activities and records by shareholders holding 10% of the company shares.

13. Filing a lawsuit to contest the legality of any general assembly meeting or to contest the decisions taken in that meeting within three months of the meeting.

14. Access to the minutes of the company’s general assembly meetings.

2.2 Earnings Management

Research on earnings management has been grown over more than 30 years and remains a core subject of interest in theory and practise (Zhao et al., 2016). Copeland (1968) identified earnings management as intentionally increasing or decreasing or smoothing the net income, which occurs when managers make choices of accounting or using their discretion to design transactions. A widely accepted definition of earnings management in academic literature is that of Schipper (1989), who defined earnings management as “a purposeful intervention in the process of external financial reporting to obtain some private gain” (p. 92). Man, Hong, and Wong (2013) defined earnings management as the choice
of accounting policies by the manager and other measures to affect earnings deliberately, including prediction of voluntary earnings, voluntary disclosure, and estimate of earnings.

According to Watts and Zimmerman, (1990), Fields, Lys, and Vincent, (2001) and Basiruddin (2011), the flexibility of GAAP accounting options may lead to earnings management, because GAAP allows managers to choose the reporting procedures that are appropriate for them and to make estimates and assumptions on the basis business environment (Watt and Zimmerman, 1990). In addition, alternatively, the director may decide to report the benefit of the contracting parties and increase their wealth. Therefore, the adopted choice of accounting methods or policies may create problems related to earnings management (Sun and Rath, 2010). However, earnings manipulation happens when managers use flexibility to prepare financial or operational reports to adjust financial information, either to confuse specific stakeholders about the underlying economic performance of the business or to manipulate contractual outcomes based on the annual report (Healy & Wahlen, 1999).

The National Association of Certified Fraud Examiners (1993) defines an extreme form of earnings management (i.e., financial fraud) as “the intentional, deliberate, misstatement or omission of material facts, or accounting data, which is misleading and when considered with all information made available, would cause the reader to change or alter his or her judgment or decision” (Dechow & Skinner, 2000, p. 238). This kind of problem could cause difficulty to the debt holders, investors and shareholders when identifying the company’s real economic value because their reports usually contradict the actual performance of the company (Basiruddin, 2011).
2.2.1 Types of Earnings Managements

Most EM literature engaged in two forms of EM: 1) accrual management and 2) real economic activity manipulation (Man & Wong, 2013; Roychowdhury, 2006; Cohen & Zarowin, 2010; Zhao, Gao & Wang, 2016). The following subsection explains these two types.

2.2.1.1 Accrual-Based Earnings Management

Healy's (1985) and DeAngelo's (1986) design the model for this type of earnings management. The model applied total accruals and changes in total accrual to determine EM (Almasarwah, 2015). Accruals can be separated into two components: 1) discretionary accruals and 2) non-discretionary accruals. Discretionary accruals, which are often linked to earnings abuse, are often known as controlled accrual or abnormal accrual. Meanwhile, non-discretionary accruals, which are interchangeably used in earnings management studies, are referred to as normal accruals (Kang & Sivaramakrishnan, 1995). Jiambalvo (1996) also considers accrual analytics as a comprehensive measure, since accruals have an effect on the operating, financial and real investment decisions as well as accounting choices (Idris, 2012). Since of ever-growing changes in multinational companies, accounts standards bodies, including the International Accounting Standards Board (IASB) have adopted accrual accounting (Idris, 2012).

In addition, the accrual basis maintains that all revenues (expenses), regardless of actual cash receipt (payment), must be recognised over the same period. Thereby, in the financial period in which they are held, the impacts of continuous transactions are recorded rather than just in times in which the entity is paid or receives cash (IASB, 2008).
McNichols (2000) identified three main measures of discretionary accruals in prior literature. These include the aggregate accruals models, specific accruals models and the frequency distribution approach. Several models are introduced in relation to the aggregate accruals such as Healy’s (1985) model, DeAngelo’s (1986) model, Jones’ (1991) model, the modified Jones model from Dechow et al. (1995) and the performance-adjusted discretionary accruals model by Kothari et al. (2005). The main differences between these models are how the researcher partitions the non-discretionary accruals component from the total accruals and their ability to accommodate changes in a firm’s economic condition.

The Healy (1985) model and the DeAngelo (1986) model assumed that non-discretionary accruals are constant, and these restrictions are seen to be unrealistic because accounting accruals change in response to economic conditions (Kaplan, 1985). As an alternative, the Jones’ (1991) model, the modified Jones model by Dechow et al. (1995) and the performance- adjusted discretionary accruals by Kothari et al. (2005) control the variations of non-discretionary accruals by taking into account the changes in total assets, revenues, receivables as well as the firm’s performance (e.g., return on assets). In fact, the Jones’ model (1991) and the modified Jones model are recognised in the literature as the most powerful models for detecting earnings management (Dechow et al., 1995; Young, 1999). However, the limitation of aggregate models is the risk of misspecification when they inefficiently isolate the discretionary component of total accruals.

In relation to specific accruals, the discretionary accruals are an estimate based on single accruals. Examples of specific accruals models include the residual provision for bad debt (McNichols & Wilson, 1988), the loss reserves of property and casualty insurers (Petroni,
1992), loan loss provisions (Wahlen, 1994; Collins et al., 1995; Beaver & Angel, 1996) and tax expenses (Philips et al., 2003). McNichols and Wilson (1988) claim that when specific accruals represent a small part of the discretionary component, they may fail to reflect earnings management in cases where other discretionary components are manipulated. Thus, stated differently, the aggregate accruals models give rise to a more comprehensive research design in capturing the discretionary components.

The frequency distribution approach focuses on the behaviour of earnings where there is a specific intention (e.g., to avoid earnings decreases or losses) or certain thresholds (e.g., to report positive profits, sustain recent performance, and meet analysts’ forecast). This approach was developed by Burgstahler and Dichev (1997) and Dechow et al. (1995) which evaluated the ability of several alternative models such as that of Healy (1985), DeAngelo (1986), Jones (1991), the modified Jones and the industry model. Meanwhile, Young (1999) evaluated Healy (1985), DeAngelo (1986), the modified DeAngelo model, Jones (1991), and the modified Jones model

2.2.1.2 Real Earnings Management

Real earnings management is defined as accelerating earnings utilizing changing some business activities (Ewert & Wagenhofer, 2005; Roychowdhury, 2006). Roychowdhury (2006) defines real activities earnings management as “management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings thresholds” (p. 336).

Schipper (1989) noted that real earnings management is intended to manage the timing of decisions for the output of a business, whereas the management of accounting earnings is
structured to rely on GAAP accounting techniques. While, Ewert and Wagenhofer (2005) explained that an interpretation of accounting standards by the management, and one type of earnings management to make existing standards applicable to existing accounts and transactions and with the aim of partially moving earnings between periods. In addition, the manager must arrange transactions or change the transaction timing to assist him in turning awful news into pleasing news (Kitiwong, 2011).

Moreover, real earnings management occurs when managers take some action to change the time or structure of their transactions, investments, or financing transactions to influence accounting system output (Gunny, 2010). Besides, real earnings management is made to distort normal operations during the current financial year and, therefore, has directly influenced both the future and current cash flows and on accounting settlements. However, the purpose of the real earnings management is to influence the reported earnings in the short term to the detriment of the distortion of normal operation during the current period (Kim & Sohn, 2013).

Moreover, REM focuses on manipulation by changing the company’s actual activities in order to achieve target earnings by taking strategic decisions in the area of actual investments, sales, expenditure, or financing. For instance, this may include increasing sales by providing discounts or to reduce maintenance costs to increase reported earnings (Kim & Sohn, 2013; Idris, 2012). Nevertheless, REM can be of many types, including underfunded investment in advertising, training for employees or R&D, all for short-term purposes (Graham, Harvey, & Rajgopal, 2005; Roychowdhury, 2006).
In addition, REM activities are demonstrated by managers' investment and operational decisions, to which shareholders have delegated discretion in investment decisions because managers are believed to have superior knowledge and to judge better than external stakeholders. Thus, real earnings management identification is maybe a greater issue for investors than accrual management activities (Kothari, Mizik & Roychowdhury, 2012).

On the other hand, a question found in all real earnings management studies is how economic shocks affect the capacity of researchers to reliably assess abnormal real activities (Cohen, et.al. 2016). Such economic shocks can have at least two effects on management decisions about a company's real activities. According to Cohen, et.al. (2016), managers can engage in real earnings management by changing real decision-making opportunistically to mask the economic shock impacts of a firm's reported earnings to report high profits, also, managers can adjust their decisions in a reasonable response to an economic shock to best reflect a company's effect on the value of the business.

Nonetheless, the presence of four forms of REM was demonstrated empirically by prior literature (Gunny, 2010). They include: “1) decreasing discretionary research and development expense (R&D), 2) decreasing discretionary selling, general, and administrative expense (SG&A), 3) timing the sale of fixed assets to report gains, and 4) overproduction reflecting an intention to cut prices or extend more lenient credit terms to boost sales and/or overproduction to decrease the cost of goods sold expense” (p. 858).

Additionally, the relationship between these two forms of earnings management, real earnings management and accrual earnings management, is discussed in terms of seasonal equity offerings by Cohen and Zarowin (2010). They noticed that real
earnings management practices were essential than accrual-based income management and proposed that future work concentrates on this issue (Almasarwah, 2015).

Accrual-based earnings management hides the true performance of the company by changing accounting methods or estimates (Dechow & Skinner, 2000). Real earnings management, on the other hand, alters the execution of real business transactions (Roychowdhury, 2006). Prior studies have shown evidence that firms use the two earnings management strategies as substitutes in managing earnings (Badertscher, 2011; Cohen, Dey, & Lys, 2008; Cohen & Zarowin, 2010; Zang, 2012). Moreover, managers may prefer REM since real activities are more visible than accrual-based earnings management to disguise as "normal". Hence, auditors look for whether the accounting practices of firms meet generally accepted accounting principles (GAAP) (Kothari et al., 2012).

Furthermore, the study of Enomoto, Kimura, Yamaguchi (2015) investigate the differences in accrual-based and real earnings management across countries from the perspective of investor protection, they conclude that the managers in countries with stronger investor protection tend to engage in real earnings management instead of accrual-based earnings management. Thus, with the recommendations of Cohen and Zarowin (2010) and Enomoto, Kimura, Yamaguchi (2015) in mind, the current study will emphasise REM as a proxy for earnings management. After this discussion about EM types, the next section will explain the incentives that may motivate managers to become involved in REM.

2.2.2 Earnings Management Incentives

Managers are encouraged to involve in EM by some incentives. The literature of earnings management has taken these incentives into account in beneficial and opportunistic
earnings management (e.g., Rezaei & Roshani, 2012; Jiraporn, et.al. 2008; Arya, Glover, & Sunder, 2003; Demski, 1998; Guay, Kothari, & Watts, 1996; Healy & Palepu, 1993; Holthausen, 1990; Subramanyam, 1996; Watts & Zimmerman, 1986). Hence, opportunistic earnings are related to managing earnings to achieve special incentives (objectives of managers), while beneficial earnings are related to managing earnings to acquire the shareholder's incentives (Rezaei & Roshani, 2012; Ji.

Furthermore, depending on whether they participate in leveraging, buyouts management could be given different incentives to participate in the REM (Yang, 2015). Four main types of earnings management incentives were identified by Healy and Wahlen (1999), namely, capital market incentives, debt contract incentives, incentives for administrative compensation contracts, and incentives for regulatory and political requirements. Capital market incentives occur because companies with positive or higher earnings are mostly rewarded by stakeholders and market participants than companies that have low or negative earnings. Therefore, managers have the ability to maximise their sales so they can fulfill and meet the demands of the consumer found in analyst forecasts (Kharuddin, 2016).

One primary incentive is the compensation and bonuses of managers. For example, Healy (1985) concluded that the management of earnings raises compensation and bonuses of the management. His findings show that management awards have an impact on accounting and reporting decisions as well as on the adoption of new compensation plans. Furthermore, managers usually apply their accounting discretion to provide an overview of their performance to remain in office for a more extended period and earn a profit
(DeAngelo, 1988). Also, managers could involve in earnings management to increase their stock options (Veenman, Hodgson, van Praag, & Zhang, 2011).

In addition, debt contract incentives relate to reducing possible conflicts of interest between creditors and debt owners of the restrictive covenants used in debt contracts for an express reason. These restrictive agreements can include limitations on profit payments, concentrating on the rights of the debt holders to control debt repayment at an early stage or issuing new debts when there are no specific accounting objectives (Kharuddin, 2016). Furthermore, Managers of distressed companies, because they approach the infringements of these agreements, are likely to be involved in increasing income profits to reduce debt restrictions (Sweeney, 1994).

Moreover, industrial regulations, listing requirements, accounting standards, tax laws, etc. are the political and regulatory incentives that can also encourage companies to participate in earnings management activities (Kharuddin, 2016). Besides that, many researchers have argued that managers reduce or increase expenditure on R&D to influence income data and to achieve their anticipated incentives (e.g., Osma et al., 2005). Moreover, Bange and De Bondt (1998) proposed that the cost of R&D might be adjusted by the managers to manage earnings and realise outcomes like increasing free cash flow or reducing taxable income taxes.

However, the framework that links earnings management behaviour to corporate governance is provided by agency theory through examining each of the mechanisms used in protecting investors and helping them ease inter-agency conflicts, thereby reducing the profitability of practices (Jensen & Meckling, 1976). As such, this study will emphasise
some mechanisms of CG, and the influences of these mechanisms on EM in the following section.

2.2.3 Corporate Governance and Earnings Management

CG mechanisms, including auditor, audit committee, ownership structure and board of directors can help in reducing agency conflicts in firms (Anderson, Mansi, & Reeb, 2004; Rasmussen & Schmidt, 2012; Yunos, 2011). The most effective CG mechanisms are audit committee, ownership structure, and board of directors. Significantly, management will act on behalf of shareholders through the board of directors. This ensures accountability in financial statements, along with good corporate governance, which subsequently affects market value (Alzahrani, 2014).

The incentive to manipulate earnings, which is known to trigger financial scandals, has accelerated the implementation of new regulations in many countries. However, several changes in legislation concerned the independence of auditors and the disclosure of financial information. Such changes are aimed at improving manager power by establishing frameworks better to protect the interests of shareholders and other stakeholders. This is done to ensure the quality of accounting information that protects against any opportunistic manipulations by the leaders (Lassoued & Bacha, 2015).

Furthermore, CG plays a crucial role in the financial reporting process by ensuring compliance with the standards of financial reporting and the quality and reliability of financial data. Furthermore, corporate governance and earnings management are interrelated problems, both of which attract considerable interest in the literature on accounting. Hence, earnings management can circumvent an organisation's corporate
governance system by intervening with the external financial reporting process so that managers can make a personal profit (Davidson et al., 2005; Yu, 2008).

Accounting studies have discovered relationships among poor CG and poor financial reporting quality, fraud in financial statements, earning manipulation and weaker internal controls. For instance, Beasley (1996) proved a negative association between the ownership of outside directors and the likelihood of financial statement fraud. Moreover, the study of Klein (2002) concluded that there would be low earnings manipulation when there is high independence of the audit committee. Recently, Elyasiani, Wen, and Zhang (2017) and Diri, Lambrinoudakis and Alhadab, (2020) reported that CG has an essential role in mitigating EM practices.

In Jordan, numerous studies have looked at how CG factors serve a crucial role in the monitoring of earnings management practices (Al-Fayoumi, Abuzayed, & Alexander, 2010; Abed et al., 2011; Alzoubi & Selamat, 2012; Alzoubi and Liu, 2016). Among other CG mechanisms, the current study will emphasise the impact of CEO characteristics and audit partner characteristics in curbing REM activities. These characteristics of CEO are CEO politically connected, CEO tenure, CEO experience and CEO duality. While the characteristics of audit partners are audit partner tenure, audit partner affiliation (Big 4 firm or not), audit partner age, and audit partner educational background. The following sections will provide a discussion on how these variables affect EM.

2.3 CEO Characteristics

A few management scholars have advanced the notion that several vital individual demographics (e.g., age, education, experience, and gender) are related to the relationship
of top management with fraud (Greve, Palmer, & Pozner, 2010; Hambrick, 2007; Schrand & Zechman, 2012; Zahra, 2005; Troy et al., 2011). Therefore, this study will explore more about the relationship between CEO characteristics and earnings management in Jordan.

2.3.1 CEO Experience

In relation to financial reporting quality, the financial career experience of CEOs can play a vital role. Hence, CEOs have gained financial knowledge and expertise throughout their career and can use them to better understand financial and accounting issues to take appropriate accounting decisions and improve the reporting process (Gounopoulos & Pham, 2018). Moreover, comprehensive financial market knowledge and engagement make expertise CEOs financially to be aware of the type of information demanded by investors and understand the importance of accounting information in the evaluation of firms (Custódio & Metzger, 2014; Gounopoulos & Pham, 2018).

Previous researchers have explained the impact of CEO perceptions and experience on organizational decisions. What was found was that the extent and type of work experience could affect the CEO's processes of decision making, strategic options and cognitive framework (Hitt & Tyler, 1991). Nevertheless, little empirical evidence exists to document the impact of the breadth of CEOs’ past work experience on accounting decisions (Amirkhani, Fairhurst & Zbib, 2020).

Thus, highly qualified managers are able to gather and interpret knowledge with more social resources and more vital thinking skills at the same time (He et al. 2015). They can, therefore use their expert assessment or the construction of real transactions to intervene and adjust the financial report's accounting information (Zhao et al., 2016).
Thus, variables like an executive's experience and education are a connection between an executive's strategic decisions and accounting fraud. For instance, (Hu, Huang, Li, and Liu (2017) found that “firms whose CEOs have accounting backgrounds exhibit lower levels of accounting conservatism; however, these firms do not exhibit higher levels of income-increasing discretionary accruals” (p. 4).

In this context, using a sample of 190 European firms and 460 CEOs from 2000-2014, the relationships between CEO profile and real earnings management in innovative European companies were reviewed by Kouaib and Jarboui (2016a). The findings show that CEO experience has a positive relationship with REM. Moreover, Schrand and Zechman (2012) suggested a greater inclination for experienced CEOs to take risks than for those who are less experienced.

Furthermore, Zouari, Lakhal and Nekhili (2015) study the effect of CEO characteristics and EM using 1500 listed companies in France as a sample. They documented that CEO experience qualifies the CEO to display aggressiveness in earnings management activities.

Recently, the study of Amirkhani, Fairhurst and Zbib (2020) examined the impact of CEO ability on EM using a sample of U.S. publicly-listed firms for the period from 1993 to 2016. They proved that CEOs with more experience indicated by their previous executive positions are more likely to manage their earnings.

Conversely, the link between critical CEO demographics and accounting fraud was reviewed by Troy, Smith and Domino (2011). They found a significant and negative
relationship between the CEO’s experience (measured as the number of executive positions that the CEO held before becoming the CEO) and accounting fraud.

Additionally, Matsunaga and Yeung (2008) investigate if the methodological difference in financial reporting policies relating to the enrolment of the CEO, who has previously held the position of Chief Financial Officer. They noticed that companies with financially experienced CEOs had improved financial disclosure accuracy and precise earnings guidance.

Besides, Ran et al. (2015) demonstrated that executives with MBA were more conservative in forecast earnings, would be more likely to divulge details, and reported better quality earnings willingly. Also, the findings showed that earnings management and financial fraud behaviours could easily be identified and corrected by executives with an accounting background and increase the reliability of reporting information, honesty and comprehensiveness, thus increasing the consistency of the company's accounting information.

Also, Jiang, Zhu, and Huang (2013) examined if Chinese CEOs with financial expertise had more or less earnings management than those that have no experience in financial management. Using data on listed Chinese firms from both the Shanghai and Shenzhen Stock Exchanges from 2002 to 2008, they found that CEOs that are financially experienced can prevent engaging in real earnings management activities. Their findings continue to indicate that there will be more reliable income information and clear transparent financial statements from financially competent CEOs. Moreover, Li, Tseng and Chen (2016) examined the effect of top management experience on the REM of firms in the Taiwan
Stock Exchange. Their result shows a significant negative relationship between top management experience and REM.

Recently, the study of Gounopoulos and Pham (2018) documented that the CEO experience is related to REM with a negative relationship, using a sample of U.S. common-share IPOs from 2003 to 2011. However, Hu et al. (2017) examined how the accounting experience of the CEOs influenced the company's earnings management behaviour, and the findings revealed that the accounting experiences of CEOs and their earnings management behaviour were not significantly associated.

In sum, most of the previous literatures that investigated the impact of CEO experience and earnings management particularly in the Jordanian context used the accrual based as a measurement for earnings management. A certain amount of empirical evidence exists to document the impact of the CEOs’ past work on REM, as most of the previous studies measured the experience of the CEO as either years of work experience or educational level; the results of the previous studies were mixed regarding the relationship between CEO experience and EM. Therefore, based on the previous discussions, this study investigates the relationship between CEO experience and REM to fill the mentioned gaps in the literature.

2.3.2 CEO Tenure

CEO tenure is defined as the number of years that the CEO has been in the position of the manager (Pigé, 1998). The tenure of managers has been found to influence the cognitive foundations of managers and to lead them to make specific strategic decisions that will ultimately impact organizational efficiency (Khuong, Thu, & Thao, 2017).
Previous studies have focused on the activities of CEOs, including the earnings management by CEOs during the first and last years of working. Such studies have shown that new CEOs are associated with uncommon executive adjustments in their companies' excess expenses/losses during their first year of operation, to assign this to the previous CEOs and then to take credit for higher recorded earnings in years afterward (Ali & Zhang, 2014).

In contrast, the time and effort for earnings management should be minimized when the manager stays in the office longer, as he/she has familiarity with the company and its activities over time (Hu, Hao, Liu, & Yao, 2015). When he/she gains more expertise because of his/her experience and knowledge with the business, the board is more reliant on him/her and therefore less likely to fire him/her. However, in the first few years in office, a CEO is unable to realise the benefits from the enhanced perception of his/her abilities or an inflated stock price fully, due to vesting period prohibitions and a sticky salary (Hu et al., 2015).

Besides, prior research has also found that CEOs exaggerate earnings in their final year of service to live their last year’s pay. However, the extant empirical evidence related to this finding remains mixed (Ali & Zhang, 2014). Other researchers have found further relationships with CEO tenure. For instance, Di Meo (2014) documented that, CEOs that have a longer tenure in an organization will take advantage of opportunistic practices to conceal investment inefficiencies by managing earnings.

Some scholars have compared EM between the early and late years of CEO tenure. For example, Hu et al. (2015) explored the impact of tenure on earnings management. Using
data from the Chinese stock market for 2003, 2004, and 2005, they found that managers are more aggressive in managing earnings when they stay more than one year in an organization compared to their conservative nature in their first year of assuming top management position. Once they have reached the maximum level of EM, they then will become more conservative again and report earnings less aggressively. Recently, the study of Sani, Abdul Latif, & Al-Dhamari, (2020) documented that the association between CEO tenure and REM is negative and significant, using a sample of listed firms in Nigeria from 2012 to 2016.

In contrast, Ali and Zhang (2014) examined earnings management changes over the careers of CEOs using ExecuComp data from 1992 to 2010. They found that earnings overstatements in the early years of service were more significant than in later years of CEOs’ service. These results suggest that when the market is more uncertain about them, new CEOs try to favourably influence market perceptions about their ability in their early years of service.

In addition, a sample of European companies listed on the Stoxx Europe 600 index covering the years 2000 to 2014 was used by Kouaib and Jarboui (2016). They found that CEOs are more likely to increase real earnings management in their early years of service compared to their year of departure. Moreover, Cho, Choi and Kwon (2019) documented a significant positive relationship between the tenure of the CEOs and the REM in listed companies in Korea.

On the other hand, Santiago-Castro and Brown (2011) indicate that CEO tenure is not significant with EM activities. In addition, CEO tenure is found to be related to REM with
insignificant relationships (Sun, Lan, & Liu, 2014). Likewise, Cho et al. (2019) found CEO tenure and REM to be insignificantly related. Substantially, previous studies that investigated the relationship between CEO tenure and EM practices were focused on the accrual’s earnings management as a measurement of the EM, while several other studies explored this relationship using the REM as a measurement of the EM, particularly in the Jordanian context. In addition, the results of the previous studies that investigated the impact of CEO tenure on EM were mixed as appeared in the previous arguments. Thus, this study is motivated by the inconsistency of the results on this issue and the lack of studies that relate the CEO tenure with REM. Hence, the current study contributes to the literature by giving new evidence for this relationship.

2.3.3 CEO Duality

CEO duality, which is the practice of having one individual acting as the CEO and the Chairman of the board alike, is one of the most widely debated phenomena of corporate governance (Dalton, Hitt, Certo, & Dalton, 2007). The Chief Executive Officer shall be responsible for decisions, and strategic policy and the Chairman of the board shall manage and assess executive officers, including CEOs. It is known that a concentration of power takes place in a corporation if the same person is Chairman of the board and chief executive (Sáenz González & García-Meca, 2014). Hence, there will be a lack of proper monitoring when the role of CEO and Chairman is unified (Zouari et al., 2015).

The results of the impact of CEO duality on EM in the literature have been mixed. Some prior studies have found that CEO duality leads to an increase in earnings management (Xie, Davidson, Dadalt, Davidson III, & Dadalt, 2003; Boulila Taktak & Mbarki, 2014).
While, other studies have found no relationship between EM and CEO duality (Lin & Hwang, 2010). Lastly, Cornett, McNutt, and Tehranian (2009) have found that CEO duality is negatively associated with EM.

In addition, Agency theory supporters believe that the separation of the two positions is vital for the monitoring of the Board’s effectiveness over management by cross-checking the risk of inappropriate plans by a CEO. That is because, when they hold the same important positions, they would be more likely than the company and the stakeholders to participate in policies that promote their interests (Chelogo, 2017).

Davidson, Xie, Xu, and Ning (2007) posited that CEO duality is related to higher EM. In addition, the relationship between CEO duality and earnings management has been studied by Chi, Hung, Cheng, and Lieu's (2015) considering the effect of the independence of the Board. Based on a seven-year sample of 379 high-tech firms in Taiwan, CEO duality interacted with family firms to increase the practices of earnings management.

Chen and Liu (2010) suggested that independent Chair-CEO structures were less likely to be linked to earnings management. Similarly, Zouari et al. (2015), used a sample of 153 listed French companies for 2008 and shows that the dual CEO-Chairman relationship leads to increased earnings management, in particular, if a CEO-Chair holds an essential share of the company's share ownership. Furthermore, the efficiency of corporate governance in reducing earnings management in Shanghai and Shenzhen stock exchange firms was examined by Gulzar and Wang (2011). The study showed that CEO duality had a significant and positive relationship with earnings management.
Moreover, Iraya et al. (2015) examined, between January 2010 and December 2012, the impact of corporate governance on EM of companies listed on the Nairobi Security Exchange (NSE). They found EM related positively and significantly with CEO duality. Recently, Al Azeez et al. (2019) found that CEO duality increased the likelihood of earnings management to boost CEO compensation. In addition, Nuanpradit (2019) documented that CEO duality is positively associated with the practices of REM.

In contrast, Veprauskaite and Adam (2013) conducted a study on 468 companies listed on the London Stock Exchange (LSE). They found that CEO duality has a negative impact on the financial performance of a business, and this, in turn, may create a greater need to utilize earnings management. Likewise, In the Australian Stock Exchange (AXS), Kuala Lumpur Stock Exchange (KLSE) and Karachi Stock Exchange (KSE) samples, CEO duality was found to improve transparency with the disclosures of appropriate, accompanying firms, with increased monitoring and control (Yasser & Mamun, 2015). In addition, Anderson et al. (2004) found that earnings quality is positively associated with the firms which separated the CEO and Chairman positions.

Dey (2008) and Chang and Sun (2009) have reported a positive relationship between the quality of the earnings and the separation of the CEO and the Chairman of the board of directors. Also, Rahman and Mohamed Ali (2006) pointed out that the break of the position of the Chairman from that of the chief executive officer could significantly thwart EM. Recently, the impact of monitoring mechanisms in reducing the earnings management practices of service companies in Jordan was studied by Alsraheen and Saleh (2017) and the annual reports of 59 ASE listed service companies were used in 2015. The result
demonstrated a positive role in reducing earnings management practices by separating the duties of Chairman of the board and CEO. In addition, Chellogoi (2017) using a sample of listed firms at Nairobi Securities Exchange, documented a negative relationship between CEO duality and REM.

However, Dimitropoulos (2011) investigated the impact of the CEO duality on the behaviour of the EU football clubs' income management from 2006 to 2009. The results have shown that the separation of the role of CEO and Chairman of the Board does not seem to contribute significantly to enhancing accounting quality. Likewise, the relationship between board independence, audit quality, and earnings management has been examined by Khalil and Ozkan (2016) using a sample of non-financial, publicly typed companies in Egypt between 2005 and 2012. The findings showed that the duality of the CEO duality does not contribute to minimizing the EM.

Also, Kamran and Shahm (2014) examined for a sample of listed on the KSE from 2003 to 2010, the impact of corporate governance and ownership structure on earnings management. They find no evidence that EM was affected by CEO duality. Based on the previous discussions, previous studies that explored the relationship between CEO duality and the practices of EM revealed contradictory results. Thus, there is no definitive answer concerning the impact of CEO duality on EM practices. The current study therefore emphasizes the relationship between CEO duality and REM in order to find a shred of new evidence regarding this relationship to fill the gap in literature.
2.3.4 CEO Politically Connected

The agency theory offered a perspective on the political connection. This raises the additional question of whether the political connections of a CEO are related to the conflict between the principal and the agent and hence effect the quality of corporate governance where there is a shortage in academic literature (You & Du, 2012). The explanation of the conflict between the principal and the agent proposed by the agency theory which is argued that CEOs that are politically connected can use political resources to serve personal interests rather than the interests of shareholders (Jensen and Meckling, 1976).

Firms considered having political connections if dominant shareholders or top managers are members of national parliaments or governments or are in close association with senior politicians or parties (Faccio et al., 2006). Furthermore, firms tend to be strictly bound by their politicians and government connections because this link offers several advantages like market power, tax deductions and government subsidies among others (Al-dhamari & Ku Ismail, 2015).

Limited research has examined the associations between earnings quality (or earnings management) and political connections, and this limited research does not provide definitive results for this impact (Chi et al., 2016). Some studies documented a positive relationship. For example, Chi et al. (2016) found that companies with politically connected CEOs had significantly higher real earnings management levels than those with non-political connections at the A-share companies in the Chinese stock markets.

In the Jordanian context, the relationship between political influences for industrial business enterprises listed on the Amman Stock Exchange (ASE) during fiscal 2013 on
EM practices was studied by Al-Sraheen and Alkhatib (2016). They found that there was a positive and significant relationship between political influence and EM practices.

Moreover, Chaney et al. (2011) have posited that there is a lower earnings quality for enterprises that are politically connected than non-politically connected enterprises. Also, Braam, et.al. (2015) analysed how the trade-off between accrual-based and real earnings management approaches varies between companies with or without political relationships. Using a panel of 5,493 publicly traded companies in 30 countries, they found that politically connected companies are more likely to practice real earnings management strategies compared to accrual-based earnings management strategies.

Also, Al-dhamari and Ku Ismail (2015) examined the impact of cash holding, political connection and their interaction effect on earnings quality in the Malaysian environment by using a sample of the top 100 Malaysian listed firms. They found that investors perceived the earnings numbers of politically connected firms to be of low quality.

Yen (2013) investigated fraudulent financial reporting in the China-based companies listed on the Hong Kong Stock Exchange from 2006 to 2008. The results showed no evidence that either the political connections of the company or level of board independence has played an essential role in increasing the possibility of fraudulent financial reporting. In sum, prior literatures that investigated the relationship between CEO political connection and EM are limited and the results of these studies were mixed. Thus, this current study aims to further investigate this relationship to fill these gaps in the literature.
2.4 Audit Partner Characteristics

The external auditors need to confirm that the financial statements are fair and in line with accounting standards and ensure that it reflects the company's real business conditions and operations (Habbash & Alghamdi, 2017). The previous literature indicated variables that could influence the ability of the external auditor to reduce earnings management activities. These include the reputation of an external auditor, the tenure of the external auditors, industry specialisation, external auditor opinions, and a change of the external auditor (Mariani, Tettamanzi, & Corno, 2010; Al-khabash & Al-Thuneibat, 2008; Piot & Janin, 2007; Al-Hayale & Lan, 2005). The quality of the audit is impacted by the individual partner's characteristics and reputation and not only due to the trade name and the management of the audit firm (Goodwin & Wu, 2014; Gul et al. 2013).

In Jordan, the general assembly shall elect one or more licensed auditors to perform the audit service and to execute auditing tasks as stated by the firm's external auditing standards, International requirements, professionalism and ongoing legislation (Warrad, 2018). The auditor should perform auditing tasks for one year on a renewable basis, and the audit partner should not sign up for the audit report for more than four consecutive years (https://www.sdc.com.jo).

Besides that, the audit partner (the auditor who signs the audit report) is responsible for ensuring that the financial reports are issued in compliance with accounting standards and that the actual financial condition and the operating results of these statements are reflected (Piot & Janin, 2007; Al-Hayale & Lan, 2005; Gul et al. 2013; Goodwin & Wu, 2014). Moreover, the auditing principles mandate that an external auditor should debate and...
interact with an audit committee concerning the acceptability and quality of a report relating to accounting standards (Alzoubi, 2016). Accordingly, the approval of the external auditor of a financial report is seen as support for that financial statement’s reliability. Hence, the confirmation of the external auditors enhances the integrity of the firm’s financial statements. Thus, a high-quality audit is anticipated to limit opportunistic earnings management and highlight hazards in financial statements such as material misstatements or exclusions (Alzoubi, 2016).

The Jordanian Code of corporate governance specified the required level of knowledge and experience of an external auditor. An external auditor:

1. Must hold a valid license allowing him/her to practice auditing work.
2. Must be registered as a member of the Jordan Association of Certified Public Accountants (JACPA).
3. Must have a minimum of three years of sequential experience as a full-time auditing worker after gaining his/ her license.
4. Must have in his/her firm one partner or more, and at least one partner must meet the requirements mentioned above.

Furthermore, the quality of service rendered by an auditor is related to the independence, industry knowledge and experience of the auditor (Saleem et al., 2016). In this context, Large-scale research has analysed audit firm-level and engagement-level variables linked to accounting and audit results representing audit efficiency (DeFond & Zhang, 2014; Francis, 2004). Much of the variation in audit quality has been found to occur at the individual audit partner level (Gul et al. 2013; Knechel et al. 2015). Despite calls for audit
quality research that specifies the individual auditor as the unit of analysis (Hardies et al., 2009; Francis 2011; Gul et al. 2013), the issue of the impact of the individual characteristics on the quality of audit needs more research to be done.

Moreover, an individual audit partner plays a critical role in evaluating audit quality based on the assumption of the standards of improved accountability and transparency (Sonu, Choi, Lee, & Ha, 2019). Church, Davis and McCracken (2008) and DeFond and Francis (2005) have demanded further investigating the individual auditor level. In connection with this, several studies have empirically shown that the characteristics of audit partners are more critical in assessing audit quality than office characteristics or audit firm (e.g., Gul, Wu, & Yang 2013; Zerni 2012; Chi & Chin 2011; Chen, Lin, & Lin 2008).

To answer this call, the relationship between audit partner characteristics and earnings management practices will be examined in this study using the agency theory. Based on the lack of specific theory regarding differences between partners and the mixed findings from international research (Zimmerman & Nagy, 2016), the study formulates a non-directional hypothesis. Thus, this study investigates the relationship between audit partner characteristics and earnings management practices.

2.4.1 Audit Partner Tenure

DeAngelo's (1981) suggested the possible controversial effects of tenure on audit quality. The study defines audit quality as the possibility for an auditor to identify and disclose material misstatements. Moreover, the negative influence on audit quality of long term tenures has been the focus of accounting regulators (Garcia-Blandon & Argiles-Bosch, 2017). Two relevant critical arguments that support the antagonistic effect between the
long tenure of audit partners and the quality of audit include 1) an erosion of independence that might arise as the result of the development of personal relationships between an auditor and a client, and 2) a deterioration in the capacity of the auditor partner to engage in a critical appraisal (Carey & Simnett, 2006).

Chi and Huang (2005) investigated the effect of audit-firm and audit-partner tenure on the level of discretionary accruals. The outcome of the study shows that, concerning either audit-partner tenure or audit-firm tenure, tenure aids in the auditing process and produces higher quality earnings, but that excessive tenure impairs audit quality. The cut-off point of positive and negative effects of tenure was at about five years.

Also, Lennox et al. (2014) The impact of compulsory partner rotation on audit quality was investigated using a dataset of audit adjustments in the People’s Republic of China. They found that the mandatory rotation of engagement partners produces higher quality audits in the year’s directly surrounding rotation. Specifically, they found a significantly much higher occurrence of audit adjustments during the last year of the tenure before mandatory rotation and during an incoming partner’s first year of tenure following that mandatory rotation. Also, Litt et al. (2014) investigated the impact of the turnover of the audit partner on financial reporting quality in the US. They found lower financial reporting quality during the first two years with a new audit partner relative to the final two years with the outgoing partner.

In contrast, Nawaiseh (2016) examined the auditor’s tenure and EM relationship for Jordanian banking firms. The study found that audit tenure had a significant and negative relationship with earning management. Moreover, Manry, Mock, and Turner (2008)
concluded that the quality of audit increases with tenure because discretionary accruals are correlated with the tenure of a lead audit partner.

Garcia-Blandon and Argiles-Bosch (2017) also studied the impact on audit quality of company and partner tenure using discretionary accruals as audit quality proxies. Using a sample of Spanish companies from 2005 to 2011 showed that audit partners' tenure has no significant association with the determinants of audit quality. Essentially, there is a stronger effect of partner tenure and the interaction of firms on audit quality than both forms of tenure when separately considered. Lastly, the study suggested that, when medium-firm and partner tenure interacts, the audit quality is maximised. However, they also found that results for the interaction variables were sensitive to the method of accruals estimation.

In addition, Davis, Soo, and Trompeter (2009) did not find a relationship between tenure and EM. Auditors with longer (shorter) tenure will constrain accrual earnings management to a greater extent if longer (shorter) auditor tenure denotes higher audit quality. Thus, clients would utilise more real earnings management. Moreover, the auditors' industries and the expected effects on the connection between the recruiting inspecteur and the quality of earnings were examined by Gul, Fung and Jaggi (2009). They found that the association between shorter auditor tenure and lower earnings quality was weaker for firms that were audited by industry specialists compared to non-specialists.

Other studies have shown a non-monotonic effect of tenure of the audit partner on earnings quality because discretionary accruals increase during the early years of tenure with an audit firm but decrease afterward (Davis et al. 2009). Finally, Carey et al. (2006) examined
the relationship between audit quality and the long tenure of audit partners, using published information for public companies listed on the Australian Stock Exchange in 1995. They did not find any evidence that long auditor tenure was correlated with abnormal working capital accruals.

Furthermore, previous studies have suggested that higher-quality auditors lead to a decrease in the level of accrual earnings management (Becker, Defond, Jiambalvo, & Subramanyam, 1998; Van Johnson, Khurana, & Reynolds, 2002; Balsam, Bartov, & Marquardt, 2002). Due to the constrained accrual earnings management, there is more likelihood of manipulation of real activities by the clients of higher-quality auditors (Chi et al., 2011; Ewert and Wagenhofer 2005; Cohen et al. 2008). Thus, the expectation is that higher audit quality is related to higher levels of real earnings management when firms have strong incentives to manage earnings.

The previous literature was focused more on investigating the impact of the audit partner tenure on the practices of EM using accrual earnings management, while limited studies used REM as a measurement for the practices of EM. Moreover, the results of prior studies that explored the effect of audit partner tenure on EM were mixed as discussed previously. Due to the previous arguments, the current study examines the association between audit partner tenure and REM to fill the gaps in the previous literature.

2.4.2 Audit Partner Affiliation (Big 4 Firm or Not)

The standard of the external audit, which is also not publicly observable, is usually based on both the size and reputation of the auditor (DeAngelo, 1981; Klein & Leffler, 2009). Many research studies appear to show that the brand name auditing networks (The Big 4)
are statistically more conservative and more likely to restrict opportunistic accounting
practices (Piot & Janin, 2007). Furthermore, Audit quality is derived from the examination
of the customer's profit and earnings management behaviour regarding abnormal accrual
and earnings benchmarks (e.g., Becker et al., 1998; Frankel, Johnson, & Nelson, 2002).

In addition, most studies on audit quality focussed on gaps between non-Big 4 firm auditors
and Big 4 firm auditors. A big auditing firm would have more incentives to find
management manipulation because if an audit fiasco occurs, a large company will lose its
reputation (Vander Bauwhede et al., 2003; Rusmin, 2010). Hence, Big 4 firm auditors will
desire to effective in reducing earnings management to protect their proper names and to
evade legal liability (Alzoubi, 2016).

The expanding literature has given evidence for the use of auditor size (Big 4 firm versus
a non-Big 4 firm) as a proxy for audit quality (DeAngelo, 1981; Dye, 1993; Hoitash,
Hoitash, & Bedard, 2008). More recent evidence has also shown that Big 4 audit firms
constrain earnings management (Habbash & Alghamdi, 2017). In addition, the literature
review shows that companies audited by high-performance audit firms have higher-value
quality accounting information than those audited by low-level audit firms, and are less
likely to manipulate earnings (Gul, Tsui, & Dhaliwal, 2006; Lee & Lee, 2013). That is
because high-performance audit firms detect and constrain earnings management activities
(Rusmin, 2010; Al-Dhamari & Chandren, 2017).

Therefore, Big 4 auditing firms typically perform higher-quality audits in instances in
which an auditor is likely to report a going-concern audit report (and accuracy in
predicting client bankruptcy) and to determine whether clients participate in earnings
management behaviour (Francis & Yu, 2009). Moreover, Chi, Lisic and Pevzner (2011) have found that the size auditors' firms are correlated in a real earnings management index with higher overall rates and lower abnormal cash flow levels.

Also, Francis and Wang (2008) reported that the quality of earnings would be high for companies with Big 4 auditors. Hence, there is more likelihood of Big 4 auditing firms to enhance the quality of earnings as investor protection programs become more substantial and more restrictions are implemented in countries with adequate protection for minorities.

Lin and Hwang (2010), while using various proxies for audit quality (audit fees, auditor tenure, auditor size, industry specialist auditor), found that only Big 4 auditors had a significant negative association with EM. Also, Jordan et al. (2010) examined whether audit quality could constrain the practice of EM in the United States. The study disclosed that the firms with Big 4 auditors are less likely to engage in earnings manipulation while there are signs of manipulation for clients of non-Big 4 auditors.

Furthermore, Iatridis (2012) focused on firms that a Big 4 auditor had audited and examined the differentiation in the potential for earnings management. Iatridis (2012) reported that, although high-quality auditors might audit firms in both countries. Also, Francis and Yu (2009) examined if larger offices of Big 4 auditors were associated with higher quality audits for SEC registrants due to more significant in-house experience in administering such audits. By testing a sample of 6,568 U.S. firm-year observations for 2003 to 2005 that 285 unique Big 4 offices had audited, they found that larger offices were more likely to promulgate going-concern audit reports, and clients in larger offices exhibited less aggressive earnings management behaviour. Recently, Singh, Singh, Evans
(2019) and Che, Hope and Langli (2020) proved that the Big 4 affiliated audit partners are associated with better audit quality and earnings quality, so they have more ability to detect and mitigate the practices of REM than non-Big 4 auditors.

In the Jordanian content, Nawaiseh (2016) investigated the audit quality for Jordanian banking firms listed on the Amman Stock Exchange (ASE) for the estimation of earnings management from 2006-2010. The study showed a significant positive relationship between major international Big 4 auditing firms with earnings management. In contrast, Alzoubi’s (2016) showed that Big 4 audit firms and the measure of audit quality and earnings management are negatively significant. He resolved that the level of earnings management between companies employing the audit services of non-Big 4 auditors was significantly higher than companies engaging the services of Big 4 auditors. The reason for this, he argued, was that Big 4 audit firms have large-scale operations.

Other studies have found conflicting results. For example, Humayun Kabir, Sharma, Islam, and Salat (2011) observed a sample of 382 companies from 2000 to 2003 to examine the association between Big 4 affiliated auditors and quality accruals in Bangladesh. They found that Big 4 affiliates had no impact on earnings quality for their clients. Also, Habbash and Alghamdi (2017) used a sample of 337 non-financial Saudi listed firms from 2006 to 2009 and found Big 4 auditors and earnings management to be insignificantly related.

According to the literature, most of the results found that Big 4 affiliated auditors have better audit quality and that in turn, mitigates the practices of EM. Nevertheless, there is still a gap in the literature as most of these studies measured the audit quality and the practices of EM by accrual EM, particularly in the Jordanian context. Moreover, as
appeared in previous discussions, other studies found that Big 4 affiliated auditors have either a positive relationship or have no relationship with the practices of EM. Thus, these gaps motivated the current study to examine this relationship to find a piece of new evidence.

2.4.3 Audit Partner Age

Individual auditors' incentives and their environment help shape audit quality. Therefore, the relations between assignments, age and reporting vary with audit firm size (Sundgren & Svanstörm, 2014). In this context, Theoretical studies indicate that the functional interests of workers are slowly decreasing as they get older, resulting in less commitment by older workers (Holmstrom, 1999). Furthermore, Sundgren and Svanström (2014) found a negative relation between the partner's age and the partner's propensity to issue a going concern opinion for a company that subsequently filed for bankruptcy. The study concluded that older partners are less willing to produce high audit quality. In addition, Widiarta (2013) explained that age is an individual factor which affects auditors' professionalism. Moreover, Wirosari and Fanani (2017) explained that older auditor is more cautious to obtain evidence to reduce the risk.

Goodwin and Wu (2016) have reported that younger partners are more likely to issue first-time going concern opinions than the older partners and are associated with greater EM. These results are consistent with the provision of lower quality audits by older partners. In contrast, Yudi and Rahayu (2019) found that an auditor’s age does not affect the quality of audit reports. Depending on the previous arguments, there is limited research that investigated the issue of the impact of the audit partner age on the practices of EM.
Therefore, the current study was conducted to find a shred of new evidence regarding the relationship between audit partner age and REM.

2.4.4 Audit Partner Educational Background

The literature investigated the correlation between the audit partners' educational characteristics (e.g., accounting level and graduate level) and audit performance, but the results appeared mixed (Lennox & Wu, 2017). Liu's (2017) empirical findings have shown those audit clients are able to pay audit fees for auditors that exhibit "high quality" signals when choosing audit services, not just recognizing their company characteristics. Their individual features are also taken into consideration. However, the audit services quality depends on the auditor's expertise, industry knowledge and independence. This knowledge and experience let an auditor identify complex problems in particular industries (Habbash & Alghamdi, 2017).

In this context, researchers are encouraged to investigate the association between the characteristics of the individual auditor and the quality of an audit (DeFond & Zhang, 2014). According to Gul, Wu, and Yang (2013) and Knechel, Vanstraelen, and Zerni (2015), auditors have diverse risk preferences, educational qualifications and skills, and these personal characteristics may have significant effects on an audit engagement outcome. Moreover, Guan, Su, Wu, and Yang (2016) explored the impact of client-partner education relationships on audit efficiency. They said clients are more comfortable engaging with partners of similar educational backgrounds. Furthermore, Lennox and Wu (2017) found that schooling similarities can promote knowledge exchange between client and partner management, resulting in enhanced audit efficiency. University-level
education is not the only form of education from which auditors gain expertise, and the sum of continuing professional education plays a crucial role in improving human resources (Che et al., 2017).

The auditors who are more knowledgeable about the tasks will be more effective after the effort has been reduced. Still, they may find more errors and be more willing to incorporate the new knowledge, for example, on the testing procedures (Che et al., 2017). However, Gul et al. (2013) reported that an individual audit partner’s fixed characteristic, such as educational background, is related to audit quality in China.

Also, Che et al. (2017) analysed how the audit effort was linked to a partner's knowledge, assessed the level of knowledge by formal education (a bachelor's degree versus a master's degree) and reported that audit partner knowledge was positively linked to audit quality. They linked education to actual audit results and found that Chinese auditors with the Master's degree study were more proactive (i.e., less likely to issue a modified audit opinion) than other auditors. Recently, Li et al. (2017) found no association between abnormal client accruals and partners holding graduate degrees.

Moreover, Chu, Florou and Pope (2016) used UK data and found that there will be lower accruals and raising audit fees when partners have a degree in accounting than social science graduate partners. In contrast, the study found no association between lower abnormal accruals or higher audit fees relative to non-accounting partners and partners with an accounting degree. In addition, related partners are identified as those who attended the same university as their company managers (Guan et al., 2016). The study found that related partners issued better audit opinions, and their customers got lower earnings quality.
They concluded that school relationships between partners and management compromise audit efficiency.

In contrast, Setyaningum (2012), Cahan & Sun (2015) and Yudi and Rahayu (2019) posits that educational background or level of education does not influence the quality of audit reports. According to this discussion, the results of previous literatures that investigated the relationship between the audit partner’s educational background and EM practices were mixed. So, this study investigates this relationship in order to find new evidence about this issue.

2.5 Ownership Concentration

By agency theory, Jensen and Meckling (1976) noted that there would be a divergence in the pursuit of managerial interests and owners' interests when ownership and controls are separated. On the one hand, shareholders that own a minimum of 5% of a company’s outstanding voting shares would have a greater incentive to track managers' behaviour as such monitoring would yield a more significant share of benefits (Jensen & Meckling, 1976). On the other hand, concentrated ownership can put pressure on managers to manage earnings to report better financial results. According to Holderness and Sheehan (1988), this is because large shareholders threaten interference when management is considered to be unsuccessful.

In addition, firm performance and the rights of minority shareholders can be affected by large shareholders in two ways. Firstly, it can be a positive way of protecting minority shareholders by major shareholders. The second is negative; major shareholders conspire
with managers for benefits, regardless of the impact on minority shareholders (Almasarwah, 2015).

Dodd (1933) conducted early work in this area. He pointed out that a possible discrepancy of interest between shareholders and managers may occur because of a lack of ownership interest in a company by managers. In addition, Jensen and Meckling (1976) asserted that if ownership and control are split, the firm value is diminished by increased monitoring costs and management involvement in operations that do not increase core business functions (Alnajjar & Kilincarslan, 2016). Moreover, managers of companies with external blockholders may feel additional pressure to manage earnings, particularly when their companies have poor results. (Morphi, 2015)

However, concerning agency theory, the concentration of ownership may cause significant shareholders to prioritize self-interest and ultimately confiscate corporate resources (Marashdeh, 2014). The ownership structure of a corporation is seen as a primary management monitoring mechanism; hence, this structure has a monitoring role in limiting the occurrence of earnings management. The concentration of ownership has connections with information asymmetry between investors and managers, which affects the quality of managers' transparency choices and the earnings (Fan & Wong, 2002; Donnelly & Lynch, 2002; Alves, 2012). Furthermore, small shareholders may not be so interested in tracking activities as all costs of monitoring would carry, but just a limited share of benefits. As a result, shareholders with a limited fraction of outstanding stock would have free reign in management control (Alves, 2012).
While, large shareholders are required to closely control management decisions, which in turn will reduce the potential of EM for managerial opportunism (Dechow, Sloan, & Sweeny, 1996; Alves, 2012). Therefore, there will be conflicts of interest between majority and minority shareholders for concentrated ownership companies, and large shareholders may exercise their right to maintain the growth of private benefits (Alves, 2012).

The security of minority shareholders in highly concentrated ownership nations is a consideration as controlled shareholders can exploit knowledge and use company assets to retain power over a company rather than increase profitability (Al-Jaifi, 2017). In Middle Eastern countries, highly concentrated ownership characterises businesses, often in the form of family-controlled enterprises (Marashdeh, 2014). Concerning the Middle East, Jordan is an excellent study matter to investigate the impacts of ownership structure. Hence, Jordan is characterised by high ownership concentration (Alzoubi, 2016), and Almasarwah (2015) indicated that ownership concentration was elevated in Jordanian industrial firms, with 85% of firms having block ownership.

Ownership may either have an effect of alignment or an effect of entrenchment. On the one hand, concentrated controls can harm minority shareholders, since concentrated power may promote expropriation by insiders and distort management decision-making (Bebchuk, Kraakman, & Triantis, 2000; Shleifer & Vishny, 1997). In contrast, controlling owners can help mitigate typical conflicts between owners and managers (Lyu et al., 2016).

Furthermore, since managers fear negative consequences on large shareholders' deteriorating results, they may also be highly motivated to participate in earnings management. For example, Choi, Jeon, and Park (2004) and Kim and Yoon (2008)
documented that earnings management was related to ownership concentration positively. Likewise, the study of Yang and Krishnan (2005) observed 896 U.S. firms from 1996 to 2000 and reported that ownership structures have a significant and positive impact on the practices of earnings management. Also, Bozec (2008) investigated how a controlling shareholder's ownership concentration led to a higher degree of earnings management. The study found that earnings management increased with the concentration of ownership, separation of voting and cash-flow rights.

Furthermore, the impact of ownership structure, board and leverage on earnings management for 2005-2009 was studied by Reyna (2012). The study showed that Mexican companies had a high concentration of ownership and that one of many multinational conglomerates owned other companies directly or indirectly. The findings showed a positive relationship between large ownership and earnings management. Moreover, Al-Fayoumi and Abuzayed (2010) examined the association between EM with the ownership structure of 39 listed industrial firms between 2001 and 2005 in Jordan. They reported that ownership concentration significantly and positively affected earnings management. In contrast, Iturriaga and Hoffmann (2005) and Ali et al. (2008) found ownership concentration to reduce the discretionary behaviour of managers.

Looking at other factors, Lyu et al. (2016) examined how entrenchment influence large shareholders on earnings quality. To do so, they utilised a sample of listed firms from nine East Asian economies and thirteen Western European economies between 1995 and 2011. They found that “the poor earnings quality induced by ownership concentration is more
pronounced in East Asia, where cultures are rooted in Chinese cultures and collectivism” (p. 23).

Others have studied the ownership concentration in the context of earnings quality as well. For example, Al-Rassas & Kamardin (2016) examined the impact of various factors such as audit committee independence, financial experience, internal audit feature, audit quality and ownership concentration on earnings results. Using a sample of 508 firms listed on Bursa Malaysia's Main Market for 2009-2012, they found that ownership concentration was correlated with lower earnings efficiency. Guo and Ma (2015) investigated the effect of ownership concentration on EM conduct with a sample of listed Chinese firms from 2004 to 2010; and found that ownership concentration was negatively correlated with earnings management.

However, studies of earnings management cannot abandon ownership setting, because ownership characteristic indicates whether a shareholder can directly control or monitor (Nurim & Raharti, 2017). Understanding how ultimate owners use shareholding power to make essential business decisions is critical. Exposure to how owners with controlling voting rights in companies behave in a manner that aligns their interests with those of other shareholders through maximizing firm value or expropriating firm value at the detriment of minority shareholders is crucial (Chee, Hooy, & Ooi, 2016).

Also, Abdallah and Ismail (2016) provide support for the view that the effectiveness of corporate governance mechanisms must be considered as being dependent on the ownership structure of the firm. They found that the efficacy of corporate management decreases in magnitude, as the level of ownership concentration increases from 5% to 10%. 66
The argument is that large shareholders will compel managers to boost earnings in order to improve the market value of their shares, and due to this compelling, managers must use earnings management (Usman & Yero, 2012).

Previous researches have shown that information disclosure quality also depends on the corporate governance processes in place and to what degree these governance frameworks can act to monitor management efficiently. Moreover, ownership concentration can impact governance effectiveness, either positively or negatively (Liu, Valenti, & Chen, 2016). In addition, concerning the influence of ownership concentration on the audit partner and earnings management, Rad, Salehi, and Pour (2016) found that auditor reputation and auditor tenure responded to income management with a negative relationship, but when interacted with ownership concentration reduced the negative effect of auditor reputation and auditor tenure on earnings management.

Based on previous discussions concerning the effect of ownership concentration on the practices of EM, there are no definitive answers regarding this relationship as the results of the prior studies are contracted. Moreover, the previous literature neglected to study the role of ownership concentration on the relationships between the characteristics of the CEO and the audit partners with the practices of EM. Therefore, the current study is motivated to investigate the moderating role of ownership concentration on the relationships between the characteristics of the CEO and the audit partners with the practices of REM to fill the gaps in the previous literature.
2.6 Control Variables

Although this research focuses primarily on the impact of ownership structures, CEO characteristics, and external auditor characteristics on earnings management, the quality of financial reports might be impacted by other firm characteristics. Thus, firm attributes such as firm leverage, firm growth, firm size and board size can potentially drive differences in the quality of financial statements. Hence, this study includes five control variables to differentiate their effects on earnings management. The following sub-sections show the literature review of the measurement and impact of each control variable.

2.6.1 Firm Size

Sellami and Slimi (2016) posit that the association between firm size and earnings management remains vague. Furthermore, firm size affects the quality of the disclosed information (Bouaziz, Salhi, & Jarboui, 2019). The studies of Barton and Simko (2002), Dechow and Skinner (2000), and Huang, Roychowdhury and Sletten, (2019) found that firm size related to REM with a positive relationship. In contrast, Bouaziz et al. (2019) and Chandra and Wimelda (2018) documented a negative association between firm size and earnings management. Moreover, small firms typically have less complex internal control structures when compared to large firms, reducing the possibility of earnings management (Zouari et al., 2012).

Considering that firm value could significantly influence the process of ownership structure, and the management of earnings, firm size is included in this study as a control variable. Therefore, following previous research, firm sizes are operationalised as the natural logarithm of the total assets. (e.g., Becker et al., 1998; Myers, Myers, & Omer,
2.6.2 Firm Age

Coles, Daniel, and Naveen (2008) documented that the age of a firm was correlated with corporate governance. They argued that because of the effects of the learning curve and survival bias, older firms were apt to be more efficient than younger firms. Moreover, older firms can improve their reputation and image in the market (Akhtaruddin, 2005) and advance their financial reporting practices over time (Alsaeed, 2006). Based on earlier studies, Bassiouny (2016) posits that older companies appear to have a higher earnings management level than newly formed companies. Besides, Liu et al. (2018) and Gul et al. (2009) documented a negative relationship between firm age and earnings management.

In contrast, Wang (2014) found a positive relationship between firm age and earnings management. Firm age has been used to control for the variance in earnings management of firms with different life cycles (Gul et al., 2009). Therefore, the current study will include firm age as a control variable.

2.6.3 Financial Leverage

Regarding the effect of leverage on earnings management, there are two streams of arguments. On the one hand, positive accounting, especially the “debt hypothesis” expects the motivations of managers to manage earnings in order to avoid debt covenant violations as breaching these contractual terms can be costly (Hoang & Phung, 2019). Leverage leads to an increase in the tendency for earnings management (Sharifah Buniamin, Johari, AbdRahman, and Rauf, 2012; Saleh et al., 2007). Because of a higher risk of breaching debt
covenants, highly levered firms are inclined to manage earnings (Abdullah & Ismail, 2016). Many studies have reported the relationship between financial leverage and discretionary accruals (Zouari et al., 2012). Furthermore, a negative relationship between debt and earnings management was reported by Jiang et al. (2008).

In contrast, Chandra and Wimelda (2018); Alves (2013); Gerayli et al. (2011) and (Alzoubi, 2016) found that Leverage has a positive effect on earnings management. Thus, the current study, based on these arguments, will include financial leverage as a control variable.

2.6.4 Market-to-Book Value

The market-to-book ratio is defined as the market value of equity over its book value and represents market expectations for future profitability growth. Thus, the CEOs manage their earnings to meet such expectations (Zouari et al., 2015). If growth slows, then managers have more incentives to misstate financial statements to preserve the appearance of steady growth (Summers & Sweeney, 1998). Skinner and Sloan (2002) suggested that firms with high growth opportunities, as identified by high market-to-book ratio, are more likely to engage in earnings management (Sun & Liu, 2012). As well, high growth companies are more likely to engage in upward earnings management activities than low growth companies (Park & Shin, 2004; Hsieh, Bedard, & Johnstone, 2014).

Numerous studies have pointed out that the Market-to-Book (MTB) is one of the accounting conservatism indicators. The theoretical frame provided by Beaver and Ryan (2000), has been employed by a few studies such as Lafond & Roychowdhury (2008),
Ahmed & Duellman (2007) and Rezaee & Jain (2004) and others have proposed using the market-to-book ratio to measure the level of accounting conservatism (Al-Sraheen, 2014).

In addition, many studies investigated the relationship between the MTB and EM and found a significant negative association between them (e.g. Alhadab & Nguyen, 2018) and with the positive relationship (e.g. Alzoubi, 2018; El Guindy and Basuony, 2018; Nuswantara, 2018; Alzoubi, 2016). So, according to this discussion, the market-to-book value is included as a control variable in this study.

2.6.5 Sales growth

Sales growth is a feature of a firm that plays a vital role in explaining the reporting quality of the firm. Furthermore, sales growth displays that the more the sales, the more the profit gained by the firm so that the profits indicted by the company will be more significant (Dewinta & Setiawan, 2016). In addition, the sales growth expresses how much the rise in sales of the firms every single year and may motivate directors to attain profit (Sari & Rusli, 2015). Management comprehends that users of financial reports incline to pay attention to earnings because it is an indicator of the success of performance and management accountability. Therefore management is invigorated to do EM (Asward and Lina, 2015; Prasetya and Gayatri, 2016; and Rahdal, 2017; Bulutoding, Suwandi, Anwar, Sari, & Kadir, 2019. ).

Additionally, Firms with high sales growth also have an incentive in making earnings management in their financial reports(Bulutoding et al., 2019.). Management will continuously preserve the tendency of earnings and sales to obtain if the company's
profitability is low. Generally, the manager will take action to save earnings management performance in the eyes of the owner (Lauria and Suryanawa, 2017).

Previous researches recognised that firms with possible growth of sales have the probability of presenting better earnings statistics to shareholders and diminish information asymmetric between directors and owners (Chau & Gray, 2002). Likewise, Hassan, Romilly, Giorgioni and Power (2009) and Hussainey and Mouselli (2010) indicated that firms with high sales growth disclosed useful information to stakeholders.

On the contrary, Jiang et al. (2013) found higher earnings manipulations to be associated with increased sales growth. In addition, Yunietha and Palupi (2017) and Astari and Suryanawa (2017) showed a positive and significant effect between sales growth and EM. However, Razzaque et al. (2015) report an insignificant relationship between sales growth and real earnings management. Hence, it is clear from previous literature that high sales growth is related to earnings management. Therefore, sales growth will be explored as a control variable in the current study.

2.7 Underpinning Theories

The theoretical view of the agency theory is that concentrated ownership generates opportunities for shareholders to exploit other shareholders' properties. However, Financial statements Users may require higher earnings quality to protect their assets and interests when they consider the possible impact of blockholder ownership (Chi et al., 2015). Besides, a structure contributing to the opportunistic perspective of earnings management is provided by agency theory (Idris, 2012). Moreover, the upper echelons theory suggests that managerial characteristics partially predict organizational outcomes, strategic
decisions and performance levels (Hambrick & Mason, 1984; David et al., 2012). Therefore, the study used these theories to explain the relationship between CEO characteristics, audit partner characteristics and earnings management.

2.7.1 Agency Theory

This theory focuses on the association between the principal (shareholder) and agent (decision-maker or manager) with the assumption that both principal and agent are regarded as seeking to make the most of their capacities and may have conflicting interests in pursuing their aims (Fama & Jensen, 1983; Jensen & Meckling, 1976). Berle and Gardiner (1991) said an agency issue occurs between shareholders and managers of large companies with scattered shareholders when the investors need to take the risk of purchasing business and owning the company and make financial investment. In doing so, they must entrust the supervision and management of a company to someone who has the credentials and expertise to perform the supervisory role (Kazemian & Sanusi, 2015).

Although Ross (1973) first introduced the idea of the agency problem, Jensen and Meckling's (1976) influential paper titled the “Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure" provided the impetus to the development of the agency theory (Ali, 2013). Jensen and Meckling (1976) were the first researchers to place the agency theory in a fixed theoretical framework. In contrast, Fama and Jensen (1983) provided more development to this theoretical perspective. The agency theory postulates a so-called agency relationship in which the agent’s key delegates function. There might be several disadvantages of this relationship to the agents’ opportunism or self-interest. For
example, the agent may act to serve his interests rather than those of the principal(s) or only partially act in the interests of the principals (Aljaaidi, 2013).

Agency theory has become a widely used theory in management research (Arthurs & Busenitz, 2003; Daily, Dalton, & Rajagopalan, 2003; Madison, 2014; Wasserman, 2006). Agency theory is a fundamental theory in auditing and accounting literature that explores the role of external auditors and corporate governance to enhance the process of financial reporting (Kharuddin, 2016). Agency theory’s main premise is that individuals optimize their self-interest. The Conflict emerges because directors want to increase their resources and shareholders seek to increase their profits (Reis & Stocken, 2007).

The Institute of Chartered Accountants in England and Wales (2005) states “if, as simple agency theory implies, principals do not trust agents to provide them with reliable and relevant information, then they will hire in external experts, who are independent of these agents”. Nevertheless, this incorporates the idea of auditors as principal agents, which in turn contributes to fresh doubts about competence, objectivity and confidence (Almasarwah, 2015). To ensure overall efficiency in the contracting process, all sides, especially agents and managers, must negotiate contracting costs (Kren & Kerr, 1997). Furthermore, It is generally accepted that better corporate governance practices are expected to enhance overall management observation and further minimize data asymmetry issues (Alzahrani, 2014).

Moreover, agency theory suggests that seeking their benefits (e.g., rewards, high entertainment costs, overtime pay, luxurious offices, and luxury company cars) will likely be the behaviour of the executives at the expense of maximising the wealth of shareholders.
(Fama & Jensen, 1983; Jensen & Meckling, 1976). Against such a background, the practice of corporate governance can remediate the agency problem (Al-Ajmi, 2009). Agency perspectives show that a useful model of corporate governance will lead to lower risk assessments and lower audit work and better monitoring of controls and the environment (Cohen, Krishnamoorthy, & Wright, 2004). In addition, external auditing is one of the most vital tools for monitoring mechanisms that can improve the firm value (Jensen & Meckling, 1976).

However, potential agency costs appear from a conflict of interests which include management decisions that do not maximise the interests of shareholders. Hence, the reported earnings may be manipulated by managers to justify their actions. Therefore, agency cost can lead to earnings management, whereby investors make non-optimal investment decisions from reported earnings. A manager may be engaged in earnings management to demonstrate better company performance when the firm has a high free cash flow. Thus, agency theory can be used to explain this relationship (Kazemian & Sanusi, 2015).

In this context, large-scale literature analyzed earnings management using the agency theory paradigm in which managers are believed to show opportunistic behaviour (Idris, 2012; Louis & Robinson, 2005). For instance, Jiraporn et al. (2008) demonstrated the value of client earnings management regarding agency problems. They noticed a positive relationship between a company's agency conflict gravity and earnings management practice. Furthermore, Gibbons (1998) showed that high rewards could encourage an agent to maximize his resources, with higher rewards. This can encourage managers to
manipulate a financial report to minimize expenditures in order to increase revenue (Al-Sraheen, 2014). Moreover, Burton (2000) found that agency costs are better controlled by reducing management discretion and developing mechanisms to monitor management behaviour.

Much scholarly research into corporate governance has utilised agency theory to explore links between corporate governance mechanisms and corporate processes (Tricker, 2012). Thus, this theory is the main theory used in this study to explain the relation between CEO characteristics, audit partner characteristics and earnings management practices.

2.7.2 Upper Echelons Theory

Although Hambrick and Mason (1984) explicitly set forth the upper echelons theory, however, the theory can be traced back to Carnegie School theorists (March & Simon 1958; Cyert & March 1992), in relation to the concept of bounded rationality (Hambrick, 2007). The origins of the upper echelons viewpoint reside in the company's behavioural philosophy, which implies that management decisions do not necessarily obey moral intentions, but rather managers' natural limitations as human beings affect them primarily (Nielsen 2010; David, Paul, Ongeti, Nicholas, & Evans, 2012). The core idea of upper echelons theory has two interconnected parts: 1) executives behave based on their personalized perceptions of the strategic circumstances they face, and 2) these personalized constructs are a function of these executives' experiences, values and personalities (Hambrick, 2007). In addition, financial accounting decisions create critical corporate results for the evaluation of capital markets and other stakeholders.
In this context, numerous studies have empirically verified the worth significance of accounting figures and therefore, may presume a significant interest in financial accounting decisions by managers. For such relationships, the Upper echelon theory offers a practical framework for analysing how managers and their attributes contribute to financial accounting results (Plöckinger, Aschauer, Hiebl, & Rohatschek, 2016).

Thus, the impact of CEO’s characteristics on company strategy and performance has been examined by researchers based on the effects of top management team composition and processes on organizational outcomes (Hambrick, 2007). Furthermore, the basic concept of upper echelons theory is that top executives interpret their circumstances – options, odds of specific results, prospects and risks – through their personal modified lenses. Accordingly, such individualized models of strategic circumstances derive from perceptions, beliefs, attitudes and other human execution variables. Therefore, companies become representations of their top executives (Hambrick, 2007).

2.8 Chapter Summary

This chapter aimed to shed light on the environment of earnings management, and the characteristics of the CEOs and the audit partners in Jordan along with the theoretical framework of these topics. Starting by corporate governance, Jordanian market and Jordanian Corporate Governance Code. Also, this chapter review literature that relates to the relation between the characteristics of the CEOs, audit partners and earnings management, and the literature about the moderating role of ownership concentration on this relationship. The theoretical perspectives of this study are agency theory and upper echelons theory.
CHAPTER THREE

RESEARCH FRAMEWORK AND METHODOLOGY

3.0 Introduction

The previous chapter has elaborated on the relevant literature pertaining to the issue of the effect of the characteristics of the CEOs and audit partners on earnings management in Jordan. Before elaborating the methodological issues, this chapter provides the theoretical framework for the basis of this study and the development of hypotheses. In addition, this chapter highlights the sources of data collection, the measurement of the variables and explains the sample of the study.

3.1 Research Framework

The theoretical framework presented in Figure 3.1 was derived from the objectives of this study which explores the relationships between the characteristics of the CEOs and audit partners and earnings management practices for Jordanian listed companies. Also, the framework reflects the moderating effects of the ownership concentration on the relationship between the characteristics of the CEOs and audit partners and earnings management practices for Jordanian listed companies. Moreover, the framework shows the control variables of firm size, firm age, financial leverage, market-to-book value and sales growth.
This model is developed based on two essential theories which are agency theory and upper echelons theory. These theories have been proposed in the context of the characteristics of the CEOs and audit partners to offer a deeper understanding and comprehensive insights into the objectives of the current study. The main theory in this study is the agency theory which explains the relationship between earnings management practices and characteristics of the CEOs and audit partners. This theory focuses on the association between the principal (shareholder) and agent (decision-maker or manager) with the assumption that both principal and agent are regarded as seeking to make the most of their capacities and
may have conflicting interests in pursuing their aims (Fama & Jensen, 1983; Jensen & Meckling, 1976). In addition, agency theory underpins the role of external auditing in enhancing the processes of financial reporting (Kharuddin, 2016).

The external audit is a critical tool for monitoring activities to maximize the company's value (Jensen & Meckling, 1976). The principal-agent controversy is demonstrated in agency theory where the principal (owner) lacks reasons to believe their agents (managers) due to knowledge asymmetries and conflicting motives. Differing motives and information asymmetries between the two tend to decrease information reliability, which causes principals to lose their agents' trust. Therefore, independent auditors should act as third parties to align agents' interests with managers and help managers to evaluate and monitor their agents' behaviours and reinforce agents' trust (The Institute of Chartered Accountants in England & Wales, 2005; Aamir & Farooq, 2011).

Furthermore, as provided by agency theory, ownership concentration plays an essential role in the monitoring behaviour of managers (Jensen & Meckling, 1976). The idea is that investors who hold large shares should track the firm's operations more closely as the operating results of a firm affect their wealth as their ownership grows.

Besides, the upper echelons theory is used to explain the effect of the personal attributes of the CEO executives on REM. The origins of the upper echelons viewpoint reside in the company's behavioural philosophy, which implies that management decisions do not necessarily obey moral intentions, but rather managers' natural limitations as human beings affect them primarily (Nielsen 2010; David, Paul, Ongeti, Nicholas, & Evans, 2012). The upper echelons theory suggests that managerial characteristics partially predict
organizational outcomes, strategic decisions and performance levels (Hambrick & Mason, 1984; David et al., 2012). Thus, based on this theory, the individual characteristics of the top managers affect their tendency to engage in REM.

3.2 Hypotheses Development

The following hypotheses seek to test the relationship between CEO characteristics (CEO experience, CEO tenure, CEO duality, CEO politically connected) and audit partner characteristics (audit partner tenure, audit partner affiliation (Big 4 firm or not), audit partner age, audit partner educational background) and earnings management practices, and the moderating role of ownership concentration on these relationships.

3.2.1 CEO Characteristics

3.2.1.1 CEO Experience

Upper echelons theory proposes that CEO experience, which the number of CEOs who worked in different roles and positions before becoming CEOs, also influences their strategic choices (Wang et al., 2016). Thus, CEOs bring orientations and perspectives based on their experiences to the CEO position.

Experienced managers are more optimistic than non-experienced managers, which in turn may lead the experienced managers to produce upwardly skewed earnings forecasts and then use aggressive accounting practices to reach or exceed their projections (Zouari et al., 2015). In addition, experienced managers can use their expert assessment or the construction of real transactions to intervene and adjust the financial report's accounting information to achieve their goals (Zhao et al., 2016). In this context, Hu, Huang, Li, and
Liu (2017), Kouaib and Jarboui (2016) and Zouari et al. (2015), found a significant positive relationship between CEO experience and real earnings management.

Furthermore, the study of Qi, Lin and Lewis (2018) reported that executives with financial work experience are more likely to engage in REM. Recently, the study of Amirkhani, Fairhurst and Zbib (2020) proved the CEOs with more experience indicated by their previous executive positions are more likely to manage their earnings.

Conversely, CEOs who have gained financial knowledge and expertise throughout their career and can use this experience to better understand financial and accounting issues to take appropriate accounting decisions and improve the reporting process (Gounopoulos & Pham, 2018). In this regard, Matsunaga and Yeung (2008), Troy, Smith, and Domino (2011), Jiang, Zhu, and Huang (2013) and Ran et al. (2015) found that CEOs having financial experience are less likely to practices earnings management. As demonstrated above, the results concerning the impact of the CEO experience on earnings management are conflicting. However, the current study, following the perspective offered by the previous literature that the CEO with more experience is more likely to engage in REM. Therefore, the following hypothesis is posited:

H1a: A positive and significant relationship will exist between CEO experience and real earnings management for non-financial Jordanian listed firms.

3.2.1.2 CEO Tenure

CEO tenure is one of the most studied CEO characteristics in upper echelons theory research (Finkelstein et al., 2009; Wang et al., 2016). Overall, upper echelons theory
studies show that longer-tenured CEOs launch fewer strategic actions. Hambrick and Fukutomi (1991) concluded that long-tenured executives typically show commitment to a particular paradigm and experience a decrease in open-mindedness, diversity of learning, and engagement in tasks while growing their task knowledge and CEO power over time.

Besides, some have argued that a long-tenured CEO accrues sufficient knowledge and experience in business over his/her extended years of service and hence is more likely to enhances firm performance through effective management (Falato, Li, & Milbourn, 2011; Wang, Holmes, Oh, & Zhu, 2016). Moreover, Cornett, Marcus, and Tehranian (2008) Kuang, Qin, & Wielhouwer, (2015), Ali & Zhang (2015), Chou & Chan (2018) and Sani, Abdul Latif, & Al-Dhamari (2020) found that earnings management is less in the later years of a CEOs tenure. In contrast, long-tenured CEO accrues sufficient knowledge and experience in business over his/her extended years of service and hence is more likely to enhances firm performance by practising EM to disclose greater earnings and then achieve their goals of improving the firm performance (Falato, Li, & Milbourn, 2011; Wang, Holmes, Oh, & Zhu, 2016). Furthermore, Ghosh and Moon (2005), Cho, Choi, and Kwon (2019) documented a positive association between earnings management and CEO tenure. However, the current study, following the perspective offered by the previous literature that the CEO is more likely to engage in REM in the early years of a CEO's tenure. Therefore, the following hypothesis is posited:

H1b: A negative and significant relationship will exist between CEO tenure and real earnings management for non-financial Jordanian listed firms.
3.2.1.3 CEO Duality

The duality of the CEO indicates the management structure in which the CEO of a firm also operates as Chairman of the board (Coombes & Wong, 2004). However, for decades, the issue has been discussed whether CEO duality either increases or mitigates earnings management practices. Agency theory proposed that the separation of duties between Chairman and CEO can lead to more efficient monitoring of the management (Jensen, 1993). Therefore, agency theory suggests that the positions of Chairman and CEO should be divided, because the Board’s duties include oversight and supervision of management (Yunos, 2011).

Moreover, duality can also allow the CEO to take opportunistic action because of his dominance in the Board (Barako, Hancock & Izan, 2006; Al-Sraheen, 2014). Thus, it is recommended to separate the roles of Chairman and CEO to avoid significant power concentration whereby the same person performs both functions (Cadbury Report, 1992; JCGC, 2009).

Prior works results have been mixed into the relationship between CEO duality and earnings management. For example, Yasser and Mamun (2015), Alsraheen and Saleh (2017) and Chelogi (2017) found CEO duality and earnings management practices to be negatively associated. Conversely, O’Connor et al. (2006), Gulzar and Wang (2011), Chi, Hung, Cheng, and Lieu’s (2015); Iraya et al. (2015) and Al Azeez et.al. (2019) found that CEO duality increased the likelihood of earnings management to boost CEO compensation. In addition, Nuanpradit (2019) documented that CEO duality is positively associated with

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the practices of REM. While, the studies of Alareeni (2018) and Bataineh, Abuaddous and Alabood (2018) found that CEO duality has no impact on the practices of EM.

Based on the above discussion, following the agency theory and the perspective offered by the previous literature that the separation of duties between Chairman and CEO can lead to more efficient monitoring on the management, and less REM practices. Therefore, the current study posited the following hypothesis:

H1c: A positive and significant relationship will exist between CEO duality and real earnings management for non-financial Jordanian listed firms.

3.2.1.4 CEO Politically Connected

Faccio (2010) defined a company as politically connected if “at least one of its large shareholders (anyone controlling at least 10 percent of voting shares) or one of its top officers (CEO, president, vice-president, Chairman, or secretary) is a member of parliament, a minister, or is closely related to a top politician or party”.

In this context, agency theory argues that politically connected CEOs can use political power to serve their interests instead of shareholders’ interests. Some literature has shown that politically-related companies can gain benefits from their political connections (Faccio, 2010; Pástor & Veronesi, 2013). Politically connected companies appear, however, more likely to use earnings management strategies to obscure the gains they generally derive from their links, in particular those of questionable legality. (Chaney et al., 2011; Faccio, 2006; Faccio, Masulis, & McConnell, 2006; Watts & Zimmerman, 1990; Braam, Nandy, Weitzel, & Lodh, 2015).
Recent literature on the correlation between political links and corporate performance has seen mixed results concerning accounting factors (Morphi, 2015). Some have found negative relationships, and some have no connections. For example, Chaney, Faccio and Parsley (2011) showed that political-related firms regularly reported low-quality accounting information than politically not connected firms.

Moreover, Chi, Liao, and Chen (2016) found that there are significantly higher REM practices in companies with politically connected CEOs. As well, Braam et al. (2015) argued that due to the higher secrecy of real income management and the potential for masking political favours instead of accrual income management, politically linked firms are more likely to use real earnings management. Likewise, (Al-Sraheen & Alkhatib, 2016) found that the political connection of the top management is positively associated with earnings management. Recently, the study of Zhang and Truong (2019) proved a positive relationship between the politically connected executive directors and the practices of EM.

While others found that politically connected CEOs can negatively affect earnings management, such as (Chaney, Faccio & Parsley, 2011; Chi et al., 2016; Al-dhamari & Ku Ismail, 2015), still, others have found no relationships with accounting practices. For example, Yen (2013) studied China-based companies listed on the Hong Kong Stock Exchange and found no correlation between political connections and EM. In spite of the inconclusive results in the previous literature regarding the relationship between the CEO politically connected and REM practices, the current following the agency theory perspectives that the political connection of the CEO will increase the REM practices, therefore, this study posits the following hypothesis:
H1d: A positive and significant relationship will exist between politically connected CEO and real earnings management for non-financial Jordanian listed firms.

3.2.2 Audit Partner Characteristics

In particular, an external audit reduces information asymmetry between the shareholders and the managers and enhances the credibility of financial information provided to shareholders, therefore limits opportunistic management behaviours such as earnings management (Kharuddin, 2016; Lin & Hwang, 2010; Watts & Zimmerman, 1983). An external audit is another monitoring tool that can help to lower agency costs and improve business performance (Miko & Kamardin, 2015).

Recent studies found evidence that audit partner characteristics may have an effect on audit outcomes (Cahan & Sun, 2015; Kallunki et al., 2019; Knechel et al., 2015; Lo et al., 2019). As argued by Cameran, Campa and Francis (2020), the audit partner’s demographic characteristics such as gender, age, experience, workload or busyness, industry expertise, risk preferences, and partner tenure with the client are associated with audit quality.

3.2.2.1 Audit Partner Tenure

One of the audit partner characteristics that may affect audit quality and EM is tenure. One recommendation for increasing audit efficiency is an audit client’s mandatory rotation scheme (Carey & Simnett, 2006). Indeed, Commonly used proxy to approximate the quality of auditors is earnings management (e.g., Van Johnson et al., 2002; Myers, Myers & Omer, 2003; Blouin, Grein, & Rountree, 2007; Nagy 2005; Gul, Jaggi, & Krishnan 2007; Chen, Lin, & Lin, 2008; Jackson, Moldrich, & Roebuck, 2008; Davis et al., 2009; Gul et al., 2009; Kwon, Lim & Simnett, 2014). In addition, based on the agency theory’s
perspective, audit quality is considered as an effective monitoring mechanism, which serves in detecting manager’s manipulation and aligning shareholders and managers’ interest (Alzoubi, 2017).

Moreover, in accounting and audit literatures, the influence of the audit partners’ tenure on the quality of the audit service and in turn on EM is mostly due to lack of data, but this aspect had received very little research attention (Blandon, Argiles & Ravenda, 2019).

However, it appears in the literature; the influence of the tenure of audit partners on the quality of earnings is less evident since the results of extant studies on this function have been mixed. In particular, audit partner’s tenure affects earnings management practices, and this connection can affect earnings management positively (Chi & Huang, 2005; Lennox et al., 2014; Litt, Sharma, Simpson, & Tanyi, 2014) or negatively, according to Nawaiseh (2016), Manry, Mock, and Turner (2008) and Singh, Singh, Evans (2019).

The possible explanation for the positive impact of the audit partner tenure on EM is that the extended tenure for audit partner on the same company would imply a closer relationship with top management, which means that auditors are less inclined to challenge managers’ decisions, that can motivate top management to be involved in earnings management since the close relationship will give them the idea that the auditor will not detect their EM practices (Piot et al., 2007). In contrast, the possible explanation of the negative effect of the audit partner tenure on EM is that the longest tenure for the audit partners will cause a better understanding for the partners regarding the operations and activities of the firms that they audit for giving them more remarkable ability to detect any hidden or complex practices of EM. Due to the previous discussion, and following the
perspective offered in the previous literature that the longer audit partner tenure is associated with more REM practices, the study posited the following hypothesis:

H2a: A positive and significant relationship will exist between the tenure of audit partners and real earnings management in for non-financial Jordanian listed firms

3.2.2.2 Audit Partner Affiliation (Big 4 Firm or Not)

Research has used auditor size (Big 4 versus non-Big 4) as a proxy for audit quality. Generally, Big 4 auditors are more likely to perform a high-quality audit in order to protect their reputations. Also, Big 4 audit firms have better-trained employees and better technology more than smaller firms (Van Caneghem, 2004; Rusmin, 2010; Chung et al., 2005; Alzoubi, 2016).

One conclusion in the audit literature is that Big 4 auditors are associated with high-quality audits because Big 4 auditors prefer higher earnings quality to protect their brand names and reputations from lawsuits and fines and future threats from inaccurate client financial reports (DeAngelo, 1981; Francis & Wang, 2008; Khalil & Ozkan, 2016).

Some studies have revealed that Big 4 audit firms help constrain earnings management. For instance, Big 4 auditors were found to have a significant and negative relationship with earnings management (Lin & Hwang, 2010). For instance, Jordan et al. (2010) examined whether audit quality, as measured by auditor size, could limit U.S. earnings management practices. They revealed that earnings manipulation was less likely in firms audited by Big 4 auditors, while non-Big 4 clients showed signs of manipulation (Habbash & Alghamdi, 2017). Similarly, Darabi, Mehr and Hassannejad (2012) documented that Big 4 auditors are
more effective in ensuring the credibility of financial information, and in turn, the firms audited by Big 4 auditors are less likely to have EM practices.

In the Jordanian context, Alzoubi (2016) showed that for Big 4 audit firms, the association of auditor quality with EM was negative and significant. He concluded that the level of earnings control for companies employing Big 4 auditors was significantly lower relative to companies hiring non-Big 4 auditors' audit services. Recently, Singh, Singh, Evans (2019) found that firms audited by Big 4 audit partners have fewer EM practices than other firms. As well, Che, Hope and Langli (2020) proved that the Big 4 affiliated audit partners are associated with better audit quality and earnings quality, so they have more ability to detect and mitigate the practices of REM than non-Big 4 auditors.

In contrast, Nawaiseh (2016) found that affiliation with Big 4 international auditing firms had a significant and positive relationship with earning management. However, Habbash and Alghamdi (2017) found that there is no significant relationship found between Big 4 auditors and earnings management. Due to the previous results, the study posits the following hypothesis:

H2b: A negative and significant relationship will exist between audit partners’ affiliation (Big 4 firm or not) and real earnings management in Jordanian non-financial listed companies on the ASE.

3.2.2.3 Audit Partner Age

The audit partners as they get older will gain more experience and skills throughout their career, giving them more capability to detect the manipulation in the financial reports that
could the managers engage in. Thus, the age of audit partners may affect their work, and, therefore, their ability in earnings management detection. Furthermore, Widiarta (2013) and Paulsen, et al. (2012) clarified that the individual factor of age influences the professionalism of auditors.

In contrast, theoretical studies have indicated that workers’ job interests are increasingly feeble as they get older, making older workers expend less effort (Holmstrom, 1999). Thus, a negative relationship between partner age and audit quality was documented by Sundgren and Svanstörm (2014). Likewise, Goodwin and Wu (2016) exposed that larger EM is related to older partners. Moreover, Wirosari and Fanani (2017) and Liu (2017) demonstrated that it become more conservative to obtain evidence to lower the risk when the auditor gets older. In sum, the results are in line with the argument that older partners are providing lower quality audits. However, Yudi and Rahayu (2019) found that the age of the auditor does not affect the quality of the audit reports. Due to the previous argument and the limited research on this issue, this study posits the following hypothesis:

H2c: A positive and significant relationship will exist between the age of audit partners age and real earnings management for non-financial Jordanian listed firms

3.2.2.4 Audit Partner Educational Background

The audit literature proposed a perception that education level refers to the individual's knowledge and ability that can provide rich and complex information to this individual (Hambrick & Mason, 1984; Che, Langli, & Svanstrrm, 2017). Therefore, the educational background could enhance the knowledge and the skills of the audit partners, which may improve their ability to detect any manipulations in the earnings disclosed in the financial
statement. Furthermore, empirical studies have proved that the type and the level of university education have impact on the auditor's understanding of his role, and on their ability to detect the mysterious practices of EM (Monroe & Woodliff, 1993; Lennox & Wu, 2017; Ferguson, Francis, & Stokes, 2003).

Recently, Che et al. (2017) examined how audit effort is related to an audit partner's educational background. They assessed the degree of knowledge through formal education (bachelor's degree versus master's degree). They linked education to an actual audit outcome and found that Chinese auditors holding a master's degree reported more vigorously and are more able to detect the practices of EM than the auditors without the same educational degree.

However, Setyaningum (2012), Cahan & Sun (2015), Li et al. (2017) and Yudi and Rahayu (2019) found that education or educational background did not affect audit report quality. According to this discussion, this study investigated this relationship to find new evidence about this issue. Thus, depending on the previous arguments and following the perspective documented in the previous literature the educational background of the audit partners is associated with fewer REM practices, the study posited the following hypothesis:

H2d: A negative and significant relationship will exist between the educational background of audit partners and real earnings management for non-financial Jordanian listed firms.

3.2.3 The Moderating Effect of Ownership Concentration
Based on agency theory, separating ownership and control leads to a difference of interests between managers and owners (Jensen & Meckling 1976). Theoretically, firm performance
and the rights of minority shareholders can be affected by the larger shareholders in two ways: the first is positive, with large shareholders protecting minority shareholders. The second way is negative, whereby large shareholders conspire with managers to obtain benefits regardless of their impact on minority shareholders (Almasarwah, 2015).

Concerning the association between ownership concentration and REM, some researchers found that ownership concentration is negatively related to earnings management, for example (Guo and Ma, 2015; Al-Rassas & Kamardin, 2016; Abdallah and Ismail 2016; Usman & Yero, 2012). The explanation of the negative effect of ownership concentration on EM is that agency costs can be reduced by ownership concentration by rising control and alleviating free-riding problems (Shleifer & Vishny, 1997; Demsetz & Lehn, 1985). This is because large shareholders could control the managerial behaviour that can minimise the possibility of managerial opportunism for earnings management. Besides, because the controlling shareholders focus more on long-term, there will be less pressure on management to meet short-term earnings expectations (Alves, 2012).

While other studies found evidence that a positive relationship exists as it indeed induces managers to engage in earnings management such as (Lyu et al., 2016; Reyna, 2012; Al-Fayoumi and Abuzayed, 2010). The explanation of the positive impact of ownership concentration on EM is that there could be more pressure on managers in firms with large block holders to manage earnings, particularly when their firms are underperforming (Morphi, 2015). However, agency theory observed that a higher concentration of ownership could give priority to the self-interest of large shareholders and lead to an indirect expropriation of firm resources (Marashdeh, 2014; Jenson and Meckling, 1976).
The idea is that a significant shareholder can pressure managers to improve earnings to improve market value for a firm. Because of this undue burden, managers will resort to earnings management (Usman & Yero, 2012).

A firm's ownership structure is a critical management control tool so that it can monitor and restrict the occurrence of earnings management (Alves, 2012). In addition, ownership concentration has repercussions for the level of knowledge asymmetry between managers and investors, affecting the quality of earnings and managers' accounting choices (Fan & Wong, 2002; Donnelly & Lynch, 2002; Alves, 2012).

In this regard, in the case of ownership concentration, when ownership concentration rises to a point where an owner gets the firm's persuasive power, earnings management may be used to expropriate the rights of minority shareholders by the controlling owners (Chan, Lin, & Zhang, 2007). In contrast, the increase in ownership of the largest shareholder could reduce the cost of the agency and hence the need to manage earnings to alleviate contractual constraints. In both cases, controlling owners are more motivated to improve formative earnings by external auditing (Chan et al., 2007). This is because the external audit is considered as an effective external control on corporate governance to protect the rights of all stakeholders in the company by ensuring the reliability and confirming the quality of financial information.

Therefore, in Jordan, controlling owners are more motivated to improve formative earnings by independent auditing because, unlike some other developing countries, Jordan has high ownership concentration (Alzoubi, 2016). Indeed, Almasarwah (2015) indicated that 85% of industrial firms in Jordan had block ownership. Accordingly, due to the previous
argument, this study presents the following hypotheses about the moderating role of ownership concentration:

H3a: Ownership concentration moderates the relationship between CEO experience and real earnings management for non-financial Jordanian listed firms.

H3b: Ownership concentration moderates the relationship between CEO tenure and real earnings management for non-financial Jordanian listed firms.

H3c: Ownership concentration moderates the relationship between CEO duality and real earnings management for non-financial Jordanian listed firms.

H3d: Ownership concentration moderates the relationship between CEO politically connected and real earnings management for non-financial Jordanian listed firms.

H3e: Ownership concentration moderates the relationship between audit partners tenure and real earnings management for non-financial Jordanian listed firms.

H3f: Ownership concentration moderates the relationship between audit partners affiliation (Big 4 firm or not) and real earnings management for non-financial Jordanian listed firms.

H3g: Ownership concentration moderates the relationship between audit partners age and real earnings management for non-financial Jordanian listed firms.

H3h: Ownership concentration moderates the relationship between audit partners educational background and real earnings management in for non-financial Jordanian listed firms.
3.3 Methodology

After developing the hypotheses and clarifying the framework of the study, this section explains the research design, measurement of variables, data collection and unit of analysis. Secondary data is used in this study, as described below.

3.3.1 Research Design

In fulfilling the study’s primary objective, which is examining the relationship between CEO characteristics and audit partner characteristics and real earnings management in Jordanian listed companies, the data of the current study will be analyzed by employing the statistical software STATA. This is because STATA is often credited as the most user-friendly data analysis software. It is popular in the social sciences, particularly economics and political science. The data analysis includes descriptive statistics, correlation analysis, screening and preparing the data for multivariate analysis through testing the assumptions of multiple regressions.

3.3.2 Sample and Data Collection

3.3.2.1 Sample

The Amman Stock Exchange listed companies are categorised into three sectors. The sectors are service, industrial and financial sectors. As of 2019, the service sectors are 47 listed companies while the industrial and financial sectors consist of 49 and 96 listed firms respectively. This study focuses on the service and industrial sectors and firm-year observations of six years (2013 - 2018). Hence the initial size sample in this study is 570. The year 2013 was chosen in this study because 2012 was the latest issue of Jordan Code of corporate governance, while 2018 is the most recent year with available data for firms
listed on the Amman stock exchange at the time the current study was conducted. This study excluded the financial sector because the sector is bound with the regulations of the Insurance Commission and Central Bank of Jordan. Moreover, firms without the cost of goods sold and inventory and firms with missing data were removed from the study because these firms do not have sufficient data required to compute the proxies of REM. Hence, the final firm-year observation in this study is 348 firms (15 service firms and 43 industrial firms multiply by 6 years). The following table details the number of service and industrial firms listed in ASE.

Table 3.1
Number of firms by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of firms</th>
<th>Final Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care Services</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Educational Services</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Hotels and Tourism</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Transportation</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Technology and Communication</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Media</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Utilities and Energy</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Commercial Services</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Industrial</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmaceutical and Medical Industries</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Chemical Industries</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Paper and Cardboard Industries</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Food and Beverages</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Tobacco and Cigarettes</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mining and Extraction Industries</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Engineering and Construction</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Electrical Industries</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Textiles, Leathers and Clothing</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>49</strong></td>
<td><strong>43</strong></td>
</tr>
</tbody>
</table>

3.3.2.2 Data Collection

The data used in this study are secondary data whereby data belonged to CEO characteristics, ownership concentration, REM and the control variables are manually collected from the annual reports and company websites to achieve the aim of this study.
With regards to the audit partner characteristics data, it was collected by e-mail from the Jordanian Association of Certified Public Accountants (JACPA) entailing detailed information for each audit partner’s profile. In Jordan, all external auditors must have a membership in JACPA to be licensed auditors; thus, the JACPA which has detailed information of all public accountants is considered as a reliable database for information concerning the external auditors.

3.3.3 Measurement of Variables

3.3.3.1 Dependent Variable (Real Earnings Management)

This study used the REM model to detect real activities manipulations by the managers. REM measurement was developed by Roychowdhury (2006), which reflects out the economic result of real activity manipulation. According to Zang (2012), managers engaged in the overproduction of inventory to lower the cost of goods sold by increasing excess investment. Also, managers may use their discretion to cut down discretionary expenses to inflate the level of earnings.

This study measured REM following Zang (2012) model who used abnormal production cost which is increasing income costs by reducing the overproduction costs for inventory and abnormal discretionary expenses which is decreasing discretionary expenditures which includes a total of administrative expenditures, advertising, sales and R&D. In addition, this study measured REM by estimating the residual values of PROD and DISEXP for each year and industry. This study follows the study of Zang (2012) to estimate the normal level of production costs which is the sum of the cost of goods sold (COGS) and changes in inventory. The model is as follow:


\[
\text{COGS}_{it} / \text{Assets}_{it-1} = \alpha_0 + \alpha_1 \left(1 / \text{Assets}_{it-1}\right) + \beta \left[\text{Sales}_{it} / \text{Assets}_{it-1}\right] + \epsilon_{it} \tag{1}
\]

Then, the changes in inventory are estimated as follow:

\[
\Delta \text{Inv}_{it} / \text{Assets}_{it-1} = \alpha_0 + \alpha_1 \left(1 / \text{Assets}_{it-1}\right) + \beta_1 \left[\text{Sales}_{it} / \text{Assets}_{it-1}\right] + \beta_2 \left[\Delta \text{Sales}_{it} / \text{Assets}_{it-1}\right] + \epsilon_{it} \tag{2}
\]

Where:

\(\Delta \text{Inv} = \) the changes in inventory in period \(t\). Using equation 1 and 2, the normal level of production is estimated as follow:

\[
\text{PROD}_{it} / \text{Assets}_{it-1} = \alpha_0 + \alpha_1 \left(1 / \text{Assets}_{it-1}\right) + \beta_1 \left[\text{Sales}_{it} / \text{Assets}_{it-1}\right] + \beta_2 \left[\Delta \text{Sales}_{it} / \text{Assets}_{it-1}\right] + \beta_3 \left[\Delta \text{Sales}_{it-1} / \text{Assets}_{it-1}\right] + \epsilon_{it} \tag{3}
\]

Where:

\(\text{PROD} = \) sum of the cost of goods sold in year \(t\) and the change in inventory from the previous year \((t - 1)\) to the current year \((t)\).

\(\text{Assets}_{it-1} = \) the total assets in the previous year \((t - 1)\).

\(\text{Sales}_{it} = \) the net sales in the current year \((t)\).

\(\Delta \text{sales}_{it} = \) the change in net sales from the previous year \((t - 1)\) to the current year \((t)\).

The measurement of PROD (abnormal production cost level) is the residual of equation (3) as stated above. The higher PROD, indicate real activity manipulation through overproduction, resulting in a reduction in the cost of goods sold.
In addition, following Zang (2012), the normal level of discretionary expenditures is estimated as follow:

\[
\text{DISEXP}_i t / \text{Assets}_{i-1} = \alpha_0 + \alpha_1 (1 / \text{Assets}_{i-1}) + \beta_1 (\text{Sales}_{i-1} / \text{Assets}_{i-1}) + \epsilon_{it} \quad (4)
\]

Where:

- \( \text{DISEXP}_{it} \) = the sum of selling, general, and administration expenses in year \( t \).
- \( \text{Assets}_{i-1} \) = the total assets in the previous year \((t – 1)\).
- \( \text{Sales}_{it} \) = the net sales in the current year \( t \).
- \( \Delta \text{sales}_{it} \) = the change in net sales from the previous year \( t – 1 \) to the current year \( t \).

The estimated residuals from the regression are used to measure abnormal discretionary expenditures (DISEXP). The residuals were multiplied by \(-1\) to be mathematically in the same direction with PROD, such that higher values indicate greater amounts of discretionary expenditures deducted by firms to increase reported earnings.

The REM is computed in this study as the aggregated measure of real activities manipulation calculated as the abnormal discretionary expenses (DISEXP) multiplied by \(-1\) plus the abnormal production costs (PROD) (Zang, 2012). Zang (2012) recommends that the element of abnormal cash flows from operations should be excluded from the three proxies (cash flow from operations, production cost and discretionary expenses). This is because the abnormal cash flow activities give different impacts, and the net effect is ambiguous in deriving real earnings management.
3.3.3.2 Independent Variables, Moderator Variable and Control Variables

While the previous subsection shows the measurement of the dependent variables, the discussion of the measurement of independent variables used in this study is discussed in detail in this subsection. There are two categories of independent variables: CEO characteristics and audit partner characteristics. The variables of CEO characteristics include CEO politically connected, CEO tenure, CEO experience and CEO duality, while the variables of audit partner (the auditor who signed the audit report) characteristics include audit partner affiliation (Big 4 firm or not), audit partner educational background, audit partner age and audit partner tenure. The control variables in this study are sales growth, financial leverage, firm age, size, and market-to-book ratio, and ownership concentration is the moderating variable used in the study.

The current study measures the variable of CEOEXP as the number of executive positions (inside or outside the company) that the CEO has held before becoming the CEO following the study by Zouari, Lakhal and Nekhili (2015). CEOTEN in the present study is measured as the number of years of service as CEO following the study of Francis, Huang, Rajgopal and Zang (2008). Furthermore, CEODTY in the current study is measured as a dummy variable which is equal to 1 if the CEO and Chairman are the same people, and 0 if otherwise, following the study of Plöckinger, Aschauer, Hiebl and Rohatschek (2016). CEOPOL in the current study is measured following the study of You and Du (2012) i.e., as a dummy variable equal to 1 if the CEO was politically connected (the CEO is considered as politically connected if the CEO is a member of national parliaments or governments) and 0 if otherwise.
With regards to the audit partner characteristics, the present study measures the variable of AUDPARTEN as the number of consecutive years a company has been audited by the same auditor following the studies of González-Díaz, García-Fernández and López-Díaz (2015) and Ellis and Booker (2011). In addition, AUDPARAFF is measured in this study following the study of Azibi and Rajhi (2013) i.e., as a dummy variable equalling to 1 if the audit partner is working in a Big 4 audit firm and 0 if otherwise. Moreover, AUDPARAGE is measured as the difference between the audit partner’s date of birth and the years of study following the suggestion of Sundgren and Svanström (2014). The current study measures the AUDPAREDUB as a dummy variable equal to 1 if the audit partner has a post-graduate degree in accounting, and 0 if otherwise following the studies of Ocak and Ntim (2018), F. A. Gul et al. (2013) and Che et al. (2017).

The moderator variable in the current study which is OWNCON is measured following the suggestions of Alhadab, Abdullatif and Mansour (2020) and Alhababsah (2019) as a percentage of shareholders owning more than 5% of all outstanding shares at the end of the year. Table 3.2 shows a summary of the measurements of the variables.

Table 3.2
Table of Measurements

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable (REM)</td>
<td>REM = PROD + DISEXP * -1</td>
<td>Roychowdhury (2006); Zang, (2012).</td>
</tr>
<tr>
<td>Independent variables:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO experience (CEOEXP)</td>
<td>Number of executive positions (inside or outside the company) that the CEO has held in before becoming the CEO.</td>
<td>(Zouari, Lakhal and Nekhili 2015).</td>
</tr>
<tr>
<td>CEO tenure (CEOTEN)</td>
<td>Number of years of service as CEO.</td>
<td>(Francis, Huang, Rajgopal, &amp; Zang, 2008).</td>
</tr>
<tr>
<td>CEO duality (CEODTY)</td>
<td>1 if the CEO and Chairman are the same people, and if otherwise 0.</td>
<td>(Plöckinger, Aschauer, Hiebl, &amp; Rohatschek, 2016).</td>
</tr>
</tbody>
</table>
This study develops the following regression model that is employed to examine the effect of CEO characteristics and audit partner characteristics on REM:

\[
\text{REM} = \beta_0 + \beta_1 \text{CEOEXP}_{it} + \beta_2 \text{CEOTEN}_{it} + \beta_3 \text{CEODTY}_{it} + \beta_4 \text{CEOPOL}_{it} + \beta_5 \text{AUDPARTEN}_{it} + \beta_6 \text{AUDPARAFF}_{it} + \beta_7 \text{AUDPARAGE}_{it} + \beta_8
\]
To examine the effect of ownership concentration on the relationship between the characteristics of the CEO and audit partner on REM, the following model is utilized in the current study:

\[
\text{REM} = \beta_{0} + \beta_{1} \text{CEOEXP}_{it} + \beta_{2} \text{CEOTEN}_{it} + \beta_{3} \text{CEODTY}_{it} + \beta_{4} \text{CEOPOL}_{it} + \beta_{5} \text{AUDPARTEN}_{it} + \beta_{6} \text{AUDPARAFF}_{it} + \beta_{7} \text{AUDPARAGE}_{it} + \beta_{8} \text{AUDPAREDUB}_{it} + \beta_{9} \text{OWNCON}_{it} + \beta_{10} \text{CEOEXP}_{it} \cdot \text{OWNCON}_{it} + \beta_{11} \text{CEOTEN}_{it} \cdot \text{OWNCON}_{it} + \beta_{12} \text{CEODTY}_{it} \cdot \text{OWNCON}_{it} + \beta_{13} \text{CEOPOL}_{it} \cdot \text{OWNCON}_{it} + \beta_{14} \text{AUDPARTEN}_{it} \cdot \text{OWNCON}_{it} + \beta_{15} \text{AUDPARAFF}_{it} \cdot \text{OWNCON}_{it} + \beta_{16} \text{AUDPARAGE}_{it} \cdot \text{OWNCON}_{it} + \beta_{17} \text{AUDPAREDUB}_{it} \cdot \text{OWNCON}_{it} + \beta_{18} \text{FSIZE}_{it} + \beta_{19} \text{FAGE}_{it} + \beta_{20} \text{LEV}_{it} + \beta_{21} \text{MTB}_{it} + \beta_{22} \text{SGRWTH}_{it} + \text{YEAR DUMMIES} + \varepsilon_{it} \tag{5}
\]

Where:

- REM = real earnings management of company i in year t, computed as the sum of abnormal production costs and abnormal discretionary expenses.
- CEOEXP = CEO experience
- CEOTEN = CEO tenure
- CEODTY = CEO duality
- CEOPOL = CEO politically connected
- AUDPARTEN = audit partner tenure
- AUDPARAFF = audit partner affiliation
- AUDPARAGE = audit partner age
- AUDPAREDUB = audit partner educational background
- OWNCON = ownership concentration
- FSIZE = firm size
- FAGE = firm age
LEV = leverage
MTB = market to book value
SGRWTH = sales growth.

3.5 Unit of Analysis

The unit of analysis in this study is the Jordanian listed non-financial companies.

3.6 Statistical Analysis

This section addresses the statistical techniques utilised for data analysis. The data of the current study were analyzed by employing the statistical software STATA. Specifically, the present study utilized the OLS regression with robust standards error to test the relationship between CEO characteristics, audit partner characteristics and REM and the moderating role of ownership concentration on this relation. For the analysis, descriptive statistics, Pearson correlation, and panel data regression techniques were employed using Stata software.

3.7 Chapter Summary

This chapter affords the theoretical framework for the basis of the current study and the development of hypotheses. In addition, this chapter highlighted the sources of data collection, explained the sample of the study and the measurement of the variables and the research models.
CHAPTER FOUR
DATA ANALYSIS AND RESEARCH FINDINGS

4.0 Introduction
The present chapter essentially revolves around the data analysis associated with the topic of this study. Following the introductory section, the chapter summaries the descriptive statistics of the tested variables in regression tests. Further, the chapter presents the results of multiple regression diagnosis tests, followed by the description of the result of the estimation models related to the study variables. The tests of research hypotheses and summary of the research findings on the relationship between the dependent, independent, and moderating variables are also presented in this chapter. Finally, this chapter presents a discussion on the additional analysis of the estimation models.

4.1 Descriptive Statistics
Displayed in Table 4.1 and Table 4.2 are the total observations mean, standard deviation, minimum, and maximum values for all the employed variables. As displayed in Table 4.1, the mean value of PROD is 0.000, and this value is mostly equal to 0.001 which was a mean value documented in Huang, Roychowdhury, and Sletten, (2019), and Table 4.1 presents a value of -0.662 as a minimum value and 0.383 as a maximum value of PROD. For DISEXP, the obtained mean value is 0.000, and this value is too close to the value of 0.004 documented in Huang, Roychowdhury, and Sletten, (2019). As well, Table 4.1 shows a value of -0.33 as the minimum value of DISEXP and 0.67 as the maximum value of DISEXP.
In addition, REM scored a mean value of 0.000, and this value is too close to a mean value of 0.004 documented in Huang, Roychowdhury and Sletten (2019), this result is indicating that firms listed in the ASE practice both upward and downward REM. Then, Table 4.1 documents a value of -0.781 as the minimum value and 0.452 as the maximum value of REM.

Table 4.1
Descriptive Statistics of Dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs</th>
<th>Mean</th>
<th>Std.Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROD</td>
<td>348</td>
<td>0.000</td>
<td>0.122</td>
<td>-0.662</td>
<td>0.383</td>
</tr>
<tr>
<td>DISEXP</td>
<td>348</td>
<td>0.000</td>
<td>0.088</td>
<td>-0.33</td>
<td>0.67</td>
</tr>
<tr>
<td>REM</td>
<td>348</td>
<td>0.000</td>
<td>0.175</td>
<td>-0.781</td>
<td>0.452</td>
</tr>
</tbody>
</table>

Note: PROD = production cost, DISEXP = discretionary expenses, REM = real earnings management.

Table 4.2 presents CEOEXP scoring a mean value of 0.98, with 4 as the maximum value, and 0 as the minimum value. From the results, it appears that before holding the position of CEO, on average, the CEO holds one executive position in the studied firms. Such finding is reasonably lower than the mean value of 1.70 as documented in Troy, Smith, and Domino (2011). Additionally, CEOTEN scored a mean value of 9.764 with 54 as the maximum value, and 1 as the minimum value, which means that for the sample firms, the average CEO tenure is around ten years. The obtained value is highly comparable to the mean value of 8.725 documented in Sun, Lan, & Liu (2014). In addition, the mean value scored by CEOPTY, as shown in Table 4.2 is 0.118, implying that 12% of the sample firms combined the positions of CEO and Chairman. A comparable result was documented in Jordan in Alqatamin (2016) with a scored mean value of 0.208, the reason behind the different results is that the study of Alqatamin (2016) used different periods from 2008 to 2013 while this study used the period from 2013 to 2018. Further, CEOPOL obtained a score of 0.069 denoting that 7% of the sampled firms had a politically connected CEO. The
obtained value is smaller than the mean value of 0.228 documented in China in Chi, Liao, & Chen (2016).

Table 4.2

Descriptive Statistics of Independent and Control Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs</th>
<th>Mean</th>
<th>Std.Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEOEXP</td>
<td>348</td>
<td>0.98</td>
<td>1.145</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CEOTEN</td>
<td>348</td>
<td>9.764</td>
<td>9.257</td>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>CEODTY</td>
<td>348</td>
<td>0.118</td>
<td>0.323</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CEOPOL</td>
<td>348</td>
<td>0.069</td>
<td>0.254</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>AUDPARTEN</td>
<td>348</td>
<td>3.04</td>
<td>2.405</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>AUDPARAFF</td>
<td>348</td>
<td>0.454</td>
<td>0.499</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>AUDPARAGE</td>
<td>348</td>
<td>53.376</td>
<td>10.474</td>
<td>34</td>
<td>85</td>
</tr>
<tr>
<td>AUDPAREDUB</td>
<td>348</td>
<td>0.664</td>
<td>0.473</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>OWNCON</td>
<td>348</td>
<td>0.627</td>
<td>0.232</td>
<td>0.056</td>
<td>0.987</td>
</tr>
<tr>
<td>FSIZE (Jordanian dinar)</td>
<td>348</td>
<td>72,200,000</td>
<td>157,000,000</td>
<td>174,000</td>
<td>1,198,229,421</td>
</tr>
<tr>
<td>FSIZE (log)</td>
<td>348</td>
<td>17.144</td>
<td>1.411</td>
<td>13.14</td>
<td>20.904</td>
</tr>
<tr>
<td>FAGE</td>
<td>348</td>
<td>30.399</td>
<td>17.427</td>
<td>5</td>
<td>81</td>
</tr>
<tr>
<td>LEV %</td>
<td>348</td>
<td>0.864</td>
<td>4.112</td>
<td>0.004</td>
<td>48.743</td>
</tr>
<tr>
<td>MTB %</td>
<td>348</td>
<td>1.295</td>
<td>1.382</td>
<td>0.133</td>
<td>14.088</td>
</tr>
<tr>
<td>SGRWTH</td>
<td>348</td>
<td>1.313</td>
<td>23.532</td>
<td>-.928</td>
<td>438.641</td>
</tr>
</tbody>
</table>

Note: CEOEXP = CEO experience, CEOTEN = CEO tenure, CEODTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, OWNCON = ownership concentration, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.

Regarding the audit partner’s tenure, the mean value shown in Table 4.2 is 3.04, with a maximum of 17 years, and a minimum of one year. This result is indicating that the average of AUDPARTEN is three years; such a result is closely related to the mean of 3.17 reported by Garcia-Blandon & Argiles-Bosch (2017). Moreover, according to Table 4.2, the mean value of audit partner affiliation is found to be 0.454, indicating that 45% of audit partners in the study sample were affiliated to Big 4 audit firms. Comparatively, the value is lower than the mean value of Alzoubi (2018) in Jordan, who found it to be 0.726. The reason for the score of the lower mean is that a study by Alzoubi (2018) only emphasized the only industrial listed firms and used different periods, namely from 2006 to 2012, while the current study used the industrial and service sectors in the period from 2013 to 2018.
In addition, according to Table 4.2, the maximum value of the audit partner’s age is 85 years, while the minimum value of the audit partner’s age is 34. Moreover, the mean of the audit partner’s age is 53.376. Such a result implies that the average AUDPARAGE for the sample firms is about 53 years. Also, the result is higher than the mean of 45.558 documented in Goodwin & Wu (2016). Finally, Table 4.2 revealed that the mean of audit partner educational background variable is 0.664, indicating that about 66% of audit partners for sample firms were holders of postgraduate degrees in accounting. Such a result is higher than the obtained mean of 0.193 recorded in Ocak & Ntim (2018) and 0.100 found by Che et al. (2017).

In addition, Table 4.2 highlighted that the minimum value of OWNCON is 0.056, while the maximum value of OWNCON is 0.987. Also, the scored mean value of OWNCON is 0.627, which is greater than the scored mean value of 0.568 presented in Alkurdi, Al-nimer, & Dabaghia (2017) in Jordan. The reason behind the higher value of the mean of the current study is that, unlike the present study, the different sample used by Alkurdi et al. (2017) entailed the industrial and financial firms listed on ASE, and within another period from 2005 to 2013.

With regards to the control variables of this study, as can be viewed in Table 4.2, the mean value of the FSIZE is 72,200,000 JD, with 174,000 JD as of the minimum value, and 1,198,229,421 JD as of the maximum value. Such result is higher than the mean value of 1,801,419 JD reported by Alqatamin, Aribi, & Arun, (2017) in the Jordanian context because the study, unlike the current study, uses period from 2008-2013, and reported a maximum firm size value of 28,802,374 JD which is lower than the maximum firm size in
the present study. Moreover, the mean value of FAGE is 30.399, with 81 (years) as the maximum value and 5 (years) as the minimum value. From the result, it appears that the average FAGE is about 30 years, and is relatively comparable to the mean of 22.388 as documented in Sani, Abdul Latif, & Al-Dhamari (2020). Also, the mean value of LEV is as follows: 0.864 with a maximum of 48.743 and a minimum of 0.004. As can be deduced from the result, on average, 86% of the total assets of the sample firms are financed by an external source. The obtained result is higher than the mean of 0.561 documented in Sani et al. (2020).

Furthermore, the mean value of MTB is 1.295, with a maximum of 14.088 and a minimum of 0.133. This result is relatively close to the mean of 1.550 documented in Cho et al. (2019). Finally, the obtained mean value for SGRWTH is 1.313, with a maximum of 438.641 and a minimum of -0.928, implying that the average drop in annual sales is 28% for the sample firms. This result is higher than the scored mean of 0.077 reported in Habbash (2013).

4.2 Multiple Regressions

4.2.1 Multivariate Regression Diagnostic Tests

The diagnostic tests were executed on the obtained data, and to assure the validity of data for the OLS results, the following assumptions have to be met: normality, heteroscedasticity, multicollinearity, autocorrelation and cross-sectional dependency.

In this study, the normality test was conducted using (Skewness and kurtosis) and a P-plot graph. Moreover, a heteroscedasticity test was conducted using Breusch and Pagan (1980).
Besides, the variance inflation factor test was conducted to check the multicollinearity issue. Next, the study tests for autocorrelation using the Wooldridge test, and finally, cross-sectional dependency was checked using Pesaran’s cross-sectional dependency test.

All the mentioned tests were carried out as assurance that the data fulfill the parametric check requirements. It should be noted that the inferences on the estimates from the OLS would become inefficient or invalid statistically if the assumptions are violated (Gujarati, 2003; Greene, 2008). Accordingly, this study employed various statistical analyses from the STATA statistical tool in testing the assumptions. The results are discussed next.

4.2.1.1 Normality Test

Normality means that the distribution of the residual (or error) is normally distributed. Normality is needed to test a valid hypothesis (Hair et al., 2010). Hence, testing for normality is a fundamental phase in multivariate analysis. Furthermore, Ghasemi and Zahediasl (2012) urged that normality should be checked when making a statistical procedure since the validity of the inference depends on it. Moreover, the result is regarded as better if the residual of the variable is found to be normally distributed (Hair et al., 2014).

There are various methods to determine the normality of the data. As detailed in Hair et al. (2010), normality can be ascertained through a statistical (mathematical) or graphical approach. Specifically, normality can be checked through P-plot, histogram, or through the use of skewness and kurtosis of the studied variables. Among others, normality was tested in this study using both skewness and kurtosis and P-plot.
Skewness and kurtosis are among the most commonly used mathematical methods in describing the shapes or distribution of a dataset. For skewness, Leys, Ley, Klein, Bernard and Licata (2013) and Hair et al. (2006) recommended a higher threshold of ±3, whereas, for Kurtosis, Leys et al. (2013) proposed a higher threshold of ±10. In this study, therefore, variables with Skewness (Kurtosis) that is higher than ±3 (±10) are regarded as not normally distributed. Nonetheless, normality issues can be mitigated through the use of various methods, such as trimming and winsorization. As presented in Table 4.3, some variables have unusual and high values of skewness and kurtosis. Consequently, this study followed previous studies that used the winsorization method to mitigate normality (e.g., Kothari et al., 2005; Saleh et al., 2005; Brown & Caylor, 2006; Cohen et al., 2008; Gaio, 2010; Kraft, Lee & Lopatta, 2014; Talbi, Omri, Guesmi & Ftiti, 2015). Therefore, all variables with unusual observations and extreme values were transformed and normalized through winsorization to avoid the effect of outliers within the distribution. Specifically, DISEXP, AUDPARTEN, LEV and SGROWTH were winsorized at 3rd and 97th percentiles to control the normality problem. Furthermore, this study transformed AUDPARAGE, FSIZE and FAGE by using the natural log to ensure that the variables have a normal distribution.

Only one variable (i.e., CEOPOL) is not normal as the skewness and kurtosis values are higher than ±3 and ±10. However, since CEOPOL is a dummy variable, statistically, such variables cannot be normalized. Besides, based on Gujarati and Porter (2008), the normality assumption can be relaxed when the size of the sample is reasonably big, that is, greater than 100 cases. Hence, it is possible that the normality assumption is not very critical in large datasets. Moreover, this study involves a large amount of data (348
observations), and the normality assumption is probably not seriously affected. Thus, since other variables are normally distributed, the normality assumption in this study is not violated even with the high values of the skewness and kurtosis for CEOPOL.

### Table 4.3

<table>
<thead>
<tr>
<th>Variables</th>
<th>Before Winsorizing</th>
<th>After Winsorizing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>skewness</td>
<td>kurtosis</td>
</tr>
<tr>
<td>PROD</td>
<td>-0.948</td>
<td>5.933</td>
</tr>
<tr>
<td>DISEXP</td>
<td>1.878</td>
<td>13.75</td>
</tr>
<tr>
<td>REM</td>
<td>-1.013</td>
<td>4.710</td>
</tr>
<tr>
<td>CEOEXP</td>
<td>0.708</td>
<td>2.024</td>
</tr>
<tr>
<td>CEOTEN</td>
<td>1.924</td>
<td>8.319</td>
</tr>
<tr>
<td>CEODTY</td>
<td>2.370</td>
<td>6.621</td>
</tr>
<tr>
<td>CEOPOL</td>
<td>3.402</td>
<td>12.57</td>
</tr>
<tr>
<td>AUDPARTEN</td>
<td>2.480</td>
<td>11.80</td>
</tr>
<tr>
<td>AUDPARAFF</td>
<td>0.184</td>
<td>1.034</td>
</tr>
<tr>
<td>AUDPARAGE (log)</td>
<td>0.551</td>
<td>3.340</td>
</tr>
<tr>
<td>AUDPAREDUB</td>
<td>-0.693</td>
<td>1.480</td>
</tr>
<tr>
<td>OWNCON</td>
<td>-0.625</td>
<td>2.580</td>
</tr>
<tr>
<td>FSIZE (log)</td>
<td>-0.100</td>
<td>3.656</td>
</tr>
<tr>
<td>FAGE (log)</td>
<td>-0.344</td>
<td>2.513</td>
</tr>
<tr>
<td>LEV</td>
<td>9.324</td>
<td>95.61</td>
</tr>
<tr>
<td>MTB</td>
<td>4.298</td>
<td>30.99</td>
</tr>
<tr>
<td>SGRWTH</td>
<td>18.52</td>
<td>344.7</td>
</tr>
</tbody>
</table>

Note: PROD = production cost, DISEXP = discretionary expenses, REM = Real Earnings Management, CEOEXP = CEO experience, CEOTEN = CEO tenure, CEODTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, OWNCON = ownership concentration, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.

In addition, to univariate test at normality, this study uses a multivariate test such as that at P-plot test for the whole model. The P-plot entails a visual inspection of the distribution that enables the reader to judge the physical distribution of the data. It plots the observed value against their distribution and provides the reader with the shape and insight about the gap in the data and the outlying value (Ghasemi & Zahediasl, 2012). The outcome presented in Figure 4.1 shows that the data do not stray from the fitted line (normal
distribution). Hence, by observing the above values of skewness and kurtosis and the Histogram figure, the normality assumption is met.

![Histogram figure](image)

Figure 4.1  
*P-plot normality Test*

**4.2.1.2 Heteroscedasticity**

In general, the standard error component of multivariate analysis assumes that the disturbances have a homoscedastic variance and are spread over a range of individual variables (Baltagi, Jung, & Song, 2010). In this regard, there are various ways to detect heteroscedasticity using, for example, a graphical approach or a mathematical method. For this study, the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity is employed in testing the homoscedasticity of the regression models. Meanwhile, the null hypothesis assumes the homogeneity of the variance of the error terms. Therefore, a p>0.05 means
that the model failed to reject the null hypothesis. For this study, the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity outcome (p = 0.0336) indicated the occurrence of heteroscedasticity problem in this model. In this regard, heteroscedasticity leads to biased standard errors, while robust standard errors relax the heteroscedasticity issue (Hoechle, 2007). The robust function also corrects the problem of bias in the standard errors and gives more efficient estimates. Therefore, the current study ran OLS with robust standards error regression to mitigate the heteroscedasticity issue following Hoechle (2007) that recommended to use this regression model to correct the heteroscedasticity.

4.2.1.3 Multicollinearity

Hair et al. (2010) and Tabachnick and Fidell (2007) explained that a high correlation among independent variables causes a multicollinearity problem. Two methods are used to discover multicollinearity problems in the models of this study: Variance Inflation Factor (VIF) and Pearson Correlation (correlation matrix).

The high VIF value refers to a high degree of collinearity or multicollinearity between the variables. Hair et al. (2010) accordingly indicated that VIF should be less than 10 to distinguish no multicollinearity between independent variables. In this study, Table 4.4 displays the results of variance inflation factors (VIF), and the table shows that the highest VIF are (1.846, 2.255) for AUDPARAFF. Therefore, the results indicate that all values of VIF are within the acceptance threshold for all variables tested in the current study.
Table 4.4

<table>
<thead>
<tr>
<th>Variables</th>
<th>Without Moderation</th>
<th>With Moderation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VIF</td>
<td>1/VIF</td>
</tr>
<tr>
<td>CEOEXP</td>
<td>1.273</td>
<td>0.785</td>
</tr>
<tr>
<td>CEOTEN</td>
<td>1.319</td>
<td>0.758</td>
</tr>
<tr>
<td>CEODTY</td>
<td>1.223</td>
<td>0.818</td>
</tr>
<tr>
<td>CEOPOL</td>
<td>1.142</td>
<td>0.875</td>
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<tr>
<td>AUDPARTEN</td>
<td>1.167</td>
<td>0.857</td>
</tr>
<tr>
<td>AUDPARAFF</td>
<td>1.846</td>
<td>0.542</td>
</tr>
<tr>
<td>AUDPARAGE (log)</td>
<td>1.384</td>
<td>0.723</td>
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<tr>
<td>AUDPAREDUB</td>
<td>1.451</td>
<td>0.689</td>
</tr>
<tr>
<td>OWNCON</td>
<td>1.597</td>
<td>0.626</td>
</tr>
<tr>
<td>OWNCONCEOEXP</td>
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<td>0.501</td>
</tr>
<tr>
<td>OWNCONCETEN</td>
<td>1.324</td>
<td>0.755</td>
</tr>
<tr>
<td>OWNCONCEODTY</td>
<td>1.643</td>
<td>0.608</td>
</tr>
<tr>
<td>OWNCONCEOPOL</td>
<td>1.961</td>
<td>0.51</td>
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<td>OWNCONAUDPARTEN</td>
<td>1.426</td>
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<td>OWNCONAUDPARAFF</td>
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<td>OWNCONAUDPARAGE</td>
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<td>OWNCONAUDPAREDUB</td>
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<td>0.59</td>
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<tr>
<td>FSIZE (log)</td>
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<td>0.646</td>
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<tr>
<td>FAGE (log)</td>
<td>1.466</td>
<td>0.682</td>
</tr>
<tr>
<td>LEV</td>
<td>1.335</td>
<td>0.749</td>
</tr>
<tr>
<td>MTB</td>
<td>1.34</td>
<td>0.746</td>
</tr>
<tr>
<td>SGRWTH</td>
<td>1.205</td>
<td>0.83</td>
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</tbody>
</table>

Note: CEOEXP = CEO experience, CEOTEN = CEO tenure, CEODTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.

In addition, Table 4.5 shows the Pearson Correlation coefficients among the variables. As shown, all correlation coefficients among independent variables in the correlation matrix are smaller than the suggested value of 0.8 by Hair et al. (2014). This result shows that the model of regression model has no multicollinearity problem. As shown, the highest correlation is between AUDPAREDUB and AUDPARAFF, with a coefficient of 0.429. Therefore, among the datasets used in this model, this problem is not presented.
<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) REM</th>
<th>(2) CEOEXP</th>
<th>(3) CEOTEN</th>
<th>(4) CEOLOGY</th>
<th>(5) CEOPOL</th>
<th>(6) AUDPARTEN</th>
<th>(7) AUDPARAFF</th>
<th>(8) AUDPARAGE (log)</th>
<th>(9) AUDPAREDUB</th>
<th>(10) OWNCON</th>
<th>(11) FSIZE (log)</th>
<th>(12) FAGE (log)</th>
<th>(13) LEV</th>
<th>(14) MTB</th>
<th>(15) SGRWTH</th>
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<tr>
<td>(1) REM</td>
<td>1.000</td>
<td>1.000</td>
<td></td>
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<tr>
<td>(2) CEOEXP</td>
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<td></td>
<td>-0.209***</td>
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<td>(3) CEOTEN</td>
<td>-0.021</td>
<td>0.053</td>
<td>0.076</td>
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<tr>
<td>(4) CEOLOGY</td>
<td>-0.198***</td>
<td>0.182***</td>
<td>0.112**</td>
<td>0.037</td>
<td>1.000</td>
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<td>(5) CEOPOL</td>
<td>0.099</td>
<td>-0.174***</td>
<td>-0.010</td>
<td>0.182***</td>
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<td>(6) AUDPARTEN</td>
<td>0.084</td>
<td>-0.083</td>
<td>-0.017</td>
<td>0.112**</td>
<td>0.037</td>
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<tr>
<td>(7) AUDPARAFF</td>
<td>-0.195***</td>
<td>0.136**</td>
<td>0.029</td>
<td>0.044</td>
<td>0.221***</td>
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<tr>
<td>(8) AUDPARAGE (log)</td>
<td>0.086</td>
<td>-0.175***</td>
<td>-0.078</td>
<td>0.044</td>
<td>0.044</td>
<td></td>
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<tr>
<td>(9) AUDPAREDUB</td>
<td>-0.062</td>
<td>-0.220***</td>
<td>-0.089</td>
<td>-0.061</td>
<td>0.050</td>
<td></td>
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<tr>
<td>(10) OWNCON</td>
<td>-0.156***</td>
<td>0.128**</td>
<td>-0.195***</td>
<td>-0.064</td>
<td>-0.202***</td>
<td>-0.193***</td>
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<tr>
<td>(11) FSIZE (log)</td>
<td>-0.054</td>
<td>0.085</td>
<td>0.141***</td>
<td>-0.134**</td>
<td>-0.128**</td>
<td>-0.082</td>
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<tr>
<td>(12) FAGE (log)</td>
<td>0.041</td>
<td>-0.067</td>
<td>0.238***</td>
<td>-0.135**</td>
<td>0.078</td>
<td>0.097</td>
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<tr>
<td>(13) LEV</td>
<td>0.084</td>
<td>0.006</td>
<td>-0.071</td>
<td>-0.219***</td>
<td>0.026</td>
<td>-0.051</td>
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</tr>
<tr>
<td>(14) MTB</td>
<td>-0.269***</td>
<td>0.065</td>
<td>-0.052</td>
<td>0.048</td>
<td>-0.078</td>
<td>-0.026</td>
<td></td>
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<tr>
<td>(15) SGRWTH</td>
<td>-0.104*</td>
<td>0.151**</td>
<td>-0.055</td>
<td>-0.086</td>
<td>-0.160***</td>
<td>-0.134**</td>
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Table 4.5 (Continued)

<table>
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<th>Variables</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
<th>(12)</th>
<th>(13)</th>
<th>(14)</th>
<th>(15)</th>
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<tbody>
<tr>
<td>(7) AUDPARAFF</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) AUDPARAGE (log)</td>
<td>-0.263***</td>
<td>1.000</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(9) AUDPAREDUB</td>
<td>0.429***</td>
<td>0.072</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10) OWNCON</td>
<td>0.290***</td>
<td>-0.139***</td>
<td>0.086</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(11) FSIZE (log)</td>
<td>0.263***</td>
<td>-0.278***</td>
<td>0.098</td>
<td>.047</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(12) FAGE (log)</td>
<td>0.324***</td>
<td>0.148***</td>
<td>0.164***</td>
<td>-0.148***</td>
<td>-0.135**</td>
<td>1.000</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(13) LEV</td>
<td>0.100*</td>
<td>-0.043</td>
<td>0.095</td>
<td>-0.045</td>
<td>0.371***</td>
<td>0.077</td>
<td>1.000</td>
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</tr>
<tr>
<td>(14) MTB</td>
<td>0.316***</td>
<td>-0.067</td>
<td>0.218***</td>
<td>.279***</td>
<td>0.287***</td>
<td>0.043</td>
<td>0.255***</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>(15) SGRWTH</td>
<td>0.050</td>
<td>-0.092</td>
<td>-0.071</td>
<td>0.125**</td>
<td>0.141***</td>
<td>-0.085</td>
<td>0.091</td>
<td>0.191***</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: *** p<0.01, ** p<0.05, * p<0.1, REM = real earnings management, CEOEXP = CEO experience, CEOTEN = CEO tenure, CEODTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.
In addition, Table 4.5 shows a high correlation of 0.238 between CEOTEN and FAGE at a one percent significant level. This result indicates that older firms have CEOs with longer tenures. Moreover, Table 4.5 presents a high correlation of 0.290 between AUDPARAFF and OWNCON at one percent level, which indicates that firms with high ownership concentration are audited by Big 4 affiliated audit partners. The correlation matrix table shows a high correlation of 0.263 between AUDPARAFF and FSIZE at one percent significant level. This result indicates that larger firms are audited by Big 4 affiliated audit partners.

Table 4.5 presents a high correlation of 0.324 between AUDPARAFF and FAGE at a one percent significant level. The result indicates that older firms are audited by Big 4 affiliated audit partners. Similarly, Table 4.5 presents a high correlation of 0.316 between AUDPARAFF and MTB. This result indicates that firms with high market-to-book value ratios are positively correlated with Big 4 affiliated audit partners. In addition, Table 4.5 shows a high correlation of 0.218 between AUDPAREDUB and MTB at a one percent significant level. This result indicates that firms with high market-to-book value ratios are positively correlated with AUDPAREDUB.

The correlation matrix table shows a high correlation of 0.279 between MTB and OWNCON at a one percent significant level. The result indicates that firms with a high market-to-book value ratio are positively correlated with ownership concentration. Furthermore, Table 4.5 presents a high correlation of 0.371 between FAGE and FSIZE at a one percent significant level. This result indicates that older firms are positively correlated with the size of the firm. Likewise, Table 4.5 presents a high correlation of 0.287
between FSIZE and MTB at a one percent significant level. This result indicates that larger firms have high market-to-book value ratio. Finally, Table 4.5 presents a high correlation of 0.255 between LEV and MTB at a one percent significant level. This result indicates that firms with high leverage are positively correlated with the market-to-book value ratio.

4.2.1.4 Test for Autocorrelation

Autocorrelation means that the error term between the variables or cross-sectional observations is correlated within themselves. In this regard, Gujarati (2003) indicated that one variable is not influenced by the disturbance terms relating to other observations within the model. However, if the variables are found to be serially or autocorrelated, it becomes necessary to tackle them as discounting them would result in a biased judgment on the statistical inferences (Vogelsang, 2012).

There are many ways of testing the presence of autocorrelation problem, and this study employed a Wooldridge test in detecting the problem. The null hypothesis states that there is no autocorrelation of any order. Therefore, a p-value higher than 0.05 implies no problem of autocorrelation in the data set. The result of the Wooldridge test in Table 4.6 indicates no problem of autocorrelation between sample data.

Table 4.6  
*Autocorrelation Test*

<table>
<thead>
<tr>
<th>Wooldridge test for autocorrelation</th>
<th>F (1, 57)</th>
<th>Prob &gt; chi2</th>
<th>Null (H0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main model</td>
<td>0.096</td>
<td>0.7580</td>
<td>Supported</td>
</tr>
</tbody>
</table>
4.2.1.5 Test for Cross-Sectional Dependency

Checking for cross-sectional dependency helps the researcher to check if the data are symbolically cross-dependent (Chang, 2002). The current study asserts that analyzing the data without checking for cross-sectional dependency is likely to yield a biased inference and conclusion. Likewise, Hoechle (2007) suggests that panel data inferences are mostly overstated if the data are contemporaneously dependent. Moreover, the Pesaran test is more suitable for panel data with a large cross-section than time-variant (Hoechle, 2007). Therefore, to ensure the reliability of the statistical inferences, this study checks for cross-sectional dependency using Pesaran’s CD test for cross-sectional dependency. The result in Table 4.7 indicated that the model is not cross-sectional dependent since the probability value is more than the threshold of 0.05 under the null hypothesis of no cross-sectional dependence.

Table 4.7
Cross Sectional Dependency

<table>
<thead>
<tr>
<th>Pesaran’s test of cross-sectional dependency</th>
<th>Prob &gt; chi2</th>
<th>absolute value of diagonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main model</td>
<td>1.6887</td>
<td>0.382</td>
</tr>
</tbody>
</table>

Overall, the data in this study is characterized by only a heteroscedasticity problem. Thus, the current study utilized the OLS regression with robust standards error to mitigate the heteroscedasticity issue following Hoechle (2007) recommendation to use this regression model with only heteroscedasticity panel data. Hence, the regression result based on the OLS regression with robust standards error is presented in the following subsections.

4.2.2 Results of the Direct Relationships

The OLS regression results of the direct relationships are shown in Table 4.8. (Models 1
and 2) and the regression analyses show that the $R^2$ value of 0.205 for the model appears to be higher than the $R^2$ of 0.071 as reported in Ocak & Can (2018) among listed firms operating in Turkey. However, within the Jordanian context, the $R^2$ value of the current study is mostly equal to the value of the $R^2$ of 0.21 reported in Alqatamin, Aribi, & Arun (2017), while the $R^2$ value of the current study is higher than the value of 0.139 reported in Alhadab, Abdullatif and Mansour (2020). As can thus be stated, the overall model is fit in explaining the level of variability between the dependent and explanatory variables.

Table 4.8

<table>
<thead>
<tr>
<th>OLS with Robust Standard Error Regressions for Direct Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
</tr>
<tr>
<td>Predicted sign</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>REM</td>
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<tr>
<td>CEOEXP</td>
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<td>AUDPARAGE</td>
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<td>AUDPAREDUB</td>
</tr>
<tr>
<td>FSIZE (log)</td>
</tr>
<tr>
<td>FAGE (log)</td>
</tr>
<tr>
<td>LEV</td>
</tr>
<tr>
<td>SGRWTH</td>
</tr>
<tr>
<td>MTB</td>
</tr>
<tr>
<td>Year effect</td>
</tr>
<tr>
<td>Constant</td>
</tr>
</tbody>
</table>

Number of obs | 348
R-squared     | 0.2047
Prob > F       | 0.000

Note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$. REM = Real Earning Management, CEOEXP = CEO experience, CEOTEN = CEO tenure, CEOPTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.

Initially, the results offered in Table 4.8 show that CEOEXP, CEOPOL and AUDPARTEN are positively and significantly related to REM. In addition, Table 4.8 shows that the relationship is negative and significant between CEODTY and AUDPARAFF with REM.

Moreover, Table 4.8 revealed that CEOTEN is not related to REM. Finally, Table 4.8
documented that AUDPARAGE and AUDPAREDUB are not related to REM in all of the three models.

4.2.3 Discussions of the Hypotheses Testing (Direct Effect Relationship)

This section discusses the regression analysis results between the independent variables (CEO characteristics and audit partner characteristics) and REM. Two groups of hypotheses are involved: (1) H1a – H1d for CEO Characteristics (CEO experience, CEO tenure, CEO duality, and CEO’s political connection); and (2) H2a – H2d for audit partner characteristics (audit partner’s tenure, Audit Partner’s Affiliation (Big 4 Firm or Not), Audit Partner’s Age, Audit Partner’s Educational Background).

4.2.3.1 CEO Experience and REM

About the first hypothesis (H1a), it was expected in the current study that a positive and significant relationship would exist between CEO experience and REM. According to Table 4.8, CEO experience (CEOEXP) is significantly and positively related to REM at a 1% level (t =3.67, p< 0.01). The result indicates that experienced CEOs have an incentive for upward short-term earnings to attain a favourable reputation. Thus, they can use their accomplished professionalism and ability in their years of service as executives to interfere and alter the accounting information in a financial report. Such finding supports H1a and agrees with the viewpoint of upper echelons theory that CEOs who are more experienced have more proclivities to take a risk and more likely to engage in REM as opposed to their less experienced counterparts. Also, this result is consistent with Kouaib and Jarboui (2016a) who found the relationship between CEO experience and REM is positive and significant.
4.2.3.2 CEO tenure and REM

Regarding hypothesis (H1b), a negative and significant relationship was expected to be present between CEO tenure (CEOTEN) and REM. Table 4.8 shows an insignificant relationship between CEO tenure and REM (t =1.39, p>0.10). Therefore, H1b is not supported. It can thus be implied that CEO tenure does not affect REM in Jordanian firms. The results are similar to Santiago-Castro and Brown (2011), who found CEO tenure not related to REM. Such a result may be linked to the insignificant effect of CEO tenure, which may be caused by a lack of knowledge on the technicality of PROD and DISEXP of the firm. Thus, CEOs even those with a long tenure may not be able to distinguish between good management practices and decisions explicitly entirely made to manage earnings due to REM’s complexity (Eldenburg, et.al., 2011).

Therefore, the insignificant result contradicts with upper echelon theory that suggests that the tenure of CEO is expected to influence the kind of decision making performed by the CEO because long tenures increase the experiences of the CEOs, which in turn, decrease the likelihood of managing REM. The result, however, is in agreement with Sun, Lan, & Liu,(2014), who reported non-impact of CEO tenure on REM.

4.2.3.3 CEO Duality and REM

Hypothesis H1c expects a positive and significant relationship between CEO duality and REM. In Table 4.8, the relationship between CEO duality and REM is negative and significant at level 1 % (t = -4.36, p< 0.01). Therefore, H1c is not supported. The result demonstrates that the combined role between Chairman and CEO, reduces the incidence of REM activities. The possible reason for this result is that the combining of the roles of
the CEO and the Chairman will minimize board interference in the company’s decision making, which may lead to better firm performance. This is because a dual management structure can increase firm financial performance and financial reporting quality, as a single head can provide a clear direction and can increase the responsiveness towards changes with the presence of powers (Yasser & Mamun, 2015). Subsequently, with increased firm Performance, the CEOs will be less likely to engage in REM.

The obtained result is not consistent with agency theory which believes that separate these positions are vital for the monitoring of the Board’s effectiveness over management by cross-checking the risk of inappropriate plans by a CEO. However, the results are congruent with Yasser & Mamun (2015), and Lin and Hwang (2010). They found that CEO duality is more likely to produce better transparency through appropriate corporate disclosure and superior monitoring and efficient control. Besides, their results indicated that CEO duality has linkage to lower EM practices.

4.2.3.4 CEO’s Political Connection and REM

In Hypothesis H1d, a positive and significant relationship was expected to exist between politically connected CEO and REM. This expectation is in agreement with the results shown in Table 4.8, which found that CEO who is politically connected is associated with higher REM and the association is statistically positive and significant at level 1% (t = 3.79, p<0.01). Hence, H1d is supported. The possible explanation for this result is that politically connected CEOs usually have access to more amounts of resources aside from having the ability to attain a greater amount of support from the government, including preferential treatment by government-owned banks or raw material producers, relaxed
regulatory oversight and lighter taxation (Braam et al., 2015). In addition, the politically connected CEOs could use firms’ resources to benefit their cronies and supporters, who in return, provide votes, political contributions, and bribes (Al-dhamari & Ku Ismail, 2015). For this reason, firms with political connections appear to have more inclination to engage in real earnings management, as these firms tend to have a greater amount of secrecy and potential to conceal the political connection impacts. Therefore, their incentive for engaging in REM will be more.

This finding is in line with the agency theory which is argued that politically connected CEOs have the potential to utilise political resources to serve their interests rather than serving the interests of shareholders, which in turn can increase EM practices. Likewise, this finding is consistent with Chi et al. (2016) and Al-Sraheen and Alkhatib (2016) who found that the politically connected CEOs were associated with higher REM.

4.2.3.5 Audit Partner Tenure and REM

In terms of hypothesis H2a, this study expected a positive and significant relationship to exist between the tenure of audit partners and REM. In Table 4.8, the results show that audit partner tenure has linkage to REM with a positive and significant relationship (t = 1.67, p<0.1). Therefore, H2a is supported. This result means that the long tenure of the audit partner will increase REM. The possible explanation for this result is that the extended tenure for audit partner on the same company would imply a closer relationship with top management (Piot et al., 2007), which means that auditors are less inclined to challenge managers’ decisions, which makes them less watchful and establish the proclivity to perform auditing in a mechanical rather than a rational way. This phenomenon
can motivate top management to be involved in earnings management because the close relationship will give them the idea that the auditor will not detect their REM practices.

This result agrees with Litt, Sharma, Simpson, & Tanyi (2014) and Lennox, Wu, & Zhang (2014) who found that the tenure for audit partner associated with REM positively. While, this result contradictory to agency theory which suggests external auditors as among the most vital monitoring tools of top management, which can limit REM practices.

**4.2.3.6 Audit Partner Affiliation (Big 4 Firm or Not) and REM**

Regarding hypothesis H2b, the current study expected a negative and significant relationship to exist between audit partners’ affiliation (Big 4 firm or not) and REM. According to Table 4.8, there is a negative and significant relationship between audit partner affiliation and REM at level 1% (t = -2.74, p< 0.01). Hence, H2b is supported. The negative coefficient means that the audit partner of the firm, which is employed by Big 4 firms, might decrease REM practices. The result indicates that the top managers of the firms that are audited by Big 4 audit firms will be less likely to engage in REM practices, as these firms may anticipate that high audit quality by the Big 4 audit firms may cause any practices of REM to be detected. Furthermore, Big 4 audit firms would have a greater level of incentives to detect management manipulation as they would forfeit if an audit fiasco arises in companies that they audit (Vander Bauwhede et al., 2003; Rusmin, 2010; Watts & Zimmerman, 1986). Big 4-firm auditors hence have more effectiveness in decreasing EM as it is crucial for them to preserve their reputation and avoid legal liability.

The result of current research is in line with the context of Jordan as in Alzoubi (2016) who found that the degree of EM in firms that utilize the services of Big 4 auditors is
significantly lower than those with non-Big 4 auditors. Such a result is in agreement with agency theory which stipulates the external auditor as among the most robust tools for monitoring the activities of decision-makers, which can put a limitation to the practice of REM.

4.2.3.7 Audit Partner Age and REM

In hypothesis H2c of this study, the expectation was that a positive and significant relationship would exist between the age of audit partners and REM. Table 4.8 indicates that there is an insignificant relation between audit partner’s age and REM. Therefore, H2c is not supported. The possible explanation for this result is that REM is more mysterious and thus harder to detect (Cohen & Zarowin, 2010; Kothari et al., 2016). Therefore, due to REM’s complexity and the sophisticated practices of PROD and DISEXP, the experience and skills that the audit partners obtained over their life may not be sufficient to detect such practices of REM. Another explanation why the audit partner’s age did not relate to REM practices is because the ability to identify such practices depends on superior skills and specific techniques which could be gained through vocational training or professional certificates regardless of the age of the auditor. These skills and techniques include how the auditor communicates with the auditee, how an auditor plans alternative audit procedures to find fraud and errors, and how the auditor performs audit procedures effectively and efficiently (Yudi and Rahayu, 2019). Moreover, the ability to disclose findings depends more on how the auditor can think creatively and develop alternative audit procedures to be able to detect possible fraud committed by the auditee. However, the finding is in line with Yudi and Rahayu (2019), who found that the age of auditors is not associated with REM.
4.2.3.8 Audit Partner Educational Background and REM

Hypothesis H2d in this study proposes a negative and significant relationship to exist between the educational background of audit partners and REM. Accordingly, Table 4.8 reveals an insignificant relationship between the audit partner’s educational background and REM. Therefore, H2d is not supported. The possible reason for this result is that REM is more intricate and thus more challenging to detect than financial reporting violations and accrual manipulations (Cohen & Zarowin 2010; Kothari et al. 2016). Therefore, due to REM’s complexity and the complicated techniques of PROD and DISEXP, the knowledge that the audit partners gained from their educational background may not be enough to mitigate REM practices by the decision-makers of the firms. Thus, (Yudi & Rahayu, 2019) argue that the ability to detect REM practices should be determined by how the auditor can think creatively and develop alternative audit procedures to be able to detect possible fraud committed by the auditee. Another possible reason for the insignificant relationship may be due to the ability to detect such practices needs superior skills and specific techniques which could not be gained through even postgraduate degrees.

This result is contradictory with agency theory which supposes that an external auditor is an indispensable tool for monitoring the activities of decision-makers which in turn can limit REM practices. However, this result is consistent with Cahan & Sun (2015) and Yudi and Rahayu, (2019) who found that the educational background of the auditor is not associated with REM.
4.2.4 Regression Results of the Moderating Effect

As can be viewed in Table 4.9; In Model 1, when the ownership concentration was entered as a stand-alone variable, R² increased to 0.205 compared to the value of 0.2047 in Table 4.8. As presented in Table 4.9 (Model 2), when the interactions were entered, R² changed from 0.205 to 0.238.

Initially, the results offered in Table 4.9 (Models 1 and 2) show that CEOEXP and CEOPOL are positively and significantly related to REM in model 1 (when the ownership concentration was entered as a stand-alone variable) and model 2 (when the interactions were entered), these results are consistent with the results presented in Table 4.8. In addition, Table 4.9 shows that the relationship of CEODTY and AUDPARAFF are negative and significant with REM across the two models; these results are in line with the results shown in Table 4.8. Furthermore, Table 4.9 presented that AUDPARAGE is related to REM positively and significantly only in model 2 when the interactions were entered. This result is not consistent with the results revealed in Table 4.8. Moreover, Table 4.9 revealed that CEOTEN and AUDPARTEN are not related to REM in the two models. These results are the same results found in Table 4.8. As presented in Table 4.9, there is no relationship between AUDPARAGE and REM in model 2. This result is consistent with the results presented in Table 4.8. Finally, Table 4.8 documented that AUDPAREDUB is not related to REM in the two models. This result is consistent with the results shown in Table 4.8.
Table 4.9
*OLS with Robust Standard Error Regressions for Moderating Effect*

<table>
<thead>
<tr>
<th>REM</th>
<th>Predicted sign</th>
<th>Coef.</th>
<th>t-value</th>
<th>p-value</th>
<th>Coef.</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEOEXP</td>
<td>+</td>
<td>0.033</td>
<td>3.69</td>
<td>0.000***</td>
<td>0.035</td>
<td>4.48</td>
<td>0.000***</td>
</tr>
<tr>
<td>CEOTEN</td>
<td>-</td>
<td>0.001</td>
<td>1.25</td>
<td>0.212</td>
<td>0.001</td>
<td>0.97</td>
<td>0.331</td>
</tr>
<tr>
<td>CEODTY</td>
<td>+</td>
<td>-0.130</td>
<td>-4.37</td>
<td>0.000***</td>
<td>-0.142</td>
<td>-4.16</td>
<td>0.000***</td>
</tr>
<tr>
<td>CEOPOL</td>
<td>+</td>
<td>0.094</td>
<td>3.55</td>
<td>0.000***</td>
<td>0.089</td>
<td>2.36</td>
<td>0.019**</td>
</tr>
<tr>
<td>AUDPARTEN</td>
<td>+</td>
<td>0.007</td>
<td>1.64</td>
<td>0.101</td>
<td>0.007</td>
<td>1.64</td>
<td>0.101</td>
</tr>
<tr>
<td>AUDPARAFF</td>
<td>-</td>
<td>-0.054</td>
<td>-2.41</td>
<td>0.017**</td>
<td>-0.051</td>
<td>-2.28</td>
<td>0.023**</td>
</tr>
<tr>
<td>AUDPARAGE</td>
<td>+</td>
<td>0.139</td>
<td>1.25</td>
<td>0.214</td>
<td>0.235</td>
<td>1.88</td>
<td>0.061*</td>
</tr>
<tr>
<td>AUDPAREDUB</td>
<td>-</td>
<td>0.023</td>
<td>1.08</td>
<td>0.282</td>
<td>0.032</td>
<td>1.51</td>
<td>0.132</td>
</tr>
<tr>
<td>OWNCON</td>
<td>-</td>
<td>-0.016</td>
<td>-0.37</td>
<td>0.710</td>
<td>-0.003</td>
<td>-0.07</td>
<td>0.945</td>
</tr>
<tr>
<td>OWNCONCEOEXP</td>
<td>+/-</td>
<td>-0.031</td>
<td>-3.08</td>
<td>0.002***</td>
<td>-0.019</td>
<td>-1.66</td>
<td>0.097*</td>
</tr>
<tr>
<td>OWNCONCEOTEN</td>
<td>+/-</td>
<td>-0.002</td>
<td>-0.27</td>
<td>0.791</td>
<td>-0.008</td>
<td>-1.11</td>
<td>0.267</td>
</tr>
<tr>
<td>OWNCONCEODTY</td>
<td>+/-</td>
<td>-0.008</td>
<td>-1.11</td>
<td>0.267</td>
<td>-0.008</td>
<td>-1.11</td>
<td>0.267</td>
</tr>
<tr>
<td>OWNCONCEOPOL</td>
<td>+/-</td>
<td>-0.006</td>
<td>0.70</td>
<td>0.487</td>
<td>-0.006</td>
<td>0.48</td>
<td>0.630</td>
</tr>
<tr>
<td>OWNCONAUDPARTEN</td>
<td>+/-</td>
<td>-0.003</td>
<td>-0.29</td>
<td>0.771</td>
<td>-0.007</td>
<td>-0.68</td>
<td>0.496</td>
</tr>
<tr>
<td>OWNCONAUDPARAFF</td>
<td>+/-</td>
<td>0.006</td>
<td>0.70</td>
<td>0.487</td>
<td>-0.006</td>
<td>0.48</td>
<td>0.630</td>
</tr>
<tr>
<td>OWNCONAUDPARAGE (log)</td>
<td>+/-</td>
<td>-0.003</td>
<td>-0.29</td>
<td>0.771</td>
<td>0.006</td>
<td>0.70</td>
<td>0.487</td>
</tr>
<tr>
<td>OWNCONAUDPAREDUB</td>
<td>+/-</td>
<td>0.006</td>
<td>0.70</td>
<td>0.487</td>
<td>-0.006</td>
<td>0.48</td>
<td>0.630</td>
</tr>
<tr>
<td>FSIZE (log)</td>
<td>0.006</td>
<td>0.05</td>
<td>0.963</td>
<td>0.002</td>
<td>0.31</td>
<td>0.760</td>
<td></td>
</tr>
<tr>
<td>FAGE (log)</td>
<td>0.016</td>
<td>0.39</td>
<td>0.697</td>
<td>0.007</td>
<td>0.18</td>
<td>0.855</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.089</td>
<td>2.01</td>
<td>0.045**</td>
<td>0.095</td>
<td>2.09</td>
<td>0.038**</td>
<td></td>
</tr>
<tr>
<td>SGRWTH</td>
<td>-0.040</td>
<td>-1.46</td>
<td>0.145</td>
<td>-0.043</td>
<td>-1.60</td>
<td>0.111</td>
<td></td>
</tr>
<tr>
<td>MTB</td>
<td>-0.049</td>
<td>-3.60</td>
<td>0.000***</td>
<td>-0.054</td>
<td>-3.80</td>
<td>0.000***</td>
<td></td>
</tr>
<tr>
<td>Year effect</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.266</td>
<td>-1.03</td>
<td>0.302</td>
<td>-0.470</td>
<td>-1.74</td>
<td>0.083</td>
<td></td>
</tr>
<tr>
<td>Number of obs</td>
<td>348</td>
<td></td>
<td></td>
<td></td>
<td>348</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.205</td>
<td></td>
<td></td>
<td></td>
<td>0.238</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob &gt; F =</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *** p<0.01, ** p<0.05, * p<0.1. REM = Real Earning Management, CEOEXP = CEO experience, CEOTEN = CEO tenure, CEODTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, OWNCON = ownership concentration, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.
Concerning the interaction variables in model 2 at Table 4.9, the findings show a negative and significant impact of ownership concentration on the relationship of CEO experience \((t= -3.08, p<0.01)\) with a coefficient of \(-0.031\) and CEO tenure \((t= -1.66, p<0.10)\) with a coefficient of \(-0.019\) on REM. Moreover, as shown in model 2 in Table 4.9, the coefficients on the interactions of ownership concentration with other CEO and audit partner variables are not statistically significant.

Regarding the control variables, firm size and REM has an insignificant relation, as shown in Table 4.8 and Table 4.9 (models 1 and 2). As can be implied from the results, firm size does not affect REM. This result agrees with that of Idris, Siam and Nassar (2018). Moreover, as presented in Table 4.8 and Table 4.9 (models 1 and 2), firm age is not associated with REM, and this is contradictory to Bouaziz et al. (2019) who reported otherwise. Furthermore, Table 4.8 and Table 4.9 (models 1 and 2) show an insignificant relationship between sales growth and REM. This result indicates that sales growth does not relate to REM practices, similar to Habbash (2013). On the other hand, Table 4.8 and Table 4.9 (models 1 and 2) indicate that leverage is positively and significantly associated with REM. It shows that firms with high leverage have more REM practices. This finding is consistent with the result of Litt et al. (2014) and Sani, Abdul Latif and Al-Dhamari (2020). Additionally, Table 4.8 and Table 4.9 (models 1 and 2) show a negative and significant link between MTB and REM. This result means that firms with a high MTB ratio have lower REM practices. This result is in line with the result of Alhadab and Nguyen (2018).
4.2.5 Discussions and Hypotheses Testing of Indirect Effect Relationship

This study presents eight hypotheses regarding the moderating effect of ownership concentration on the relationship of CEO characteristics, audit partner characteristics with REM (H3a-H3h).

4.2.5.1 CEO Experience, Ownership Concentration and REM

In hypothesis H3a, ownership concentration was expected to moderate the relationship between CEO experience and REM. Model 2 of Table 4.9 shows a negative and significant effect (t= -3.08, p<0.01) of ownership concentration on the association between CEO experience and REM. Thus, H3a is supported. The negative coefficient of OWNCONCEOEXP indicates that ownership concentration weakens the positive association between CEO experience and REM (see Table 4.8). The negative coefficient on the interactive variable demonstrates that when the ownership of the firms is highly concentrated, the CEO with vast experience will be less engaged in REM practices than firms with low ownership concentration.

The results indicate that ownership concentration will control and limit CEOs from using their gained professional and ability in their years of service as executives to interfere and adjust the accounting information contained in a financial report, to achieve their incentive for upward short-term earnings to influence their reputation favourably. Notably, large shareholders have a strong incentive to vigorously monitor and impact firm management to protect their significant investments. This consequently will decrease the scope of managerial opportunism in the practice of earnings management (Swai & Mbogela, 2016).
In agreement with agency theory, the obtained result implies that ownership concentration is a crucial monitoring mechanism of managers, so it has a monitoring role in imposing limits on the practice of earnings management.

4.2.5.2 CEO Tenure, Ownership Concentration and REM

In hypothesis H3b, the current study expected that ownership concentration would moderate the relationship between CEO tenure and REM. Table 4.9 (Model 2) reveals a negative and significant relationship (t= -1.66, p<0.1) of ownership concentration on the relationship between CEO tenure and REM. Thus, H3b is supported. This result indicates that ownership concentration moderates the relationship between CEO tenure and REM negatively. In other words, in firms with high ownership concentration, CEOs with long tenure will be less likely to engage in REM. The possible explanation for this result is that the power of large block holders will control the work of CEOs with long tenure, causing them to be less likely to engage in REM, due to concentrated ownership. Furthermore, large shareholders have a solid motivation to vigorously monitor and influence top management of the firm to protect their significant investments, and this consequently will decrease the scope of managerial opportunism in taking part in earnings management (Swai & Mbogela, 2016).

In agreement with agency theory, the result shows that ownership concentration is among the vital monitoring mechanisms of managers. Hence, it has a monitoring role in constraining the occurrence of earnings management.
4.2.5.3 CEO Duality, Ownership Concentration and REM

Regarding hypothesis H3c, this study expected that ownership concentration would moderate the relationship between CEO duality and REM. Table 4.9 (Model 2) accordingly shows that the effect of ownership concentration on the relationship between CEO duality and REM is not statistically significant. Thus, H3c is not supported. The insignificant coefficient implies that the interaction between ownership concentration and CEO duality does not affect REM. The possible explanation for this result is that in firms characterized with concentrated ownership and CEO duality, the discrepancy between large block holders’ power and the power of the person who holds both CEO and Chairman positions will abolish the effect of each other on making the decisions related to REM practices. Hence, large block holders will monitor and control the top management’s work.

On the other hand, the person who holds both CEO and Chairman positions have enough power to limit the interference of large block holders in the decision-making process to achieve their intents. Thus, the presence of these two powers together will eliminate any possible effect of CEO duality and ownership concentration on REM. Therefore, the interaction between ownership concentration and CEO duality did not affect REM practices. The result hence shows that ownership concentration is an essential monitoring mechanism of managers, which is contradictory to agency theory.

4.2.5.4 CEO’s Political Connection, Ownership Concentration and REM

About hypothesis H3d, this study expected that ownership concentration would moderate the relationship between CEO’s political connection and REM. Table 4.9 (Model 2) shows that the effect of ownership concentration on the relationship between the CEO’s political
connection and REM is not statistically significant. Thus, H3d is not supported. This result means that ownership concentration does not moderate the relationship between CEO’s political connection and REM. The possible reason behind this result is that ownership concentration eliminates the incentives of CEOs who are politically connected to engage in REM practices. In other words, in firms with concentrated ownership, the political connection of CEOs will enhance the firm performance and wealth the interests of the large block holders (Faccio et al., 2006; Claessens et al., 2008; Cho & Song, 2017). Therefore, the CEOs politically connected will have less attention to conceal the favours or benefits that the firm gains from being politically connected. Thus, the interaction of ownership concentration and the CEO’s political connection does not affect REM. This result is not consistent with agency theory which posits that ownership concentration is an essential monitoring mechanism of managers.

4.2.5.5 Audit Partner Tenure, Ownership Concentration and REM

In hypothesis H3e, ownership concentration was expected to moderate the relationship between audit partners’ tenure and REM. Table 4.9 (Model 2) shows no significant relationship between ownership concentrations when interacted with the audit partner’s tenure and REM. Thus, H3e is not supported. The finding indicates that the level of ownership concentration does not affect the relationship between the audit partner’s tenure and REM. The possible explanation for this result is that, as compared to the positive relationship between audit partner tenure and REM, concentrated ownership creates a group of controlling shareholders which would eradicate the effect of the possible close relation between audit partner and top management due to the long tenure for the audit partner. Therefore, the tenure of the audit partner and its relation with top management
does not affect the likelihood of engagement in REM due to the presence of the monitoring power of large block holders. However, the insignificant coefficient on the interactive variable is not in line with agency theory which states that ownership concentration is an essential monitoring mechanism on the external auditing.

4.2.5.6 Audit Partner Affiliation, Ownership Concentration and REM

In the current study, Hypothesis H3f expected that ownership concentration would moderate the relationship between audit partner affiliation (Big 4 firm or not) and REM. Table 4.9 (Model 2) reveals that the interaction between ownership concentration and audit partner affiliation does not affect REM. Therefore, H3f is not supported. The result implies that ownership concentration does not moderate the relationship between audit partners affiliated to Big 4 firms and REM. As compared to the negative and significant direct association of audit partner affiliation with REM, the presence of ownership concentration would dismantle the effect of audit partner affiliation on REM.

In addition, ownership concentration leads to the elimination of the motivation of owners in using high-quality auditing. Hence, ownership concentration makes institutions inform of a major part of internal information, so they have no tendency to transfer clear and high quality financial information to the market (Rad, Salehi, & Pour, 2016). In this situation, high ownership concentration decreases the use of famous auditing firms which affects earnings management. Therefore, high ownership concentration decreases the use of Big 4 auditing firms (Darmadi, 2012), which would diminish the effect of the affiliation of audit partners to Big 4 audit firms on REM practices in firms with concentrated ownership.
This result is not coherent with agency theory which suggests that Big 4 auditors play a corporate governance role in emerging markets with highly concentrated ownership structures.

4.2.5.7 Audit Partner’s Age, Ownership Concentration and REM

Regarding hypothesis H3g, this study expected that ownership concentration would moderate the relationship between audit partner’s age and REM. Table 4.9 (Model 2) shows that the ownership concentrations, when interacted with the audit partner’s age, do not affect REM. Therefore, H3f is not supported. This result means that ownership concentration does not affect the relationship between the audit partner’s age and REM.

Based on the insignificant direct relationship between audit partner’s age and REM, which is explained by REM’s complexity and detection difficulty, in firms characterized by concentrated ownership where a greater possibility to have REM practices (Du & Wang, 2018), the age of audit partner still could not affect REM. Contrariwise, agency theory argues that ownership concentration is an essential monitoring mechanism on external auditing.

4.2.5.8 Audit Partner Educational Background, Ownership Concentration and REM

About hypothesis H3h, the current study expected that Ownership concentration would moderate the relationship between audit partner’s educational background and REM. Table 4.9 (Model 2) shows that there is no significant relationship between the interaction of ownership concentration on the audit partner’s educational background and REM. Thus, H3h is not supported. The finding implies that concentrated ownership does not affect the
relationship between the audit partner’s educational background and REM. The possible explanation for this result is that firm with concentrated ownership is more likely to have REM practices (Du & Wang, 2018), and due to the complexity of REM practices and the complicated techniques of PROD and DISEXP, the knowledge that audit partners gained from their educational background may not be enough to mitigate REM practices by the decision-makers of the firms. Thus, the educational background of the audit partner when interacted with ownership concentration does not affect REM. This result is not consistent with agency theory which discussed that ownership concentration is an essential monitoring mechanism on the external auditing.

4.3 Additional Analyses

4.3.1 Alternative Proxies for REM

The present section presents the alternative approaches of REM proxies. In the main model in this study, REM was computed following Zang (2012); it entails the aggregated measure of real activities manipulation calculated as the abnormal discretionary expenses (DISEXP) multiplied by −1 plus the abnormal production costs (PROD). As an additional analysis, this section employs the Roychowdhury (2006) model in estimating the real activities of earnings management as the first alternative proxy. Thus, based on past works (e.g., Cohen & Zarowin, 2010; Cohen et al., 2008; Gunny, 2010; Roychowdhury, 2006; Zang, 2012), the current study employed three proxies for real earnings management. Further, three models were considered in REM level detection as follows: abnormal levels of cash flows from operations CFO, production costs, and discretionary expenses. This study examines the impact of CEO, audit partner characteristics and the interaction effect of ownership
concentration on each one at the three proxies of REM. The reason for examining CFO, PROD and DISEXP individually is because managers can utilise one or multiple REM strategies. Therefore, to determine if managers practice EM through only one proxy of REM, this study examined them individually.

In addition, the aggregate effects of real earnings management are determined using the combination of three individual real earnings management measures, and three comprehensive metrics of real manipulation of activities were computed. Hence, following Cohen et al. (2008), the sum of standardized variables of abnormal cash flows from operations and abnormal discretionary expenses were calculated, multiplied by negative one, and the standardized variable of abnormal production costs. All of them were combined into one measure (CREM).

Table 4.10 presents the four models used in this section for direct relationships. Model 1 of Table 4.10 presents the results from using CREM as a dependent variable, and model 2 presents the results from using CFO as a dependent variable, while model 3 presents the results from using PROD as a dependent variable, whereas the last model presents the results from using DISEXP as a dependent variable. According to Table 4.10, CEO experience has a positive and significant relationship with REM in model 1 with coefficient of 0.025 (t= 2.36, p<0.05), model 3 with coefficient of 0.012 (t= 2.00, p<0.05), and model 4 with coefficient of 0.018 (t= 4.29, p<0.01). This result is in line with the main result which found CEO experience has a positive and significant relationship with REM.

Moreover, CEO tenure has an insignificant relationship with REM in all of the four models. However, this result is consistent with the main model, which found CEO tenure has an
insignificant relationship with REM. In addition, Table 4.10 indicates that the relationship between CEO duality and REM is negative and significant in the four models: model 1 with coefficient of -0.157 (t= -4.10, p<0.01), model 2 with coefficient of -0.031 (t= -1.92, p<0.1), model 3 with coefficient of -0.085 (t= -4.39, p<0.01), and model 4 with coefficient of -0.041 (t= -3.03, p<0.01). This result is consistent with the main result, which found that the relationship between CEO duality and REM is negative and significant. Also, refer to Table 4.10, the relationship between CEO’s political connection and REM is positive and significant in model 1 with coefficient of 0.080 (t= 2.51, p<0.05), model 3 with coefficient of 0.067 (t= 3.75, p<0.01) and model 4 with coefficient of 0.031 (t= 2.37, p<0.05). This result is consistent with the main result, which found CEO politically connected is related to REM positively and significantly.

Table 4.10 indicates that the relationship between the audit partner’s tenure and REM is insignificant in all of the four models. This result is not in line with the main results of this study, which is positive and marginally significant. Furthermore, Table 4.10 presents a negative and significant relationship between audit partner’s affiliation (Big 4 firm or not) and REM in model 1 with coefficient of -0.074 (t= -3.05, p<0.01) and model 4 with coefficient of -0.040 (t= -3.35, p<0.01). This result is in line with the main result.

Additionally, Table 4.10 indicates that the association between audit partner’s age and REM is not significant in all of the four models. This result is consistent with the main result. Moreover, Table 4.10 shows, although it is significant only in model 4, the relationship between the audit partner’s educational background and REM is not significant.
in models 1, 2 and. This result is in line with the main result which found audit partner educational background to have no impact on REM.

Table 4.11 presents the regression analysis for the moderating effect of ownership concentration by using the four alternative proxies of REM. According to Table 4.11, ownership concentration moderates the relationship between CEO experience and REM negatively in model 1 with a coefficient of -0.036 (t= -3.27, p<0.01) and model 3 with a coefficient of -0.017 (t= -2.56, p<0.05); this result is in line with the main results which found ownership concentration moderates the relationship between CEO experience and REM negatively. The coefficients of the interactive variable, however, are not in line with the main findings where the interactive term of CEO experience and ownership concentration was found to be related to REM positively in model 4, but insignificant in model 2.

Furthermore, Table 4.11 indicates that ownership concentration moderates negatively the relationship between CEO tenure and REM in model 1 with coefficient of -0.02 (t= -1.86, p<0.1), model 3 with coefficient of -0.018 (t= -2.42, p<0.05). This result is in line with the main result. Besides, Table 4.11 shows that ownership concentration moderates the relationship between the CEO’s political connection and REM in model 4 with a coefficient of 0.007 (t= 2.04, p<0.05). This result is not in line with the main result. Consistent with the main findings, the interactive terms (CEO duality, audit partner tenure, audit partner affiliation, audit partner age and audit partner educational background) are not statistically significant.
### Table 4.10

**Regression Results for the Further Analyses of the Direct Relationships Using Combined and Individual REM Measures**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coef.</th>
<th>t-value</th>
<th>p-value</th>
<th>Coef.</th>
<th>t-value</th>
<th>p-value</th>
<th>Coef.</th>
<th>t-value</th>
<th>p-value</th>
<th>Coef.</th>
<th>t-value</th>
<th>p-value</th>
<th>Coef.</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEOEXP</td>
<td>0.025</td>
<td>2.36</td>
<td>0.019**</td>
<td>-0.006</td>
<td>-1.44</td>
<td>0.151</td>
<td>0.012</td>
<td>2.00</td>
<td>0.047**</td>
<td>0.018</td>
<td>4.29</td>
<td>0.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEOTEN</td>
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<td>1.19</td>
<td>0.234</td>
<td>0.000</td>
<td>0.24</td>
<td>0.808</td>
<td>0.001</td>
<td>1.53</td>
<td>0.127</td>
<td>0.000</td>
<td>0.36</td>
<td>0.720</td>
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<td></td>
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</tr>
<tr>
<td>CEOPTY</td>
<td>-0.157</td>
<td>-4.10</td>
<td>0.000***</td>
<td>-0.031</td>
<td>-1.92</td>
<td>0.055*</td>
<td>-0.085</td>
<td>-4.39</td>
<td>0.000***</td>
<td>-0.041</td>
<td>-3.03</td>
<td>0.003***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEOPOL</td>
<td>0.080</td>
<td>2.51</td>
<td>0.013**</td>
<td>-0.018</td>
<td>-1.19</td>
<td>0.237</td>
<td>0.067</td>
<td>3.75</td>
<td>0.000***</td>
<td>0.031</td>
<td>2.37</td>
<td>0.018**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDPARTEN</td>
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<td>1.18</td>
<td>0.238</td>
<td>-0.001</td>
<td>-0.66</td>
<td>0.508</td>
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<td>1.14</td>
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<td>AUDPARAFF</td>
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<td>-3.05</td>
<td>0.002***</td>
<td>-0.015</td>
<td>-1.27</td>
<td>0.203</td>
<td>-0.019</td>
<td>-1.39</td>
<td>0.164</td>
<td>-0.040</td>
<td>-3.35</td>
<td>0.001***</td>
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<td>0.97</td>
<td>0.335</td>
<td>0.046</td>
<td>0.70</td>
<td>0.487</td>
<td>0.089</td>
<td>1.20</td>
<td>0.233</td>
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<td>-0.03</td>
<td>0.977</td>
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</tr>
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<td>AUDPAREDUB</td>
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<td>1.28</td>
<td>0.202</td>
<td>0.008</td>
<td>0.76</td>
<td>0.447</td>
<td>0.003</td>
<td>0.19</td>
<td>0.849</td>
<td>0.020</td>
<td>1.76</td>
<td>0.079*</td>
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<td>0.909</td>
<td>0.001</td>
<td>0.27</td>
<td>0.791</td>
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<td>-0.24</td>
<td>0.811</td>
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<td>-1.43</td>
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<td>-0.006</td>
<td>-0.23</td>
<td>0.822</td>
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<td>LEV</td>
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<td>0.004***</td>
<td>0.072</td>
<td>2.92</td>
<td>0.004***</td>
<td>0.114</td>
<td>3.96</td>
<td>0.000***</td>
<td>-0.030</td>
<td>-1.25</td>
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<tr>
<td>MTB</td>
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<td>-4.03</td>
<td>0.000***</td>
<td>-0.016</td>
<td>-2.57</td>
<td>0.011*</td>
<td>-0.031</td>
<td>-3.35</td>
<td>0.001***</td>
<td>-0.008</td>
<td>-1.30</td>
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<tr>
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<td>0.181</td>
<td>-0.008</td>
<td>-0.45</td>
<td>0.652</td>
<td>0.009</td>
<td>0.34</td>
<td>0.733</td>
<td>-0.052</td>
<td>-2.73</td>
<td>0.007***</td>
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<tr>
<td>Year effect</td>
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<td></td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td>Yes</td>
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<td>Yes</td>
<td></td>
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</tr>
<tr>
<td>Constant</td>
<td>-0.249</td>
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<td>-0.050</td>
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<td>0.721</td>
<td>-0.134</td>
<td>-0.84</td>
<td>0.399</td>
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<td>-0.47</td>
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<td></td>
</tr>
<tr>
<td>Number of obs</td>
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<td></td>
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<td></td>
<td></td>
<td>348</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>R-squared</td>
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<td></td>
<td>0.128</td>
<td></td>
<td></td>
<td>0.192</td>
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</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.000</td>
<td></td>
<td></td>
<td>0.003</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note: *** p<0.01, ** p<0.05, * p<0.1. CREM = combined Real Earning Management, CFO = cash flow from operations, PROD = production costs, DISEXP = discretionary expenses, CEOEXP = CEO experience, CEOTEN = CEO tenure, CEOPTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.
### Table 4.11

**Regression Results for the Further Analyses of the Indirect Relationships Using Combined and Individual REM Measures**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1 (CREM)</th>
<th>Model 2 (CFO)</th>
<th>Model 3 (PROD)</th>
<th>Model 4 (DISEXP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>t-value</td>
<td>p-value</td>
<td>Coef.</td>
</tr>
<tr>
<td>CEOEXP</td>
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<tr>
<td>CEOTEN</td>
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<td>0.62</td>
<td>0.534</td>
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</tr>
<tr>
<td>CEOPTY</td>
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<td>-4.03</td>
<td>0.000***</td>
<td>0.039</td>
</tr>
<tr>
<td>CEOPOL</td>
<td>0.094</td>
<td>1.68</td>
<td>0.093*</td>
<td>-0.006</td>
</tr>
<tr>
<td>AUDPARTEN</td>
<td>0.005</td>
<td>0.99</td>
<td>0.322</td>
<td>0.001</td>
</tr>
<tr>
<td>AUDPARAFF</td>
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<td>-2.85</td>
<td>0.005***</td>
<td>0.022</td>
</tr>
<tr>
<td>AUDPARAGE</td>
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<td>1.90</td>
<td>0.058*</td>
<td>0.000</td>
</tr>
<tr>
<td>OWNCON</td>
<td>0.039</td>
<td>1.60</td>
<td>0.110</td>
<td>-0.010</td>
</tr>
<tr>
<td>OWNCONCEOEXP</td>
<td>0.022</td>
<td>0.39</td>
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</tr>
<tr>
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<td>0.005</td>
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<tr>
<td>OWNCONCEOTEN</td>
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<td>-1.86</td>
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<tr>
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<td>-0.61</td>
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</tr>
<tr>
<td>OWNCONAUDPARTEN</td>
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<tr>
<td>OWNCONAUDPARAFF</td>
<td>0.001</td>
<td>0.08</td>
<td>0.934</td>
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<tr>
<td>OWNCONAUDPARAGE(log)</td>
<td>-0.007</td>
<td>-0.69</td>
<td>0.488</td>
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<td>OWNCONAUDPAREDUB</td>
<td>-0.009</td>
<td>-0.83</td>
<td>0.406</td>
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<td>0.518</td>
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<td>FAGE (log)</td>
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<td>0.775</td>
<td>0.000</td>
</tr>
<tr>
<td>LEV</td>
<td>0.154</td>
<td>2.83</td>
<td>0.005***</td>
<td>-0.069</td>
</tr>
<tr>
<td>SGRWTH</td>
<td>-0.059</td>
<td>-4.06</td>
<td>0.000***</td>
<td>0.018</td>
</tr>
<tr>
<td>MTB</td>
<td>-0.052</td>
<td>-1.35</td>
<td>0.180</td>
<td>0.007</td>
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<td>Year effect</td>
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<tr>
<td>Constant</td>
<td>-0.250</td>
<td>-1.38</td>
<td>0.169</td>
<td>0.062</td>
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</table>

Number of obs: 348
R-squared: 0.258
Prob > F = 0.000

**Note:** ***p<0.01, **p<0.05, *p<0.1. CREM = combined Real Earning Management, CFO = cash flow from operations, PROD = production costs, DISEXP = discretionary expenses, CEOEXP = CEO experience, CEOTEN = CEO tenure, CEOPTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.
4.3.2 Alternative Measurement for the Moderator

The present section shows the alternative measurement of ownership concentration. In the main model in this study, the moderator (ownership concentration) was measured as a percentage of shareholders owning more than 5% of all outstanding shares. As an additional analysis, this section employs another measurement for ownership concentration which is a dummy variable coded 1 if the percentage of ownership is above the median (0.669) of the percentage of shareholders owning more than 5% of all outstanding shares, and 0 if otherwise (Ozili & Uadiale, 2017).

Table 4.12 presents the results using the alternative measurement for ownership concentration. Model 1 in Table 4.12 shows the results of the relationships when the ownership concentration was entered as a stand-alone variable. In addition, Model 2 presents the results of the relationships when the interactions were entered.

Table 4.12
Regression Results for the Further Analyses of the Indirect Relationships Using the alternative measurement of ownership concentration

<table>
<thead>
<tr>
<th>REM</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
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</thead>
<tbody>
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<td></td>
<td>Coef.</td>
<td>t-value</td>
<td>p-value</td>
<td>Coef.</td>
</tr>
<tr>
<td>CEOEXP</td>
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<td>3.38</td>
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<td>0.044</td>
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<td>0.90</td>
<td>0.371</td>
<td>0.003</td>
</tr>
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<td>0.085</td>
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<td>AUDPARAFF</td>
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<td>0.021**</td>
<td>-0.085</td>
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<td>0.367</td>
<td>0.033</td>
</tr>
<tr>
<td>OWNCON</td>
<td>-0.039</td>
<td>-2.08</td>
<td>0.039**</td>
<td>0.082</td>
</tr>
<tr>
<td>OWNCONCEOEXP</td>
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<td>-2.15</td>
<td>0.033**</td>
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<td>0.037**</td>
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</tr>
<tr>
<td>OWNCONCEDOTY</td>
<td>-0.003</td>
<td>-0.04</td>
<td>0.968</td>
<td></td>
</tr>
<tr>
<td>OWNCONCEOPOL</td>
<td>0.125</td>
<td>1.71</td>
<td>0.089*</td>
<td></td>
</tr>
<tr>
<td>OWNCONAUDPARTEN</td>
<td>0.008</td>
<td>0.93</td>
<td>0.356</td>
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</tbody>
</table>
According to Table 4.12 (Model 2), the interaction of CEOEXP and OWNCON is related to REM negatively and significantly with a coefficient of -0.034 (t= -2.15, p<0.05). This result indicates that highly concentrated ownership moderates negatively the relationship between CEO experience and REM. This result is in line with the main results, which found that ownership concentration moderates the relationship between CEO experience and REM negatively. As shown in Table 4.12 (Model 2), the interaction of CEOTEN and OWNCON is related to REM negatively and significantly with a coefficient of -0.004 (t= -2.09, p<0.05). The result indicates that highly concentrated ownership moderates negatively the relationship between CEO tenure and REM. This result is consistent with the main results, which found that ownership concentration moderates the relationship between CEO tenure and REM negatively.

In addition, Table 4.12 (Model 2) presented that the interaction of CEOPOL and OWNCON is related to REM positively and significantly with a coefficient of 0.125 (t= 1.71, p<0.10). The result indicates that highly concentrated ownership moderates the relationship between CEO political connection and REM. This result is not in line with the main results, which found that

<table>
<thead>
<tr>
<th>Table 4.12 (Continued)</th>
<th>OWNCONAUDPARAFF</th>
<th>OWNCONAUDPARAGE (log)</th>
<th>OWNCONAUDPAREDUB</th>
<th>FSIZE (log)</th>
<th>FAGE (log)</th>
<th>LEV</th>
<th>SGRWTH</th>
<th>MTB</th>
<th>Year effect</th>
<th>Constant</th>
<th>Number of obs</th>
<th>R-squared</th>
<th>Prob &gt; F</th>
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<td></td>
<td>0.046</td>
<td>1.12</td>
<td>0.264</td>
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<td>-0.053</td>
<td>-0.23</td>
<td>0.816</td>
<td>-0.001</td>
<td>0.046</td>
<td>0.204</td>
<td>348</td>
<td>0.214</td>
<td>0.000</td>
</tr>
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<td>-0.001</td>
<td>-0.03</td>
<td>0.975</td>
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<td>-0.001</td>
<td>0.20</td>
<td>0.841</td>
<td>0.020</td>
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<td>0.20</td>
<td>0.841</td>
<td>0.020</td>
<td>0.204</td>
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<td>0.46</td>
<td>0.643</td>
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<tr>
<td></td>
<td>0.092</td>
<td>2.10</td>
<td>0.036**</td>
<td>0.092</td>
<td>0.092</td>
<td>2.04</td>
<td>0.042**</td>
<td>0.092</td>
<td>2.04</td>
<td>0.042**</td>
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<td>0.214</td>
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<tr>
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<td>-0.036</td>
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<td>-3.63</td>
<td>0.000***</td>
<td>348</td>
<td>0.214</td>
<td>0.000</td>
</tr>
<tr>
<td>Year effect</td>
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<td>Yes</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>

Note: *** p<0.01, ** p<0.05, * p<0.1. REM = Real Earning Management, CEOEXP = CEO experience, CEOTEN = CEO tenure, CEODTY = CEO duality, CEOPOL = CEO politically connected, AUDPARTEN = audit partner tenure, AUDPARAFF = audit partner affiliation, AUDPARAGE = audit partner age, AUDPAREDUB = audit partner educational background, OWNCON = ownership concentration, FSIZE = firm size, FAGE = firm age, LEV = leverage, MTB = market to book value, SGRWTH = sales growth.
ownership concentration does not moderate the relationship between CEO political connection and REM.

Consistent with the main results, Table 4.12(Model 2) revealed that the interaction between CEO duality, audit partner tenure, audit partner affiliation, audit partner age and audit partner educational background with OC is not related to REM.

4.4 Chapter Summary

This chapter discusses the descriptive analysis of the variables of the study. It also discusses the regression assumptions of the data, namely, outliers, normality, linearity, heteroscedasticity, multicollinearity, autocorrelation and cross-sectional dependence. This chapter presents the findings of the regression analysis on the relationship between eight essential sets of variables, namely, CEO experience, CEO tenure, CEO duality, CEO’s political connection, audit partner’s tenure, audit partner’s affiliation (Big 4 firm or not), audit partner’s age, audit partner’s educational background and REM among Jordanian companies over the period from 2013 to 2018. This chapter also discusses whether ownership concentration moderates the relationship between the characteristics of the CEO and audit partner and REM.

The results indicate that five independent variables (CEO experience, CEO duality, CEO’s political connection, audit partner’s tenure and audit partner’s affiliation) are associated significantly with REM. Moreover, ownership concentration moderates the relationship of two variables (CEO experience and CEO tenure) with REM.
CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter summarises and discusses the main results and conclusions of the study. It offers a comprehensive debate on the main findings and gives additional insights into the effects of the characteristics of CEO and audit partner on REM, as well as the moderating effect of ownership concentration on these relationships. The chapter is organised as follows. Section 5.1 presents the overview of this study, while Section 5.2 discusses the main results of the direct relationships, as well as the moderating effect in relation to ownership concentration, which are concisely discussed briefly. Section 5.3 deals with the implications of the study, whereas, section 5.4 shows the main limitations. Section 5.5 provides suggestions for future research. Finally, conclusions of the study are offered in the last section, i.e., Section 5.6.

5.1 Overview of the Study

The main purpose of the current study is to provide evidence regarding the influence of CEO characteristics (i.e., experience, tenure, duality, and political connection), audit partner characteristics (i.e. affiliation (Big 4 firm or not), age, and educational background on REM, and the moderating effect of ownership concentration on these relationships in the listed firms of Amman Stock Exchange from 2013 to 2018. Out of 570 observations, only 348 observations were used for the analyses as the financial sector was removed from the study sample. This is because the Central Bank of Jordan and the Insurance Commission have different regulations and practices for this sector. The sample was
reduced further to exclude firms with missing data and those without inventory and the cost of goods sold.

In order to fulfil the purpose of this study, the researcher had formed four research questions, which were 1) Do CEO characteristics significantly affect REM in Jordanian non-financial listed firms? 2) Do audit partner characteristics significantly affect REM in Jordanian non-financial listed firms, 3) Does ownership concentration significantly affect the relationship between CEO characteristics and REM in Jordanian non-financial listed firms? And 4) Does ownership concentration significantly affect the relationship between audit partner characteristics and REM in Jordanian non-financial listed firms?

Moreover, to understand the impact of CEO characteristics, audit partner characteristics, and ownership concentration on REM, two theories were used, namely, Agency Theory and Upper Echelons Theory. Furthermore, to answer the research questions, a theoretical framework and research hypotheses were developed. Three sets of general hypotheses were developed to answer the research questions and meet the objectives of the study, as discussed in the previous chapter. To validate the framework and the hypotheses, annual reports of Jordanian listed firms and E-mail were used to collect the data starting from 2013 until 2018.

Next, to test the assumptions of the current study and analyse the hypothesised relationship, multiple regression analysis using STATA software, Version 15 was used.
5.2 Summary of the Findings

The findings of the current study indicated that CEO experience is positively and significantly related to REM, which means experienced CEOs have an incentive to upward short-term earnings. The findings indicate that CEOs can use their professionalism and ability, which are gained along their years of service as executives, to intervene and adjust the accounting information contained in financial reports to their interests. This result is in line with the Upper Echelons’ perspective that more experienced CEOs would be more inclined to take risks to engage in REM. Regarding the CEO tenure, the findings of this study showed that the length of their service does not affect REM in Jordanian firms. Instead, the study revealed that CEOs with a long tenure became more concerned about protecting rather than building their reputation, giving them less reason to make opportunistic decisions. This result is not in line with the Upper Echelons’ perspective that the tenure of the CEO is more likely to prevent REM.

Moreover, the results revealed that the association between CEO duality and REM is negative and significant. This means that when the CEO and Chairman are the same person, REM practices are minimised. This result is contradicted with the agency theory which believes that the separation of the two positions is vital for the monitoring of the Board’s effectiveness over management by cross-checking the risk of inappropriate plans by a CEO.

Furthermore, the result of this study indicated that a politically connected CEO is associated with REM positively and significantly. This result explained that CEOs are more likely to manipulate their reported earnings through REM when they are politically
connected. This finding is in line with the agency and upper echelons theories’ assumption which argued that politically connected CEOs might utilise political resources to serve their interests instead of the shareholders’, which in turn can increase EM practices. Furthermore, the results that emerged from the present study indicated a positive and significant relationship between audit partner tenure and REM, which implies that a long tenure of the audit partner will increase REM. Nevertheless, this result is not in line with the agency theory perspective that regards the external auditor as one of the most vital tools in monitoring activities of decision-makers that can limit REM practices.

Concerning audit partner affiliation, the findings revealed that it is associated with REM negatively and significantly. This means that when the audit partner of the firms is affiliated to Big 4 audit firms, the managers of the firms will be less likely to engage in REM practices. This is because they may expect that any REM practices will be detected through the high-performance and high audit quality by Big 4 auditors. This result is consistent with the agency theory perspective that the external auditor is one of the most vigorous tools for monitoring the activities of decision-makers that can limit the practices of REM. Additionally, the result of the present study indicated that there is an insignificant and positive relation between audit partner age and REM. The results also revealed an insignificant relationship between audit partner educational background and REM. The explanation for the insignificant results is due to the ability in identifying such practices which depends on superior skills and specific techniques that could be gained through vocational training or professional certificates regardless of the age or the educational background of the auditor.
Moreover, this study explored the moderating role of ownership concentration between the independent variables and dependent variables among all the independent variables. Interestingly, it has been found that ownership concentration moderated the relationship of two variables (CEO experience and CEO tenure) with REM. The findings showed a negative and significant relationship of ownership concentration in the relationship between CEO experience and REM. In other words, the ownership concentration negatively moderates the relationship between CEO experience and REM. When the ownership of the firms is highly concentrated, the CEO with vast experience will be less engaged in REM practices than firms with low ownership concentration. In addition, the result of the present study revealed that the moderating effect of ownership concentration on the relationship between CEO tenure and REM is negative and significant. This result indicates that ownership concentration moderates the relationship between CEO tenure and REM significantly and negatively. These results are consistent with the agency theory, which proposes that ownership concentration is considered a key monitoring mechanism of managers, so it has a monitoring role in constraining the occurrence of earning management.

As a robustness test, this study examined the relationship between CEO characteristics, the audit partner characteristics and REM, and the moderating role of ownership concentration on this relationship by using alternative approaches of earning management proxies (CREM, CFO, PROD, and DISEXP models) additionally. As well, an alternative measurement for ownership concentration is used as a robustness test.
The results of the additional analysis revealed that CEO experience has a positive and significant relationship with REM in CREM, PROD, and DISEXP models. This result, to some extent, is consistent with the main result, which has found that CEO experience is related to REM positively and significantly. Moreover, the additional analysis indicated that CEO tenure has an insignificant relationship with REM in all of the four models; this result is in line with the main findings. In addition, the result of the further analysis presented that the relationship between CEO duality and REM is negative and significant in the four models. Again, this result is consistent with the main result, which shows that CEO duality is related to REM negatively and significantly. Also, the additional result has been demonstrated that the relationship between politically connected CEO and REM is positive and significant in CREM, PROD, and DISEXP models. Partially, this result is in line with the main result. Besides, according to the additional analysis, the relationship between audit partner tenure and REM is insignificant in all of the four models. This result is not in line with the main result of the present study, which has revealed a positive and significant relationship.

Respectively, the additional analysis revealed a negative and significant relationship between audit partner affiliation and REM in CREM and DISEXP models. This result is consistent with the main result, which has found that audit partner affiliation was related to REM negatively and significantly. In contrast, the relationship between audit partner affiliation (Big 4 firms or not) and REM was not significant in CFO and PROD models. Likewise, the additional analysis presented that the relationship between audit partner age and REM was not significant in all of the four models. This result is in line with the main result, which found that the audit partner’s age was not related to REM.
Moreover, the additional analysis of this study indicated that the relationship between audit partner educational background and REM was not significant in CREM, CFO, and PROD models. This result is in line with the main result, which has found that the audit partner’s educational background was not related to REM. In contrast, the relationship was positive and significant for the DISEXP model.

Regarding the moderating role of ownership concentration, further analysis discovered that ownership concentration moderated the relationship between CEO experience and REM negatively in CREM and PROD models, but moderated the relationship positively in DISEXP model. The negative relationship in CREM and PROD models is consistent with the main results which have found that the interaction of ownership concentration and CEO experience was related to REM negatively. But ownership concentration did not moderate the relationship in the CFO model. Besides, further results presented that ownership concentration only moderated the relationship between CEO tenure and REM negatively and significantly in CREM and PROD models. This result, to some extent, is consistent with the main result, which has found that the interaction of ownership concentration and CEO tenure was related to REM negatively and significantly.

Furthermore, the additional analysis revealed that ownership concentration did not moderate the relationship between CEO duality and REM in CREM, PROD, and DISEXP models. This result is consistent with the main result, which has found that the interaction of ownership concentration and CEO duality was not related to REM. Nevertheless, the ownership concentration moderated this relationship positively in the CFO model. Moreover, the additional analysis of the current study presented that ownership
concentration positively moderated the relationship between politically connected CEO and REM in the DISEXP model. In contrast, ownership concentration did not moderate this relationship in CREM, CFO, and PROD models. This result is consistent with the main result, which has found that the interaction of ownership concentration and politically connected CEO was not related to REM.

Apart from that, the additional analysis also found that ownership concentration did not moderate the relationship between audit partner tenure and REM in all of the four models. This result is consistent with the main result, which has indicated that the interaction of ownership concentration and audit partner tenure was not related to REM. Moreover, the additional analysis has shown that ownership concentration did not moderate the relationship between audit partner affiliation and REM in all of the four models. This result is in line with the main result, which has found that the interaction of ownership concentration and audit partner affiliation was not related to REM.

Likewise, according to further analysis of this study, ownership concentration did not moderate the relationship between audit partner age and REM in all of the four models. This result is consistent with the main result, which has revealed that the interaction of ownership concentration and audit partner age was not related to REM. Finally, the additional analysis too revealed that ownership concentration did not moderate the relationship between audit partner educational background and REM in CREM, CFO, and DISEXP models. This result is consistent with the main result, which has discovered that the interaction of ownership concentration and audit partner educational background was
not related to REM. In contrast, the ownership concentration moderated this relationship positively in PROD model.

In addition, further analysis using the alternative measurement of ownership concentration revealed that highly concentrated ownership moderates negatively the relationship between CEO experience and CEO tenure with REM. While highly concentrated ownership moderates the relationship between CEO political connection and REM positively. Moreover, further analysis documented that the interactive terms of (CEO duality, audit partner tenure, audit partner affiliation, audit partner age and audit partner educational background) with ownership concentration are not related to REM. The following Table 5.1 summarizes the findings of the study.

Table 5.1

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<th>Hypotheses</th>
<th>Findings</th>
</tr>
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</tr>
<tr>
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<td>H1b: A negative and significant relationship will exist between CEO tenure and real earnings management for non-financial Jordanian listed firms.</td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>H1c: A positive and significant relationship will exist between CEO duality and real earnings management for non-financial Jordanian listed firms.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>H1d: A positive and significant relationship will exist between politically connected CEO and real earnings management for non-financial Jordanian listed firms.</td>
<td>Supported</td>
</tr>
</tbody>
</table>
Table 5.1 (Continued)

| Q2 | H2a: A positive and significant relationship will exist between the tenure of audit partners and real earnings management in for non-financial Jordanian listed firms. | Supported |
|    | H2b: A negative and significant relationship will exist between audit partners' affiliation (Big 4 firm or not) and real earnings management in Jordanian non-financial listed companies on the ASE. | Supported |
|    | H2c: A positive and significant relationship will exist between the age of audit partners age and real earnings management for non-financial Jordanian listed firms | Not supported |
|    | H2d: A negative and significant relationship will exist between the educational background of audit partners and real earnings management for non-financial Jordanian listed firms. | Not supported |

| Q3 | H3a: Ownership concentration moderates the relationship between CEO experience and real earnings management for non-financial Jordanian listed firms. | Moderated |
|    | H3b: Ownership concentration moderates the relationship between CEO tenure and real earnings management for non-financial Jordanian listed firms. | Moderated |
|    | H3c: Ownership concentration moderates the relationship between CEO duality and real earnings management for non-financial Jordanian listed firms. | Not moderated |
|    | H3d: Ownership concentration moderates the relationship between CEO politically connected and real earnings management for non-financial Jordanian listed firms. | Not moderated |

| Q4 | H3e: Ownership concentration moderates the relationship between audit partners tenure and real earnings management for non-financial Jordanian listed firms. | Not moderated |
|    | H3f: Ownership concentration moderates the relationship between audit partners affiliation (Big 4 firm or not) and real earnings management for non-financial Jordanian listed firms. | Not moderated |
|    | H3g: Ownership concentration moderates the relationship between audit partners age and real earnings management for non-financial Jordanian listed firms. | Not moderated |
|    | H3h: Ownership concentration moderates the relationship between audit partners educational background and real earnings management in for non-financial Jordanian listed firms. | Not moderated |
5.3 Implications of the Study

5.3.1 Implications to Theory

The Agency Theory and the Upper Echelons Theory are the two main theories that reinforce the hypotheses development of this study. The current study contributes to these theories by adding further understanding concerning the characteristics of the CEOs and audit partners. Although an abundance of studies has explored the issue of CEO characteristics and audit partners using the agency theory, most of the studies focused on developed countries which have a unique environment from developing countries. Hence, the first theoretical implication of the current study is enriching the literature by adding to the understanding of agency theory in an emerging developing country, where firms to some extents are not following the corporate governance Code recommendations and controlled by high ownership concentration, in which the agency relationships are complicated.

Furthermore, this study contributes to the existing literature by using the Upper Echelons Theory which discusses the role of individual characteristics of the top executives on their development of values, strategic decisions, and company-reporting decisions. Furthermore, this study contributes to the field of corporate governance and EM. This study documents that the positive and significant relationship between CEO experience and REM supports the perspective of Upper Echelons Theory which argues that more experienced CEOs would be more inclined to take risks to engage in REM than less experienced ones.

In addition, the positive and significant association between politically connected CEO and REM is in line with the agency theory, which proposes that political directors can positively
influence EM. Moreover, the result of a negative and significant relationship between audit partner affiliation and REM supports the agency theory which proposes that the external auditor is one of the most vital tools for monitoring activities of decision-makers that can limit REM practices.

Another implication of the present study to the theory is the moderating role of ownership concentration on the relationship between the characteristics of the CEO and the audit partner on REM. The results of the negative and significant effect of ownership concentration on the relationship between CEO experience and REM support the agency theory which proposes that ownership concentration is considered a key monitoring mechanism of managers, so it has a monitoring role in constraining the occurrences of earnings management. Furthermore, the result of the negative and significant role of ownership concentration on the relationship between CEO tenure and REM is consistent with agency theory which argues that the ownership concentration is considered to be one of the vital monitoring mechanisms of managers, so it has a monitoring role in constraining the occurrences of earning management.

5.3.2 Practical Implication

The findings of the current study offer a considerable indication that the characteristics of the CEO, the characteristics of the audit partner, and the ownership concentration are rudiments in explaining REM activities. First, the results of this study highlighted that the vast experience of the CEOs leads to more REM practices. However, the results indicated that the ownership concentration would control and limit CEOs from using their professionalism and ability gained within their years of service as executives to intervene
and adjust the accounting information contained in financial reports. These results will help the investors, practitioners and regulators to know that firms with high ownership concentration and with experienced CEOs have better earnings qualities and low REM practices.

In addition, the results of the present study found that the tenure of the CEOs does not affect REM practices. However, the regulators should consider the number of years of service for the CEOs as the coefficient of the direct relationship was positive, although it was not significant. Nonetheless, the ownership concentration, when interacted with CEO tenure, leads to fewer REM practices. Therefore, these results will help the investors, practitioners and regulators to be aware that in firms with high ownership concentration, the CEOs with long tenure will be less likely to engage in REM.

Moreover, the present study evidenced that when the CEO and Chairman are of the same person, the REM practices will be less. Thus, these findings will be beneficial for the investors, practitioners and regulators to know that the combining roles of the CEO and the Chairman will minimise Board interference and insistence to report better earnings in achieving their intents. Besides, this study recommends that the regulators (JSC and CCD) should review and edit the rules concerning CEO duality by allowing the combination of the two positions as that, according to the findings of the current study, will minimize the practices of REM.

Additionally, the findings indicated that CEO political connection leads to more REM practices. Hence, these results are expected to help the investors, practitioners and regulators to know that politically connected CEOs can access more resources and
obtain more support from the government, hence they have more incentives for engaging in REM. Therefore, the current study recommends that policymakers should place some restrictions on hiring CEOs who are politically connected.

Furthermore, the current study revealed that longer audit partner tenure leads to higher REM practices. Thus, the findings of this study provide evidence for the investors, practitioners and regulators that firms audited by the same audit partner for an extended period will be more likely to have more REM practices. Thus, this study recommends that the policy-makers should pay attention to the commitment of the Jordanian firms with the maximum tenure of the audit partners.

In terms of audit partner affiliation, the findings reported that if the audit partner of the firm was affiliated to Big 4 audit firms, which would decrease the REM practice. Consequently, these results are beneficial to the investors, practitioners and regulators (JACPA) in realising that firms audited by audit partners affiliated to Big 4 audit firms will have fewer REM practices.

5.3.3 Implication to Academic Research

The findings of the current study will be significant to the academic community and researchers because of the lack of literature addressing real earning management in the Jordanian context or other developing countries. Thus, the current study improves the growing empirical research and body of knowledge on real earning management and motivates further studies on the relationship of the characteristics of the CEOs and audit partners with REM. Precisely, the results of this study are practical in finding an opening point for additional empirical investigations on the significance of characteristics of the
CEOs and audit partners in Jordanian listed firms. Besides, the findings reported in this study can be valuable to academic researchers examining such related issues, earnings quality, and corporate governance.

The results of the current research have set seniority of exploring the corporate governance mechanisms and REM in the presence of ownership concentration in Jordan. Nonetheless, the results of this study focused solely on non-financial firms; hence, further studies should focus on the financial sector, which plays an increasingly crucial role for emerging economies, particularly in Jordan. Besides, the current study contributes to the literature as well as to the knowledge by providing an examination of the characteristics of CEO and audit partner with REM in Jordan. The present study also provides an avenue for the upcoming scholars in conducting studies like this in regards to other characteristics of the CEO with REM, such as CEO honorific title, gender, power, and founder. Similarly, the current study offers an avenue for future studies to investigate other characteristics of the audit partner, such as gender, fees, busyness and experience.

5.4 Limitation of the Study

Despite the contributions made by the present research, it is subjected to some potential limitations. Specifically, a common and predictable deficiency is in the objections concerning the impeccable model for measuring earning management practices. To date, there is no perfect model generally accepted by scholars and practitioners. Hence, the Roychowdhury (2006) and Zang (2012) models used in this study might not flawlessly capture all the streams of earning management. Besides, this study is limited to listed non-financial firms; consequently, attention must be occupied in generalising all the listed
companies because other firms, such as insurance, banks, and other regulated firms, were excluded.

This study employed four vital characteristics of the CEO, namely CEO experience, tenure, duality, and politically connection. It is possible that other features which were not included in this study also contributed to the practices of REM. Likewise, the study employed four dynamic characteristics of the audit partners, namely tenure, affiliation (Big 4 firms or not), age, and educational background. However, probably other characteristics related to REM will be investigated in the forthcoming studies.

Besides, the present study only covered six years of observation (from 20013 to 2018). Thus, there is a limitation in generalising the results, especially before 2013 and after 2018. Meanwhile, prior empirical studies, afforded pieces of evidence regarding corporate governance and REM, were conducted in developed countries and sophisticated economies. In addition, most of the firms in Jordan did not submit their financial statements on time, and some did not provide complete information needed for the analysis, particularly regarding the information requested, such as the full profile information of the CEO and the name of the auditor who signed the audit report. Thus, such firms were excluded from the final sample. Nonetheless, the above limitations could not diminish the quality and contributions of the present study. Hence, the appropriate and precise method has been applied to accomplish the objectives of the study.

5.5 Suggestions for Future Studies

The current study offers numerous avenues that could be explored by future researchers. The study proposes that the forthcoming studies could further venture on the other real
earning management practices, such as accretive earnings management, share repurchased, and initial public offering, as well as earnings management through related party transactions, e.g., tunnelling and propping.

The present study stressed the moderating role of ownership concentration in the relationship between the characteristics of CEO and audit partner with real earning management. Future studies might investigate the influence of ownership concentration on other features of the CEO, such as gender, marital status, religion, power, educational background, and ethnicity. In fact, upcoming studies may investigate the influence of ownership concentration on other features of the audit partner, such as experience, gender, and busyness. Furthermore, future studies can examine the moderating role of the different ownership structures, such as family ownership, managerial ownership, and foreign ownership on the relationship of the characteristics of the CEO and audit partner with REM.

Besides, future authors could extend this investigation by conducting similar research, including the financial sector that has been excluded from the present study. Furthermore, forthcoming studies may exceed the six-year duration that this study has covered, which includes 2012 and 2019 to generalise the results. Lastly, conducting comparative research through a survey or qualitative method may offer a deep understanding of the nature and perplexity of corporate governance efficiency and its applicability in reducing agency problems.
5.6 Concluding Remarks

This study investigates the relationship between the characteristics of the CEO and audit partner with real earning management and the moderating role of ownership concentration on these relationships. Although a large number of studies have been conducted in the matter of corporate governance, auditing, and earnings management in developed and developing countries, those studies almost deserted the moderating role of ownership concentration on the relationship of the characteristics of the CEO and audit partner with REM. Therefore, the current study can be considered a novel study for filling this gap in the literature.

The results of this study not only exhibited that the ownership concentration negatively moderates the association between CEO experience and REM, but also the relationship between CEO tenure and REM. These results indicated that ownership concentration serves as efficient monitoring and enhances the quality of earnings. Such results contribute to the theory, academic research and community by providing an indication about the impact of the individual characteristics of the CEO and the audit partner on REM practices and the earnings quality.

The current study contributes to the literature by finding a new evidence regarding the impact of the characteristics of the CEO and audit partner on REM. As well, the results of the current study provide a shred of new evidence regarding the moderating effect of ownership concentration on the relationship between the characteristics of the CEO and the audit partner on REM practices.
In addition, the results of the current study suggest that some of the CEO characteristics (e.g., experience and politically connected) play a vital role in aggravating the propensity of real earning management. In contrast, CEO duality plays an active role as a monitoring mechanism and enhances the level of earnings quality.

Furthermore, the findings of this study indicate that the tenure of the audit partner is associated with more REM practices. This result suggests that the regulators should ensure full compliance regarding the maximum audit partner tenure required in the Jordanian corporate governance Code. Moreover, the results found that audit partner affiliated to Big 4 audit firm plays an active role in alleviating the inclination of earnings management and increasing the investors’ confidence in the financial reports.
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